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Site Analysis

Historical Context

The current site of City Park sits on the historical Parish of Castlereagh, County of Cumberland.

The land was originally owned by Captain Daniel Woodriff when Penrith began in 1815.

High Street was the major business district of Penrith from the late 1860s. Commercial businesses later spread along Station Street and Henry Street.

Currently the site is host to a portion of a large carpark and a handful of small businesses. Many of the businesses along High St back on to the adjacent Allen Place which is primarily used for parking and services.



1943 Aerial photo



1965 Aerial photo



1960s High Street looking east



1960 photo taken on High Street looking west.

Site Analysis

Surroundings, Open Space & Playgrounds

There is limited access to public open space within the Penrith City Centre. Memory Park & Triangle Park are the only 'green' open spaces, in the immediate surroundings however, they are of a smaller scale which limits the range of usage.

Providing green amenity to the business district of Penrith will improve pedestrian amenity and a recreational space for workers and shoppers within Penrith City.



Legend

- Subject Site
- Local park
- Priority Pathway
- Park provision:
- 🏃 Playground
- 🎾 Tennis Courts
- ⚽ Sportsfields
- 🏊 Swimming pool
- Future Park Developments



1:5000 @ A3

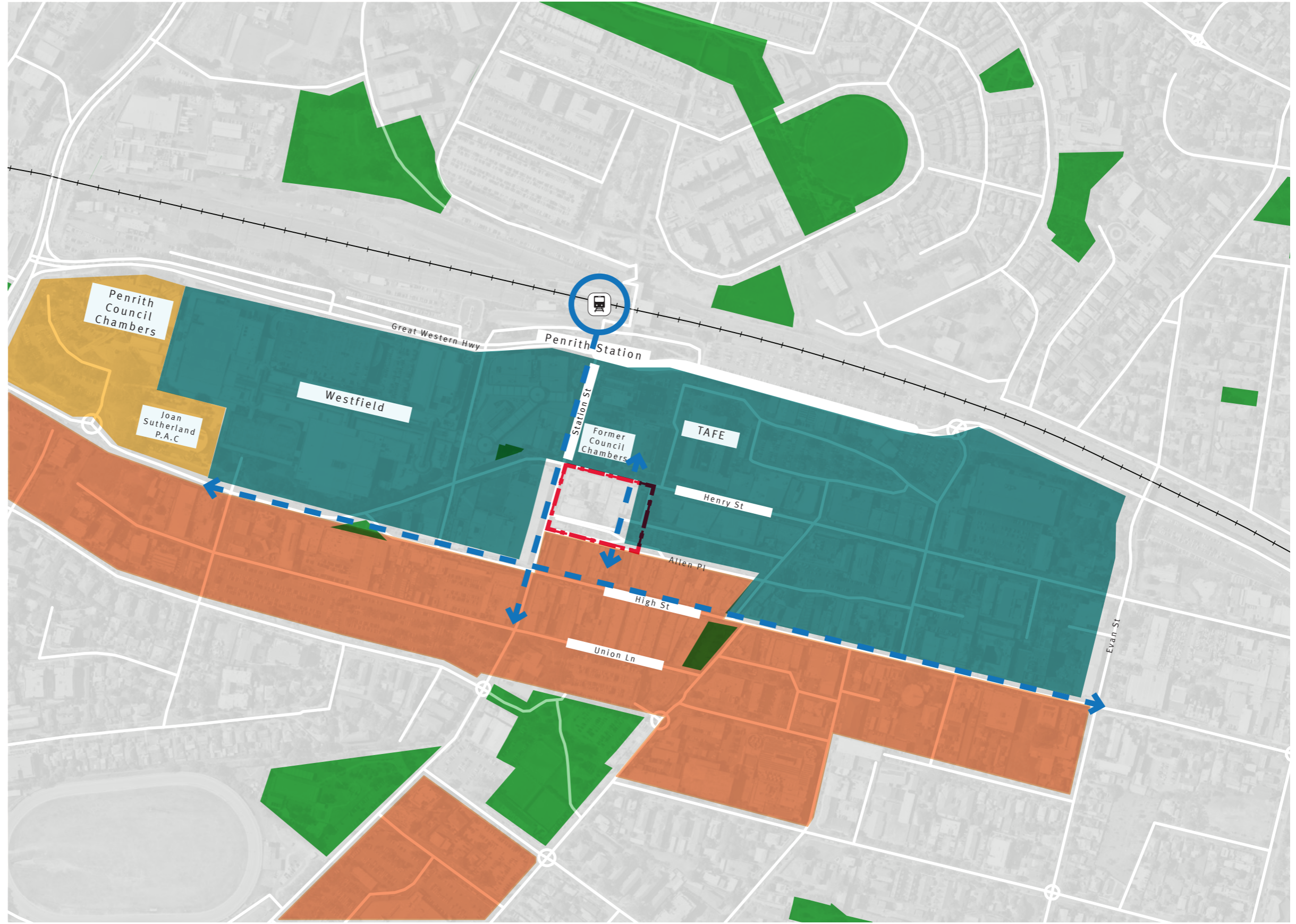
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Site Analysis

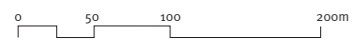
Character Areas

The Penrith City district is made up of a diverse range of businesses. High Street has a variety of mixed use, predominantly local businesses. This creates a cohesive street environment that is immediately recognisable as the 'main street'. To the North West of the site Westfield is a significant entity, it is internalised and mostly disconnected from its surrounding urban context.

The buildings along Station Street have predominantly commercial and community uses with limited business shop frontages. To the north of the site along Henry Street is the old council chambers and NSW Tafe.



- Legend**
- Subject Site
 - Civic & Cultural
 - Mixed Use
 - Commercial Core
 - Open Space
 - ↔ Strategic Civic Connections



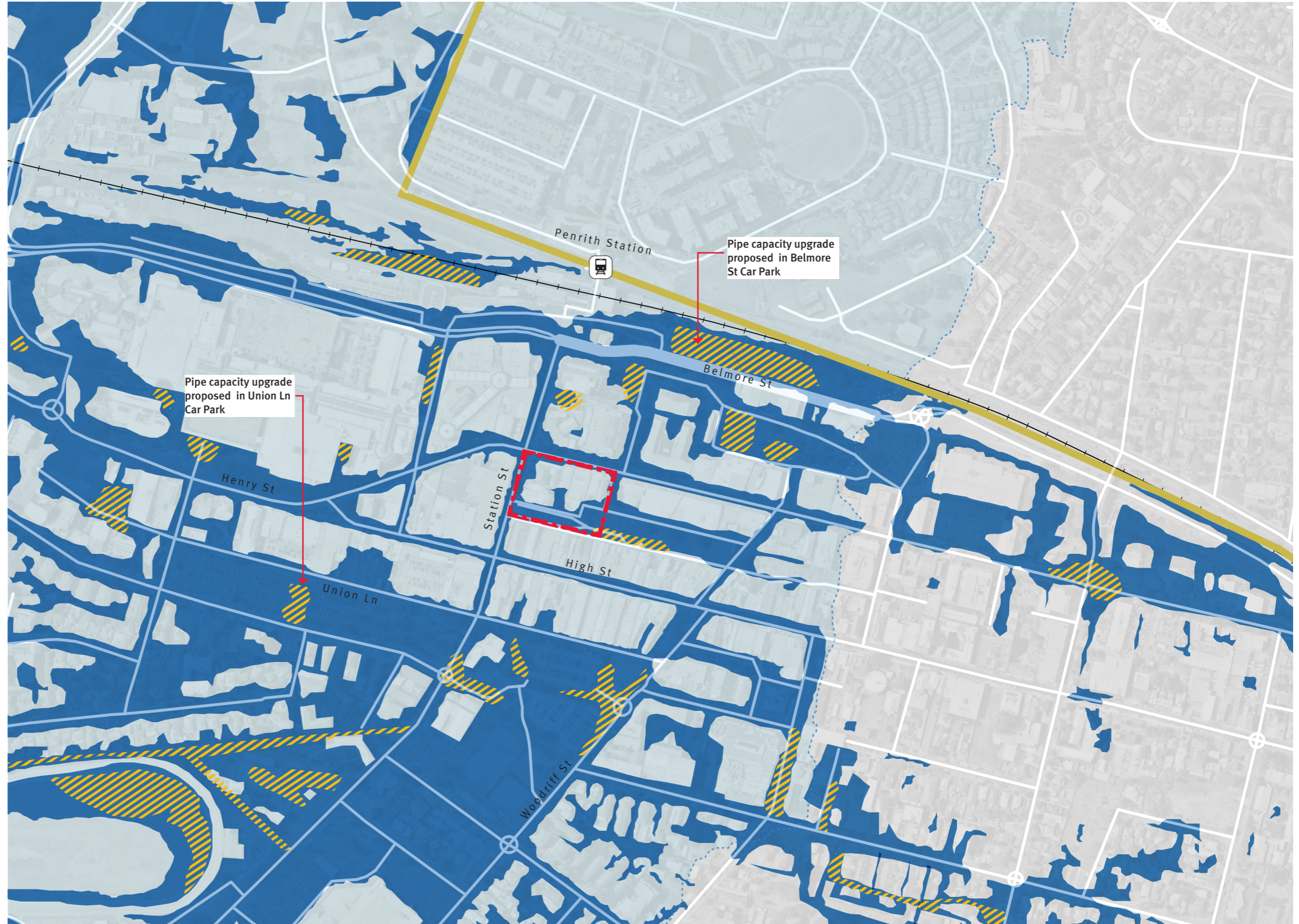
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Site Analysis

Flood Analysis

Penrith City lies within the Hawkesbury - Nepean Catchment and is dominated by rivers, creeks, waterways and associated tributaries, the most significant being the Nepean River and South Creek. Both systems are accompanied by wide open floodplains.

The City Park site is subject to the 1:100 YFL and also possible local flooding in low-lying areas where water may pool.



Legend

- Subject Site
- Extent of Study Area
- Local Flooding (PMF)
- Nepean River Flooding (PMF)
- 20% AEP Event
- Recommended Mitigation Works

Source : Penrith CBD Floodplain Risk Management Study and Draft Plan (Oct 2019), Molino Stewart



0 50 100 200m

1:5000 @ A3

Site Analysis

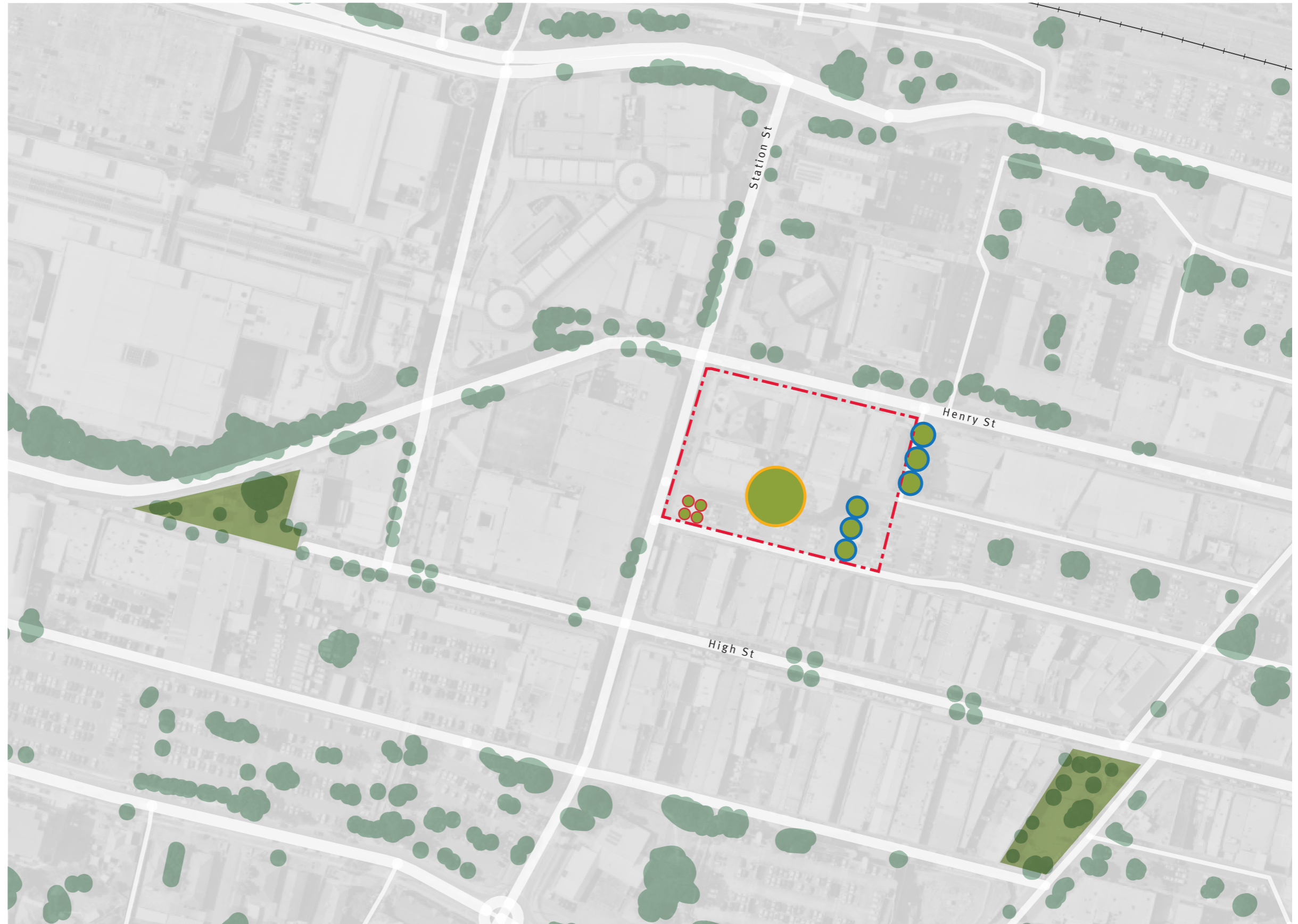
Existing Tree Analysis

Existing Environment

Penrith's vegetation is associated with the critically endangered Cumberland Plain Woodland. Penrith City Centre has mix of street trees in varying conditions. There is minimal tree planting due to the substantial number of awnings along the street edges.

The subject site is home to a well established cluster of *Corymbia citriodora* whilst a *Platanus acerifolia* lines the eastern boundary. There is a healthy row of *Eucalyptus* trees growing along Henry Street west toward the Joan Sutherland Centre.

Along Station Street there are some existing trees that have growth defects due to the existing awnings.



City Park Site Vegetation



Corymbia citriodora ○



Pyrus sp. ○



Platanus acerifolia ○

Legend

- Subject Site
- Existing Tree
- Periphery Canopy
- Open Space



0 10 20 50 100m 1:2000 @ A3

Site Analysis

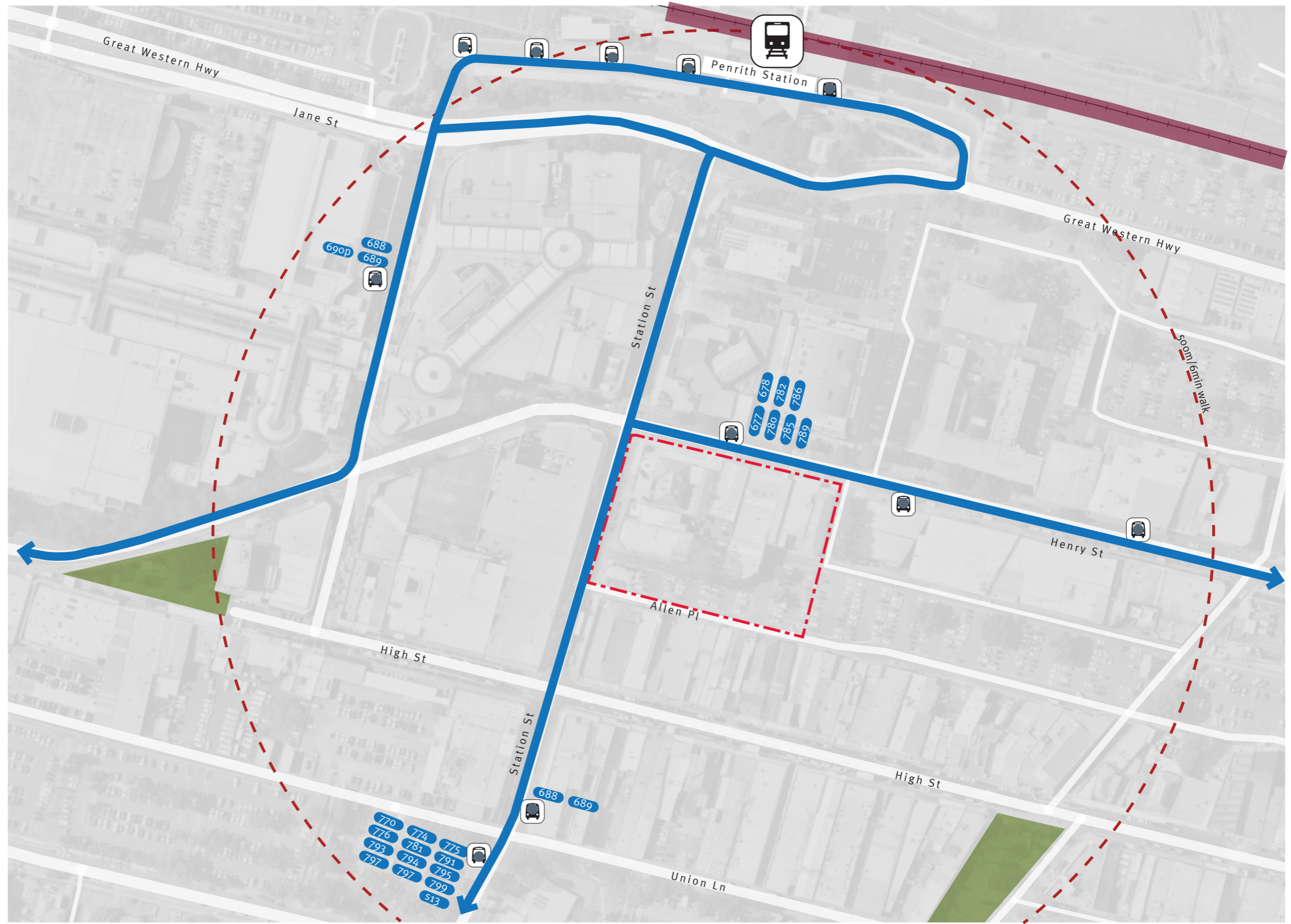
Public Transport

Penrith is located on the public transport rail network on the outer fringe of Sydney, 50km west of the City centre.

The station is serviced by trains running on the T1 Western line which runs east to the City and West to the Blue Mountains.

The Station is the major public transportation connection into Penrith. The Penrith bus interchange is co-located with the Railway Station.

A large number of bus routes operate out of Penrith to connect with the surrounding region. There is a bus stop opposite the subject site along Henry St that services a number of bus routes.



