Deputy Premier and Minister for State Development,
Infrastructure, Local Government and Planning
BRIEFING NOTE FOR DECISION

Our ref: MBN21/1250
Date: 5 October 2021

SUBJECT Approval to proceed to public notification of the proposed Northshore Hamilton Priority Development Area Development Scheme Amendment No.1.

Note: This brief is considered draft until signed. ☑ Approved ☐ Not approved ☐ Noted ☐ Further information required (see comments)	Signed..... Date 13/10/21 Hon. Steven Miles MP, Deputy Premier and Minister for State Development, Infrastructure, Local Government and Planning Comments:

ACTION REQUIRED BY: Decision required by **11 October 2021** to finalise preparations and commence public notification on **22 October 2021.**

RECOMMENDATION

It is recommended that you:

- **approve** the proposed Northshore Hamilton Priority Development Area (PDA) Development Scheme Amendment No.1 (scheme amendment) (**Attachment 1**) proceeding to public notification, pursuant to sections 59 and 67 of the *Economic Development Act 2012* (the ED Act)
- **note** the structure plan for the scheme amendment accommodates the development scenarios and design options prepared for the Brisbane 2032 Olympic and Paralympics Athletes' Village (Brisbane Athletes' Village) in the PDA
- **note** the scheme amendment will undergo public notification for 30 business days from 22 October 2021 to 3 December 2021, exceeding the minimum timeframe required under the ED Act
- **note** a draft Development Charges and Offset Plan (DCOP) and associated Infrastructure Background Planning Report (IBPR) for the PDA will be consulted concurrently with the scheme amendment
- **note,** as required by the ED Act, drafting of the scheme amendment has considered:
  - the local government planning instrument (*Brisbane City Plan 2014*)
  - assessment benchmarks prescribed by regulation under the *Planning Act 2016* or made under another Act for the *Planning Act 2016*.
- **note** Brisbane City Council (the council), as the relevant local government, has been consulted about the scheme amendment pursuant to section 58(2)(a) of the ED Act
- **note** the relevant state interests have been considered in preparing the scheme amendment and relevant state agencies have been consulted, pursuant to section 58(3)(a) of the ED Act
- **note** minor editorial and format changes may be made concurrent with your approval.

BACKGROUND

s. 73(2) - Not relevant/ Out of scope

s. 73(2) - Not relevant/ Out of scope

- Due to uncertainty from COVID-19, local and state government elections, changes in MEDQ and Brisbane Athletes' Village investigations as a part of the 2032 Olympics candidature, notification did not commence.
- On 28 July 2021 a media release was issued about the Brisbane Athletes' Village in the PDA, in which you advised "the development scheme for Northshore Hamilton PDA is in the final stages of review and will be released for public comment later this year".

KEY ISSUES

s. 73(2) - Not relevant/ Out of scope

2032 Olympic and Paralympic Games – Brisbane Athletes' Village

- On 21 July 2021, Brisbane was named as the host city for the 2032 Olympic and Paralympic Games, and the Northshore Hamilton PDA was identified as the location of the Brisbane Athletes' Village.
- The International Olympic Committee requirement for approximately 40 hectares of land to accommodate the Brisbane Athletes' Village have been reviewed by both EDQ and the 2032 Taskforce.

- Progressing the development scheme amendment to public notification, and the DCOP and IPBR to consultation, allows for work to progress on planning for the delivery of the Brisbane Athletes' Village at Northshore Hamilton.
- EDQ and the 2032 Taskforce have, and will continue to, collaborate to prepare and revise key messages about the Brisbane Athletes' Village in the context of the scheme amendment and DCOP, as information about the 2032 Olympics and the Brisbane Athletes' Village becomes available.

Stakeholder Engagement

- Key messages, engagement activities, and deliverables are detailed in the Stakeholder Engagement Plan (**Attachment 3**).

s. 73(2) - Not relevant/ Out of scope

- In March 2021, EDQ and 2032 Taskforce staff met with council representatives and advised that the structure plan in the scheme amendment does not inhibit or limit the delivery of the Brisbane Athletes' Village.

s. 73(2) - Not relevant/ Out of scope

- The Stakeholder Engagement Plan contains materials drafted to support community and stakeholder engagement activities and includes key messages regarding the scheme amendment, DCOP and the Brisbane Athletes' Village.

s. 73(2) - Not relevant/ Out of scope

HUMAN RIGHTS ACT

- The decision/recommendation is compatible with human rights under the *Human Rights Act 2019* because it limits a human right only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of that Act. Refer to the attached human rights impact assessment (**Attachment 6**).

Author	**Approved by (Dir/Exec Dir)**	**Approved by (DDG/GM)**	**Director-General Endorsement**
Name: Anne Edmonds Position: Planning Manager Unit: Planning and Urban Design, Planning Services Tel/Mob No: 3452 7189 Date: 7 September 2021	Name: Desiree Houston Jones Position: Executive Director, Planning Services Branch: Economic Development Queensland Tel: [redacted] Mob: Sch. 4(4)(6) - Dis Date: 8 September 2021	Name: Debbie McNamara Division: Economic Development Queensland Tel: [redacted] Mob: Sch. 4(4)(6) - Dis Date: 9 September 2021	Name: Damien Walker Signed Date: 9/10/21

Note: This brief is considered draft until signed.

Economic Development Queensland

Northshore Hamilton Priority Development Area

Proposed Development Scheme Amendment no.1

Version for Public Notification

Department of State Development, Infrastructure, Local Government and Planning

NOVEMBER 2021

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Queensland Government

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Economic Development Queensland

13 QGOV (13 74 68)
edq@dsdilgp.qld.gov.au
www.statedevelopment.qld.gov.au
GPO Box 2202, Brisbane, Queensland 4002
1 William Street, Brisbane 4000

1 Contents

1 Introduction

1.1 Economic Development Act

The *Economic Development Act 2012* (the ED Act)[1] establishes the Minister for Economic Development Queensland (MEDQ) as a corporation sole to exercise the functions and powers of the ED Act.

The main purpose of the ED Act[2] is to facilitate economic development, and development for community purposes, in the state. The ED Act[3] seeks to achieve this by establishing the MEDQ and providing for a streamlined planning and development framework for particular parts of the state declared as priority development areas (PDAs).

1.2 Priority Development Area

The Northshore Hamilton PDA (the PDA) was declared by regulation[4] under the former Urban Land Development Authority Act 2007 (ULDA Act) on 27 March 2008. The regulatory map identifying the boundaries of the PDA is identified in Map 1a – PDA Boundary.

On 1 February 2013 the ULDA Act was repealed. Chapter 6 of the ED Act provides for the transition of an Urban Development Area (UDA) to a PDA. For the interpretation of terminology used in the previous Development Scheme, and in past MEDQ decisions on development applications, chapter 6 of the ED Act includes transitional provisions.

The PDA is approximately 304 hectares in area and is bound by the Brisbane River to the south, Kingsford Smith Drive to the north and the Gateway Motorway and Southern Cross Motorway to the east as identified on Map 1b – PDA Location.

1.3 Application of the development scheme

The Northshore Hamilton PDA Development Scheme (the development scheme) is applicable to all development on land and water[5] within the PDA.

The development scheme became effective on 3 July 2009 and was amended on insert gazette date.

[1] See section 8 of the ED Act.

[2] See section 3 of the ED Act.

[3] See section 4 of the ED Act.

1.4 Content of the development scheme

The development scheme consists of:

i. Section 2: Land use plan that regulates development in the PDA,

ii. Section 3: Infrastructure plan that describes infrastructure required to support achievement of the Land use plan and states applicable infrastructure charges, and

iii. Section 4: Implementation strategy that describes actions that complement the Land use plan and Infrastructure plan to achieve the main purpose of the ED Act.

1.5 2032 Olympic and Paralympic Games

In July 2021, Brisbane was named as the host city for the 2032 Olympic and Paralympic Games (the Games). The Games are expected to host more than 16,000 athletes and officials during the Olympic Games and 8,000 during the Paralympic Games in four villages across South East Queensland.

Northshore Hamilton PDA will be the site for the Brisbane Athletes' Village (the Village). At around 40 hectares, this will be the largest of the four villages and anticipated to be home to around two thirds of the athletes and officials during both the Olympic and Paralympic Games.

The Games candidature was founded on a clear intent to accelerate delivery of existing long-term plans for sustainable growth across Queensland, particularly the South East Queensland region. Development of the Village aligns with the long-term development intent for the Northshore Hamilton PDA and will fast-track this significant city shaping project to deliver an indelible legacy for Brisbane.

Locating the Village at Northshore Hamilton provides an incredible opportunity to showcase Brisbane's waterfront to the world. It will also leverage from existing and expanding transport connections, as well as proximity to the Brisbane CBD and proposed competition and non-competition venues, to deliver an optimal Games transport network.

[4] See section 37 of the ED Act.

[5] See section 47A of the *Act Interpretation Act 1954*.

Other anticipated benefits of the Games for Northshore Hamilton include:

- accelerated delivery of development and infrastructure, such as roads, public spaces and new residential and mixed-use buildings,
- earlier delivery of the diverse housing already contemplated for the PDA, such as private, affordable, build to rent, retirement, aged care, hotel and short term accommodation,
- opportunity for some existing buildings to be converted to new uses, such as commercial, community and retail uses,
- economic opportunities for residents and business, and
- clarity and certainty for land owners and developers in the PDA to progress development proposals, noting their lands are not needed to deliver the Village.

As at 2021, the planning, staging, design and delivery of Games infrastructure, including the Village, is in the early stages. A great deal of work is required before the Village boundary, location of permanent and temporary development and the specific layout and design of buildings, open spaces and other features for the Village is known. However, the Village can be accommodated solely on Economic Development Queensland (EDQ) land holdings in the PDA and a large proportion of the 40 hectares needed for the Village will only be used temporarily, enabling redevelopment after the Games.

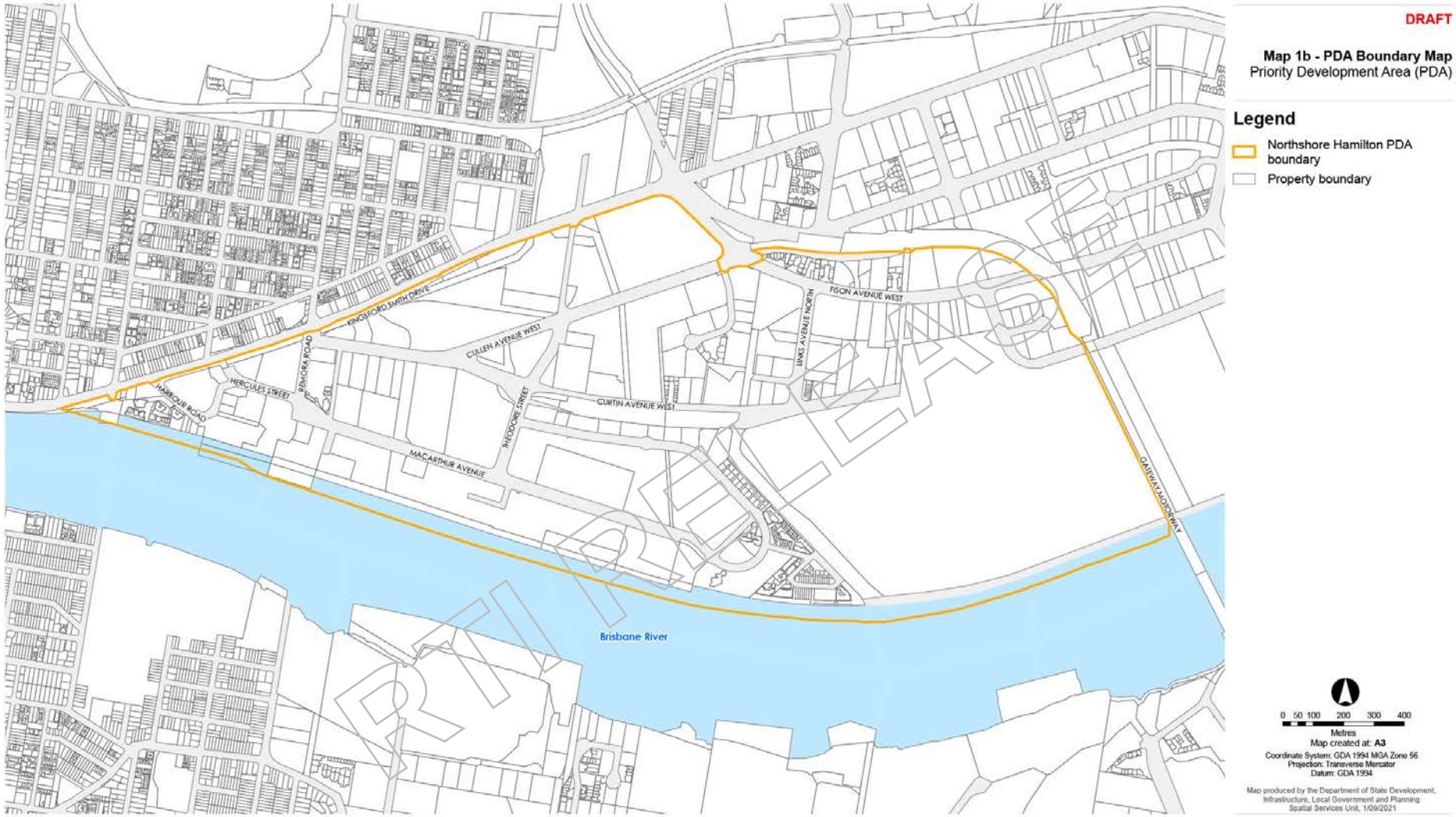
To ensure the Village fits into Brisbane, and not vice versa, the Village will be designed and delivered to align with planning and infrastructure provisions applicable to the land.

Noting the early stages of planning for the Village and the intent to ensure the design and delivery of the Village aligns with the current planning for the Northshore Hamilton PDA, there are no specific provisions in the land use plan that directly relate to the Village beyond the statement in the Vision.

However, importantly, the Implementation strategy identifies the need for development to respond to the opportunities and demands presented by the Village as they emerge, and the importance of EDQ working collaboratively with the agencies and bodies involved in delivering the Village going forward.

Map 1a: PDA Location

Map 1b: PDA Boundary



2 Land use plan

2.1 Components of the Land use plan

The Land use plan establishes a hierarchy of provisions through the:

i. Vision for the PDA, and

ii. the PDA development requirements, which are organised in a hierarchy where:

   a. the structural elements and PDA-wide criteria establish outcomes and measures to achieve the vision, and

   b. the zone provisions establish outcomes, qualitative and quantitative measures, to achieve the structural elements and PDA-wide criteria (refer to table 1).

2.1.1 Vision

The vision identifies the overall outcomes to be achieved in the PDA, that:

i. seek to achieve the purpose of the ED Act for the PDA, and

ii. provide the basis for the PDA development requirements.

2.1.2 PDA development requirements

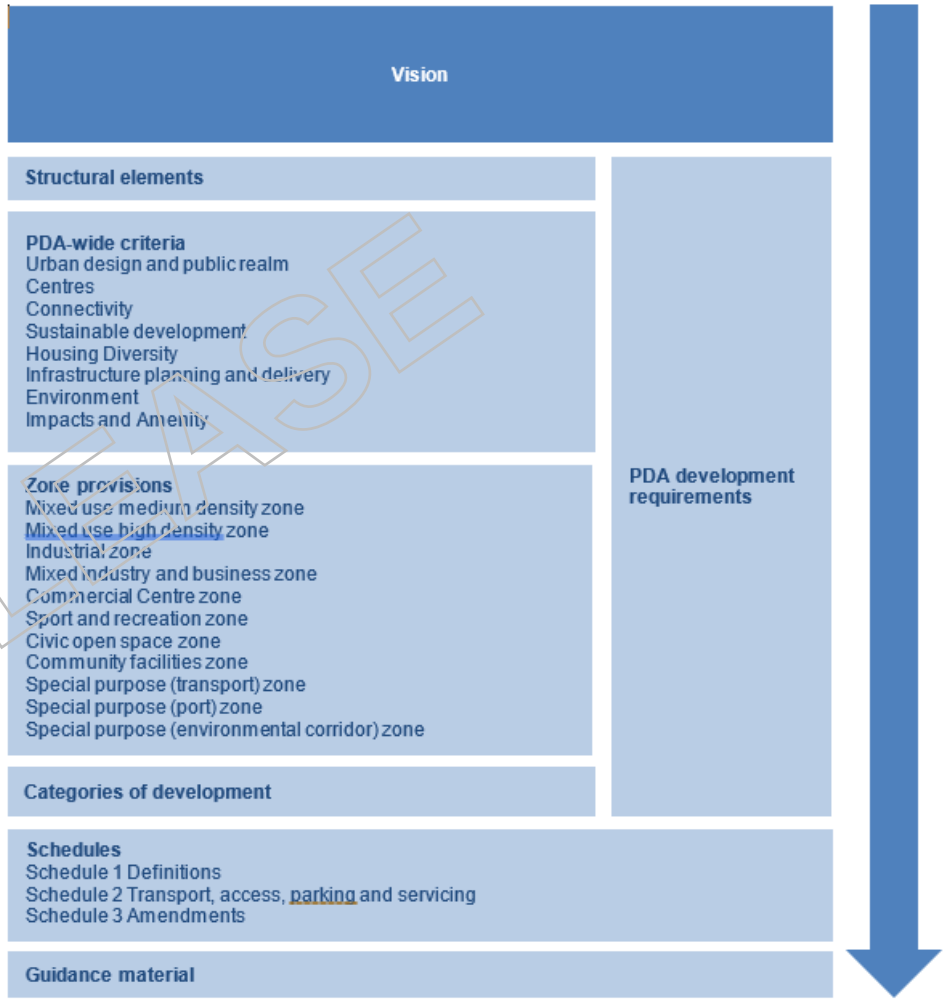
The PDA development requirements apply to all PDA assessable development and include:

i. Section 2.4: structural elements,

ii. Section 2.5: PDA-wide criteria, and

iii. Section 2.6: zone provisions.

Table 1: Land use plan components and relationships



2.1.3 Schedules

Schedule 1: Definitions – provides the use and administrative definitions required to interpret and apply the development scheme.

Schedule 2: Transport, access, parking and servicing – establishes the transport, access, parking and servicing requirements applicable to all development within the PDA.

Schedule 3: Amendments – summarises the amendments that have occurred to the development scheme since it came into effect.

2.1.4 Guidance material

The PDA development scheme is supported by guidance material that assists in interpreting the PDA development requirements. Guidance material includes Economic Development Queensland (EDQ) guidelines[6] and any other documents or guidelines referenced in the development scheme.

Where relevant, an applicant may be requested to demonstrate how the guidance material has been considered in the preparation of a PDA development application.

2.2 Development assessment

2.2.1 Interpretation

The interpretation of terms and definitions will rely on:

i. the ED Act, including section 33 of the ED Act which defines 'development',
ii. Schedule 1 of this development scheme which provides the definitions required to interpret and apply the development scheme with reference to the ED Act and the Brisbane City Council Planning Scheme (Brisbane City Plan), and
iii. the Acts Interpretation Act 1954.

A reference in the development scheme to any act includes any regulation or statutory instrument made under that act, as amended or replaced.

A reference to a specific guideline, document or standard means the latest version of that guideline, document or standard, unless otherwise specified in the development scheme.

2.2.2 Categories of development

All development within the PDA is included within a category of development:

i. Table 2 Column 1 identifies PDA accepted development and refers to:
    a. Table 2.1 identifies PDA accepted development for all zones, and
    b. Table 2.2 identifies PDA accepted development for a material change of use for each zone,
ii. Table 2 Column 2 identifies PDA assessable development[7]:
    a. Column 2A identifies PDA assessable development that is permissible development, and
    b. Column 2B identifies PDA assessable development that is prohibited development.

2.2.3 Development consistent with the Land use plan

PDA assessable development is consistent with the Land use plan if it is consistent with all relevant PDA development requirements[8].

However, development that is inconsistent with any of the relevant PDA development requirements, may be consistent with the Land use plan if the development is consistent with the vision, and:

i. the development is an interim use; or
ii. there are sufficient grounds to justify the approval of the development despite any inconsistency with the relevant PDA development requirements.

[6] Refer to the PDA guidelines and practice notes available on the department's website. Guidelines should be read in conjunction with the Land use plan, Infrastructure plan and Implementation strategy and any other document or guideline called up by the development scheme, as amended or replaced from time to time.

[7] Under section 73 of the ED Act, PDA assessable development cannot be carried out without a PDA development permit.

[8] Refer to the hierarchy of provisions described under section 2.1 of the scheme for further guidance.

In this section 'grounds' means matters of public interest, which include the matters specified as the main purposes of the ED Act as well as:

i. superior design outcomes[9], and

ii. overwhelming community need.

'Grounds' does not include the personal circumstances of an applicant, owner or interested third party.

2.2.4 Development inconsistent with the Land use plan

Development that is inconsistent with the development scheme cannot be granted a PDA development approval[10]. PDA assessable development identified in column 2B of Table 2 as prohibited development is inconsistent with the development scheme.

2.2.5 Land not included in a zone

This section applies to land which is not identified on Map 9 – Zones as being included in a zone (unallocated land), such as a closed road, waterway or reclaimed land.

Where unallocated land:

i. is the result of a road closure identified on Map 4 – Connectivity, the land is zoned as identified on Map 9 – Zones,

ii. is adjoined by land in a zone, the unallocated land is deemed to be included in that zone, and

iii. is adjoined by land included in different zones, the unallocated land is deemed to be included in those zones with the centreline of the unallocated land being the boundary between zones.

2.2.6 Road opening and closure

It is intended that new roads be opened and some existing roads be either partially or fully closed within the PDA in order to deliver coordinated, connected and fit-for-purpose movement network that promotes connectivity and a strong, clear, relationship between public spaces and the private realm[11].

The road network for the PDA, including new roads and road closures, is shown on Map 4 – Connectivity.

2.2.7 Notice of applications

A PDA development application will require public notification if, in the opinion of the MEDQ, the development:

i. may have adverse impacts on the amenity or development potential of adjoining land under separate ownership, or

ii. is for a use, or is of a size or nature, which warrants public notification.

2.2.8 State interests

Relevant matters of state interest have been considered in the preparation of this development scheme. State interests will be considered further as part of the assessment of a PDA development application[12].

[9] Third party advice and technical expertise, such as but not limited to design review panels, may be consulted to provide guidance and assistance to EDQ on the assessment of proposed superior design outcomes. Refer to section 4.2.2(ii) in the Implementation strategy.

[10] See section 86 of the ED Act.

[11] See section 124 and 125 of the ED Act to reference the powers and functions of the MEDQ to temporarily or permanently close roads.

[12] Section 87 of the ED Act states that any relevant state interest must be considered in deciding a development application. For the purposes of addressing state interests in development assessment, the State Planning Policy (SPP) and State Development Assessment Provisions (SDAP), provide guidance in identifying if a state interest is relevant to the assessment of a PDA development application. For further advice on the consideration of state interests refer to the EDQ Practice note 14: State interests in development assessment in priority development areas, available on the department's website. Note: SPP July 2017 and SDAP Version 2.6 were referenced in the preparation of this development scheme.

2.2.9 Relationship with other legislation

In addition to assessment against the development scheme, development may require assessment against other State and Commonwealth legislation including, but not limited to, the *Airports Act 1996, Building Act 1975*, *City of Brisbane Act 2010*[13]*, Environmental Protection Act 1994, Nature Conservation Act 1992, Planning Act 2016* and the *Plumbing and Drainage Act 2002*[14].

The inclusion of land in a PDA, or identification of development as PDA-associated development, does not alter the obligation for development to meet all relevant provisions and requirements under the *Planning Act 2016*. In addition to a PDA development approval, a development approval under the *Planning Act 2016* may be required for certain development made assessable by the *Planning Regulation 2017*.

The *Planning Regulation 2017* also prohibits certain development. The carrying out of development prohibited by the *Planning Regulation 2017* is an offence under the *Planning Act 2016,* irrespective of the category of development identified in a PDA development scheme.

2.2.10 Local laws and by-laws

Local laws made under the *City of Brisbane Act 2010* apply in the PDA to the extent they are not replaced by a by-law made under the ED Act[15].

2.2.11 Relationship with local government planning scheme

Schedule 6 of the *Planning Regulation 2017* prohibits Brisbane City Plan from making PDA-related development assessable under the *Planning Act 2016*.

Schedule 1: Definitions adopt the Use definitions (including Defined activity groups and Industry thresholds) as well as the Administrative terms and definitions from Brisbane City Plan, unless otherwise specified in Schedule 1. This development scheme also references various parts of the Brisbane City Plan within the development requirements and as guidance material.

If there is a conflict between the development scheme and a planning instrument or assessment benchmarks prescribed by regulation under another Act, the development scheme prevails to the extent of any inconsistency[16].

2.2.12 Interim use

An interim use is a land use that, because of its nature, scale, form or intensity, is not an appropriate long-term use of the land, but may be appropriate for a short or medium-term period as the PDA develops. A PDA development application for an interim use must demonstrate that the use will not prejudice or delay:

i. a long-term use, or uses, identified as permissible development in section 2.8: categories of development

ii. the envisaged nature or intensity of development, or

iii. infrastructure delivery, including timing.

Relevant PDA development requirements also apply to all interim uses that are assessable development. The MEDQ may impose PDA development conditions limiting the operation, management or duration of an interim use, or the provision of infrastructure for an interim use.

Information to support a PDA development application for an interim use may include:

i. a suitability assessment,

ii. a infrastructure demand assessment, and

iii. plans showing how the development could transition from the proposed interim use to an appropriate longer-term use.

[13] See section 53 of the ED Act.

[14] For further advice on what other Queensland legislation may apply refer to Appendices 1 and 2 of the EDQ Practice note 14: State interests in development assessment in priority development areas, available on the department's website.

[15] See section 54 of the ED Act. For example, the Brisbane City Council Natural Assets Local Law 2003 does not apply in the PDA. Instead the Economic Development (Vegetation Management) By-law 2013 applies.

[16] See section 71 of the ED Act.

2.3 Vision

2.3.1 The opportunity

Northshore Hamilton is one of Brisbane's most significant waterfront development opportunities with remarkable locational advantages, including direct access to almost 4km of Brisbane River foreshore and outstanding views of Brisbane's central business district. The PDA presents a city shaping opportunity to deliver a master planned district that is:

i. Brisbane's most sustainable, climate responsive and desirable living address,

ii. a unique, renowned recreation and tourism destination, and

iii. a major driver of economic, innovation, enterprise and employment activity.

The PDA is a vibrant area, co-locating a diverse range of urban activities and uses which are strategically positioned to capitalise on the characteristics of the area and ensure the community has access to a range of housing, enterprise, employment, retailing, recreation and service offerings.

2.3.2 Land use

2.3.2.1 Open space, sport and recreation

A **series of connected, high quality civic open spaces** focussed predominantly along the Brisbane River provide public access to the riverfront. Civic open spaces:

i. are designed to promote river access and establish the PDA as a world class lifestyle, recreation and events destination,

ii. provide for formal and informal recreation, encouraging healthy active lifestyles, and

iii. are supported with appropriately scaled retail, cultural uses and events enabling the PDA to evolve its character and attractions.

The **Royal Queensland Golf Club** operates as a regionally significant sport and recreation facility and provides sporting opportunities, visual amenity and biodiversity outcomes for the PDA.

2.3.2.2 Mixed use areas

A combination of medium and high density mixed use areas will support a range of employment and housing opportunities in an integrated urban context, featuring both medium and high rise development. Mixed use areas offer highly urbanised living and working opportunities and amenity outcomes that are consistent with this context.

Mixed use medium density areas provide for a range of mid-rise building forms as well as a diversity of development scale and density with a direct relationship with adjoining active and attractive streetscapes. These mid-rise mixed-use areas support residential, commercial and convenience retail uses and are sympathetic to the interface with nearby non-residential areas.

The greatest intensity of development is located in the **mixed use high density areas** along Macarthur Avenue, which capitalise on new civic open spaces that frame the Brisbane River and the location of activity centres, particularly the main activity centre. These areas of higher density provide a mix of residential, retail, entertainment, cultural, commercial and employment uses which support urban living, energise the local economy and activate the area day and night.

Centres

Three distinct centres provide the focus of activity in the PDA, each with their own distinct purpose, scale and focus.

The **main activity centre** is located centrally within the PDA, forms the heart of the mixed use area adjoining Macarthur Avenue and is the primary node of activity in the PDA. This location offers the highest level of accessibility for residents, workers, and visitors. Prominent levels of visual amenity and leisure based activity are provided in conjunction with the adjacent civic urban open space and Brisbane River foreshore. This main activity centre:

i. provides a diversity of retail, cultural, commercial, community and entertainment uses, with the opportunity for residential uses, in a high density, mixed use setting,

ii. addresses and activates streets and civic open spaces,

iii. ensures ground level activation to streets, pedestrian pathways and cross block links,

iv. delivers strong connections, through the public and private realm, from the river foreshore and civic open space area to surrounding areas in the PDA, particularly the education and community facilities to the north,

v. features high quality landscape design and built form, and

vi. is supported with access to pedestrian, cyclist, public transport and car-parking facilities.

The **western activity centre** is located at the existing Portside Wharf precinct and is the secondary node of activity in the PDA. This western activity centre will continue to offer a range of retail, commercial and entertainment opportunities focussed on an activated central spine, providing a strong connection from Hercules Park through to the Brisbane River front.

The **eastern activity centre** is located at the corner of Macarthur Avenue and Angora Road opposite Northshore Riverside Park and is the tertiary node of activity in the PDA. This small scale node provides convenience based retail along with food and drink opportunities, activating nearby open space edges and movement corridors. Opportunity for small scale, tourism related commercial uses compatible with the surrounding area also exist.

Social infrastructure

Social infrastructure in the form of a **community facilities hub** is located centrally within the PDA. The hub contains urban education and community uses with co-located and integrated facilities and provides a range of academic, education, sport, recreation and learning spaces and opportunities. This includes high levels of coordinated and shared access for community use.

2.3.2.3. Enterprise

An **enterprise area** is located between Kingsford Smith Drive and Cullen Avenue West and capitalises on the high exposure and connectivity provided by this location. This area attracts investment and generates new clean, high technology and research-based services and employment, maximising opportunities for innovation. A range of enterprise and employment opportunities are also accommodated, including commercial and large format retail uses.

Redevelopment of the enterprise area recognises and carefully manages the ongoing transition of the area and its surrounds having regard to development constraints. Redevelopment of this area ensures the safety and amenity of new residents, workers and visitors with consideration for emissions and hazardous activities.

2.3.2.4 Industry

An established and strategically significant **industrial area** is located between Southern Cross Way and Curtin Avenue West. This area accommodates a variety of industrial and commercial uses ranging in scale from local service industries through to global corporate organisations.

This strategic industrial land capitalises on the PDA's access to the national highway network and Kingsford Smith Drive as well as the domestic and international markets accessible via its location in the Australia Trade Coast and proximity to Brisbane Airport and the Port of Brisbane.

Over time, existing intensive industrial land uses will transition away from heavy and high impact industry to clean, low impact industry. New heavy or high impact industry is not envisaged in the PDA and expansion or redevelopment of existing industries of this nature will be strictly controlled. Existing, lawful, industrial land uses are protected from encroachment through the industrial interface area. New non-industrial land uses in and adjoining industrial areas will need to demonstrate their ability to function safely and effectively without compromising existing industrial uses.

2.3.2.6 Industrial interface

The **mixed industry and business area** accommodate a mix of knowledge, technology and research-based enterprises, large scale commercial and corporate operations and complementary retail services. Built form presents as commercial appearance, activating street interfaces and addressing the adjoining vegetated drainage corridor.

This **industrial interface** establishes a buffer from the encroachment of non-industrial uses, especially sensitive uses, into the nearby industrial area. This area provides a transition in land uses and built form between established industrial development and emerging mixed-use areas. The scale, nature and activity level of land uses complement existing developments in the area and do not adversely impact or impede the delivery of mixed use, residential, commercial, retail or community uses in non-industrial areas to the south and west.

2.3.3 Transport and connectivity

The PDA is integrated with citywide transport networks and is well connected, accessible and permeable to a full range of pedestrian, cyclist, public transport and private vehicle movement.

Active transport

A network of **active transport** links including pathways through civic open spaces, cross block links, road reserves and designated on street cycle lanes support the movement of people throughout the PDA. This connectivity ensures that people who live and work in the PDA can incorporate physical activity and active commuting options into their daily lives.

Pedestrian and cyclist connectivity is provided in a predominantly grid structure complementary to the street network, as well as in the civic open spaces adjoining the Brisbane river. This network ensures movement in and around the PDA is direct and efficient. Opportunities for foreshore pedestrian and cycle connections to land east of the PDA are maintained and protected.

Streetscaping along key pedestrian and cycling linkages:

i. contributes to the visual appeal of the public realm,

ii. reduces the urban heat island effect,

iii. contributes to the safety of pedestrians and cyclists, and

iv. reinforces connections between key destinations in the PDA including activity centres, community facilities, employment clusters and the civic open spaces along the river.

Public transport

Public transport in the PDA is **highly accessible** and offers regular bus and ferry services. Public transport stops and their access points are well defined, activated spaces that are clearly identifiable. Macarthur Avenue, Theodore Street and Brett Street provide the main **bus transport** routes within the PDA. The existing Bretts Wharf and Northshore Hamilton **ferry terminals** are maintained. Potential for a new ferry terminal in the vicinity of the urban civic space and nearby main activity centre is preserved to allow for enhanced connectivity to the PDA long term.

Street network

Roads, including new road connections, are designed to cater for anticipated **vehicle, cyclist and pedestrian movements**, as well as **streetscaping and car parking** requirements. Intersections are designed to facilitate safe movement of pedestrians, cyclists and vehicles, providing multiple connections to Kingsford Smith Drive. Accessibility to the adjoining Gateway Motorway is maintained. Streets are designed to be **places for people**, while maintaining essential vehicle movement functions.

Brisbane Cruise Terminal

The existing Brisbane Cruise Terminal at Portside Wharf operates as **tourism infrastructure** of State significance and establishes the PDA as a key gateway entrance point for domestic and international visitors to Brisbane. Access to passenger movement and associated servicing of the terminal are well defined and operate safely.

The potential for this facility to evolve and adapt to provide for alternative modes of water based transport for both tourism and recreation purposes is recognised.

2.3.4 Urban design, public realm and sustainability

The relationship between public spaces, streets and buildings in the PDA creates an urban environment that is human-scaled, attractive, safe and activated.

Public realm

Open spaces, streetscapes and other public realm areas cater for **universal access** and deliver high quality **sub-tropical landscaping and features** that create an urbanised sense of place. These public spaces provide safe and secure access throughout the PDA and connect individual developments to each other.

