

Queens Wharf Priority Development Area Infrastructure Plan Background Report

November 2017



**Queensland
Government**

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References

General

Priority Development Area Public Realm and Movement Network Planning and Design Guideline PDA guideline no. 20 May 2016.

Brisbane City Plan 2014 Schedule 6 – Planning Scheme Policies - Infrastructure Design

Brisbane City Plan 2014 Part 4 Local Government Infrastructure Plan (LGIP)

Brisbane City Council Centres Detail Design Manual - October 2013

Queensland Urban Utilities Design and Construction Standards, incorporating the SEQ Water Supply and Wastewater Design and Construction Code

The South-East Queensland Water (Distribution and Retail Restructuring) Act 2009

The Water Supply (Safety and Reliability) Act 2008

The Water Act 2000

Queensland Urban Drainage Manual (QUDM) (2013)

Brisbane City Council's Traffic, Access, Parking and Servicing Planning Scheme Policy

Brisbane City Council's Traffic, Access, Parking and Servicing Code

DTMR Guidelines for the Assessment of Road Impacts of Development

DTMR Road Planning and Design Manual;

Austroads Guidelines

AS2890 Parking Facilities

Queens Wharf Plan of Development Volume 3

Attachment B - Landscape Concept Report

Attachment G - Traffic Engineering Report

Attachment I - Civil Works and Infrastructure Report

Attachment V - Public Art Report

1. Introduction

1.1 Purpose of report

This report documents information relevant to infrastructure planning and charging in the Queen's Wharf Brisbane Priority Development Area (PDA). The report will assist users of the infrastructure plan and infrastructure charges and offsetting plan (ICOP) to understand how the planning was undertaken and how development charges were calculated.

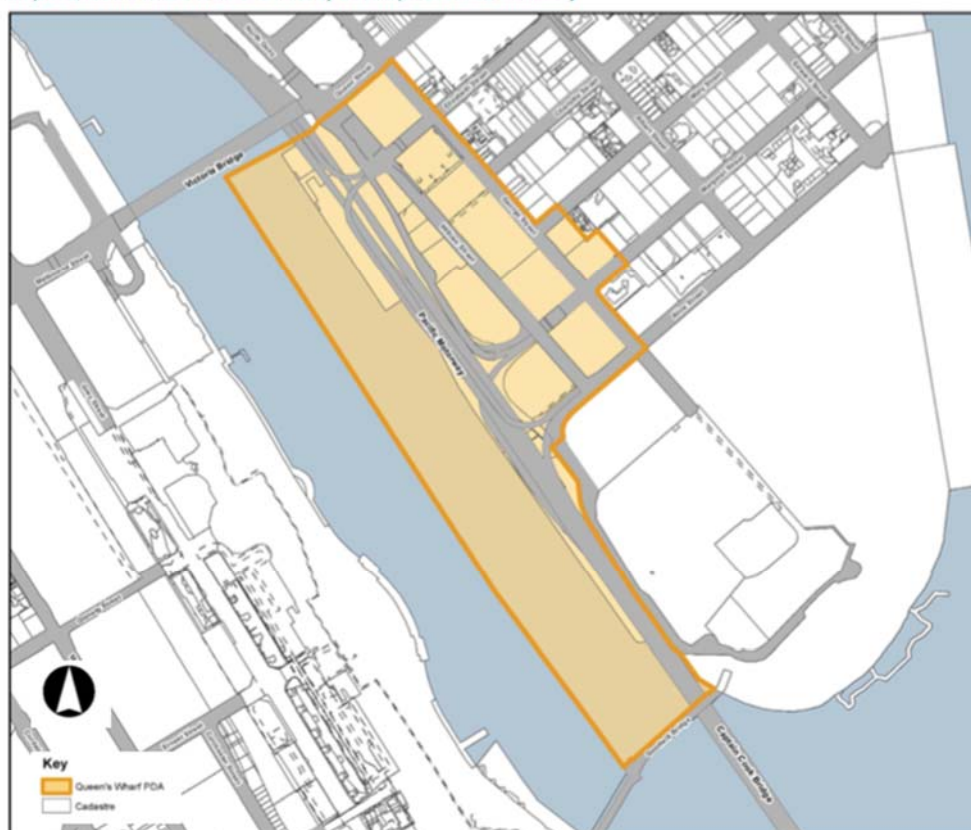
1.2 Background

The Queen's Wharf Brisbane (QWB) PDA (refer Map 1) was declared by a regulation on 28 November 2014. The development scheme was adopted in January 2016.

On 12 March 2017, the Minister for Economic Development Queensland formally declared three PDA-associated declarations relating to works for the trunk sewer main from Margaret Street to Turbot Street, a pedestrian bridge over the Brisbane River connecting the PDA to South Bank and Queen Street interface public realm and water connection services work.

The PDA covers the areas as noted in the map below:

Map 1: Queen's Wharf Brisbane Priority Development Area boundary



Map is intended for illustration purposes only and is not to scale

The infrastructure networks to be upgraded to provide support to the PDA are provided in Table 3 and Table 4 of the development scheme and generally cover the following:

- Transport including
 - Roads and intersections
 - Public transport
 - Cycling infrastructure
 - Pedestrian infrastructure
- Construction of public realm including:
 - Parks
 - Other public realm including river foreshore works
- Stormwater
- Wastewater trunk works
- Water supply trunk works

2. Growth projections

2.1 Introduction

Growth projections are not provided for this DCOP. The calculation of the value of the infrastructure is based on information developed by Destination Brisbane Consortium (DBC) as well additional details provided by EDQ.

Yield increases due to the development of the PDA are in accordance with DBC's formal Plan of Development (POD) development application lodged on 15 May 2017 and Volume 2: Plan of Development as amended 01.12.2017 and utilised for the purposes of calculating the charges, these additional yields are provided in Appendix A.

2.2 Planned densities

The additional and existing yields for the PDA were provided by EDQ with the additional Yield based on Volume 2: Plan of Development dated 01.12.2017 and are summarised below:

Additional PDA Yield

Use	Bedrooms	No.
Multiple Dwelling	1-2	1,880
Multiple Dwelling	3+	120
Subtotal		2,000
Short Term Accommodation	1-2	1,067
Short Term Accommodation	3+	533
Subtotal		1,300
TOTAL		3,300

Non-Residential

Use	GFA (sqm)
Commercial (retail)	52,360
Subtotal	52,360
Entertainment	66,700
Subtotal	66,700
TOTAL	119,060

This is in addition to the existing uses yield as follows:

Existing PDA Yield**Residential/Short Term Accommodation**

Use	Bedrooms	No.
Multiple Dwelling	1-2	0
Multiple Dwelling	3+	0
Subtotal		0
Short Term Accommodation	1-2	127
Short Term Accommodation	3+	2
Subtotal		129
TOTAL		129

Non Residential

Use	GFA (sqm)
Commercial	66,372
Places of Assembly	1,201
Retail	3,046
Entertainment	18,556
TOTAL	89,175

It is likely that some of the anticipated uses and associated yields will vary over the life of the PDA. This will impact the final anticipated charges amount.

3. Demand projections

Demand projections were not assessed for this ICOP with infrastructure requirements being provided by EDQ.



4. Desired standard of service

The desired standards of service for design and construction of a trunk infrastructure network are as outlined in POD Volume 3: Attachment H: Infrastructure Master Plan, Rev 13, dated 29.11.2017 - Section 8: Desired Standards of Service.

POD Volume 3: Attachment H: Infrastructure Master Plan, Rev 13, dated 29.11.2017 (the IMP) identifies the standards for Brisbane City Council and Queensland Urban Utilities and those generally used within a PDA for Transport, Public Realm, Stormwater, Water and Wastewater. The following summarises references for the desired standards of service for these networks.

At the time of preparation of this report the Brisbane City Plan 2014 (City Plan) was being amended to ensure that development will continue to be well supported by new infrastructure into the future. As part of that amendment Council is developing a Local Government Infrastructure Plan (LGIP) together with a City Plan major amendment for long term infrastructure. This will not be adopted until early 2018 and Council have therefore adopted a transitional Local Government Infrastructure Plan (previously called Priority Infrastructure Plan). The transitional LGIP constitutes Part 4 and Schedule 3 of the Brisbane City Plan 2014 and provides guidance on the purpose and structure of the Priority Infrastructure Plan (PIP) and how it is implemented. Therefore, references are made in this document to the Brisbane City Plan 2014 (City Plan) and the transitional Local Government Infrastructure Plan (LGIP).

4.1 Water supply

The Development Scheme identifies design and construction of the water supply network is to be in accordance with the following:

- The Queensland Urban Utilities Design and Construction Standards, incorporating the SEQ Water Supply and Wastewater Design and Construction Code;
- The South-East Queensland Water (Distribution and Retail Restructuring) Act 2009;
- The Water Supply (Safety and Reliability) Act 2008; and
- The Water Act 2000.

Specific standards for Water Supply are as detailed in the PoD Volume 3: Attachment H - Infrastructure Master Plan Rev 13, date 29.11.2017 (the IMP) Section 8.5: Water – Table 24.

4.2 Wastewater

The Development Scheme identifies design and construction of the wastewater network is to be in accordance with the following:

- The Queensland Urban Utilities Design and Construction Standards, incorporating the SEQ Water Supply and Wastewater Design and Construction Code;

- The South-East Queensland Water (Distribution and Retail Restructuring) Act 2009;
- The Water Supply (Safety and Reliability) Act 2008; and
- The Water Act 2000.

Specific standards for Wastewater are as detailed in the IMP Section 8.6: Wastewater – Table 25.

4.3 Stormwater

The Development Scheme identifies design and construction of the stormwater network is to be in accordance with the following:

- Queensland Urban Drainage Manual (QUDM) (2013)

Specific standards for Stormwater are as detailed in the IMP Section 8.4: Stormwater – Table 23.

4.4 Transport

The Development Scheme identifies design and construction of the transport network is to be in accordance with the following:

- Brisbane City Council's Traffic, Access, Parking and Servicing Planning Scheme Policy;
- Brisbane City Council's Traffic, Access, Parking and Servicing Code;
- DTMR Guidelines for the Assessment of Road Impacts of Development;
- DTMR Road Planning and Design Manual;
- Austroads guidelines; and
- AS2890 Parking Facilities.

Specific standards and scope for Transport (roads and intersections) are detailed in the IMP Section 8.2.1: Transport – Tables 16 and POD Volume 3 - Attachment G - Traffic Engineering Report Rev 9 dated 09.05.2017 (the TER).

Specific standards and scope for Transport (cycling infrastructure) are detailed in the IMP Section 8.2.3: Cycling Infrastructure – Table 17.

Specific standards and scope for Transport (pedestrian bridge) are detailed in the IMP Section 8.2.4.1: Pedestrian Bridge – Table 18.

Specific standards and scope for Transport (footpaths and verges) are detailed in the IMP Section 8.2.4.2: Footpaths and Verges – Table 19.

4.5 Parks and land for community facilities

The Development Scheme identifies design and construction of parks and land for community facilities is to be in accordance with the following:

- Priority Development Area Public Realm and Movement Network Planning and Design Guideline PDA guideline no. 20 May 2016.