Legend

- Subject Site
- Bus stop
- Penrith Train Station
- Bus routes servicing area
- 338 Bus route number
- Railway Line
- Open Space



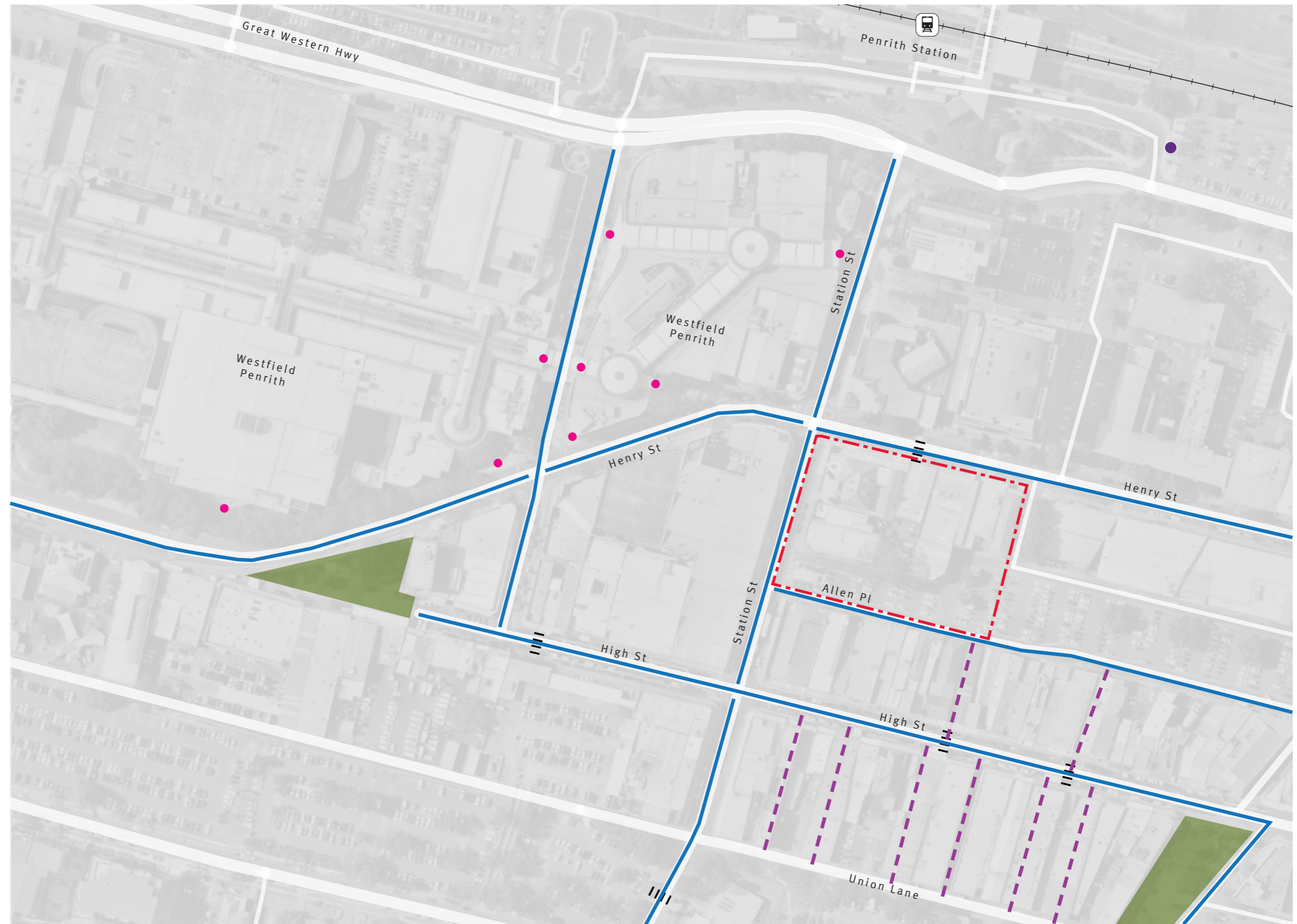
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Site Analysis

Cycle & Active Transport Network / Civic Circulation

Currently the Penrith City area has not implemented major Cycle infrastructure other than road markings to identify shared roadways. There is limited bike storage within the shopping district with the only major storage area at the Penrith station.

Civic circulation is made more effective through the multiple pedestrian arcades connecting High Street with adjacent blocks. Arcades make a valuable contribution to the public domain, they provide enhanced pedestrian amenity.



Legend

- Subject Site
- Existing Arcades
- Bicycle-Friendly roads
- Bike Storage
- Westfield Entrances
- Pedestrian Crossing
- Open Space

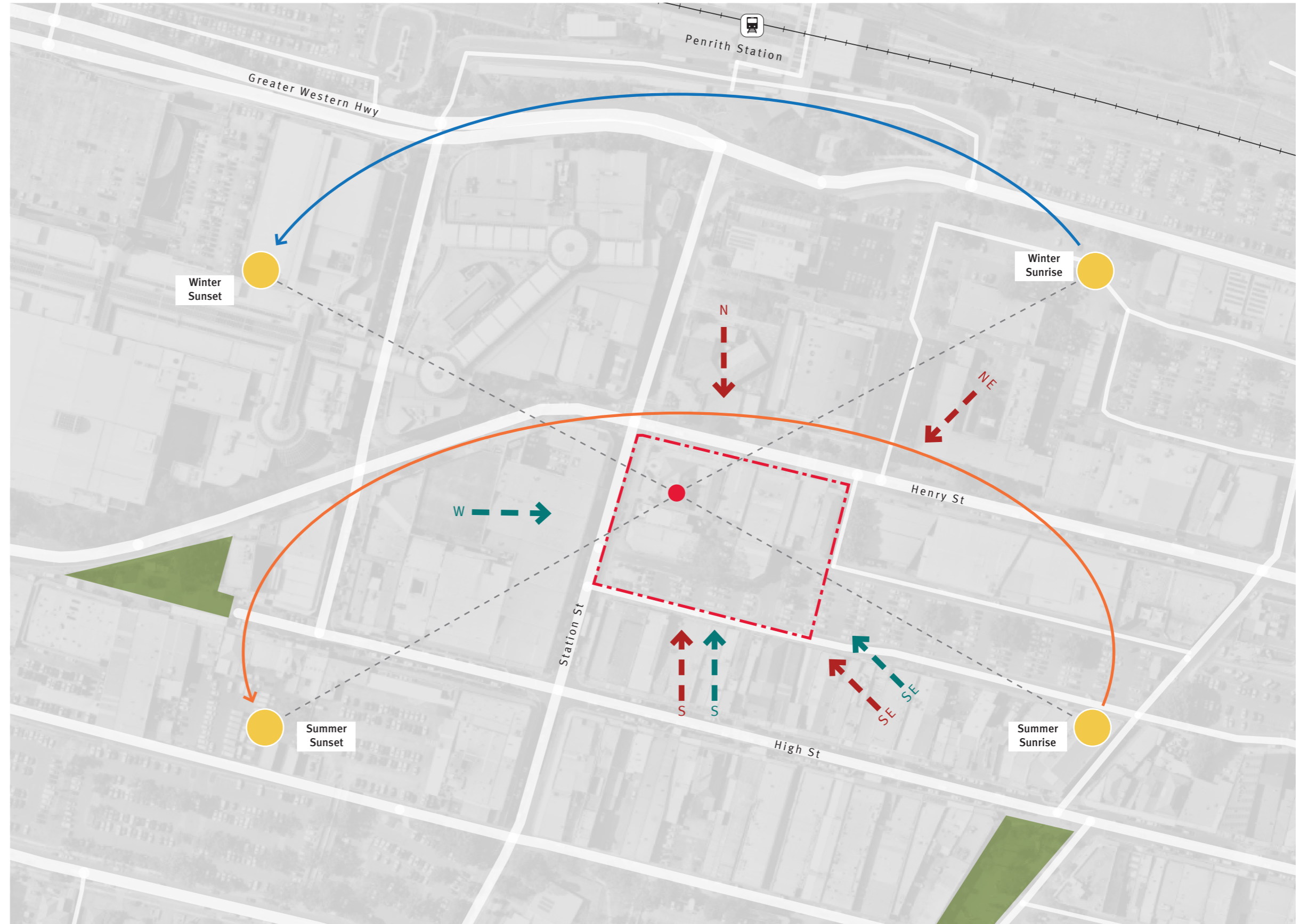


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Site Analysis

Solar & Wind Analysis

Penrith has a humid subtropical climate with hot summers and mild to cool winters. In recent years temperatures in summer have reached a high of 48.9 degrees with an average high temperature for January of 31.2 degrees. It is important the future park responds to the severe temperatures Penrith is subject to. Utilising prevailing winds and providing shade will mitigate the impact.



Legend

- Subject Site
- Winter Sun Path
- Summer Sun Path
- Prevailing Winter Winds
- Prevailing Summer Winds
- Open Space

Source:

1. Windtech - Pedestrian Wind Environment Statement Henry Street, Penrith, 2017
2. SunCalc.org



0 10 20 50 100m 1:2000 @ A3

Site Analysis

Scale Comparison

Legend

- Park/Square footprint
- Adjacent Road
- City Park footprint



Centenary Square



Paul Keating Park



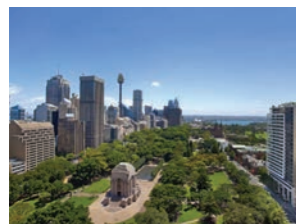
Ward Park



Harmony Square

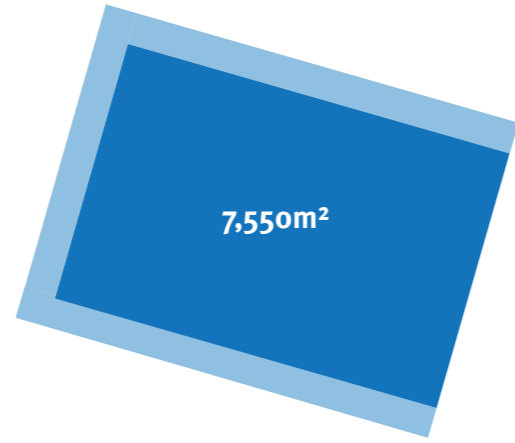


Woolwich Square



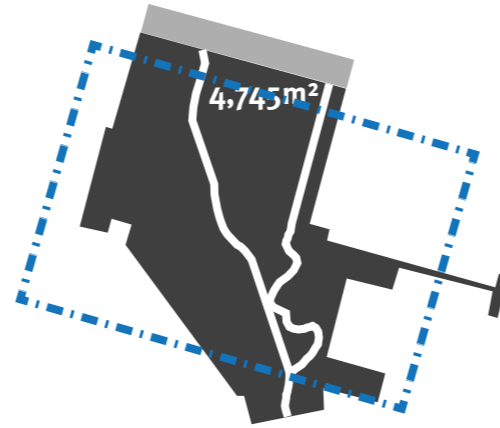
Hyde Park

City Park
Penrith, NSW



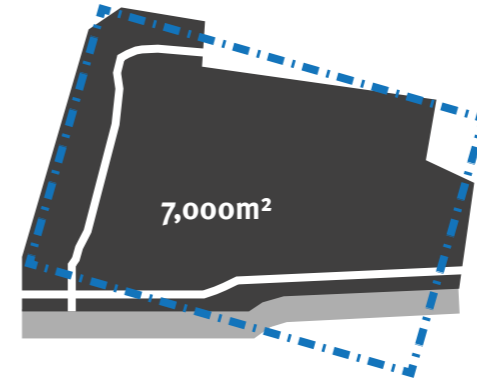
1:2000 @ A3

Centenary Square
Parramatta, NSW



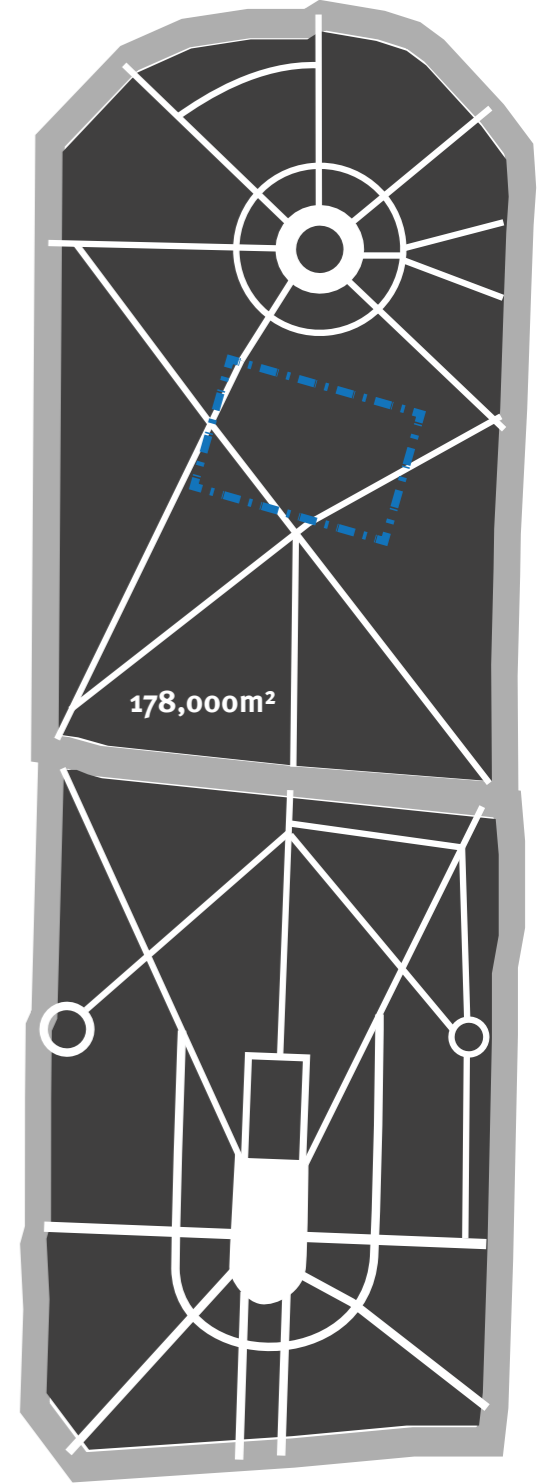
1:2000 @ A3

Paul Keating Park
Bankstown, NSW



1:2000 @ A3

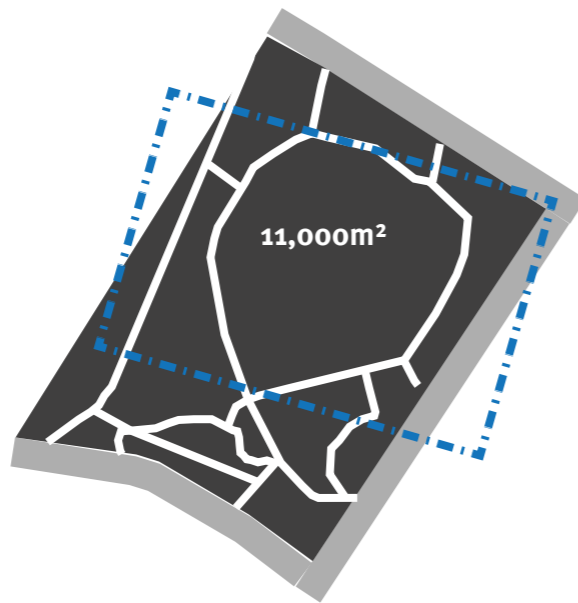
Hyde Park
Sydney, NSW



13

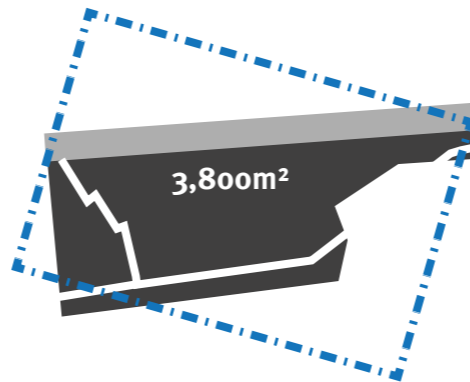
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Ward Park
Surry Hills, NSW



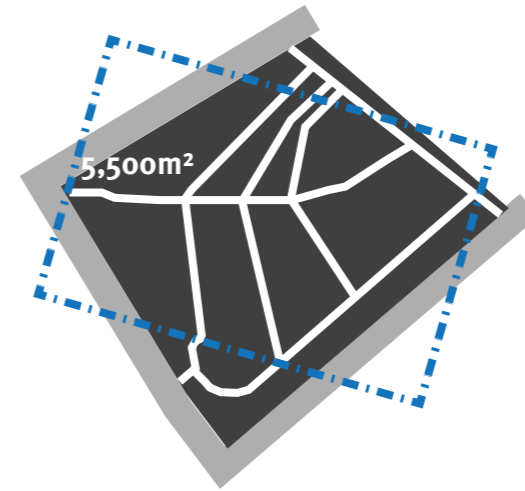
1:2000 @ A3

Harmony Square
Melbourne, Vic



1:2000 @ A3

Woolwich Square
London, UK



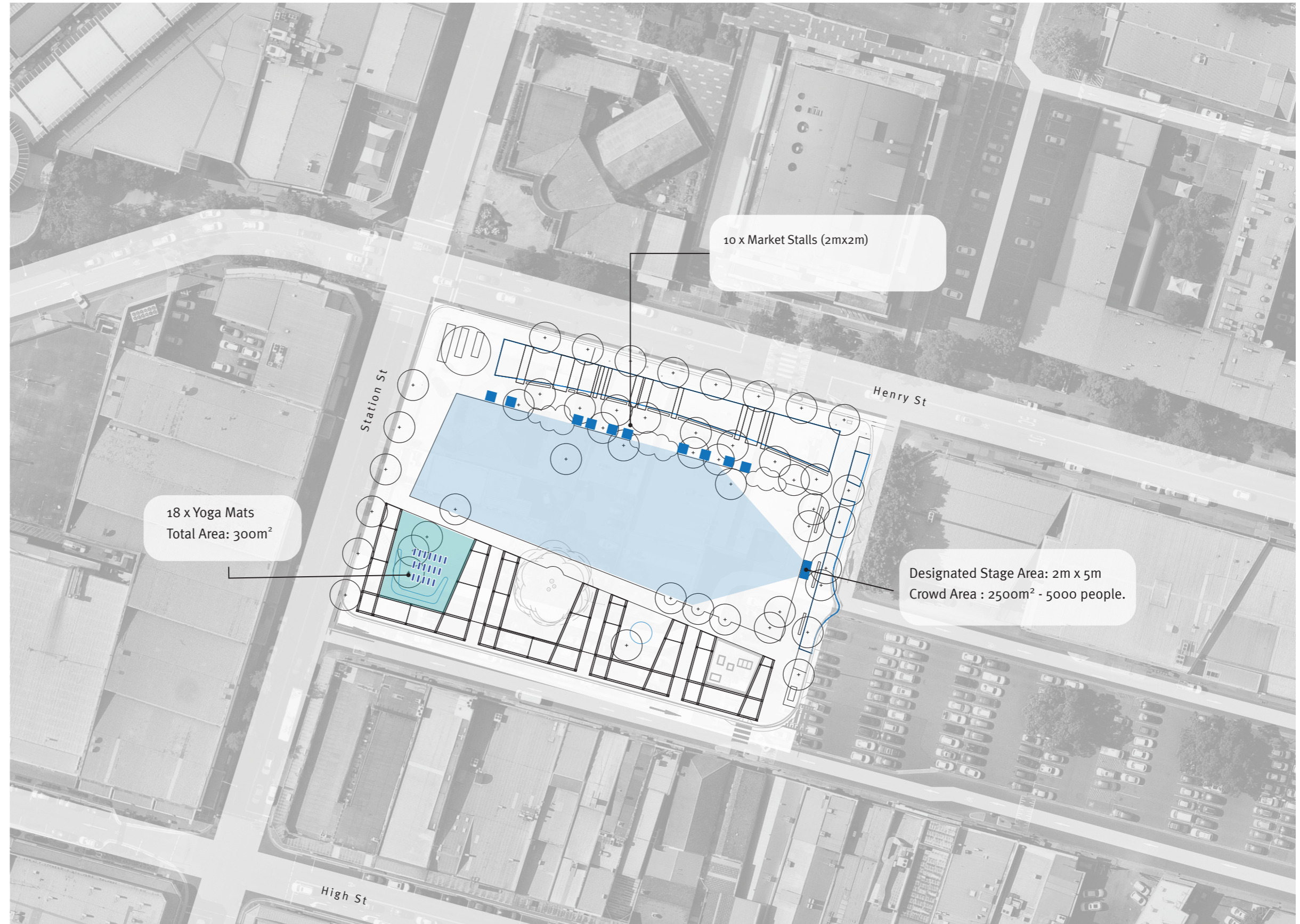
1:2000 @ A3

Site Analysis

Event Capacity

2 People per Square Metre

Source: Event Safety Guide (Second Edition), 1999,
Health and Safety Executive, UK



Legend

- Subject Site
- Live Event
- Small Scale Event
- Food Stalls / Trucks 2x2m
- Yoga Mats (180cm x 61cm)



1:1000 @ A3

Site Analysis

Existing Traffic Circulation & Parking

Within the Penrith City Centre there are a large number of off-street parking stations, and most of the streets have on street parallel parking bays which are timed.