An exemplar **civic open space network** focussed along the Brisbane River is the foundation of the PDA's identity and is designed to function as a unique public destination. The **interface** between this civic open space and surrounding development is designed to mix indoor and outdoor spaces and the associated public and private realms, delivering subtropical place making.

Built form

Buildings and their surrounds address street frontages and public spaces, creating **activated and integrated interfaces** supported by human movement and casual surveillance.

Buildings within the PDA are designed and developed in consideration of the principles of **sub-tropical urban design** to ensure that neighbouring properties, open spaces and the public realm receive optimal levels of solar access and air circulation.

Development provides **high quality living and working environments**. Buildings, especially dwellings and their associated private open spaces, are designed to achieve best practice outcomes for natural light, thermal comfort, privacy, amenity and cross ventilation.

Communal open spaces meet the needs of residents and occupants by complimenting the range of spaces and activities provided in the civic open space network.

Sustainability

Buildings within the PDA achieve a high standard of **environmental performance and responsiveness**. Developments deliver high levels of **sustainability** and help achieve low to zero carbon emission outcomes at both a site and PDA level.

Integration of **vegetation in built form**, such as green walls, roofs and open space areas is envisaged to reduce the urban heat island effect, improve occupant amenity and enhance built form appearance. **Significant vegetation** is retained and maintained to support habitat and water quality values.

Occupant **amenity** is maximised and development is located, oriented and designed to reduce and manage impacts associated with uses and activities that may generate noise, odour or air emissions.

Physical constraints such as flooding, storm tide inundation, soil contamination and acid sulfate soils are identified, mitigated and managed.

Infrastructure design and provision is adequate to serve the ultimate capacity of the PDA and opportunities for improved infrastructure sustainability and innovation are advanced.

2.3.5 2032 Olympic and Paralympic Games

In July 2021 Brisbane was named as the **host city** for the 2032 Olympic and Paralympic Games (the Games) and soon after Northshore Hamilton PDA was announced as the location for the **Brisbane Athletes' Village** (the Village) for the event.

The Village will contain both **permanent and temporary** buildings, structures, public realm areas and infrastructure.

Planning for the design, delivery, governance and post-event legacy of the Village are in the early stages.

Development in the PDA will **not compromise the ability to deliver an Athletes' Village** on state government owned lands in the PDA.

Consideration will be given to design, capacity, security, privacy, amenity, environmental, sustainability, transport, infrastructure, engineering, tenure and interface matters as development in the PDA progresses. The level of consideration given to these matters will be commensurate with the level of information available about the footprint, timing and staging of the Athletes' Village and its post-event legacy elements.

2.4 Structural elements

The structural elements identified in Map 2 – Structure Plan are a **spatial representation of the highest order physical elements described in the vision.**

The **structural elements support the delivery of the vision and PDA-wide criteria** and should be read in conjunction with these sections.

To the extent that the structural elements are relevant, they are to be taken into account in the preparation of PDA development applications and the assessment of those applications.

Map 2: Structure Plan

2.5 PDA-wide criteria

2.5.1 Urban design and public realm

2.5.1.1 Urban design

The form, type and arrangement of buildings, streets and the public realm are designed to collectively contribute to a liveable, accessible, safe and healthy community by:

i. catering for the diverse needs of all community members, including children, elderly and people with mobility limitations, by applying principles of universal, adaptable and inclusive design,

ii. creating an attractive and functional relationship between buildings, private spaces and the public realm, in particular at street and podium levels, and across frontages to the Brisbane River,

iii. providing a ground plane that is connected, legible, permeable, inclusive and safe,

iv. applying Crime Prevention through Environmental Design (CPTED) principles[17],

v. creating a positive relationship between public and private realms,

vi. allowing for innovative and temporary use of the public realm, and

vii. promoting identity and distinctive character, by working with the landscape, historic and cultural features of the area to create places with a strong relationship to their context.

2.5.1.2 Sub-tropical design[18]

The form, type and arrangement of buildings, streets and the public realm are designed to positively respond to the local climate by:

i. applying design strategies that maximise natural light and air flow in the public realm and private spaces,

ii. reducing energy demand, artificial lighting and mechanical temperature control,

iii. applying design strategies to reduce the extremes of temperature and direct solar heating in buildings, streets and public spaces,

iv. orientating buildings to optimise seasonal solar gains and loss, and

v. using sub-tropical landscaping, vegetation and large trees to provide shade and shelter for pedestrians and cyclists and improve the urban amenity of the Northshore Hamilton PDA.

2.5.1.3 Building form

Development delivers high-quality built form outcomes by:

i. ensuring new development responds to the surrounding context, including existing, proposed and envisaged future built form, as well as site features, impacts on development and development constraints;

ii. using setbacks, design features and landscape to integrate with, complement and articulate streetscapes,

iii. considering building height patterns and using building heights to:

   a. define activity centres,

   b. differentiate between different land uses and zones,

   c. transition between areas of low, medium and high development intensity,

   d. mitigate the individual and cumulative effects of taller buildings, such as overshadowing, wind movement, access to sunlight and air circulation, and

   e. ensure amenity, privacy and functionality for building occupants, adjoining built form and the public realm.

   Maximum building heights are identified on Map 8 – Building Heights.[19]

iv. considering overshadowing and promoting winter sunlight to adjoining development, the public realm on the river edge and to the streets,

[17] Refer to Crime Prevention through Environmental Design, Guidelines (Queensland Government, 2021).

18 Refer to the guidance provided in Brisbane City Council's New World City Design Guide: Buildings that Breathe.

[19] Assessment of building heights requires consideration of multiple factors, including but not limited to, built form outcomes, relationship with and potential impacts on surrounding buildings (e.g. access to sunlight, overshadowing, privacy, air circulation and wind movement), reverse amenity (noise, air quality, odour), as well as operational airspace as identified in section 2.5.9.2.

v. considering prevailing winds and incorporating design elements that mitigate the potential for wind tunnels and downdrafts that may negatively impact public realm users or building occupants[20],

vi. sharing views between existing and proposed buildings and views to open space areas and the Brisbane River,

vii. providing tower separations to deliver access to light, promote air circulation, minimise overshadowing and maximise amenity and privacy for both occupants and neighbours,

viii. ensuring the internal design of buildings feature layouts, dimensions and floor to floor heights that prioritise access to natural light and ventilation,

ix. delivering a variety of communal open spaces for the benefit of building occupants by catering for different demographics and a wide range of activities and uses, such as active and passive recreation, internal and external spaces, formal and informal gathering, as well as quiet respite for work and recreation,

x. using the ground floor of buildings to define the adjacent street or space, deliver a sense of safety, community ownership and promote activation,

xi. delivering high quality, sustainable, architectural outcomes that use materials, design details and articulation to achieve distinctive, attractive and highly functional buildings,

xii. providing integrated landscaping and opportunities for deep planting in the built form, such as podium and roof levels,

xiii. ensuring provision of car parking beyond minimum requirements does not dictate or compromise built form outcomes.

2.5.1.4 Streets and public realm

Development delivers high-quality streets and public realm spaces that are:

i. attractive spaces embellished with landscape and street furniture to encourage social interaction, healthy active lifestyle and community-based activity,

ii. human-scaled spaces that are designed to contribute positively to the environmental and visual experience of Northshore Hamilton,

iii. universally designed and provide legible, permeable and safe movement for all members of the community,

iv. accessible to the public at all times,

v. activated along the river front, with opportunities for commercial uses, public events, recreation, improved pedestrian and cycle connections and other uses that are compatible with the area,

vi. designed to activate and integrate existing and future public transport stops and active transport routes,

vii. designed to increase opportunities for use of the river by visitors as well as tourist, recreational and non-motorised vessels,

viii. diverse and provide large and small large gathering spaces that are flexible for a range of uses, including large scale events,

ix. functional and include structures which provide shade and shelter,

x. durable with high quality hard and soft streetscape, utilising sub-tropical design, local sub-tropical species[21] and water sensitive urban design principles,

xi. durable and flood resilient, where subject to flood risk, and

xii. embellished with public art and lighting at key locations to create an appealing and safe environment.

Enhanced streetscape treatments are provided in key locations identified in Map 3 – Urban Design Features.

Active frontages

Streetscape treatments support active street frontages with high quality treatments and design features including awnings over wide footpaths, landscaped verges, street furniture, public art installations and pavement treatments.

[20] A wind impact assessment report may be required and is to be prepared by a suitably qualified professional. When preparing the report consideration should be given to the airflow circulation principles identified in Element 1 – avoiding the 'street canyon' effect, contained in Brisbane City Plan Transport air quality corridor planning scheme policy.

[21] Sub-tropical tree species to be consistent with the Brisbane City Plan Planting species planning scheme policy and for the street trees identified in Brisbane City Plan Infrastructure design planning scheme policy.

Retail and commercial tenancies having a visible presence and interaction with the street to encourage pedestrian activity.

Significant corner locations

The design of significant corner locations:

i. deliver a mix of retail, commercial and community uses is provided on ground level that incorporate public spaces for social interaction,
ii. ensure uses at podium level are active uses that support casual surveillance,
iii. provide building and landscape design features that integrate pedestrian activity and include high-quality visual appeal, such as feature building entries,
iv. buildings address both street frontages,
v. built forms are truncated where necessary to enable the delivery of deep planting, sub-tropical, shade trees and reinforce the priority of pedestrian and street based social activity.

Plazas

The design of plazas and similar outdoor space areas:

i. support flexible multi-use outcomes, including a range of temporary events and uses,
ii. feature designs elements that:
    a. contribute to a sense of arrival at activity centres,
    b. connect stand-alone built forms and adjoining development,
    c. provide a unified and cohesive framework that integrates landscaping, pavement treatments, lighting, street furniture, signage and other substantial landscaping elements,
    d. include visual anchors within the urban landscape that identify key areas of activity,
    e. ensure permeability for pedestrian, active transport and vehicle movement
    f. preserve sight lines between the activity centres and ferry terminals
iii. plan for vehicle and active transport movements, including service vehicle access

Civic open spaces

Development of the PDA delivers a new linear foreshore promenade connecting a series of high quality civic open spaces adjoining the Brisbane River, as identified on Map 2 – Structure Plan.

The civic open spaces between Macarthur Avenue and the Brisbane River will each have a unique character, with distinct but complimentary functions. The size and dimensions of the spaces will be significant and meet the public open space needs of the surrounding residents. The location of landscaping and the citing of built form structures ensure breezes are directed and where necessary managed to support year round enjoyment of the spaces, particularly urban cooling in summer.

An urban civic space is located between the main activity centre and the riverfront delivers a multi-purpose, flexible space for urban recreation. The interface between the civic open spaces and surrounding development is designed to mix indoor and outdoor spaces, exemplifying subtropical place making. The opportunity to retain and re-purpose existing warehouse structures which reflect the history of this area is supported.

2.5.2 Centres

Development provides and reinforces three activity centres of varying scale within the PDA as shown on Map 2 – Structure Plan. The intent for these centres involves:

Main activity centre

The main activity centre forms the civic heart for the PDA and is sited along Macarthur Avenue as a main street boulevard, between Theodore Street and Road 1 (Brett Street). This primary activity centre is comprised of a vibrant and active mix of retail, food and drink outlets, entertainment, commercial and community uses focused on the ground floor and podium levels. The centre is comprised of up to 15,000m² of traditional retail floor space. This centre includes:

i. a full-line supermarket up to 3,500m²,
ii. shops such as mini-majors, specialty retail / brand attractors and craft and hobby spaces with a tenancy size generally up to 500m², that generate activity throughout the day on the north side of Macarthur Avenue,
iii. small-scale food and drink outlets that capitalise on the Macarthur Avenue outlook adjacent civic open space and the Brisbane River,

iv. other entertainment and cultural uses compatible with an activity centre, such as but not limited to, bar, function facility, theatre, hotel and tourist attraction,

v. small and medium sized commercial offices that provide patronage to local retail uses and extend the hours of activation in and around the activity centre,

vi. strong visual and pedestrian connection between the urban civic space to the south and the social infrastructure hub to the north to encourage activity and movement through the precinct,

This may take the form of a multi-purpose plaza extending north-south through the centre between Macarthur Avenue and Macarthur Avenue North, providing landscaped active transport connectivity and restricted vehicular access,

vii. streetscape treatments such as pavement treatments, shade trees and other substantial landscaping of Macarthur Avenue to encourage conservative vehicle speed and contribute to a sense of arrival to the centre,

viii. green links on the eastern and western edges of the centre, incorporated into generous streetscapes and road verges to:

a. enhance the subtropical function of the precinct,
b. provide a well shaded footpath,
c. provide other complimentary uses and activities to encourage movement through the area, and
d. support locations of rest and respite.

Portside Wharf – western activity centre

Development between Brett Street and the existing western activity centre of Portside Wharf activates Macarthur Avenue, civic open space and the linear foreshore promenade.

Permeability and way finding between the primary and secondary activity centres is promoted via pedestrian pathways and cross-block links.

A vibrant concentration of centre uses at ground level including offices, shops, entertainment uses and small-scale food and beverage outlets capture the outlook to adjacent open space and the Brisbane river, each with a tenancy size generally no greater than of 500m².

Eastern activity centre

A small-scale activity centre opposite Northshore Riverside Park and adjoining Macarthur Avenue at Angora Road provides up to 2,500m² of small tenancy size convenience retail and dining. This centre:

i. accommodates shop and food and drink outlets uses with a maximum tenancy size of 500m²,
ii. services the convenience needs of local residents, workforce and commuters,
iii. leverages off its high amenity location adjacent to the Brisbane River, Northshore Riverside Park and Northshore Hamilton Ferry Terminal,
iv. features innovative building design to provide a major arrival point to the PDA adjacent to the Northshore Hamilton Ferry Terminal, and
v. contains articulated building access points and continuous awnings over the footpath to activate the ground floor level to Macarthur Avenue and new road 9,
vi. is oriented and designed to provide an activated interface and enhance amenity, safety and passive surveillance during day and night,

Centres - parking and servicing

Car parking and servicing for development within centres:

i. is not accessed from Macarthur Avenue,
ii. is not provided in open areas at ground level,
iii. can be located within buildings where it is behind active frontages,
iv. can be located underground below the riverside civic open space.

2.5.3 Connectivity

Development:

i. delivers a high-quality street and movement network and related infrastructure which enhances connectivity for pedestrians, cyclists and vehicles as shown on Map 4 – Connectivity, Map 5 – Active Transport and where consistent with the works identified in Table 3: Infrastructure catalogue.

ii. provides car parking, access and servicing facilities to meet the necessary functional requirements of development, as detailed in Schedule 2: Transport, access, parking and servicing,

iii. ensures universal design principles are applied to meet the diverse needs of pedestrians, cyclists and motorists are met,

iv. features landscaping that assist with the collection and distribution of stormwater and offsets urban heat island impacts,

v. ensures the layout of streets and the public realm prioritise pedestrian and cycle movements and the use of public transport over private vehicles by:

    a. creating attractive, direct, permeable, legible and connected network of streets, pedestrian and cycle paths and safe crossings points,

    b. providing pedestrian connectivity, directness of route and facilities that are universally designed,

    c. providing convenient through-site connections and cross-block links for pedestrians and cyclists, offering a choice of routes throughout the PDA,

    d. connecting directly to existing footpaths, cycleways, streets and public transport in surrounding areas, and

    e. managing potential conflicts between pedestrians, cyclists and other users through safe design,

    f. delivering generous landscaping that gives shade and comfort for pedestrians,

vi. contributes to an efficient and accessible public transport network that features:

    a. bus stops at regular intervals along primary roads,

    b. a potential new ferry terminal adjacent to the civic heart in MacArthur Avenue proposed to service commuter and tourism connections,

    c. an easily understood signage system that integrates all elements of the public transport network within the PDA.

2.5.4 Sustainable development

Development in the PDA stimulates, supports and contributes to sustainability at a site, project, building and community level and promotes low or zero emission outcomes in both the public and private realm. This is achieved through design, construction and operation phases of development through the following criteria:

2.5.4.1 Sustainable buildings

Development provides the design, construction and operation of sustainable buildings by demonstrating the achievement of:

i. a minimum 6 leaf EnviroDevelopment certification,

ii. a minimum 4 star Green Star: Design and as Built certification, or

iii. an equivalent rating under an alternative rating system[22].

2.5.4.2 Liveability

Development provides appropriately designed and positioned habitable rooms which allow for access to direct natural light and ventilation from an external source[23].

Communal spaces intended for the exclusive use of building residents, occupants and their visitors are designed to:

i. enhance the liveability of dwellings and workplaces;

ii. provide functional and accessible shared facilities.

Shared facilities for accommodation uses may include, but are not limited to: study areas, music rooms, libraries, lounge rooms, gymnasiums, swimming pools and indoor sport facilities, as examples.

2.5.4.3 Self sufficiency

Development enables communities to be more resilient and self-sufficient by providing opportunities for:

i. food to be grown in private, communal or public spaces

[22] EDQ may seek third party advice to determine if an alternative rating system provides a suitable level of equivalency to the identified rating tools. EDQ may prepare a PDA guideline or policy document to promote the delivery of sustainable buildings.

[23] Compliance with the built form provisions in this development scheme will enable the achievement of liveable buildings, including aspects such as cross ventilations, access to natural light and thermal performance. Direct natural light is not achieved by borrowed light.

ii. water to be locally sourced, retained and reused, and

iii. energy, with a focus on green energy, to be locally sourced, generated, stored and distributed.

2.5.4.4 Sustainable infrastructure

Development ensures:

i. all infrastructure is appropriately designed and delivered to support the needs of development,

ii. existing infrastructure is well used,

iii. land that is required for future infrastructure is preserved,

iv. opportunities for future alternate modes of transport is considered in the design of streets, civic open spaces and built form outcomes, and

v. Digital and telecommunications assets are considered and planned for during the development of the PDA.

2.5.4.5 Water Management

Development provides a stormwater management system[24] designed to deliver the principles of Water Sensitive Urban Design (WSUD) and Integrated Water Cycle Management (IWCM) for buildings, streets and public spaces.

Onsite water collection and reuse opportunities to support landscaping areas within a development should be investigated and pursued where practicable.

2.5.4.6 Energy Efficiency

Development promotes energy efficiency in built form and the public realm through the following approaches:

i. site layout, building orientation and thermal design that reduces the need for mechanical cooling and heating,

ii. use of natural light

iii. use of energy efficient lighting, plant and equipment, and

iv. integration of at least one of the following energy efficiency measures:

a. solar energy generation technology,

b. wind energy generation technology[25],

c. integration of green roofs, green walls and other sustainable landscape elements,

d. integration of smart technology which passively controls the use of electricity.

2.5.4.7 Waste management

Development:

i. provides facilities for the safe and efficient removal of waste,

ii. provides facilities for recycling, composting and waste reduction,

iii. ensures that no liquid or solid wastes, other than stormwater, are discharged to neighbouring land or waters, and

iv. ensures waste access and collection points and servicing areas for waste collection vehicles are appropriately designed to mitigate and manage acoustic and odour impacts.

2.5.4.8 Transport efficiency

Development:

i. provides for and integrates with public transport and active transport infrastructure,

ii. accommodates opportunities to provide mobility as a service, including but not limited to: scooter and bicycle rental schemes, car rental services, taxi services and car share schemes,

iii. supports a reduction in car ownership and vehicle trips by providing a variety of flexible, accessible, efficient and attractive active transport and mobility as a service options, and

[24] Stormwater management infrastructure and systems are designed in compliance with the Brisbane City Plan Infrastructure design planning scheme policy or are demonstrated to be fit-for-purpose with consideration for this policy.

[25] where is can be safely installed and not affect the acoustic or visual amenity of building residents or occupants.

iv. provides facilities to support the charging of electric vehicles including at least one Destination AC charger and the electrical capacity for Basic AC charging on all non-visitor parking[26].

2.5.5 Housing Diversity

Development for residential uses and accommodation activities, including residential components of a mixed-use development, provide:

i. diverse housing choice to suit a variety of households by offering:
    a. universal design[27],
    b. adaptable design, and
    c. a variety in dwelling sizes, tenure, layout and configuration,
ii. a minimum of 10 per cent of total residential GFA as dwellings with 3 or more bedrooms,
iii. a minimum of 5 per cent of total residential GFA as either, or a mix of:
    a. public housing,
    b. social housing,
    c. affordable housing[28],
iv. dwellings for public housing, social housing or affordable housing are distributed throughout residential and mixed-use developments and designed to integrate seamlessly within a neighbourhood.

2.5.6 Infrastructure planning and delivery

Development ensures:

i. planned infrastructure networks are provided or their future provision is not compromised[29], and
ii. infrastructure networks are delivered to relevant standards, in a timely and coordinated way to facilitate ongoing development in the PDA.

2.5.7 Environment

2.5.7.1 Significant vegetation

Development:

i. avoids impacts on significant vegetation, or
ii. minimises and mitigates impacts on significant vegetation after demonstrating avoidance is not reasonably possible[30], and
iii. maintains the habitat, water quality and flood mitigation values of significant riparian vegetation.

2.5.7.2 Waterways and riparian areas

Development:

i. ensures that land along the Brisbane River is accessible as civic open space,
ii. is located, designed, constructed and operated to avoid, or where avoidance is not reasonably possible, minimise and mitigate adverse impacts on:
    a. the hydraulic capacity of the waterway[31]
    b. the environmental values of receiving waters[32],

[26] Refer to PDA Practice Note 20 – Electric Vehicle (EV) Charging Infrastructure for information on the requirements of EV charging infrastructure.

[27] PDA guideline no.2 Accessible housing outlines standards for planning and design of accessible housing in PDAs.

[28] Refer to PDA guideline no.16 Housing.

[29] Refer to section 3 Infrastructure Plan.

[30] Consideration should be given to circumstances where the removal of significant vegetation is necessary for public safety, such as maintaining the stormwater function of drainage lines or reducing areas for concealment consistent with Crime Prevention through Environmental Design (CPTED) principles.

31 Refer to Brisbane City Plan Compensatory earth works planning scheme policy where development involves filling or excavation (> 100mm in depth) on land identified on the Brisbane City Plan Waterways corridor overlay map as a Local waterway corridor.

32 Consideration should be given to State Planning Policy (SPP), in particular the State interest of water quality and the SPP code: Water quality and SDAP State Code 8 Coastal development and tidal works.

c. the habitat values of significant vegetation in waterways and riparian areas, and

d. the ability for fish and other marine animals to move unimpeded along waterways,

iii. protects environmental values of receiving waters by delivering appropriate solutions that achieve an equivalent or improved water quality outcome,

iv. ensures that waterways that require maintenance are afforded appropriate access for vehicles and personnel tasked with undertaking these activities, and

v. protects water quality throughout the PDA ,as well as achieving the water quality objectives for the Brisbane River and Moreton Bay receiving waters[33].

2.5.7.3 Acid sulfate soils

Development:

i. involving filling, excavation, or any other form of development that may disturb potential or actual acid sulfate soils (ASS) be supported by ASS investigation reports,

ii. ensures ASS is treated in accordance with current best practice in Queensland[34], and

iii. ensures the disturbance of ASS is:

a. avoided to the greatest extent practical, then

b. managed to reduce risks posed to the natural and built environments from the release of acid and metal contaminants.

2.5.7.4 Contaminated Land

Development:

i. manages contaminated land to ensure all land and groundwater is suitable for its proposed future use[35], and

ii. ensures that best practice management measures are implemented to prevent contamination spreading beyond its existing extent due to development activities.

2.5.8 Flood

Development in the flood hazard area identified on Map 6 – Flood and Stormtide Inundation must demonstrate how its location, design and construction will address, mitigate, and where relevant manage, the hazards and risks posed by flood and stormtide inundation[36].

Development:

i. is designed to avoid, minimise and mitigate the susceptibility to, and the potential impacts of, inundation by flood and/or storm tide waters,

ii. does not result in a material increase in flood levels on upstream, downstream or on adjacent properties,

iii. does not result in an increased risk to people and property, with specific consideration for sensitive uses and vulnerable uses,

iv. provides for efficient and safe evacuation during defined flood events without unduly burdening the city's counter-disaster response unit, particularly for vulnerable uses and difficult to evacuate uses,

v. ensures underground car parks are designed to prevent the intrusion of storm tide waters or flood waters by the incorporation of a bund or similar barrier with a minimum height of 300mm above the defined flood level,

vi. provides measures to ensure critical services[37] remain operational in an inundation event. Essential electrical services must be located above the defined flood level, and

33 Refer to the Environmental Protection (Water) Policy 2009 and the State Planning Policy.

34 Refer to Queensland acid sulfate soil technical manual: Soil Management Guidelines v4.0, Department of Science, Information Technology, Innovation and the Arts, 2014

35 Remediation undertaken in accordance with State government legislation for contaminated land management.

36 The Brisbane City Plan Flood overlay code identifies performance outcomes to be addressed and the Flood planning scheme policy provides guidance on how to prepare a flood risk assessment, a flood study and a flood emergency management plan. Flood reports and plans are to be prepared by a suitably qualified Registered Professional Engineer Queensland.

37 Critical electrical services include any area or room used for fire control panel, telephone PABX, sensitive substation equipment including transformers, low voltage switch gear, high

vii. ensures any hazardous material manufactured or stored on site is not susceptible to risk of inundation.

2.5.9 Managing the impacts of development

The Northshore Hamilton PDA is a mixed use environment that accommodates a range of diverse land uses and highly urbanised living and working opportunities. Amenity outcomes are consistent with this diverse, vibrant, high density, mixed use urban context[38].

2.5.9.1 Noise

Development manages the noise amenity expectations of different land uses, especially sensitive land uses, with consideration for the variety of noise sources that may contribute to background noise levels in the PDA, such as aircraft operations, transport noise, marine activities, industrial activities and mixed used urban environments[39].

Development is designed, sited and constructed to:

i. mitigate exposure of occupants to noise impacts from:
    a. industrial noise sources,
    b. airport and aviation facilities,
    c. marine facilities,
    d. designated transport noise corridors[40], and
ii. meet building standards for recommended sound levels for building interiors[41], and
iii. achieve minimum acoustic environmental values for indoor and outdoor areas[42].

Development manages the noise amenity expectations of different land uses, especially sensitive land uses, where noise levels are demonstrated to be consistent with noise standards for those uses.

2.5.9.2 Brisbane Airport

Development is designed and operated to protect the safety and functioning of operational airspace, aviation facilities, airport operations and airport operators of the Brisbane Airport[43]. This includes consideration for Australian Noise Exposure Forecast (ANEF) contours, prescribed operational airspace, emissions, lighting and wildlife hazard.

Development does not result in new buildings or structures compromising operational airspace[44].

Development for a sensitive use is appropriately designed to manage and attenuate impacts from high levels of aircraft noise to protect the health and wellbeing of occupants[45].

2.5.9.3 Industrial hazard and risk

Development does not emit heat, radioactivity, biohazards, electromagnetic radiation, chemicals, noise, vibration, emissions or similar outputs at levels which may cause adverse impacts to health, safety and the environment.

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voltage switch gear, battery chargers, protection control and communication equipment, low voltage cables, high voltage cables, and lift or pump controls.

[38] Development in the PDA may experience noise, light, vibration, air quality or odour outcomes that differ from traditional residential neighbourhoods.

[39] A noise impact assessment report may be required to identify, evaluate and address potential noise impacts and mitigation measures from existing and proposed development. A noise impact assessment report prepared in accordance with the Brisbane City Plan Noise impact assessment planning scheme policy can assist in demonstrating achievement of the desirable indoor and outdoor sound levels for different land uses, particularly sensitive land uses.

[40] Refer to Brisbane City Plan Transport noise corridor overlay map.

[41] Refer to the requirements, standards and guidance identified in the SPP, as well as the Transport and Main Roads Traffic Noise Management: Code of Practice with respect to external road traffic noise levels, and the Queensland Development Code, Mandatory Part 4.4 'Buildings in a Transport Noise Corridors', each as amended or replaced from time to time.

[42] Refer to the Environmental Protection (Noise) Policy 2019 made under the Environmental Protection Act 1994.

[43] In accordance with the State Planning Policy provisions for strategic airports and aviation facilities and associated guidance material.

[44] Consideration should be given to the Brisbane Airport Corporation Tall Buildings Policy where a building or structure is proposed at a height in proximity to, or intruding within, operational airspace as identified in the State Planning Policy.

Refer to Australian Noise Exposure Forecast (ANEF) contours as identified in the State Planning Policy.

There are current industrial land uses and associated infrastructure located in the PDA, including hazardous chemical facilities[46], that due to the nature of their operations could present hazards and risks to existing or new development located in their vicinity, especially sensitive uses.

Development involving non-industrial land uses, such as sensitive uses, located on land within the Industrial amenity investigation area or the industrial hazard investigation area as shown on Brisbane City Plan Industrial amenity overlay mapping, must demonstrate how its location, design, construction and operation will address, manage and mitigate the hazards and risks posed by any industrial land uses and their associated infrastructure.[47]

2.5.9.4 Air quality

Existing activities and their potential impact areas, which by their nature have the potential for off-site impacts on non-industrial land uses such as sensitive uses, are shown as investigation areas on Map 7 – Air Quality.

Development within the investigation areas shown on Map 7 – Air Quality must be designed and constructed to be compatible with the existing uses that have the potential for off-site air emissions in a way that:

i. limits the exposure of occupants in the development to pollutants that could have an adverse effect on human health, and

ii. does not adversely effect the continued operation of the existing activities[48].

Development in a transport air quality corridor area, as shown on Brisbane City Plan Transport air quality corridor overlay, is designed to[49]:

i. minimise the impacts of air pollution from vehicle traffic on the health and wellbeing of occupants of sensitive uses, and

ii. maximise wind movement around buildings and the dispersion of traffic generated air pollutants.

Development manages the air quality amenity expectations of different land uses, especially sensitive land uses, such as odour or visible air emissions, where those emissions are demonstrated not to be hazardous to human health.

2.5.9.5 Brisbane Cruise Terminal

The ongoing use of the Brisbane Cruise Terminal as a significant tourist facility is supported. Occupants of buildings in areas surrounding the facility can expect a standard of amenity commensurate with lawful cruise ship operations.

Development does not involve permanent or temporary physical obstructions that compromise the safe and efficient navigation of vessels on the Brisbane River, including vessels utilising the Brisbane Cruise Terminal.

Development does not compromise the safe and efficient operation of the Brisbane Cruise Terminal facilities, located west of Wharf Close, including the passenger lounge, stevedoring area as well as pick up and drop off facilities for private vehicles, taxi's and coaches.

Development in the vicinity of the Brisbane Cruise Terminal is designed and constructed to:

i. avoid, manage or mitigate potential impacts (e.g. noise, air quality, traffic, visual) on occupants resulting from the lawful operation of the Brisbane Cruise Terminal, and

ii. ensure that there are no adverse effects on the continued operation of the Brisbane Cruise Terminal[50].

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[46] For development proposing a hazardous chemical facilities or changes to existing hazardous chemical facilities, refer to State Development Assessment Provisions State Code 21 – Hazardous chemical facilities.

[47] Refer to the Brisbane City Plan Industrial amenity overlay code and Industrial hazard and risk planning scheme policy for information about performance outcomes to be addressed in development and guidance on how to prepare a hazard and risk assessment report. A hazard and risk assessment report is to be prepared by a suitably qualified professional.

[48] Refer to Brisbane City Council Plan Industrial amenity overlay code, Air quality planning scheme policy and the Queensland EPA Guidelines on Odour Impact Assessment from Developments for information about performance outcomes to be addressed in development and guidance on how to prepare an air quality impact report.

[49] Refer to Brisbane City Plan Transport air quality corridor overlay code, Air quality planning scheme policy and Transport air quality corridor planning scheme policy for performance outcomes to be addressed and how to prepare and air quality assessment report.

[50] Development of a sensitive use in close proximity to the Brisbane Cruise Terminal may be required to submit a noise and/or air quality impact report prepared in accordance with the Brisbane City Plan Noise impact assessment or Air quality planning scheme policies to address the provisions of the Brisbane City Plan Industrial amenity overlay code.

2.5.9.6 Harbour, Foreshore and Marinas

Development[51]:

i. enhances the appearance and function of waterfront land,

ii. contributes to an efficient marine transport network within the Brisbane River,

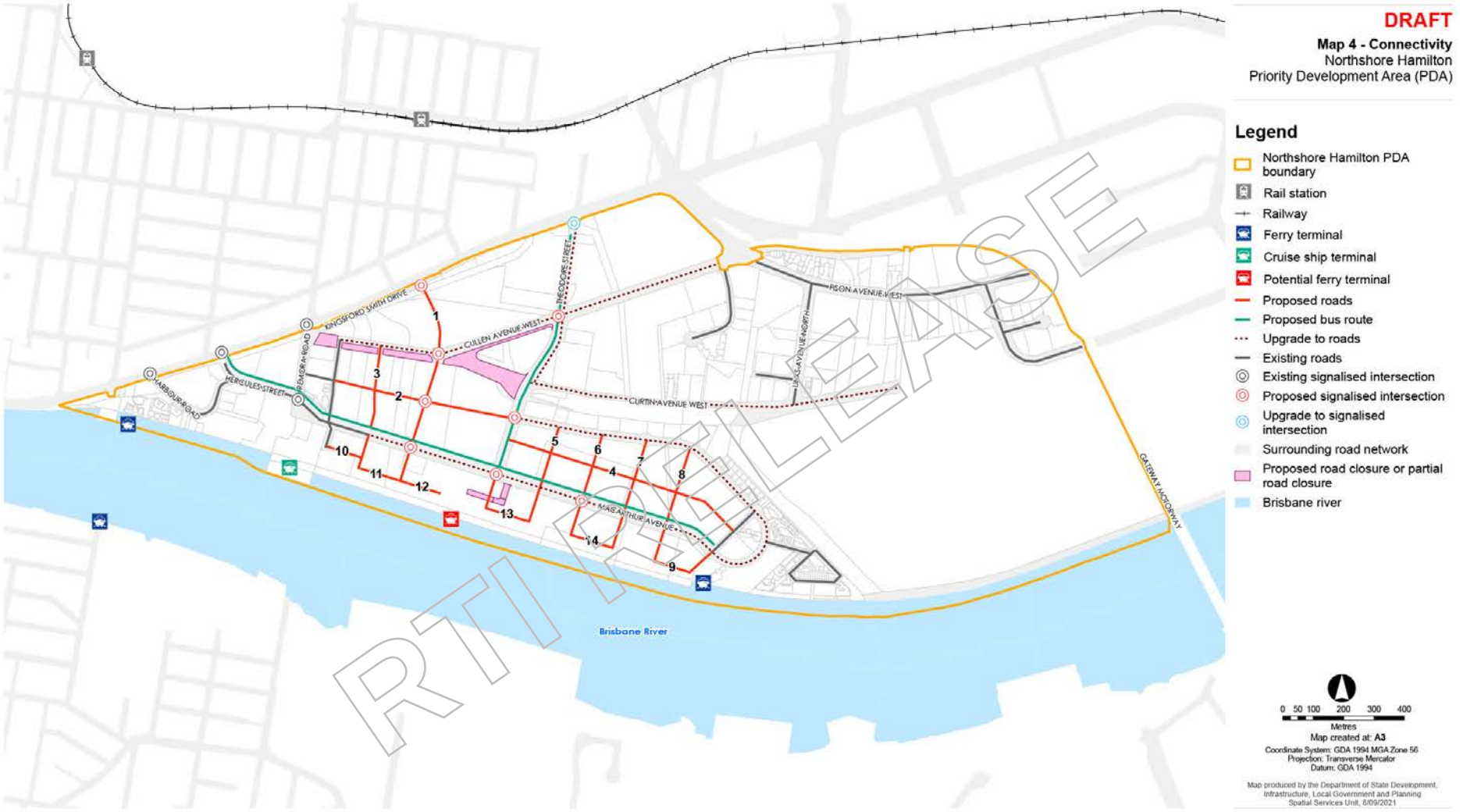
iii. provides safe, unrestricted public access along the foreshore and to maritime facilities, and

iv. is designed, constructed and operated to avoid, minimise and mitigate adverse impacts on coastal processes and coastal environmental values.