Specific standards and scope for parks and land for community facilities are referenced in the following:

- IMP Section 8.2.4.2, Table 19 – Footpath and Verges;
- IMP Section 8.3, Public Realm – Table 16 – Public Realm Infrastructure;
- IMP Section 8.3.1, Marine and Maritime Structures – Table 21 – Maritime and Marine;
- IMP Section 8.3.2, Public Art – Table 22 – Public Art; and
- POD Volume 3: Attachment B - Landscape Concept Report Rev 17, 24.11.2017 (the LCR) (where referenced in the IMP).



5. Infrastructure planning

5.1 Water supply

Planning of water supply infrastructure to service development within the PDA is documented in the IMP and the PoD Volume 3: Attachment I – Civil and Infrastructure Report, Rev K, dated 9.05.2017.

It is stated in both of the above technical reports that the existing infrastructure surrounding the PDA is sufficient to service the new site. The works proposed include property connections and relocation of existing mains, including a William Street diversion.

Further, the Queen's Wharf Brisbane PDA Development Scheme states that the requirement for water infrastructure is 'as required to service the PDA'.

DBC have confirmed that there are no trunk works required to service the PDA and trunk water is not considered further in this report.

5.2 Wastewater

Planning of wastewater infrastructure to service development within the PDA is documented in IMP and the PoD Volume 3: Attachment I – Civil and Infrastructure Report, Rev K, dated 9.05.2017.

The following items were listed by DBC as trunk works to service the PDA:

Asset ID	Infrastructure Description
SE1	Provide all waste water infrastructure as required to service the PDA including a new sewer main along Charlotte Street
SE2	Trunk Main - Margaret Street to Turbot Street

The existing wastewater infrastructure network does not have the capacity to service the proposed development within the PDA. The reports also state that the 'Trunk Main – Margaret Street to Turbot Street' (SE2) will service both the PDA and provide upgraded capacity for the future adjacent developments. Furthermore, part of this line between the Victoria Bridge and Ann Street has been identified as required in the Queensland Urban Utilities (QUU) Netserv Plan, estimated for 2021.

Therefore, DBC, in collaboration with QUU, consider that the proposed main is required as part of the development. For the purposes of this report the main has been considered as trunk.

Whilst the PDA development scheme specifically states a new sewer main is required along Charlotte Street, the PoD Volume 3: Attachment I – Civil and Infrastructure Report, Rev K dated 9.05.2017 (the Civil and Infrastructure Report) states the following:

“A number of routes to surrounding infrastructure throughout the city have been investigated by the Consortium and QUU through multiple meetings and discussions. The proposal is a gravity sewer run primarily in alignment with the existing roadways to service the development. The pipe for the gravity sewer starts slightly north-east of the intersection of Margaret Street and William Street and runs along Margaret Street towards Queens Wharf Road. It will then turn to follow Queens Wharf Road north-west to the connection. From this connection, the sewer will curve to continue along Queens Wharf Road and North Quay to discharge into the existing maintenance hole over the S1 trunk sewer at the intersection of Turbot Street and North Quay. A curve will allow this section of the sewer to be constructed without additional deep maintenance holes as well as allowing adequate clearance from existing services and the Riverside Expressway piles. Maintenance holes will be placed accordingly for property service connections and sharp turns in the sewer line.”

Therefore, as the remaining works shown within the PoD Volume 3: Attachment I – Civil and Infrastructure Report, Rev K dated 9.05.2017 are to service specific buildings within the development, it has been agreed with DBC that all other wastewater works are not classified as trunk infrastructure.

5.3 Stormwater

Planning of stormwater infrastructure to service development within the PDA is documented in the IMP and the Civil Works and Infrastructure Report.

The following items have been listed by DBC as trunk works to service the PDA.

Asset ID	Infrastructure Description
ST1	Provide all stormwater infrastructure necessary to achieve compliance with requirements and standards, and adopt approaches consistent with guidance identified in relevant PDA guidelines including stormwater treatment and management of stormwater flows (including flows through the QWB PDA)
ST2	Pipe & diversion structure (to divert low flow from Margaret Street & resort to stormwater quality treatment)
ST3	Stormwater quality treatment (Bio-retention)
ST4	Trunk Stormwater

Items ST1-ST4 have been specifically referenced in the IMP, the Civil and Infrastructure Report and the PDA development scheme, therefore these works have been classified as trunk infrastructure.

Any further proposed stormwater works is considered non-trunk and will upgrade the capacity of the existing stormwater network from the existing Q2 network to the now required Q10 capacity, as noted in the referenced reports.

5.4 Transport

Planning of transport infrastructure to service development within the PDA is documented in the IMP and the PoD Volume 3: Attachment G – Traffic Engineering Report (TER), Rev 9 dated 9.05.2017.

The following items have been listed by DBC as trunk works to service the PDA.

Asset ID	Infrastructure Description
	Roads and Intersections
T1	Upgrade to Queens Wharf Road
T2	Upgrade to William Street
T3	Upgrade to George Street
T4	Upgrade to Elizabeth Street
T5	Upgrade to Alice Street
T6	Upgrade to Margaret Street (including off ramps)
T7	An additional southbound lane along William Street, south of Margaret Street to provide additional capacity for turn movements into Alice Street.
T8	Create a shared zone along Queens Wharf Road as prescribed in Map 2, including connections to North Quay, Victoria Bridge and Margaret Street
T9	Upgrade to significant intersections (as prescribed in Map 2: Structural Elements Plan)
T10	Upgrade to other impacted intersections in or for the PDA including the Queen/William Streets and North Quay
T10A	Roadworks
T11	Upgrade to existing footpaths within the QWB PDA
T11a	Within road reserve
T11b	Outside of road reserve
T12	Stephens Lane pedestrian conversion
T12A	REX Soffit Painting Allowance
T13	Paving
T14	Motorcycle Parking Upgrade
	Public Transport
T15	Provide public transport infrastructure that allows integration with the existing public transport network

T15A	Marine wharfs, jetties and pontoons for river craft etc.
Cycling Infrastructure	
T16	Upgrade the Bicentennial Bikeway
T17	Upgrade other existing cycleways and provide new connections within the PDA to enable integration with the Bicentennial Bikeway, principally outbound on Alice Street and inbound on Margaret Street
T18	Provide publicly accessible cycle facilities
Pedestrian Infrastructure	
T19	A cross river connection between the QWB PDA and South Bank Parklands
T20	Mangrove Walk (suspended boardwalk structure including piers over water)

The road infrastructure descriptions and requirements have been derived from DBC's above mentioned technical reports. A number of assumptions have been made in reaching recommendations on the validity of trunk works related to roads. These include, but are not limited to, the following:

- The TER states that only two roads will require pavement amendments to suit a higher traffic volume, including items T6 and T7. Other upgrades to roads and intersections identified in this report include new pedestrian links, and several intersection modifications, ranging from phasing changes to signal relocations.
- Upgrades to existing paving (footpaths) were not clearly identified within the TER and will be undertaken in accordance with the IMP and LCR, however, these are noted in the PDA development scheme and hence have been classified as trunk.
- A motorcycle parking upgrade is not noted in either of the above referenced reports or the PDA development scheme. However, the parking upgrade has been classified as trunk works as it is located on a trunk road.
- As stated in the TER and IMP, there is to be no additional public transport infrastructure; the TER includes suggestions for amendments to bus routes and scheduling by BCC.
- Upgrades to cycling infrastructure, including an upgrade to the Bicentennial Bikeway, was identified in the TER, IMP and the PDA development scheme, and has been classified as trunk infrastructure.
- The need to separate pedestrians from cyclists via a 'Mangrove Walkway', and BCC's support for these works as a trunk infrastructure requirement, has not been demonstrated by DBC and therefore these works have not been considered trunk.
- A major Brisbane River footbridge is also identified in both reports, and classified as trunk infrastructure. There is no cycling provision proposed for the footbridge. A value for the pedestrian use demand generated by Queens Wharf Brisbane has been derived from the TER.

5.5 Parks and land for community facilities

Planning of parks and land for community facilities infrastructure to service development within the PDA is documented in the IMP and the LCR.

The following items have been listed by DBC as trunk works to service the PDA.

Asset ID	Infrastructure Description
	Parks
C1	Retain and embellish the existing parks in the PDA
C2	Landscape and streetscape works
C3	Bulk earthworks
C4	Park furniture (DBC referenced as Street furniture)
C5	Signage and wayfinding
C6	Public art and monuments
C7	Services, security and miscellaneous lifts/escalators
C8	Upgrades to existing landings
C9	Buildings
C10	Attractions/features
C11	Marine works/marine structure/marine ramps (including reclamation and river embankment)
C12	Lightshow allowance
C13	Contamination

Bulk earthworks for parks is not considered as trunk as these are required to develop the broader development site.

Generally, works accessible to the public and listed in the PDA development scheme have been classified as trunk. However, the trunk offset amount is limited to the BCC standard where applicable. This applies to items C1–C8.

With regards to services and security (C7), where applicable, items falling under this description have been included in items C1–C6. Similarly, upgrades to existing landings (C8) have been included throughout items C1–C6.

Buildings (C9) have not been specifically listed in the PDA development scheme and are not generally considered to be trunk. However, items considered applicable under these descriptions, such as shade buildings and sports courts, have been classified as trunk.

Attractions/features (C10) trunk assets are limited to three items; a theatre style public TV, adventure playground facilities and a water play park.

Other associated costs such as heritage conservation and attractions/features outside of BCC standards have not been classified as trunk.

Marine works are not specifically referenced in the PDA Development Scheme, however would be required in order to align with the requirements outlined in Map 2 of the Development Scheme. These works are referred to as 'Landing enhancement opportunities', 'Other public realm improvements', and 'Significant vegetation – marine plants'. These works have therefore been classified as trunk infrastructure and include an estimate of significant river walls and land reclamation.

The lightshow allowance (C12) has no reference in the PDA Development Scheme and has not been classified as trunk.

Similarly, remediation of the land (C13) is not considered a trunk infrastructure requirement and has not been considered further.

6. Infrastructure costs

The infrastructure costs are as at 2016/17 FY. The cost of infrastructure has been determined as follows.

6.1 Cost of land

Not applicable.

6.2 Contingency allowance

A contingency allowance typically reduces in accordance with the level of planning undertaken for the infrastructure item or the level of risk associated with particular works. The contingency for infrastructure works is assumed to be at the master planning stage as the following table.

Network	Contingency allowance by project phase		
	Masterplanning Concept Design	Preliminary Design	Detailed Design
Water supply	20-25%	15-20%	10%
Wastewater	20-25%	15-20%	10%
Stormwater	20-25%	15-20%	10%
Transport	20-25%	15-20%	10%
Marine Works	20-25%	15-20%	10%
Parks and land for community facilities	15-20%	10-15%	10%

Therefore, for this assessment 25% contingency has been applied to all infrastructure estimates with the exception of parks (and land) where a contingency of 15% has been applied. All contingency allowances have been applied separately to on-cost allowances.

Where noted, a further contingency has been applied to base rates to account for the additional risks and costs of working in a city environment. Generally, this has been applied as an additional 50% to base rates.

6.3 On-costs allowance

On-costs represent the owner's project costs and may include infrastructure master planning, survey, geotechnical investigations, design, project management, contract administration and environmental investigations.

A 15% on-cost allowance has been applied to all infrastructure estimates. All on-cost allowances have been applied separately to contingency allowances.

6.4 Cost of works

The cost of future infrastructure (works) was determined for each network as follows – see Appendix C for details.

6.4.1 Water Supply

Not applicable.