There are 6 large open-air car parks within the City Centre while the Westfield also provides a large internal carpark that accommodates over 1000 vehicles. Time limits vary between two hours and unlimited.

The City Centre experiences both local and through traffic. The primary traffic route is Henry St which is the continuation of the Great Western Highway.

Station St provides the primary north-south traffic connection through the City Centre. It provides an important loop for vehicles moving around the centre.



Legend

- Subject Site
- Public Carpark
- Road Direction
- Disabled Parking
- ↔ Major Pedestrian Connection
- - - Arcade Pedestrian Crossings
- Existing Traffic Lights
- Median Strip
- Primary Traffic Route

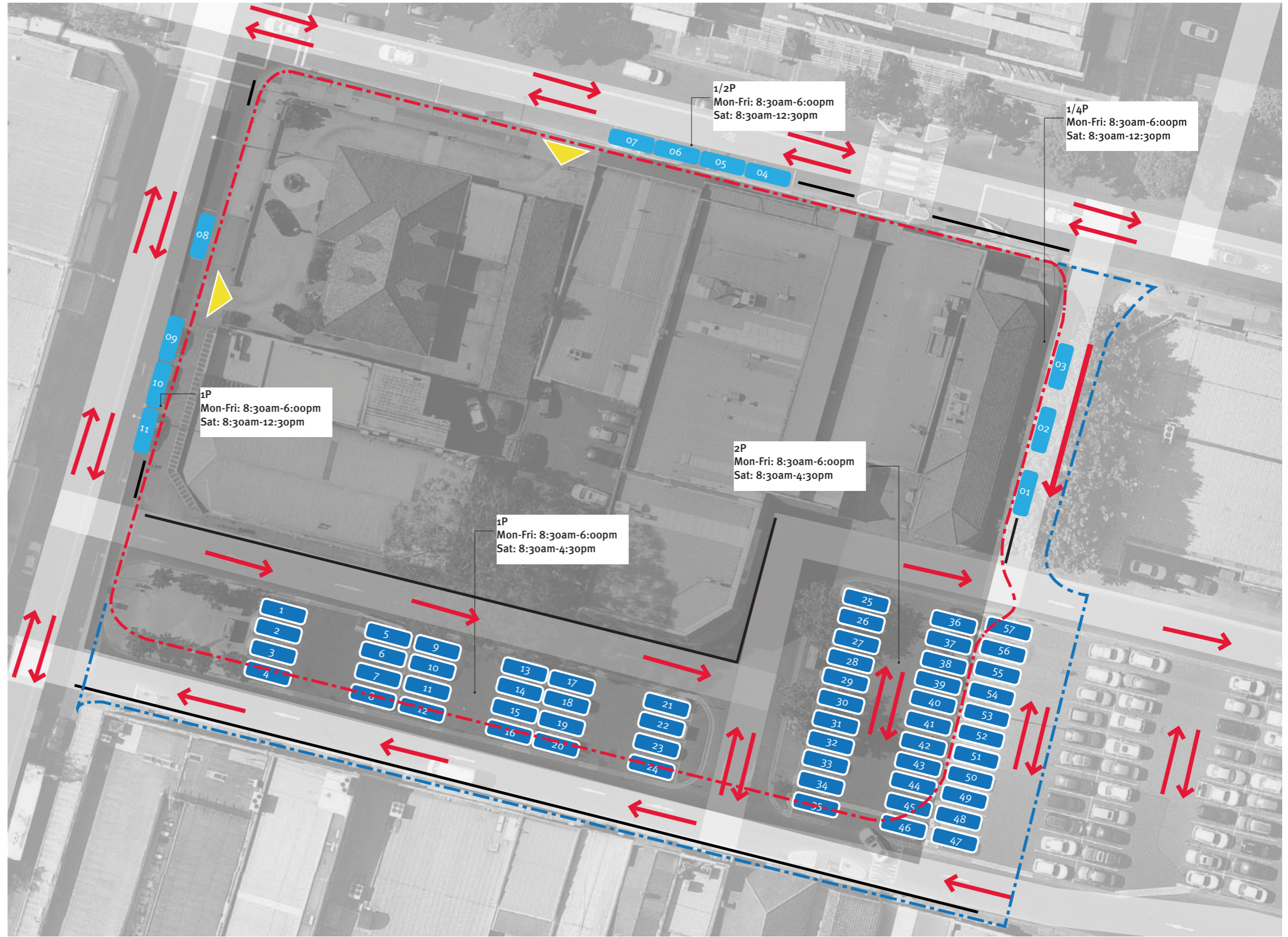


0 10 20 50 100m 1:2000 @ A3

Site Analysis

Parking and Traffic Circulation

Total Parking within the entire extent of works equates to 57 car spaces. Circulation is predominantly kept within the parking of Allen Pl with directions of travel restricted from either ends to adjoin onto main lane ways. (Station St, Woodriff St N)



Legend

- Subject Site
- Extent of Road Works
- Existing No Stopping/No Parking
- ➔ Existing Road Direction
- Existing Public Parking to be retained - Total 11
- Exist Parking to be decomissioned - Total 57
- ▲ Driveway to be decommissioned

0 5 10 20m
1:500 @ A3

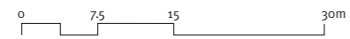
Site Analysis

Above Ground Services



Legend

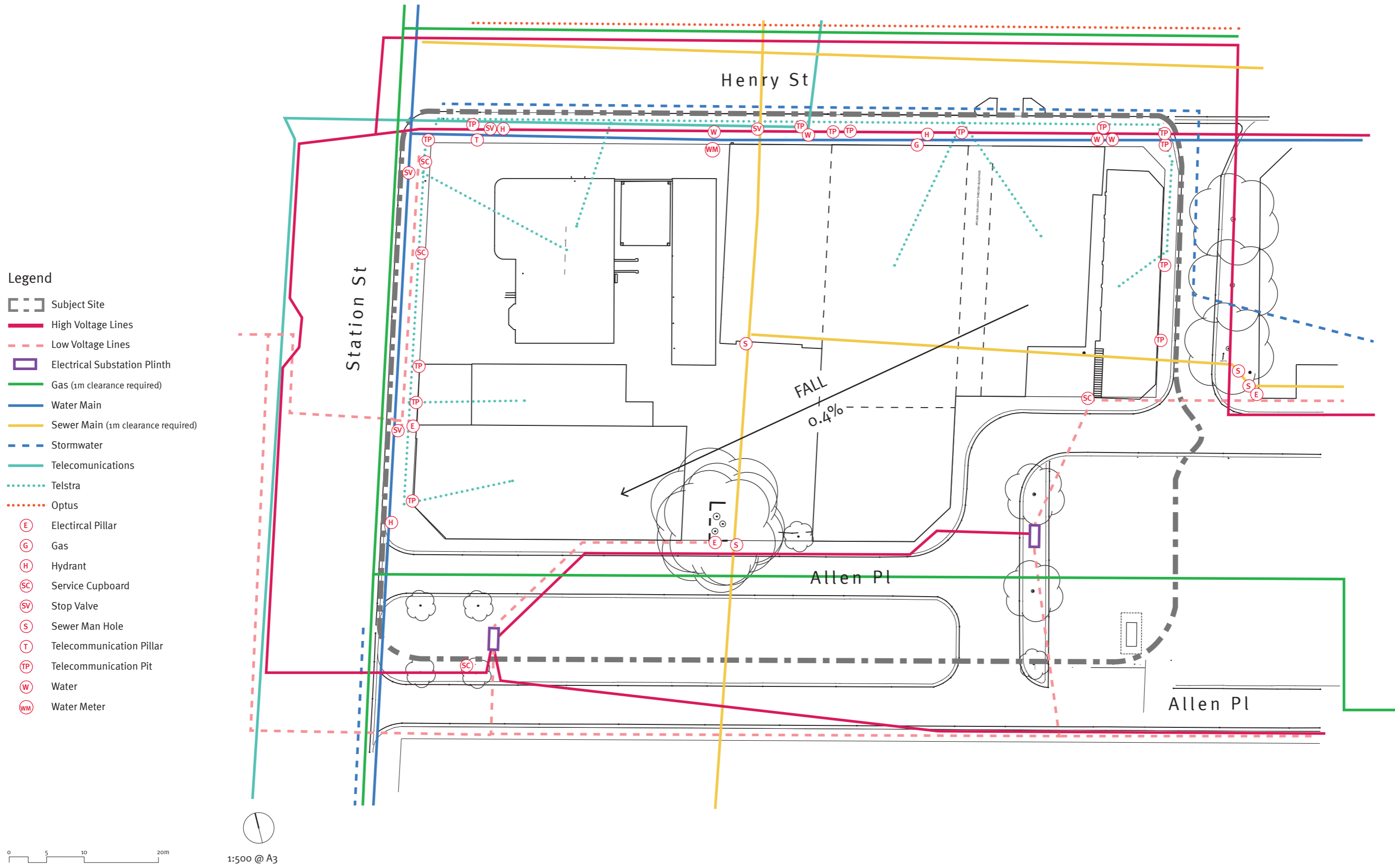
- Subject Site
- Roller Door
- Service Door
- Garbage Bin Locations
- Recycling Bin Locations
- City Centre Arcade
- Donation Bin
- Electrical Cupboard
- Electrical Pillar
- Substation
- Sewer Manhole
- Street Access
- Light Poles



1:750 @ A3

Site Analysis

Utility Service Infrastructure

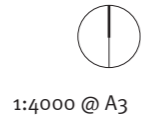


Building heights play a significant contribution to the character of the City Centre. The scale and use of the buildings throughout the City Centre varies from street to street as well as along streets.

This page analyses the maximum building heights permitted in the Penrith City Council DCP.

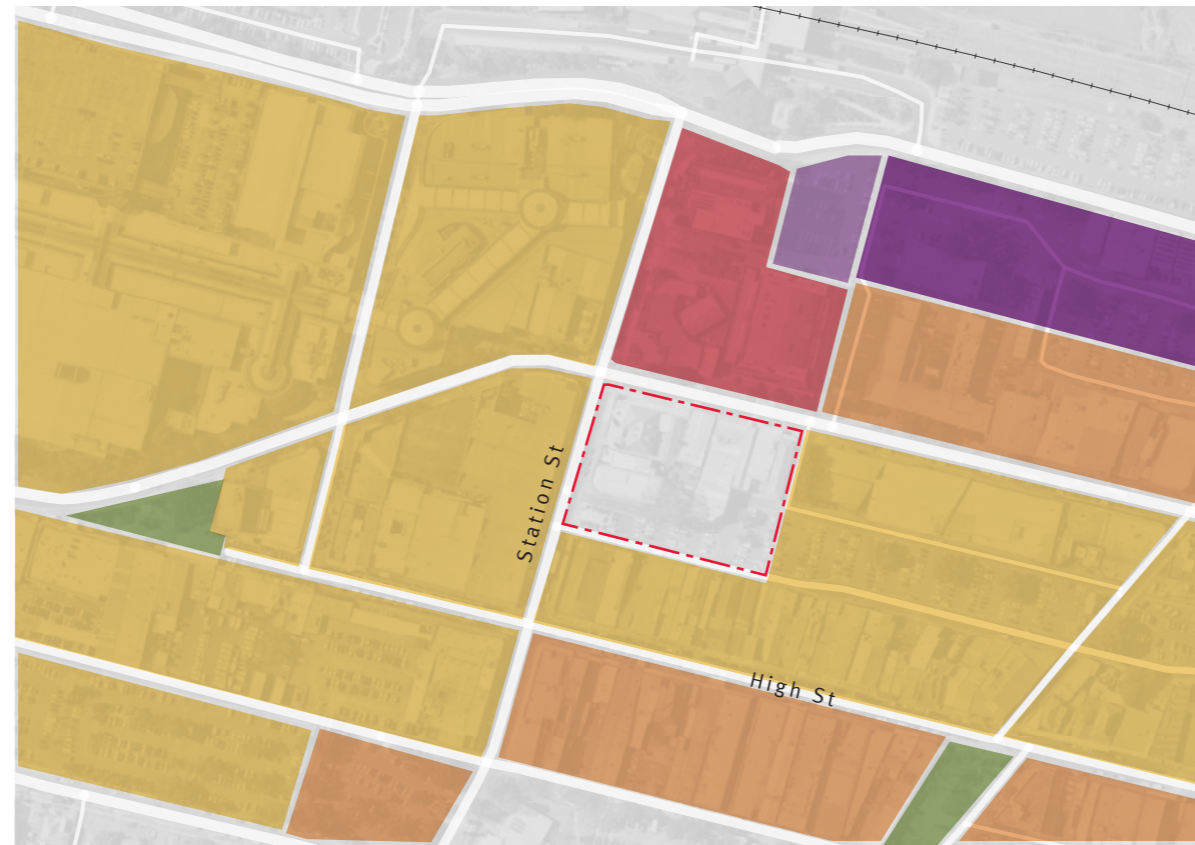
Legend

- Subject Site
- Open Space
- Maximum Building Heights
- 20m
- 24m
- 32m
- 56m
- 80m

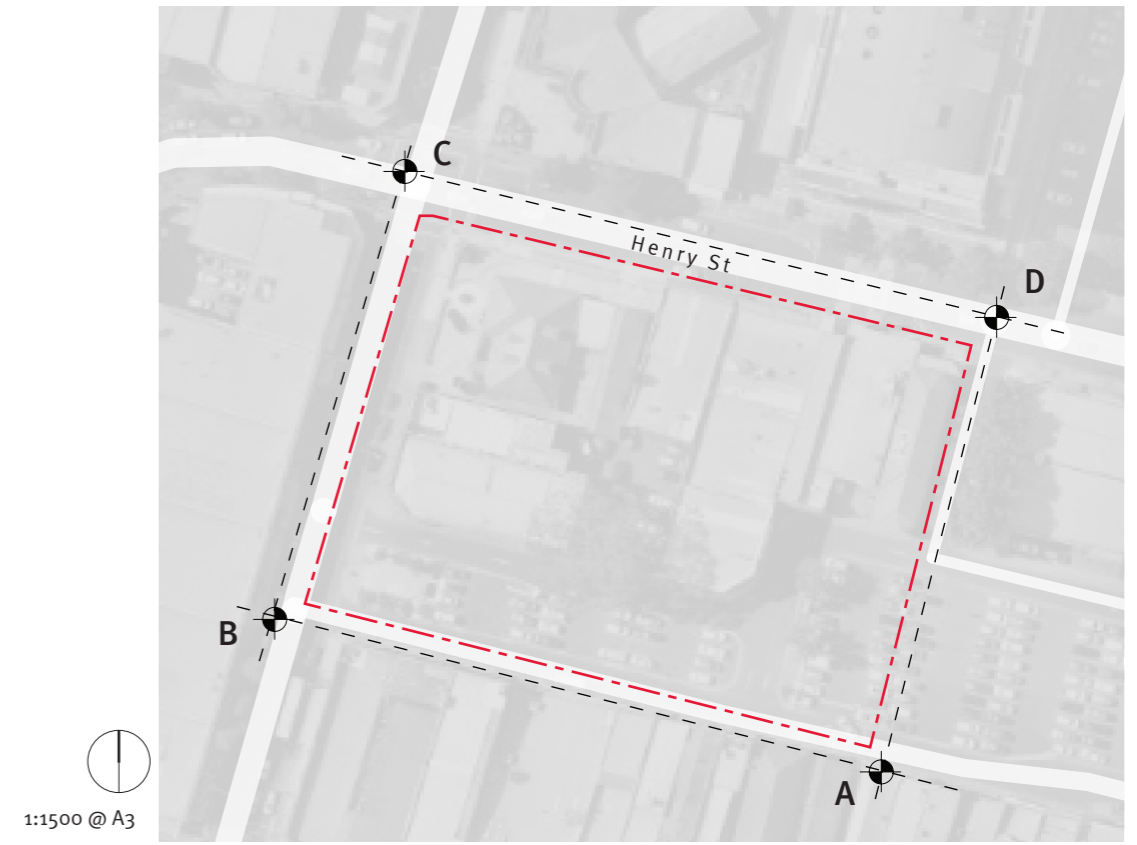


Site Analysis

Maximum Street Frontage Heights



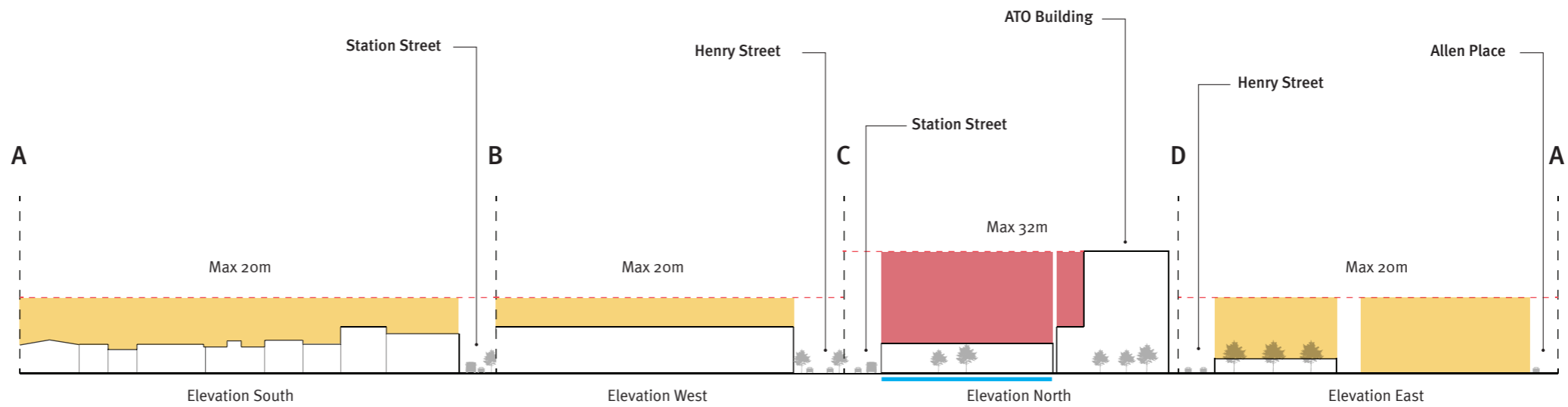
Elevation Key Plan



Legend

- Maximum Building Height
- LEP Key Site - May exceed maximum allowable building height if mitigation of impacts can be demonstrated