[51] Refer to State Development Assessment Provisions State Code 7 Maritime Safety and State Code 8 Coastal development and tidal works.

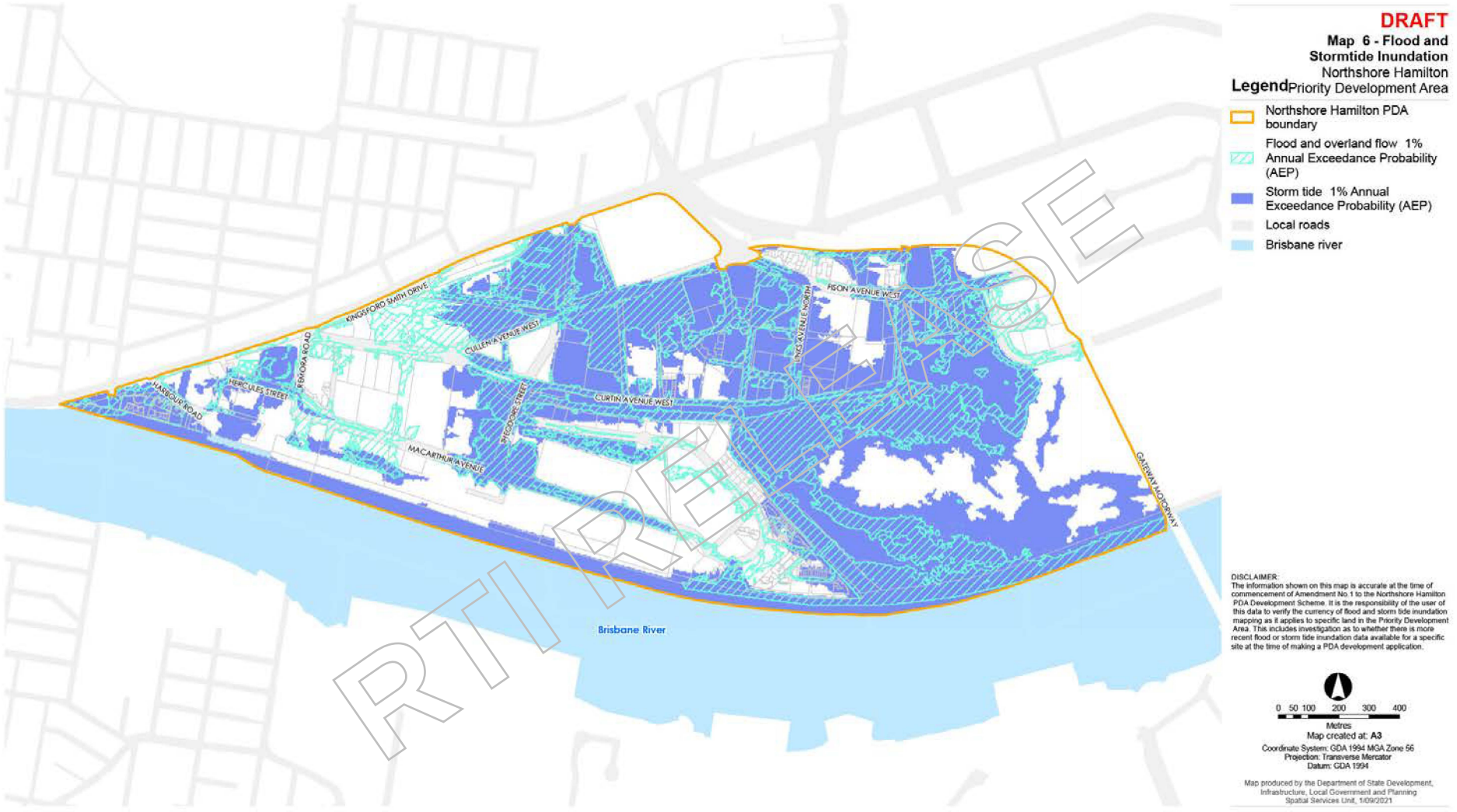
Map 3: Urban Design Features

Map 4: Connectivity

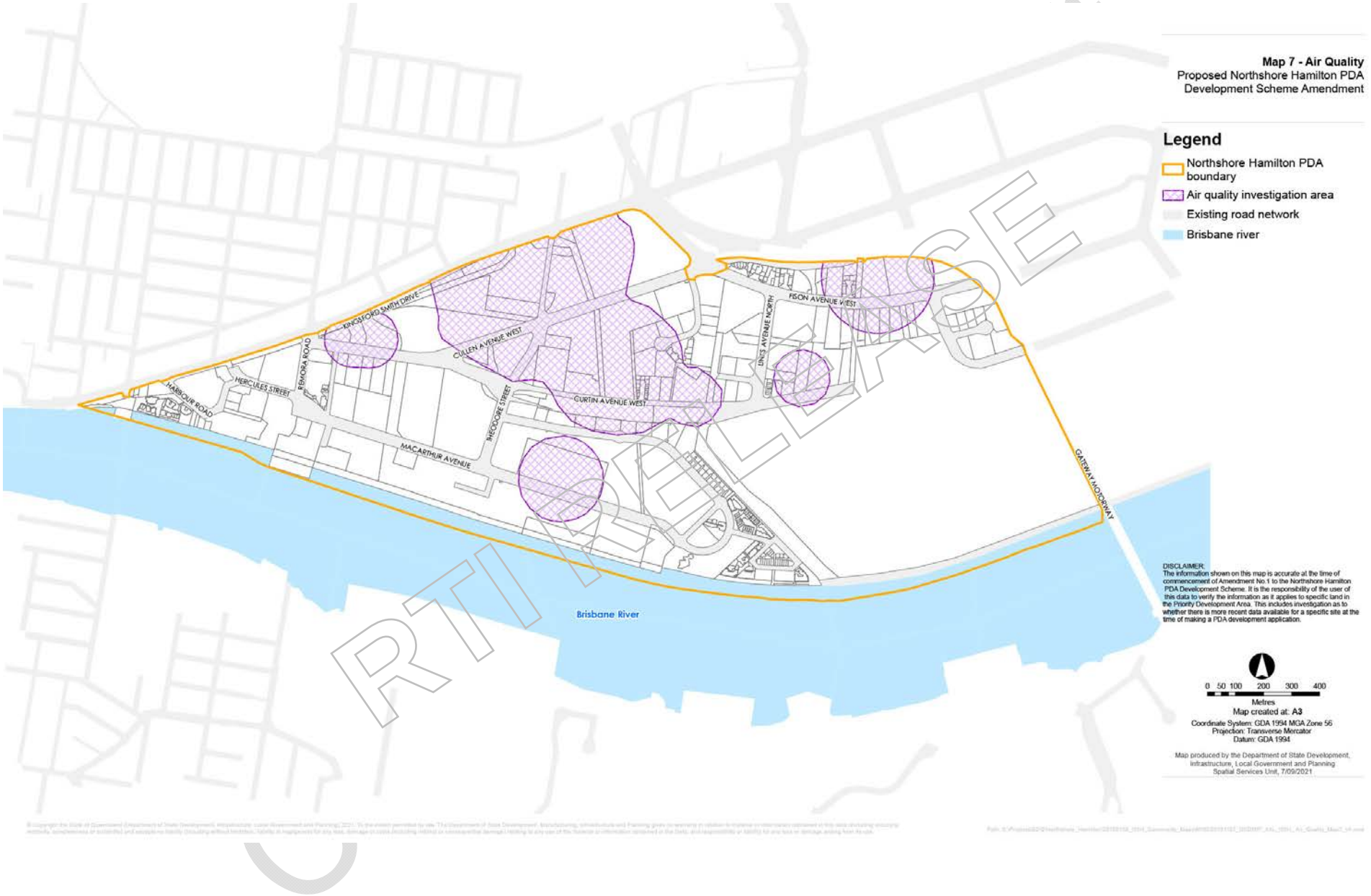


Map 5: Active Transport

Map 6: Flood and Stormtide Inundation



Map 7: Air Quality and Industrial Hazard



Map 8: Building Heights

2.6 Zone provisions

All land in the PDA is included in a zone. The zones are:

2.6.1 Mixed Use Medium Density Zone

2.6.2 Mixed Use High Density Zone

2.6.3 Industrial Zone

2.6.4 Mixed Industry and Business Zone

2.6.5 Commercial Centre Zone

2.6.6 Sport and Recreation Zone

2.6.7 Civic Open Space Zone

2.6.8 Community Facilities Zone

2.6.9 Special Purpose (Transport) Zone

2.6.10 Special Purpose (Port) Zone

2.6.11 Special Purpose (Environmental Corridor) Zone

The spatial arrangement of zones is shown on Map 9.

The categories of development for all aspects of development in zones are established in Table 2.

Development will be assessed against, but is not limited to, the development intent and provisions of the zone it is located within.

Map 9: Zones

2.6.1 Mixed Use Medium Density Zone

2.6.1.1 Development intent

Development provides a wide range and intensity of uses, including commercial, retail, health, community, entertainment, cultural, multiple residential and accommodation uses in a predominantly mid-rise built form. Detached dwelling house and detached dual occupancy development is not envisaged in this zone. Development delivers a mixture of building forms that are compatible with the character of the street and surrounding buildings.

Residential buildings outside of activity centres ensure that built form responses contribute to local character and context and provide a strong relationship with movement corridors such as streets, pathways and cross block links.

Development involving accommodation activities provides housing diversity, affordability and choice, to meet the life cycle needs of a wide range of residents.

Development for retail purposes is limited to 500m² per development site, with a maximum tenancy size of 250m². Retail uses are focused at, but not limited to, intersections throughout the zone and create an interface between public and private spaces that provide opportunity for activation and social interaction. Development containing retail uses outside of activity centres is of a scale and type that does not compete with the intended function and uses of activity centres.

Development in Sub-Areas 1 and 3 comprises a lower-rise built form fronting the street up to 3 storeys (podium), with building elements above podium level setback further from street frontages and property boundaries.

In the part of Sub-Area 1 fronting Curtin Avenue West between Remora Road and Road 1 (Brett Street), building heights up to 8 storeys are supported to provide a transition in building height and form.

Development in Sub-Area 2, where adjoining Sub-Area 4 in the Mixed Use High Density zone, comprises a medium-rise form and establishes a transition between adjoining high-rise built form and civic open spaces.

Development in Sub-Area 3 fronting Macarthur Avenue North, where located opposite to and south of the Mixed Industry and Business zone, delivers built form and architectural outcomes compatible with the established commercial character of that location to:

i. provide an interface with nearby mixed industry and business activities

ii. support agglomeration opportunities for high value knowledge-based industry,

iii. avoid, mitigate and manage potential overlooking and interface issues (e.g. potential air quality, odour, dust, noise and lighting impacts or nuisance) from industrial land uses in the north east of the PDA), particularly for any development proposing residential land uses.

2.6.1.2 Reconfiguration provisions

Minimum lot size	1000m²
Minimum frontage	20m

2.6.1.3 Built form provisions[52]

		Sub Area 1	Sub Area 2	Sub-Area 3
Maximum plot ratio		1.5 : 1		
Maximum building height		Podium 3 storeys. Total 8 storeys.	Total 5 storeys.	Podium 3 storeys. Total 5 storeys.
		Building heights not to exceed height in metres as shown on Map 8 – Building Heights.		
Building liveability		Habitable rooms are required to have an openable window in an external wall that is located and sized to provide access to natural light and ensure natural ventilation.		
Building envelope				
Minimum street	**Ground level**	3m excluding awnings.	4m excluding awnings.	3m excluding awnings.

[52] Built form provisions are not applicable to development for a dwelling house. PDA Guideline no.7 Low rise buildings should be referred to for a proposed dwelling house.

		Sub Area 1	Sub Area 2	Sub-Area 3
frontage setback	**Above ground level**	-	1m to a balcony. 4m to an external wall.	-
	Up to 3 storeys	3m to a balcony. 6m to an external wall.	-	3m to a balcony. 6m to an external wall.
	Above 3 storeys	6m.	-	6m.
Minimum side setback	**Ground level**	3m.	0m to a boundary wall. 6m to a habitable room. 4m to a non-habitable room.	3m.
	Above ground level	-	0m to a boundary wall. 6m to a habitable room. 3m to a balcony or non-habitable room.	-
	Up to 3 storeys	3m.	-	3m.
	Above 3 storeys	6m.	-	6m.
Minimum rear setback	**Up to 3 storeys**	6m.	-	6m.
	Above 3 storeys	9m.	-	9m.
Scale and bulk	**Maximum building footprint**	1200m$^{2.}$	-	1200m$^{2.}$

		Sub Area 1	Sub Area 2	Sub-Area 3
	above podium			
	Maximum Horizontal dimension of building	50m.	50m.	60m.
	Maximum length of any one outer building wall	30m.		
	Maximum wall length between building articulations	10m.		
Orientation		Development is oriented to the street frontage and, where location permits, to civic open space areas. Development on a corner lot to address both street frontages. Development fronting Macarthur Avenue North orientates outdoor areas, open space and habitable rooms towards the south to avoid potential interface issues with industrial uses to the north.		
Minimum building separation within a site	**Ground level**	6m to any window to a habitable room, unless screened by 1.8m high fence.		
	Above ground level	8m to a balcony. 12m to a window of a habitable room.		
Fences	**Maximum height of front fences to ground**	1.5m.		

		Sub Area 1	Sub Area 2	Sub-Area 3
	floor dwellings			
	Minimum visual permeability of front fences	50%.		
	Maximum height of side and rear fences	1.8m.		
Rooftops		Plant and equipment are screened or otherwise integrated with the roof design. Varied roof forms are incorporated to contribute to the architectural distinction of the building. Roof top areas may be utilised for communal open space and other passive recreation uses.		
Communal open space and facilities		Development provides universally accessible communal open space that: i. is a minimum 25% of the site area, i. is a minimum standalone area of 40m^2 and a with minimum dimension of 4m, ii. is integrated in a combination of locations: ground level, podium, above podium and roof top, iii. respects the privacy of both users and those overlooking from neighbouring properties, iv. includes landscape, deep planting shade trees or structures suited to the subtropical environment, v. is positioned for good solar orientation and to minimise water use, and vi. does not include driveways, building entries, storage or turning areas.		

	Sub Area 1	Sub Area 2	Sub-Area 3
Private open space	Development provides all dwellings with private open space or a balcony with a minimum area of 12m^2 and a minimum dimension of 3m. Balconies are screened to maximise privacy between buildings and the public realm, without compromising CPTED principles. Ground floor private open space provides privacy but also allows overlooking of the street to promote passive surveillance.		

2.6.1.4 Urban design provisions

Building elements and appearance	Buildings are to be well articulated with varied materials and design details, balconies, verandahs, terraces, recessed doors and doorways, windows, shade and screening devices and outdoor planting. Residential building design ensures visual and noise privacy, adequate storage space, adequate room sizes, functional room relationship and the provision of useable and well connected common outdoor spaces. Buildings adjacent to riverside civic open spaces are: i. recessed and highly permeable on the ground floor ii. oriented and designed to provide an activated interface and enhanced amenity, iii. provide safety and passive surveillance during day and night. Development provides a well-defined entry point for pedestrians. Building form allows for cross ventilation and supports a naturally ventilated environment. Buildings incorporate weather protection, screening, and shading structures to channel breezes, filter sunlight, block out night lighting and provide rain protection.
Ground level treatment	Development activates street frontages and encourages pedestrian activity by providing a high frequency of front entries or doors to dwellings, non-residential tenancies or communal spaces which are emphasised through architectural and landscape treatment, pedestrian paths and awnings.

	Ground level building elements introduce a variety of details and finishes. Development involving non-residential tenancies or communal uses on the ground floor provides continuous minimum 3m wide awnings with integrated lighting to provide shelter and protection from the elements along the street frontage. For development that is set back from the street frontage or for residential use and without awnings, street trees are provided and give protection from climatic conditions and separate pedestrians from traffic movement. Ground level dwellings have direct street access.
Podium treatment	Podiums are designed to address, activate and provide a visual appeal to street frontages. Podiums include articulations in building facades and landscape treatments to reduce the visual bulk of the building and provide an appropriate transition between the ground floor and upper storeys. Podiums maintain a strong relationship with the street by framing and activating the public realm and entrance spaces while reinforcing the street hierarchy. Podium tops provide space for communal open spaces and roof gardens.
Upper level treatment (above podium)	Upper levels provide for balconies to be offset, avoid visual access to habitable rooms or outdoor spaces, and provide visual diversity in the built form. Upper levels include articulation and varied design details to create visual appeal. Residential buildings include balconies and other external protrusions which separate the internal areas from direct solar heating.
Landscaping	Development provides on-site landscape and shade trees that contributes to the area's streetscape and residential character. Development provides landscaped areas, including deep planting, along a minimum length of 50% of street frontages.
Public realm	Development addresses the street and provides passive surveillance through its interface with the street and other adjoining public spaces.

	Streetscape treatments facilitate pedestrian and cycle amenity and safety. Waterways or other natural features in adjacent zones are incorporated as a feature of development in the mixed use medium density zone and integrated with the active transport network .

2.6.2 Mixed Use High Density Zone

2.6.2.1 Development intent

Development provides a wide range and intensity of commercial, retail, health and medical, community, entertainment, cultural activities, residential and accommodation uses in a predominantly high-rise built form and is characterised by outstanding architecture which defines a unique skyline for the PDA.

Development densities create a high critical mass of residents, workforce and visitors, which are supported by services, facilities and attractions which activate streets and places at different times of the day, night and throughout the week. Retail activity is limited to 500m² per development site, with a maximum tenancy size of 250m², except where located in centres as described in section 2.5.2.

Development comprises a tower and podium structure with podiums fronting the street and taller building elements above four storeys setback further from street frontages and property boundaries. Taller buildings may be located within Sub-Area 4. Developments deliver unique architectural forms that define the PDA as an exemplar of sub-tropical high-rise design. Detached dwelling house and detached dual occupancy development is not envisaged in this zone.

Development on larger sites reduces visual bulk, shade impacts, wind acceleration and amenity impacts by providing multiple towers, incorporating cross-block linkages and considering building orientation, materials, massing and façade articulation, whilst maximising views and orientation to the CBD, Brisbane River and civic open spaces.

A civic heart for the PDA is located in the area bounded by Macarthur Avenue North, Road 1 (Brett Street), Theodore Street and the Brisbane River. Macarthur Avenue provides a main street boulevard with a mix of retail, food and drink outlets, entertainment, commercial and community uses.

Development containing large floor plate commercial tenancies are located with frontages to Brett Street, Macarthur Avenue North or Theodore Street and provide a transition between the main street activities fronting Macarthur Avenue and the adjoining Community facilities zone to the north. Larger floor plate retail and residential buildings are sleeved by smaller scale specialty shops, food and drink outlets, community uses and other like uses.

Development containing retail uses outside of activity centres is of a scale and type that does not compete with the intended function and uses of activity centres.

2.6.2.2 Reconfiguration provisions

Minimum lot size	1000m²
Minimum frontage	20m

2.6.2.3 Built form provisions

Maximum plot ratio			4 : 1 8 : 1 for buildings located in Sub-Area 4.[53]
Maximum building height			Podium 4 storeys. Total 23 storeys. Taller building heights are envisaged for buildings located in Sub-Area 4[54]. Building heights not to exceed height in metres as shown on Map 8 – Building Heights.
Building liveability			Habitable rooms are required to have an openable window in an external wall that is located and sized to provide access to natural light and ensure natural ventilation.
Building envelope	**Minimum street frontage setback**	**Ground level**	4m excluding awnings.
		Up to 4 storeys	1m to a balcony. 4m to an external wall.
		Above 4 storeys	6m.
	Minimum side setback	**Up to 4 storeys**	0m to a boundary wall. 6m to a habitable room.

[53] As shown on Map 8: Zones

[54] Development for taller buildings to be assessed with full consideration for s.2.5.13 Building Form and s.2.5.9.2 Brisbane Airport in addition to zone provisions.

			4m to a balcony or non-habitable room.
		Above 4 storeys	9m.
	Minimum rear setback	**Up to 4 storeys**	0m where a boundary wall. 6m to a habitable room. 4m to a balcony or non-habitable room.
		Above 4 storeys	9m.
	Minimum floor to ceiling height on ground floor	4.5m	
Building form	**Building design**	Innovative building design is delivered on the northern side of Macarthur Avenue at the corners of Brett Street and Theodore Street. At these locations building design is to reinforce the main activity centre character and provide a sense of arrival to the activity centre. Large floor plate commercial tenancies and accommodation uses up to 2,000m² are located within the area bounded by frontages to Brett Street, Macarthur Avenue North and Theodore Street. Tower forms are designed to maintain solar access to adjoining open spaces and minimise overshadowing between the hours of 9.00am and 3.00pm, as determined by the winter solstice sun angle. Building shape, massing and façade articulation are designed with consideration for prevailing winds and to manage negative impacts of wind acceleration and downdrafts.	
	Maximum building footprint above podium	2000m² on the north side of Macarthur Avenue between Brett Street and Theodore Street. Otherwise, 1,200m².	
	Maximum horizontal dimension of building above podium	50m.	
	Maximum length of any one outer building wall above podium	30m.	
	Maximum wall length between building articulations	10m.	
	Orientation	Development is oriented to the street frontage and activates the public realm. Development on a corner lot is oriented to address both street frontages. Development optimises seasonal solar gain and loss, taking into consideration major site views and vistas. Development is located and designed to minimise impacts from surrounding uses an infrastructure and maintain reasonable levels of amenity. Towers are oriented to minimise wind acceleration and maximise views to the Brisbane River and civic open spaces.	
	Minimum building separation within a site	**Ground level**	6m to window to a habitable room, unless screened by a 1.8m high fence.
		Up to 4 storeys	12m to a balcony, or a window to a habitable room.
		Above 4 storeys	18m.
		Maximum height of front fences and walls	1.5m.
	Fences	**Minimum visual permeability**	50%

		of front fences	
		Maximum height of side and rear fences	1.8m.
	Rooftops	Plant and equipment are screened or otherwise integrated with the roof design. Varied roof forms are incorporated to contribute to the architectural distinction of the building. Roof top areas may be utilised for communal open space and other passive recreation uses.	
Communal open space and facilities		Development provides universally accessible communal open space as follows: i. for development with a residential component, the greater of: a. communal open space equivalent to a minimum of 80% of the site area, or b. communal open space equivalent to 15% of the residential gross floor area of the development. ii. For non-residential development, a minimum of 10% of the gross floor area of the development. For all development communal open space: i. includes a minimum standalone area of 60m^2 with a minimum dimension of 6m, ii. is integrated in a combination of locations: ground level, podium, above podium and roof top, iii. respects the privacy of both users and those overlooking from neighbouring properties, iv. includes landscaping and deep planting shade trees, or structures suited to the subtropical environment, v. is positioned for good solar orientation and to minimise water use, and	

	vi. does not include driveways, building entries, storage or turning areas.
Private open space	Development provides all dwellings with private open space or balconies at the following minimum rates: i. 1 bedroom dwellings: 9m^2 with a minimum dimension of 3m, or ii. 2 or more bedroom dwellings: 12m^2 with a minimum dimension of 3m. Balconies are screened to maximise privacy between buildings and the public realm, without compromising CPTED principles. Ground floor private open space must provide privacy but still allow overlooking of the street to promote passive surveillance.

2.6.2.4 Urban design provisions

Building elements and appearance	High-rise buildings must have distinct lower, middle and upper sections, including the ground floor, podium and tower levels, providing for variation in the built form. Buildings are well articulated and fenestrated with varied materials and design details, such as external balconies, verandahs, terraces, recesses, protrusions, windows, shade and screening devices and outdoor planting. Buildings adjacent to riverside civic open spaces are recessed and highly permeable on the ground floor, oriented and designed to provide an activated interface and enhanced amenity, safety and passive surveillance during day and night. Development is of human scale where fronting civic open space, with taller tower built forms set back. Residential building design ensures visual and noise privacy, adequate storage space, adequate room sizes, functional room relationship and the provision of useable and well connected common outdoor spaces. Development provides well-defined entry points for pedestrians. Building form supports cross ventilation and a naturally ventilated environment.

	Buildings incorporate weather protection, eaves and overhangs, screening, and shading structures to channel breezes, filter sunlight, block out night lighting and provide rain protection.
Basements	Basements are within property boundaries. Basement level 1 allows areas for deep planting at the street level.
Ground level treatment	Street activation is achieved through a variety of measures, including varied design concepts and providing a high frequency of foyers, front entries, windows or doors to commercial, retail, community, communal and residential uses. Shop frontages, articulated building access points and continuous awnings over the footpath activate the ground plane along Macarthur Avenue between Brett Street and Theodore Street and the interface with the urban civic space. Large floor plate retail and residential buildings are sleeved by smaller scale specialty shops, food and drink outlets, community uses and other like uses. Mixed-use developments provide a predominantly commercial and retail character at the ground floor level, which activate the street. Front entries to all buildings are emphasised through architectural and landscape treatment, pedestrian paths, lighting and the provision of awnings. Foyers open toward the public realm and contain spaces that engage people, such as reception desks, seating areas, cafes and display spaces. Non-residential uses at ground level provide: i. minimum 3m wide awnings[55] with integrated lighting to deliver continuous shelter and protection from the elements along the at least one street frontage ii. a variety of building elements, details, finishes and setbacks on the ground floor to create plazas, outdoor dining areas, landscape spaces or open vistas, and iii. places for a wide range and variety of activities and uses, formal and informal gathering and interaction. Residential uses at ground level provide direct street access to each ground level dwelling.

Podium treatment	Podiums are designed to address, activate and provide visual appeal to street frontages. Any parking included in a podium must be sleeved with active uses fronting the street. Podiums include articulations in building facades and landscape treatments to reduce visual bulk and provide a transition between the ground floor and upper storeys. Podiums provide visual connection and surveillance of streets and urban commons including plazas, small-scale spaces and arcades they overlook. Podiums include variation in plan shape and vertical profile, balconies, display windows, showcases and the like orientated to the street. Podiums may provide area for communal open spaces.
Tower treatment	Towers include articulations and varied design details to create visual appeal. Residential towers include balconies and other external protrusions which separate the internal areas from direct solar heating. Balconies on towers are offset so that they maintain privacy of habitable rooms or outdoor spaces and provide visual variety and articulation in the built form.
Landscaping	Development provides consistent and cohesive landscape and streetscape treatments, including deep planted feature trees, seating and public art, that contributes to the area's streetscape and urban character. Development provides landscaped areas, including deep planting, along a minimum length of 50% of street frontages.
Public realm	Mixed-use developments provide plazas and public spaces for social connectivity, meeting points, temporary uses and displays. Development addresses and provides passive surveillance of the street and other adjoining public spaces. Streetscape treatments facilitate pedestrian and cycle amenity and safety.

[55] Where verge widths do not permit full size awnings, a reduction to 2m will be acceptable.

2.6.3 Industrial Zone

2.6.3.1 Development intent

Development builds upon the established and strategically located industrial agglomeration, accommodating a range of industrial and commercial activities in a low-rise built form on large parcels of land that presents as a business park environment.

Uses are focused on service industry, low impact industry, knowledge creation and entrepreneurial activities in offices, showrooms and warehouses. Complementary secondary uses such as shop (up 250m^2 GFA), food and drink outlet, community facilities and indoor sport and recreation support the convenience needs of the local workforce and diversify employment and economic opportunities.

Existing industrial uses may continue in the zone. The intensification of existing, or the establishment of new, high impact industry and special industry uses, including hazardous chemical facilities, is not supported.

This zone is intended to transition and renew to a clean industry precinct servicing domestic and international markets. Existing high impact industry and special industry uses are buffered from the encroachment of sensitive uses and supported by an efficient transport network.

2.6.3.2 Reconfiguration provisions

Minimum lot size	1,000m^2.
Minimum frontage	20m.

2.6.3.3 Built form provisions

Maximum plot ratio		1 : 1
Maximum building height		3 storeys. Building heights not to exceed height in metres as shown on Map 8 -- Building Heights.
Building envelope	**Minimum street frontage setback**	0m for a maximum of 50% of the building frontage, where for office, showroom or customer service focus uses. Otherwise, 6m.
	Minimum side setback	0m; or 6m, where a building has a width of greater than 30 metres to a street frontage.
	Minimum rear setback	0m.
Building form	**Scale and bulk**	**Maximum length of any one outer building wall facing a street frontage**: 60m. **Maximum wall length between building articulations facing a street frontage**: 30m.
	Orientation	Development is oriented to the street and addresses both frontages where on a corner lot.
	Site cover	Maximum of 75%, not including hardstand areas.
	Fences	**Minimum visual permeability of front fences or walls**: 70%. **Maximum height of front fences**: 1.5m.
	Rooftops	Rooftops of large span buildings incorporate natural lighting fixtures and are to designed to ensure plant and equipment is integrated and screened. Varied roof forms contribute to the architectural distinction of the building. Roof top areas can be utilised for employee recreation, solar energy, cool roof and green roof uses.

2.6.3.4 Urban design

Building elements and appearance	Development promotes an industrial-commercial appearance with entries, office fronts and showrooms addressing the street. Buildings are to be well articulated with varied materials and design details, signage, recessed doors and doorways, windows, shade and screening devices and outdoor planting that provides a distinctively industrial-commercial appearance. Building form allows for cross ventilation and supports a naturally ventilated and comfortable environment.
Ground level treatment	Ground level building elements present a variety of details and finishes. Front entries to all buildings are to be emphasised through architectural and landscape treatment, pedestrian paths and awnings and to address requirements for active frontages. Buildings incorporate appropriate weather protection, screening and shading structures on the building facades to channel breezes, filter sunlight and provide rain protection. Buildings with a frontage width greater than 30 metres should be set back from side boundaries in order to minimise the impact of a continuous built form. Pedestrian generating uses, such as showroom and office, are located at the street frontage to provide visual interest to the street, create pedestrian scale and assist in passive surveillance of the public realm. Buildings address car parking areas with windows and entrances providing passive surveillance.
Landscaping	Development provides landscaped areas along a minimum length of 50% of street frontages.
Public realm	Streetscape treatments facilitate pedestrian and cycle amenity and safety. Waterways or other natural features in adjacent zones are incorporated as a feature of development in the industrial zone and integrated with the active transport network and framed by buildings that support casual surveillance. Development addresses and provides passive surveillance of the street, and of adjoining public spaces.

2.6.4 Mixed Industry and Business Zone

2.6.4.1 Development intent

Development provides for a range and mixture of office, showroom, service industry as well as research and technology industry uses on large parcels of land in a mid-rise commercial office environment.

Development supports the delivery of new, high value, knowledge creation, technology and clean industries, generating employment and economic diversity within the PDA.

The design, layout and orientation of development provides a transition and buffer between mixed use areas to the south, the social infrastructure hub to the west and industrial areas to the north, as well as responding to the role and function of adjoining vegetated drainage corridors.

Industrial uses are low impact and do not compromise the safety, health or amenity of nearby sensitive uses, or the ability to established mixed use development adjoining the zone as identified in the structure plan.

Secondary uses including shop and food and drink outlet (up to 250m^2 GFA per tenancy on the ground floor) support the convenience needs of the local workforce. Sensitive uses are not envisaged in this zone.

2.6.4.2 Reconfiguration provisions

Minimum lot size	1,000m^2.
Minimum frontage	20m.

2.6.4.3 Built form provisions

Maximum plot ratio		2 : 1
Maximum building height		5 storeys. Building heights not to exceed height in metres as shown on Map 8 -- Building Heights.
Building envelope	**Minimum street frontage setback**	3m.
	Minimum side setback	6m.
	Minimum rear setback	6m.
Building form	**Scale and bulk**	**Maximum horizontal dimension of any one outer building wall**: 45m to a street frontage. Otherwise, 60m.
		Maximum wall length between building articulations facing a street frontage: 30m.
	Orientation	Development on a corner lot addresses both street frontages. Buildings are sited and oriented to maximise passive solar design.
	Minimum building separation within a site	12m.
	Fences	**Minimum visual permeability of front fences or walls**: 70%.
		Maximum height of front fences: 1.5m.
	Rooftops	Roofs are designed to ensure plant and equipment is screened or otherwise integrated with the overall roof design. Varied roof forms contribute to the architectural distinction of the building.

2.6.4.4 Urban design provisions

Building elements and appearance	Development addresses, activates and provides a visual appeal to street frontages. Buildings are to be well articulated with external facade and landscape treatments, varied material and design detail, balconies, recessed doors and doorways, windows, shade and screening devices and outdoor planting that: i. provides a distinctively commercial appearance ii. reduces the visual bulk of the building iii. provides a transition between the ground floor and upper floors, and iv. frame and activates the public realm and entrance spaces. Buildings incorporate weather protection, screening and shading structures to channel breezes, filter sunlight and provide rain protection.
Ground level treatment	Development activates street frontages through varied design concepts and providing a high frequency of front entries or doors to commercial, industrial, retail, community and communal uses. Front entries to all buildings activate street frontages and are emphasised through architectural and landscape treatment, pedestrian paths and the provision of continuous awnings. Buildings address car parking areas with windows and entrances providing passive surveillance.
Landscaping	Development provides landscaped areas with a minimum width of 3m, including provision for deep planting, along a minimum length of 50% of the site's front boundary.
Public realm	Development addresses the street and provides surveillance of the public domain. Streetscape treatments facilitate pedestrian and cycle amenity and safety. Waterways or other natural features in adjacent zones are incorporated as a feature of development in the mixed industry and business zone and integrated with the active transport network and framed by buildings that support casual surveillance.