6.4.2 Wastewater

Asset ID	Infrastructure Description	Included as Trunk Infrastructure in Cost Schedules
SE1	Provide all waste water infrastructure as required to service the PDA including a new sewer main along Charlotte Street	Excluded
SE2	Trunk Main - Margaret Street to Turbot Street	✓

The estimate of trunk wastewater (Margaret Street to Turbot Street) is to be confirmed through a provisional offset application in accordance with the ICOP for this particular infrastructure item. It is understood the required trunk wastewater main will be a DN630mm PE gravity main or similar constructed with tunnel bore, pipe-jack or other non-trench construction technique.

No other sewer mains have been included as trunk.

6.4.3 Stormwater

6.4.3.1 Cost Estimate Assumptions

A value of trunk stormwater costs is provided in Appendix C.

The estimate of trunk stormwater has been determined by applying the following assumptions:

- Stormwater quality treatment is based on a bio-retention basin size of 1.5% of the total catchment area. The estimate assumes a single basin to service the entire site.

All pipe lengths have been measured from a PDF plan included in the IMP. Stormwater pipe estimates have been derived from costs included in a recent PDA contract.

- A combined CBD and terrain factor of 2.50 has been applied to allow for high constraints in an urban area and for shallow pipelines in hard rock. A factor of 2.0 has been applied for the bio-retention basin.
- All pipe sizes less than Ø600mm were not deemed trunk, which aligns with BCC's LGIP.
- The Margaret street diversion (ST2) is assumed to be a DN450 reinforced concrete pipe (RCP) pipe, as per the Civil and Infrastructure Report..
- The existing infrastructure pipes (2 x DN450 and 1 x DN375) have the same capacity as a DN750 RCP. ST1.5 (refer to Appendix D for asset plan). This is assumed to be a DN900 RCP pipe to increase capacity.
- Stormwater lines that are at the top of the catchment, including ST1.1, ST1.4 & ST1.6, are assumed to be DN450 RCP and have been excluded from the trunk estimate.
- Stormwater lines that have small catchments that discharge into the river or larger catchments with multiple discharge points, including ST1.2, ST1.3 and ST1.8, are assumed to be DN525 RCP and have been excluded, as has the stormwater line servicing the proposed bio-retention basins, which is assumed to be DN525 RCP.
- All lines that are allocated as 'stubs' are assumed to be DN375 RCP and have been excluded.

6.4.3.2 Cost Estimate Commentary

Asset ID	Infrastructure Description	Included as Trunk Infrastructure in Cost Schedules
	Parks	
ST1	All stormwater infrastructure necessary to achieve compliance	Included in ST4
ST2	Pipe & diversion structure (to divert low flow from Margaret Street & resort to stormwater quality treatment)	Included in ST4
ST3	Stormwater quality treatment (Bio-retention)	✓
ST4	Trunk Stormwater	✓

ST1 – All stormwater infrastructure

- Assumed ST1 estimate is now included in Item ST4.

ST2 – Pipe & diversion structure

- Assumed the ST2 estimate is now included in Item ST4.

ST3 – Stormwater Quality

- ICOP estimate of \$991,200 has been retained to take into account of water quality treatment requirements throughout the site.

ST4 – Trunk Stormwater

- Stormwater included under this item is to be the stormwater designed for the site to date, plus an 'allowance for trunk stormwater'.
- The estimated infrastructure requirement applicable as trunk has been determined as \$1,361,850.

6.4.4 Transport

6.2.4.1 Cost Estimate Assumptions

A preliminary estimate of trunk transport costs is provided in Appendix E. The estimate has been determined by applying the following assumptions.

6.2.4.1.1 Roads

- Roadworks estimates apply the following base rates (prior to contingencies or multipliers):
 - Demolition of existing pavement (\$75 / m²);
 - New pavement (\$160 / m²);
 - Relocation of services (\$515 / m); and
 - Traffic Management (\$1500 / day).
- Quantities for demolition and new pavement areas are based on the length specified in the IMP and an assumed lane width of 3.5m.
- Quantities for the relocation of services are based on the length of new road.
- Traffic management timeframes are based on the following:
 - 12 hour construction day;
 - 1 day per 15m of demolition, and 1 day per 15m of new pavement + 3 day float; and
 - 1 day per 15m of service relocation.

- A services allowance of a 375mm stormwater pipe and a large conduit bank has been included. It is assumed the relocation of water or wastewater reticulation is not included in trunk road roadworks.
- New pavement rates are based on previous PDA projects, excluding the following items:
 - Provision for traffic (covered separately);
 - Topsoil and turf;
 - Footpaths (covered separately);
 - Temporary turn-around areas; and
 - Allowances for rock.
- There are no new roads in full, only re-work to existing roads. Therefore, there are no land acquisition costs.
- An urban 'CBD' factor of 1.5 has been applied to unit costs to allow for areas with high constraints, and a factor of 3.0 has been applied to traffic management.

6.2.4.1.2 Intersections

- The TER concludes that there is minimal work required at the existing junctions. The works required fall into the following categories:
 - Upgrades to signal phasing.
 - Upgrades to signal phasing and minor line marking.
 - Upgrades to signal phasing, minor line marking and relocation/removal of signals.
- An urban 'CBD' factor of 1.5 has been applied unit rates to allow for areas with high constraints.

6.2.4.1.3 Bridges

- In view of the complexity of the cable stayed form of structure that has been proposed, the preliminary opinion of cost for the proposed pedestrian bridge over the Brisbane River has been derived from the actual costs for the Kurilpa footbridge. This has been simplified to a typical cost/m² with an adjustment to the Kurilpa footbridge cost for CPI over ten years.

Reference was also made to the typical costs/m² for the Goodwill footbridge, although the form of structure was not considered as complex and therefore not a direct comparison with the proposed bridge.

- A footbridge with a 5m width has been adopted in this assessment, providing a width internal to the pedestrian handrails of 4.5m.

- It was assumed that the Kurilpa cost of \$63M (prior to CPI adjustment), was inclusive of project fees. The project fee amount has therefore been extracted from the square metre cost and applied separately.
- Referencing the TER, Attachment A, Table 5.5 states 'Pedestrian demand at the new pedestrian bridge', a value of 47% for the background pedestrian traffic on the new footbridge has been derived. Therefore, it has been assumed that only 47% of the value of the bridge construction may be offset against the relevant charges.

6.2.4.1.4 Shared Paths (Paving)

- The road verge infrastructure required is detailed in Section 7.1.4.2, Table 13, Section 7.2, Table 15, Section 8.2.4.2, Table 19 and Section 8.3, Table 20 (where relevant) of the IMP and sections of the LCR as referenced in the IMP. The indicative locations of footpaths and verges are identified in Appendix B.3 of the IMP and the indicative locations of paths and verges outside of road corridors are identified in Appendix B.4 of the IMP.
- Estimates for footpaths within verges apply the following base rates (prior to contingencies or multipliers):
 - Demolition of existing paving (\$75 / m²);
 - New pedestrian pavement; coloured paving (\$90 / m²);
 - Granite paving (\$270 / m²);
 - Soft landscape (planting) (flora) (\$19 / m²);
 - Hard landscape (\$61 / m²); and
 - Traffic Management (\$1500 / day).
- Estimates for the public verge/footpath (24/7 access) are based on the Brisbane City Plan 2014 - Infrastructure design planning scheme policy
- It is understood that timber decking is not typically considered to be to BCC standard and therefore has not been included in the estimates.
- Works for 'The Ribbon' have been excluded from trunk costings.
- An urban 'CBD' factor of 1.5 has been applied to all items to allow for areas with high constraints, and a factor of 3 has been applied to traffic management.

6.2.4.1.5 Cycling Infrastructure

- Bicentennial Bikeway upgrade as per Brisbane City Plan 2014 Schedule 6 – Planning Scheme Policies (Infrastructure Design – Chapter 4 Off Road Path Design). Bikeway included through sub-precincts 1c, 1d, 1e, 1g as well as leading to Margaret and Alice Street through 1f and northern aspect of 1e.

- Bikeway estimates as a Primary Cycle Route with an unconstrained shared path of 5-9 metres width depending on location.

6.2.4.2 Cost Estimate Commentary

Asset ID	Infrastructure Description	Included as Trunk Infrastructure in Cost Schedules
	Roads and Intersections	
T1	Upgrade to Queens Wharf Road	Refer to item T8
T2	Upgrade to William Street	✓
T3	Upgrade to George Street	✓
T4	Upgrade to Elizabeth Street	Not required
T5	Upgrade to Alice Street	Not required
T6	Upgrade to Margaret Street (including off ramps)	✓
T7	An additional southbound lane along William Street, south of Margaret Street to provide additional capacity for turn movements into Alice Street.	✓
T8	Create a shared zone along Queens Wharf Road as prescribed in Map 2, including connections to North Quay, Victoria Bridge and Margaret Street	✓
T9	Upgrade to significant intersections (as prescribed in Map 2: Structural Elements Plan)	Included in items T2 & T3.
T10	Upgrade to other impacted intersections in or for the PDA including the Queen/William Streets and North Quay	Included in items T2 & T3.
T10A	Roadworks	Excluded
T11	Upgrade to existing footpaths within the QWB PDA	
T11a	Within road reserve	✓
T11b	Outside of road reserve	Included in parks
T12	Stephens Lane pedestrian conversion	✓
T12A	REX Soffit Painting Allowance	Excluded
T13	Paving	Included in T11
T14	Motorcycle Parking Upgrade	✓
	Public Transport	
T15	Provide public transport infrastructure that allows integration with the existing public transport network	Not required

T15A	Marine wharfs, jetties and pontoons for river craft etc.	Excluded
Cycling Infrastructure		
T16	Upgrade the Bicentennial Bikeway	✓
T17	Upgrade other existing cycleways and provide new connections within the PDA to enable integration with the Bicentennial Bikeway, principally outbound on Alice Street and inbound on Margaret Street	✓
T18	Provide publicly accessible cycle facilities	✓
Pedestrian Infrastructure		
T19	A cross river connection between the QWB PDA and South Bank Parklands	✓
T20	Mangrove Walk (over water boardwalk structure)	Excluded

T1 – Queens Wharf Road

- The \$1.6m allowance includes the entire length of Queens Wharf Road as concrete and landscape. Costs for paving and landscape to Queens Wharf Road are included under this item.

T2 – William Street

- The estimate includes removing and relaying road for the majority of William Street.
- Roadworks rates are based off a standard asphalt road, whereas current designs show significantly more complex finished (architectural) roads. EDQ does not deem granite road surfacing as trunk, as this is not in accordance with the BCC S180 Unit Paving Specification for use on roads.
- The standard road cost has been included as trunk as surrounding works may force upgrades to the road due to damage/alignment changes.

T3 – George Street

- Cost included in T10.

T4-T5 – Elizabeth Street & Alice Street

- Not included as trunk.

T6-T7 – Margaret Street (including off ramps) & William Street (additional lane)

- Included in T2

T8 – Queen Street shared zone

- Included in T1

T9 – Intersection upgrades Included in T10A.

