Vision Plan and Implementation Strategy

# DEVELOPMENT AREA 6





Prepared for City of Belmont | Perth Airport Pty Ltd

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# DOCUMENT HISTORY AND STATUS



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The aspiration for the Vision Plan is to create an "Urban Village in a Landscaped Setting".

Envisage a new 'pocket' of urban life at the foothills of the Darling Scarp, walking distances to the Swan River, the Train Station, on the door step of the consolidated Perth Airport which is one of Perth's largest mixed employment hubs. It is a place for all ages, incomes, lifestyles and families with a mix of spaces for relaxation and enjoyment for the entire community, encompassed by a variety of activity opportunities.

# INTRODUCTION

Prepared on behalf of Perth Airport Pty Ltd (PAPL) and the City of Belmont (the City), the purpose of this Vision Plan and Implementation Strategy is to establish a Vision for the future urban regeneration of Development Area 6 (DA6), as defined by the City of Belmont's Local Planning Scheme No.15.

The Vision Plan provides flexibility for the future detailed planning and development of DA6, particularly in terms of potential land uses and activities. At this stage, the Vision Plan is focused on ensuring that the urban structure, built form scale, public realm provision, land use configuration and interfaces are designed to achieve the best outcomes for DA6.

This report contains broad level design guidance, which provides the foundation for the future development of detailed statutory planning documents and associated guidelines by the City.

The Vision Plan provides the inspiration for future development. The Implementation Strategy provides the foundation for staging and delivery.

Additional background information on the project, including a Background Analysis Report, Traffic and Transport Analysis and stakeholder consultation material are available on the City's website.





## STUDY OBJECTIVES

The objective of this study is the preparation of a Vision Plan and Implementation Strategy that explores options for the delivery of a dynamic area that:

- Responds sensitively to interface issues, particularly between residential development on the land under the planning control of the City and future development on land owned by PAPL;
- Delivers an optimal Transit Oriented Development (TOD) outcome surrounding the potential future Airport West Train Station as part of the State Government's Forrestfield Airport Link Project;
- Examines and improves the existing movement network;

- Defines appropriate building envelopes, typologies, form and heights, having specific regard for existing and surrounding development;
- Identifies the amount, locations for and functions of key public spaces and considers the opportunities for integrated drainage management; and
- Is implementable, in the context of staged delivery and public works phases for identified necessary infrastructure improvements.





2013

[Source: Landgate]

## PRECINCT CONTEXT

DA6 is located at the intersection of Great Eastern Highway and Tonkin Highway in Redcliffe and is traversed by Brearley Avenue. These three roads are controlled by Main Roads WA (MRWA). DA6 extends to the existing Domestic Airport terminal and is approximately 174 hectares in size, of which approximately 105 hectares of land is owned by PAPL, with the remainder under the planning control of the City. The Perth Airport is located on Commonwealth land and is governed by federal legislation - the Airports Act 1996. The Act requires that a Master Plan be prepared for the Airport land every five years, to describe the expected developments at the Airport and also to present an indicative plan for the Airport once it is developed to its ultimate capacity. The prevailing Airport Master Plan 2014 was approved by the Deputy Prime Minister and Minister for Infrastructure and Regional Development in January 2015. The plan is a high level blueprint covering a planning period of 20 years.

DA6 is in close proximity to Perth CBD, the Swan River, Garvey Park and the Darling Scarp. Great Eastern Highway and Tonkin Highway provide convenient vehicle access to the area. However these major traffic routes also act as a barrier for vehicle, pedestrian and cycle linkages into the surrounding local areas.

DA6 is influenced by a number of interface issues, particularly in relation to the residential area abutting the existing industrial land uses to the east of the site, and possible future 24/7 land uses at the Perth Airport. With the future Train Station (working title 'Airport West' until formally named) to be located within DA6, there is opportunity to optimise TOD benefits and provide a range of suitable uses surrounding the future station.





Source: Perth Airport Pty Ltd

## **ISSUES AND OPPORTUNITIES**

Examination of DA6 identified a number of issues and opportunities that were considered during the formulation of the Vision Plan. These were tested through the evaluation of scenarios at the Visioning and Design Workshops and through input from the Community Reference Group and feedback from the Community Open Day. A summary of the key issues and opportunities is provided below:

## LAND USE

- A mixed-use scenario is the best option for DA6. The primarily residential character of the existing Redcliffe locality should be preserved, whilst integrating a variety of complimentary non-residential uses in order to create a safe, vibrant and active mixed-use precinct befitting its location and proximity to high-frequency public transportation and employment.
- The accessibility of Great Eastern Highway and PAPL land provide the level of exposure necessary for significant office/commercial development that will satisfy the growing demand for employment opportunities outside the existing Perth CBD.
- Promote compatible land use and building scale interface between the neighbourhood precinct and PAPL land.
- Opportunity for PAPL land to be optimised for aviation services, Business Park and commercial uses, creating an employment destination.
- Promote increased residential densities, particularly in proximity to the future train station, to promote an effective TOD outcome.
- Provide convenience retail and promote active uses, particularly at street level near the station plaza that serves residents and workers, and promotes public domain activation and passive surveillance.
- Provide community focal points particularly within the neighbourhood precinct and public open space.

## **BUILT FORM**

- Wholesale upgrade of the existing aged built form into a contemporary urban precinct.
- Opportunity for increase in height of buildings with potential views to the Swan River and east to the Darling Scarp (height of buildings within the scope of Perth Airport height limitations).
- Opportunity for higher buildings (within the scope of Perth Airport height limitations) adjacent to Great Eastern Highway and in proximity to the Airport West Train Station capitalising on TOD principles.
- Creation of a building scale in the residential neighbourhood that accommodates higher densities without having a negative imposition on the amenity of the area.
- Careful consideration of potential overshadowing issues created by higher buildings onto residential development.
- Careful consideration of built form design to minimise interface issues with residential adjacent to non-residential uses.
- Increased activation at street level to promote vibrancy and passive surveillance.



## **ISSUES**

#### LEGEND

LEGEND		
	DA6 BOUNDARY (174ha)	
3	PERTH AIRPORT BOUNDARY	
	RAILWAY LINE ALIGNMENT	
	EXISTING VEHICULAR MOVEMENT NETWORK	
<u>_20</u>	EXISTING CONTOUR LEVELS	
MOVEMENT		
	Brearley Avenue to close when Gateway opens.	
Ο	Careful management of vehicular movement required through residential area and of Intersections along Great Eastern Highway, especially given the likely changes to Brearley Avenue.	
$\equiv$	Stanton Road overpass only southern vehicular access across Tonkin Highway	
-•	Traffic management issues associated with construction of new station west of Dunreath Avenue.	
	PTA to provide 500 Park and Ride bays close to new station.	
	Bus Interchange to be Integrated with new station.	
	The role and function of Brearley Avenue changes with introduction of Boud Avenue connection to Tonkin Highway.	
BUILT FORM		
	New development should have regard to the predominantly single storey, low density existing commercial and residential.	

LANDUSE Residential development not permitted within Airport land. Interface between land uses, especially residential and Perth Airport Land need to be carefully considered. Noise attenuation considerations for development along Tonkin and Great Eastern Highways (SPP 5.4). Portion of site Impacted by 20-25 ANEF Zone requirements. Portion of site impacted by N65 50-99 Zone requirements. Portion of site Impacted by TAR and VOR Zone requirements. R Current lack of local convenience retail within the Redcliffe area. Introduction of retail uses must be considered with respect to the existing Belmont Town Centre. IC PUBLIC OPEN SPACE Only Public Open Space area capable of accommodating active use co-bocated with Reddilife Pitmary School. Current public open space areas located along Brearley Av disjointed and underutilised due to their size and shape. enue are Existing drainage line bisecting site. Poor pedestrian connectivity and legibility to existing Public Open Space areas within the subject site and wider immediate area.

#### **MOVEMENT**

- Within DA6, improvements to the existing road network and associated pedestrian and cycle networks.
- The decommission of Brearley Avenue presents an opportunity to reconnect the residential streets to provide an improved, appealing, walkable, robust and more connected movement network.
- Great Eastern Highway upgrades by Main Roads WA and the decommissioning of Brearley Avenue will see this intersection removed, thus limiting pedestrian crossing points across Great Eastern Highway.
- Opportunity to improve safety and access arrangements on Great Eastern Highway at intersections with Coolgardie Avenue and Fauntleroy Avenue.
- Opportunity to reduce the frequency of 'rat-run' vehicle trips through the residential area by improving the efficiency of vehicle movements on Great Eastern Highway and ensuring efficient access to the airport.
- Opportunity to reassess and consider alternatives for the improvements to intersection alignment of Coolgardie Avenue, First Street and Redcliffe Road.
- Movement to places and spaces outside DA6 is essential and strong connections are required across Tonkin Highway and Great Eastern Highway.
- Opportunity to integrate improved pedestrian and cycle network to link with surrounding neighbourhoods.
- The possible increased density of development and likely associated vehicle movements creates the need for improved vehicular connections (particularly across the existing Brearley Avenue road reserve) in order to minimise congestion at intersections and improve general legibility (way-finding) through the area.
- The appropriate planning and design of public transport, vehicle, pedestrian and cycle access and circulation within DA6 and to and around the train station is required.
- Creation of a safe street environment by exploring strategic access points to minimise crossovers.

#### **PUBLIC DOMAIN**

- Current open spaces along Brearley Avenue have limited community access and recreation purpose.
- Opportunity for landscaped edge along Great Eastern Highway.
- Opportunity to create 'green' connections within the site and to the immediate surrounds, specifically to the Swan River and existing Redcliffe, Selby and Garvey Parks.
- The existing trees along the Brearley Avenue road reserve create a mature landscape highly valued for the early stages of regeneration projects. The retention of the existing trees should be encouraged.
- Opportunity to provide an interlinked mix of passive and active spaces leading to community facilities, the station and Airport employment and facilities.
- Consider the opportunity for the Redcliffe Primary School playing fields to be utilised for community use.
- The provision of a landscaped 'frame' around the residential neighbourhood to reduce land use conflict between residential and non-residential uses within PAPL land.
- Opportunity for the existing Southern Main Drain to be transformed to a living stream.
- Irrigation water sources for additional areas of public open space to be considered.
- Opportunity for Station Plaza to be utilised as a civic space for the local community and workers.