2.6.5 Commercial Centre Zone

2.6.5.1 Development intent

Development provides for a range and mix of large scale commercial and showroom uses, including retail and office on large parcels of land in mixed commercial retail environment. Commercial and large-scale retail showrooms are oriented to address or display to Kingsford Smith Drive and adjacent secondary roads, delivering a prominent commercial corridor.

The zone allows for limited accommodation activities fronting Cullen Avenue West between Theodore Street and Road 1 (Brett Street). Accommodation activities do not dominate the zone and development ensures the zone maintains a predominantly non-residential focus and intensity. Any accommodation activities are designed and oriented in response to land uses in adjoining zones and achieve a high level of occupant amenity[56].

Other secondary uses that complement the intended commercial character and support employees and visitors of the locality may also occur, such as service industry, shops and food and drink outlets (up to 250m^2 per tenancy on the ground floor) and health care services.

2.6.5.2 Reconfiguration provisions

Minimum lot size	1,000m^2.
Minimum frontage	20m.

2.6.5.3 Built form provisions

Maximum plot ratio			2 : 1
Maximum building height			Podium 3 storeys. Total 8 storeys. Building heights not to exceed height in metres as shown on Map 8 – Building Heights.
Building envelope	**Minimum street frontage setback**	**Ground level**	0m for a maximum of 50% of the building frontage.
		Up to 3 storeys	3m.
		Above 3 storeys	6m.
	Minimum side and rear setbacks		0m where car parking in podium. Otherwise, 6m.
Building form	**Scale and bulk**	**Maximum building footprint above podium**	1,200m^2.
		Maximum horizontal dimension above podium	50m.
		Maximum wall length between building articulations	30m.
	Orientation		Development on a corner lot addresses both street frontages. Building design maximise street fronting display of goods and ensures tenancies are unique and easily identifiable.
	Maximum site cover		75%
	Minimum building separation within a site		12m.
	Rooftops		Plant and equipment are screened or otherwise integrated with the roof design.

[56] Development for accommodation activities in the Commercial centre zone to be assessed against the provisions for Sub-Area 1 as specified in the Mixed use medium density zone.

		Varied roof forms are incorporated to contribute to the architectural distinction of the building Roof top areas are utilised for public realm, communal open space, other passive recreation uses and include landscaping and shade trees or structures suited to the subtropical environment and reduction of urban heat island effect.

2.6.5.4 Urban design provisions

Building elements and appearance	Development addresses, activates and provides a visual appeal to street frontages, including any frontage to Kingsford Smith Drive. Buildings are to be well articulated with external facade and landscape treatments, varied material and design detail, balconies, recessed doors and doorways, windows, shade and screening devices and outdoor planting that: i. provides a distinctively commercial-retail appearance ii. reduces the visual bulk of the building iii. provides a transition between the ground floor and upper floors, and iv. frame and activates the public realm and entrance spaces. Buildings incorporate weather protection, screening and shading structures to channel breezes, filter sunlight and provide rain protection.
Ground level treatment	Development activates street frontages through, varied material and design detail and providing a high frequency of front entries or doors to commercial, retail and service industry uses. Front entries to all buildings activate street frontages and are emphasised through architectural and landscape treatment. Buildings address car parking areas with windows and entrances providing passive surveillance. Development provides awnings that deliver continuous pedestrian shelter and protection from the elements along street frontages and pedestrian pathways to carparks, except along Kingsford Smith Drive.
Landscaping	Development provides on-site landscaping and shade trees that establish a unique commercial-retail area character.
	Development provides landscaped areas with a width of at least 3m, including deep planting, along a minimum length of 50% of the site's front boundary.
Public realm	Development addresses the street and provides surveillance of the public domain. Streetscape treatments facilitate pedestrian and cycle amenity and safety. Waterways or other natural features in adjoining zones are incorporated as a feature of development in the commercial centre zone, integrated with the active transport network and framed by buildings that support casual surveillance. Development provides cross block links, plazas, forecourts and other forms of public realm with outdoor seating and landscaping. These public realm spaces to break up urban form and create a sense of place and visual cohesion between buildings.
Access and connectivity	Development provides an internal vehicle and pedestrian movement network that: i. facilitates access and servicing to new development, and ii. maintains the function and safety of Kingsford Smith Drive, Brett Street and Theodore Street. Pedestrian pathways are provided to enable access and permeability between through buildings to surrounding streets.

2.6.6 Sport and Recreation Zone

2.6.6.1 Development intent

Development of the Royal Queensland Golf Club provides for outdoor sport and recreation activities.

Secondary uses that are complimentary to, or directly associated with, the sport and recreation focus for the zone may include bar, food and drink outlet, function facility, indoor sport and recreation and health care services.

Continuation of pedestrian and cyclist infrastructure along the frontage of the Brisbane River is envisaged.

2.6.6.2 Built form provisions

Maximum building height		3 storeys. Building heights not to exceed height in metres as shown on Map 8 – Building Heights.
Building envelope	**Minimum setbacks**	3m from street frontages. 20m from the Brisbane River 10m from significant vegetation
	Site cover	Open space areas account for a minimum of 90% of the total site area. Any built structures comprise a maximum 10% of the total site area.
Building form	**Scale and bulk**	A maximum wall length of 30m on any one face. A maximum wall length of 10m between building articulations.
	Rooftops	Roofs are to be appropriately designed to ensure plant and equipment is integrated/screened with the overall roof design. Varied roof forms contribute to the architectural distinction of the building. Roof top areas should be utilised for landscape planting and activated with ancillary uses.
	Site responsive design	Development responds to land constraints, mitigates adverse impacts on environmental values and addresses other site-specific characteristics.

2.6.6.3 Urban design provisions

Building elements and appearance	Buildings are articulated with external facades treatments, varied material and design detail, balconies, recessed doors and doorways, windows, shade and screening devices and outdoor planting to reduce the visual bulk of the building. All buildings, structures and ancillary facilities, support the sport and recreation use and are compatible in scale, bulk, design and character with the surrounding area. Development provides a well-defined entry point for pedestrians. Building form allows for cross ventilation and supports a naturally ventilated and comfortable environment. Buildings incorporate appropriate weather protection, screening, and shading structures on the building facades to channel breezes, filter sunlight and provide rain protection.
Amenity	Development minimises any adverse impacts adjacent sensitive uses, through the design and siting of facilities.
Landscaping	Existing on-site vegetation (trees) is retained. Development provides on-site landscaping and shade trees that contributes to the area's streetscape.
Public realm	Streetscape treatments facilitate pedestrian and cycle amenity and safety. Development provides good pedestrian linkages to the balance of the PDA and surrounding areas. A publicly accessible pathway is provided along the length of the Brisbane River frontage.

2.6.7 Civic Open Space Zone

2.6.7.1 Development intent

The Civic open space zone caters for a full range of publicly accessible outdoor recreation, informal sport and activity functions and events, on a casual basis. Civic open space provides for multi-purpose functions that respond to community needs.

Land within the zone includes facilities and embellishments associated with these uses such as picnic amenities, pedestrian and cycle pathways, playgrounds, performance spaces, flexible spaces and landscaped areas.

Development ensures that any buildings, structures and ancillary facilities or activities support the primary intent of the zone for public open space purposes.

New buildings and structures within the civic open space zone occupy only a small proportion of land in this zone and may include shelters, facilities for park users and small-scale retail uses. Building and structures are compatible in scale, bulk, design and character of the civic open space.

Public car parking areas are delivered on-street, and where practicable, in underground parking facilities.

The design of civic open space areas:

i. addresses the urban heat island effect through an appropriate ratio of vegetated and grassed areas to paved non-porous surfaces and deep planting with large canopies;
ii. considers noise sources and incorporates design and landscaping features that minimise and mitigate noise transmission

Development maximises its exposure and accessibility to the Brisbane River, utilising this natural asset as a key feature of civic open space provision. Public access is provided along the entire Brisbane River frontage and:

i. promotes pedestrian activity day and night,
ii. provides for the public to actively and passively enjoy the water's edge,
i. establishes the PDA as a lifestyle, recreation and events destination,
ii. provides for formal and informal recreation encouraging healthy active lifestyles,
iii. is supported with permanent and temporary retail, cultural uses and events enabling the PDA to evolve its character and attractions.

A new linear foreshore promenade is located along the frontage of the Brisbane River. Development adjacent to open spaces is oriented and designed to provide an activated interface and respects the green landscape setting.

The urban civic space area is located south of the main activity centre on Macarthur Avenue and extends through the linear foreshore promenade to the Brisbane River. Development within the urban civic space activates Macarthur Avenue, compliments the adjoining main activity centre, prioritises the active transport functions of the linear foreshore promenade and ensures public access and engagement with the waterfront. The urban civic space also accommodates adaptive reuse of some existing warehouse buildings, where the design and operation:

i. responds to and establishes a positive interface with the surrounding open space landscape setting,
ii. maintains public accessibility, as intended by the zone; and
iii. ensures potential amenity impacts of retail, entertainment and cultural activities, such as noise and lighting, does not impact adjoining mixed use development areas, particularly sensitive uses.

Uses compatible to adaptive re-use of buildings may include bar, food and drink outlet, markets, indoor recreation and community use.

2.6.7.2 Built form provisions

Maximum building height		2 storeys. Building heights not to exceed height in metres as shown on Map 8 – Building Heights.
Building envelope	**Minimum setbacks**	Built form is setback a minimum 3m from street frontages and active transport pathways.
	Site cover	New individual built form has a footprint of no greater than 300m². No more than 500m² of new built form is provided per every 1ha of connected civic open space area. Adaptive re-use of structures within the urban civic space is not restricted to the above requirements.
Building form	**Rooftops**	Plant and equipment are screened or otherwise integrated with the roof design.

		Varied roof forms are incorporated to contribute to the architectural distinction of the building. Large span roofs in a single plane are avoided to reduce the concentration of thermal loads.

2.6.7.3 Urban design provisions

Building elements and appearance	Innovative building design provides a distinctive form and appearance. Buildings are articulated with varied material and design detail, balconies, recessed doors and doorways, windows, shade and screening devices and outdoor planting to reduce the visual bulk of the building. All buildings, structures and ancillary facilities are designed to include generous eaves surrounding the structure's core.
Access and connectivity	Road connections and paths adjacent to and within the civic open space zone ensures key assets, including the river walk and public transport stops, enjoy high levels of visibility and access. Development provides an internal vehicle and pedestrian movement network that facilitates access, servicing and maintenance.

2.6.8 Community Facilities Zone

2.6.8.1 Development intent

The Community facilities zone caters for passive and active, community, education, sporting and recreational needs of the community and surrounding suburbs. It provides a central location within the PDA for services and facilities which support community lifestyles, health and education.

Development within this zone is intended to deliver a multi-purpose community hub that provides a range of co-located facilities to service the community within the PDA and surrounding suburbs.

Uses are integrated in their design and physical arrangement to promote efficient service delivery, optimal accessibility, maximum use by the community and cost efficiency for facility providers and operators through co-ordinated ownership, management and maintenance arrangements. Recreation associated with and connectivity between uses is achieved through the design of landscaped grounds.

Development in this zone provides for:

i. an aquatic centre with indoor and outdoor swimming pools,
ii. indoor and outdoor sports facilities for day and night use for organised and informal sporting activity. This includes a sports park with the intent to accommodate two rectangular sporting fields,
iii. an educational establishment with frontage to Brett Street,
iv. a multi-purpose community centre providing a range of spaces for community use and events, with direct pedestrian access from the street frontage,
v. a multi-purpose landscape and environmental corridor extending through the zone between Cullen Avenue West and Theodore Street providing a vegetated link between land in the Special Purpose (Environmental Corridor) zone as well as for the conveyance of stormwater, active transport connectivity and informal recreation, and
vi. car parking areas minimising overflow of parking to local streets.

Secondary uses complement identified community uses and support employee and visitor services. These uses may include shop, food and drink outlets up to 250m^2 GFA per tenancy where on the ground floor, health care services and office.

2.6.8.2 Built form provisions

Maximum building height		5 storeys. Building heights not to exceed height in metres as shown on Map 8 – Building Heights.
Minimum setbacks		3m from street frontages.
Building form	**Scale and bulk**	Maximum wall length of 30m on any one outer building wall. Maximum wall length of 10m between building articulations.
	Orientation	Development is oriented to the street frontage. Sporting facilities are orientated north-south. Pavilions and viewing areas are sited on the western side of the sport facilities to avoid spectators looking into the afternoon sun.
	Building separation within a site	Minimum 12m separation distance between buildings.
	Rooftops	Plant and equipment are screened or otherwise integrated with the roof design. Varied roof forms are incorporated to contribute to the architectural distinction of the building. Roof top areas designed as functional spaces and include landscape planting and can be activated with ancillary uses.
	Lighting	Development provides outdoor lighting which is in compliance with: i. AS 4282-1997 Control of the obtrusive effects of outdoor lighting. ii. AS 2560-2007 Sports lighting Part 2.3: Specific applications—Lighting for football (all codes). iii. AS/NZS 1158 Set:2010 Lighting for roads and public spaces.

	Site responsive design	Development responds to land constraints, mitigates any adverse impacts on environmental values and addresses other site-specific characteristics.

2.6.8.3 Urban design provisions

Building elements and appearance	Innovative building design provides a distinctive form and appearance with the greatest intensity of built form delivered along Brett Street. Buildings incorporate external facades treatments, varied material and design detail, balconies, recessed doors and doorways, windows, shade and screening devices and outdoor planting to reduce the visual bulk of the building. Development provides a well-defined entry point/s for pedestrians. Building form allows for cross ventilation and supports a naturally ventilated and comfortable environment. Buildings incorporate weather protection, screening and shading structures to channel breezes, filter sunlight and provide rain protection. Buildings and adjoining public and private realms enable public access to and sharing of facilities between occupants, service providers and users. Development adjacent to green spaces is oriented and designed to provide an activated interface and enhance their amenity, safety and passive surveillance throughout the day and night.
Ground level treatment	Development activates street frontages with a high frequency of building access points, foyers, windows or doors to community, commercial and retail uses. Building foyers are emphasised through architectural and landscape treatment, pedestrian paths, lighting and are linked by continuous awnings. Foyers address the public realm and contain spaces that engage people, such as reception desks, seating areas, cafes and display spaces. Development provides continuous awnings with integrated lighting, providing shading and protection from the elements, along street frontages and pedestrian pathways to carparks.
	Ground level building and landscape design promotes integration of uses, connectivity between uses, pedestrian and cycle activity and contributes to the areas visual appeal and identity as a community hub.
Amenity	Development minimises adverse impacts on sensitive uses in adjacent areas, through the design and location of buildings, vehicle access areas, lighting and service areas. Development contributes to the urban amenity and visual character of the PDA with a balance of built forms, green spaces and active transport connectivity. As far as possible, shadows from buildings or evergreen tree canopy shall not encroach upon the playing field between the hours of 9.00am and 3.00pm, as determined by the winter solstice sun angle.
Landscaping	Development provides generous on-site landscaping and shade trees at a rate of 1 per 200m^2 site area. Development provides landscaped areas along a minimum length of 50% of the site's active street frontage. A multi-purpose landscape and waterway corridor extends through the zone between Cullen Avenue and Theodore Street providing for the conveyance of stormwater, active transport connectivity and informal recreation.
Public realm	Streetscape treatments provides pedestrian and cycle amenity and safety. Development facilitates casual surveillance and provides good sightlines to publicly accessible areas such as car parks, pathways, public toilets and communal areas. Development includes way-finding cues and minimises entrapment locations near public spaces. Ancillary car parks and parking stations: i. incorporate landscaping, façades and sleeving treatments which provide an attractive interface with the public realm and streetscapes, and ii. integrate sport and recreation facilities at roof top level. Loading and servicing for the zone is designed to occur only from Cullen Avenue or Macarthur Avenue North, to maintain the function and safety of Kingsford Smith Drive, Brett Street and Theodore Street.

2.6.9 Special Purpose (Transport) Zone

Development provides for infrastructure, activities and associated facilities that support the effective functioning of the transport system including:

i. ferry terminals, moorings and maintenance areas,

ii. major road ways, intersections and infrastructure not otherwise included in a road reserve,

iii. pedestrian and cycle paths, and

iv. incidental open space and landscaping.

Any new buildings or structures within the zone occupy only a small area of land and are to be compatible in scale, bulk, design and character to the purpose of the zone, such as shelters or facilities for public transport and active users.

2.6.10 Special Purpose (Port) Zone

Development provides for infrastructure and facilities that support the effective functioning of port services and associated activities, including the following for ships and vessels:

i. arrival and departure,

ii. servicing, maintenance and repair,

iii. arrival and departure of passengers and goods; and

iv. small scale related uses that directly service the needs of passengers.

In addition to providing for port related infrastructure, the zone also caters for activities and facilities for recreational and community purposes including pedestrian and cycle paths, landscaped areas and incidental open space.

Development maximises public access to the Brisbane River frontage and delivers a vital link in the foreshore promenade. The design and operation of the waterfront boardwalk allows for:

i. provides for the safe, efficient, and secure operation of port services,

ii. promotes day and night activity,

iii. supports opportunities for the public to access and enjoy the water's edge, and

iv. provides formal and informal recreation opportunities.

Development in this zone:

i. recognises and responds to built form and land use interface with adjoining mixed use, high density development to the north, and

ii. avoids, mitigates and manages potential amenity impacts on existing sensitive uses (e.g. air quality, odour, dust, noise and lighting).

2.6.11 Special Purpose (Environmental Corridor) Zone

Development provides infrastructure that supports the effective functioning and maintenance of the stormwater drainage system for the PDA, including ensuring physical access for maintenance purposes.

Development also maintains the habitat, water quality and flood mitigation values of significant riparian vegetation in the corridors that comprise this zone.

The zone also allows for a limited range of secondary activities and facilities for recreational and community purposes, including pedestrian and cycle paths, landscaped areas and incidental open space.

New building are not envisaged in the zone. Any new structures within the zone are to:

i. be limited to structures that facilitate the secondary functions of the zone, being active transport and open space;

ii. occupy only a small area of land;

iii. be compatible in scale, bulk, design and character to purpose of the zone; and

iv. demonstrate no negative impact on the primary development intent for the zone to provide for stormwater drainage, environmental functions and vegetation retention.

2.7 Categories of development

The following categories of development apply to all development in all zones in the PDA.

Table 2: Categories of development

Column 1 – PDA accepted development	Column 2 – PDA assessable development	
	Column 2A - Permissible development	Column 2B - Prohibited development
All Zones		
All development specified in Table 2.1.	All development other than development prescribed in column 1 or column 2B.	Material change of use for: • extractive industry • high impact industry • relocatable home park • special industry • tourist park
Mixed use medium density zone		
Mixed use high density zone		
Industrial zone		
		Material change of use for: • accommodation activities except for caretaker's accommodation (<70m^2) • child care centre • shopping centre (>500m2)
Where in the Mixed industry and business zone		
		Material change of use for: • accommodation activities except for caretaker's accommodation (<70m^2) • shopping centre (>500m^2)
Commercial centre zone		
Sport and recreation zone		
		Material change of use for: • adult store • accommodation activities • shopping centre (>500m^2) • showroom

Table 2: Categories of development

Column 1 – PDA accepted development	Column 2 – PDA assessable development	
	Column 2A - Permissible development	Column 2B - Prohibited development
		• transport depot • warehouse
Civic open space zone		
		Material change of use for: • accommodation activities
Community facilities zone		
		Material change of use for: • adult store • accommodation activities • medium impact industry • shopping centre (>500m^2)
Special purpose (transport) zone		
Special purpose (port) zone		
Special purpose (environmental) zone		
		Material change of use for: • low impact industry • medium impact industry

Table 2.1: Accepted development in all zones

Accepted development
Building work
Minor building work.
Demolishing a building or other structure.
For a material change of use that is PDA accepted development.
For a material change of use that is PDA assessable development.
Material change of use
For a material change of use for an existing building where: a. for a use identified in Table 2.2; and b. only involving the following types of building work: i. minor building work; ii. building work for demolishing a building or other structure; and c. not involving a sensitive use; and d. excluding premises identified on one or more of the following: i. Map 6 - Flood and Stormtide Inundation; ii. Map 7 - Air Quality; iii. Brisbane City Plan industrial hazard overlay map
Home-based business – if complying with all acceptable outcomes in the Home-based business code of Brisbane City Plan.
Sales office
Operational work
For a material change of use that is PDA accepted development.
In accordance with the conditions of a PDA development approval.
For the decontamination of land.
Tidal works or work within a coastal management district, where undertaken by Economic Development Queensland.
Filling or excavation – where not involving any of the following: a. a retaining wall greater than1 metre; b. an increase in depth or height of the ground level of 1 vertical metre or more; c. an artificial stormwater channel; d. where the natural ground level is less than 20m AHD, and where the disturbance of land is equal to, or less than, 5m AHD involving: i. filling equal to or greater than 500m^3; ii. filling equal to or greater than 0.5 metres average depth; iii. excavation equal to or greater than 100m^3.
Removal of vegetation that is not Significant vegetation.
Removal of Significant vegetation, where undertaken: a. by a Public sector entity in accordance with a state law; or b. in accordance with the conditions of a PDA development approval.
Advertising device

Table 2.1: Accepted development in all zones

Reconfiguring a lot
For a road widening or road truncation where in accordance with conditions of a PDA development approval.
Plumbing or drainage work
All plumbing or drainage work.
All aspects of development
Development prescribed in Schedule 6 of the *Planning Regulation 2017,* other than Part 3 Section 18 and Part 5 Section 28.
Development prescribed in Schedule 7 of the *Planning Regulation 2017,* other than Part 3 Section 8 and Part 3 Section 12.
Outdoor sport and recreation - Development that is maintenance for the continued lawful operation of the Royal Queensland Golf Club.
Park - Development where carried out by a Public sector entity.
Port services – Development that is maintenance for the continued lawful operation of the Brisbane Cruise Terminal.
Telecommunications facility – Development where undertaken by a Public sector entity, except when involving: a. works above the surface of the ground; b. the erection, alteration or reconstruction of a building.
Utility installation – Development where undertaken by a Public sector entity, except when involving: a. a maintenance depot, storage depot or other depot to service the utility installation; or b. a waste management service; or c. the erection, alteration or reconstruction of a building.

Table 2.2: Accepted development for a Material Change of Use

Accepted development for a material change of use as referred to in Table 2.1
Mixed use medium density zone
• **Community use** • **Food and drink outlet** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Health care service** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Indoor sport and recreation** - where not exceeding 250m^2 of GFA per tenancy • **Office** – where not located at ground level • **Service industry** - where not exceeding 250m^2 of GFA per tenancy • **Shop** - where located at ground level and not exceeding 250m^2 of GFA per tenancy
Mixed use high density zone
• **Community use** • **Food and drink outlet** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Health care service** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Indoor sport and recreation** - where not exceeding 250m^2 of GFA per tenancy • **Office** – where not located at ground level • **Service industry –** where not exceeding 250m^2 of GFA per tenancy • **Shop** - where located at ground level and not exceeding 250m^2 of GFA per tenancy
Industrial zone
• **Food and drink outlet** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Hardware and trade supplies** • **Indoor sport and recreation –** where not exceeding 250m2 of GFA per tenancy • **Low impact industry** • **Outdoor Sales** • **Research and technology industry** • **Service industry** • **Shop** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Showroom** • **Warehouse**
Mixed industry and business zone
• **Food and drink outlet** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Low impact industry** • **Office** • **Research and technology industry**

Table 2.2: Accepted development for a Material Change of Use

Accepted development for a material change of use as referred to in Table 2.1
• **Service industry** • **Shop** - where located at ground level and not exceeding 250m^2 of GFA per tenancy
Commercial centre zone
• **Food and drink outlet** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Office** • **Research and technology industry** • **Service industry** • **Shop** - where located at ground level and not exceeding 250m^2 of GFA per tenancy • **Showroom**
Sport and recreation zone
• **Club** • **Community use** • **Food and drink outlet** – where not exceeding 250m^2 of GFA per tenancy • **Health care services** – where not exceeding 250m^2 of GFA per tenancy • **Indoor sport and recreation** • **Outdoor sport and recreation** • **Shop** - where not exceeding 250m^2 of GFA per tenancy
Civic open space zone
Nil
Community facilities zone
Nil
Special Purpose (Transport) zone
Nil
Special Purpose (Port) Zone
Nil
Special Purpose (Environmental Corridor) Zone
Nil

3 Infrastructure plan

3.1 Purpose

The purpose of this Infrastructure plan is to ensure that the Vision is achieved through:

i. integrating infrastructure planning with land use planning identified in this development scheme

ii. identifying the infrastructure requirements to be delivered by the local government, state government, water supply and sewer provider or developers, and

iii. providing a basis for imposing conditions on development approvals responding to the increased demand on the relevant infrastructure networks.

3.2 Relationship to Development Charges Offsets Plan

The infrastructure plan section of this development scheme is to be applied in conjunction with the Northshore Hamilton PDA Development Charges and Offsets Plan (DCOP). The DCOP incorporates infrastructure planning, charges and offsets processes into an integrated document for the PDA and sets out the following:

i. development charges for the provision of trunk infrastructure

ii. trunk infrastructure plans and schedules of works identifying trunk infrastructure for which an offset against infrastructure charges shall be available, and

iii. matters relevant to calculating an offset or refund for the provision of trunk infrastructure

The DCOP is supported by an Infrastructure Planning Background Report (IPBR). The IBPR documents information relevant to infrastructure planning and development charging for the PDA, such as growth and development assumptions and identified desired standards of service.

3.3 Infrastructure networks

The following infrastructure networks require additional infrastructure provision or upgrades to support growth in the PDA:

i. Transport (roads, intersections, pedestrian and cycle paths)

ii. Public realm

iii. Parks and community facilities

iv. Stormwater (quantity and quality)

v. Water supply, and

vi. Sewerage.

Table 3 below identifies key infrastructure that will be provided to enable the Vision to be delivered.

3.4 Infrastructure categories

The infrastructure planned to be delivered within the PDA will fall into one of the following categories:

i. Trunk infrastructure

ii. Non-trunk infrastructure, and

iii. Other infrastructure.

Table 3 includes infrastructure which is trunk infrastructure, non-trunk infrastructure and other infrastructure. As such, the inclusion of infrastructure in Table 3 does not make it eligible for an infrastructure charges offset. To determine if infrastructure is eligible for an offset, refer to the Development Charges and Offset Plan (DCOP).

3.4.1 Trunk infrastructure

Trunk infrastructure is the high order shared infrastructure that is planned to service wider catchments in the PDA, rather than individual development sites. Trunk infrastructure may be delivered by the relevant infrastructure provider such as Brisbane City Council, Urban Utilities or EDQ, or by developers if required by a condition of a PDA development approval. Trunk infrastructure plans for the PDA are established in the DCOP.

3.4.2 Non-trunk infrastructure

Non-trunk infrastructure is lower order infrastructure which generally services a single development site, is internal to a development site, or connects the development site to trunk infrastructure.

Non-trunk infrastructure will be provided by the applicant, in accordance with the relevant responsible entity's requirements and as specified in a condition of a PDA development approval. Non-trunk infrastructure will not be eligible for a charges offset.

3.4.3 Other infrastructure

Other infrastructure includes infrastructure which is not part of Brisbane City Council or Urban Utilities infrastructure networks. Other infrastructure may include necessary development infrastructure or provision for upgrades to the electricity, gas, telecommunications or State transport networks.

Other infrastructure may be delivered by the local or State Government, other infrastructure providers or by developers who may be required to deliver or preserve the ability to provide this infrastructure by a condition of a PDA development approval.

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

Infrastructure category	Details	
Transport		
Network	As required to service new and existing development in the PDA. This may include: i. Design and works for the following: a. roads (e.g. upgrades, improvements, narrowing, widening, road openings, road closures, on street parking provision), b. intersections (e.g. upgrading and new), c. active transport (e.g. shared and separated cycleways, footpaths), [is there a more suitable term than footpaths?] d. public transport (e.g. bus routes and bus stops), e. landscape (e.g. landscaped verges, medians), ii. Features identified for each street in the street network, as described in the table below, iii. Elements identified in the table below, and on: a. Map 3 – Urban Design Features, b. Map 4 – Connectivity, and c. Map 5 – Active Transport, iv. Works to other streets in the PDA not listed in the table below that may be required to achieve functional street network.	
Streets	**Macarthur Avenue** [primary road]	Upgrades including street improvements, and a bus route. Features include: i. on Macarthur Avenue (northern section) between Theodore Street and Angora Road (southern intersection) to provide one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. on Macarthur Avenue (southern section) between New Road 7 (Cedar Road) and Angora Road (southern intersection) to provide one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a separated cycleway, iii. on Macarthur Avenue (southern section) between Wharf Close and New Road 7 (Cedar Road) to provide two lanes of vehicle traffic in each direction, bus stops, on street parking, landscaping, footpaths and a separated cycleway, iv. a mid-block pedestrian across Macarthur Avenue (southern section) located midway between New Road 1 (Brett Street) and Theodore Street, v. an intersection at: 1. Macarthur Avenue (southern section), Road 1 (Brett Street) and Road 11, 2. Macarthur Avenue (southern section), Theodore Street and Road 13,

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

	3. Macarthur Avenue (southern section), Road 6 and Road 14, and 4. Macarthur Avenue (northern section) and Theodore Street, vi. restricted driveway access on Macarthur Avenue (southern section) between Wharf Close and Angora Road (southern intersection).
Finnegan Street [secondary road]	Street improvements including on street cycling.
Road 1 (Brett Street) [primary road]	A new north-south street between Kingsford Smith Drive and Macarthur Avenue, including new intersections. Features include: i. One lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a separated cycleway, ii. Restricted driveway access between Kingsford Smith Drive and Macarthur Avenue.
Road 2 [part primary road, part secondary road]	A new east-west street between Finnegan Street and Theodore Street, connecting to the intersection of Theodore Street and Macarthur Avenue (northern section). Features include: Finnegan Street to Road 1 (Brett Street) section [secondary road]: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, Road 1 (Brett Street) to Theodore Street section [primary road]: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a shared cycleway, ii. a mid-block pedestrian crossing across Road 2 located midway between Road 1 (Brett Street) and Theodore Street. iii. a wide verge on the southern side for additional landscaping and street furniture (seating, shade structures etc.).
Road 3 [secondary road]	A new north-south street between Curtin Avenue West and Macarthur Avenue (southern section). Features include: iv. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a on street cycling, v. design to achieve a low-vehicle speed, high pedestrian amenity environment
Theodore Street [primary road]	Upgrades including bus route, street improvements, intersection upgrades and new intersections. Features include: i. two lanes of vehicle traffic in each direction, bus stops, landscaping, footpaths and separated cycle ways, ii. on street parking between Macarthur Avenue (southern section) and Cullen Avenue West, iii. restricted driveway access between Kingsford Smith Drive and Cullen Avenue West, iv. potential road widening between Kingsford Smith Drive and Cullen Avenue West to accommodate public transport, active transport, infrastructure, services and landscaping.

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

Cullen Avenue West [primary road]	Upgrades including street improvements and a new intersection. Features include: i. two lanes of vehicle traffic in each direction between Road 1 (Brett Street) and Theodore Street, with on street parking, landscaping and footpaths, ii. a separated cycleway between Road 1 (Brett Street) and Theodore Street, iii. on street cycling between Theodore Street and Fison Avenue West, iv. partial road closure (southern alignment) between Road 1 (Brett Street) and Theodore Street, which will be zoned *Community facilities* on closure, v. restricted driveway access between [Road Name] and [Road Name]. [check. Note: Theodore St from Cullen Ave West to KSD AND Road 1 (Brett St) from KSD to Cullen Ave West are both restricted driveway access so if this frontage is restricted we are stating NO access for that entire super lot……]
Curtin Avenue West [secondary road]	Upgrades including street improvements and a new intersection. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping and footpaths ii. on street cycling between: a. Finnegan Street and Cullen Avenue West, b. Theodore Street and the Gateway Motorway, iii. Road closures: 1. full closure between Remora Road and Finnegan Street, which will be zoned *Commercial centre* on closure. 2. partial closure (southern alignment) between Finnegan Street and Road 1 (Brett Street), which will be zoned *Mixed use medium density – sub area 1* on closure. 3. full closure between Road 1 (Brett Street) and Theodore Street, which will be zoned *Community facilities* on closure.
Road 4 (Karakul Road) [secondary road]	A new mid-block, east-west street between Theodore Street and Angora Road intersecting Roads 5, 6, 7 (Cedar Road) and Road 8 (Barcham Street). Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. driveway access to land to the north and south.
Road 5 [secondary road]	A new, north-south street between Macarthur Avenue (northern section to southern section), situated between Theodore Street and Road 6. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. connections to laneway/s that provide access to off-street parking.
Road 6	A new, north-south street between Macarthur Avenue (northern section to southern section), situated between Road 5 and Road 7 (Cedar Road), including a new intersection. Features include:

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

	[secondary road]	i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. connections to laneway/s that provide access to off-street parking.
	Road 7 (Cedar Road) [secondary road]	A new, north-south street between Macarthur Avenue (northern section to southern section), situated between Road 6 and Road 8 (Barcham Road). Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. connections to laneway/s that provide access to off-street parking.
	Road 8 (Barcham Road) [secondary road]	A new, north-south street between Macarthur Avenue (northern section to southern section) between Road 7 (Cedar Road) and Angora Road. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and a on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. connections to laneway/s that provide access to off-street parking.
	Road 9 [secondary road]	A new riverside loop road between the intersection of Macarthur Avenue (southern section) and Road 8 (Barcham Road), and the intersection of Macarthur Avenue (southern section) and Angora Road. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. restricted driveway access on the southern section of the loop road closest to the Brisbane River, iv. restricted on-street loading and servicing for non-residential uses, v. a high level of connectivity to the riverfront open space, and vi. a passenger pick up–drop off area in proximity to the Northshore Hamilton Ferry Terminal [does the final traffic and PT studies contain this requirement?]
	Road 10 [secondary road]	A new riverside loop road between the intersection of Macarthur Avenue (southern section) and Wharf Close, and the intersection of Macarthur Avenue (southern section) and Road 3 that also connects to Road 11. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. restricted on-street loading and servicing for non-residential uses, iv. a high level of connectivity to the riverfront open space.
	Road 11 [secondary road]	A new riverside loop road between the intersection of Macarthur Avenue (southern section) and Road 3, and the intersection of Macarthur Avenue and Road 1 (Brett Street) that also connects to Road 10, including a new intersection. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling,

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

	ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. restricted driveway access on the southern section of the loop road closest to the Brisbane River, iv. restricted on-street loading and servicing for non-residential uses, v. a high level of connectivity to the riverfront open space.
Road 12 [secondary road]	A new riverside road extending east from the south-eastern corner of Road 11. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. restricted on-street loading and servicing for non-residential uses, iv. a high level of connectivity to the riverfront open space.
Bincote Street [secondary road]	Full road closure to the intersection of Macarthur Avenue (southern section), which will be zoned on closure to be consistent with the zoning of adjoining land as follows: i. the western road section: *Civic open space*, ii. the south-east (corner) road section: *Mixed use medium density - sub-area 2*, iii. the northern road section connecting to Macarthur Avenue: *Mixed use high density – sub-area 4*.
Road 13 [secondary road]	A new riverside loop road between the intersection of Macarthur Avenue (southern section) and Theodore Street, and the intersection of Macarthur Avenue (southern section) and Road 5, including a new intersection. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. restricted driveway access on the southern section of the loop road closest to the Brisbane River, iv. restricted on-street loading and servicing for non-residential uses, v. a high level of connectivity to the riverfront open space.
Road 14 [secondary road]	A new riverside loop road between the intersection of Macarthur Avenue (southern section) and Road 6, and the intersection of Macarthur Avenue (southern section) and Road 7 (Cedar Road), including a new intersection. Features include: i. one lane of vehicle traffic in each direction, on street parking, landscaping, footpaths and on street cycling, ii. design to achieve a low-vehicle speed, high pedestrian amenity environment, iii. restricted driveway access on the southern section of the loop road closest to the Brisbane River, iv. restricted on-street loading and servicing for non-residential uses, v. a high level of connectivity to the riverfront open space.
Links Avenue South **[secondary road]**	Street improvements including on street cycling.