T10A - Roadworks

- Not included as trunk

T11A - Upgrade to existing footpaths within the QWB PDA 'Within Road Reserve'

- EDQ has included all street soft landscape and hard landscape (furniture) and hardscape pavement within the verge costing. The streets assessed included George, William, Queen, Elizabeth, Margaret and Alice Street and Queens Wharf Road.
- To calculate the street furniture and soft landscape embellishments, EDQ referred to Brisbane City Council's 2014 Infrastructure Design Planning Scheme Policy – Schedule 6 to understand the typical verge treatments required. As such, typical treatments were proposed at a linear metre rate was applied such as 6 benches every 100m. An approximate linear metre rate encompassing all soft and hard landscape items were formulated. The collective linear metre length of the abovementioned streets came to approximately 2,360 linear metres, with an overall cost of circa \$1.0m proposed for soft landscape and furniture.
- The cost estimate includes granite pavers for 80% of the 1.1ha of street footpath areas at a rate of \$450/m² (including CBD factor and concrete base), and concrete paving with an extra over for exposed aggregate for the remaining 20% at \$180/m².

T12A – REX Soffit Paint

- Not included as trunk.

T15A – Marine Wharfs

- Not included as trunk.

T16-18 Cycling infrastructure

- Similarly, to the T11a section, the approximate cost of the cycling infrastructure was calculated at a linear rate. Both the Cycling Aspects of Austroads Guides (2017 Edition) and the BCC Schedule 6 Planning Scheme Policies (Infrastructure Design – Chapter 4 Off Road Path Design) were referenced to formulate a linear rate. Embellishment assumptions included a 9-metre wide cycleway and associated furniture such as signage, bollards, bins, bubblers etc.
- The total linear length of the cycleway was measured at 1,070m. An approximate square metre rate for a 9m cycleway was calculated as \$135/m² leading to a total of circa \$1.3m.

The calculations exclude associated furniture, all soft landscape, ramps and associated works.

- Note that currently there is an area of cycleway between the mangroves and the Riverside Express car park that narrows and bottlenecks cycle/pedestrian movement within Precinct 1g. To enable the widening of this area of cycleway, a cantilevered pathway has been proposed by DBC to avoid damage to the existing mangroves. Additionally, further east within Precinct 1g, the existing pathway doglegs around the end of the Riverside Express car park, congesting cycle and pedestrian movement. Again, a cantilevered or bridged pathway has been proposed to this area of works by DBC. The area of cantilevering is approximately 600m² at \$5,800/m².
- The rate has been updated from plain concrete and landscaping treatments to align with the BCC LGIP for a similar section of the Bicentennial Bikeway, including cantilevered overwater sections. The total cost of \$3.8m aligns with the BCC LGIP and is considered appropriate.

T19 - Cross river connection

- Bridge dimensions - cable stayed 348m length, 195m main span, 4.5m bet balustrades (2,027m² inc decks). DBC advised weight of steel is estimated to be four times that of Kurilpa Bridge.
- Applied Kurilpa cost of \$63M with CPI increase at av. 2.25%/annum 2007-2017. Revised cost \$78.7M or \$25,761/m². Applying per sq.m rate to proposed structure leads to opinion of cost of \$52.2m excluding contingency and fees. Referencing the TER, Attachment A, Table 5.5 'Pedestrian demand at the new pedestrian bridge', a value of 47% for the background pedestrian traffic on the new footbridge has been derived.
- Taking account of the above, and applying a 25% contingency and 15% on costs, the determined cost for the trunk portion of the proposed footbridge is \$34.4m.

T19A – Red Ribbon

- The Red Ribbon has been excluded from the trunk infrastructure estimate. Where paving has been retained it is included in the Public Realm estimates.

T20 - Mangrove Walk

- Post Brisbane flooding in 2011, several sections of the cycleway were reconstructed by BCC. These include 5m-6m wide sections on rock wall widening in the Toowong area, and also similar widths on concrete decks with bored piers. Whilst a 9m width may be desirable, it can be concluded that 5m-6m is an acceptable standard for a combined pedestrian and cycle use and that this may be applied at the pinch points.
- It is possible that there would be a preference for a greater width than 6m due to an expected high usage, similar to Southbank at peak times. However, this will arise due to the development as a destination and not as a result of through traffic usage. It is therefore

concluded that the Mangrove Walk would effectively be a park embellishment that is beyond the normal standard provided by BCC, and is not considered trunk infrastructure.

6.4.5 Parks & Land for Community Facilities

6.2.5.1 Cost Estimate Assumptions

The estimates cost of parks and land for community facilities is included in Appendix C. The estimate has been determined by applying the following assumptions:

- No detailed design information was available; therefore all estimates are based on Cardno experience and databases and a preliminary review of DBC sketch drawings.
- Reference was made to the BCC LGIP Extrinsic Material - Public parks and land for community facilities network.
- To allow for estimating of the community works, 24/7 public access parks have been broken into three categories – Public Parks, Private Parks and Cross Block Links. All three categories have been broken into sub precincts as per Appendix B.4 of the IMP:
 - Public Parks included as sub precinct: 2b, 1i;
 - Private Parks included as sub precinct: 1c, 1d, 1e, 1f, 1g;
 - Cross Block Link included as sub precinct: 1a, 1h, 2a, 2c, 3;
 - Precincts not priced within Community: 1b, 4a, 4b, 4c.
- Only 24/7 public access areas have been estimated.
- 24/7 public access sub precinct areas derived from Appendix B.4 and B6 of the IMP.
- Public parks upgraded as per the LGIP.
- Queen's Gardens and Miller Park are categorised as Urban Common Parks.
- Cross Block Links treatment as per Urban Common Parks.
- Play and fitness equipment, shade structures, bubblers, BBQ as well as toilets excluded from proposed treatments used within public space.
- Private Park treatments as per Urban Common Parks. Precincts 1c, 1d, 1e, 1f and 1g all assumed to be private parks held under long term leases by DBC.
- Rates for landscape treatment and furniture taken from Cardno databases of competitively priced tenders. Historic database rates used where tender rates were not available.
- Landscape treatments in accordance with typical Brisbane City Council details.
- To enable the estimating of the park areas included in the Queen's Wharf Brisbane PoD application, sub precincts from the IMP were broken down into areas of turf, pavement and planting treatments in proportion with corresponding BCC park types.

- Twelve week planting establishment costs have been applied only to streetscape and public parks. Establishment calculated as a percentage of the cost of the planting. Establishment of planting to Private parks and Cross Block Links was assumed to be undertaken by automated irrigation.
- Exclusions to park estimates include maintenance, stormwater devices, structural certification, arborist works relating to existing vegetation, sediment control and preliminaries.
- Estimates for revetment & reclamation established from first principles based on Cardno database rates for similar marine works. Average depth of excavation assumed as 3-5m.
- It is assumed all fill will be sourced from the new building basements, with an associated cut to fill cost of \$30/m³.
- An urban 'CBD' factor of 1.5 has been applied to allow for areas with high constraints.

6.2.5.2 Cost Estimate Commentary

Asset ID	Infrastructure Description	Included as Trunk Infrastructure in Cost Schedules
	Parks	
C1	Retain and embellish the existing parks in the PDA	✓
C2	Landscape and streetscape works	✓
C3	Bulk earthworks	Included in applicable items
C4	Park furniture (DBC referenced as Street furniture)	✓
C5	Signage and wayfinding	✓
C6	Public art and monuments	✓
C7	Services, security and miscellaneous lifts/escalators	See notes below
C8	Upgrades to existing landings	Included in C1-C6
C9	Buildings	See notes
C10	Attractions/features	See notes
C11	Marine works/marine structure/marine ramps (including reclamation and river embankment)	✓
C12	Lightshow allowance	Excluded
C13	Contamination	Excluded

C1 - Retain and Embellish the existing parks in the PDA

- The two existing parks listed in DBC's precinct plan were reviewed, Queen's Gardens (2b) and Miller Park (1i). Queen's Gardens is listed as Urban Common in the BCC LGIP; and currently has no upgrade recommendation. However, EDQ supports the trunk function of the park. Queens Park total area measured as 4,190 m².
- Miller Park is not listed in the BCC LGIP, and therefore is not classified, it has been decided that Miller Park be classified as a Metro park per BCC's LGIP desired standard of services.

C2 - Landscape and Streetscape Works

- An area-based application of embellishments to develop a preliminary cost estimate for all private park (24/7 accessible) and cross block link precinct parks have been applied.
- Various treatments such as hardstand, terraced hardstand, ramping, stairs, planter seating walls, turf, gardens etc, are allocated as a percentage to an overall area of the intended park. Each treatment is broken down into subcategories, such as plain concrete, coloured concrete and so on. The cost of each landscape and streetscape works to publicly assessable parks has been formulaically costed as shown in the following table.

Landscape and Streetscape Works C2		
Precinct	2016 ETOS Cost	DBC Cost
1a	\$937,566.00	\$4,993,582.50
1b	\$0.00	\$257,850.00
1c	\$1,100,505.00	\$5,745,195.00
1d	\$695,472.00	\$4,054,961.25
1e	\$1,316,605.00	\$2,864,227.50
1f	\$444,685.00	\$1,423,753.20
1g	\$363,155.00	\$3,944,301.75
1h	\$280,650.00	\$601,425.00
1i	\$0.00	\$966,465.00
2a	\$37,600.00	\$749,587.50
2b	\$0.00	\$1,739,713.95
2c	\$32,629.00	\$167,400.00
3	\$227,949.00	\$610,335.00
4a	\$0.00	\$0.00
4b	\$0.00	\$0.00
4c	\$0.00	\$0.00
Precinct Wide	\$0.00	\$364,500.00
Total	\$5,436,816.00	\$28,483,297.65

- Water features are considered in public art.
- For turf and garden beds, data has been compared with assumed quantities from Southbank, as this Urban Common Park has successfully used a large area of turf and gardens throughout the grounds. Further to this and as an example, DBC nominates to install 154m² (approx. 12 x 12m) of turf and 1,236 m² (approx. 35 x 35m) of garden bed in Precinct 1c. The total area of Precinct 1 is 9,484m² and therefore DBC proposes to install 1.6% area of turf, 13% area of garden and 85% of the area as hardstand.
- Generally, this is considered to be an overuse of hardstand treatment to a park of any category. Only proposed pavers in Cross Block Link private parks have been included. The extensive use of pavers to public parks was not deemed cost effective and therefore not used in the costing. It has been assumed that there is a 10% area of turf and 15% area of garden bed to the precinct.

C3 – Bulk Earthworks

- Included in individual asset estimates where appropriate.

C4 - Park Furniture

- The Park Furniture estimate only provides furniture in Private Park and Public Park precincts and excluded the furniture to streetscapes and cycle infrastructure. Similarly, to other community items, a furniture list had been compiled and each item was allocated at a square metre rate, i.e. 1 park bench per 100 m².
- Furniture items listed included items such as prefabricated BBQ, playgrounds, fitness equipment, picnic tables and chairs.
- Bespoke furniture items, rather than prefabricated items, have not been included.

C5 - Signage and Wayfinding

- Signage was estimated only for only Private Park and Public Park precincts at 1 sign per 2,000 m². Proposed park signage included informational and directional signs as per BCC's typical detail.
- Digital signage/touch screens have been determined to be over embellishments and exceed the requirements of BCC typical standards, and have therefore been excluded from the trunk infrastructure estimate.