1:1500 @ A3



Site Analysis

Lighting Analysis



Allen Place Carpark

Henry Street



Station Street

Station Street



Triangle Park

Legend

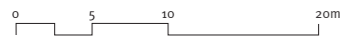
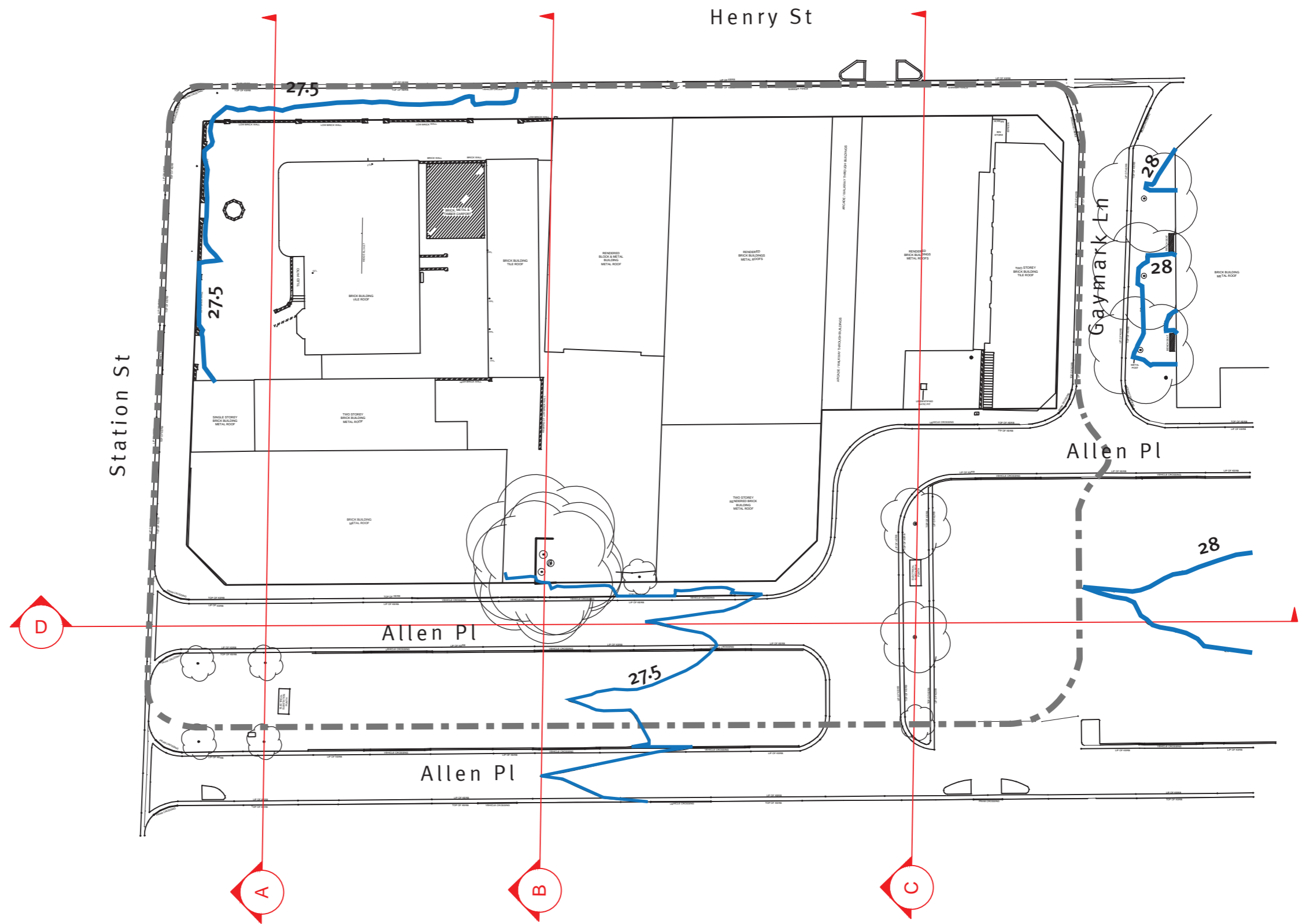
- Subject Site
- Substation to be upgraded
- Substation to be decommissioned
- Electrical cupboard to be decommissioned
- Existing Lightpoles -
- Approx. 10.5m high
- Approx. 6m high
- Approx. 15m high
- P2 Lighting Level (Monday to Thursday- dim to P3 level after 1am. Friday to Sunday - do not dim)



1:1000 @ A3



Source : Penrith City Council Pedestrian Lighting Strategy 2017

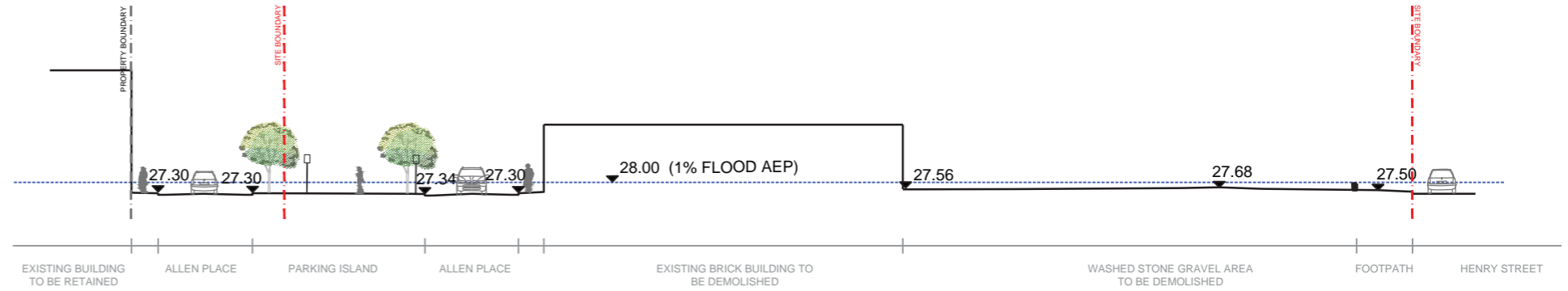


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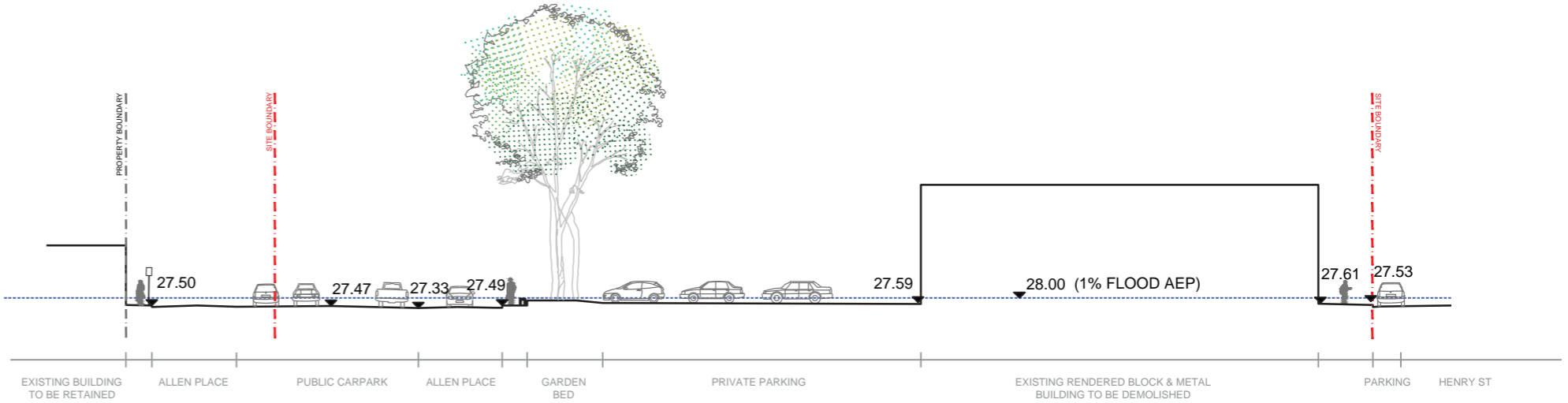
Site Analysis

Site Sections - Topographic Analysis

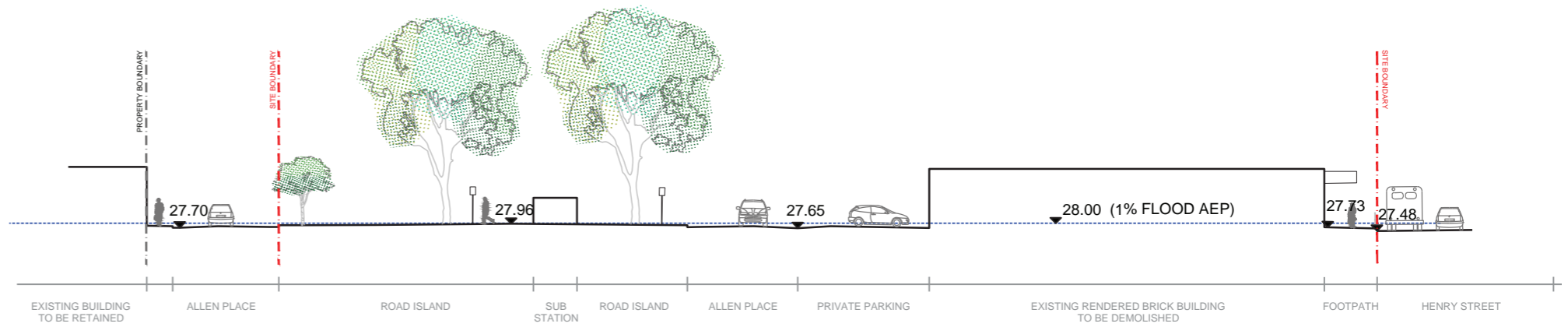
Section A | Scale 1.400 @ A3



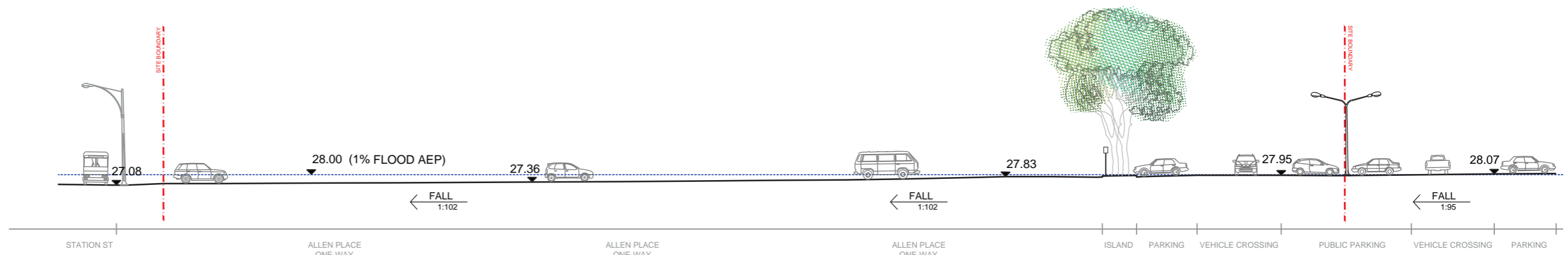
Section B | Scale 1.400 @ A3



Section C | Scale 1.400 @ A3



Section D | Scale 1.400 @ A3



Site Analysis

Utility Service Infrastructure Summary & Recommendations

Discipline	Finding	Constraints	Recommendation	Intent / Objective									
Electrical	Two existing substations (5859 & 1992) are currently supplying approximately 21 shops on Henry St and High st. <table border="1"> <tr> <td>Substation</td> <td>Rated capacity</td> <td>Used Capacity</td> </tr> <tr> <td>5859</td> <td>500kVA</td> <td>250kVA</td> </tr> <tr> <td>1992</td> <td>500kVA</td> <td>460kVA</td> </tr> </table>	Substation	Rated capacity	Used Capacity	5859	500kVA	250kVA	1992	500kVA	460kVA	If one substation is removed, the other will NOT have sufficient capacity to cover the load for the other substation and future City Park Amenities building.	Install one new 1000kVA substation and remove the two old substations in order to restore existing supply to current connection customers. New substation shall comply with endeavor energy standards. Substation easement shall have a clear headroom (clear to sky), pergola or branches on top of substation won't be allowed. Structures within 3m of Substation needs to have 2 hour fire rating.	Provide 1 substation only and provide additional capacity for City park Amenities building Locate substation close to the existing high voltage cable and current connections on Southern edge of City Park.
Substation	Rated capacity	Used Capacity											
5859	500kVA	250kVA											
1992	500kVA	460kVA											
Gas	Traversing Jemena gas Main	Proposed amenities building is located on top of Gas main.	Relocate Gas Main into Allen Place's extension to meet Jemena requirements.	Relocate existing Jemena gas main such that it meets Jemena access requirements. Allows amenities block and pergola to be built on existing location of Jemena gas main.									
Sydney Water Sewer	Traversing DN150 Vitrified Clay Sewer Main	Avoid any new permanent structure above the existing and relocated DN150 Sydney Water Sewer. Relocate Sydney Water DN150 Sewer to allow for the following constraints: Storage requirements of contaminated materials. Lesser impact of Sydney Water maintenance on council assets. Possibility and ease of modification of park in the future due to no Sydney Water easements.	Engage a WSC to design sewer diversion as outlined by the PCC requirements.	Address concerns raised by PCC in regard to the park space: Storage requirements of contaminated materials. Lesser impact of Sydney Water maintenance on council assets. Possibility and ease of modification of park in the future due to no Sydney Water easements.									
Sydney Water Potable Water	Adjacent DN150 Potable Water Main	Avoid any bearing of any new structure on the Sydney water potable main.	It is not anticipated that there will be any impact on the water mai by the proposed development. However this will be confirmed by a Building Plan Approval with Sydney Water to confirm no assets will be impacted by the proposed development.	Address potential encroachments on Sydney water potable water assets.									

Site Analysis

Utility Service Infrastructure Summary & Recommendations

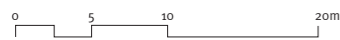
Discipline	Finding	Constraints	Recommendation	Intent / Objective
Stormwater	Site Fall	The general fall in the site is 0.4% which makes it difficult draining to the point of discharge. More than one point of discharge may be required.	Ensure minimum falls for drainage.	Drainage pipes rely on gravity and need to fall ideally 1% to the discharge pit. The system needs to achieve minimum cover, a flat site may cause difficulties in achieving minimum cover and minimum fall, unless the downstream drainage network is very deep.
	Point of discharge (point of connection to Council's stormwater system)	There are several pits that could be the point of discharge	Selection of point of discharge pending on confirmation of invert levels and proposed site levels, and analysis of existing connection points.	The point of discharge is generally at the closest pit to the lowest point of the site. It also depends on the invert level of the pit- there must be enough fall in the pipes to Council's pit. It also depends on where the existing catchments currently drain.
	Bio-retention location / Water harvesting	Site levels and invert level of discharge pit. Based on the IL of the pipes in Gaymark Lane (IL 25.73m), it is not viable to divert water to the proposed raingardens along Henry street due to the height difference and requirements for balustrades, therefore the raingarden would only be able to treat stormwater from the park and the section of Henry St. The raingarden should be generally 500mm lower than any pits draining to it.	Add notes on Council's treatment requirements and proposed works. Water Quality - on the basis that the development is improving water quality through the increase of pervious area we are not trying to achieve WSUD targets. Grade park towards raingarden.	Bio-retention and other stormwater treatment devices are generally located at the lowest point of the site to maximise the amount of water that is directed to the system and therefore treated. The system is also dependent on the invert levels of the discharge pit. The treatment objective determines the size of the bio-retention. The usual treatment objectives don't apply to this case as we are increasing the pervious area of the site, which generally improves water quality in itself. The maximum reuse percentage achievable to supply the demand for irrigation and toilet flushing is approximately 25% with a 100kL tank to the size of the catchment. We are no longer proposing to reuse rainwater for irrigation due to the quality of water required (drinking level) and the areas available for harvesting being too small in comparison to the reuse demand for irrigation. we are proposing to harvest stormwater from the amenities building roof and 300 m ² of lawn to achieve 80% of the demand for the 5 toilets in the amenities building
	Rain gardens (WSUD) Passive Irrigation	Levels to match existing stormwater system.	Locate along Henry Street and Gaymark Lane along planted area	Water quality improvement, recharging underground water/ passive irrigation of proposed vegetation, reduce water being diverted into stormwater system.
	Flooding	The site is affected in all flood events. Max. 1:100 YFL is 28.00 on Southern corners of City Park	Set building levels above 100 year flood level plus 150mm of freeboard for Floor Waste.	Mitigate risk of flooding to buildings.