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

Intersections	**New signalised intersections**	**New signalised intersections** i. Road 1 (Brett Street) and Kingsford Smith Drive, ii. Road 1 (Brett Street), Curtin Avenue West and Cullen Avenue West, iii. Road 1 (Brett Street) and Road 2, iv. Road 1 (Brett Street) and Macarthur Avenue (southern section), v. Theodore Street and Cullen Avenue West, vi. Theodore Street and Macarthur Avenue (northern section), vii. Theodore Street and Macarthur Avenue (southern section), viii. Macarthur Avenue and New Road 6. [Check Intersections – Map shows KSD, Cullen Ave West, Macarthur North and Macarthur South, but not Curtin Ave West. Table 3 states KSD, Cullen Ave West, Curtin Ave West, Macarthur North and Macarthur South]. Signalised Intersection upgrades i. Kingsford Smith Drive and Theodore Street
Active transport	Publicly accessible pedestrian and cycle connections, including shared cycleways, separated cycleways, recreational cycleways, new cross block links and new pedestrian pathways.	
Public transport	As required to service the PDA and may include: i. upgrades to ferry terminals including improved pedestrian access, signage, lighting and drop off facilities, ii. a new ferry terminal on the Brisbane River located between the Bretts Wharf and Northshore Hamilton f iii. new bus stops on Kingsford Smith Drive, Macarthur Avenue and Theodore Street.	
Parks, public realm and community facilities		
Parks	As required to service developments within the PDA and may include: i. new linear foreshore corridor / promenade along the Brisbane River foreshore, ii. new civic open spaces between Brisbane River and Macarthur Avenue (southern section), and iii. new sports fields in the Community facilities zone.	
Community facilities	As required to support development within the PDA and may include: i. an aquatic centre, ii. a multi-purpose community hub, iii. indoor and outdoor sport facilities, and iv. an education facility.	

Table 3: Infrastructure catalogue for the Northshore Hamilton PDA

Public realm	As required to support development within the PDA and may include the following features to connect buildings and developments to each other and the public realm, as identified on Map 3 - Urban Design Features and Map 5 – Active Transport: i. pedestrian pathways, ii. cross-block links, iii. streetscape (landscape and pavement) treatments on streets, and iv. plazas.
Stormwater	
Detention and treatment	As required to manage the impacts of development, including new stormwater pits and pipes from Macarthur Avenue to the Brisbane River. The existing open drain channel that runs east-west through the PDA (predominantly identified as the Special Purpose (environmental corridor) zone on Map 8: zones) will be upgraded to maximise the flood mitigation capacity, environmental and amenity values of the drain, while retaining significant vegetation.
Water supply and sewer	
Potable water	As required to service development and the PDA and may include augmentations and additions to trunk water mains along Macarthur Avenue (southern section) and Road 1 (Brett Street).
Sewer	As required to service development and the PDA and may include augmentations and additions to trunk sewer mains along Macarthur Avenue, Cullen Avenue West, Curtin Avenue West and Theodore Street.
Electricity	
Electrical network	As required to service development and the PDA
Telecommunications	
Telecommunications network	As required to service the PDA, including 5G and Dark fibre network.

3.5 Infrastructure charges, funding and conditions

Conditions of PDA development approval will identify the requirement to pay development charges set out in the DCOP, or to deliver the trunk infrastructure identified in the DCOP Infrastructure may be required to be delivered in accordance with a detailed Infrastructure Master Plan prepared to support a development application, or as required by a condition of PDA development approval.

The infrastructure identified in Table 3 will be funded from a combination of development charges and other revenue sources. State infrastructure funding may be provided through Federal Government grants. State expenditure on trunk infrastructure will be subject to consideration through normal state budgetary processes and will be part of an approved state agency capital works program.

Not all the works identified in Table 3 will be delivered through conditions of PDA development approval. Some infrastructure may be delivered by other entities such as local government, state government or other infrastructure providers.

The infrastructure identified in Table 3 reflect the current understanding of required infrastructure to support development in the PDA at the time of publication. However, further detailed infrastructure investigations will occur as development progresses. Infrastructure requirements and delivery responsibilities will be reviewed and may be amended over time to reflect the outcomes of these investigations and changing circumstances.

Infrastructure requirements established in the conditions of a PDA development approval must be delivered at the time of development occurring, unless otherwise agreed with EDQ.

3.6 Infrastructure agreements

An infrastructure agreement may be negotiated and entered into with MEDQ and other relevant infrastructure providers to address the provisions and requirements of the infrastructure plan. To the extent an infrastructure agreement is inconsistent with a PDA development approval, the infrastructure agreement prevails[57].

3.7 Infrastructure standards

Infrastructure will be delivered in accordance with conditions of PDA development approval, which will identify the relevant infrastructure standards in effect at the time of PDA development approval, or alternatively, Infrastructure master Plan approval. These standards may be:

i. Economic Development Queensland identified standards[58] ,
ii. local / State government standards; or
iii. infrastructure provider standards.

[57] See section 120 of the ED Act.

[58] For Desired Standards of Service (DSS) refer to the Northshore Hamilton PDA Infrastructure Planning Background Report.

4 Implementation strategy

The ED Act[59] requires a development scheme to include an implementation strategy to *'achieve the main purposes of the ED Act for this area, to the extent that they are not achieved by the Land use plan or the plan for infrastructure'.*

The implementation strategy fulfils this requirement by identifying actions that support the achievement of the vision, as well as the delivery of economic development and development for community purposes within the PDA.

The implementation strategy includes projects and actions that may require involvement from a range of stakeholders including local governments, state agencies, landowners, applicants, developers, community groups and not-for-profit organisations.

The implementation strategy in Table 4 contains six focus areas:

1. Master planning
2. Urban design and public realm
3. Connectivity
4. Housing diversity
5. Sustainability
6. Infrastructure planning and delivery

[59] See section 57 of the ED Act.

Table 4: Implementation strategy actions

4.1 Master planning	
Objective: Facilitate progressive renewal of both private and state government owned lands to deliver the vision for the PDA.	
	Action
4.1.1	Progressively plan, fund, facilitate and deliver new infrastructure, and upgrades to existing infrastructure, to catalyse investment in property development and business enterprise.
4.1.2	Enable development consistent with the PDA vision and zone intents by: i. facilitating a change of tenure of relevant state government lands; ii. undertaking the opening and closure of roads iii. facilitating the transfer of unallocated land
4.1.3	Reconfigure and redevelop state government land in the PDA by: i. releasing land to market for sale; ii. acting as a land developer; iii. establishing development management agreements with private sector developers.
4.1.4	Prepare an Open Space Master Plan that identifies the intended function, features and character of the three civic open space areas adjoining Macarthur Avenue, as well as the linear foreshore open space adjoining the Brisbane River that connects them, in the context of the existing open space locations in the PDA.
4.1.5	Investigate the viability and suitability of adaptively reusing existing buildings in the Civic Open Space zone with consideration of the zone intent, land tenure, activation, management, maintenance and community benefit.
4.1.6	Take a place based approach to the management of state government land and the public realm as they transition through renewal by: i. adaptively reusing existing assets; ii. activating the waterfront; iii. facilitating, managing and ceasing temporary and interim uses
4.1.7	Engage with the operators of existing heavy industry uses and hazardous chemical facilities to investigate options for the relocation of these land uses.
4.1.8	Ensure redevelopment in the PDA responds to the opportunities and demands of the 2032 Olympic and Paralympic Games (the Games) by: i. promoting the long-term economic and community benefits associated with hosting the Games in Brisbane; ii. working collaboratively with relevant state agencies and bodies responsible for coordinating the delivery of the Games, including the Organising Committee for the Olympic Games (OCOG); iii. providing for the design and delivery of the Brisbane Athletes' Village to meet the requirements of the Games, including capacity, security, transport, facilities, infrastructure and engineering specifications; iv. investigating how the PDA can contribute to the 2032 Games Master Plan to maximise the legacy for Brisbane city; v. programming the staging of development and infrastructure to responds to the Games requirements and timing.
4.2 Urban design and public realm	
Objective: Coordinate and monitor the design, form, type and arrangement of buildings, streets and the public realm to enhance the appearance of public space and contribute to the creation of place.	
	Action

Table 4: Implementation strategy actions

4.2.1	Develop and maintain a virtual 3D model of the PDA of constructed and approved built form in the PDA. *Note: An assessment manager may ask an applicant to provide a 3D model in a specified compatible format containing specific content to achieve this implementation action.*
4.2.2	Establish a Review Panel to provide professional expert advice in the consideration and assessment of development proposals and PDA development applications. *Note: Advice areas may include, but are not limited to landscape, architecture, development, engineering, heritage, economics, ecology, environmental and urban design matters.*
4.2.3	Investigate the viability of preparing and implementing an Urban Green Infrastructure Plan and associated Landscape Concept Plan for the PDA that identifies how best practice sub-tropical climate responsive design, tree planting and urban green infrastructure could be incorporated into the public realm.
4.3 Connectivity	
Objective: Facilitate the delivery of streets, pathways and public spaces to achieve permeability and connectivity to destinations within and surrounding the PDA.	
	Action
4.3.1	Investigate and facilitate the timely delivery of active transport and public transport infrastructure to cater for short, medium term and long term growth in the PDA, including public transport service improvement.
4.3.2	Facilitate the timely planning and delivery of road, pedestrian and cycling infrastructure.
4.3.3	Facilitate the timely planning and delivery of planned public transport infrastructure and services (bus, ferry).
4.3.4	Model and monitor traffic volumes and movements within the PDA to: i. facilitate the orderly operation of vehicle movement networks, ii. reduce congestion locations, iii. identify changes to timing of transport infrastructure delivery, and iv. inform decisions about provision of public transport services.
4.3.5	Investigate the viability of establishing the potential new ferry terminal indicatively identified on Map 4 – Connectivity.
4.4 Housing Diversity	
Objective: Facilitate the delivery of a broad range of housing and accommodation choices to suit a variety of households that support a socially diverse community in the PDA, including housing that provides universal design and variety in size, configuration, cost, adaptability and tenure.	
	Action
4.4.1	Develop, manage and monitor a database of existing and approved dwellings within the Northshore Hamilton PDA. *Note: Data collected may include characteristics of dwellings, such as number of bedrooms or bathrooms per dwelling, number of accessible dwellings, percentage of market, social and affordable housing dwellings, tenure, size of dwellings (m2) and number of car parking spaces per dwelling.*
4.4.2	Facilitate the delivery of, and examine options to incentivise, the delivery of social housing, community housing, affordable housing and innovative housing concepts.
4.4.3	Maximise affordable housing outcomes in the PDA over the long term through delivery via development agreements and/or PDA development approvals.

Table 4: Implementation strategy actions

4.5 Sustainability	
Objective: Support the quality, diversity and productivity of social, ecological and economic systems in the PDA.	
	Action
4.5.1	Develop a stormwater and flood management plan for the PDA that advances the principles of Water Sensitive Urban Design (WSUD) and Integrated Water Cycle Management (IWCM).
4.5.2	Ensure the design and delivery of open space: i. contributes to offsetting the urban heat island effect; ii. consider noise generated in the public realm and assists with acoustic dampening; iii. enhances air quality by supporting air circulation; iv. mitigates strong winds; v. contains natural features that promote biodiversity; vi. enhances and promotes the Brisbane riverside setting.
4.5.3	Document and promote examples of ecological sustainability developed within the PDA, including the preparation of guidance material.
4.6 Infrastructure planning and delivery	
Objective: Facilitate the delivery of all urban infrastructure required to support ongoing community growth and development.	
	Action
4.6.1	Form partnerships to invest in the delivery of state and trunk infrastructure network items identified as necessary to facilitate ongoing investment and economic development in the PDA.
4.6.2	Develop a plan for the tenure and management of civic open space areas.
4.6.3	Ensure lot reconfigurations respond to the area requirements and operational needs of each infrastructure network.
4.6.4	Facilitate ongoing collaboration across agencies to analyse requirements for comprehensive social services provision in the PDA and surrounding networks to identify opportunities for innovation, co-location and integration of community facilities.
4.6.5	Undertake regular reviews of car parking demand and development scheme requirements, with consideration for commercial viability of developments, road network capacity and the intent of the development scheme to prioritise public transport and active transport over private vehicle use.
4.6.6	Identify and investigate the viability of more efficient and innovative car parking design, delivery and management approaches, including but not limited to: i. temporary or permanent shared parking arrangements between land uses and developments, ii. below ground car parking under civic open space areas, and iii. temporary car parking structures designed to transition to other land uses in the medium and long term.
4.6.7	Undertake regular reviews of the Development Charges and Offsets Plan (DCOP) for the PDA to ensure key infrastructure is identified, delivered and performs as planned and designed.

Schedules

Schedule 1: Definitions

Unless defined below or in the *Economic Development Act 2012*, activity groupings, use and administrative definitions from the Brisbane City Plan apply to all development in the Northshore Hamilton PDA.

Affordable housing
Housing that is appropriate to the needs of households with low to moderate incomes. A guide to what EDQ considers to be affordable housing is available in EDQ Guideline 16.

Brisbane City Plan
Means the Brisbane City Council Planning Scheme 2014, as amended and replaced from time to time.

Community housing
Community housing is a form of social housing assistance, delivered by community organisations and local governments and funded by the state under the *Housing Act 2003*.

Cross block link
Means a privately owned publicly accessible connection between two streets that may be covered or uncovered and may include an arcade or shared lane.

Hazardous chemical facility
Means Hazardous chemical facility as defined by the *Planning Regulation 2017.*

High-water mark
Means high-water mark as defined by the *Coastal Protection and Management Act 1995.*

Interim use
An interim use is a land use that, because of its nature, scale, form or intensity, may not be an appropriate long term use of the land, but may be appropriate for a short or medium term period as the PDA develops.

Maximum building height
For the purpose of calculating maximum building height in storeys, the following does not constitute a storey:

i. a space containing only a lift shaft, stairway or meter room, or
ii. a space containing only a bathroom, shower room, laundry, toilet or other sanitary compartment, or
iii. a space situated between one floor level and another floor level above, where the space contains only communal open space; or
iv. a space on top of a building that contains only communal open space, regardless of whether the communal open space is covered by roofed areas or shade structures, or
v. a space on top of a building that contains only renewable energy generation installation for solar or wind energy generation, or
vi. a space containing only a combination of the things stated in subparagraph i. to v., or
vii. a mezzanine containing only one or a combination of the things stated in subparagraph i. to iii; or
viii. a basement with a ceiling that is not more than 1m above ground level.

Plot ratio
Means the ratio of the gross floor area of a building on a site to the area of the site. Where the development includes dedication of land for a new roadway, the site area for calculating the plot ratio does not include the land to be dedicated for the new roadway.

Public housing
Means housing:

i. provided by or for, the state or a statutory body representing the state, and
ii. for short or long term residential use, and
iii. totally or partly subsidised by the state or a statutory body representing the state.

It includes services provided for residents of the housing, if the services are totally or partly subsidised by the state or a statutory body representing the state.

Setback
For a building or structure, means the shortest distance, measured horizontally, between the outermost projection of the building or structure to the vertical projection of the boundary of the lot where the building or structure is. For a site with 2 or more street frontages, all common boundaries with adjoining lots are considered side boundaries.

Significant vegetation
Means all vegetation, except those listed as pest vegetation by state or local government, whether living or dead, including its root zone[60] that:

i. is significant in its ecological value at local, state or national levels
ii. maintains biodiversity
iii. preserves natural landforms
iv. contributes to the character of a landscape
v. has cultural or historical value, or
vi. has amenity value.

Known significant vegetation within the PDA includes all of the following:

i. all vegetation including marine plants along the Brisbane River,
ii. all vegetation, including marine plants located in drainage corridors,
iii. all trees in parks,
iv. street trees,
v. all significant landscape trees as defined by Brisbane City Plan.

Social housing
Social housing refers to housing for a residential use, other than crisis accommodation, that is either provided by:

i. the state as public housing, as defined in the *Planning Regulation 2017*, or
ii. an entity other than the state (e.g. a not-for-profit organization or local government) as community housing).

[60] The zone of the soil and roots described by the vertical projection of the foliage limit of the tree, to the depth of 1m and including buttress roots on and above the soil surface

Schedule 2: Transport, access, parking and servicing

Schedule 2 is applicable to all development in the PDA.

Parking	Development provides sufficient parking for residents, employees, customers and visitors on site and does not negatively impact on adjoining sites or the quality and amenity of the streetscape, public realm or adjoining sites. The amount of car-parking provided by development does not: 1. unreasonably burden the operation of the local road network and external connections, 2. prejudice the viability of future public transport services, 3. compromise the envisaged outcomes for urban design, building form, the public realm or sustainability identified in the development scheme. All parking is located internal to a site or development, preferably located in basements. Where basement parking is visible from the street frontage, it is screened by densely planted landscape and/or architectural treatments that are integrated into the overall design of the building. Car parking, including temporary car-parking areas, are located and designed to ensure no negative impact on residential amenity, activation or casual surveillance outcomes. Vertically integrated parking is sleeved by active uses on all primary frontages. Where parking on a secondary frontage is not sleeved with active uses, it must be screened through architectural treatments and/or densely planted landscape. All car parking areas are designed in accordance with the relevant requirements set out in Brisbane City Plan, Transport, Access, Parking and Servicing Planning Scheme Policy.
Parking rates[61]	**Residential parking rates** Car-parking for the exclusive use of residents is provided at a rate of a minimum of 0.75 and maximum of 2.0 spaces per dwelling. Parking may be provided in tandem where 2 spaces are provided for 1 dwelling. Visitor car-parking spaces are provided at a rate of 0.15 spaces per dwelling. Visitor spaces are not provided in tandem. Parking spaces for people with disabilities are provided at a rate of 0.02 spaces per dwelling, with a minimum of 1 parking space, and provided in addition to the identified per dwelling residential parking rate and visitor parking rate. *Example: For a development that contains 100 residential dwellings the following car parking allocation would apply:* • *a minimum of 75 residential car parking spaces allocated to residential dwellings, and* • *a maximum of 200 residential car parking spaces allocated to the residential dwellings, and* • *15 unallocated car parking spaces for visitors, and* • *2 unallocated car parking spaces are provided for people with disabilities.* **Non-residential parking rates** For office, shop, shopping centre, showroom, research and technology industry and uses within the community facilities – major health care defined activity group- a maximum of 2 spaces per 100m^2 of GFA. All other development provides car parking consistent with the rates for use/s for the City frame, as identified in Brisbane City Plan Transport, Access, Parking and Servicing Planning Scheme Policy.

[61] Alternative parking rates may be adopted from time to time via a PDA guideline or policy document

Driveways and access	Development provides driveway crossovers and site access that is located and designed in accordance with the relevant requirements set out in Brisbane City Plan, Transport, Access, Parking and Servicing Planning Scheme Policy.
Servicing	**Storage and refuse areas** Development provide storage and refuse areas which facilitate the efficient sorting and disposal of waste to maximise recycling opportunities. Development ensures that all storage and refuse areas: i. are contained within the building footprint, or ii. are not visible from the public realm (appropriately screened with landscape, fencing or similar), and iii. do not impact on the amenity of residents within or adjoining the development. **Loading and servicing areas** Development ensures that all loading and servicing areas: i. are located to the rear or side of the premises away from the street frontage, ii. are integrated into the design of the building so that loading occurs internally, where practical, iii. are screened with landscape or articulated built form, where visible from the street or from adjoining properties, iv. are designed to enable all vehicles to exit loading and servicing areas in forward gear, v. are designed to provide on-site servicing, so that no part of the vehicle should extend into the public road reserve, vi. should be designed to service a range of vehicle types in order to provide for flexibility, and vii. are of sufficient size and dimensions to avoid the use of car parks for temporary storage of goods.
Circulation	Development provides vehicle circulation that is designed in compliance with the relevant requirements set in Brisbane City Plan, Transport, Access, Parking and Servicing Planning Scheme Policy.
Pedestrian permeability	Development provides safe and well-defined entry points for pedestrians that is separated from vehicle entry.
Cycle access and parking facilities	Development delivers cycle parking spaces at the rates set in Brisbane City Plan, Transport, Access, Parking and Servicing Planning Scheme Policy. All non-residential development, and all residential development comprising 6 or more dwellings, provides cycle access and parking facilities in accordance with Australian Standards AS2890.3. All applicable development provides end of trip facilities including change rooms, toilets and showers in accordance with the Austroads Guide to Traffic Management, Part 11, Parking.

Schedule 3: Development Scheme Amendments

Amendment 1: <INSERT DAY AND MONTH> 2021
General
Restructure of the development scheme.
Update Introduction content to reflect change in legislation from *Urban Land Development Act 2007* to *Economic Development Act 2013*.
Land use plan
Vision: Redraft of the Vision to refine and reinforce intent for the PDA.
PDA-wide criteria: Restructure and redrafting of PDA-wide criteria – Urban design and public realm, Centres, Sustainable development, Housing diversity, Infrastructure planning and delivery, Environment and Managing the impacts of development.
Zones: Removal of the 6 zone types, being Mixed use centre zone, Mixed use zone, Residential medium intensity zone, Residential high intensity zone, Medium impact employment zone and Civic and open space zone.
Zones: Introduction of 11 zone types, being Mixed use medium density zone, Mixed use high density zone, Industrial zone, Mixed industry and business zone, Commercial centre zone, Sport and Recreation zone, Civic open space zone, Community facilities zone, Special purpose (transport) zone, Special purpose (port) zone, Special purpose (environmental corridor) zone.
Zones: Restructure and redrafting of zones – zone name, development intent and development provisions (reconfiguration, built form and urban design provisions). Includes amendments to height, setback, gross floor area, plot ratio and site cover provisions and introduction of minimum lot size and frontage provisions.
Precincts: Removal of the 10 precinct areas, including all Sup-Precincts and sub-Precinct Planning.
Precincts: Transfer of relevant content from precinct provisions into the new PDA-wide criteria and new zones.
Categories of development: Redraft of the categories of development tables to identify accepted development and assessable development by zone.
Infrastructure plan
Redraft Infrastructure plan to reflect new infrastructure planning for the PDA consistent with the development outcomes identified in the Land use plan.
Introduce reference to the Development Charges and Offsets Plan (DCOP) and Infrastructure Planning Background Report (IPBR) prepared for the PDA.
Implementation strategy
Redraft Implementation strategy.
Removal of completed or no longer required implementation actions.
Introduction of new implementation actions to achieve the Vision for the PDA.
Schedules
Schedule 1: Adoption of Brisbane City Plan definitions and inclusion of new development scheme specific provisions.
Schedule 2: Update of transport, access, parking and servicing requirements, including adoption of City Plan car parking rates
Mapping
Revision of all development scheme mapping to reflect most recently available base data.

Contact Us

Contact Economic Development Queensland by:

Email: edq@dsdilgp.qld.gov.au

Phone: (07) 3452 7880

Post: Economic Development Queensland
Department of State Development,
Infrastructure, Local Government and Planning
GPO Box 2202
Brisbane Queensland 4001 Australia

Pages 87 through 91 redacted for the following reasons:
- -
s. 73(1) - Not relevant/ Out of scope

Economic Development Queensland

Northshore Hamilton Priority Development Area (PDA) Development Scheme Amendment Stakeholder Engagement Plan (SEP)

September 2021

Queensland Government

Pages 94 through 101 redacted for the following reasons:
- -
s. 73(1) - Not relevant/ Out of scope

s. 73(2) - Not relevant/ Out of scope

About the Brisbane Athlete's Village for the 2032 Olympic and Paralympic Games

- On 21 July 2021, Brisbane was named as the host city for the Brisbane 2032 Olympic and Paralympic Games.
- The Northshore Hamilton Priority Development Area (PDA) has been identified as the proposed location for the main Athletes' Village.
- The selection of Northshore Hamilton PDA as the location of the main Athletes' Village is a unique opportunity to accelerate urban renewal in the area and support landowners, developers, residents and business within the PDA.
- Benefits of locating the main Athlete's Village in the Northshore Hamilton PDA include:
  - the delivery of development and infrastructure within the PDA will likely be accelerated, such as roads, public spaces and new residential and mixed-use buildings
  - the delivery of diverse housing options post-Olympics noting they were already contemplated by the PDA, such as private, affordable, build to rent, retirement, aged care and hotel / short term accommodation.
  - some buildings may be designed for the Athletes' Village, and then provide for later conversion to commercial, education, community and retail uses.
- Under the existing 2009 PDA development scheme, approximately 14,000 dwellings are ultimately planned within the PDA between now and 2050. The Athletes' Village is estimated to require approximately 1,750 dwellings, representing a small portion of the total dwellings to be delivered within the PDA.
- Notwithstanding the Athletes' Village being established within the PDA, EDQ as the development assessment authority for the area will continue to assess development applications against the current 2009 PDA development scheme until such time as an amended development scheme comes into effect. This means that:
  - property owners who have existing development approvals under the 2009 PDA development scheme can progress development in accordance with their approvals; and

- property owners who intend to lodge development applications under the 2009 development scheme can continue to do so.

This will not affect delivery of the Athletes' Village, which is proposed to be located on EDQ owned lands in the PDA.

- Progressing this scheme amendment and DCOP to public notification and subsequent adoption will provide clarity and certainty to residents and developers about the development potential of privately owned lands (i.e. non-EDQ owned lands), which are not required to deliver the main Athletes' Village, noting the development scheme review process has been in progress for a number of years.

- Preparation of the scheme amendment started before Brisbane was named as the host of the 2032 Olympic and Paralympic Games, and prior to Northshore Hamilton PDA being named as the location for the main Athletes' Village. However the proposed scheme amendment does not compromise the ability to plan for or deliver the Brisbane Athletes' Village in the PDA.

- It is 11 years before Brisbane hosts the 2032 Olympic and Paralympic Games. It is reasonable to expect the Northshore Hamilton PDA Development Scheme and DCOP will be reviewed to ensure they adequately reflect current government policy, community values, local business aspirations, development trends and contemporary infrastructure over time. The development scheme and DCOP can be further amended to fully recognise the International Olympic Committee requirements for an Athletes' Village in the PDA.

Pages 104 through 127 redacted for the following reasons:
- -
s. 73(1) - Not relevant/ Out of scope

GENERAL MANAGER
Economic Development Queensland

Our ref: DEPBN20/412
Date: 14 October 2021

BRIEFING NOTE FOR DECISION

SUBJECT Approval to proceed to public notification of the draft Northshore Hamilton Priority Development Area (PDA) Development Charges and Offsets Plan (DCOP) and Infrastructure Planning Background Report (IPBR)

☑ Approved ☐ Not approved ☑ Noted ☐ Further information required (see comments)	Signed..... Date 14/10/21 Debbie McNamara **General Manager** Economic Development Queensland Comments:

ACTION REQUIRED BY 15 October 2021 to align with the proposed consultation schedule draft Northshore Hamilton development scheme amendment No.1.

RECMMENDATIONS

- **approve**, on behalf of the Minister for Economic Development Queensland (MEDQ), the Northshore Hamilton PDA DCOP (**Attachment 1**) and IPBR (**Attachment 2**) to proceed to public notification.
- **note** the MEDQ is considering a separate briefing note for the draft Northshore Hamilton PDA Development Scheme amendment No.1 to proceed to public notification.
- **note** that the DCOP will only proceed to public notification at such time as the Development Scheme is approved and proceeds to public notification.
- **note** the Economic Development Board have been briefed on the draft DCOP at the meeting held on 3 March 2021 (**Attachment 3**).

KEY ISSUES

- The Northshore Hamilton PDA was declared by regulation on 27 March 2008. The PDA development scheme came into effect on 3 July 2009.
- In September 2015, EDQ commenced a major review of the PDA's regulatory framework, resulting in the draft development scheme amendment No.1, DCOP and IPBR.
- The DCOP and IPBR will assist the MEDQ in exercising powers relating to infrastructure contributions matters in the PDA under section 10(1)(f) and section 85 of the *Economic Development Act* 2012 (ED Act).
- The DCOP will be the first endorsed policy document specifically for the PDA addressing trunk infrastructure plans, charges, crediting and offset arrangements. The DCOP will supersede and replace the Infrastructure Funding Framework (IFF) that currently applies within the PDA.
- The IPBR establishes technical details and desired standards of service for the infrastructure identified in the DCOP. It is based on technical documents addressing growth and yield forecasts as well as transport, water, sewer, stormwater, community facility and open space planning for the PDA.
- Key planning and policy matters underpinning the DCOP are detailed in **Attachment 4**.
- Further formatting and editing of the draft DCOP and IPBR will occur concurrently with the progression of this brief.

BRIEFING NOTE FOR DECISION

s. 73(2) - Not relevant/ Out of scope

SENSITIVITIES/RISKS

- On 21 July 2021 Brisbane was named as the host city for the 2032 Olympic and Paralympic Games and Northshore Hamilton PDA has been identified as the location of the Brisbane Athlete's Village. Progressing the proposed development scheme amendment and DCOP to public notification will not compromise the ability to deliver the Brisbane Athlete's Village at Northshore Hamilton.
- Public notification of the Development Scheme amendment No.1, DCOP and IPBR is listed on EDQ's forward planner as a media opportunity.

HUMAN RIGHTS ACT

- There are no human rights identified as being relevant to this decision.

Author	**Approved by**	**Approved by**
Name: Kate Keleher Position: Development Manager Unit: Planning and Urban Design Tel/Mob No: Sch. 4(4)(6) - Dis Date: 30/08/2021	Name: Peter Gill Position: Director, Infrastructure Planning Branch: Technical Services Tel/Mob No: Sch. 4(4)(6) - Dis Date: 20 September 2021	Name: Glenn Ziernik Position: Executive Director Division: Technical Services Tel/Mob No: Date: 23 September 2021

Economic Development Queensland

Northshore Hamilton Priority Development Area
Draft Development Charges and Offset Plan

MONTH YEAR

Queensland Government

The Department of State Development, Manufacturing, Infrastructure and Planning improves productivity and quality of life in Queensland by leading economic strategy, industry development, infrastructure and planning, for the benefit of all.

Copies of this publication are available on our website at www.dsdmip.qld.gov.au and further copies are available upon request to:

Economic Development Queensland
Department of State Development, Manufacturing, Infrastructure and Planning
GPO Box 2202, Brisbane Queensland 4002.
1 William Street Brisbane Qld 4000 (Australia)

Phone: 13 QGOV (13 7468)
Email: edq@dsdmip.qld.gov.au
Web: www.edq.qld.gov.au

Contents

1 Preliminary

1.1 Economic Development Act

The *Economic Development Act 2012* (the ED Act)[1] establishes the Minister for Economic Development Queensland (MEDQ) as a corporation sole to exercise the functions and powers of the ED Act.

The main purpose of the ED Act[2] is to facilitate economic development, and development for community purposes, in the state. The ED Act[3] seeks to achieve this by establishing the MEDQ and providing for a streamlined planning and development framework for particular parts of the state declared as priority development areas (PDAs).

The ED Act[4] provides for the MEDQ to fix charges and other terms for the provision of infrastructure in PDAs.

This document is the Development Charges and Offset Plan (DCOP) made by the MEDQ[5] for the Northshore Hamilton PDA (the PDA).

1.2 Northshore Hamilton Priority Development Area

The PDA was declared by regulation[6] on 27 March 2008.

The PDA is approximately 304 hectares of land in the northern suburbs of Hamilton. The PDA is bounded by the Brisbane River to the south, Kingsford Smith Drive to the north and the Gateway Motorway and Southern Cross Motorway to the east. The boundaries of the PDA are shown on map 1.

1.3 Application of the Development Charges and Offset Plan

The Northshore Hamilton PDA DCOP is made by the MEDQ and is applicable to all development on land and water within the boundaries of the PDA.

The DCOP became effective on DATE XXXX.

1.4 Purpose of the DCOP

The DCOP is a policy document which is intended to provide guidance to the MEDQ on infrastructure matters for a development application and states the following for the PDA:

i. the development charge for the provision of trunk infrastructure for the following networks:
    a. water supply
    b. sewerage
    c. stormwater
    d. transport
    e. parks and community facilities

ii. the trunk infrastructure plans and schedules of works, and

[1] See section 8 of the ED Act.
[2] See section 3 of the ED Act.
[3] See section 4 of the ED Act.
[4] See section 10 of the ED Act.
[5] See section 10 of the ED Act.
[6] See section 37 of the ED Act.

iii. matters relevant to calculating a credit, offset or refund for the provision of trunk infrastructure.

Development charges will contribute to funding the cost of trunk infrastructure which is proposed to service development within PDA.

On and from the date the DCOP takes effect, the Infrastructure Funding Framework has no application for the PDA. Additionally, to the extent of any inconsistency, the DCOP prevails over other EDQ instruments concerning charges, credits, offsets and refunds, including, without limitation the following EDQ guidelines or practice notes:

i. Practice Note 16 Calculation of offsets for affordable and diverse housing, and

ii. Practice Note 17 Calculation of offsets for ecologically sustainable design.

1.5 Transitional arrangements: the Infrastructure Funding Framework to the DCOP

This DCOP applies to PDA development approvals issued in accordance with the Northshore Hamilton PDA Development Scheme in effect as of [date that the draft Northshore Hamilton Development Scheme comes into effect]. PDA development approvals issued prior to [date that the draft Northshore Hamilton Development Scheme comes into effect] cannot be amended to include the DCOP charges without first undergoing a new development assessment process against the Northshore Hamilton PDA Development Scheme in effect as of [date that the draft Northshore Hamilton Development Scheme comes into effect].