C6 - Public Art and Monuments

- Section 7.2.1 of the IMP identifies public art will be provided in four different forms of installations: 1. Destination; 2. Precinct Markers, 3. Discovery, 4. Functional. Public art pieces have been proposed within the various precincts as outlined in locations identified in Section 7.2.1 Figures 5-12.
- In the absence of any formal BCC policy, reference has been made to Brisbane City Council's 1995 Public Art Policy, whereby when a development valued at over \$5 million is constructed, the developer is required to contribute 0.25% of the total project costs to fund artworks located in publicly visible locations and be of durable form using quality materials and of a high artistic standard. It is noted that this policy has been repealed, however, EDQ has adopted the same contribution rate of 0.25% of the total project cost to determine the offsets available for public art in the QWB project. Further information on this policy can be found within BCC Centres Detail Design Manual 4 October 2013 - Technical Details 4C Public Art.
- Recent sizeable art installations throughout Brisbane CBD have been installed for approximately \$100,000 apiece and art installations are often installed in conjunction with patron donations.
- With Queen's Wharf Brisbane's total project cost estimated at around \$3 billion, the total artwork contribution under the Brisbane City Council's planning guidelines would be \$7.5 million. Consequently, all artwork proposed for the Queen's Wharf Brisbane is not considered to be offsetable.

- 13 water features are proposed for precincts 1a, 1c, 1d and 1e. The collective area of water features comes to 351m² at \$4,000–\$5,000/m². The total proposed cost of water features to the various precincts is circa \$1.6m. The cost of water features is assumed to be included under the total cost of public art installations.

C9 - Buildings

- No allowance has been made for lifts.
- A Green Ceiling or arbor like structure is deemed a feature and would be considered under Attractions/features (C10).
- Light box assessment is excluded.
- The Mangrove Walk structures are excluded from 'Buildings' – see also T20 commentary.
- 36 shade structures have been estimated throughout the private parks. This excludes shelters nominated in public parks. An approximate area for 36 shade structures (if each shelter is 4 x 4m) equates to 576m².
- Allowance for two main amenity buildings within the private parks has been provided.

C10 - Attractions/features

- As the private parks of Queen's Wharf Brisbane fall under the BCC category of Urban Common, treatments under this category of features and attractions are not outlined and should be considered on a case-by-case basis.
- However, in reference to an Urban Common Park, such as Southbank, a number of attractions and features have been installed. Note that many of the various features/attractions in the Southbank Park have been retrofitted over many years, including Aquativity, Brisbane Wheel, River Quay Green and various playgrounds.
- The following items are accepted as offsetable works for a total of \$3.6m.
 - \$1,000,000.00 for a Large Public TV;
 - \$1,600,000.00 for Parkour / Climbing / Swings / Seesaw's and Climbing walls;
 - 1,000,000.00 for a Water Play.

C11 - Marine Works

- Refer to T20 commentary in relation to exclusion of the Mangrove Walk.
- A typical rate from 1st principles for concrete river wall has been applied – as detail in Appendix C and applied 50% city factor and 25% contingency.
- Marine works also include river material displacement (dredging for Precinct 1e and 1g). The scope of works for dredging material, disposal via barge or similar It has been assumed a rate of \$80/m³ *1.5 *1.25 = \$150/m³ is considered reasonable for river work excavation.

- All other marine structures related to private and/or commercial facilities are excluded from trunk assessment.

C12 - Lightshow allowance

- Lightshow excluded from trunk estimate.

C13 – Contamination

- Contamination excluded from trunk estimate.

7. Development charges

Development charges are imposed on development in the PDA to fund trunk infrastructure and other services which have been provided or are planned to be provided to service the PDA. The following development charges apply in the PDA.

- Local water supply and wastewater network charge
- Local transport and community purposes, including a stormwater networks charge

The development charges have been calculated as follows.

7.1 Local network charges

The local network charges fund the provision of trunk water supply, wastewater, stormwater, transport and community purposes infrastructure. The following charges anticipated from the additional development in the PDA have been calculated by multiplying the GFA/dwelling numbers, as noted in Appendix A, by the relevant charges from Brisbane Infrastructure Charges Resolution (No. 6) 2017.

Public Realm, Transport and Stormwater

Residential/Short Term Accommodation

Use	Bedrooms	No.	Charge per Unit Public Realm, Transport and Stormwater Charge	Total Charges Public Realm, Transport and Stormwater
Multiple Dwelling	1-2	1,880	\$10,115.15	\$19,016,482.00
Multiple Dwelling	3+	120	\$14,155.60	\$1,698,672.00
Subtotal		2,000		\$20,715,154.00
Short Term Accommodation	Bedroom where not within a suite			
Short Term Accommodation	1-2	1,067	\$4,044.46	\$4,315,438.82
Short Term Accommodation	3+	533	\$6,066.69	\$3,233,545.77
Subtotal		1,600		\$7,548,984.59
TOTAL		3,600		\$28,264,138.59

Non-Residential

Use	GFA (sqm)	Charge per Unit Public Realm and Transport Charge*	Total Charges Public Realm and Transport
Commercial (retail)	52,360	\$145.60	\$7,623,616.00
Subtotal	52,360		\$7,623,616.00

Entertainment	66,700	\$141.54	\$9,440,718.00
Subtotal	66,700		\$9,440,718.00
TOTAL	119,060		\$17,064,334.00

TOTAL NEW BCC CHARGES*
\$ 45,328,472.59

*excluding stormwater charges

Water and Sewer

Residential/Short Term Accommodation

Use	Bedrooms	No.	Charge per Unit		Total Water and Sewer Charge	Total Charges Water and Sewer Charges
			Sewer	Water		
Multiple Dwelling	1-2	1,880	\$6,774.47	\$3,336.68	\$10,111.15	\$19,008,962.00
Multiple Dwelling	3+	120	\$9,484.25	\$4,671.35	\$14,155.60	\$1,698,672.00
Subtotal		2,000				\$20,707,634.00
Short Term Accommodation	Bedroom where not within a suite					
Short Term Accommodation	1-2	1,067	\$3,387.24	\$1,668.34	\$5,055.58	\$5,394,303.86
Short Term Accommodation	3+	533	\$4,742.13	\$2,335.68	\$7,077.81	\$3,772,472.73
Subtotal		1,600				\$9,166,776.59
TOTAL		3,600				\$29,874,410.59

Non-Residential

Use	GFA (sqm)	Charge per Unit		Total Water and Sewer Charge	Total Charges Water and Sewer Charges
		Sewer	Water		
Commercial (retail)	52,360	\$24.27	\$12.13	\$36.40	\$1,905,904.00
Subtotal	52,360				\$1,905,904.00
Entertainment	66,700	\$40.44	\$20.22	\$60.66	\$4,046,022.00
Subtotal	66,700				\$4,046,022.00
TOTAL	119,060				\$5,951,926

TOTAL NEW QUU CHARGES

\$ 35,826,336.59

Note: the final total value of the charges will be dependent on the final extent of development and the above figures are subject to change.

Note: the above figures are based on the proposed GFA only and do not factor in existing use credits.

8. Infrastructure schedules of works

Appendix C provides a schedule of trunk offsettable infrastructure for each network servicing the PDA.

Appendix A – Planned densities

The following is a summary of the yields for the PDA

Additional PDA Yield

Residential/Short Term Accommodation

Use	Bedrooms	No.
Multiple Dwelling	1-2	1,880
Multiple Dwelling	3+	120
Subtotal		2,000
Short Term Accommodation	1-2	1,067
Short Term Accommodation	3+	533
Subtotal		1,600
TOTAL		3,600

Non-Residential

Use	GFA (sqm)
Commercial	52,360
Subtotal	52,360
Entertainment	66,700
Subtotal	66,700
TOTAL	119,060

This is in addition to the existing uses Yield as follows:

Existing PDA Yield

Residential/Short Term Accommodation

Use	Bedrooms	No.
Multiple Dwelling	1-2	0
Multiple Dwelling	3+	0
Subtotal		0
Short Term Accommodation	1-2	127

Short Term Accommodation	3+	2
Subtotal		129
TOTAL		129

Non-Residential

Use	GFA (sqm)
Commercial	66,372
Places of Assembly	1,201
Retail	3,046
Entertainment	18,556
TOTAL	89,175

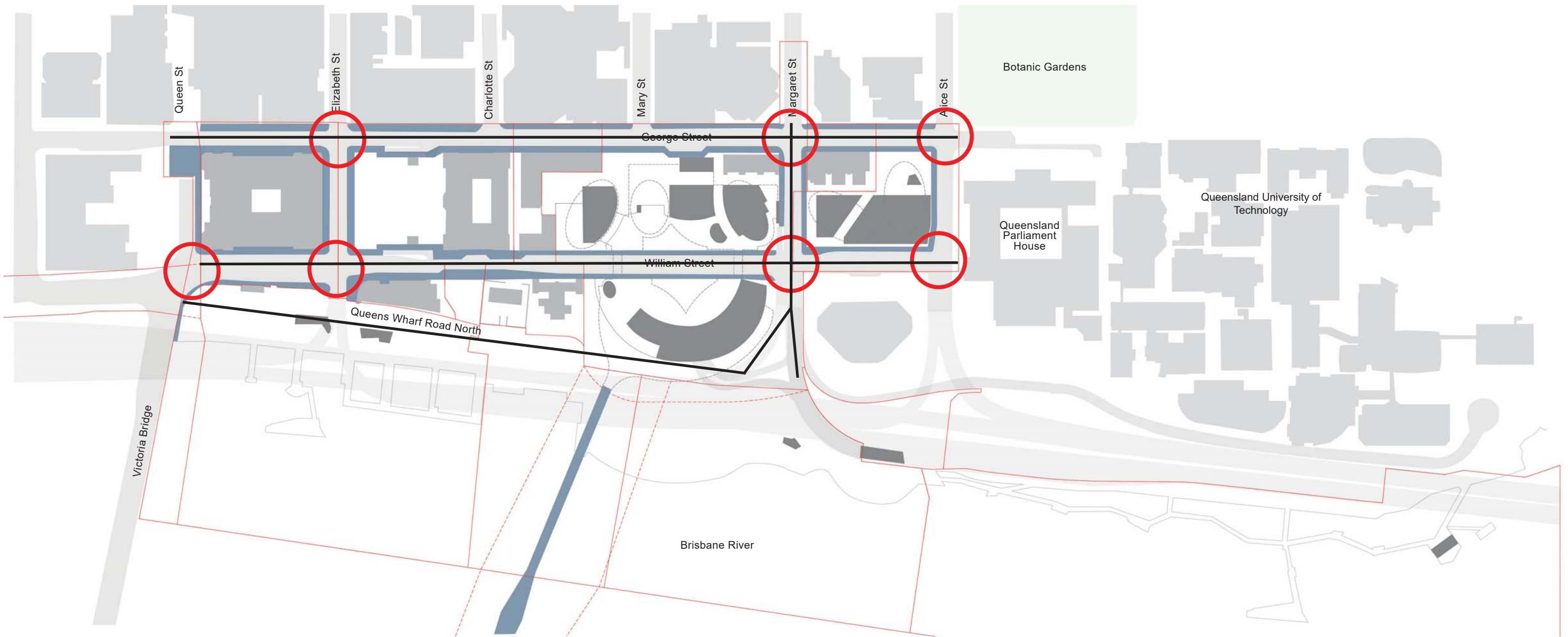


Appendix B – Indicative Infrastructure Plans



Indicative Infrastructure Plans

Transport



LEGEND

- Sub-precinct boundary
- 1f** Sub-precinct number
- Existing buildings (indicative only)
- Proposed buildings (indicative only)
- Public verge/footpath (Public access 24/7)
- Intersection upgrade
- Road upgrade