## **OPPORTUNITIES**

#### LEGEND

	DA6 BOUNDARY (174ha)	
ş	PERTH AIRPORT BOUNDARY	
	RAILWAY LINE ALIGNMENT	
	EXISTING VEHICULAR MOVEMENT NETWORK	
-20-	EXISTING CONTOUR LEVELS	
MOVEMENT		
	Opportunity to promote safe, direct pedestrian and cyclist linkages to Swan River and wider surrounding areas.	
	Provision of railway line and station within DA6 with Integrated bus interchange.	
	Opportunity for vehicular connection to Tonkin Highway through 'extension' of Boud Avenue.	
	Opportunity to reconnect the street network with the change to Brearley Avenue and improve access and amenity.	
	Provide a movement network that optimises direct, safe pedestrian access to and from the train station.	
BUILT FORM		



Increased resident and worker populations to be encouraged within the walkable catchment of the future station, achieved through Transit Oriented Development (TOD).

Opportunity to provide convenience retail within the Precinct for residents and workers.



Possible opportunity for the community to share use of Redcliffe Primary School oval.

Opportunity to improve amerity and increase built form presence along Great Eastern Highway, with views to the Swan River and Darling Scarp. Provide a diversity of housing types.

# VISION PLAN

The inspiration of the Vision Plan is to create an "Urban Village in a Landscaped Setting".

Envisage a new 'pocket' of urban life at the foothills of the Darling Scarp, walking distances to the Swan River, Airport West Train Station and on the door step of the consolidated Perth Airport which is one of Perth's largest mixed employment hubs.

It is a place for all ages, incomes, lifestyles and families with a mix of spaces for relaxation and enjoyment for the entire community, encompassed by a variety of activity opportunities.

# DESIGN PHILOSOPHY

The vision involves the reintroduction of great streetscapes that will reconnect an area which has long been divided and allow DA6 to truly integrate with itself and its surrounds. A regeneration that will allow people to enjoy safe and inviting movement by foot, bicycle, rail, bus and car, through a pedestrian-friendly environment.

DA6 will be a place where public life, public spaces, shops, housing, cafes, services, employment and transportation options come together to create an "Urban Village in a Landscaped Setting".

DA6 can be easily distinguished into two main areas, the Residential Neighbourhood and the Perth Airport land. The two areas have long been a mix of land uses, with the Residential Neighbourhood predominantly residential with mixed use along Great Eastern Highway and the Perth Airport Land, a mix of uses including aviation services, light industry, warehousing, commercial and retail development and parking. The introduction of the Airport West Train Station and decommissioning of Brearley Avenue has provided the main catalysts for the regeneration of DA6. The Vision Plan seeks to build upon the energy and excitement of the introduction of the Airport West Train Station and Brearley Avenue decommissioning whilst capitalising on the natural assets of DA6, specifically the vast number of existing mature trees along Brearley Avenue, as well as DA6's proximity to the Swan River and Perth Airport.

DA6 contains the low-density Redcliffe residential neighbourhood and the low-intensity development of PAPL's domestic terminal environs. Affected by the car-dominated elements of major roads and expansive parking areas, growing within this fairly benign setting lies a great latent appetite and energy for change and intensification across the entire DA6.

The key drivers for change are led by the planned delivery of a train station within DA6, the decommissioning of Brearley Avenue, and the planned relocation of Qantas to the Consolidated Precinct. The redevelopment of DA6 will see it become a new paradigm of urban regeneration for Perth, creating a special place for residents and workers. The Vision Plan design is a communityled outcome that reflects a strong desire for a sustainable, transit-oriented place whilst retaining the inherent community and landscape qualities of the existing neighbourhood.

The design is in keeping with the aspirations held by the City and PAPL for the growth and diversification of high quality living and employment opportunities, blended appropriately across the shared interface.

The residential community gains significantly from the removal of Brearley Avenue, having severed the neighbourhood for more than 50 years.

The retention of existing trees and creation of a living stream within a series of open spaces along its trajectory – a linear POS network (unofficially named 'Brearley Park' by the Council) – will provide attractive amenity for the residents.

Around the open space network will emerge a new form of living and lifestyle for the City, characterised by a growing mix of apartments and townhouses designed to ensure high standards of liveability and neighbourliness. Combining with the pedestrian-oriented, child-safe design of the street environments, these qualities will help to create an enduring ambience for the residential neighbourhood.





## NOTES

- (1)Great Eastern Highway upgrade/Brearley Avenue decommission.
- Business/Residential mixed use development (2)(medium-high intensity) along Great Eastern Highway.
- (3)Brearley Avenue and open space reserves create new parks, recreation paths & cycleways / development sites with optimal tree retention and living stream.
- (4)Redevelopment of residential neighbourhood, with mix of 3, 6, 8 &13 storey buildings.
- (5)Landscaped buffer area framing residential neighbourhood.
- Higher intensity mixed use and residential development (6)close to Station.
- (7)Local residential streets designed as slow-speed, pedestrian-friendly spaces.
- (8) Sensitive landscape, built form, land use transition Perth Airport/residential neighbourhood.
- Connected public realm through Plaza, local retail, (9)commercial development.
- (10)New access to Tonkin Highway.
- (11)Fauntlerov Avenue, Dunreath Drive and Boud Avenue main access points to Perth Airport.
- Central Avenue tree lined boulevard with central median (12)for pedestrians & cycle lane.
- (13) Park and Ride for station (500 bays).
- (14) Living stream creating sustainable drainage.
- (15)Ultimate design of all streets to be determined as development occurs.
- (16)Roundabout on Dunreath Drive modified to signals with pedestrian crossing-phase in ultimate development.
- (17)Airport West Station.
- (18) Coolgardie Avenue intersection with Great Eastern Highway, upgrade.
- (19) Fauntleroy Avenue intersection with Great Eastern Highway, upgrade.

## LEGEND

- DA6 Boundary
- Residential ≤3 storeys

  - Residential ≤6 storeys\*



- Perth Airport Boundary Residential ≤13 storevs\*
  - Community/Civic
- Residential ≤8 storeys\*
- \* Heights will be subject to site-area and building-performance criteria.

## **VISION PLAN PRINCIPLES**

The Vision Plan is based on five main strategic planning principles that specifically guide the development of DA6. These are the major principles which deal with the overall patterns of development, the character of DA6, and the special opportunities of the location. The principles also serve as the design rationale for the Vision Plan.

#### CREATING A HARMONIOUS RESIDENTIAL NEIGHBOURHOOD

Optimise the appeal of DA6 as a great place to live, with a focus for community life, new and improved public spaces, good internal connections and links to its surrounds. Connectivity through the area is essential in creating an integrated community, promoted especially through the decommissioning of Brearley Avenue and reconnecting the existing internal road network.

#### INTEGRATING RESIDENTIAL AND AIRPORT PRECINCTS

Provide an appropriate land use, built form and public domain interface between the Residential Neighbourhood and PAPL land with careful consideration of the relationship to Airport West Train Station and Civic Plaza.

#### **OPTIMISING TRANSIT ORIENTED DEVELOPMENT**

DA6's transport infrastructure should be respected and strengthened through the provision of land uses that both support transit and gain the most benefit from good access to the various transit mode options, specifically the relationship with Airport West Train Station.

#### **COMMITTING TO SUSTAINABILITY**

The redevelopment of DA6 should be undertaken by ensuring environmental sensitivity and resource-efficient built form, affordable lifestyle, diversity of dwelling types, economic viability and efficient use of existing utility services.

#### PROMOTING ECONOMIC DEVELOPMENT

Economic development in DA6 is essential to provide job opportunities for people living in the area to maintain quality of life, and also to build diversity on the existing economic hub surrounding DA6 and particularly the Airport.



Mixed use development promoting street activation and economic development



Residential character creating sense of place and space for community activity

## **CREATING A HARMONIOUS RESIDENTIAL NEIGHBOURHOOD**

The special characteristics of the Residential Neighbourhood should be used as a basis for development. The Vision Plan proposes to foster a sense of belonging and build upon the strong community relationship with the existing urban fabric.

Once decommissioned as a road, Brearley Avenue will provide land for redevelopment and public open space, and will become the heart of the neighbourhood rather than a barrier.

- The existing relationship between the Residential Neighbourhood, the Swan River environs and existing mature trees along Brearley Avenue should be embraced and optimised.
- Careful consideration needs to be given to the vehicular, pedestrian and cycle movements throughout the residential neighbourhood and its surrounds.
- Existing connections should be improved, ensuring all networks are safe, enjoyable and well-connected with vehicular movements evenly-distributed and at slow-speed.
- Public transport infrastructure will be well-integrated with new built form and public domain development.
- Provide a mixture of residential densities that have regard for the amenity of existing residents and enable population growth appropriate to the proximity to an international airport.
- DA6 should be an attractive and an enjoyable place to live and work, with great amenity provided throughout the parks and streets.
- A flexible and dynamic linear park system is preferred along the existing Brearley Avenue alignment that can be utilised for a range of functions.
- This linear park use will range from individual relaxation to use by groups of people.
- Healthy, well located existing trees will be retained where possible within DA6.



Dwellings that line attractively landscaped streetscapes and provide 'eyes on the street'



Height and scale of new dwellings will have an appropriate relationship with existing residences



Diversity of building architecture

## INTEGRATING RESIDENTIAL AND AIRPORT PRECINCTS



Parkland interface along southern residential neighbourhood edge



High quality pedestrian-friendly Business Park streets

The key aim of the design for DA6 is to provide integration between the residential neighbourhood and the appropriate land use, built form and public domain interface with PAPL activities.

- Between the Residential Neighbourhood and the PAPL land, a landscaped zone is proposed providing a natural green buffer between the two.
- Built form along this edge will be designed to create a pleasant experience at the street level, within the Residential Neighbourhood whilst optimising opportunities for non-residential development on the PAPL land.
- Development along this interface will have consideration of, and have the appropriate relationship with adjacent land uses. All taller buildings must accord to the Airport Obstacle Limitation Surface guidelines.



Well-articulated low-rise buildings relating to street edges

## **OPTIMISING TRANSIT ORIENTED DEVELOPMENT**

To optimise the benefits of TOD, increased residential and employment densities are required in conjuction with effcient transport movement and the creation of an appealing urban environment.

The Vision Plan proposes to increase the density within the Residential Neighbourhood allowing everyone from seniors to families with children to live within a walkable distance of excellent transit options.