Map 1: PDA boundary

Path: G:\Projects\EDQ\Northshore_Hamilton\201019_DICOP\MXD\20191115_NSH_PDA_PDA_Boundary_A3L.mxd

2 Development charges

2.1 Charge categories

This DCOP categorises the uses defined in the PDA development scheme stated in column 2, into the charge categories stated in column 1, Table 1.

Where a "use" is not listed in column 2 of Table 1 (including where a "use" is unknown because the PDA development application does not specify a proposed "use" or where a "use" is undefined in the PDA development scheme), the MEDQ will determine the appropriate charge category to apply based on an assessment of the "use" and the demand placed upon the trunk infrastructure networks by the development.

Table 1: Charge categories and uses

Column 1 **Charge category**	**Column 2** **Use type under the PDA development scheme**
Residential development	
Residential	Caretaker's accommodation, Dual occupancy, Dwelling house, Multiple dwelling, Dwelling unit
Accommodation (long-term)	Community residence, Retirement facility, Rooming accommodation (boarding house, hostel, monastery), Non-resident workforce accommodation, Rural workers' accommodation
Accommodation (short-term)	Hotel (residential component), Short-term accommodation
Non-residential development	
Commercial (bulk goods)	Agricultural supplies store, Bulk landscape supplies, Garden centre, Hardware and trade supplies, Outdoor sales, Showroom
Commercial (retail)	Adult store, Food and drink outlet, Service industry, Service station, Shop, Shopping centre
Commercial (office)	Office, Sales office
Education facility	Child care centre, Community care centre, Educational establishment
Entertainment	Hotel (non-residential component), Nightclub Entertainment facility,
Essential services	Emergency services, Health care services, Residential care facility, Veterinary services
Indoor sport and recreational facility	Indoor sport and recreation
Industry	Low impact industry, Research and technology industry, Warehouse,
Places of assembly	Club, Community use, Function facility, Funeral parlour, Place of worship
Other uses	Air services, Animal keeping, Car wash, Crematorium, Environment facility Undefined use
Minor uses	Home based business, Landing, Market, Park, Roadside stall, Substation, Telecommunications facility, Temporary use

2.2 Development charge rates for reconfiguring a lot or material change of use

The following types of charges (the sum of which equal the development charge) apply to development in the PDA:

i. infrastructure charges, and

ii. value uplift charges.

Development charges are payable for the following development:

i. Reconfiguring a lot - The development charge rates for reconfiguring a lot are set out in Table 2.

ii. Material change of use - The development charge rates for a material change of use are set out in Table 3.

Table 2: Infrastructure charge rates for reconfiguring a lot

Demand unit	Infrastructure charge rates ($ per lot created)	Value uplift charge rates ($ per demand unit of m^2 of uplift GFA)
Lot	29,998.45	0

Table 3: Infrastructure charge rates for material change of use

Residential use	Demand unit	Infrastructure charge rates ($ per demand unit)	Value uplift charge rates ($ per demand unit of m^2 of uplift GFA)
Residential charge category			
Dwelling house	1 or 2 bedroom dwelling	21,427.49	105.87
	3 or more bedroom dwelling	29,998.45	105.87
Dual occupancy	1 or 2 bedroom dwelling	21,427.49	105.87
	3 or more bedroom dwelling	29,998.45	105.87
Caretaker's accommodation	1 or 2 bedroom dwelling	21,427.49	105.87
	3 or more bedroom dwelling	29,998.45	105.87
Multiple dwelling	1 or 2 bedroom dwelling	21,427.49	105.87
	3 or more bedroom dwelling	29,998.45	105.87
Dwelling unit	1 or 2 bedroom dwelling	21,427.49	105.87
	3 or more bedroom dwelling	29,998.45	105.87
Accommodation (short-term) charge category			
Hotel (residential component)	Suite with 1 or 2 bedrooms	10,713.72	52.93
	Suite with 3 or more bedrooms	14,999.23	52.93
	Bedroom that is not part of a suite	10,713.72	52.93
Short-term accommodation	Suite with 1 or 2 bedrooms	10,713.72	52.93
	Suite with 3 or more bedrooms	14,999.23	52.93
	Bedroom that is not part of a suite	10,713.72	52.93
Accommodation (long-term) charge category			
Community residence	Suite with 1 or 2 bedrooms	21,427.49	105.87
	Suite with 3 or more bedrooms	29,998.45	105.87
	Bedroom that is not part of a suite	21,427.49	105.87
Hostel	Suite with 1 or 2 bedrooms	21,427.49	105.87
	Suite with 3 or more bedrooms	29,998.45	105.87
	Bedroom that is not part of a suite	21,427.49	105.87
Retirement facility	Suite with 1 or 2 bedrooms	21,427.49	105.87
	Suite with 3 or more bedrooms	29,998.45	105.87
	Bedroom that is not part of a suite	21,427.49	105.87
Rooming accommodation	Suite with 1 or 2 bedrooms	21,427.49	105.87
	Suite with 3 or more bedrooms	29,998.45	105.87
	Bedroom that is not part of a suite	21,427.49	105.87

Non-residential use	Infrastructure charge rates for trunk infrastructure networks other than stormwater ($ per demand unit of m^2 of GFA)	Infrastructure charge rates for stormwater trunk infrastructure network ($ per demand unit of m^2 of impervious area)	Value uplift charge rates ($ per demand unit of m^2 of uplift GFA)
Places of assembly charge category			
Function facility	75.01	10.69	158.80
Club	75.01	10.69	158.80
Community use	75.01	10.69	158.80
Funeral parlour	75.01	10.69	158.80
Place of worship	75.01	10.69	158.80
Commercial (bulk goods) charge category			
Agricultural supplies store	149.96	10.69	158.80
Bulk landscape supplies	149.96	10.69	158.80
Garden centre	149.96	10.69	158.80
Hardware and trade supplies	149.96	10.69	158.80
Outdoor sales	149.96	10.69	158.80
Showroom	149.96	10.69	158.80
Commercial (retail) charge category			
Adult store	192.84	10.69	158.80
Food and drink outlet	192.84	10.69	158.80
Service industry	192.84	10.69	158.80
Service station	192.84	10.69	158.80
Shop	192.84	10.69	158.80
Shopping centre	192.84	10.69	158.80
Commercial (office) charge category			
Office	149.96	10.69	158.80
Sales office	149.96	10.69	158.80
Educational facility charge category			
Childcare centre	149.96	10.69	158.80
Community care centre	149.96	10.69	158.80
Educational establishment	149.96	10.69	158.80
Entertainment charge category			
Hotel (non-residential component)	214.28	10.69	158.80
Nightclub entertainment facility	214.28	10.69	158.80
Theatre	214.28	10.69	158.80
Resort complex	214.28	10.69	158.80
Indoor sport and recreational facility charge category			
Indoor sport and recreation facility	214.28 (excludes court areas)	10.69	158.80
	21.39 (for court areas)	10.69	0.00

Non-residential use	Infrastructure charge rates for trunk infrastructure networks other than stormwater ($ per demand unit of m^2 of GFA)	Infrastructure charge rates for stormwater trunk infrastructure network ($ per demand unit of m^2 of impervious area)	Value uplift charge rates ($ per demand unit of m^2 of uplift GFA)
Industry charge category			
Low impact industry	53.57	10.69	0.00
Research and technology industry	149.96	10.69	0.00
Warehouse	53.57	10.69	0.00
Essential services charge category			
Emergency services	149.96	10.69	0.00
Health care services	149.96	10.69	0.00
Residential care facility	149.96	10.69	105.87
Veterinary services	149.96	10.69	158.80
Minor uses charge category			
Uses in the minor uses charge category	The development charge rate is that which is applicable to the charge category that the MEDQ decides should apply for the use having regard to the use and the demand placed upon the trunk infrastructure networks by the use.		
Other uses charge category			
Uses in the other uses charge category	The development charge rate is that which is applicable to the charge category that the MEDQ decides should apply for the use having regard to the use and the demand placed upon the trunk infrastructure networks by the use.		

2.3 Calculating a development charge

A development charge is equal to the sum of the infrastructure charge and value uplift charge as applicable to the development, as follows:

DC = IC + VUC

Where:

DC = Development charge

IC = Infrastructure charge

VUC = Value uplift charge

2.4 Calculating an infrastructure charge

An infrastructure charge will be calculated by:

i. multiplying the proposed development demand by the infrastructure charge rate set in section 2.2; and then

ii. subtracting from it the applicable credit calculated in accordance with section 2.7, as follows:

IC = (DD x ICR) – C

Where:

IC is the infrastructure charge, which cannot be less than zero.

DD is the development demand represented by the demand unit (i.e. a number of lots, dwellings, GFA and/or impervious area).

ICR is the applicable infrastructure charge rate.

C is the value of any applicable credit, represented in dollars.

2.5 Calculating a value uplift charge

Value uplift charges apply only to development yield exceeding that which would generally be allowable under the Brisbane City Council Brisbane City Plan 2000 (City Plan) in force in March 2008 (as per Map 2). Value uplift charges are applied in addition to infrastructure charges and are applied to gross floor area (GFA) above that which is allowable in accordance with map 2.

The value uplift charge is determined using the following process.

VUC = (DD x VUCR)

Where:

VUC is the total value uplift charge for the development, which cannot be less than zero.

DD is the development demand represented by the demand unit (i.e. a number/quantity of GFA) that is greater than would generally be allowable under the City Plan in force in March 2008 as per Map 2.

VUCR is the applicable value uplift charge rate.

The method to determine the value uplift charge for a development proposal is as follows:

Step 1 — Determining the amount of GFA allowable (allowable GFA) by multiplying the Plot Ratio in Map 2) by the site area[7].

Step 2 — Determining the amount of the GFA which value uplift charges are to be applied to (uplift GFA) by taking the allowable GFA away from the total GFA proposed in the development approval (total GFA).

Step 3 — Determining what percentage of the total GFA is to be allocated to each use type (percentage use) by dividing the GFA proposed for each land use type by the total GFA and multiplying the answer by 100.

Step 4 — Multiply the percentage for each use (calculated in step 3) by the uplift GFA to determine the GFA for each land use which will be subject to value uplift charges (value uplift GFA).

Step 5 — Multiplying the value uplift GFA for each land use by the relevant value uplift charge rate. Add the resulting value uplift charges together.

2.6 Value uplift transitional provisions

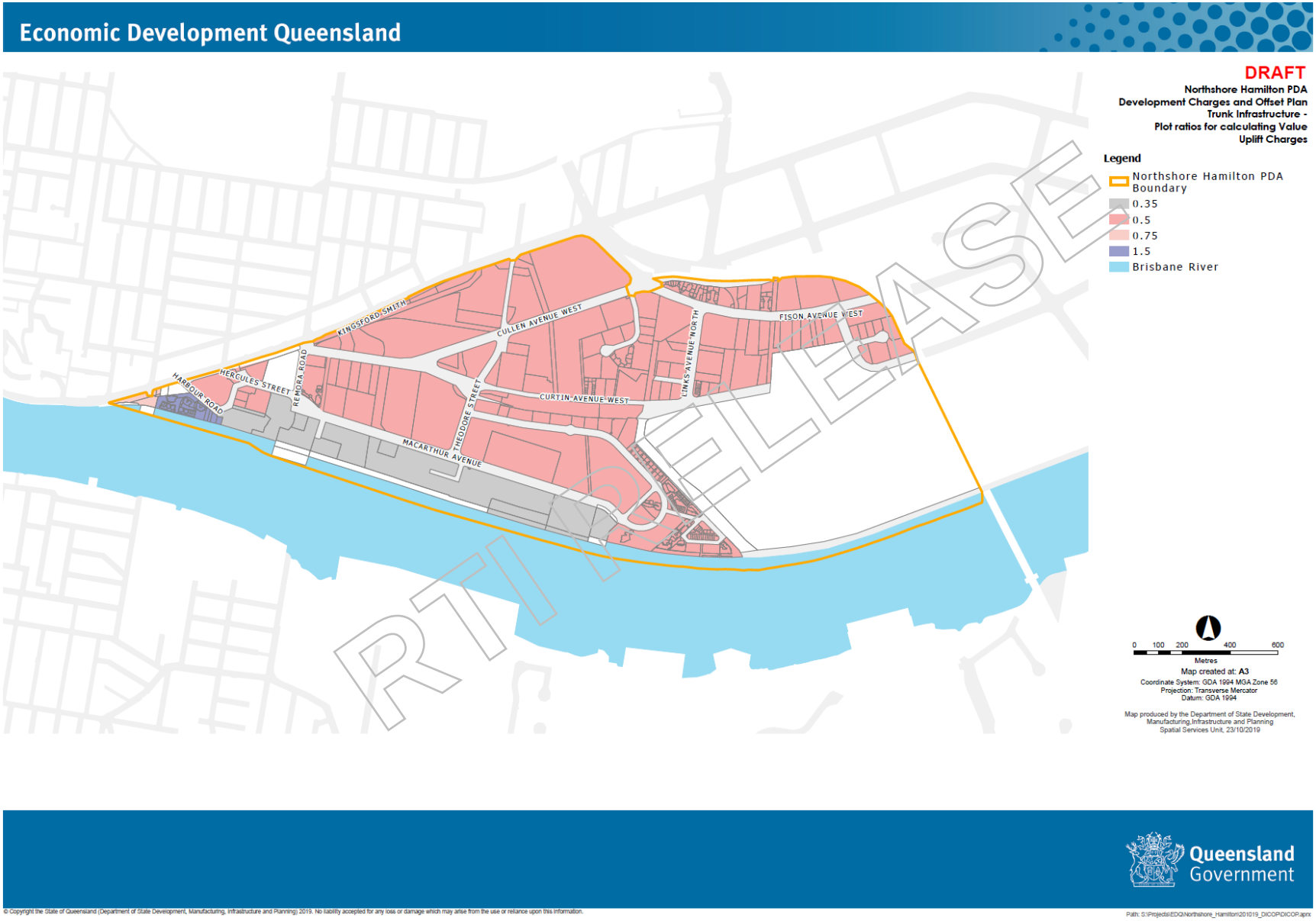
For the purposes of calculating a value uplift charge, a higher plot ratio than that shown in map 2 may be accepted where a landowner purchased a property in the PDA prior to 27 March 2008. The higher plot ratio may be accepted on the basis of a reasonable expectation that a higher development yield than that shown in map 2 would have been approved by Brisbane City Council (BCC).

In support of a claim under this section, a land owner is to provide evidence, prepared prior to 27 March 2008, from BCC that a higher development yield was supported or had a likelihood of approval.

Where an applicant provides evidence, which is accepted by the MEDQ, that a higher yield was supported or had a likelihood of approval for their site, the plot ratio allocated to that site by map 2 will be superseded by a plot ratio which aligns with the accepted higher yield for the site. Consequently, the higher plot ratio will be used to determine allowable GFA in accordance with section 2.5.

[7] Where a building does not take up the full development area of a site, value uplift charges will be calculated according to the development area that the building occupies

Map 2: Northshore Hamilton PDA plot ratios for determining allowable GFA



2.7 Credits for infrastructure charges

A credit may be applied to the calculation of an infrastructure charge.

A credit for an infrastructure charge is an amount which is the greater of the following:

i. the infrastructure charge for each existing lot, calculated using Table 2

ii. if the premises are subject to an existing lawful use and is serviced by trunk infrastructure, the infrastructure charge for the existing lawful use calculated using Table 3, or

iii. if the premises were subject to a previous lawful use and is serviced by trunk infrastructure, the infrastructure charge for the previous lawful use calculated using Table 3.

However, a credit is not available:

i. where the existing lawful use or previous lawful use commenced since the declaration of the PDA as accepted development, and charges were not levied

ii. where the existing lawful use or previous lawful use was an interim use approved by the MEDQ and charges were not levied, or

iii. for the impervious area component of an existing or previous lawful use that commenced prior to the declaration of the PDA, except within the industrial zone.

An applicant seeking a credit must provide evidence of the existing lawful use, previous lawful use, creation of the lot or payment of charges for accepted development or an interim use.

The sum of the credits for the infrastructure charges cannot exceed the sum of the infrastructure charges for the approved development.

2.8 Development exempt from development charges

Development charges do not apply to development undertaken by the State, or another entity representing the State, for the following purposes:

i. education

ii. emergency services

iii. health care services.

2.9 Delayed development charges

On application, the MEDQ may defer development charges deemed payable for not-for-profit or charitable organisations to assist with the delivery of these facilities within the PDA.

Not-for-profit or charitable organisations eligible for deferred development charges are defined as per the *Charities Act 2013* (Commonwealth) and are registered with the Australian Charities and Not-for-profits Commission, unless the applicant can provide proof that the organisation provides a public benefit to the community, which is not limited to members of the organisation. The deferral for not-for-profit or charitable organisations applies to non-residential development only.

Deferrals are limited to 50 per cent of the development charges payable for a PDA development approval - capped to a maximum of $40,000 per application.

Not-for-profit or charitable organisations may, at any time after the PDA development approval has been issued, but before the development charge becomes payable, apply for a deferral against the development charges.

If the MEDQ determines that an organisation meets the eligibility requirements, an infrastructure agreement may be prepared[8] to defer the payment of development charges.

If an infrastructure agreement is proposed, it may include clauses which stipulate that the levied development charges will become due and payable if:

i. the development or organisation no longer provides a public benefit

ii. the development ceases being used by the not-for-profit or charitable organisation, or

iii. the property is transferred or otherwise disposed of.

2.10 Interim use development charges

Where a PDA development approval includes a use, which is deemed to be an 'interim use', development charges will be applied in accordance with the following principles:

i. where the approval is for an interim use that has a duration of less than six years, charges will not be levied

ii. where the approval is for an interim use that has a duration of more than six years, charges are applicable and calculated in accordance with section 2.4, and

iii. where the approval is an extension of an interim use duration period and the total duration of the use is more than six years, charges are applicable and calculated in accordance with section 2.4.

2.11 Indexation of development charges

Development charges will be subject to indexation. Development charges are indexed on 1 July 2022 and then subsequently on 1st of July in each following year. Indexation rates are calculated in accordance with the following formula:

$$= \left(1 + \left[\frac{x - y}{y}\right]\right)^{\left(\frac{1}{3}\right)} - 1$$

Where:

x is the PPI for March in the current calendar year.

y is the PPI for the March which is three years prior to the March in the current calendar year.

2.12 Payment of development charges

A development charge is payable at the following time:

i. If the charge applies for development that is reconfiguring a lot, prior to the MEDQ approving the plan of subdivision.

ii. If the charge applies for development that is a material change of use, prior to the earlier of the following:

[8] The requirements set out in section 6.2 are not intended to be an exclusive list of requirements. The MEDQ retains ultimate discretion as to the terms and execution of any infrastructure agreement.

a. endorsement of a building format plan

b. the certificate of classification or final inspection certificate being issued for a building or structure, or

c. commencement of use.

3 Infrastructure offsets and refunds

3.1 Application of an offset

This section applies where an applicant:

i. is required to provide a trunk infrastructure land or works contribution in accordance with conditions of a PDA development approval issued under the ED Act[9], and

ii. requests the value of that trunk infrastructure land or works contribution to be offset against infrastructure charges (a trunk infrastructure offset).

An applicant may lodge an application with the MEDQ for the following types of offset claim:

i. Provisional offset (section 3.4), or

ii. Final offset (section 3.5).

3.2 Infrastructure works contribution – cost estimate

The value of a planned trunk infrastructure works contribution for is established in Section 4.1. An offset claim for a works contribution may include the following:

i. the construction cost for the works

ii. construction on-costs for the work which do not exceed a total of 13 per cent of the construction cost for the following:

   a. detailed design for the work including but not limited to RPEQ certification, survey, geotechnical, architectural, environmental and landscape design

   b. project management fees including but not limited to procurement and contract administration, and

   c. portable long service leave payment for a construction contract for the work.

iii. for a Provisional offset, the contingency percentage established in the Infrastructure Planning Background Report for the relevant infrastructure item.

An offset claim for a works contribution may not include the cost of the following:

i. master planning of the work

ii. carrying out temporary infrastructure works unless it is an agreed part of the works contribution

iii. carrying out other infrastructure works which is not part of the agreed works contribution

iv. decommissioning, removal and rehabilitation of infrastructure identified in ii) and iii), unless it is an agreed part of the works

v. additional costs for the trunk infrastructure that have not been previously agreed with EDQ

[9] See section 94 of the ED Act.

vi. part of the works contribution provided by another party

vii. the cost of GST to the extent that GST is payable, and an input tax credit can be claimed for the work

viii. a cost attributable directly or indirectly to the failure of an applicant or a person engaged by the applicant to perform and fulfil a relevant approval for the work

ix. a cost caused or contributed to by a negligent or wilful act or omission by the applicant or a person engaged by the applicant

x. a cost of carrying out non- trunk infrastructure works which is only made necessary by the development and does not contribute to the function of the trunk infrastructure item

xi. a cost of carrying out trunk infrastructure works which relates to another infrastructure network

xii. the cost involved in a redesign, where that redesign is a result of failing by the applicant or a person engaged by the applicant

xiii. a cost of carrying out infrastructure works in excess of the standard of service for the network of development infrastructure in the infrastructure plan, and

xiv. a cost of maintaining an infrastructure asset where required by a condition of approval.

3.3 Infrastructure land contribution – cost estimate

The value of a land contribution for planned trunk infrastructure is established in Section 4.1.

To determine the value of a land contribution, the MEDQ will attribute the Valuer-General's annual valuations (rate per m^2 basis) (in accordance with the *Land Valuation Act 2010*) which is current at the time the offset is to be granted.

The Value General's annual valuations will be used in circumstances where the lot which is affected by the land contribution requirement is vacant, under redevelopment or if there are structures on the land, the structures are deemed likely to be unaffected by the infrastructure project. If the provision of land is likely to affect existing structures, a valuation process will be undertaken for the site which may result in a different rate than the Valuer-General's annual valuation.

3.4 Provisional offset claim

Once a PDA development approval is issued, or at a later time, (but prior to the provision of land or the commencement of works which constitute the contribution which is the subject of the offset request), an applicant may submit a provisional offset claim for MEDQ assessment and decision.

The MEDQ will require the applicant to provide all relevant information that will assist in deciding provisional offset claim. The applicant must comply with any request for further information from the MEDQ.

A provisional offset claim is required where an applicant seeks to vary the scope, timing or cost of infrastructure land and works listed in Section 4.1.

In assessing the provisional offset claim the MEDQ shall:

i. determine whether an offset will be given for the contribution against development charges

ii. for a works contribution, determine the provisional works offset value at the lesser of either:

a. the schedule cost (or its proportion) in the schedule of works in section 4, or

b. on the basis or the applicant's' cost of works contribution pursuant to section 3.3.

iii. for a land contribution, determine the provisional land offset value to be offset against infrastructure charges with reference to the process outlined in section 3.4 based on the area of land to be contributed.

Having decided the request, the MEDQ must give a notice to the applicant stating the following:

i. whether a provisional offset will be given for the contribution

ii. if a provisional offset is to be given:

a. the provisional works offset value, or

b. the provisional land offset value.

A Provisional Offset has a currency period of 2 years from the date of decision.

The MEDQ will not accept and apply an approved provisional offset claim against development charges which are levied upon a PDA development approval.

3.5 Final offset claim

An applicant may submit a final offset claim for MEDQ assessment and decision at the following times:

i. for an infrastructure works contribution:

a. for a complete works contribution, when the works have been accepted as on-maintenance, or

b. for a partially complete works contribution, when the MEDQ has agreed to accept an uncompleted works bond for the contribution. However, an offset for a partially completed works contribution can only be for the value of the completed portion and not the uncompleted portion of the works.

ii. for a land contribution, when the trunk infrastructure contribution has been provided in accordance with the relevant PDA development approval.

The maximum offset that may be claimed is equal to or less than development charges that are applicable to a PDA development approval.

In assessing the final offset claim the MEDQ shall:

i. determine whether an offset will be given for the contribution against development charges

ii. determine the final offset value which will be equal to the lesser of:

a. an approved provisional offset claim; or

b. the value listed in the schedule of works in section 4 where no Provisional Offset was given; or

c. for an infrastructure works contribution, the certified actual costs;

d. for a land contribution, the actual land offset value determined by the MEDQ at the time of the application for a final trunk infrastructure offset, on the basis of the amount of land actually contributed in accordance with the PDA development approval

iii. the balance of any relevant development charges which are payable and the time that this payment must be made, and

iv. the amount of any unused offset.

Having decided the request, the MEDQ must give a notice to the applicant stating the following:

i. whether a final offset will be given for the contribution

ii. if a final offset is to be given:

   a. the infrastructure works offset value,

   b. the infrastructure land offset value, or

iii. Where an applicant's offset claim has not been accepted, the MEDQ will provide written notice of reasons for rejecting the applicant's request.

3.6 Refunds

Where the value of a Final offset for infrastructure land or works exceeds the value of applicable Development Charges, an applicant may be entitled to a refund.

Any refund is to accord with the following terms, unless otherwise agreed with the MEDQ:

i. the refund is not to exceed the value of the unused infrastructure offset

ii. the refund will only be made available when sufficient infrastructure charges have been collected by the MEDQ for the infrastructure item which is the subject of the refund, and

iii. the refund may be made over a series of payments.

An applicant may submit a request to the MEDQ for a refund. The request must contain the following information for each trunk infrastructure contribution the subject of the proposed refund:

i. that the trunk infrastructure contribution has been lawfully completed

ii. that the applicant seeks a refund of the unused infrastructure offset, and

iii. the value of the unused infrastructure offset.

The MEDQ may require the applicant to provide any further information that will assist in deciding a request for a refund. The applicant must comply with any request for further information from the MEDQ.

The MEDQ shall decide within 30 business days of receiving a properly made application for a refund or upon receiving the further information requested. The MEDQ shall issue a notice advising the applicant:

i. whether a refund is available or not

ii. if an infrastructure refund is not available, the reason, and

iii. if an infrastructure refund is available, the value of the refund, including indexation and details of the timing for payment of the refund.

4 Trunk infrastructure plans

4.1 Schedules of works

The schedule of works[10] set out in Tables 4, 5, 6, 7 and 8 outline future trunk land and works which are required to service the projected development within the PDA.

4.2 Trunk infrastructure maps

Trunk infrastructure networks set out in Maps 3, 4, 5, 6, 7 and 8 outline future trunk land and works which are required to service the projected development within the PDA.

[10] The Schedule of Works may be updated from time to time as information regarding infrastructure upgrades which are required to service the PDA is reviewed and/or becomes available.

Table 4: Schedule of future trunk infrastructure works - Transport

Map ref	Infrastructure type	Infrastructure description	Estimated timing	Land cost[1]	Total works cost[2]	Estimated cost[3]
I03	Unsignalised intersection	Macarthur Avenue / Cycle Street / Riverfront Lane	2022 to 2026	$0	$614,070	$614,070
I06	Unsignalised intersection	Macarthur Avenue / Cycle Street / Riverfront Lane	2027 to 2031	$0	$773,245	$773,245
I08	Unsignalised intersection	Macarthur Avenue / Cycle Street / Riverfront Lane	2019 to 2021	$0	$549,597	$549,597
I09	Unsignalised intersection	Macarthur Avenue / Cycle Street / Riverfront Lane	2019 to 2021	$0	$518,501	$518,501
R01	Road upgrade	Remora Road, Northshore Way and Macarthur Avenue Road Project	2019 to 2021	$0	$21,436,748	$21,436,748
R03	Road upgrade	Macarthur Avenue (between Cycle Street & Brett Street)	2022 to 2026	$0	$2,343,980	$2,343,980
R04	Road upgrade	Macarthur Avenue (between Brett Street & Theodore Street)	2027 to 2031	$0	$2,176,260	$2,176,260
R05	Road upgrade	Macarthur Avenue (between Brett Street & Theodore Street)	2027 to 2031	$0	$2,176,260	$2,176,260
R06	Road upgrade	Macarthur Avenue (between Theodore Street & Cycle Street)	2027 to 2031	$0	$2,949,134	$2,949,134
R07	Road upgrade	Macarthur Avenue (between Cycle Street & Cycle Street)	2027 to 2031	$0	$2,384,547	$2,384,547
R08	Road upgrade	Macarthur Avenue (between Cycle Street & Cycle Street)	2027 to 2031	$0	$2,417,918	$2,417,918
R09	Road upgrade	Macarthur Avenue (between Cycle Street & Cycle Street)	2019 to 2021	$0	$2,217,060	$2,217,060
R10	Road upgrade	Macarthur Avenue (between Cycle Street & Angora Road)	2019 to 2021	$888,070	$2,253,503	$3,141,573
SP01	Shared path	Macarthur Avenue Nth Shared Path	2027 to 2031	$0	$448,539	$448,539
PT01	Bus stop	Macarthur Avenue (Between Theodore Street & Brett Street)	2027 to 2031	$0	$141,250	$141,250
PT02	Bus stop	Macarthur Avenue (Between Theodore Street & Brett Street)	2027 to 2031	$0	$141,250	$141,250
			TOTAL	**$888,070**	**$43,541,862**	**$44,429,932**

Notes:

1 – Land for verge widenings has been excluded as verge widenings to meet minimum standards are not trunk infrastructure works. The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2018/19).

3 – Items identified within the 2019 to 2021 timeframe are known costs and therefore do not have on-costs or contingencies applied.

Map 3: Trunk infrastructure – Transport

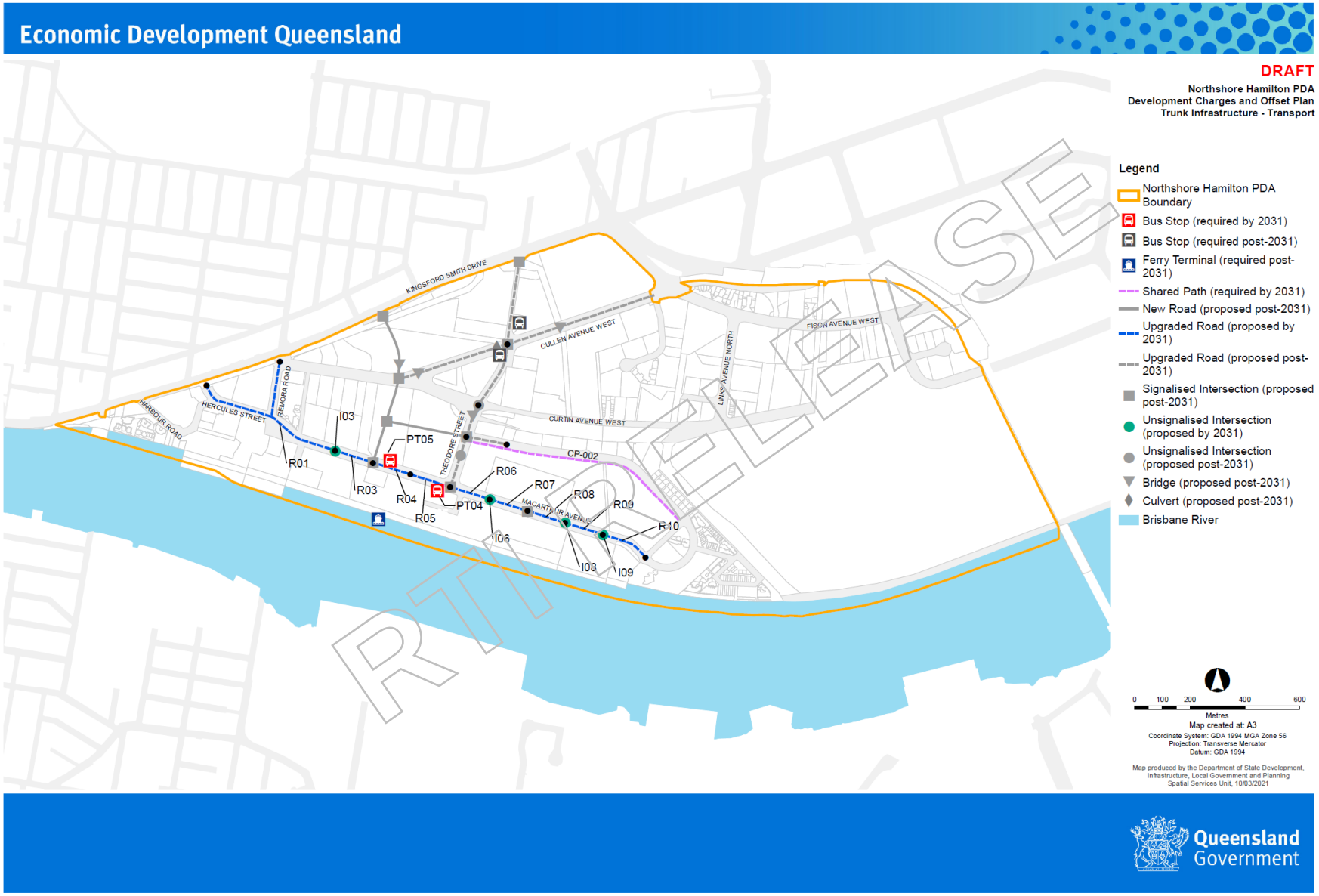


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Table 5: Schedule of future trunk infrastructure works - Parks and community facilities

Map ref	Infrastructure type	Infrastructure description	Area (m²) or Length (m)	Estimated timing	Land cost	Total works cost[1]	Estimated cost[2]
P02	Regional recreation park (metropolitan level)	Stage A – Land acquisition & partial embellishment	7,335	2027 to 2031	$4,300,000	$1,336,521	$5,636,521
P03	Regional recreation park (metropolitan level)	Stage A – Land acquisition & partial embellishment	13,964	2022 to 2026	$6,579,584	$2,544,397	$9,123,981
P03	Regional recreation park (metropolitan level)	Stage B - Partial embellishment	13,964	2027 to 2031	$0	$2,544,397	$2,544,397
P04	Regional recreation park (metropolitan level)	Stage A – Land acquisition & partial embellishment	4,135	2022 to 2026	$2,492,296	$753,372	$3,245,668
P04	Regional recreation park (metropolitan level)	Stage B - Partial embellishment	4,135	2027 to 2031	$0	$753,372	$753,372
P05	Regional recreation park (metropolitan level)	Stage A – Land acquisition & partial embellishment	3,308	2022 to 2026	$2,110,000	$602,744	$2,712,744
P05	Regional recreation park (metropolitan level)	Stage B - Partial embellishment	3,308	2027 to 2031	$0	$602,744	$602,744
P06	Regional recreation park (metropolitan level)	Stage A – Land acquisition & partial embellishment	5,478	2027 to 2031	$3,280,000	$998,240	$4,278,240
P07	Regional recreation park (metropolitan level)	Stage A – Land acquisition & partial embellishment	4,640	2027 to 2031	$2,700,000	$845,457	$3,545,457
RW01	Revetment wall	Frontage to park P02	120	2027 to 2031	$0	$2,682,006	$2,682,006
RW02	Revetment wall	Frontage to park P04	120	2022 to 2026	$0	$2,660,095	$2,660,095
RW03	Revetment wall	Frontage to park P05	150	2022 to 2026	$0	$3,272,608	$3,272,608
RW04	Revetment wall	Frontage to park P06	160	2027 to 2031	$0	$3,837,517	$3,837,517
RW05	Revetment wall	Frontage to P07	150	2027 to 2031	$0	3,463,822	3,463,822
				TOTAL	**$21,461,880**	**$26,897,292**	**$48,359,172**

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2018/19).