Site Analysis

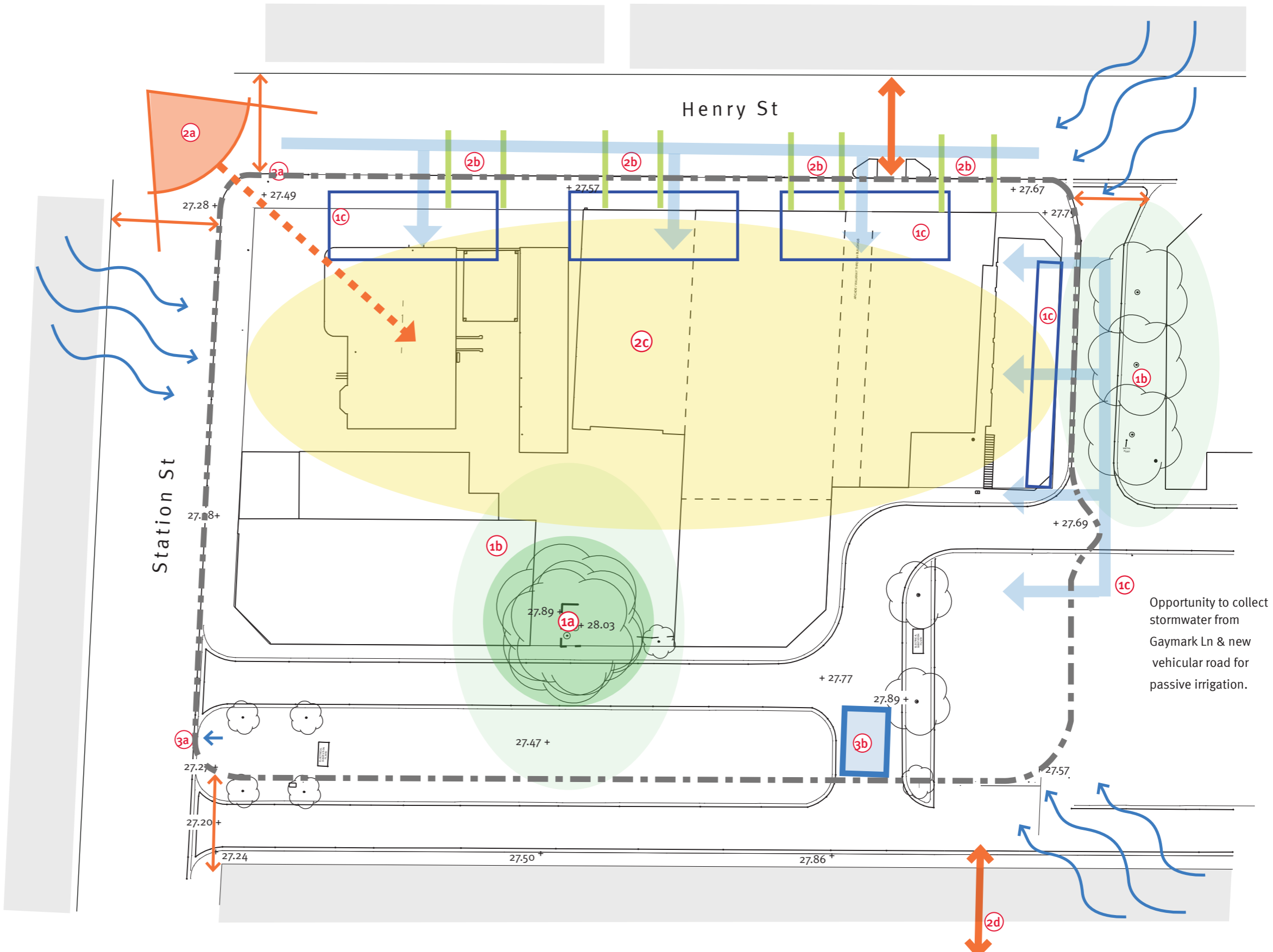
Opportunities

Legend

- Subject Site
- Environmental Opportunities**
- 1a Existing Eucalyptus tree
- 1b Shade from existing trees
- 1c Opportunities for WSUD/Passive irrigation
- Spatial Opportunities**
- 2a Focal point & access from Station Street
- 2b Open the space to Henry Street
- 2c Open sunny area with opportunity for small scale passive activation
- 2d Temporary connection to High St via existing arcade
- Infrastructure Opportunities**
- 3a Possible Stormwater Connection Points
- 3b Possible Location for Rainwater Reuse Tank



1:500 @ A3



Opportunity to collect stormwater from Gaymark Ln & new vehicular road for passive irrigation.

Site Analysis

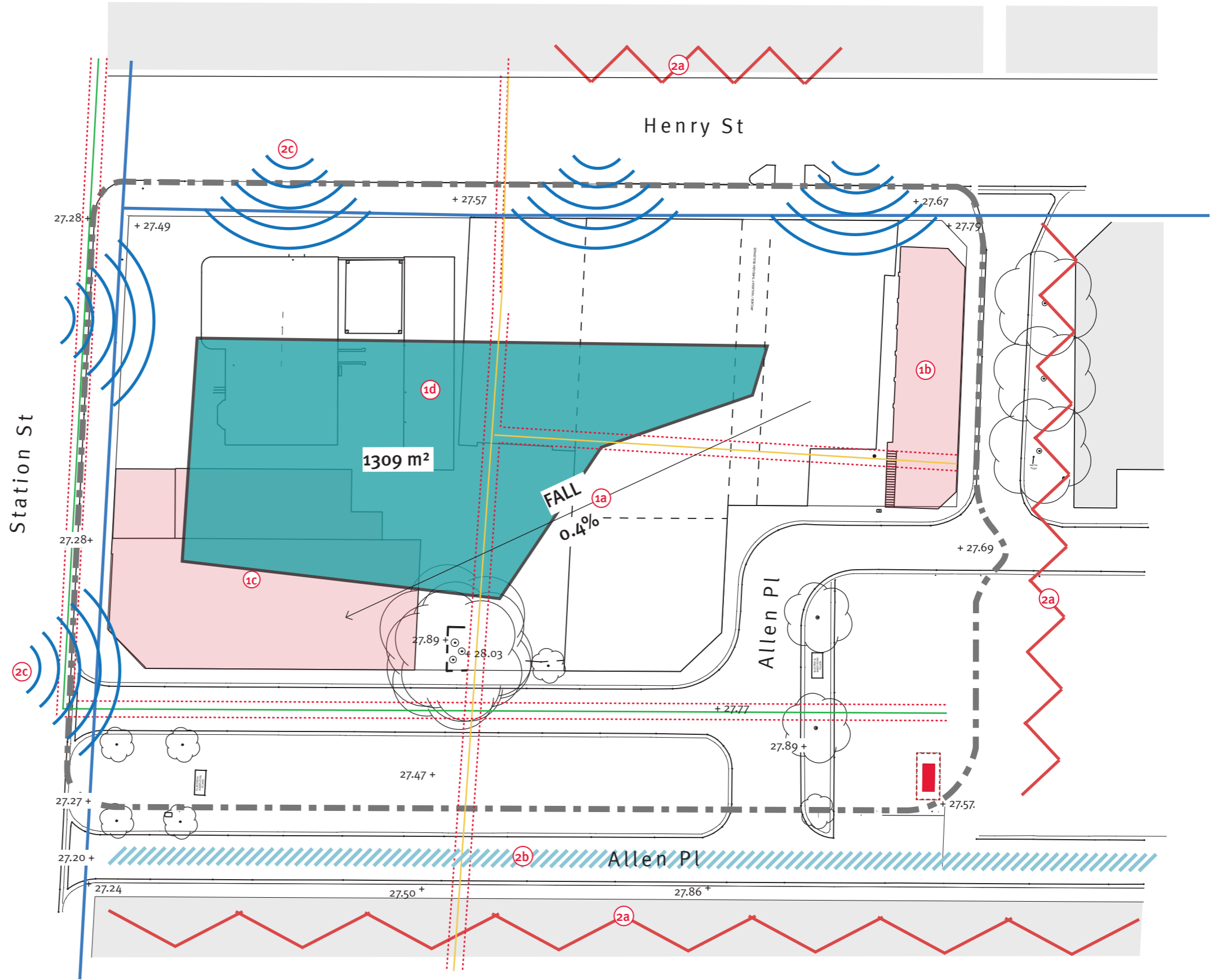
Constraints

Legend

- Subject Site
- Service Infrastructure Constraints**
- Gas (1m clearance required)
- Sewer Main (1m clearance required)
- Potable Water Main
- Proposed Substation (3190x1370mm)
- Service Easement (avoid any new structure or service within 1000mm)
- Suitable area for containment cell
($<30m$ from Structures, $>1m$ from Utilities)

- Site Physical Constraints**
- 1a Minimal grade change across site.
- 1b Ground Contamination (soil, groundwater, soil-vapour and indoor air)
- 1c Building Contamination (Asbestos)
- Note: Entire site under 1:100 year flood level 28.00m

- Use / Interface Constraints**
- 2a Uncertainty of future developments
- 2b Vehicles servicing businesses along southern edge, bin storage & collection.
- 2c High volume of traffic and noise.





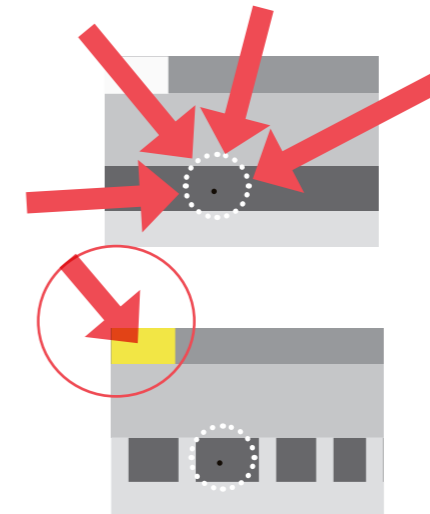
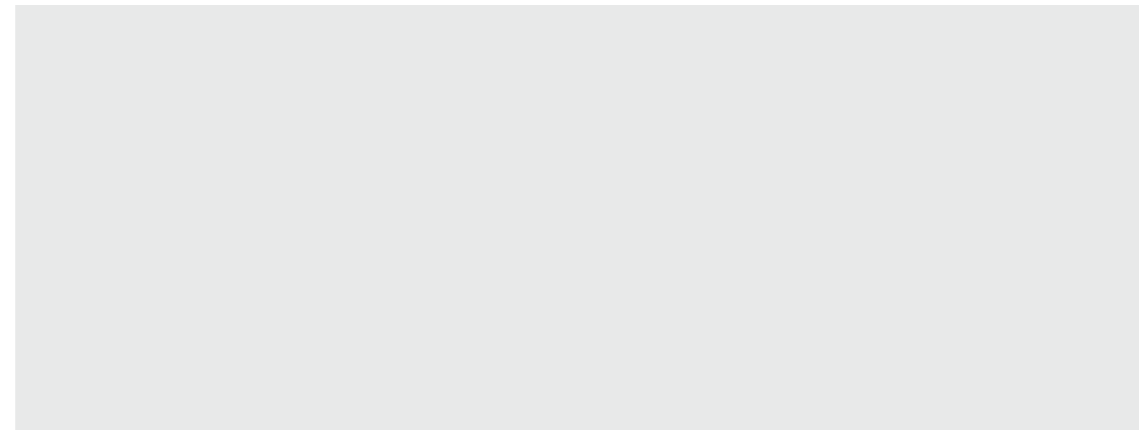
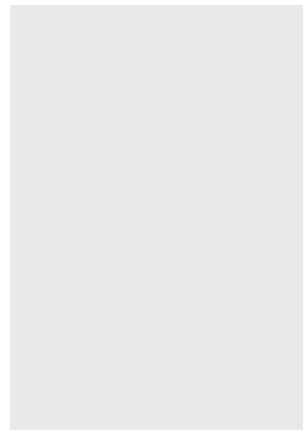
5 Aims - Create a City Park with

- **A strong identity**
create a vibrant city Centre and celebrate the local landscape
- **A variety of use opportunities**
flexibility for events and passive activation
- **A variety of spaces**
respond to the aspirations & needs of a diverse community throughout the seasons
- **Environmental benefits**
mitigate heat island effect, permeable, incorporate WSUD and native vegetation
- **Social benefits**
the park as a meeting point, building the community

Design Approach

Spatial Arrangement

Key principles

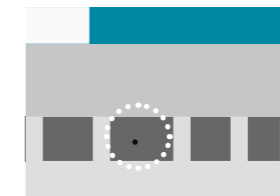
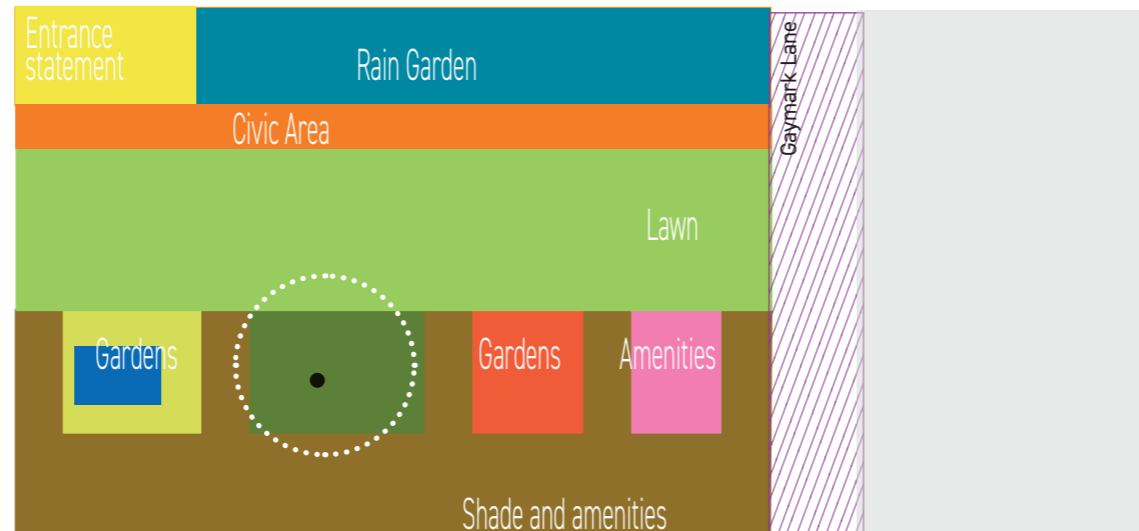


Celebrate the tree

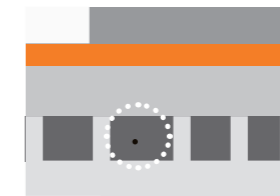
Open the corner to Station Street, allow clear views in and integrate landmark

Henry St

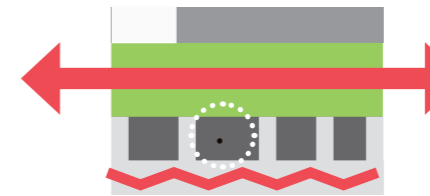
Station St



Use rain garden to define the Northern edge and protect from street

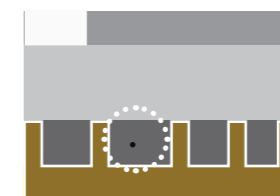
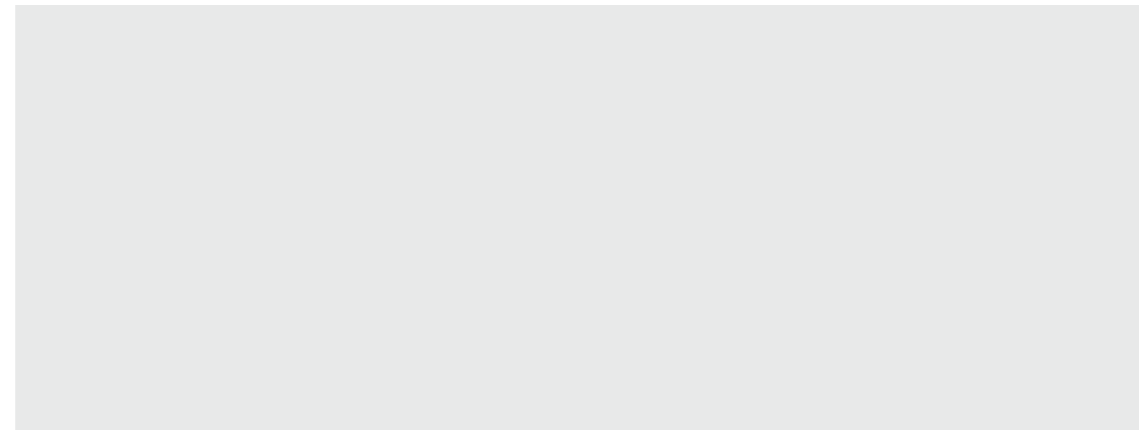


Civic area on the Northern Edge that is protected from Henry Street

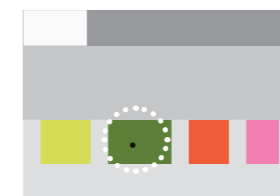


Maximise the scale by emphasizing length

Allen Place



Provide shade and amenities screening southern edge

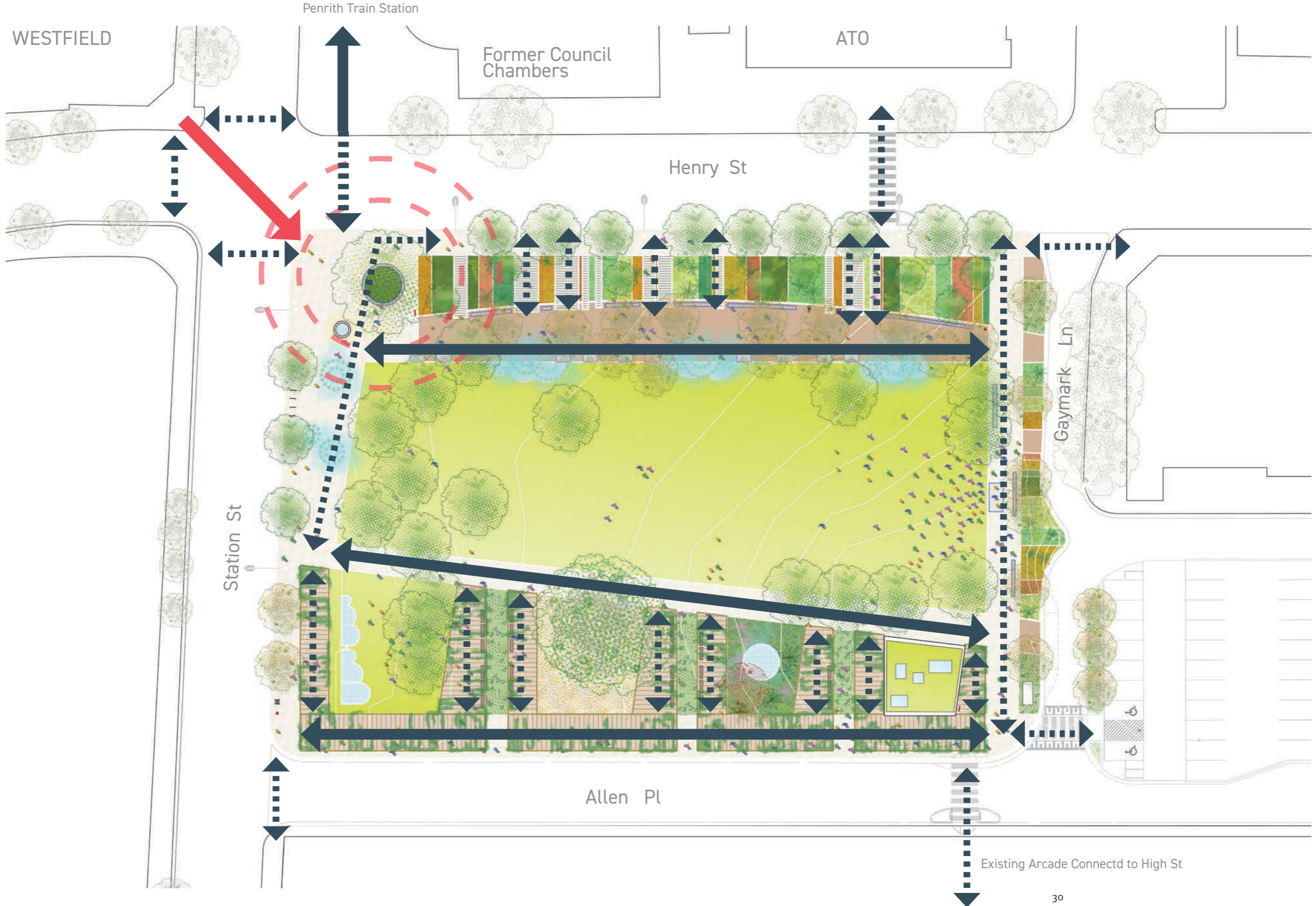


Gardens and trees as a place of respite for more intimate experience include water