- Optimisation of residential development is encouraged, specifically through the amalgamation of existing lots to create larger land parcels encouraging and maximising transit patronage.
- The encouragement of the use of alternative/non-car based travel amongst the community should be facilitated Bus services currently operating should be sustained and frequency maintained whilst regeneration of DA6 occurs to ensure the service is meeting demands.
- Existing district bus routes and direct connections to the wider area also need to be managed ensuring good integration and interchange occurs with Airport West Train Station
- Airport West Train Station and Station Plaza are intended to be designed as a 'vibrant' multi-functional, 'community oriented' public space providing local convenience retail opportunities, whilst promoting activation, safety and surveillance 'round the clock'.
- Pedestrian and cycle links should be direct and legible from the wider urban context to the Airport West Train Station and Station Plaza.



Providing efficient transit interchange options



Creating vibrant places around transit nodes



Integrating transit, land use and place-making

## COMMITTING TO SUSTAINABILITY

The regeneration of DA6 will be encouraged to be undertaken with 'best practice' development in regard to environmental and social sustainability outcomes. Sustainability is at the forefront of thinking for both the City and PAPL in their strategic planning and design guidance.

## **ENVIRONMENTAL**

The overall planning and design for DA6 is based upon leading practice and provides the opportunity to retain mature trees, enhance public open space, create opportunities for living streams and reduce urban heat spots.

New buildings will be encouraged to maximise energy conscious design techniques and renewable resources and be subject to ongoing performance targets such as:

- Minimising power use in buildings and in the public realm.
- Minimising water use in buildings.
- Re-using water in buildings.
- Minimising water use for landscaping achieved through the urban design and landscape design.
- Sensitive stormwater drainage management.

Environmentally-sensitive streetscape design

#### SOCIAL

The regeneration of DA6 will provide housing and activities for a wide range of age and income groups. To achieve a robust neighbourhood that has flexibility to accommodate a diverse variety of residents and to achieve the objective of accommodating families with children, planning and designing for the needs of children, youth and seniors should be emphasised. The following should be considered:

- Safety and security needs should be met without sanitizing the environment.
- Spaces and opportunities for community facilities needs should be considered.
- Public settings for socialising should be accommodated within the context of appropriate surveillance from other land uses.
- Accommodation suitable for all age groups and income levels should be provided.
- Maximum public transit use should be encouraged by optimising access to the transit options, specifically the Airport West Train Station and bus feeder network.



Outdoor socialising and nighttime economy opportunities

## PROMOTING ECONOMIC DEVELOPMENT

The economic development principle articulates a shared strategic and local community vision to maintain and enhance economic diversity in the area. The Vision Plan identifies opportunities for mixed use, office, commercial and retail uses associated with the redevelopment of DA6.

The cumulative effect of the residential redevelopment, the development of Airport West Train Station, the roll out of the National Broadband Network and growth of Perth Airport as a diverse employment hub will increase confidence that DA6 is a "place to do business" with realistic opportunities to create individual and community prosperity.

Investment in infrastructure and built form alone however will not deliver sustained economic development unless it is supported by strong community development opportunities for voluntary organisations and business development services. These 'soft' programs will need to be provided by the City and its partners in conjunction with the redevelopment. Encouragement will be given for training, skills development, business support and services for home based business to bring the vision to fruition.

The Vision will:

- Encourage a critical mass of activity to support the viability of new businesses;
- Provide the location and connectivity for a diverse non-residential community;
- Encourage a range of floor space typologies; and
- Require adaptable built form particularly on the ground floors, to enable changes of use over time.



Essential aviation services



Growth in design and creative industries



Technology-based small enterprises

# PLACE EXPERIENCE

## RESIDENTIAL PRECINCT

The Residential Precinct incorporates all of the residential development within the City of Belmont area of DA6, and is the focus for community life in the area. DA6 will comprise a variety of residential densities and housing typologies, the 'Brearley Park' linear network of open spaces, combined with essential community facilities and activities.

The decommissioning of Brearley Avenue will enable the creation of an enhanced original street network, with Coolgardie Avenue, Stanton Road and Central Avenue (south) as the entry points. Vehicles will travel slowly around the neighbourhood, with the movement network designed to work harmoniously with pedestrians and cyclists. The residential precinct will be linked with the surrounding pedestrian and cycle network, connecting to the Swan River, Garvey Park and to adjacent residential areas.

Brearley Park will consist of a number of small, medium, and larger-sized open space areas, each with a different character and purpose. A medium sized park will announce the gateway to the linear greenway. A larger open space area ('Village Green') north of First Street will provide informal active play opportunities amongst retained existing trees and a living stream. A medium-sized open space area south of the Village Green will provide for a mix of passive and active opportunities amongst retained trees and the living stream, and will include public art in strategic locations. This series of linear open space areas will create a network and link between Great Eastern Highway and Station Plaza providing an enjoyable environment for pedestrians and cyclists to travel through Brearley Park. Retention of existing trees will be optimised in the various spaces making up Brearley Park, and the existing drain will be redesigned as a living stream. The Village Green could accommodate a small community facility and be used for special events. Redcliffe Primary School will be retained as an important community asset, with an opportunity to grow if needed and creating a focal point for community and family gatherings.

All residential buildings are encouraged to address the street edge with 'human scale' built form at the interface with the public realm. Buildings adjacent to Brearley Park will be of a sufficient height and density to support activation and passive surveillance.



Residential framing communal parks and gardens



Space for community life to flourish



-eatures for community enjoyment in parkland settings





New housing developments achieve liveable spaces with increased density



Streets designed to emphasise landscape quality and pedestrian amenity

## STATION PLAZA

The Station Plaza will be the central transit hub for DA6 and surrounding areas. The Station Plaza will be the major urban space in DA6, and will be the nexus of transit activity for the locality. The Plaza will accommodate Airport West Train Station and the high frequency bus interchange that connects to the surrounding suburbs. The Station Plaza will provide a safe, vibrant public space surrounding the station, supported by active uses and pedestrian-friendly pathways connecting with the surrounding residential neighbourhood. The key objectives for the development of the Station Plaza include:

- Optimisation of access from the new residential development and the existing residential neighbourhood to this large community space.
- Activation of streets and pedestrian pathways around, and leading to, the Plaza.
- Provision of safe, direct and legible pedestrian and cycle connections with the residential neighbourhood and surrounding commercial precinct.
- Provide an engaging, vibrant public destination for workers and residents, and a setting for local convenience retail activity.
- Minimising traffic impacts on Dunreath Drive by enhancing the boulevard with potential for on-street vehicle parking, abundant street trees, and safe pedestrian crossing opportunities.

The Vision Plan illustrates the station being on the Brearley Avenue underground alignment, and located west of Dunreath Drive within the walkable catchment of the residential neighbourhood.

The Station Plaza will incorporate a bus pick-up/drop-off area and 'Kiss and Ride' parking will be provided alongside, with bus layover bays integrated with the street network near the Plaza. An at-grade 'Park and Ride' parking facility is located within the immediate walkable catchment.

Active uses such as retail, cafes, short-stay accommodation and commercial development are part of the Vision for Station Plaza, providing activation of the public domain outside of business hours. Movement through the Station Plaza should have 24-hour access, promote activation and be familyfriendly and safe.



Buses fitting sensitively into the public domain experience



Activation of the public domain



Vibrancy through densification and place making



#### NOTES

- (1)Major Station Plaza (3,000+ m<sup>2</sup>), designed to: accommodate organised events and informal
  - activity gatherings; • provides direct physical and visual links between the station entrance and the Central Avenue extension (for the Park and Ride area
  - and future Perth Airport estate); accommodate outdoor dining along the
  - building edge, and within the space;
  - retain valued existing trees where possible,
    accommodate kiosks and temporary facilities,
  - provide space for urban children's-play
  - features; · provide a safe place for people to be dropped off at, and picked up from, the station.
- Western gateway designed to:
   accommodate the main confluence of local and regional cyclists with residential-based pedestrians and Kiss and Ride users; accommodate various outdoor dining areas
  - along building edges; · provide space for urban children's-play features;
- STATION PLAZA

- 3 'Joining' space (approx. 15m wide), designed to: form part of the link between the residential
  - park network and the future Perth Airport estate:
  - · provide a safe, direct connection to the station entrance;
  - accommodate north-facing outdoor dining areas along the building edge;

(4)Northern entry plaza, designed to:

- provide ample space for station patrons to arrive at and leave the northern station entrance;
- · accommodate activity from the retail tenancies along the eastern edge;

- (5)Eastern gateway space, designed to:
  - form part of the link between the residential park network and the future Perth Airport estate;
  - provide a landscaped transition between the main plaza and the Perth Airport estate:
  - accommodate shaded seating areas;
  - · provide a safe place for people to be dropped off at, and picked up from, the station.

6 Central Avenue, designed to:

- · provide retail tenancies along the ground-floor edges on both sides;
- provide a high-quality urban landscape experience to add to the ambience of the station precinct;
- · be perceived as a defining place-marker for the station;
- · accommodate pedestrians, cyclists, buses and cars at a reduced pace and with safe crossings.

LEGEND

Perth Airport Boundary

## **AIRPORT PRECINCT**

The Airport Precinct will comprise attractive and safe streets, providing access to key development sites within DA6. Land uses on the PAPL land will be in accordance with the Perth Airport Master Plan, and in the shorter term early development will see the land being utilised for aviation uses, logistics and storage, commercial and retail development with the gradual growth of office development. Longer term uses may include additional Business Park commercial and retail development, hotel, serviced apartments and other appropriate Airport uses.

Fauntleroy Avenue, Dunreath Drive and Boud Avenue will be designed as the main access points to Perth Airport Business Park and the Airport West Train Station.

In the short term, car parking will be at-grade and landscaped but ultimately could be in multi-deck car park structures, integrated with the built form.

The interface between the residential neighbourhood and PAPL land will feature open spaces and streets edged by low-rise development within a parkland setting. Commercial and retail development on the PAPL land will help to create safe and appealing street environs within the walkable catchment of the Airport West Train Station and residential interface.

Air Services, light industry and warehousing uses have been identified as appropriate to be located adjacent to the existing Redcliffe Industrial Area. Large-format retailing and bulky goods uses are considered as potential appropriate uses along Tonkin Highway, with large, undeveloped parcels of land available with convenient vehicle access from the future Boud Avenue interchange and freight access to the Airport.