Map 4: Trunk infrastructure – Parks and community facilities

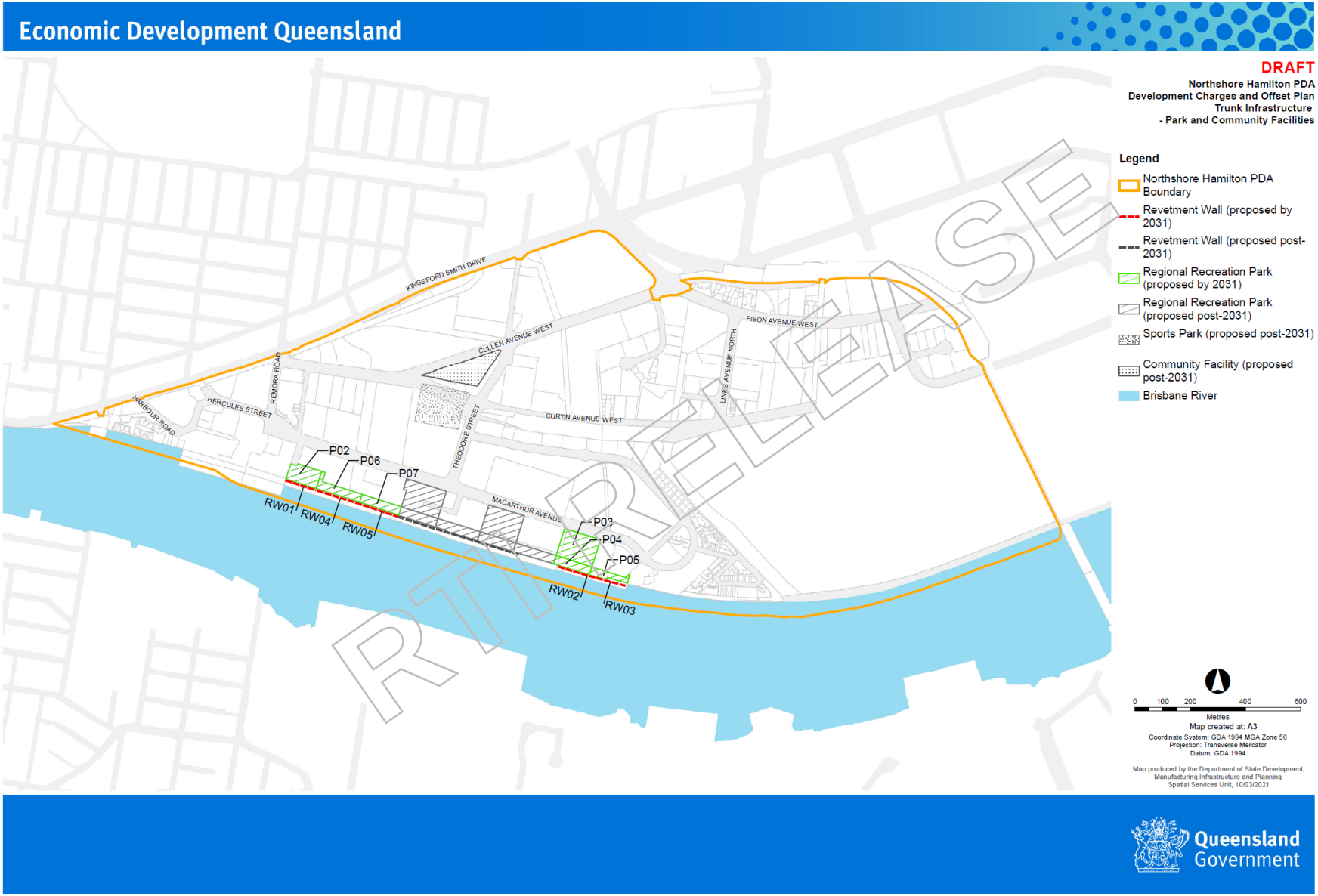

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Table 6: Schedule of future trunk infrastructure works – Stormwater

Map ref	Infrastructure type	Length (m) or Quantity	Diameter (mm)	Material	Estimated timing	Land cost[1]	Total works cost[2]	Estimated cost[3]
SW01	Stormwater pipe	52	1350	RCP	2022 to 2026	$0	$67,625	$67,625
SW02	Stormwater pipe	55	1350	RCP	2022 to 2026	$0	$94,640	$94,640
SW03	Stormwater pipe	42	1350	RCP	2022 to 2026	$0	$14,162	$14,162
SW04	Stormwater pipe	32	1200	RCP	2022 to 2026	$0	$15,947	$15,947
SW05	Stormwater pipe	60	1200	RCP	2022 to 2026	$0	$51,792	$51,792
SW06	Stormwater pipe	112	1200	RCP	2027 to 2031	$0	$103,054	$103,054
SW07	Stormwater pipe	49	750	RCP	2027 to 2031	$0	$30,639	$30,639
SW08	Stormwater pipe	78	1500	RCP	2027 to 2031	$0	$103,209	$103,209
SW09	Stormwater pipe	69	1500	RCP	2027 to 2031	$0	$144,555	$144,555
SW10	Stormwater pipe	91	1500	RCP	2027 to 2031	$0	$169,072	$169,072
SW11	Stormwater pipe	88	1200	RCP	2027 to 2031	$0	$66,508	$66,508
SW12	Stormwater pipe	18	900	RCP	2027 to 2031	$0	$16,918	$16,918
SW13	Stormwater pipe	65	900	RCP	2027 to 2031	$0	$43,112	$43,112
SW14	Stormwater pit	7			2022 to 2026	$0	$74,102	$74,102
SW15	Stormwater pit	4			2027 to 2031	$0	$42,344	$42,344
SW16	Stormwater pit	2			2027 to 2031	$0	$21,172	$21,172
SW17	Stormwater pit	2			2027 to 2031	$0	$21,172	$21,172
SW18	Stormwater pit	8			2027 to 2031	$0	$84,688	$84,688
					TOTAL	**$0**	**$1,164,711**	**$1,164,711**

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2018/19).

Map 5: Trunk infrastructure – Stormwater

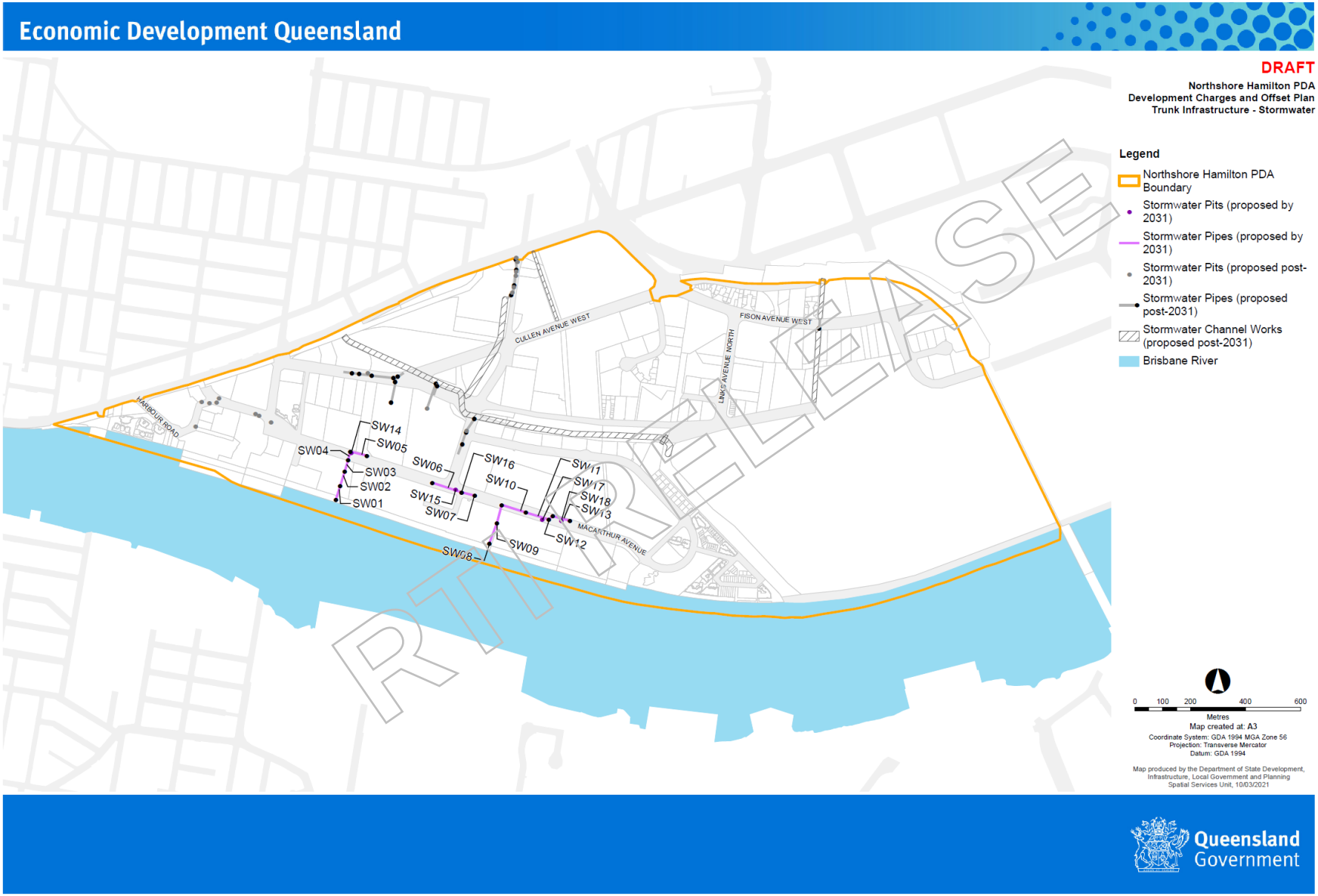

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Table 7: Schedule of future trunk infrastructure works – Water supply

Map ref	Infrastructure type	Pipe diameter (mm)	Pipe length (m)	Cost Factor	Estimated timing	Land cost	Total works cost[1]	Estimated cost[2]
W01	Watermain (PE)	355	135	2.28	2022 to 2026	$0	$313,476	$313,476
W02	Watermain (PE)	315	105	2.28	2027 to 2031	$0	$243,843	$243,843
W03	Watermain (PE)	315	157	2.28	2027 to 2031	$0	$363,399	$363,399
W04	Watermain (PE)	315	85	2.28	2027 to 2031	$0	$197,255	$197,255
W05	Watermain (PE)	315	75	2.28	2027 to 2031	$0	$174,341	$174,341
W06	Watermain (PE)	315	103	2.28	2027 to 2031	$0	$237,314	$237,314
W07	Watermain (PE)	315	62	2.28	2027 to 2031	$0	$142,348	$142,348
W08	Watermain (PE)	315	157	2.28	2027 to 2031	$0	$362,628	$362,628
W09	Watermain (PE)	355	127	2.28	2019 to 2021	$0	$292,802	$292,802
W10	Watermain (PE)	355	55	2.28	2019 to 2021	$0	$126,337	$126,337
W11	Watermain (PE)	315	52	2.28	2019 to 2021	$0	$120,082	$120,082
W12	Watermain (PE)	315	14	2.28	2019 to 2021	$0	$33,418	$33,418
W13	Watermain (PE)	315	24	2.28	2019 to 2021	$0	$56,687	$56,687
					TOTAL	**$0**	**$2,663,930**	**$2,663,930**

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2018/19).

Map 6: Trunk infrastructure – Water

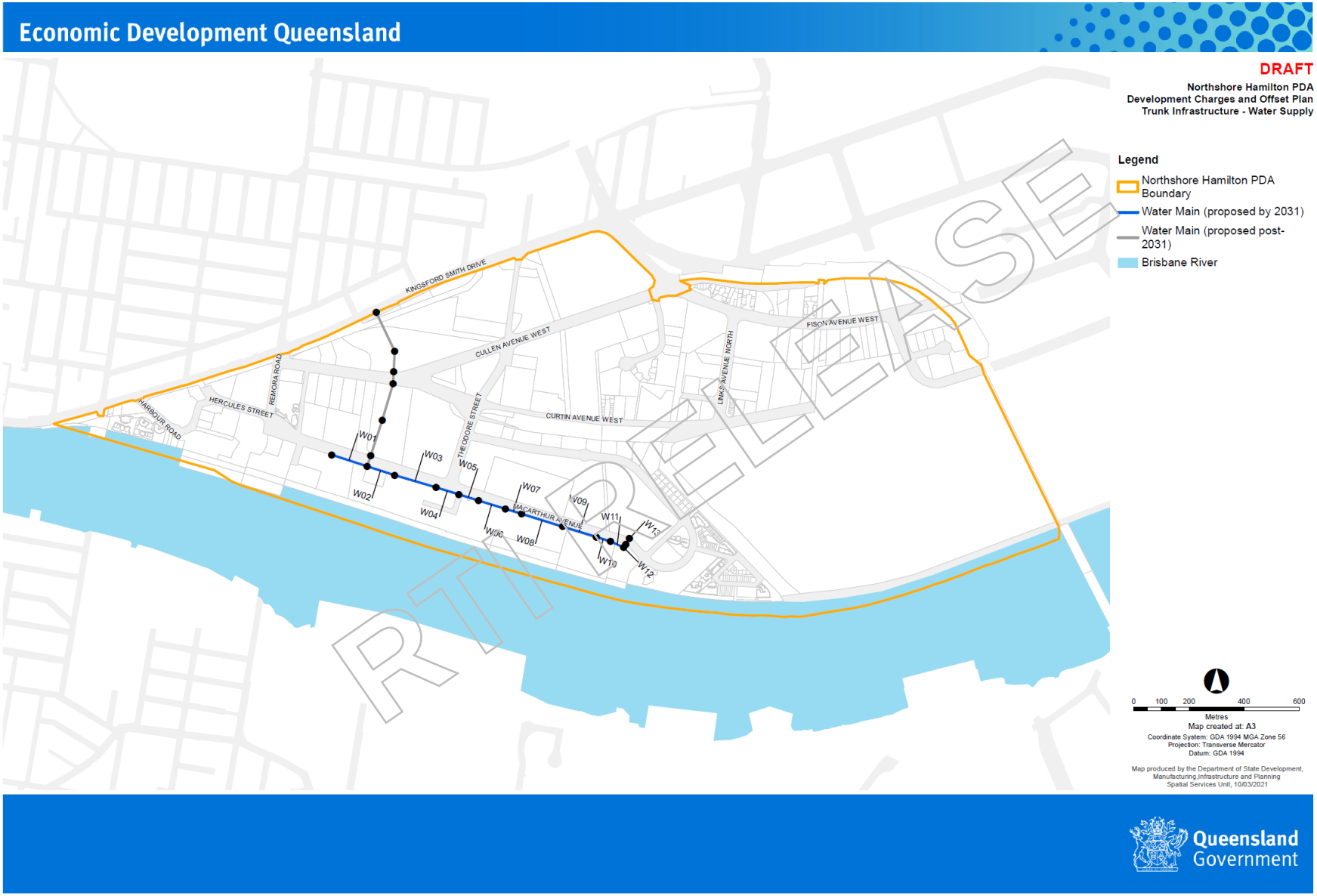

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Table 8: Schedule of future trunk infrastructure works – Sewerage

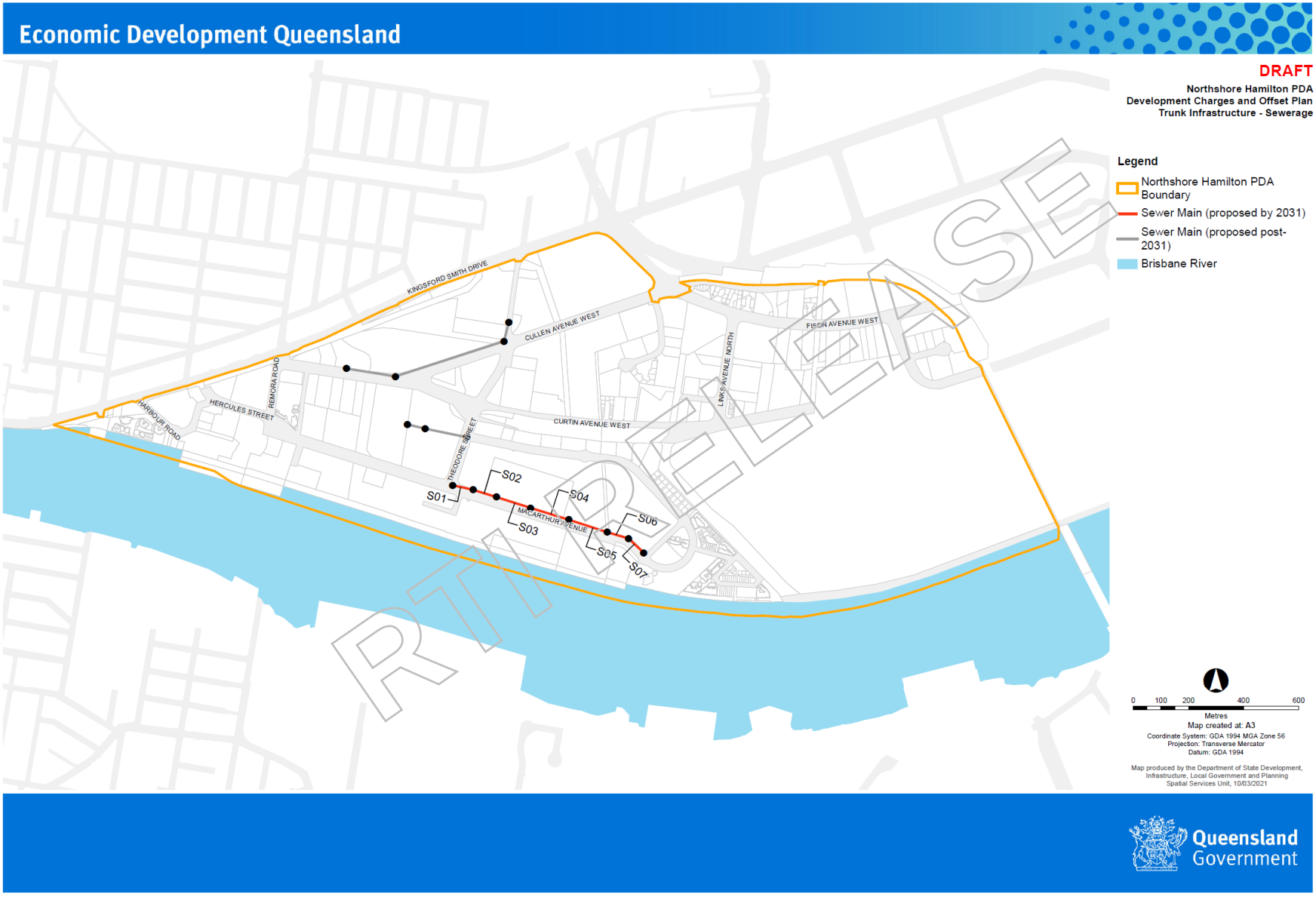
Map ref	Infrastructure type	Pipe diameter (mm)	Pipe length (m)	Depth (m)	Cost Factor	Estimated timing	Land cost	Total works cost[1]	Estimated cost[2]
S01	Gravity main (PE)	500	76	3.4	2.5	2019 to 2021	$0	$382,649	$382,649
S02	Gravity main (PE)	500	88	3.56	2.5	2019 to 2021	$0	$445,402	$445,402
S03	Gravity main (PE)	400	131	3.52	2.5	2019 to 2021	$0	$503,251	$503,251
S04	Gravity main (PE)	400	145	3.27	2.5	2019 to 2021	$0	$556,992	$556,992
S05	Gravity main (PE)	315	147	3.51	2.5	2019 to 2021	$0	$403,733	$403,733
S06	Gravity main (PE)	315	81	3.75	2.5	2019 to 2021	$0	$222,366	$222,366
S07	Gravity main (PE)	315	75	3.63	2.5	2019 to 2021	$0	$206,818	$206,818
						TOTAL	**$0**	**$2,721,211**	**$2,721,211**

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2018/19).

Map 7: Trunk infrastructure – Sewer



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5 Definitions

Unless otherwise expressly stated, a term used in this DCOP has the meaning given to it by:

i. Table 9 of this DCOP

ii. if not defined in this DCOP, the ED Act

iii. if not defined in the ED Act, the Northshore Hamilton PDA Development Scheme

iv. if not defined in any of the above documents, the *Planning Act 2016*, or the *South-East Queensland Water (Distribution and Retail Restructuring Act) 2009*.

Table 9: Defined terms

Column 1 Term	Column 2 Definition
ED Act	means the *Economic Development Act 2012*.
credit	means the monetary amount used in the calculation of an infrastructure charge, which is determined in accordance with section 2.7.
detailed scope of works	means a detailed estimated breakdown of elements, materials and quantities required to deliver the infrastructure e.g. drainage, earthworks, landscaping, pavements, relocation of services, retaining walls, signalling, structures.
development charge	means the monetary amount of the charge for development in the PDA or PDA-associated development calculated in accordance with section 2.
existing lawful use	means an existing use which is lawful and already taking place on premises.
land contribution	means a trunk infrastructure contribution that is land referred to in section 3.4.
final land offset value	means the offset value for a land contribution issued by notice from MEDQ to an applicant in accordance with section 3.8.
final works offset value	means the offset value for a works contribution stated in a notice from MEDQ to an applicant in accordance with section 3.8.
MEDQ	means the Minister for Economic Development Queensland as defined in the ED Act.
previous lawful use	means a previous use which was lawful at the time it was carried out and is no longer taking place on premises.
Producer Price Index or PPI	means the producer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics. If this index ceases to be published – another similar index.
provisional land offset value	means the offset value for a land contribution stated in a notice from MEDQ to an applicant in accordance with section 3.5
provisional works offset value	means the estimated offset value for a works contribution stated in a notice from the MEDQ to an applicant in accordance with section 3.5.

Column 1 Term	Column 2 Definition
trunk infrastructure	means infrastructure which the MEDQ has identified in section 4.
trunk infrastructure contribution	means land contribution or works contribution for trunk infrastructure which is required to be provided in accordance with the conditions of a PDA developer.
trunk infrastructure offset	means an offset for a trunk infrastructure contribution referred to in section 3.
trunk infrastructure refund	means a refund for a trunk infrastructure contribution referred to in section 3.
works contribution	means a trunk infrastructure contribution which is works referred to in section 3.
works offset value	means the offset value for a works contribution determined by the MEDQ in accordance with the process in section 3.
Valuer-General's valuation	land valuations for all rateable properties provided by the Valuer-General in accordance with the *Land Valuation Act 2010*.

More information

Further information can be obtained from EDQ via:

- website: www.edq.qld.gov.au/cip
- email: EDQ@dsdmip.qld.gov.au

Economic Development Queensland

Northshore Hamilton Priority Development Area Draft Infrastructure Planning Background Report

MONTH YEAR

Queensland Government

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GPO Box 2202, Brisbane Queensland 4002.
1 William Street Brisbane Qld 4000 (Australia)

Phone: 13 QGOV (13 7468)
Email: edq@dsdmip.qld.gov.au
Web: www.edq.qld.gov.au

Contents

1 Background

The Northshore Hamilton Priority Development Area (PDA) was declared on 27 March 2008 under the *Urban Land Development Act 2007* (since repealed and replaced with the *Economic Development Act 2012*). The Development Scheme for the PDA (the development scheme) was adopted on 3 July 2009 and is currently under review together with preparation of a Development Charges and Offsets Plan (DCOP).

The DCOP addresses the delivery of trunk infrastructure for the water supply, sewerage, stormwater, transport, and parks and community facilities networks supporting planned development in the PDA.

The PDA is located within the Brisbane City Council (BCC) local government area. A map showing the extent and boundary of the PDA is provided in Appendix A.

1.1 Purpose of Infrastructure Planning Background Report (IPBR)

This IPBR documents information relevant to infrastructure planning and development charging in the Northshore Hamilton PDA. The report will assist users of the PDA Development Scheme (section 3 Infrastructure Plan) and the DCOP to understand how infrastructure planning was undertaken and how development charges were determined.

Additionally, Section 4 of this report outlines the Desired Standard of Service (DSS) for the Northshore Hamilton PDA. The DSS is a summary of the trunk and non-trunk design standards used to inform the planning of the infrastructure networks in Northshore Hamilton. These standards also provide guidance to applicants of the form, type and arrangement of infrastructure that is likely to be acceptable to EDQ in the Northshore Hamilton PDA.

These Standards generally reflect those currently adopted by Brisbane City Council under the Local Government Infrastructure Plan (LGIP), except where specific reference indicates otherwise.

2 Growth projections

2.1 Introduction

The projections of future residential and non-residential growth within the Northshore Hamilton PDA provide a consistent basis for the planning of infrastructure to service the PDA. The following section is a summary of the growth projections prepared for the PDA.

Further details regarding the process for determining development capacities, growth rates and staging of the PDA are provided in the *Northshore Hamilton PDA - Development Capacity Assessment* (Integran, 2019). This report has been prepared to independently assess ultimate capacity projections of developable land in the PDA and may present slightly different results to those used to inform the infrastructure network modelling reports.

2.2 Growth projection years

The Northshore Hamilton growth projections were prepared for the base date 2019 and the following projection years:

- 2021
- 2026
- 2031
- 2036
- Ultimate development

2.3 Potential development capacity

The ultimate potential development capacity that may be achieved on premises within the PDA was calculated based on the type and density of development allowable under the PDA development scheme (the planned density), taking into account factors such as existing and committed development, and plot size to determine a likely development outcome.

Following calculation of the potential development yield (in GFA m²), these areas were then distributed between various land uses (retail, commercial, community, industrial and residential), in accordance with the GFA Distribution table attached in Appendix B. Residential floor space was converted to dwellings on the basis of assumptions in relation to average dwelling size, as shown in Appendix B.

2.4 Development constraints

The projected capacity of developable land in the PDA has been calculated taking into consideration known development constraints which may limit the potential yield of land. Absolute constraints (including future road and drainage corridors) were addressed as part of the PDA development scheme. Further limitations such as current development approvals and recent developments (particularly lower yielding developments) were also taken into account to ensure the potential development yield of these sites was accurately reflected and not over-estimated.

2.5 Growth rates

The assumed rate of growth for residential and non-residential development was determined based on the Property Market Research Report (July 2019) for the PDA, prepared by Foresight Partners Pty Ltd. The growth rates adopted were:

- Residential growth – 250 dwellings per annum (medium forecast)
- Commercial floorspace – 3,000m² GFA per annum (medium forecast).

The assumed growth rates for other non-residential uses has been determined based on the following:

- Retail floorspace – Annual GFA growth set to a linear growth projection so that it will reach 'ultimate development' at the same year as ***residential*** growth reaches 'ultimate development'
- Community floorspace – Annual GFA growth set to a linear growth projection so that it will reach 'ultimate development' at the same year as ***residential*** growth reaches 'ultimate development'
- Industrial floorspace – Annual GFA growth has been given a linear growth projection so that it will reach 'ultimate development' at the same year as ***commercial*** growth reaches 'ultimate development'

Existing population and non-residential GFA has been determined by EDQ through assessment of Land use data as at 2018, plus additional development occurring up to June 2019.

2.6 Growth projections summary

The growth projections for the PDA are summarised in Table 2 and Table 3. The information has been based on the growth rates for residential and commercial land uses in the PDA.

Population forecasts are based on an average household size of 1.73 persons per dwelling for the Northshore Hamilton PDA (Source: Foresight Partners, July 2019).

Forecasted employees within the PDA have been derived through assessment of the Brisbane City Council LGIP Schedule 3 tables, specifically the GFA and Employees assumptions for the "Inside Priority Infrastructure Area (total)" reporting category. This reporting category was used as it provides an averaged assessment across the urbanised employment areas.

An employee to floorspace ratio has then been determined for each development type at the ultimate development horizon and applied to the Non-residential floorspace projections in Table 2 for each non-residential development category.

Table 2 — Residential dwellings and non-residential floor space projections

Column 1 Description	Column 2 Projections by year					
	2019	2021	2026	2031	2036	Ultimate development
Residential dwellings	2,748	3,248	4,498	5,748	6,998	14,167
Non-residential floor space (m2 GFA)	176,328	194,750	240,807	286,863	332,919	819,313

Table 3 — Population and employment projections

Column 1 Description	Column 2 Projections by year					
	2019	2021	2026	2031	2036	Ultimate development
Population	4,754	5,619	7,782	9,944	12,107	24,509
Employment	3,081	3,674	5,157	6,639	8,121	25,491

3 Demand projections

Growth projections are converted into demand projections to enable infrastructure planning to be undertaken.

Networks express demand using different demand units. The demand units used by each local network in the PDA are as follows:

- For the water supply network, equivalent persons (EP)
- For the sewerage network, equivalent persons (EP)
- For the stormwater quantity network, impervious hectares (Imp Ha.)
- For the transport network, trips per day (trips)
- For the parks and community facilities network, equivalent persons (EP)

The demand generation rates used by each network to convert growth projections into demand are stated in Appendix C. These have been derived from the Brisbane City Council LGIP.

The demand projections for each network are stated in Appendix D.

4 Desired standard of service

4.1 Water supply

EDQ have adopted Urban Utilities' (UU) Desired Standard of Service (DSS) for the water supply network contained in the UU Water Netserv Plan, as may be amended from time to time. The latest DSS can be accessed on the UU website.

4.2 Sewerage

EDQ have adopted UUs' DSS for the sewerage network contained in the UU Water Netserv Plan, as may be amended from time to time, with the exception of the items listed below. The latest DSS can be accessed on the UU website.

The following additions and exceptions have been adopted:

- Gravity Sewers
    - Depth of Flow, PWWF: Existing gravity sewers must maintain PWWF depth no greater than 1m from ground level
    - Minimum Shear stress: Proposed sewers shall achieve self-cleansing shear stress of 1.6Pa at PDWF. This is in lieu of minimum velocity requirements outlined in SEQ Code, but consistent with WSA02-2014.

4.3 Stormwater

The DSS for the stormwater network are adopted to align with those within the BCC LGIP, as may be amended from time to time. Refer to the Brisbane City Plan, Part 4, section 4.5.4 for additional detail.

4.4 Transport

EDQ have adopted BCC's DSS, as per the LGIP, for all transport networks (including Roads, Pathways and Public Transport), as may be amended from time to time. However, where Council's DSS is in conflict with the following standards, the standards listed below prevail:

For the road network:

- The proposed PDA Internal Road Hierarchy, Concept and typical cross-sections are provided in Appendix E;
- The following design standards for the typical road typologies:

Table 4 — Road design standards applicable to the Northshore Hamilton PDA

Design Standards	Suburban Road	District Road	Neighbourhood Road	Local Road
General requirements				
Typical sign posted speed (maximum)	60-70 km/hr	60 km/hr	50 km/hr	50 km/hr
Direct lot access	No	No	Yes	Yes
Cross section				
Reserve width (minimum)	33m – 40m	20m – 27m	20m	18.6m
Number of traffic lanes	As directed by traffic modelling			
Minimum width of through traffic lanes	3.5m	3.5m	3.5m 5.5m[1]	5.5m[1]

Design Standards	Suburban Road	District Road	Neighbourhood Road	Local Road
Minimum width of parking lanes	N/A	>2.5m	>2.5m	>2.5m
Minimum bicycle lane width	2.0m	2.0m	2.0m	2.0m
Separated cycleway width	One way 2.0m Two way 3.0m	One way 2.0m Two way 3.0m	N/A	N/A
Bus facilities	Indented bus bay	On-road bus stops within parking lane if already provided OR Designed for indented bus bay where no parking lane	N/A Bus routes not provided on Neighbourhood Roads	N/A Bus routes not provided on Local Roads
Verge width (minimum)	4.25m	4.25m	4.25m	4.25m
Footpath width	2.0m – 4.5m	2.0m – 4.5m	2.0m – 4.5m	>2.0m

(1) 3.5m per lane or 5.5m over 2-lanes undivided

- Intersections as per the locations and configurations identified in Section 5.3.2 of the "Road Network Master Plan – Northshore Hamilton PDA" (Cardno, 2019 v2).

For the shared pathway network:

- The Department of Transport and Main Roads *Technical Note 128 Selection and Design of Cycle Tracks*. These standards provide for the following minimum widths:

Table 5 — Pathway design standards applicable to the Northshore Hamilton PDA vs BCC

Proposed Infrastructure	PDA Minimum Width	BCC Standard Width
Separated Cycle Track – One way	2.0m	N/A
Separated Cycle Track – One way	3.0m	N/A
On road cycle lane	2.0m	2.0m
Shared Path	3.0m	3.0m – 6.0m

For the public transport network:

- The development of the PDA should aim to achieve the following:

Table 6 — Public transport accessibility, frequency and capacity standards applicable to the Northshore Hamilton PDA

Public Transport Element	Bus	Ferry	Rail
Walkable catchment	400m	800m	800m
Peak Period Frequency	5-10 minutes	10-15 minutes	6-10 minutes
Vehicle passenger capacity	60 people/vehicle	150 people/vehicle	600 people/vehicle
Estimated Passenger Volume (Peak Hour)	180-360 people/hr (one direction)	300-450 people/hr (one direction)	360-600 people/hr (one direction)

4.5 Parks and community facilities

The DSS for the parks network is as follows:

- provide an accessible network of parks and recreation facilities that meets the needs of the population (residents) and employees in accordance with the following:
    - the minimum size and accessibility standard for the parks network stated in the Brisbane City Council LGIP; and
    - where the provision of a new or upgraded park within the PDA is possible and appropriate.
- locate future trunk infrastructure for the parks network identified in the schedules of works and DCOP Infrastructure Plans.
- embellish the parks network to complement the type and purpose of the park in accordance with the embellishments standard for the public parks network stated in the Brisbane City Council LGIP.
- Align with the opportunities available and outcomes sought though a 'needs-based assessment' for parks and community facilities within the PDA, including:
    - Create a new iconic riverfront public destination park;
    - Contribute to city building and exemplify best practice waterfront planning and place making;
    - Enhance public connectivity to the Brisbane River's recreation and amenity values;
    - Sporting facilities co-located with the future school site and centrally within the PDA, providing for innovative and multi-use options; and
    - Achieve an appropriate supply of communal and private open space.

Note that the term "Regional" park under the DCOP has the same meaning as Metro under the BCC LIGIP.