DESTINATION
BRISBANE
CONSORTIUM

CLIENT NAME:
DESTINATION BRISBANE
CONSORTIUM

PROJECT NAME:
QUEENS WHARF BRISBANE

DRAWING NAME:
FOOTPATH PAVEMENT
LOCATIONS

SCALE
NOT TO SCALE

DRAWN BY: URBIS

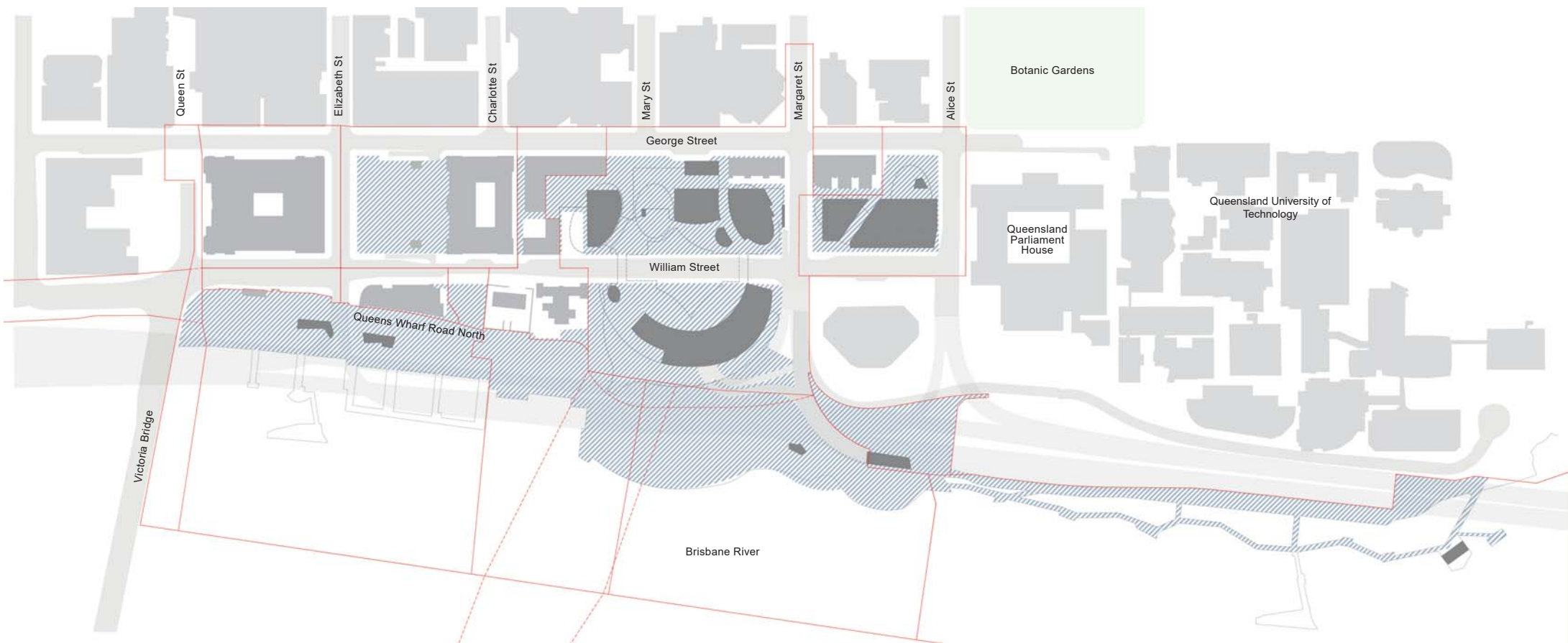
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Indicative Infrastructure Plans

Community



LEGEND

- Sub-precinct boundary
- 11 Sub-precinct number
- Existing buildings (indicative only)
- Proposed buildings (indicative only)
- Public Access Areas - Public Access 24/7



DESTINATION
BRISBANE
CONSORTIUM

CLIENT NAME:
DESTINATION BRISBANE
CONSORTIUM

PROJECT NAME:
QUEENS WHARF BRISBANE

DRAWING NAME:
ALL OTHER PUBLIC REALM
LOCATIONS AND PATHWAYS
OUTSIDE ROAD CORRIDOR

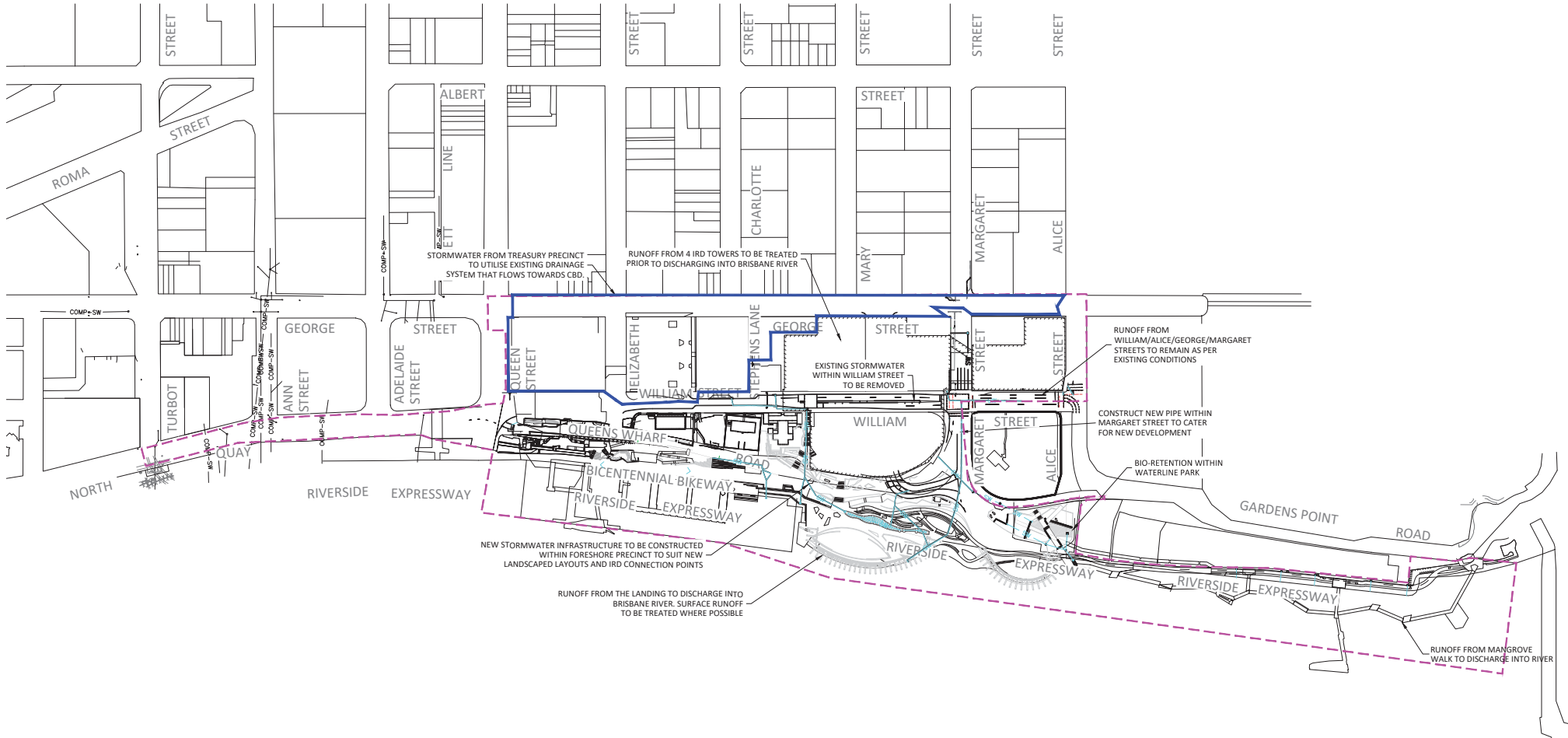
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Indicative Infrastructure Plans

Stormwater



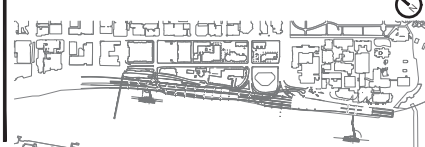
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KEY PLAN



APPROVED	CHECKED
DATE	DATE

CLIENT



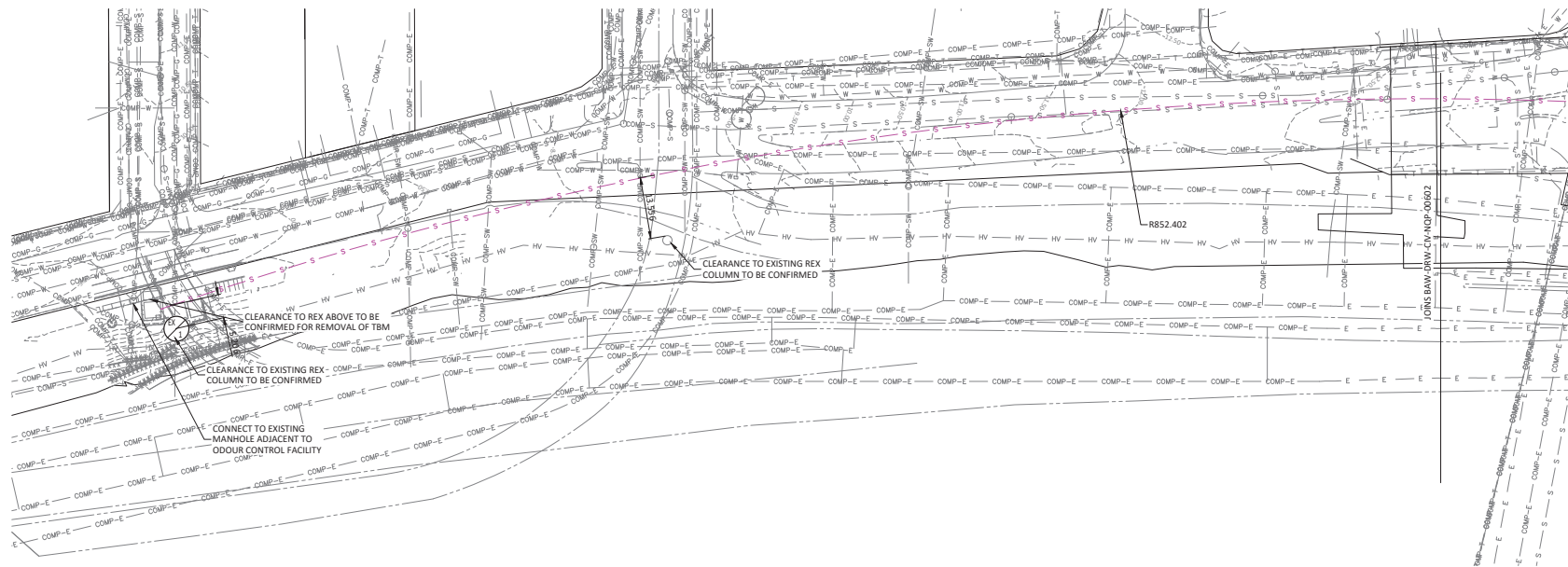
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1			23.05.16

PROJECT
QUEENS WHARF BRISBANE
DRAWING TITLE
EXISTING CATCHMENT PLAN

ISSUE FOR APPROVAL	PROJECT NO. 14250	REVISION 1
SCALE: A1 UNREDUCED / A3 REDUCED 0 20 40 60 80 100m 1:2000 / 1:4000 A1 / A3	DRAWING NO. BAW-SKT-CIV-PWD-00104	

Indicative Infrastructure Plans

Sewerage/Wastewater



PLAN
SCALE 1:500

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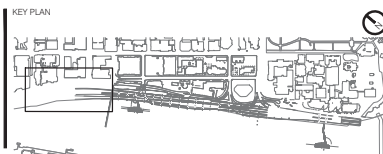
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KEY PLAN



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..... 7729 RPEO
DATE	DATE

CLIENT



REV	NO	DESCRIPTION	DATE
1	ORIGINAL ISSUE		
2	UPDATED SEWER LAYOUT		
3	RED TO WILLIAM ST LAYOUT AMENDED		

PROJECT
QUEENS WHARF BRISBANE
North Quay/ Queens Wharf Plaza

DRAWING TITLE
SEWER RETICULATION
LAYOUT SHEET 1

ISSUE
FOR CO-ORDINATION

SCALE: A1 UNREDUCED / A3 REDUCED

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A1 / A3

DRAWING NO.