Perth Airport 'Bravo' office development



Creation of appealing street edges, particularly near Station Plaza



High landscape amenity provided amongst commercial development





Low-rise commercial buildings along attractive streets



Office/Warehouse development in consolidated areas

## **GREAT EASTERN HIGHWAY PRECINCT**

The Great Eastern Highway Precinct will be the key opportunity for mixed-use development, taking advantage of the high exposure of this location and possible Swan River views. Great Eastern Highway is currently an unappealing environment, and a key aim for this area is to provide better conditions for pedestrians, cyclists and businesses, by introducing street trees, improved footpaths, shared paths for cyclists and safe pedestrian crossings at the Tonkin Highway and Coolgardie Avenue intersections. Mid-rise buildings are supported along the highway edge, with landmark taller buildings being proposed as an entry statement to the area, located at the beginning of Brearley Park to emphasise the arrival to the locality.

A key focus for the renewal of Great Eastern Highway is to establish a key commercial front address for DA6, with residential being provided within mixed-use developments. Parking areas will be located to the rear of development and service-laneways (extending from Coolgardie Avenue to Boulder Avenue) will be provided to allow for easy access and egress of vehicular movements to and from the mixed-use sites.

Development along Great Eastern Highway will be positioned within a parkland setting, with buildings setback from the highway and provided with a landscaped frontage, similar to the St John Ambulance building on Great Eastern Highway in Belmont. This will provide an attractive streetscape for the locality and complete the landscaped frame surrounding the residential neighbourhood.



Appealing pedestrian environment example for Great Eastern Highway



Landscaped commercial frontage along Great Eastern Highway in Belmont



Great Eastern Highway as an attractive street for workers and residents



# URBAN DESIGN FRAMEWORK

# LAND USE

An appropriate land use framework for DA6 is required to set the scene for the physical development of the area.

The Vision Plan specifies a mix of uses which can essentially be broken down into a number of "zones" being;

- Mixed use adjacent to Great Eastern Highway and Airport West Train Station;
- Residential Neighbourhood with a range of densities;
- Civic uses including school and community facilities; and
- A mix of uses including aviation services, light industry, warehousing, commercial and retail development and parking within the Airport Precinct.

The overarching policy objective for DA6's land use is to pursue mixed-use development in the area that would achieve a sustainable environment integrating living, working and leisure. Priority should be given to the relationship of ground floor uses and building design with the public domain to ensure that considerations such as space activation, passive surveillance and appropriate combination of uses are optimised



PRECINCT LANDUSE



Mixed Use: Active non-residential ground-floor uses encouraged

d

Community / Civic

## RESIDENTIAL

#### **Key Statistics**

- Dwelling yield: 2,000-3,600 including a mix of residential typologies from townhouse to apartments.
- Population yield: 4,000-6,400 dependent upon the residential mix.
- Great Eastern Highway mixed use land (approx. 2 ha).
- Station Plaza mixed use land (approx. 1 ha).

An approximate ultimate residential dwelling yield of up to 2,000-3,600 dwellings has been estimated for DA6, based on the capability of amalgamated sites and having regard for the built form characteristics outlined further in this section of the report. This could result in DA6 accommodating 4,000-6,400 new residents, which would be a sizeable expansion to the residential base of the area. The redevelopment will be incremental and over a long period of time.

The Vision Plan provides a range of housing options and sizes, suitable for a mixture of family and household compositions, with proposed densities ranging from townhouses to apartments. Lower density development is proposed along Kanowna Avenue adjacent to Redcliffe Primary School to ensure traffic volumes are not increased along this road.

Higher density development is appropriately located in close proximity to areas of public open space, along The Court and near the Station Plaza. Approximately 2 hectares of medium to high density mixed use development is proposed along Great Eastern Highway, developed within a landscaped frontage. Over 1 hectare of medium to high density mixed use development is proposed within the Station Plaza.

The remainder of the area will comprise of medium-density development. All residential development is oriented to interact with the street, by means of frequent entrances and balconies with views to the public realm. Home business 'live-work' opportunities will be encouraged throughout the residential neighbourhood, particularly in close proximity to Station Plaza and along Coolgardie Avenue.



High quality residential developments overlooking open spaces

## **COMMERCIAL**

The mixed-use character of DA6 creates the opportunity for a wide variety of business/commercial uses on the Airport land and along Great Eastern Highway that are compatible with residential development. The specific amount of commercial floorspace will need to be tested with the market at a time closer to delivery.

It is proposed that active commercial uses populate the ground floor of buildings along Great Eastern Highway, with a mix of commercial, office and residential being provided on the upper floors. Large floor-plate offices, such as corporate headquarters, are encouraged for properties fronting Great Eastern Highway. Commercial and office development will be provided on the PAPL land, in accordance with the Perth Airport Master Plan.

Retailing will likely be located in close proximity to the Station Plaza, providing for the convenience needs of the residents and employees from the surrounding area. Convenience and specialty shops, cafes and restaurants will edge the Station Plaza and provide a level of activation and passive surveillance over the Plaza. The specific amount of retail floorspace will need to be refined at a time closer to delivery, having regard for the impact it may have on the viability and continued operation of nearby activity centres, such as Belmont Forum.

Short stay accommodation could to be located adjacent to the Station Plaza, further adding to activation of the area, and to provide a range of high quality public transport options for visitors.

## COMMUNITY

A community facility is proposed to be provided as part of Brearley Park, within the Village Green north of First Street. Containing meeting/activity spaces and perhaps a cafe, this facility will provide a place for the community to gather and is a feature currently lacking in DA6 and strongly desired by the community.

## **LIGHT INDUSTRIAL**

Additional light industrial and warehousing uses have been identified as suitable adjacent to the existing Redcliffe Industrial Area. Flexibility will be provided to cater for different types and sizes of enterprises. The demand for industrial floorspace builds on the argument for the retention of industrial land within and abutting DA6, and is consistent with State Policy. The main access for these uses would be Fauntleroy Avenue and Dunreath Drive.

## **SHOWROOMS**

Any large format showrooms and bulky goods retailing uses are considered best located along Tonkin Highway on PAPL land to benefit from the high commercial exposure to this major highway, and to take advantage of this large, undeveloped parcel of land between Tonkin Highway and Dunreath Drive. The necessary vehicle access to these uses would be provided via the future Boud Avenue interchange on Tonkin Highway.



Community facility and cafe in a parkland setting

## **BUILT FORM - HEIGHT & SCALE**

The building heights and scale proposed under the Vision Plan are designed to create a pleasant experience at the street level whilst optimising opportunities to gain views of the Swan River and Darling Scarp, and promote development fitting of its proximity to the Airport West Train Station.

Building heights and scale have been strategically distributed through DA6 to ensure that overshadowing impacts have been minimised, and all heights are subject to understanding amenity considerations. Higher buildings are located along Great Eastern Highway, and are set forward within the site to reduce impacts on the adjacent residential neighbourhood. Key landmark sites along Great Eastern

Highway at the western gateway of Brearley Park and at the key public open space nodes along the green link have been identified as opportunity for additional height and scale, subject to performance criteria. Other taller buildings are located within close proximity to the Airport West Train Station. All taller buildings must accord to the Airport Obstacle Limitation Surfaces guidelines.

Residential development will be optimised through the creation of larger land parcels, and a mixture of townhouses and apartments throughout DA6 providing opportunity for private open space areas to occur between buildings within building sites.

The residential neighbourhood will comprise predominantly of 4-6 storey residential development, with up to 8-storey development adjacent to the central open space network, promoting views and providing passive surveillance. All residential buildings are encouraged to address the street edge with lower buildings or a podium, with the bulk of the height to be set back so that it does not dominate the streetscape for the pedestrian.

Compatible building heights and scales have been provided along the interface between the residential neighbourhood



Height of buildings will need to account for loading and design limitations where adjacent to the rail station and corridor.

## LOW RISE RESIDENTIAL

The Vision Plan proposes predominantly low rise residential development adjacent to Redcliffe Primary School, along Kanowna Avenue. The residential neighbourhood located in close proximity to Great Eastern Highway, Tonkin Highway, adjacent to parks, and north of Coolgardie Avenue will generally be 4-6 storeys. Development will be a mixture of townhouses and apartments with landscaped frontage and appropriate interface with adjoining residential development and public realm.



Low Rise Residential Development

## **MEDIUM RISE RESIDENTIAL**

Medium rise development in the order of 8-13 storeys are provided in close proximity to Airport West Train Station, generally at the four corners of the Bulong Avenue and Second Street intersection. It is noted, however, that building height will need to take account for loading and design limitations where adjacent to the rail station and corridor.

Buildings will address the streets and parks to create an appealing urban environment, with the levels above 4 storeys required to be set back to minimise the visual impact from the public domain. The predominant style of development will be apartment buildings.



Medium Rise Residential Development



Residential interface with Public Open Space



Mixed Use and Residential interface with Road

Development Area 6 Vision Plan & Implementation Strategy

## **STATION PLAZA**

The Station Plaza will include the Airport West Train Station. It is envisaged that the Station could be a covered architecturally-designed canopy-like structure or designed as part of a building.

Lower levels of the surrounding buildings will have a strong relationship to the plaza promoting activation and surveillance of the plaza outside of business hours. A mix of uses that will activate the Plaza such as retail, cafes, short stay accommodation and commercial development is proposed. Floors above the four storey level shall be set back to minimise the visual impact and shadowing on the Plaza.

Buildings adjacent to the Station Plaza should allow movement through and accommodate 24-hour access, promoting activation and be a family-friendly and safe environment. The Station Plaza will incorporate a bus pick-up/drop-off area and 'kiss and ride' parking alongside, with bus layover bays integrated with the street network near the Plaza.



High quality low to mid-rise building along edges of plaza and abutting streets



Opportunity for pavilion building and kiosks to help activate the space





Possible scenarios for the station building - a pavilion structure or integrated within a building
## **GREAT EASTERN HIGHWAY**

Great Eastern Highway was identified as a suitable location for commercial development, with higher density Residential being provided within mixed-use development along the highway. Opportunities for additional density and height at key landmark sites are proposed subject to performance criteria.

Higher buildings along Great Eastern Highway should be set forward within their specific site minimising overshadowing impacts on adjacent residential land. Lower levels will be encouraged to relate to and activate the street with the levels above 4 storeys required to be set back to minimise the visual impact on the streetscape.