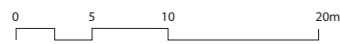
High St

Design Approach

Entrance Statement & Connectivity



1:500 @ A3



Design Approach

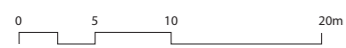
Activation



Legend

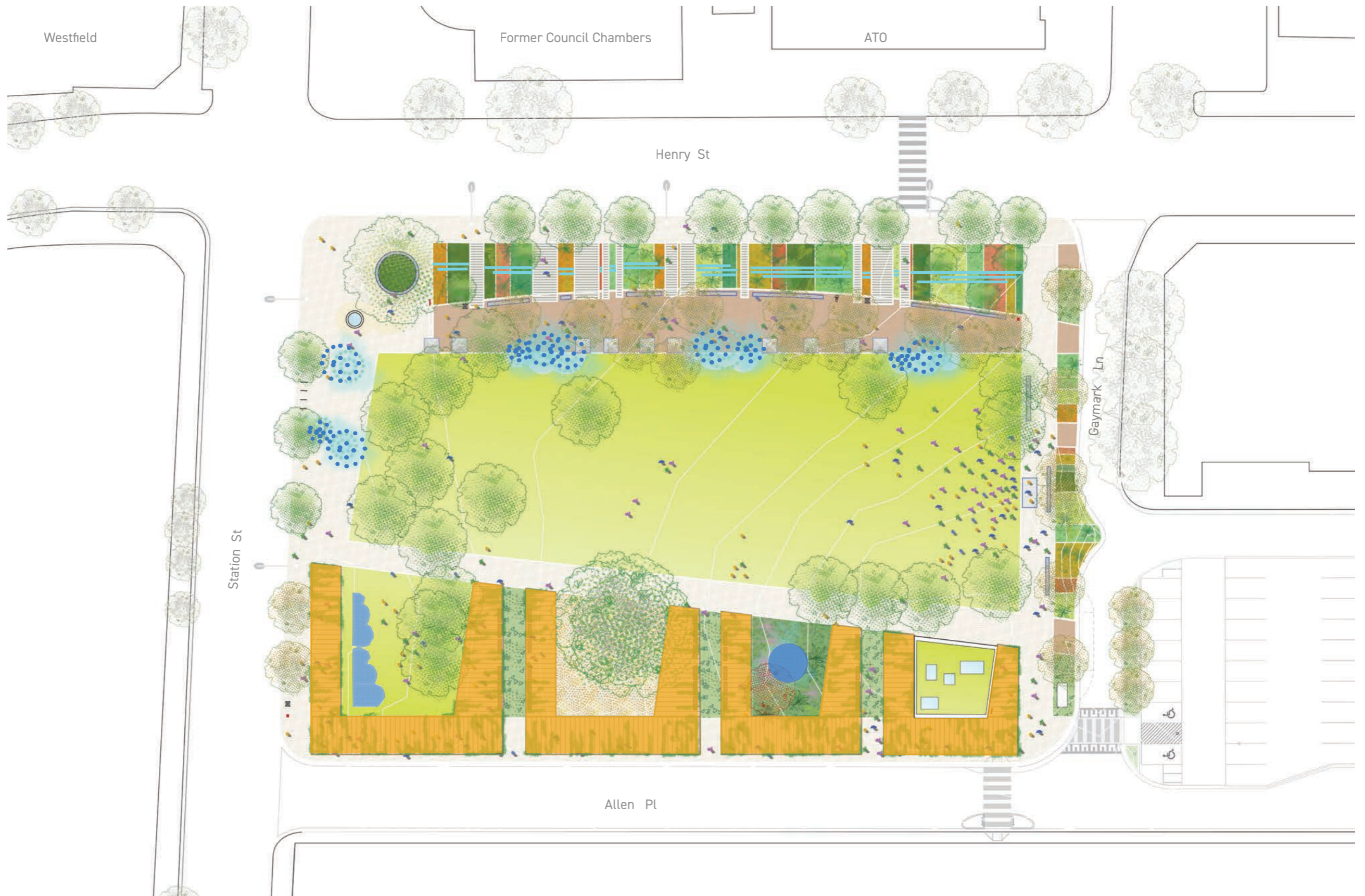
- Civic Area
- Opportunity for Market Stalls 2x2m
- Opportunity for Temporary Stage
- Large lawn - Medium Scale Activation
- Small lawn - Small Scale Activation

1:500 @ A3



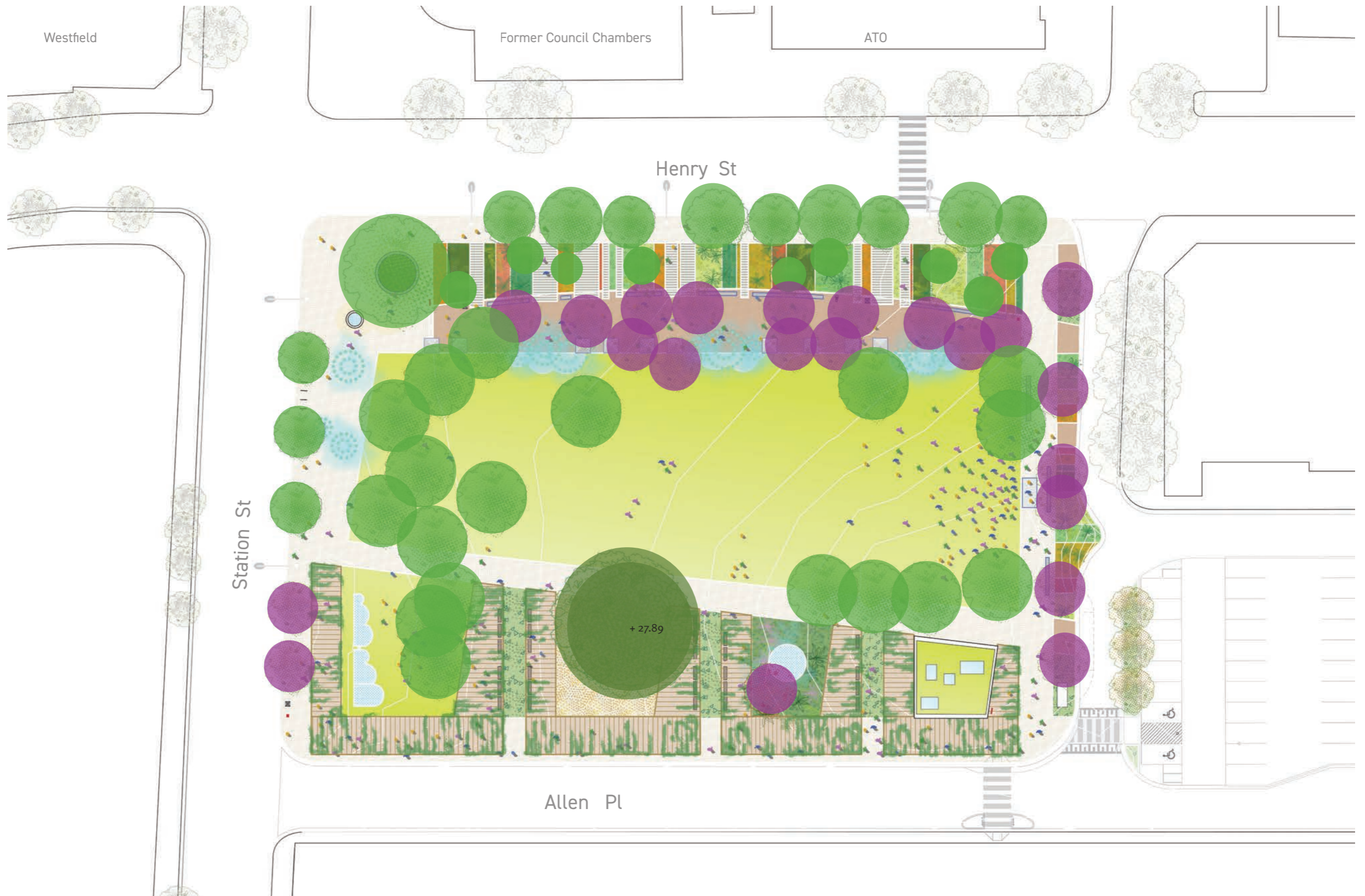
Design Approach

Roof & Cooling



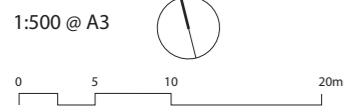
Design Approach

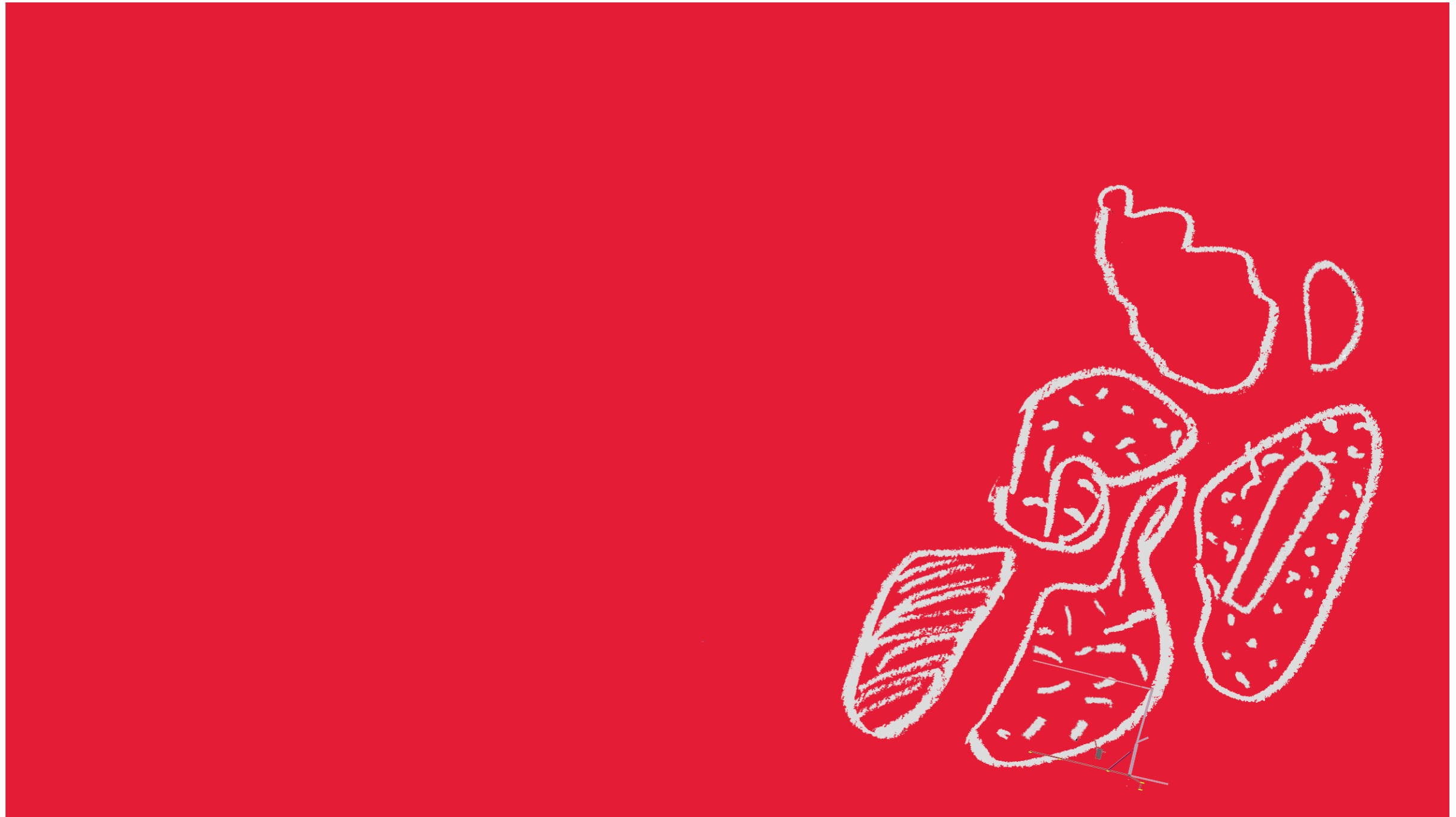
Trees



Legend

- Existing Feature Tree
- Evergreen Tree
- Deciduous Tree





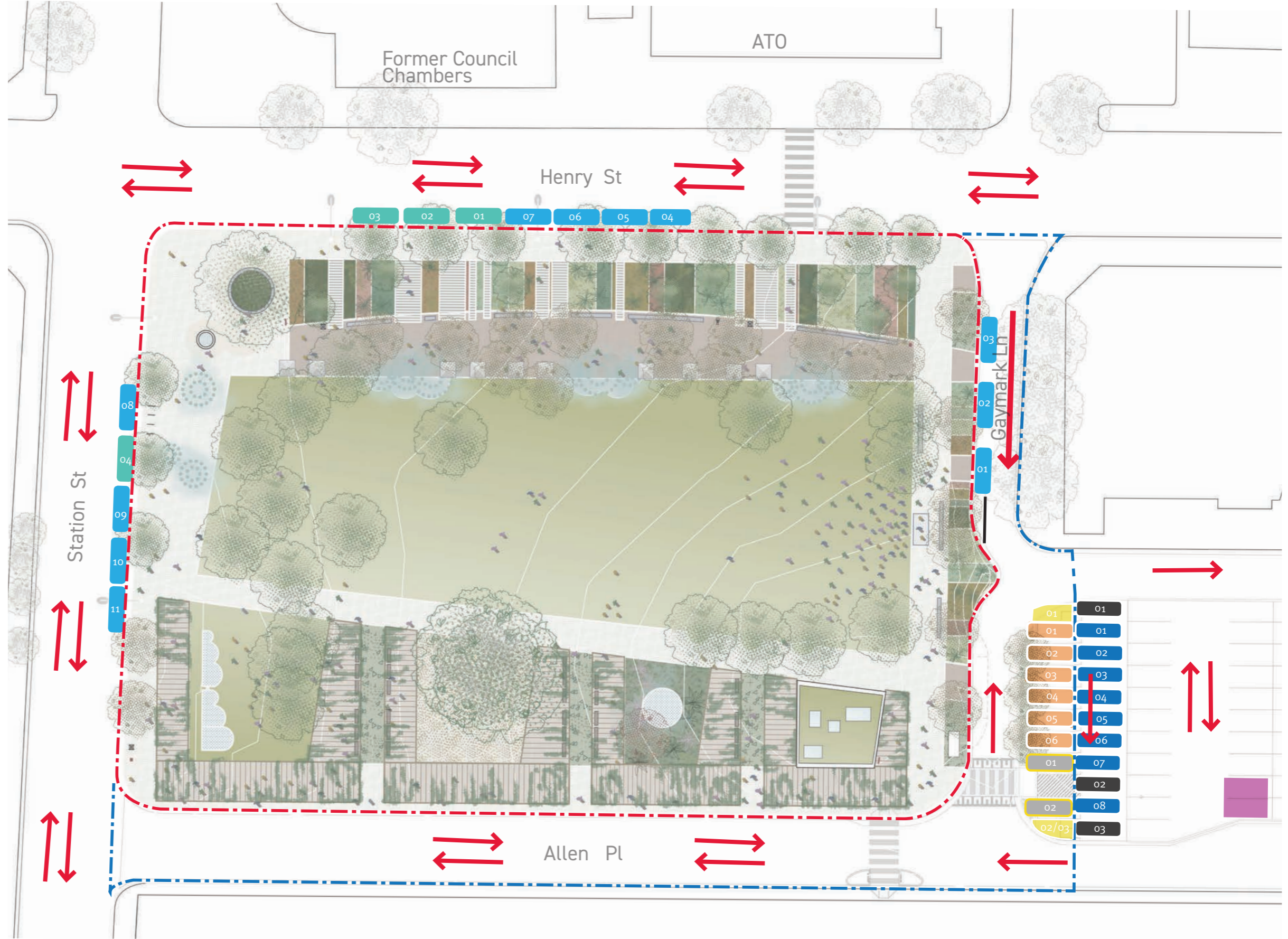
Strategies

The proposal keeps the current onstreet parking and identifies opportunity for additional parking on the location of the existing driveways to be decommissioned. (Station St, Woodriff St N)

On Allen Place, a row of 10-11 car spaces is shifted West to accommodate vehicular movement with minimised loss car park spaces.

A bin collection point area is nominated where the street has a wider section to assist with traffic movement during bin collection.