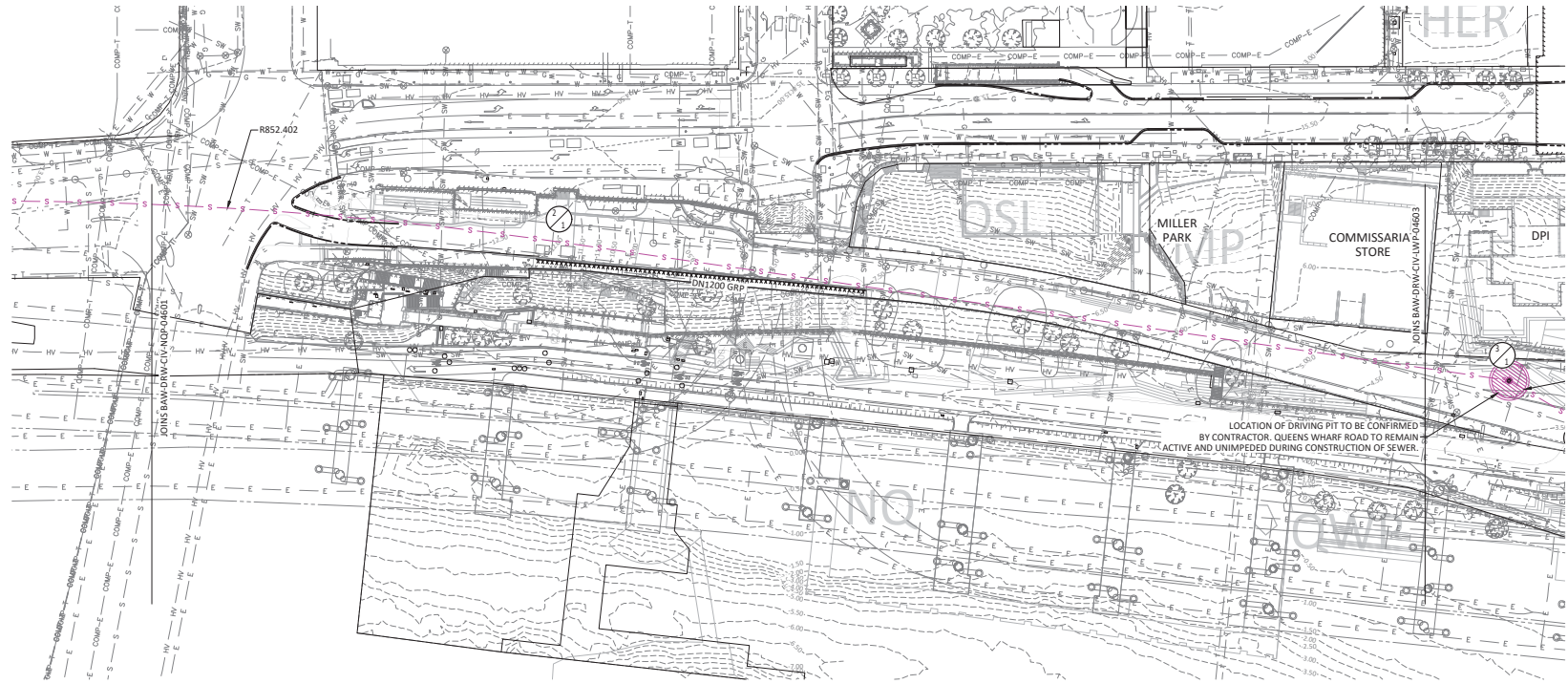
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PROJECT NO.
14250

REVISION

3

DATE: 2015/08/24 10:24 AM
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CHECKED BY: J. BORNHORST
APPROVED BY: J. BORNHORST



PLAN
SCALE 1:500

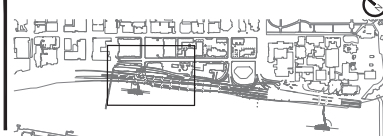
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KEY PLAN



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DATE	DATE

CLIENT



REV	NO	DESCRIPTION	DATE
1	ORIGINAL ISSUE		
2	UPDATED SEWER LAYOUT		
3	REVISED TO WILLIAM ST LAYOUT AMENDED		

PROJECT
QUEENS WHARF BRISBANE
North Quay/ Queens Wharf Plaza

DRAWING TITLE
**SEWER RETICULATION
LAYOUT SHEET 2**

ISSUE
FOR CO-ORDINATION

SCALE: A1 UNREDUCED / A3 REDUCED
0 5 10 15 20 25m 1:500 / 1:1000
A1 / A3

DRAWING NO.

BAW-DRAW-CIV-NQP-04602

PROJECT NO.
14250

REVISION
3

ISSUED FOR CO-ORDINATION
DATE: 25.10.16
BY: [Signature]
FOR: [Signature]

Appendix C – Schedule of Works (detailed costs)

The infrastructure costs are as at 2016/17 FY.

QUEENS WHARF FUTURE ASSETS

Summary

TRUNK OFFSET SUMMARY						
		Applicable as Trunk	ASSET COST	CONTINGENCY	FEES	Total cost
Transport	Roads and Intersections					
T1	Upgrade to Queens Wharf Road	Yes	\$ 1,129,500	\$ 282,375	\$ 169,425	\$ 1,581,300
T2	Upgrade to William Street	Yes	\$ 1,723,594	\$ 430,898	\$ 258,539	\$ 2,413,031
T3	Upgrade to George Street	Yes	\$ -	\$ -	\$ -	Incl. in T10
T4	Upgrade to Elizabeth Street	No	\$ -	\$ -	\$ -	\$ -
T5	Upgrade to Alice Street	No	\$ -	\$ -	\$ -	\$ -
T6	Upgrade to Margaret Street (including off ramps)	Yes	\$ -	\$ -	\$ -	Incl. in T2
T7	An additional southbound lane along William Street, south of Margaret Street to provide additional capacity for turn movements into Alice Street.	Yes	\$ -	\$ -	\$ -	Incl. in T2
T8	Create a shared zone along Queens Wharf Road as prescribed in Map 2, including connections to North Quay, Victoria Bridge and Margaret Street	Yes	\$ -	\$ -	\$ -	Incl. in T1
T9	Upgrade to significant intersections (as prescribed in Map 2: Structural Elements Plan)	Yes	\$ -	\$ -	\$ -	Incl. in T2 & T3
T10	Upgrade to other impacted intersections in or for the PDA including the Queen/William Streets and North Quay	Yes	\$ 862,500	\$ 215,625	\$ 129,375	\$ 1,207,500
T10A	Roadworks		\$ -	\$ -	\$ -	\$ -
T11	Upgrade to existing footpaths within the QWB PDA	Yes	\$ 8,191,223	\$ 2,047,806	\$ 1,228,683	\$ 11,467,712
T11a	Within road reserve	Yes	\$ -	\$ -	\$ -	Incl. in T11
T11b	Outside of road reserve	Yes	\$ -	\$ -	\$ -	Incl. in C2

TRUNK OFFSET SUMMARY						
		Applicable as Trunk	ASSET COST	CONTINGENCY	FEES	Total cost
T12	Stephens Lane pedestrian conversion	Yes	\$ 75,000	\$ 18,750	\$ 11,250	\$ 105,000
T12A	REX Soffit Painting Allowance	No				\$ -
T13	Paving	Yes	\$ -	\$ -	\$ -	Incl. in T11
T14	Motorcycle Parking Upgrade	Yes	\$ 140,625	\$ 35,156	\$ 21,094	\$ 196,875
T15	Public Transport					
T16	Provide public transport infrastructure that allows integration with the existing public transport network	No	\$ -	\$ -	\$ -	\$ -
T15A	Marine wharfs, jetties and pontoons for river craft etc.	No	\$ -	\$ -	\$ -	\$ -
	Cycling Infrastructure					
T16	Upgrade the Bicentennial Bikeway	Yes	\$ 2,725,500	\$ 681,375	\$ 408,825	\$ 3,815,700
T17	Upgrade other existing cycleways and provide new connections within the PDA to enable integration with the Bicentennial Bikeway, principally outbound on Alice Street and inbound on Margaret Street	Yes	\$ 526,500	\$ 131,625	\$ 78,975	\$ 737,100
T18	Provide publicly accessible cycle facilities	Yes	\$ 136,977	\$ 34,244	\$ 20,547	\$ 191,768
	Pedestrian Infrastructure					
T19	A cross river connection between the QWB PDA and South Bank Parklands DB is contracted to provide a footbridge with a 5m width (applied 4.5m from concept deisgn).	Yes	\$ 24,542,235	\$ 6,135,559	\$ 3,681,335	\$ 34,359,129
	Red Ribbon	No				\$ -
T20	Mangrove Walk (suspended piered over water boardwalk structure)	No				\$ -
SUBTOTAL			\$ 40,053,653	\$ 10,013,413	\$ 6,008,048	\$ 56,075,115

TRUNK OFFSET SUMMARY						
		Applicable as Trunk	ASSET COST	CONTINGENCY	FEES	Total cost
Community	Parks					
	C1 Retain and embellish the existing parks in the PDA	Yes	\$ 882,560	\$ 132,384	\$ 132,384	\$ 1,147,328
	C2 Provide all public realm infrastructure consistent with the vision of the QWB PDA including: landscape and streetscape works	Yes	\$ 8,155,222	\$ 1,223,283	\$ 1,223,283	\$ 10,601,789
	C3 bulk earthworks	No (included in applicable items)	\$ -	\$ -	\$ -	\$ -
	C4 Park furniture	Yes	\$ 4,701,654	\$ 705,248	\$ 705,248	\$ 6,112,150
	C5 signage and wayfinding	Yes	\$ 188,100	\$ 28,215	\$ 28,215	\$ 244,530
	C6 public art and monuments	Yes	\$ 1,725,000	\$ 258,750	\$ 258,750	\$ 2,242,500
	C7 services, security and miscellaneous lifts/escalators	Included in items C1-C6	\$ -	\$ -	\$ -	\$ -
	C8 upgrades to existing landings	Included in items C1-C6	\$ -	\$ -	\$ -	\$ -
	C9 Buildings	Yes (see comments)	\$ 2,359,500	\$ 353,925	\$ 353,925	\$ 3,067,350
	C10 Attractions/features	Yes (see comments)	\$ 2,769,231	\$ 415,385	\$ 415,385	\$ 3,600,000
	C11 Marine works/marine structure/marine ramps (including reclamation and river wall)	Yes	\$ 19,745,014	\$ 4,934,265	\$ 2,961,752	\$ 27,641,031
	C12 Lightshow allowance	No	\$ -	\$ -	\$ -	\$ -
	C13 Contamination	No				\$ -
SUBTOTAL			\$ 40,526,282	\$ 8,051,455	\$ 6,078,942	\$ 54,656,679