The massing and articulation of larger buildings designed to create an appealing streetscape



High quality architecture encouraged along Great Eastern Highway



Buildings designed to enable a landscaped frontage and minimise impacts on adjacent residential development

# TRANSPORT, MOVEMENT & PARKING

## PUBLIC TRANSPORT

## BUS

The rail line will combine with existing bus services to bring in commuters and labour force, mostly from the north-east. The PTA has advised that bus stops and layover bays are required at the future station. The Vision Plan integrates the required active bus stands and layover bays and includes development of the Station Plaza which is integrated with a neighborhood centre and an urban street fabric.

The Community's Vision is for an integrated transit hub (rail/bus) with high architectural and pedestrian amenity and improved regional connections.

## RAIL

The PTA has identified a preferred alignment for the rail – twin bored tunnels beneath the existing Brearley Avenue alignment – and location for the station within the Brearley Reserve between Second Street and Dunreath Drive.

The Community's Vision is for minimal disruption, respect for existing mature vegetation and minimal residential traffic during and after construction.



Bus stops integrating sensitively within public spaces



Decked carpark edged by offices

## **KISS AND RIDE**

The PTA has advised that a 'kiss and ride' area is required for passenger drop-off for the future station. The Vision Plan recommends that this facility is integrated within the Station Plaza, but that native trees are retained wherever possible. In addition, the vision Plan recommends that the 'kiss and ride' area is integrated within the public realm to minimise conflicts with pedestrians and to optimise the useable public space around.

## **PARK AND RIDE**

The PTA has identified a location and configuration for 500 park and ride bays close the future Airport West Train Station.

The Community's Vision is for an integrated parking structure which is sleeved into the built fabric of the urban structure with high levels of safety, security and pedestrian convenience, however, the current proposal is for an at-grade car parking area. This car parking area should be well landscaped, accessed, signed and managed to minimise impact on the neighbouring residential community.



Existing and proposed public transport plan

## **MOVEMENT NETWORK**

Traffic modelling has been undertaken by the PTA to support the Visioning exercise, the report for which is available from the City of Belmont website. Further detailed studies will be ongoing in order to inform any road network modifications being considered.

Trip generation analysis in the area has been undertaken to get an overall sense of the volume of traffic that could be generated by the Vision Plan at full build out. This data has been compared to existing traffic generation and volumes to understand how traffic patterns and volumes may change over time.

At present, aggregating the existing traffic volumes for key routes serving DA6 equates to approximately 60,000-65,000 vehicles per day (vpd). Brearley Avenue carries more than half of this traffic. Once Brearley Avenue is decommissioned, this traffic is forecast to use new connections to the Airport via Boud Avenue directly from Tonkin Highway and via Fauntleroy Avenue via Dunreath Drive.

The basic analysis suggests that traffic generation for uses on the PAPL land will be lower than today's levels, once Qantas has relocated to the Consolidated Terminal.

A new road hierarchy will need to be confirmed for DA6 during the subsequent structure planning and master planning phases, once forecast traffic volumes can be confirmed. However, the key transport routes, based on the level of connectivity they deliver to the wider network, are indicated on the Key Transport Routes Plan.



Key transport routes

It is recommended that Fauntleroy Avenue be upgraded both in terms of capacity and public realm to reinforce it as the primary connection between Great Eastern Highway and the non-residential land uses on PAPL land. It is additionally recommended that the Coolgardie Avenue intersection with Great Eastern Highway is upgraded as a safe and primary entry point to the residential neighbourhood.

As redevelopment of the Great Eastern Highway properties gradually occurs, service laneways will be created along the rear of the sites to create a continuous link between Coolgardie Avenue and Boulder Avenue. The future Great Eastern Highway upgrade will limit access into DA6 streets as 'left-in' and 'left-out' only intersections. The rear laneways will enable service vehicles to use the Coolgardie Avenue traffic signals to access the mixed-use sites without having to travel through the residential precinct.

Many of the residential streets will be designed and enhanced to become 'slow' movement streets.

## **CYCLE AND PEDESTRIAN LINKS**

The proposed pedestrian and cycle network comprises a mix of infrastructure including on-street cycling in the residential area (where traffic volumes are expected to be low), on road cycle lanes on connecting routes and shared paths. Importantly, as Brearley Avenue will be closed to vehicles, the reserve can be transformed into a centralised recreation spine with a shared path that links with the proposed north-south infrastructure within DA6 and particularly the Airport West Train Station. The proposed network links to existing and planned external connections around the site, including a principal shared path along Tonkin Highway which will be introduced as part of the Gateway WA Vision project.

Feedback from the community consultation indicated a desire from the community for enhanced connections with the Swan River and specifically an aspiration for a footbridge over Great Eastern Highway near Brearley Avenue. At grade crossing currently occurs at the traffic lights at Brearley Avenue; however, due to long vehicle priority cycle times, it takes considerable time to make a crossing. The feasibility of a bridge at this location should be considered in greater detail during the subsequent structure planning and master planning phases of work. An underpass is not recommended in this location due to Crime Prevention Through Environmental Design issues and the presence of a high water table.

Additional cycle and pedestrian links to the Airport Estate may be desirable in the future.



Existing and proposed pedestrian and cycle paths

# LANDSCAPE AND PUBLIC DOMAIN

## STREETS

Trees should dominate the streetscape, providing protection and shelter along all streets.

The paths and public access through DA6 will be improved under the Vision Plan, particularly along the Brearley Avenue alignment once decommissioned, which is currently a physical barrier that divides pedestrian movement. It is also important to retain and accommodate the needs of pedestrians and cyclists, with special consideration to the Swan River and future employment and activity on the Airport Estate. Specific attention should also be given to appropriate street lighting, signage and public realm requirements on these paths.

Large existing mature trees along Brearley Reserve should be respected and retained where possible. These existing mature trees currently provide a strong vibrant green canopy and should be supplemented by further regular street tree planting in existing and new streets to form a consistent theme and relief throughout the area. Trees should be the dominant green landscape providing shade shelter and softening building height and scale.



Street design to encourage child-safe activity and pedestrian-friendly use





Artists impression - view from airport precinct through residential precinct towards Great Eastern Highway

**SPACES** 

## **VILLAGE GREEN**

The Village Green will be a multi functional space providing a focus for community life and gathering. The Village Green will be of a size that can be utilised by the local community for exercise. Within the park existing mature trees will be retained where possible and the site will incorporate drainage features in an integrated and aesthetically appropriate manner.

A Community facility is also proposed within the Park with the prospect for a cafe to be incorporated allowing alfresco opportunities to spill over and integrate with the space. Children will be able to play, skate, cycle, 'kick about' and interact with art and nature while their parents share a coffee with friends in a safe, attractive and family friendly setting.

Furthermore, the Community facility can be converted to markets or a meeting area on weekends, special occasions and/or evenings. Activity spaces could include an amphitheatre or outdoor cinema and opportunities for day and night events.

## **STATION PLAZA**

The Station Plaza will be a multi functional space. The Airport West Train Station will be centrally located within the Plaza, covered by a sculpted shade structure. The Plaza will primarily be a paved area surrounded and lined with trees with a central sunny open interior. The abutting built form and land use shall provide opportunities for public/private and alfresco opportunities to spill over and integrate with the space. Children will be able to play, while their parents share a coffee or dinner with friends in a safe, attractive and family friendly setting.

The Plaza will be an area with a focus for community life and gatherings, with the opportunity for the space to be converted to markets, event space or meeting areas for weekends or social areas in the evenings.

The landscape of the Plaza will be varied with formal and informal elements, including rest places and seating, lighting and signage and play place. Opportunities to vary the 'scene' between day and night, weekday and weekends, and seasons should be explored.



Village Green with retained trees and active spaces for children to play



Planting, seating and feature landscaping in the plaza to encourage people to linger



Creating a comfortable, flexible, appealing plaza

## **LINEAR PARK**

The Linear Park consists of several parcels of public open space (including the Village Green) of various sizes and shapes, located primarily along the existing Brearley Avenue alignment. The network is proposed to extend through the Residential Neighbourhood, from Great Eastern Highway to Dunreath Drive. The key consideration within these networks of open spaces is the retention of existing mature trees where possible, the provision for pedestrian and cycle movement and the integration of a living stream and drainage system.

This green network will be a mixture of tree retention, turf, paving and swales envisaged to be utilised for more passive uses. Each open space will have areas designated as a small breakout space supplying unique intimate environments that are multi functional for use by individuals, groups and families alike. Possible features included within these areas will be public art, play and gym equipment and small pockets of soft and hard landscaping.

The network will be linked with shared cycle/pedestrian paths meandering through the full length of the network, winding around the existing mature trees and connecting seamlessly at key positions to the wider pedestrian and cycle network.

Edge treatments may vary from soft and organic vegetation to structured and architectural hard finishes. The landform will vary to incorporate expanses of flat play space, to elevated viewpoints and lower swales to control the natural drainage networks.



Mix of soft and hard landscaping through open spaces



Shared paths linking the open space network



Linear park connecting open space areas, incorporating retained trees

## SERVICES

### WATER

The Water Corporation has advised that the overall existing major infrastructure for water will be sufficient to support the proposed developments. This means that no upgrade will be required for the 760mm diameter water main on Great Eastern Highway despite the density increase expected for this development. Upgrades will be required for the reticulation size mains (under 300mm in diameter) in order to meet demand. The extent of the required upgrades will need to be discussed with the Water Corporation once specific details of the developments are available. As the Vision Plan shows reassigned lots and possible changes to cadastral boundaries, the existing network of 150mm diameter water mains servicing properties will need to be modified to suit. The design of public open spaces and landscaping will have regard to DA6's allocation of City's irrigation water supply.

## SEWERAGE

DA6 encompasses areas currently serviced by Perth Airport's own internal network. It is envisaged that this network will become a Water Corporation asset. An assessment will need to be made on whether the existing network outside the PAPL land will meet Water Corporation standards. Similarly to the water network, the reassigned lots will mean a modification of the existing sewer network will be required.

The pump station which services the residential dwellings is currently at capacity. It is expected that this pump station will require an upgrade in order to meet demand generated by the increase in dwellings. The Perth Airport pump station on Fauntleroy Avenue will also require an upgrade or potentially the addition of second pump station. Gravity reticulation mains servicing dwellings will need to be upgraded in size based on specific development details. This will require further investigation, working with the Water Corporation.