Parking and Traffic Circulation



Strategies

Cultural Interpretation and Public Art

Cultural Themes & Plans

Penrith City Park - Cultural Strategy							
Main Theme PLACE PILLARS	Sub-Theme	Notes/Intention	What's missing	Opportunities for Cultural interpretation	Expression in City Park (Refer to attached plan)	Check with PCC Cultural Plans & Assessment of Aboriginal and Non-Aboriginal heritage assessment	Notes
Peopling Australia *	Aboriginal Cultures and interactions with other cultures * First Nations First - this place is country and first nations people are its guardians	Maintaining/remembering Aboriginal cultural identity.	1st Nations Stories	FIRST NATIONS FIRST -Park naming Elements: Public art (e.g. sculpture, mural), plaque Curation: Markets, concerts, festivals, events, performances	1 - Park naming 2 - Space for performances/Events (Stage) 3 - Public Art	Cultural Framework (2007-2011) - A magnetic Place / Culture and the Environment Out and About Penrith City Strategy - 5.10 Aboriginal and Torres Strait Islander people	Recognise and support Penrith City's Aboriginal (3%), European and natural heritage Multiculturalism in Penrith (linguistic, religious and ancestral backgrounds) Cultural Inclusiveness - UD principles and cultural dimension: Flexibility in use/Accommodates diversity Council adopted its Statement of Recognition of Aboriginal and Torres Strait Islander Cultural Heritage in 2006 (reconfirmed in 2007)
	Migration *	Activities and processes associated with the resettling of people from one place to another	Stories from sisters/partner cities popular culture Any specific elements/fauna/fantastic creatures from popular stories that could be interpreted and populate the park or themed garden, say little sculpture elements)	Elements: A "themed" garden, feature tree, public art (e.g. sculpture, mural), plaque, poem, light projections during night time. Curation: Markets, concerts, festivals, events, performances Others: Incorporation of other languages in signage elements?	2 - Space for performances/Events (Stage) 3 - Public Art 4 - A themed garden by sister/partner city.	City Strategy - 5.11 Culturally and linguistically diverse people	According to the 2011 census residents born overseas comprise 21% of our total population (compared to Sydney with 34%) with 14.6% of our population speaking a language other than English at home (Sydney 32.5%). The top 10 non-English languages spoken by residents at home in Penrith City are Arabic, Filipino (Tagalog), Italian, Maltese, Hindi, Spanish, Greek, Croatian and Cantonese/Mandarin, and Punjabi. Penrith as a refugee friend City
Developing local, regional and national economies * FRIENDS & PARTNERS this is a place where partnerships are forged	Commerce *	Activities relating to buying, selling and exchanging goods and services	Any specific (manufactured) product that could be incorporated? Pavers, tiles, ceramics? A common element to all cities? The lantern?	Elements: Use of a product that is manufactured in one of the Sister/Partner Cities, traditional pattern in the mist clouds Curation: Markets, concerts, festivals, events, performances, reading	2 - Space for performances/Events (Stage) 3 - Public Art 5 - Pattern on pavement (water mist clouds) 6 - Space for (themed) Markets	Sister Cities and International Alliances	Fujieda City, Japan, 1984 - Sister city; student and cultural exchanges Hakusan City, Japan, 1989 - Friendship city; student and cultural exchanges Penrith, UK, 1989 - Sister city; largely ceremonial relationship Gangseo-gu, South Korea, 1994 - Economic mutual cooperation agreement; business exchanges; staff visits and training. Also an MoU signed between Penrith Business Alliance and its Gangseo-gu counterpart and between council and the South Korean consulate Xicheng District, China, 1998 - Sister city; business exchanges Kunshan, China, 2003 - Friendship city; business exchanges; staff visits; sister schools arrangements. University and health links
	Environment - Cultural landscape *	Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings		Elements: A "themed" garden, feature tree, public art (e.g. sculpture, mural), plaque, poem, light projections during night time Curation: Markets, concerts, festivals, events, performances, ceremony Materiality: brickwork to tie with Post-war aesthetical character of surrounding area Partnership Space	4 - A themed garden by sister/partner city. 3 - Public Art 6 - Space for (themed) Markets 7 - Brickwork on entry area pavement	City Park Penrith Aboriginal and Non-Aboriginal heritage assessment Draft report	While council's initial relationships were based on civic and cultural exchanges, more recently it has sought to concentrate on building economic ties. The proposal should take into consideration the Post-War architectural style of the surrounding area. New structures should be low-scale and set back from the street as to not impose upon view lines to and from heritage items. In addition, brickwork should be considered in the proposal (i.e. brick paving) to tie in with the Post-War aesthetic character of the surrounding area and heritage items. 3.2.3 Development of the study area: Indicates previous shops on corner of Henry and station street

Strategies

Cultural Interpretation and Public Art

Cultural Themes & Plans

Penrith City Park - Cultural Strategy							
Main Theme PLACE PILLARS	Sub-Theme	Notes/Intention	What's missing	Opportunities for Cultural interpretation	Expression in City Park (Refer to attached plan)	Check with PCC Cultural Plans & Assessment of Aboriginal and Non-Aboriginal heritage assessment	Notes
Developing Australia's cultural life * EVERYBODY'S PLACE This is a place for all and their stories are told/ shared here	Creative endeavour *	Activities associated with the production and expression of cultural phenomena. Create opportunities for all people to participate/use park Provide a number of flexible spaces that are not designated for one practice only. Cater for the broader catchment.		Curator: Markets, concerts, festivals, events, communal library Park layout: Provision of multiple subspaces (Civic, lawn, small lawn, secluded gardens) Elements: brick work to be considered in the	2 - Space for performances/Events (Stage) 6 - Space for (themed) Markets	Cultural Framework (2007-2011) - A magnetic Place / Culture and the Environment	Recognise and support Penrith City's Aboriginal, European and natural heritage Multiculturalism in Penrith (linguistic, religious and ancestral backgrounds)
	WAVES OF MIGRATION - ACTIVE STORIES			Lighting: To promote night time activation & use by different groups. Light projections can be flexible and change throughout the year as well as pick up on multiple themes. Projections from the entry statement into the Civic area pavement?	3 - Public Art (entry statement) 7 - Brickwork on entry area pavement	Multicultural Working Party meeting	Notes principles of Multiculturalism (NSW Government)
				Partnerships with nearby Joan Sutherland Performing Arts Centre or others **	2 - Space for performances/Events (Stage)	Out and About Penrith	The "park as an event" idea: Designing for flexibility that supports diverse realisations of possible park events Cultural Inclusiveness - UD principles and cultural dimension: Flexibility in use/Accommodates diversity Don't go for site specific designs Principle of Non-exclusion. Look at overall provision in the area, including what is provided in the surrounding parks Recommendations: R 1.3 - That in view of the cultural complexity of the 21st Century societies, planners avoid the misleading notion of an average user and a single unified Penrith 'community' and instead acknowledge the many and diverse 'communities' to which Penrith's residents and visitors belong. R 1.6 - That assumptions about parks and their uses be reviewed and expanded to accommodate potential cultural and social uses, and the technologies and infrastructures that could support those uses R 1.8 - That PCC plan to provide toilets across more categories of parks and more toilets usable by people who need two carers to assist. R 1.12 - That PCC review its open space planning objectives and policies to support more creative and flexible uses of park time, including time-sharing, temporary facilities, acknowledgement of current and earlier place-making and memories of place and support of nocturnal park use R 2.5 - Promote nocturnal use of parks (less hot, more comfortable) R 2.8 - Community Consultation to incorporate "quiet knowledge" R 2.9 - Promote "Local Park Days" activities
			Do Council have existing partnerships with surrounding Cultural equipment and is there opportunity for performances & instalations to extend to City Park?			City Strategy - 5.2 Culture and Creativity	Partnerships between the arts, culture and city renewal
IMAGINING Tomorrow this is place is a wish for tomorrow and the best humanity can be	Sustainability		Do Council have a preferred smart pole that they would like to include	Elements: Smart initiatives (e.g. wifi, chargers, solar panels, water re-use), dedicated bins for different recyclables Best practice: reticulated water features, Materiality: Green concrete, Use of recycled materials Spatiality: Provision for shade and amenity, permeable surfaces Suppliers: Local suppliers IS THE TOMORROW MARKER (LANDMARK) SOMETHING ABOUT TOMORROW / SHADE SHELTER / DRESSING FOR EVENTS AND SO FORTH, ETC	2 - Space for performances/Events (Stage) 3 - Public Art (entry statement)	Cultural Framework (2007-2011) - Culture and Sustainability	Notes Sustainable Penrith program (Feb 2000) for integrating sustainability principles into all Council operations and encourage sustainable practices among City's communities. The guiding principles are based on UNEP
						City Strategy	Penrith Principles for a sustainable city: P 6 - Recognise and build on distinctive characteristics of cities, including their human and cultural values, history and natural systems P 9 - Promote sustainable production and consumption through appropriate use of environmentally sound technologies and effective demand management

Strategies

Cultural Interpretation and Public Art

Expression in Park



Legend

- EOW - City Park
- EOW - Road Works

Expression in the Park - options for consideration:

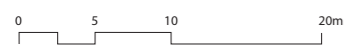
- ① Park naming
- ② Space for performances/events
- ③ Public Art
- ④ A themed garden
- ⑤ Pattern on pavement relating to the Sister Cities
- ⑥ Space for (themed) markets

Note: Following discussion with PCC, options 2, 3 and 5 are currently being considered for DA submission purposes

- ▬ Feature Seat
- ▬ Low Bridge
- ☁ Mist
- ▬ Hardstand Pavement - Feature pavement
- ▬ Hardstand Pavement - Green concrete
- ▬ Hardstand Pavement - Recycled brick
- ☉ Water Feature
- 🌳 Existing Feature Tree
- 🌳 Deciduous Trees
- 🌳 Evergreen Trees
- 🌳 Feature Tree

→ New Traffic flow

1:500 @ A3



Strategies

Lighting & ASP3 Refer lighting and electrical report for further detail



Pole Type A

Pole Type A



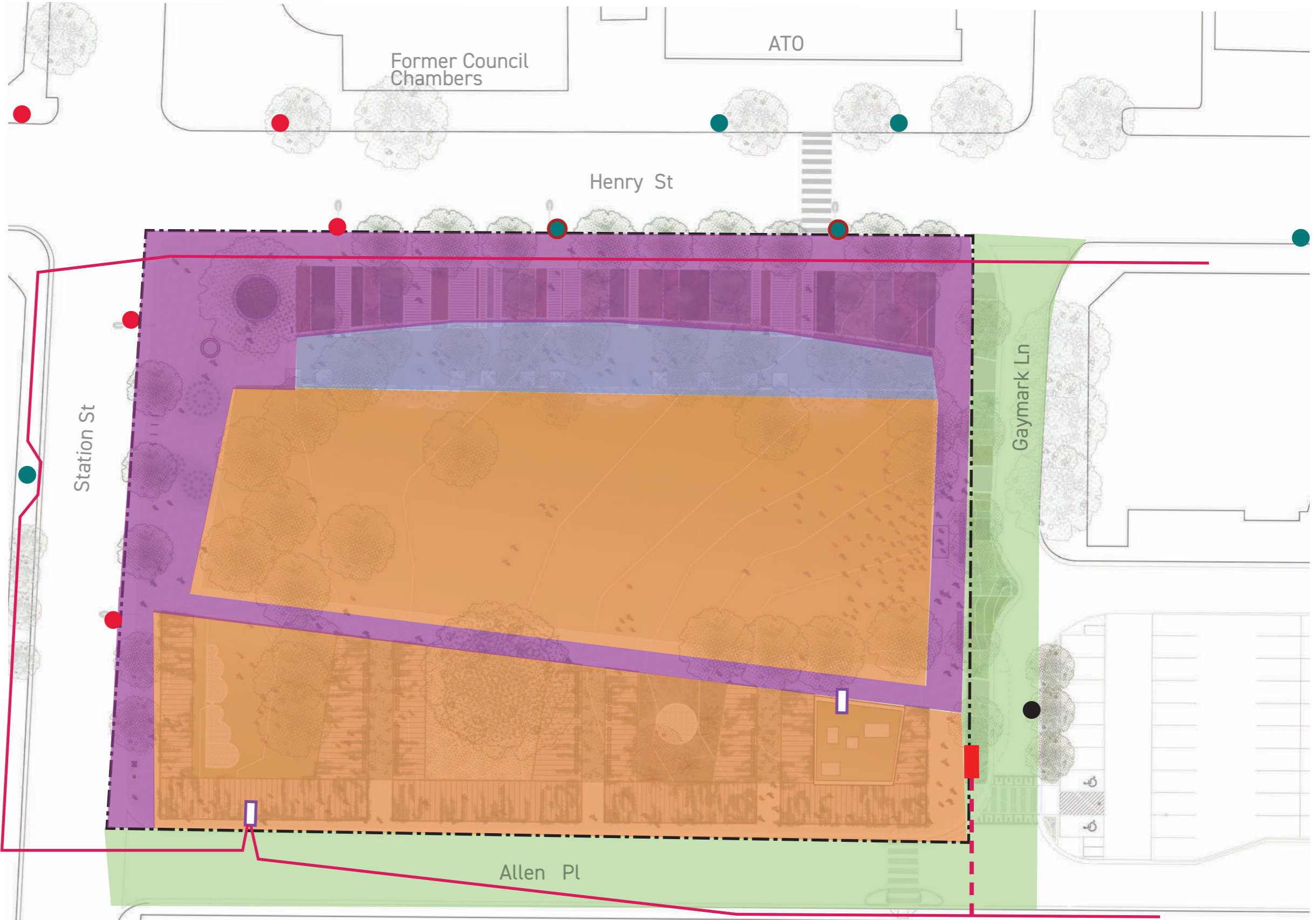
Pole Type B



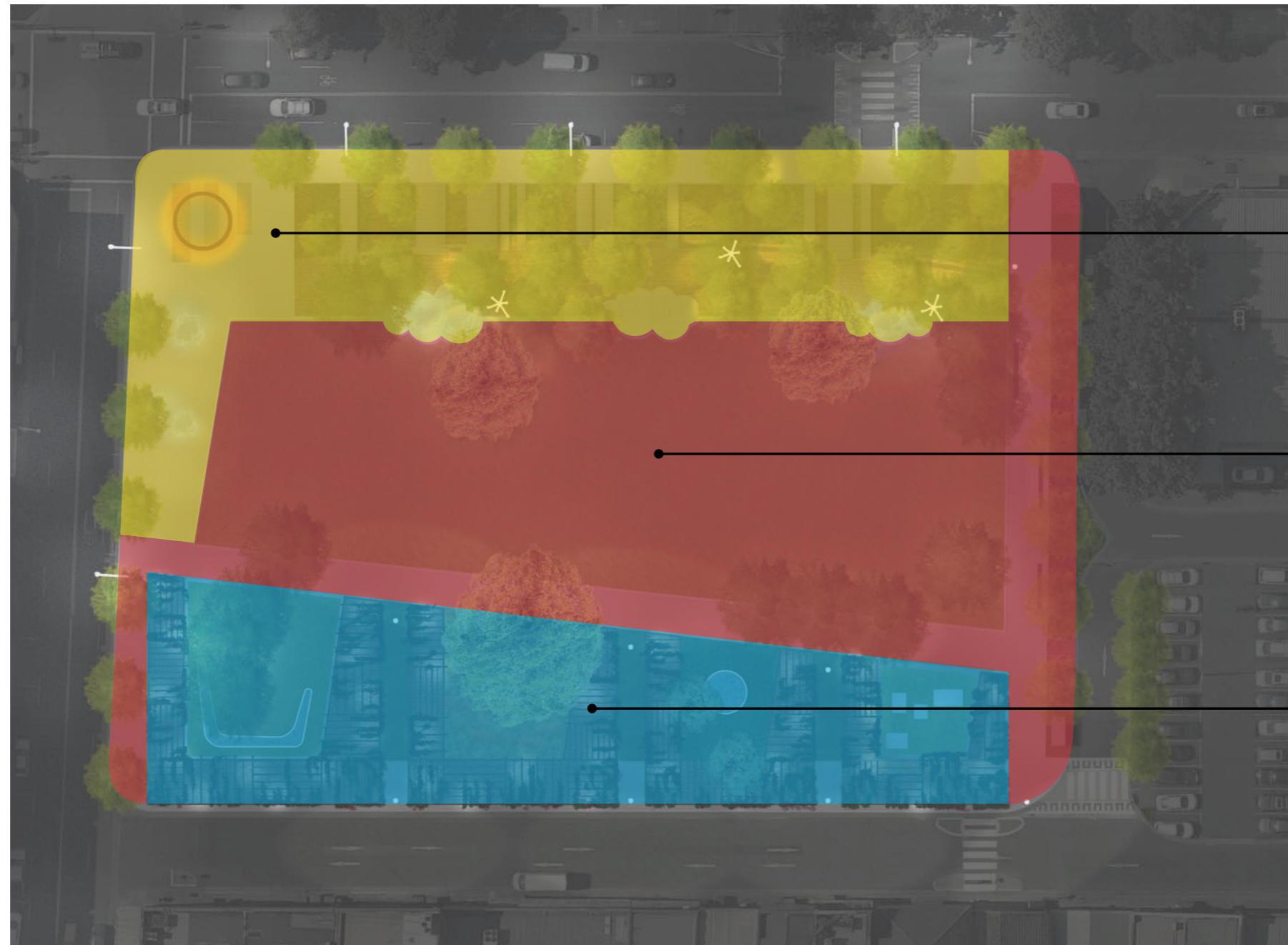
Pole Type C

Legend

- Subject Site
- Existing Lightpoles -
 - Pole Type A
 - Pole Type B - to be upgraded to Pole type A
 - Pole Type B
 - Pole Type C (to be removed)
- Proposed category Px lighting-
 - PP2
 - PA1
 - PA2
 - PR2
- Proposed Substation ASP3
- Existing High Voltage Lines
- Proposed High Voltage Lines
- Existing Electrical Substation Plinth (to be decommissioned)



1:500 @ A3 0 5 10 20m



The Civic
Lighting typified by pools of light and a punctuated approach to highlight detail and sculptural features

The Communal (lawn and path)
Broad lighting giving an uniform and pleasant lighting level to allow circulation and gathering

The Gardens
Structural edge defined by lit pergola with detail lighting to garden elements such as existing large tree, new water feature, amenities facades and textural plantings



Strategies



Key Plan

Lighting



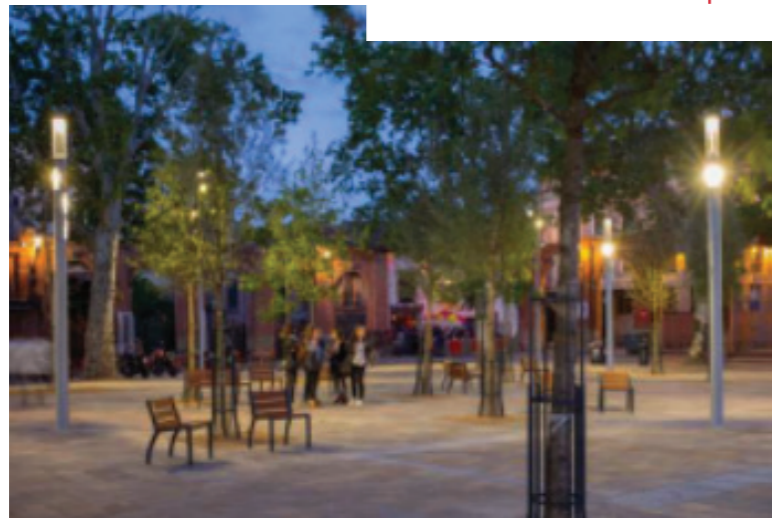
The civic

As you approach city park, the users attention will be drawn to the entrance statement (feature tree, seat and fountain to be retained) marking the historical intersection of Henry and Station streets. These elements are to keep their presence during night time through the use of spotlights which will add depth and interest. Consideration will be given to public art in this location as part of the Cultural Strategy.

Inground lights will be incorporated under the mist fountains thus creating a diffused light effect which will give a unique atmosphere to the site, add to the daytime experience and provide some level of interactivenss with these elements.

In the civic area, JMDd are proposing a customised light pole which would assist in defining its character. The proposed customised pole resulting of the integration of a plane smart pole with a multiple brackets, the final element to resemble a tree-like structure which will populate the civic area, adding to the proposed groove of trees. Pools of light will draw the eye into multiple elements making this a dynamic night space with opportunities for interpretation and activation.

The lighting elements can be activated in a sequence so there is continuous light movement throughout the space. This makes the space one that is dynamic and encourages engagement.