EDQ have included land within the Community facility zone in the proposed PDA development scheme. In addition, EDQ have nominated a parcel of land in the DCOP for proposed community facility development. Any future development of community facilities on this parcel will adopt BCC's DSS for the land for community facilities network contained in the Brisbane City Plan 2014, as may be amended from time to time. The latest DSS can be accessed on the BCC website.

5 Infrastructure planning

5.1 Introduction

The infrastructure plans for the Northshore Hamilton PDA have been prepared to service ultimate development, given the adopted growth rates, this results in an ultimate planning horizon of 2065 for residential, retail and community development, and significantly longer with respect to commercial and Industrial outcomes.

In June 2018, BCC adopted a LGIP with a 10 year planning horizon for financial modelling purposes. The extent of the current infrastructure performed provided by Brisbane under its LGIP is limited to 2031 and therefore, the PDA has adopted the same horizon in the development of the detailed cost schedules and mapping. The ultimate infrastructure network (i.e. infrastructure required post 2031) is provided within the DCOP for context.

The DCOP does not identify any Infrastructure requirements external to the PDA. These requirements are subject to further assessment and discussion with the relevant agency.

5.2 Water supply

Planning of water supply infrastructure to service development within the PDA is documented in the following report(s):

- Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis (Cardno, November 2020).

The key criteria which are the basis for the water network planning are outlined in the SEQ Water Supply and Sewerage Code (SEQ W&S D&C Code).

5.3 Sewerage

Planning of sewerage infrastructure to service development within the PDA is documented in the following report(s):

- Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis (Cardno, November 2020).

The key criteria which are the basis for the sewerage network planning are outlined the SEQ Water Supply and Sewerage Code (SEQ W&S D&C Code) with the additions and exceptions as outlined within Section 4 of this report.

5.4 Stormwater

Planning of stormwater infrastructure to service development within the PDA is documented in the following report(s):

- Hamilton Northshore Trunk Drainage Assessment (BMT, September 2021); and
- Northshore Hamilton PDA Stormwater Network Analysis Review (Cardno, Oct 2019).

5.5 Transport

Planning of transport infrastructure to service development within the PDA is documented in the following report(s):

- Road Network Master Plan – Northshore Hamilton PDA (Cardno, 2019 v2); and updated by
- Northshore Hamilton PDA – Infrastructure Analysis & Costings Report – Road Network (Cardno, Aug 2019)

5.6 Parks and community facilities

Planning of parks and community facilities infrastructure to service development within the PDA was informed by the following report(s):

- Open Space Analysis – Northshore Hamilton PDA, (Ross Planning, Sept 2016); and updated by
- Northshore Hamilton PDA – Infrastructure Analysis & Costings Report – Open Space Network (Cardno, Sept 2019)

The Open Space Analysis report concluded that given the location's river frontage and medium-high density living proposed, a needs-based assessment is a more realistic and desirable approach to greenspace planning. Therefore, EDQ have adopted a needs-based approach to determine requirements for parks and land for community facilities in the PDA.

EDQ, in consultation with BCC and the Department of Education, have identified a range of community facility opportunities for the PDA. Detailed site investigation and planning investigations for the land proposed to be included in the community facility zone within the PDA development scheme is ongoing.

The key recommendations and outcomes sought for the PDA are identified within Section 4.

6 Infrastructure costs

The cost of infrastructure has been determined as follows.

6.1 Cost of land

The cost of future infrastructure (land) was determined for all networks on a site specific basis using Statutory Land Valuation procedures performed by the Queensland State Valuation Service under the Land Valuation Act. No contingencies or other cost allowances are applied to land valuations under the DCOP.

The land values included in the schedule or works (Appendix F) are in FY2018/19 dollars and are separately itemised for each DCOP item (where it is required). Land values are subject to annual indexation using a three year rolling average of the Consumer Price Index (CPI).

6.2 Cost of works

The cost of future infrastructure (works) was determined for each network as follows:

Water supply – Cost estimates were sourced from the 'Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis' (Cardno, November 2020), which utilises unit rates in its methodology for costing. However, EDQ has applied a higher unit rate to 315mm water mains then the rate outlined in the Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis. This is to account for potential depth and width of trenches, shoring of trenches, construction through of existing pavements and reinstatement of pavements. The rates adopted by EDQ are detailed in Table 7.

Additionally, there are variations in the length of the water pipes used to calculate costs in the Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis report and what is included in the IPBR. The lengths included in the IPBR are derived from EDQ's GIS mapping of the assets.

Table 7—Water supply network unit rates

Asset Description	Unit Rate $ / Length (m) *(presented in 2019 dollars)*	Cost Adjustment Factors *(applied to account for Acid Sulphate soils and highly developed location)*
315mm Water Main	$719	2.28
355mm Water Main	$719	2.28
450mm Water Main	$990	2.28

Sewerage – Cost estimates were sourced from the 'Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis' (Cardno, November 2020), which utilises unit rates in its methodology for costing. These rates are detailed in Table 8.

As with the water supply infrastructure, there are variations in the length of the sewer pipes used to calculate costs in the Northshore Hamilton PDA – Water Supply and Sewer Preliminary Analysis report and what is included in the IPBR. The lengths included in the IPBR are derived from EDQ's GIS mapping of the assets.

Table 8—Sewerage network unit rates

Asset Description	Gravity Main Depth (m)	Unit Rate $ / Length (m) *(presented in 2019 dollars)*	Cost Adjustment Factors *(applied to account for Acid Sulphate soils and high water table)*
160mm Gravity Main	3.0m to 4.5m	$670	2.50
250mm Gravity Main	1.5m to 3.0m	$574	2.28
250mm Gravity Main	3.0m to 4.5m	$784	2.50
250mm Gravity Main	4.5m to 6.0m	$1,138	2.63
315mm Gravity Main	3.0m to 4.5m	$777	2.50
315mm Gravity Main	4.5m to 6.0m	$1,113	2.63
400mm Gravity Main	3.0m to 4.5m	$1,089	2.50
500mm Gravity Main	3.0m to 4.5m	$1,434	2.50

Stormwater – Cost estimates were sourced from the 'Northshore Hamilton PDA Stormwater Network Analysis Review' (Cardno, Oct 2019) which utilises unit rates and project costs for certain non-standard items'. These rates are detailed in Table 9, with project costs presented for the relevant items in the Schedule of works.

The following costs have been included in calculations of the stormwater network estimates:

- Excavation
- Disposal of any existing infrastructure
- Bedding
- Stormwater Network components
- Backfill

Costs included in the main and minor channel construction/ modification estimates are:

- Dewatering/bypass provisions
- Vegetation clearing
- ESC
- Excavation
- ASS treatment
- Concrete blinding layer
- Concrete channel base where required
- Revegetation
- Water quality monitoring

Table 9—Stormwater network unit rates

Asset Description	Unit Rate $ / Length (m) or $ / item *(presented in 2019 dollars)*
375mm RCP	$190 / m
450mm RCP	$232 / m
525mm RCP	$277 / m
600mm RCP	$331 / m
750mm RCP	$419 / m
825mm RCP	$486 / m
900mm RCP	$517 / m
1,050mm RCP	$651 / m
1,200mm RCP	$671 / m
1,350mm RCP	$821 / m
1,500mm RCP	$1,156 / m
1,800mm RCP	$1,264 / m
1800x1500 RCBC	$1,500 / m
Gully Pit	$3,228 to $8,758 each (dependant on size/type)
Field Inlet	$2,797 each
Stormwater Channel revegetation	$8 / m
Mangrove Clearance from Stormwater Channel	$20 / m

Transport – Roads and pathways costs estimates were sourced from the 'Northshore Hamilton PDA – Infrastructure Analysis & Costings Report – Road Network' (Cardno, Oct 2019) which utilises both unit rates and specific costs for particular items.

Costs for future roads, intersections, and shared pathways have been determined using specific costs, as the designs and cross-sections for these assets are generally non-standard throughout the PDA. Unit rates for structures (bridges and culverts) have been bae on the unit rates listed in Table 10 below. Public transport infrastructure has been generally based on the those presented in the BCC LGIP, which have been applied at the rates identified in Table 10.

The following costs have been included in the calculation of the road cost estimates:

- Demolition / Clearing and grubbing
- Excavation & earthworks
- Pavement construction
- Off -road cycle paths, shard paths and pedestrian footpaths
- On-street parking
- Street lighting
- Signs and line marking
- Streetscape works

Table 10—Transport network unit rates

Asset Type	Unit Rate $ / Length (m), $ / m² or $ / item *(presented in 2019 dollars)*
Bridge	$7,625 / m² of deck area
Culvert	$1,815 / m
Ferry Terminal	$8,000,000 each
Bus Stop	$100,000 each

RO1 is an exception to the above costing methodology as it is not sourced from the Northshore Hamilton PDA – Infrastructure Analysis & Costings Report – Road Network. The costing of RO1 is based on contracted works delivered by EDQ in the PDA.

Parks and land for community facilities – Cost estimates were sourced from the 'Northshore Hamilton PDA Infrastructure Analysis and Costings Report – Open Space Network' (Cardno, Oct 2019) which utilises unit rates in its methodology for costing. These rates are detailed in Table 11.

The report identifies the potential for Park delivery to be staged in order to reduce the upfront costs and to meet the needs of the growing population over time. Given its size and costs, the metropolitan recreation park is to be delivered over three phases, based on the following cost assumption:

- Phase A (Year 0) – All Land and 1/3 of total embellishment costs
- Phase B (Year 5) – 1/3 of total embellishment costs
- Phase B (Year 10) – 1/3 of total embellishment costs

Additionally, there are variations in the amount of area of land used to calculate costs in the Northshore Hamilton PDA Infrastructure Analysis and Costings Report – Open Space Network report and what is included in the IPBR. The area of land included in the IPBR is derived from EDQ's GIS mapping of the parks.

Table 11—Park and land for community facilities network unit rates

Park Hierarchy	Unit Rate $ / Hectare *(presented in 2019 dollars)*
Regional Recreation Park (Metropolitan)	$3,870,000
District Sport Park	$2,380,000
Revetment Wall Works	$16,445

6.3 On-costs allowance

On-costs represent the owner's project costs and may include:

- survey for the work
- geotechnical investigations for the work
- strategic planning
- detailed design for the work

- project management, procurement and contract administration
- environmental investigations for the work, and
- portable long service leave payment for a construction contract for the work.

The on-costs allowances that have been applied to infrastructure costs in the PDA are stated in Table 12.

Table 12—On-cost allowance

Network	On-costs allowance
All Networks	13% applied to the Base Cost (inclusive of cost factors)

6.4 Contingency allowance

A contingency allowance is included in the cost of future infrastructure works to deal with known risks. The level of contingency allowance applied for infrastructure works in each network are stated in Table 13.

Table 13 - Contingency allowance

Network	Contingency allowance
All Networks	25% applied to the Base Estimate (inclusive of on-costs and cost factors)

7 Development charges

Development charges are imposed on development in the PDA to fund trunk infrastructure which have been provided or are planned to be provided to service the PDA. The following development charges apply in the PDA.

- Infrastructure charges; and
- Value uplift charge.

7.1 Infrastructure charges

The infrastructure charges fund the provision of trunk water supply, sewerage, stormwater, transport, parks and community facilities infrastructure. These charges have been determined having regard to a Schedule of Works Model to estimate future infrastructure expenditure. The model utilises a discounted cash flow (DCF) methodology to reliably model expenditure against projected revenue from infrastructure charges.

The infrastructure charges levied under the DCOP have been adjusted to align with infrastructure charge rates that are levied throughout local government areas across Queensland in accordance with the *Planning Regulation 2017*.

7.2 Value uplift charge

The value uplift charge are levied to assist in funding the provision of infrastructure identified in the DCOP required to meet the increase in development density planned for the PDA. This charge has been calculated using the following methodology:

Value uplift charges apply only to development yield exceeding that which would be allowable under the Brisbane City Plan 2000 determined in accordance with Map 2 of the DCOP. Value uplift charges are applied in addition to development charges.

The steps required to determine the value uplift charge for each relevant residential and non-residential use charge category for a development proposal is as follows:

- **Step 1 -** Determining the amount of GFA allowable under the City Plan (allowable GFA) by multiplying the City Plan Plot Ratio (as per DCOP Map 2) by the site area.
- **Step 2 -** Determining what percentage of the total GFA is to be allocated to each use type by dividing the GFA (proposed in the development approval) of each land use type by the total GFA.
- **Step 3 -** Determining the amount of proposed GFA which value uplift charges are to be applied to (uplift GFA) by taking the allowable GFA away from the total GFA.
- **Step 4 –** Multiply the percentage of total GFA calculated for each land use (in step 2) against the total uplift GFA to determine the GFA of each land use which will be subject to value uplift charges (value uplift GFA).
- **Step 5 –** Multiplying the value uplift GFA for each land use by the relevant value uplift charge rate. Add the resulting value uplift charges together.

8 Infrastructure schedules of works

Appendix F provides a schedule of future infrastructure for each network servicing the PDA.

Appendix A – Northshore Hamilton PDA Boundary Map

Appendix B - Plot ratios and GFA distribution assumptions

Table 1 – Development Scheme Plot Ratio Assumptions

Development Scheme Zone	Plot Ratio
Commercial centre	2
Community facility	0
Industrial	0.5
Mixed industry and business	2.5
Mixed use high density (sub area 1)	8
Mixed use high density (sub area 2)	4
Mixed use medium density	1.5
Open space / special purpose / sport and recreation	0

Table 2 - GFA Distribution Assumptions

Development Scheme Zone	Retail	Hotel	Bulky Goods	Commercial	Light Industrial	Education	Residential	Residential Dwelling Proportions		
								Small	Medium	Large
Commercial centre	1%	-	55%	34%	-	-	10%	35%	45%	20%
Community facility	-	-	-	-	-	-	-			
Industrial	1%	-	-	10%	89%	-	-			
Mixed industry and business	1%	-	-	90%	9%	-	-			
Mixed use high density (sub area 1)	1%	-	-	4%	-	-	95%	35%	45%	20%
Mixed use high density (sub area 2)	1%	-	-	4%	-	-	95%	35%	45%	20%
Mixed use medium density	1%	-	-	4%	-	-	95%	35%	45%	20%
Open space / special purpose / sport and recreation	-	-	-	-	-	-	-			

Table 3. Dwelling Size Assumptions

Dwelling Type	Area (m²)
Small (1 Bedroom Equivalent)	90
Medium (2 Bedroom Equivalent)	90
Large (3 Bedroom Equivalent)	90

Note: Average dwelling size adopted for all types. Refer to proportions in Table 2 above for distribution of dwelling types

Source: Based on the 'Northshore Hamilton PDA - Development Capacity Assessment (Integran, 2019)

Appendix C – Demand generation rates

Demand generation rates

Column 1 Development scheme zone / area	Column 2 Demand generation rate for an infrastructure network				
	Water supply network (EP)	Sewerage network (EP)	Stormwater quantity network (Imp Fr.)	Transport network (trips)	Parks and community facilities network (EP)
Multi-Unit Residential (per dwelling)	1.79	1.79	0.85	4.2	1.73
Commercial (Retail) (per m² GFA)	0.00648	0.00648	0.9	0.4	0.001774
Commercial (Office) (per m² GFA)	0.00648	0.00648	0.9	0.16	0.004073
Community (per m² GFA)	0.00648	0.00648	0.9	0.15	0.002062
Industrial (per m² GFA)	0.00648	0.00648	0.9	0.05	0.000635
Source	*Sewer & Water Investigation Masterplan for the Northshore Hamilton Redevelopment (Bornhorst + Ward, Nov 2018)*		*BCC LGIP Schedule 3 – SC3.1.3—Planned density and demand generation rate for a trunk infrastructure network*	*BCC LGIP - Transport Extrinsic Material - Tables 4.3.1.1 to 4.3.1.3*	*BCC LGIP - Parks Extrinsic Material - Tables 4.3.1.1 to 4.3.1.2 - assumes 1 EP per person*

Appendix D – Demand projections

The demands presented below include those generated by the existing development at the time the Priority Development Area was declared in March 2008. This is necessary to ensure that the network modelling adequately accounts for the impacts of these uses upon the infrastructure networks.

The demand projections upon which the various infrastructure planning studies informing the DCOP were based are slightly different to those presented below. The demands below are based on the Planning Assumptions detailed in the 'Northshore Hamilton PDA - Development Capacity Assessment' (Integran, 2019) which presents dwelling and floorspace projections that have since been amended to use base year July 2019 as well as reflecting the final Development Scheme outcomes. The resulting differences do not have a material impact upon the infrastructure network modelling performed.

Existing and projected demand for the water supply network

Column 1 Service catchment[1]	Column 2 Existing and projected demand (EP)					
	2019 (base date)	2021	2026	2031	2036	Ultimate development
Northshore Hamilton PDA	6,062	7,076	9,612	12,148	14,684	30,669

Notes:
1 – Refer to Appendix A PDA Boundary which defines the service catchment area

Existing and projected demand for the sewerage network

Column 1 Service catchment[1]	Column 2 Existing and projected demand (EP)					
	2019 (base date)	2021	2026	2031	2036	Ultimate development
Northshore Hamilton PDA	6,062	7,076	9,612	12,148	14,684	30,850

Notes:
1 – Refer to Appendix A PDA Boundary which defines the service catchment area

Existing and projected demand for the stormwater network

Column 1 Service catchment[1]	Column 2 Existing and projected demand (impervious hectares)					
	2019 (base date)	2021	2026	2031	2036	Ultimate development
Northshore Hamilton PDA						

Notes:
1 – Refer to Appendix A PDA Boundary which defines the service catchment area

Existing and projected demand for the transport network

Column 1 Service catchment[1]	Column 2 Existing and projected demand (trips)					
	2019 (base date)	2021	2026	2031	2036	Ultimate development
Northshore Hamilton PDA	29,699	36,480	53,433	70,386	87,338	211,808

Notes:
1 – Refer to Appendix A PDA Boundary which defines the service catchment area

Existing and projected demand for the parks and community facilities network

Column 1 Service catchment[1]		Column 2 Existing and projected demand (Persons)				
	2019 (base date)	2021	2026	2031	2036	Ultimate development
Northshore Hamilton PDA	4,978	5,886	8,157	10,427	12,697	26,364

Notes:
1 – Refer to Appendix A PDA Boundary which defines the service catchment area

Appendix E – Transport Standard of Service

Northshore Hamilton PDA Road Hierarchy

Roads in the Northshore Hamilton PDA have been classified into the following road hierarchy categories:

- Suburban road
- District road
- Neighbourhood road, and
- Local road.

The Road Hierarchy Map below identifies the applicable category for each road in the Northshore Hamilton PDA. BCC's DSS is the basis for the roads DSS in the PDA (except where varied as per the table in Section 4.4 of the Desired Standards of Service) and is to be applied in accordance with the road categories shown on the Road Hierarchy Map.

Road Hierarchy Map

Source: Nearmap, Economic Development Queensland

Map sourced from the "Road Network Master Plan – Northshore Hamilton PDA" (Cardno, 2019 v2)

The concept road network detailed in Appendix A of the "Road Network Master Plan – Northshore Hamilton PDA" (Cardno, 2019 v2) provides an overview of the intended road design and cross-sections throughout the PDA.

Appendix F – Schedules of works (detailed)

Schedule of future trunk infrastructure works – Water supply

DCOP ID	Map ref	Infrastructure Type	Pipe diameter (mm)	Pipe length (m)	Cost Factor	Estimated timing	Land Cost	Works Base Cost	Works On-Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
W01		Watermain (PE)	315	135	2.28	2022 to 2026	$0	$221,930	$28,851	$62,695	$313,476	$313,476
W02		Watermain (PE)	315	105	2.28	2027 to 2031	$0	$172,632	$22,442	$48,769	$243,843	$243,843
W03		Watermain (PE)	315	157	2.28	2027 to 2031	$0	$257,274	$33,446	$72,680	$363,399	$363,399
W04		Watermain (PE)	315	85	2.28	2027 to 2031	$0	$139,649	$18,154	$39,451	$197,255	$197,255
W05		Watermain (PE)	315	75	2.28	2027 to 2031	$0	$123,427	$16,046	$34,868	$174,341	$174,341
W06		Watermain (PE)	315	103	2.28	2027 to 2031	$0	$168,010	$21,841	$47,463	$237,314	$237,314
W07		Watermain (PE)	315	62	2.28	2027 to 2031	$0	$100,777	$13,101	$28,470	$142,348	$142,348
W08		Watermain (PE)	315	157	2.28	2027 to 2031	$0	$256,728	$33,375	$72,526	$362,628	$362,628
W09		Watermain (PE)	315	127	2.28	2019 to 2021	$0	$207,293	$26,948	$58,560	$292,802	$292,802
W10		Watermain (PE)	315	55	2.28	2019 to 2021	$0	$89,442	$11,627	$25,267	$126,337	$126,337
W11		Watermain (PE)	315	52	2.28	2019 to 2021	$0	$85,014	$11,052	$24,016	$120,082	$120,082
W12		Watermain (PE)	315	14	2.28	2019 to 2021	$0	$23,659	$3,076	$6,684	$33,418	$33,418
W13		Watermain (PE)	315	24	2.28	2019 to 2021	$0	$40,132	$5,217	$11,337	$56,687	$56,687
						TOTAL	**$0**	**$1,885,967**	**$245,176**	**$532,786**	**$2,663,930**	**$2,663,930**

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date.

3 – Items identified within the 2019 to 2021 timeframe are known costs and therefore do not have on-costs or contingencies applied

Schedule of future trunk infrastructure works – Sewerage

DCOP ID	Map ref	Infrastructure Type	Pipe diameter (mm)	Pipe length (m)	Depth (m)	Cost Factor	Estimated timing	Land Cost	Works Base Cost	Works On-Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
S01		Gravity Main (PE)	500	76	3.4	2.5	2019 to 2021	$0	$270,902	$35,217	$76,530	$382,649	$382,649
S02		Gravity Main (PE)	500	88	3.56	2.5	2019 to 2021	$0	$315,329	$40,993	$89,080	$445,402	$445,402
S03		Gravity Main (PE)	400	131	3.52	2.5	2019 to 2021	$0	$356,284	$46,317	$100,650	$503,251	$503,251
S04		Gravity Main (PE)	400	145	3.27	2.5	2019 to 2021	$0	$394,331	$51,263	$111,398	$556,992	$556,992
S05		Gravity Main (PE)	315	147	3.51	2.5	2019 to 2021	$0	$285,829	$37,158	$80,747	$403,733	$403,733
S06		Gravity Main (PE)	315	81	3.75	2.5	2019 to 2021	$0	$157,427	$20,466	$44,473	$222,366	$222,366
S07		Gravity Main (PE)	315	75	3.63	2.5	2019 to 2021	$0	$146,420	$19,035	$41,364	$206,818	$206,818
							TOTAL	**$0**	**$1,926,521**	**$250,448**	**$544,242**	**$2,721,211**	**$2,721,211**

Notes:

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2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date.

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Schedule of future trunk infrastructure works – Stormwater

DCOP ID	Map ref	Infrastructure Type	Length (m) or Quantity	Diameter (mm)	Material	Estimated timing	Land Cost	Works Base Cost	Works On-Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
SW01		Stormwater Pipe	58	1350	RCP	2022 to 2026	$0	$47,876	$6,224	$13,525	$67,625	$67,625
SW02		Stormwater Pipe	82	1350	RCP	2022 to 2026	$0	$67,002	$8,710	$18,928	$94,640	$94,640
SW03		Stormwater Pipe	12	1350	RCP	2022 to 2026	$0	$10,027	$1,303	$2,832	$14,162	$14,162
SW04		Stormwater Pipe	17	1200	RCP	2022 to 2026	$0	$11,290	$1,468	$3,189	$15,947	$15,947
SW05		Stormwater Pipe	55	1200	RCP	2022 to 2026	$0	$36,667	$4,767	$10,358	$51,792	$51,792
SW06		Stormwater Pipe	109	1200	RCP	2027 to 2031	$0	$72,959	$9,485	$20,611	$103,054	$103,054
SW07		Stormwater Pipe	50	750	RCP	2027 to 2031	$0	$21,691	$2,820	$6,128	$30,639	$30,639
SW08		Stormwater Pipe	63	1500	RCP	2027 to 2031	$0	$73,069	$9,499	$20,642	$103,209	$103,209

DCOP ID	Map ref	Infrastructure Type	Length (m) or Quantity	Diameter (mm)	Material	Estimated timing	Land Cost	Works Base Cost	Works On-Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
SW09		Stormwater Pipe	89	1500	RCP	2027 to 2031	$0	$102,340	$13,304	$28,911	$144,555	$144,555
SW10		Stormwater Pipe	104	1500	RCP	2027 to 2031	$0	$119,697	$15,561	$33,814	$169,072	$169,072
SW11		Stormwater Pipe	70	1200	RCP	2027 to 2031	$0	$47,085	$6,121	$13,302	$66,508	$66,508
SW12		Stormwater Pipe	23	900	RCP	2027 to 2031	$0	$11,977	$1,557	$3,384	$16,918	$16,918
SW13		Stormwater Pipe	59	900	RCP	2027 to 2031	$0	$30,522	$3,968	$8,622	$43,112	$43,112
SW14		Stormwater Pit	7			2022 to 2026	$0	$52,461	$6,820	$14,820	$74,102	$74,102
SW15		Stormwater Pit	4			2027 to 2031	$0	$29,978	$3,897	$8,469	$42,344	$42,344
SW16		Stormwater Pit	2			2027 to 2031	$0	$14,989	$1,949	$4,234	$21,172	$21,172
SW17		Stormwater Pit	2			2027 to 2031	$0	$14,989	$1,949	$4,234	$21,172	$21,172
SW18		Stormwater Pit	8			2027 to 2031	$0	$59,956	$7,794	$16,938	$84,688	$84,688
						TOTAL	**$0**	**$824,574**	**$107,195**	**$232,942**	**$1,164,711**	**$1,164,711**

Notes:

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Schedule of future trunk infrastructure works - Transport

DCOP ID	Map ref	Infrastructure Type	Infrastructure Description	Estimated timing[3]	Land Cost	Works Base Cost	Works On-Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
I03		Unsignalised Intersection	MacArthur Ave / Cycle St / Riverfront Ln	2022 to 2026	$0	$434,740	$56,516	$122,814	$614,070	$614,070
I06		Unsignalised Intersection	MacArthur Ave / Cycle St / Riverfront Ln	2027 to 2031	$0	$547,430	$71,166	$154,649	$773,245	$773,245
I08		Unsignalised Intersection	MacArthur Ave / Cycle St / Riverfront Ln	2019 to 2021	$0	$389,095	$50,582	$109,919	$549,597	$549,597
I09		Unsignalised Intersection	MacArthur Ave / Cycle St / Riverfront Ln	2019 to 2021	$0	$367,080	$47,720	$103,700	$518,501	$518,501
R01		Road Upgrade	Remora Rd, Northshore Way and MacArthur Ave Road Project	2019 to 2021	$0	$0	$0	$0	$21,436,748	$21,436,748
R03		Road Upgrade	MacArthur Ave (between Cycle St & Brett St)	2022 to 2026	$0	$1,659,455	$215,729	$468,796	$2,343,980	$2,343,980
R04		Road Upgrade	MacArthur Ave (between Brett St & Theodore St)	2027 to 2031	$0	$1,540,715	$200,293	$435,252	$2,176,260	$2,176,260
R05		Road Upgrade	MacArthur Ave (between Brett St & Theodore St)	2027 to 2031	$0	$1,540,715	$200,293	$435,252	$2,176,260	$2,176,260
R06		Road Upgrade	MacArthur Ave (between Theodore St & Cycle St)	2027 to 2031	$0	$2,087,883	$271,425	$589,827	$2,949,134	$2,949,134

DCOP ID	Map ref	Infrastructure Type	Infrastructure Description	Estimated timing[3]	Land Cost	Works Base Cost	Works On-Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
R07		Road Upgrade	MacArthur Ave (between Cycle St & Cycle St)	2027 to 2031	$0	$1,688,175	$219,463	$476,909	$2,384,547	$2,384,547
R08		Road Upgrade	MacArthur Ave (between Cycle St & Cycle St)	2027 to 2031	$0	$1,711,800	$222,534	$483,584	$2,417,918	$2,417,918
R09		Road Upgrade	MacArthur Ave (between Cycle St & Cycle St)	2019 to 2021	$0	$1,569,600	$204,048	$443,412	$2,217,060	$2,217,060
R10		Road Upgrade	MacArthur Ave (between Cycle St & Angora Rd)	2019 to 2021	$888,070	$1,595,400	$207,402	$450,701	$2,253,503	$3,141,573
SP01		Shared Path	MacArthur Ave Nth Shared Path	2027 to 2031	$0	$317,550	$41,282	$89,708	$448,539	$448,539
PT01		Bus Stop	MacArthur Ave (Between Theodore St & Brett St)	2027 to 2031	$0	$100,000	$13,000	$28,250	$141,250	$141,250
PT02		Bus Stop	MacArthur Ave (Between Theodore St & Brett St)	2027 to 2031	$0	$100,000	$13,000	$28,250	$141,250	$141,250
				TOTAL	**$888,070**	**$37,086,386**	**$2,034,453**	**$4,421,023**	**$44,105,114**	**$44,429,932**

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Schedule of future trunk infrastructure works – Parks and Community Facilities

DCOP ID	Map ref	Infrastructure Type	Infrastructure Description	Area (m²) or Length (m)	Estimated timing[3]	Land Cost	Works Base Cost	Works On- Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
P02		Regional Recreation Park (Metropolitan Level)	Stage A – Land Acquisition & Partial Embellishment	7,335	2027 to 2031	$4,300,000	$946,210	$123,007	$267,304	$1,336,521	$5,636,521
P03		Regional Recreation Park (Metropolitan Level)	Stage A – Land Acquisition & Partial Embellishment	13,964	2022 to 2026	$6,579,584	$1,801,343	$234,175	$508,879	$2,544,397	$9,123,981
P03		Regional Recreation Park (Metropolitan Level)	Stage B - Partial Embellishment	13,964	2027 to 2031	$0	$1,801,343	$234,175	$508,879	$2,544,397	$2,544,397
P04		Regional Recreation Park (Metropolitan Level)	Stage A – Land Acquisition & Partial Embellishment	4,135	2022 to 2026	$2,492,296	$533,361	$69,337	$150,674	$753,372	$3,245,668
P04		Regional Recreation Park (Metropolitan Level)	Stage B - Partial Embellishment	4,135	2027 to 2031	$0	$533,361	$69,337	$150,674	$753,372	$753,372

DCOP ID	Map ref	Infrastructure Type	Infrastructure Description	Area (m²) or Length (m)	Estimated timing[3]	Land Cost	Works Base Cost	Works On- Costs	Works Contingency	Total Works Cost[1]	Estimated Cost[2]
P05		Regional Recreation Park (Metropolitan Level)	Stage A – Land Acquisition & Partial Embellishment	3,308	2022 to 2026	$2,110,000	$426,722	$55,474	$120,549	$602,744	$2,712,744
P05		Regional Recreation Park (Metropolitan Level)	Stage B - Partial Embellishment	3,308	2027 to 2031	$0	$426,722	$55,474	$120,549	$602,744	$602,744
P06		Regional Recreation Park (Metropolitan Level)	Stage A – Land Acquisition & Partial Embellishment	5,478	2027 to 2031	$3,280,000	$706,719	$91,873	$199,648	$998,240	$4,278,240
PO7		Regional Recreation Park (Metropolitan Level)	Stage A – Land Acquisition & Partial Embellishment	4,640	2027 to 2031	$2,700,000	$551,661	$82,432	$211,364	$845,457	$3,545,457
RW01		Revetment Wall	Frontage to Park P02	120	2027 to 2031	$0	$1,898,765	$246,839	$536,401	$2,682,006	$2,682,006
RW02		Revetment Wall	Frontage to Park P04	120	2022 to 2026	$0	$1,883,253	$244,823	$532,019	$2,660,095	$2,660,095
RW03		Revetment Wall	Frontage to Park P05	150	2022 to 2026	$0	$2,316,890	$301,196	$654,522	$3,272,608	$3,272,608
RW04		Revetment Wall	Frontage to Park P06	160	2027 to 2031	$0	$2,716,826	$353,187	$767,503	$3,837,517	$3,837,517
RW05		Revetment Wall	Frontage to Park P07	150	2027 to 2031	$0	$2,452,263	$318,794	$692,764	$3,463,821	$3,463,821
					TOTAL	**$21,461,880**	**$19,092,151**	**$2,492,695**	**$5,449,050**	**$26,897,292**	**$48,359,172**

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3 – Items identified within the 2019 to 2021 timeframe are known costs and therefore do not have on-costs or contingencies applied.

More information

Further information can be obtained from EDQ via:

- website: www.edq.qld.gov.au/cip
- email: EDQ@dsdmip.qld.gov.au

Pages 198 through 206 redacted for the following reasons:
- -
s. 73(1) - Not relevant/ Out of scope

DATE: 3 March 2021 **Meeting No.** 064

Confidential

Economic Development Queensland

Agenda item no. 10
Subject: Northshore Hamilton Development Feasibility and Development Strategy
Author : Tim O'Neill, Executive Director, SEQ Development

1.0 Purpose

To provide an update to the Board on the outcome of the revised Northshore Hamilton (NSH) feasibility study and the proposed immediate development strategy.

2.0 Recommendation

That the Board **note** the outcome of the revised NSH development feasibility study and the proposed immediate development strategy.

3.0 Background

At the Board meeting No.57 held on 3 December 2019, management provided an overview of the NSH Development Scheme Amendment and the Development Charges and Offset Plan (DCOP). Management advised the Board that as the Development Scheme Amendment progressed, the master plan development feasibility would be updated accordingly.

s. 73(2) - Not relevant/ Out of scope

s. 73(2) - Not relevant/ Out of scope

The prospect of the proposed SEQ2032 Olympic Athletes Village at Northshore has caused the Development Scheme Amendment release to be delayed whilst the planning and development implications of the Olympics were considered and market speculation also delayed private sector opportunities.

s. 73(2) - Not relevant/ Out of scope

s. 73(2) - Not relevant/ Out of scope

5.4 Project Review Panel Recommendation

At its meeting held on 18 February 2021 the PRP supported:

- the need to bring the investment opportunity to market enabled by the release of the Development Scheme Amendment and supported the concept that infrastructure credits and land sale revenues be re-invested in infrastructure within the NSH PDA
- the assumptions contained in the development feasibility and suggested that alternate scenarios be prepared to test density options

s. 73(2) - Not relevant/ Out of scope

- supported management's position that the Development Scheme Amendment and the land sales strategy can all be executed without impacting the ability of the State to fully accommodate the requirements of the SEQ2032 Olympic Athletes Village.

Pages 211 through 230 redacted for the following reasons:
- -
s. 73(1) - Not relevant/ Out of scope