## GAS

As the existing gas network currently servicing the site is entirely an ATCO Gas asset it is envisioned that the system will meet standards. A major network of medium pressure gas mains exists within the site and is believed to have adequate capacity to supply the new developments.

Approval to modify the network to suit the updated cadastral boundaries will need to be managed with ATCO Gas.



Living Stream creating habitat



Drainage system integrated in landscape

## STORMWATER/DRAINAGE

The developments shown in the Vision Plan will increase the impermeable area within DA6 significantly. Therefore, the drainage systems will need to be resized and provisions made for on-site retention.

The Airport Southern Main Drain currently runs along Brearley Avenue and provides a drainage route for much of the catchment in the area.

The Vision Plan recommends this capacity and any additional capacity required as a result of the development of Airport West Train Station, the DA6 redevelopment and decommission and removal of Brearley Avenue take the form of a 'living stream' in order to optimise the useable public open space and places for play, gathering and events.

The Water Corporation advises that approvals will be required should additional flow need to be discharged into the Swan River. Any modifications to the drainage discharging into the river, including water quality, will need to be approved by the Department of Parks & Wildlife and the Department of Water.

## POWER

Western Power conducts its own feasibility studies for new developments for a fee. Further consultation will be required with Western Power once specific details of the new developments are established.

## COMMUNICATIONS

There are no major communication upgrades envisioned for the site other than the rollout of the high-speed broadband network. DA6 is at least 3 years away from the national rollout of the high-speed broadband network.



Opportunity to sensitively incorporate drainage into open spaces



Sustainable commercial buildings

# IMPLEMENTATION STRATEGY

In order to realise the potential of DA6 and achieve change, the Vision Plan will need to be implemented over time, by a number of stakeholders. Some initiatives, such as the development of medium density housing and mixed use concepts, will have immediate and significant impact on their own whilst other projects, such as the opening of Airport West Train Station, will be catalysts for others with considerable flow-on effects for many generations.

A robust Implementation Strategy based upon the guiding principles of the Vision Plan will lead to housing and employment choice, innovation and sustainability in service delivery and benefits for the local and neighbouring communities.

Delivery of the Vision Plan will rely on the cooperation of a range of stakeholders including Federal and State Government, the City, the private sector and the community. The implementation timeframe will commence in the short-term, but will then roll out with medium and long-term actions.

Some initiatives will be implemented more readily than others. Planning-focused initiatives, such as the preparation of an Improvement Scheme, developing a Structure Plan or Master Plan and amending the City of Belmont Planning Scheme as well as development of transport related strategies, can commence and be delivered in the short-term. Delivery of physical improvements will be more gradual over a longer period of time. Some physical improvements are suited to being trialled to gauge their effectiveness, for example, the medium to high density residential and mixed use development near Great Eastern Highway which may be a model for additional built form near Airport West Train Station. This approach has the benefit of allowing ideas to be tested, being lower in cost and not involving major works or changes. Improvement Plans/Schemes are a potentially powerful instrument that can break down multi-layered zoning and approvals framework and are often used to implement government, infrastructure driven, development initiatives similar to DA6.

The implementation framework groups the Vision Plan initiatives as follows:

- 1. Improvement Plan/Scheme
- 2. City of Belmont Statutory and Policy framework
- 3. Community and Economic Development
- 4. Transport-related projects
- 5. Land Assembly and Physical Improvements to the Public Domain

The Implementation Framework covers the strategic initiatives contained within the Vision Plan, along with an indication of the main agencies and organisations involved in delivery and timeframes.



## GOVERNANCE

A governance structure is proposed with opportunities for greater sharing of responsibility, ongoing community engagement and enhanced private sector leadership which would place DA6 high up on the list of innovative urban renewal projects. Should an Improvement Plan/Improvement Scheme be implemented, this instrument will become a State controlled Scheme; however, collaborative management can be achieved through involvement of the Local Government. The two key pillars of governance recommended are:

## **1. Coordinating Committee**

The Coordinating Committee will be a voluntary or informal administrative group made up of City of Belmont Planning and Economic Development project officers, a representative from PAPL, a representative from each of the Public Transport Authority, Main Roads WA, Water Corp, Department of Planning and the Western Australian Planning Commission. The Committee will meet once a month over the next 12-24 months, with the objective of steering the redevelopment project to optimise the Vision Plan and gain value add from the significant infrastructure projects and land asset developments proposed for DA6. It is also recommended that this group maintain the

community engagement process established through the Vision Plan and engagement with and reporting to, a Community Reference Group, Elected Members of Local Government and the community at large at regular intervals.

## **2. Implementation Partnership**

The Implementation Partnership will require two courses of action:

- The first will require the City to partner with the Department of Planning/Western Australian Planning Commission to agree and facilitate an appropriate statutory planning framework for the project with the State and City planning systems.
- The second action will require a formal partnership between the City and State Government Development Agency (e.g. Landcorp/Metropolitan Redevelopment Authority (MRA)) to facilitate the development of Brearley Park and associated pilot high density and mixed use development projects once Brearley Avenue

is decommissioned as a road and available for development. It is likely that this work would include the upgrade of Brearley Reserve and removal of sections of Brearley Avenue by MRWA, realignment and upgrading of significant utility services and stormwater drainage facilities and the branding and marketing of substantial mixed use, high density development opportunities in Brearley Reserve proximity of Great Eastern Highway and the Airport West Train Station. These catalyst projects would set an example for other similar development opportunities along Brearley Reserve which may attract private sector developers in time. The City has experience of a similar albeit larger development partnership with The Springs project which has been delivered with positive outcomes. The opportunity to engage with the MRA would be facilitated by the Minister for Planning; the opportunity to engage with LandCorp would be facilitated by the Minister for Planning and the Minister for Regional Development; Lands.

## CATALYST PROJECTS AND COMMUNITY BENEFITS

The following key initiatives will have significant short-term benefits as well as being catalysts to stimulate wider change in the City:

- Revitalisation of Great Eastern Highway promoting opportunities for mixed use redevelopment and connections to Swan River and Garvey Park.
- Opening of Airport West Train Station promoting a higher mode shift to public transport, connections to the CBD, the Airport, place activation, attracting more residents and workers into the City.
- Closure of Brearley Avenue and reshaping Brearley Reserve as Brearley Park, a linear park and key recreational asset in the City.
- Gateway WA Project promoting enhanced connections across Tonkin Highway to regional open space and activity nodes and improved access to Perth Airport.
- Potential release of redundant reservations of land no longer required for Tonkin Highway near Second Street as land assets for other community purposes such as expansion of the school site.

## STATUTORY AND POLICY FRAMEWORK

A number of core documents will guide the implementation of the Vision Plan:

## **INTERIM LOCAL PLANNING POLICY (LPP)**

Made under the provisions of the Local Planning Scheme No. 15, the current Local Planning Policy No. 14 Development Area 6 – Vision, sets out the policy objectives and statement for this project. The revised policy will identify the nexus between the Vision Plan and the further planning of DA6 and identify critical requirements for the redevelopment. The purpose of the LPP will be to assist the decision makers until such time as the DA6 Structure Plan is adopted. The LPP would ensure that the Vision Plan is given due regard and acknowledgement and discourage planning decision making contrary to the Vision. In essence the LPP is an interim policy position until such time as an Improvement Scheme or Amendment to Local Planning Scheme No. 15 is in place to guide the development.

## IMPROVEMENT PLAN AND IMPROVEMENT SCHEME

An Improvement Plan and Improvement Scheme are created in accordance with the Planning and Development Act, governed by the Department of Planning/WAPC or delegated by the Department of Planning/WAPC to another responsible authority such as the City of Belmont or Metropolitan Development Authority. The Scheme may be supported by a guiding Masterplan. This may be an alternative to a Structure Plan.

The Plan identifies the extent of the Scheme which, for a period of time, replaces the Local Scheme and enables the State to carry out necessary infrastructure works.

## LOCAL STRUCTURE PLAN FOR DA6 - (LSP)

Local Planning Scheme No. 15 requires that a LSP is prepared for DA6. The LSP would generally follow the Planning and Development (Local Planning Scheme) Regulations 2015. An LSP no longer has the force and effect of the Scheme and is adopted by the Department of Planning/WAPC in the same way as other policies and statements. Ongoing discussion will be required with the Department of Planning to determine the appropriate planning framework for DA6. In the event that the power of the Scheme is required to control and manage certain development activities, the City may benefit from embedding such provisions in the Improvement Planning Scheme.

## AMENDMENT TO LOCAL PLANNING SCHEME NO 15 AND DEVELOPMENT CONTRIBUTION PLAN (DCP)

An amendment may be required to ensure alignment of the Scheme and the LSP. There will also need to be a DCP for DA6 to allow for the equitable sharing of costs of improved infrastructure and Public Open Space as a result of the increased densities identified in the structure plan. The Improvement Scheme will set out provisions for the implementation of development contributions for infrastructure works, utilities and administration of the Improvement Scheme. A Scheme Amendment – of a standard classification – would be required in order to provide force and effect to the DCP to the existing Planning Scheme as an alternate process if an Improvement Scheme is not in place.

## **PERTH AIRPORT MASTER PLAN**

The current Airport Master Plan was prepared in 2015 and described the expected development at the Airport during the next 20 years. The Master Plan outlines the sustainable growth of the Airport to meet West Australia's aviation needs.

# COMMUNITY AND ECONOMIC DEVELOPMENT

The Vision Plan is in line with both the Regional Economic Development Strategy 2010-2015 (REDS) prepared by the Eastern Regional Metropolitan Council and also with the City's Local Planning Scheme No. 15 Supporting Document – Business. The Vision should be supported by the application of the City's key strategies for home occupations, continuance of local employment nodes along Great Eastern Highway and integration of the Airport's aeronautical and non-aeronautical development strategies.

The Vision will benefit from specific marketing to creative industries, knowledge and technology based business and the health and education services sector. The high visibility afforded by Great Eastern Highway, the future ambience of Brearley Park and the access opportunities afforded by Airport West Train Station make this location very desirable. The mixed use location near Airport West Train Station will also be attractive to the technical, architectural and engineering based services as is demonstrated by an emerging cluster Subiaco Station along Roberts Road and Centro Avenue, a similar scenario for the future of DA6. Community development will focus in and around the Airport West Train Station and the proposed Community Centre on the Village Green. The City could establish in this building an enterprise hub for business advisory services, a high-speed broadband network technology base and various course and classes for multi generational groups to service the local community and wider neighbourhoods. Opportunities to include voluntary organisations and not-for-profit organisations in DA6 should be investigated. A Placemaking Strategy is also encouraged to harness interest, energy and innovation from the community, schools and clubs in the area.