Light poles within grove of trees



Mist fountains



Concept sketches for customised light poles



Light poles within grove of trees

Strategies

Lighting

The Communal

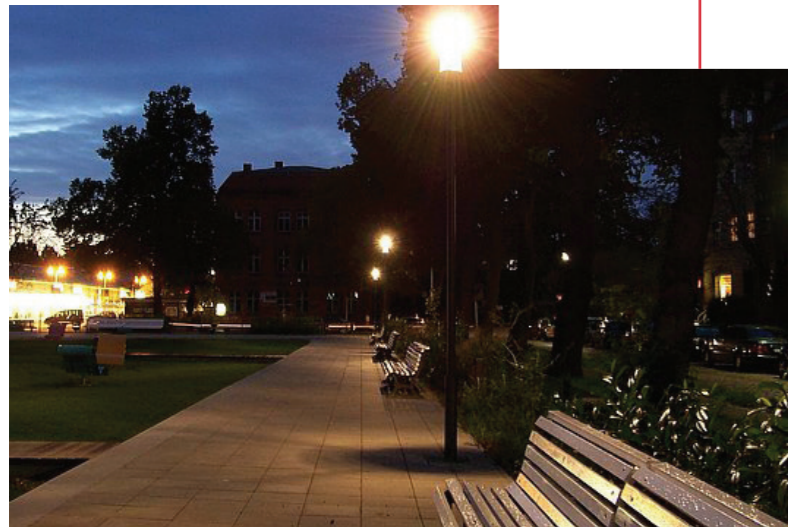


Key Plan



The central lawn will be lit to promote a safe, secure environment, the lighting to be homogeneous and well spread across the space. The light poles shall be smart poles and will be set-out in between the pergola structures so they are not dominant. Dimable features will be considered to flexibility in the case of an event. The same poles to be replicated on the park boundary for height requirements in relation to lighting the surrounding streets.

In addition, a dedicated 3-phase power bollard will be set in proximity to the temporary stage location.



Primary circulation access



Lawn Area



Opportunity for outdoor events with temporary stage

Strategies



Key Plan

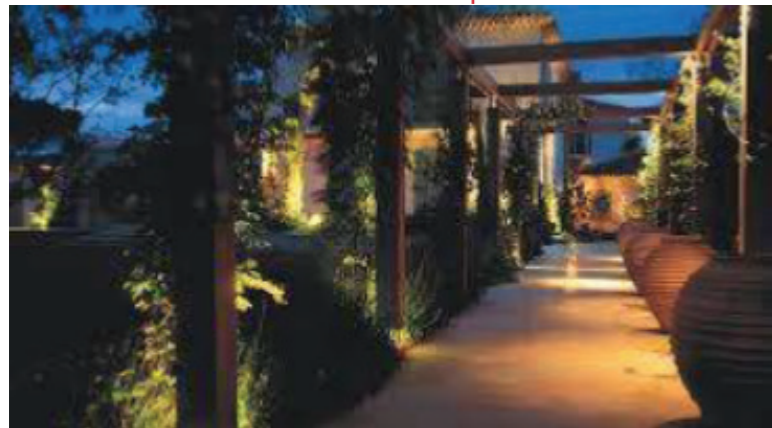
Lighting



The Gardens

On the Southern edge City Park, the design response accommodated a richer and more intimate atmosphere by introducing a number of smaller gardens and a pergola structure which delineates multiple spaces and provides a sense of enclosure, encouraging longer stay and recreation. During the day, the pergolas will be defined by the shadow provided by the pergola and bits of light penetrating the vegetation on its top beams. At night-time, a reversal in this process will occur, resulting in the spatial form to be “built” by the use of a soft, warm downlight withing the pergola.

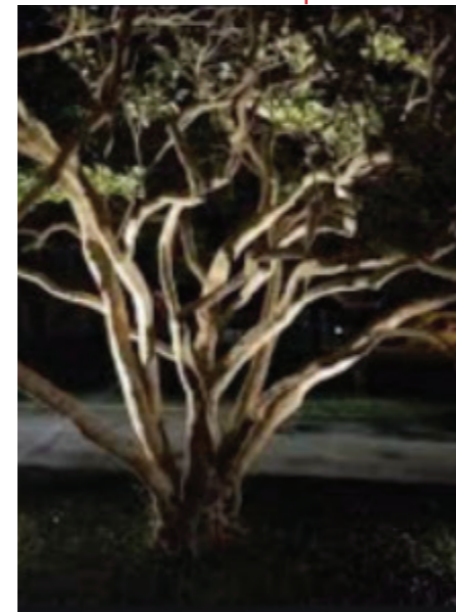
A relaxed atmosphere will provide greater intimacy to these spaces and create focus on feature elements in each of the gardens such as key vegetation elements. The existing tree to be a focal element and its canopy to be lit from ground level, emphasising the umbrella effect of its canopy and exploring the natural form of the tree trunks. Finally, a wall wash effect will celebrate the proposed façade treatment to the amenities building which uses recycled bricks and tiles from the existing buildings to be demolished. This will be used in combination with light spill from openings above 2.1m for a more vibrant effect.



Soft light to pergola structure



Uplights to existing trees



Feature lighting to key horticultural elements



Wall wash light effect to amenities building side facade



Precedent for use of recycled materials in amenities façade

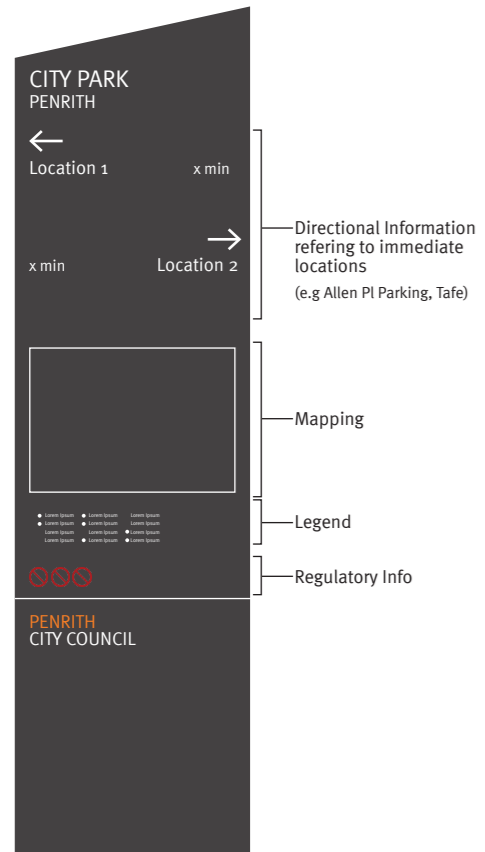


Artists impression of night time activation in City Park. Trees at 15-20 year maturity. Indicative lighting.

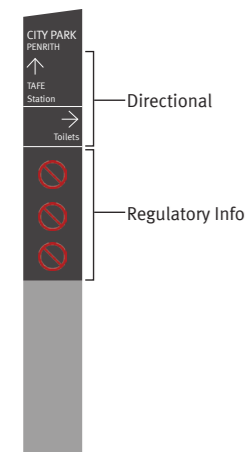
Strategies

Wayfinding and Signage

TD1 Mapped Trail Identification Plinth* (Single sided)



TD4 Trail Board* (Double sided)



*Signage detail as per Penrith City Council Wayfinding Strategy Document. Refer to document for further detail.



Strategies

Stormwater and Water Re-use
Refer civil and stormwater report for further detail

Legend

Existing

Stormwater pipe

Proposed

Stormwater pipe

Drainage pipe from roof capture

Drainage Pipe to water tank

Passive irrigation area

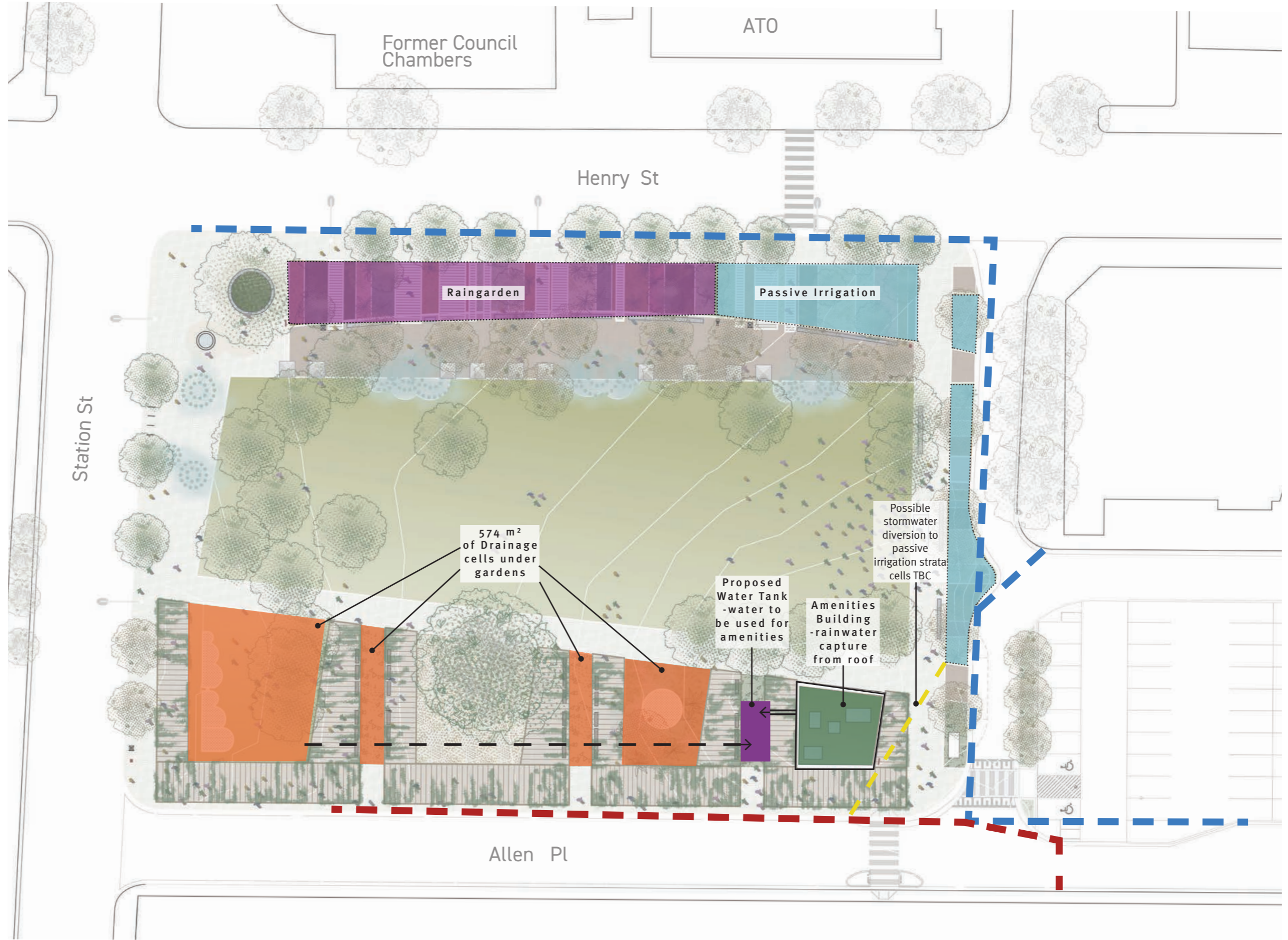
Raingarden

Drainage cell - water captured to be used for amenities building

Water tank - to supply to amenities building

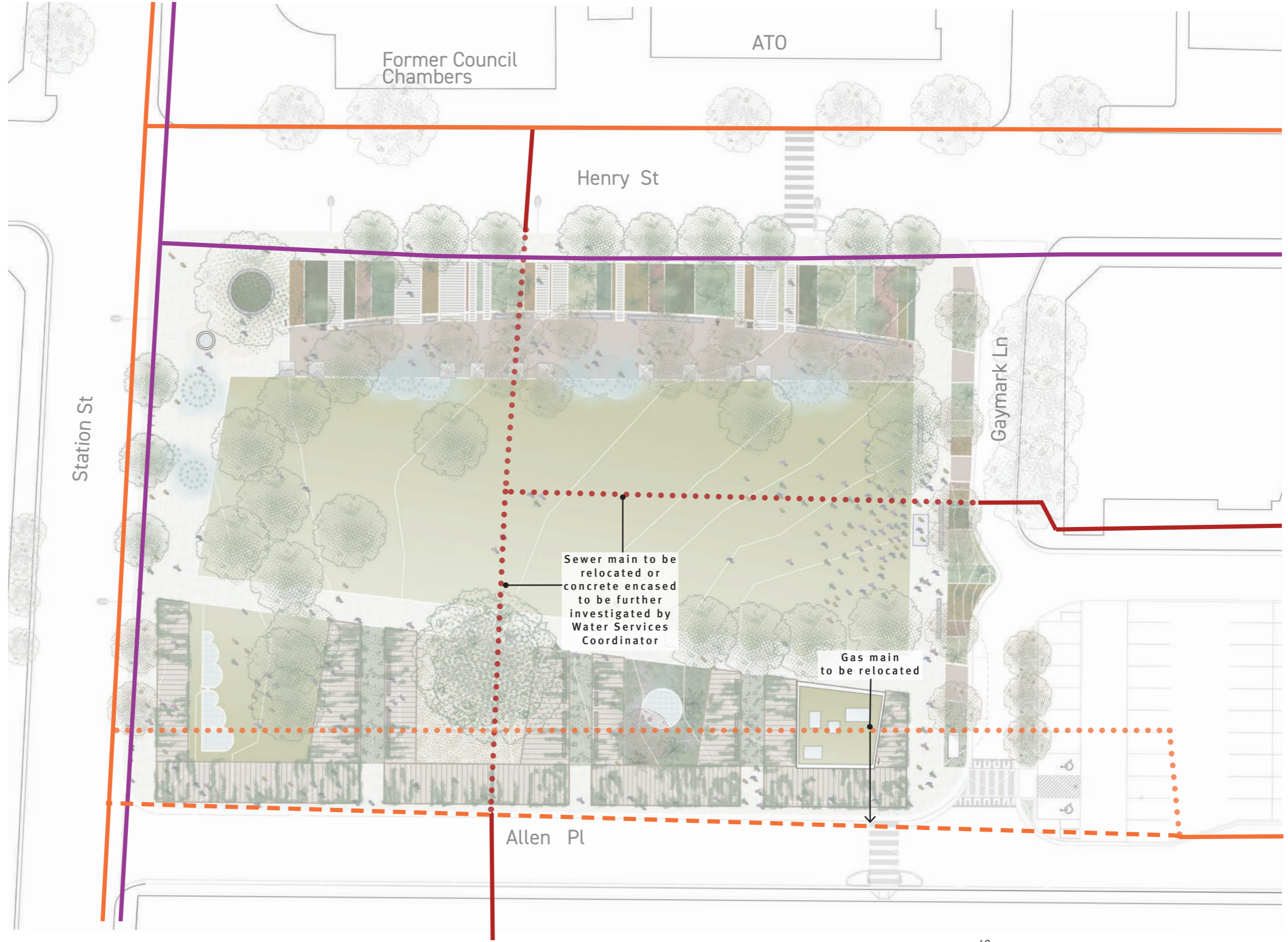
Rainwater capture from roof

Refer civil and stormwater report for further detail.



Strategies

Gas, Water & Sewer



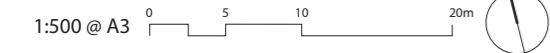
Legend

Existing

- Gas
- Water
- Sewer

Proposed

- Gas
- New sewer line to be confirmed by WSC
- Gas main to be demolished and relocated
- Sewer main to be relocated or concrete encased TBC



Strategies

Furniture

Legend

Furniture - fixed

Fixed seating with arm and backrests

Drinking Fountain

Bin

Bike Rack

Furniture - moveable*

Moveable deck chairs / tables / bean bags / umbrellas

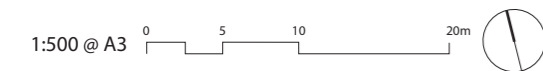
Storage room for maintenance/activation equipment & goods

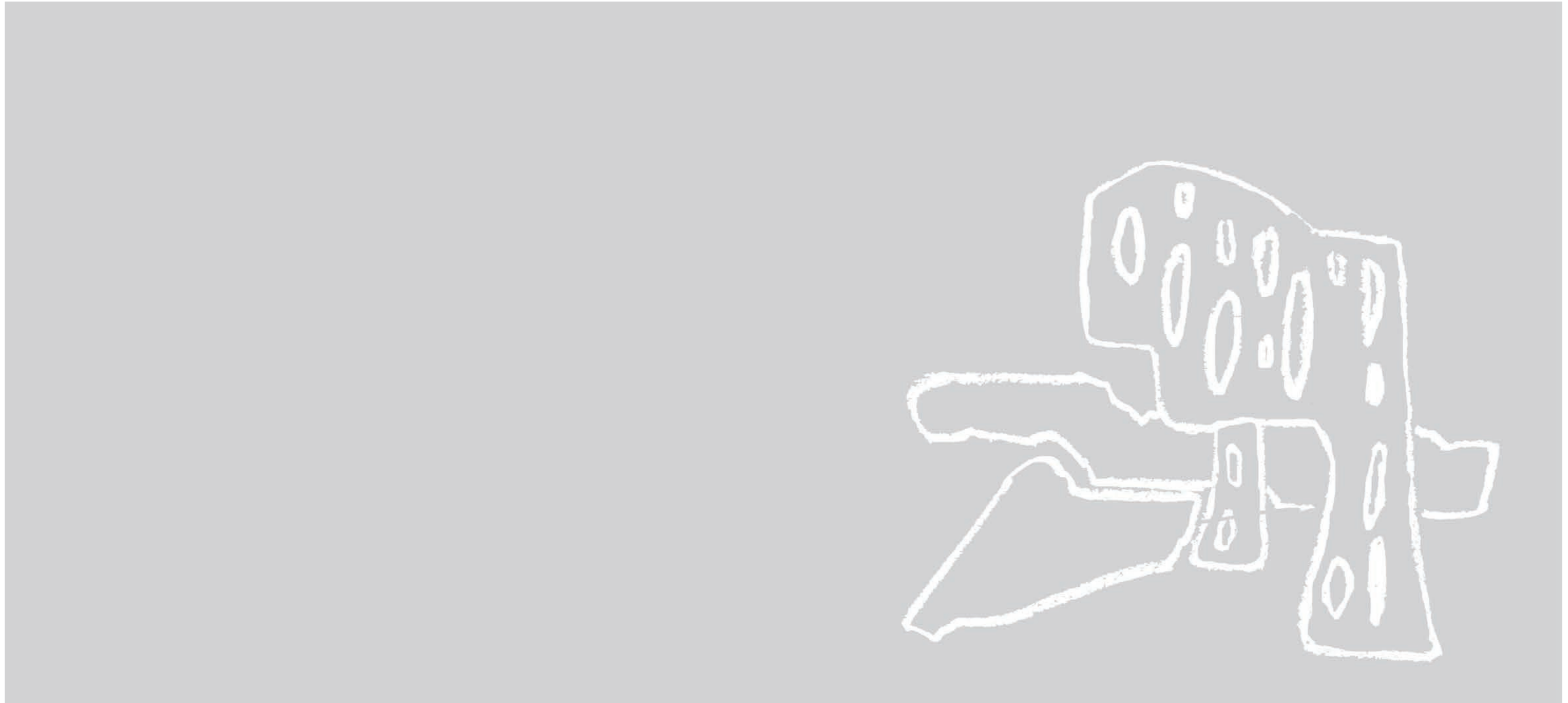
Signage (refer Wayfinding and Signage Strategy)

TD1 PCC signage (mapped trail identification plinth)

TD4 PCC signage (trail board)

*opportunity to be confirmed pending council's activation strategy





Appendixes

Architectural Plans

- Ground Floor Plan
- Amenities Roof Plan
- Amenities Sections

Lighting and Electrical

- Lighting and Electrical Services Concept Report

Heritage

- Aboriginal and Non-Aboriginal heritage assessment