Implementation framework

## **TRANSPORT-RELATED PROJECTS**

A key to the implementation of the Vision will be the delivery of major transport related projects. In particular in the short term, improvements to Great Eastern Highway and Tonkin Highway (Gateway WA project) and the closure and decommissioning of Brearley Avenue will allow for improved traffic movement and circulation around DA6 and less 'rat running'. In the medium term, Airport West Train Station will be a catalyst project which will present a major opportunity for public transport use to and from work, the Airport and other activities which may take place within DA6.

The upgrade of Fauntleroy Avenue and Coolgardie Avenue intersections with Great Eastern Highway, connections between Dunreath Drive and Boud Avenue and the closure of Brearley Avenue will allow traffic circulation around DA6, slow, safe internal streets and the opportunity to reconnect the two halves of DA6 with a local movement network. The major transit hub of the station with bus and rail interchange will enliven the location near the station and create more sustainable access to local employment including the Airport.

#### STATION CONSTRUCTION PHASE

#### Development Focus

Development of New Station

#### Development Triggers

- (1) Closure of Brearley Avenue.
- (2) Development Approval for New Station.
- ③ Development Approval for works associated with New Station. Modifications to intersections of Great Eastern Highway with Coolgardie Avenue and Fauntleroy Avenue.

#### Development Outcomes

- (4) Development of Central Avenue from Dunreath Drive to Second Street.
- 5 Commencement of station tunnel, track and platform works.



#### Development Outcomes

- 6 Preparation for new spaces and development sites in station environs.
- Preparation for new cycle and pedestrian and vehicular movement network in station environs.
- (8) Fauntleroy Avenue upgrade between Great Eastern Highway and Redcliffe Road to provide right turn pockets and bus priority to Great Eastern Highway.
- Ocolgardie intersection with Great Eastern Highway upgraded to include right turn.

#### Indicative Timeframes

2016 - 2021

#### LEGEND

DA6 Boundary
 Perth Airport Boundary
 Brearley Avenue closure
 Station and Park and Ride works
 Other works related to the station



#### STATION DELIVERY PHASE

#### Development Focus

#### Opening of New Station

- Development Triggers
  - Activation of Station environs as a public place and transit hub.
  - Government land assets in Station Precinct identified for development.

#### Development Outcomes

- (3) Upgrade of local connecting streets and slow streets including:
  - Second Street / Stanton Road
  - Central Avenue
  - Boulder Avenue, Bulong Avenue, First Street

#### Development Outcomes

- (4) Transit node for trains, buses, taxis and kiss and ride operation.
- 5 Park and ride operational.
- 6 Preliminary development of government land assets in station precinct for mixed uses at medium to high density.

#### Indicative Timeframes

#### 2021 - 2025

#### LEGEND

- DA6 Boundary
- Perth Airport Boundary
- Temporary interim land uses and activity spaces



## **IMPROVEMENTS TO PUBLIC DOMAIN**

The decommissioning of Brearley Avenue and the opportunity to implement a linear park is another catalyst project.

This project could be the focus of a strategic partnership with the State Government/Local Government and State Agencies involved in the rollout of major service upgrades, public realm implementation and development facilitation, such as LandCorp or MRA. It is possible that if sufficient development land can be included, that elements of the upgrade could be carried out in conjunction with residential and mixed use development by the private sector, guided by the City or State.

The diagram opposite highlights the complexity of the existing land title and reserves along the Brearley Avenue alignment. In order to translate this into future roads, parks and development sites it is recommended that all relevant lots are amalgamated and then re-subdivided into discreet parcels for the City (roads and parks) and for development. This process assumes that the Water Corporation reserve is amended as services are realigned and upgraded after Brearley Avenue is decommissioned.

A land assembly strategy for DA6 will emerge as the Structure Plan or Master Plan is developed.





#### BREARLEY RESERVE DEVELOPMENT PHASE

#### Development Focus

Development of Reserve for Public Open Space and Integrated Living Stream.

#### Development Triggers

- 1
- Detailed Drainage and Landscape Concept Living Stream and detention basins Mature vegetation to be retained Active and Passive spaces and facilities Integration of pedestrian and cycle network and modification to principal cycle path through Reserve.
- 2 Realignment of Southern Main Drain.
- 3 Relocation of utility services along Brearley Reserve.

#### Development Outcomes

- Development of Living Stream and Stormwater Drainage Management System. 4
- 5 Creation of new slow street linking Boulder Avenue with Kanowna Avenue.
- Development of new and enhancement of existing public open space. 6
- Preparation of sites for future development with interim and temporary active and passive land  $\overline{7}$ uses.
- Preparation for future extension of Central Avenue north of Second Street. 8

#### Indicative Timeframes

2021 - 2025

#### LEGEND

DA6 Boundary 

- Perth Airport Boundary
- Temporary interim land uses and activity spaces

] Indicative possible future development site boundary

-- Southern Main Drain realignment

## LAND ASSEMBLY AND DEVELOPMENT OPPORTUNITIES



The present subdivision includes medium sized single residential lots. Whilst it may be possible to redevelop these lots, the outcome as battle axe strata lots would not present the best outcome for DA6 and may detract from the Vision. The Vision is to maximise street presence, passive surveillance and significant additional density near in the linear park interface and in close proximity to Airport West Train Station.

To optimise the potential of the residential and mixed use land in DA6 some lot amalgamation will be required. For example, if 3 single lots are amalgamated, multiple dwellings and apartments with street frontage can be provided. It is feasible that the private sector could accommodate this initiative through agreements. The development industry may expedite this process once the Structure Plan or Improvement Scheme is adopted.

The development staging in DA6 will be closely linked to the key statutory planning and major infrastructure projects. The Airport West Train Station will be the key catalyst for redevelopment. The medium term relocation of Qantas to the Consolidated Precinct will be the other significant infrastructure project. This is likely to reduce traffic volumes on all the major access points to DA6. The build out of the Vision is likely to occur at an incremental rate over the next 20-30 years.

Indicative Land Assembly scenario





PRIVATE DEVELOPMENT PHASE

#### Development Focus

Redevelopment of all available and designated land for range of landuses in accordance with the Vision and Improvements Scheme for DA6.

#### Development Triggers

Endorsement of statutory plan and Design Guidelines and a Developer Contribution Plan.

Public works associated with the Station Delivery and Brearley Reserve Development including:

- Enhanced access
- Enhanced public open space and public realm
- Government land releases
- Private land releases

#### Development Outcomes

Medium term development by government and private

- Greater intensity of development and mix of land uses around Transit hub.
- Gradual redevelopment over time with greater intensity of development and mix of land uses along Great Eastern Highway.
- Greater intensity around key community open spaces and facilities.
- Gradual redevelopment over time of private residential land to medium density.

#### Indicative Timeframes

2018 onwards

A further example of land assembly and title rationalisation is shown for the Redcliffe Primary School site. The school may need to expand to accommodate additional students attending as a result of the redevelopment. It may be possible for the school to expand into the underutilised Main Roads WA Reserve as it is unlikely that any further exits from Tonkin Highway will be required once Boud Avenue is open (Gateway Project).

In addition, land under the management of the Housing Authority (WA) (HAWA) is located nearby and could support a range of housing tenures.



## IMPLEMENTATION STRATEGY & ACTION PLAN

	Implementation Strategy and Action Plan									
Def Def Strategy       • Improvement Scheme       . Interim Local Planning Policy       . Improvement Scheme       . CeBDoFWARC/ Engrovement Scheme       Commence Improvement Scheme       . CeBDoFWARC/ Engrovement Scheme       Commence Scheme       . CeBDoFWARC/ Engrovement Scheme       Commence Improvement Scheme       . CeBDoFWARC/ Engrovement Scheme       Commence Scheme       . CeBDoFWARC/ Engrovement Scheme       . CeBDoFWARC/ Engrovement Scheme <th.< th=""><th>Generic Item</th><th>Specific Item</th><th>Timing</th><th>Implementation Mechanism</th><th>Action</th><th>Notes</th></th.<>	Generic Item	Specific Item	Timing	Implementation Mechanism	Action	Notes				
DAS Improvement Scheme Nester Plan StrategyDue Dilgence/studies Local Water Management Strategy Structure Plan, Master Plan Design Guidelines Design Guidelines Structure Plan, Master Plan Design Guidelines Structure Plan, Master Plan Design Guidelines Strategy strategyCoB/DePAVAPC/ strategy CoBCoB/DePAVAPC/ strategy coBCoB/DePAVAPC/ strategy coBCoB/DePAVAPC/ strategy strategy strategy strategy strategy strategyCoB/DePAVAPC/ strategy strategy 	Statutory Planning									
Existing Local Magor Upgrades       • Traffic calming       S, M, L       • CoB Forward Works       CoB       As redevelopment occurs         Upgrade Major Roads       • Brearley Avenue Decommission       • Great Eastern Highway improvements       I, S       • MRWA Forward Works       MRWA       Linked to pedestrian over Great Eastern Highway         New Major Roads       • Boud Avenue, Fauntieroy Avenue, intersection upgrade       I, S       • MRWA Forward Works       MRWA       Coolgaride Avenue, coolgaride Avenue, fauntieroy Avenue, intersection       • Coolgaride Avenue, Fauntieroy Avenue, intersection       • MRWA (Gateway)       MRWA       Complete 2016/2017         New Major Roads       • Boud Avenue, Boud Avenue, Durreath Drive intersection       I, S       • MRWA (Gateway)       MRWA/PAPL/PTA       Complete 2016/2017         New Minor Roads       • Linking roads across Brearley Avenue reserve • Completion of Bulong Avenue and Central Avenue       S, M, L       • Improvement Scheme, DCP DA conditions/agreements • CoB forward works       CoB / Developers (Residential/ mixed use)       As redevelopment occurs         Cycle ways/ Shared paths       • Great Eastern Highway pedestrian /cycle crossings • Brearley Reserve Link       I, S, M       • MRWA • MRWA • CoB       CoB/MRWA       Linked to Great Eastern Highway improvements         Upsice/Costaurdion       Link       I, S, M       • MRWA • CoB       CoB/MRWA       Linked to Great Eastern Highway improvements	Improvement Scheme,	<ul> <li>Due Diligence/studies</li> <li>Local Water Management Strategy</li> <li>Structure Plan, Master Plan</li> <li>Design Guidelines</li> <li>Developer Contributions/ Infrastructure funding strategy</li> <li>Brearley Reserve Land</li> </ul>	I, S	<ul> <li>Improvement Scheme</li> <li>Developer Contribution Plan (DCP) &amp; Schedule</li> <li>Developer Contribution Schedule</li> <li>Land Assembly Strategy</li> <li>Subdivision Management</li> </ul>		Improvement Scheme, Structure Plan, Master				
Road Upgrades       • Traffic calming       S, M, L       • CoB Forward Works       CoB       As redevelopment occurs         Upgrades       • Brearley Avenue Decommission       • Brearley Avenue Decommission       • I, S       • MRWA Forward Works       MRWA       Linked to pedestrian access improvements over Great Eastern Highway         Major Roads       • Boud Avenue Fauntieroy Avenue intersection upgrade       I, S       • MRWA Forward Works       MRWA       Linked to pedestrian access improvements over Great Eastern Highway         New Major Roads       • Boud Avenue • Boud Avenue intersection · Central Avenue, Dunreath Drive intersection · Central Avenue, Dunreath Drive intersection · Central Avenue reserve · Completion of Bulong Avenue and Central Avenue · Completion of Bulong Avenue and Central Avenue · CoB forward works       CoB/ Developers (Residential/ mixed use)       As redevelopment occurs         Cycle ways/ Shared paths       • Great Eastern Highway pedestrian /cycle crossings · Brearley Reserve Link       I, S, M       • MRWA · CoB       CoB/MRWA       Linked to Great Eastern Highway improvements         Cycle ways/ Shared paths       • Great Eastern Highway pedestrian /cycle crossings · Brearley Reserve Link       I, S, M       • MRWA · CoB       CoB/MRWA       Linked to Great Eastern Highway improvements         Train Line/       • Design/Construction       I, S       • Station Development       PTA/DoPMABC       Operational by 2020 <th colspan="10">Roads, Cycleways, Shared Paths</th>	Roads, Cycleways, Shared Paths									
Upgrade Major Roads       Decommission Great Eastern Highway improvements       I, S       MRWA Forward Works       MRWA       Linked to pedestrian access improvements over Great Eastern Highway         New Major Roads       • Boud Avenue intersection upgrade       I, S       • MRWA (Gateway) • PAPL Forward Works       MRWA       Complete 2016/2017         New Major Roads       • Boud Avenue Boud Ave/Durreath Drive intersection • Central Avenue, Durreath Drive intersection       I, S       • MRWA (Gateway) • PAPL Forward Works • Station Development Approval       MRWA/PAPL/PTA       Complete 2016/2017         New Minor Roads       • Linking roads across Brearley Avenue reserve Completion of Bulong Avenue and Central Avenue avenue and Central Avenue       S, M, L       • Improvement Scheme, DCP, DA conditions/agreements • CoB forward works       CoB/ Developers (Residential/ mixed use)       As redevelopment occurs         Cycle ways/ pedestrian (cycle crossings Brearley Reserve Link       I, S, M       • MRWA • CoB       CoB/MRWA       Linked to Great Eastern Highway improvements         Train Line/       • Design/Construction       L S       • Station Development       CoB/MRWA       Design/Construction       Operational by 2020	Road	Traffic calming	S, M, L	CoB Forward Works	СоВ					
New Major Roads       Boud Ave/Dureath Drive intersection       I, S       PAPL Forward Works       MRWA/PAPL/PTA       Complete 2016/2017         New Minor Roads       • Linking roads across Brearley Avenue reserve • Completion of Bulong Avenue and Central Avenue       S, M, L       • Improvement Scheme, DCP, DA conditions/agreements • CoB forward works       CoB/ Developers (Residential/ mixed use)       As redevelopment occurs         Cycle ways/ Shared paths       • Great Eastern Highway pedestrian /cycle crossings • Brearley Reserve Link       I, S, M       • MRWA • CoB       CoB/MRWA       Linked to Great Eastern Highway improvements         Train Line/       • Design/Construction       I. S       • Station Development       PTA/DoPAMAPC       Operational by 2020		<ul> <li>Decommission</li> <li>Great Eastern Highway improvements</li> <li>Coolgardie Avenue, Fauntleroy Avenue</li> </ul>	I, S	MRWA Forward Works	MRWA	access improvements over Great Eastern				
New Minor Roads       Brearley Avenue reserve Completion of Bulong Avenue and Central Avenue       S, M, L       Improvement Scheme, DCP, DA conditions/agreements       (Residential/imixed use)       As redevelopment occurs         Cycle ways/ Shared paths       Great Eastern Highway pedestrian /cycle crossings Brearley Reserve Link       I, S, M       MRWA CoB       CoB/MRWA       Linked to Great Eastern Highway improvements         Train Line/       Design/Construction       L S       Station Development       PTA/DoPM/APC       Operational by 2020		<ul><li>Boud Ave/Dunreath Drive intersection</li><li>Central Avenue, Dunreath</li></ul>	I, S	<ul><li>PAPL Forward Works</li><li>Station Development</li></ul>	MRWA/PAPL/PTA	Complete 2016/2017				
Cycle ways/ Shared paths       pedestrian /cycle crossings Brearley Reserve Link       I, S, M       Initial Column Col		Brearley Avenue reserve	S, M, L	DA conditions/agreements	(Residential/ mixed					
Train Line/	Cycle ways/ Shared paths	pedestrian /cycle crossings	I, S, M		CoB/MRWA	Linked to Great Eastern Highway improvements				
• Design/Construction	Public Transport									
		Design/Construction	I, S		PTA/DoP/WAPC	Operational by 2020				
Bus Routes/ Station interchange       • Design/Construction       I, S       • PTA Business Case       PTA/DoP/WAPC       • Operational by 2020	Station	Design/Construction	I, S	• PTA Business Case	PTA/DoP/WAPC	Operational by 2020				

Implementation Strategy and Action Plan									
Generic Item	Specific Item	Priority/ Timing I,S,M,L	Implementation Mechanism	Action	Notes				
Public Domain and Community Facilities									
Existing POS upgrade/link New POS/ Public Realm	<ul> <li>Local Water Management Strategy</li> <li>Improvement Scheme Structure Plan, Master Plan</li> <li>Design Guidelines</li> <li>Developer Contributions Plan and Schedule</li> <li>Land assembly/ rationalisation</li> </ul>	I, S	<ul><li>CoB Forward Works</li><li>Developer Contributions</li></ul>	CoB/DoP/WAPC/ Lands	As redevelopment occurs				
Community Facilities	<ul> <li>Improvement Scheme,Structure Plan, Master Plan</li> <li>Developer Contributions/ Infrastructure funding strategy</li> </ul>	S, M, L	<ul><li>CoB Forward Works</li><li>EOI for lease/management</li></ul>	СоВ	As redevelopment occurs				
Services									
Utility upgrade:									
Sewer	<ul> <li>Due Diligence/studies</li> <li>Urban Water Management Strategy</li> <li>Draft Local Structure Plan</li> <li>Airport Master Plan</li> </ul>	S, M	State Agency Forward Works	Department of Water/Water Corp	Discuss yields with State Agencies/ service providers				
Water				Department of Water/ Water Corp					
Power				Western Power/ Renewables					
Gas				Alinta/ATCO Gas					
High Speed Broadband				Federal Government					
Drainage				Department of Water/Water Corp					

## Abbreviations:

- I Immediately 1-2 years (2016-2018)
- S Short term 2-5 years (2019-2021)
- M Medium term 5-10 years (2021-2026)
- L Long term 10 years plus (2026 +)
- CoB (City of Belmont)
- PAPL (Perth Airport Pty Ltd)
- MRWA (Main Roads WA)
- PTA (Public Transport Authority)

- Lands (Department of Lands)
- DoP (Department of Planning)
- WAPC (Western Australian Planning Commission)
- LSP (Local Structure Plan)
- DCP (Developer Contribution Plan)
- DA (Development Application)
- EOI (Expression of Interest)

## GAP ANALYSIS AND FURTHER STUDIES

The following additional work is recommended:

- Consult with MRWA, PAPL and relevant operators to identify a revised Restricted Access Vehicle Network.
- Further investigation working with each of the utility service providers once more specific details of the developments within DA6 are established.
- Liaise with PAPL and their consultants regarding local and urban water management strategy for Airport and integration with DA6.
- Liaise with PTA regarding the realignment of the southern Main Drain and the integration into/interface with the City's overall landscape concept for Brearley Park.
- Liaise with MRWA regarding improved pedestrian and cycle crossings at Great Eastern Highway.

It is recommended that the following strategies and plans be undertaken as development progresses:

- Landscape Strategy and detailed Concept Plan.
- Drainage Strategy and detailed drainage design.
- Road Treatment and Parking Strategy for DA6.

## RECOMMENDATIONS

In order to sustain the current momentum achieved through the visioning process, and to build upon the strong foundation of community and stakeholder engagement, the following actions are recommended:

- CoB to prepare Interim Local Planning Policy to support the Vision Plan and provide for development to be in accordance with the Local Structure Plan.
- CoB shall liaise with Department of Planning/WAPC in order to ascertain involvement of state planning agencies (e.g. Department of Planning/WAPC, Metropolitan Redevelopment Authority, Landcorp) in progression of structure planning, masterplanning and implementation, including the appropriate statutory framework.
- CoB (or other State agency) to commence Local Structure Plan (or equivalent) and associated supporting studies as soon as practical. CoB/PAPL to continue negotiations with PTA on the station configuration and development timing.

- 4. CoB to continue negotiations with MRWA to achieve appropriate outcomes from the Great Eastern Highway improvements to support additional intensity of Mixed Use/Commercial properties with frontage on the Highway and to allow improved pedestrian and cycle crossing points, shared access points and pathways.
- 5. CoB to continue engagement with Government Stakeholders including the Department of Planning, Western Australian Planning Commission, Environmental Protection Authority, Department of Transport and Department of Water, Federal Government and service providers WaterCorp, Gas and Power regarding the Vision Plan and potential redevelopment yield to enable forward planning.
- 6. Airport West Train Station should be named by the City and community in recognition that the station is within the Redcliffe neighbourhood.