TRUNK OFFSET SUMMARY							
		Applicable as Trunk	ASSET COST	CONTINGENCY	FEES	Total cost	
Stormwater							
	ST1	Provide all stormwater infrastructure necessary to achieve compliance with requirements and standards, and adopt approaches consistent with guidance identified in relevant PDA guidelines including stormwater treatment and management of stormwater flows (including flows through the QWB PDA)	Yes	\$ -	\$ -	\$ -	See ST4
	ST2	Pipe & diversion structure (to divert low flow from Margaret Street & resort to stormwater quality treatment)	Yes	\$ -	\$ -	\$ -	Incl. in ST4
	ST3	Stormwater quality treatment (Bio-retention)	Yes	\$ 708,000	\$ 177,000	\$ 106,200	\$ 991,200
	ST4	Trunk Stormwater	Yes	\$ 972,750	\$ 243,188	\$ 145,913	\$ 1,361,850
SUBTOTAL			\$ 1,680,750	\$ 420,188	\$ 252,113	\$ 2,353,050	
Water							
	W1	As required to service the PDA	No	\$ -	\$ -	\$ -	\$ -
	W2	Watermain (William Street diversion)	No	\$ -	\$ -	\$ -	\$ -
	W3	Watermain (Restore existing reticulation)	No	\$ -	\$ -	\$ -	\$ -
SUBTOTAL			\$ -	\$ -	\$ -	\$ -	
Sewerage / Wastewater							
	SE1	Provide all waste water infrastructure as required to service the PDA including a new sewer main along Charlotte Street	No	\$ -	\$ -	\$ -	\$ -
	SE2	Trunk Main - Margaret Street to Turbot Street - TBC	TBC	\$ -	\$ -	\$ -	\$ -
SUBTOTAL			\$ -	\$ -	\$ -	\$ -	
TOTALS							
	Transport	Yes	\$40,053,653	\$10,013,413	\$6,008,048	\$56,075,115	
	Community	Yes	\$40,526,282	\$8,051,455	\$6,078,942	\$54,656,679	
	Stormwater	Yes	\$1,680,750	\$420,188	\$252,113	\$2,353,050	
	Water	No	\$0	\$0	\$0	\$0	
	Sewerage/Wastewater	Yes	\$0	\$0	\$0	\$0	
TOTALS			\$82,260,685	\$18,485,056	\$12,339,103	\$113,084,844	

QUEENS WHARF FUTURE ASSETS

Detailed Costs

QUEENS WHARF FUTURE ASSETS										
INF ASSET ID	ASSET DESCRIPTION	ASSET TYPE	Unit	LENGTH (M)/No.	MULTIPLIER	ASSET COST PER UNIT	ASSET COST	CONTINGENCY	ON-COSTS ALLOWANCE PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
TRANSPORT								25%	15%	
INTERSECTIONS										
I001	Alice St/William St signal modification	Phasing modification, relocate 1 light pole & 3 signals & linemarking	Item	1	1.5	\$ 175,000	\$ 262,500	\$ 65,625	\$ 39,375	\$ 367,500
I002	Margaret St/William St signal modification	Phasing modification, relocate 2 signals & linemarking	Item	1	1.5	\$ 125,000	\$ 187,500	\$ 46,875	\$ 28,125	\$ 262,500
I003	Elizabeth St/William St signal modification	Phasing modification & linemarking	Item	1	1.5	\$ 75,000	\$ 112,500	\$ 28,125	\$ 16,875	\$ 157,500
I004	Victoria Bridge/William St signal modification	Phasing modification, removal of 2 signals (not poles) & linemarking	Item	1	1.5	\$ 100,000	\$ 150,000	\$ 37,500	\$ 22,500	\$ 210,000
T2 William Street							\$ 712,500	\$ 178,125	\$ 106,875	\$ 997,500
I005	Alice St/George St signal modification	Phasing modification	Item	1	1.5	\$ 50,000	\$ 75,000	\$ 18,750	\$ 11,250	\$ 105,000
I006	Margret St/George St signal modification	Phasing modification	Item	1	1.5	\$ 50,000	\$ 75,000	\$ 18,750	\$ 11,250	\$ 105,000
T3 George Street							\$ 150,000	\$ 37,500	\$ 22,500	\$ 210,000
TOTAL							\$ 862,500	\$ 215,625	\$ 129,375	\$ 1,207,500

Breakdown of cost of intersection works	\$/item	Total (rounded)
Typical phasing modification cost	\$ 45,000	\$ 50,000
Typical linemarking cost	\$ 22,000	\$ 25,000
Typical removal of signals cost per signal	\$ 10,000	\$ 12,500
Typical relocation of signals cost per signal	\$ 10,000	\$ 12,500

QUEENS WHARF FUTURE ASSETS

ASSET ID	ASSET DESCRIPTION	QUANTITY TYPE	QUANTITY	ASSET COST PER QUANTITY	CBD FACTOR	ASSET COST	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
TRANSPORT									
ROADS									
					1.5		25%	15%	
T1	Queens Wharf Road Conversion					\$ 1,129,500	\$ 282,375	\$ 169,425	\$ 1,581,300
	i) Pavement demolition	m ²	2800	\$ 75	1.5	\$ 315,000	\$ 78,750.00	\$ 47,250	\$ 441,000
	ii) New footpath/laneway paving	m ²	2800	\$ 160	1.5	\$ 672,000	\$ 168,000.00	\$ 100,800	\$ 940,800
	iii) Relocation of existing services	m	NA	\$ 515	1.5	\$ -	\$ -	\$ -	\$ -
	iv) Signage & Linemarking	Item	1	\$ 50,000	1.5	\$ 75,000	\$ 18,750.00	\$ 11,250	\$ 105,000
	v) Hard Landscape (Paving + Street Furniture)	Item	refer community section		1.5	\$ -	\$ -	\$ -	\$ -
	vi) Soft Landscape	Item			1.5	\$ -	\$ -	\$ -	\$ -
	vii) Traffic Management	Days	15	\$ 1,500	3.0	\$ 67,500	\$ 16,875.00	\$ 10,125	\$ 94,500
T2	Upgrade to William Street					\$ 1,304,250	\$ 326,063	\$ 195,638	\$ 1,825,950
	i) Pavement demolition	m ²	2500	\$ 75	1.5	\$ 281,250	\$ 70,312.50	\$ 42,188	\$ 393,750
	ii) New footpath/laneway paving	m ²	2500	\$ 160	1.5	\$ 600,000	\$ 150,000.00	\$ 90,000	\$ 840,000
	iii) Relocation of existing services	m	200	\$ 515	1.5	\$ 154,500	\$ 38,625.00	\$ 23,175	\$ 216,300
	iv) Signage & Linemarking	Item	1	\$ 50,000	1.5	\$ 75,000	\$ 18,750.00	\$ 11,250	\$ 105,000
	v) Hard Landscape (Paving + Street Furniture)	Item	refer community section		1.5	\$ -	\$ -	\$ -	\$ -
	vi) Soft Landscape	Item			1.5	\$ -	\$ -	\$ -	\$ -
	vii) Traffic Management	Days	43	\$ 1,500	3.0	\$ 193,500	\$ 48,375.00	\$ 29,025	\$ 270,900
T6	Upgrade to Margaret St (incl. slip lane removal)					\$ 187,875	\$ 46,969	\$ 28,181	\$ 263,025
	i) Pavement demolition	m ²	210	\$ 75	1.5	\$ 23,625	\$ 5,906.25	\$ 3,544	\$ 33,075
	ii) New road pavement (incl. Signage & Linemarking)	m ²	210	\$ 160	1.5	\$ 50,400	\$ 12,600.00	\$ 7,560	\$ 70,560
	iii) Relocation of existing services	m	60	\$ 515	1.5	\$ 46,350	\$ 11,587.50	\$ 6,953	\$ 64,890
	iv) Traffic Management	Days	15	\$ 1,500	3.0	\$ 67,500	\$ 16,875.00	\$ 10,125	\$ 94,500

QUEENS WHARF FUTURE ASSETS

ASSET ID	ASSET DESCRIPTION	QUANTITY TYPE	QUANTITY	ASSET COST PER QUANTITY	CBD FACTOR	ASSET COST	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
TRANSPORT									
					1.5		25%	15%	
T7	Elizabeth St/William St additional turn lane					\$ 231,469	\$ 57,867	\$ 34,720	\$ 324,056
	i) Pavement demolition	m ²	262.5	\$ 75	1.5	\$ 29,531	\$ 7,382.81	\$ 4,430	\$ 41,344
	ii) New road pavement (incl. Signage & Linemarking)	m ²	262.5	\$ 160	1.5	\$ 63,000	\$ 15,750.00	\$ 9,450	\$ 88,200
	iii) Relocation of existing services	m	75	\$ 515	1.5	\$ 57,938	\$ 14,484.38	\$ 8,691	\$ 81,113
	iv) Traffic Management	Days	18	\$ 1,500	3.0	\$ 81,000	\$ 20,250.00	\$ 12,150	\$ 113,400
T12	Stephens Lane Conversion					\$ 75,000	\$ 18,750	\$ 11,250	\$ 105,000
	i) Pavement demolition	m ²	NA	\$ 75	1.5	\$ -	\$ -	\$ -	\$ -
	ii) New road pavement	m ²	NA	\$ 160	1.5	\$ -	\$ -	\$ -	\$ -
	iii) Relocation of existing services	m	NA	\$ 515	1.5	\$ -	\$ -	\$ -	\$ -
	iv) Signage & Linemarking	Item	1	\$ 20,000	1.5	\$ 30,000	\$ 7,500.00	\$ 4,500	\$ 42,000
	v) Hard Landscape (Paving + Street Furniture)	Item	refer community section		1.5	\$ -	\$ -	\$ -	\$ -
	vi) Soft Landscape	Item			1.5	\$ -	\$ -	\$ -	\$ -
	vii) Traffic Management	Days	10	\$ 1,500	3.0	\$ 45,000	\$ 11,250.00	\$ 6,750	\$ 63,000
T14	Motorcycle Parking Upgrade					\$ 140,625	\$ 35,156	\$ 21,094	\$ 196,875
	i) Pavement demolition	m ²	250	\$ 75	1.5	\$ 28,125	\$ 7,031.25	\$ 4,219	\$ 39,375
	ii) New road pavement	m ²	250	\$ 160	1.5	\$ 60,000	\$ 15,000.00	\$ 9,000	\$ 84,000
	iii) Relocation of existing services	m	NA	\$ 515	1.5	\$ -	\$ -	\$ -	\$ -
	iv) Signage & Linemarking	Item	1	\$ 5,000	1.5	\$ 7,500	\$ 1,875.00	\$ 1,125	\$ 10,500
	v) Hard Landscape (Paving + Street Furniture)	Item	refer community section		1.5	\$ -	\$ -	\$ -	\$ -
	vi) Soft Landscape	Item			1.5	\$ -	\$ -	\$ -	\$ -
	vii) Traffic Management	Days	10	\$ 1,500	3.0	\$ 45,000	\$ 11,250.00	\$ 6,750	\$ 63,000
TOTAL						\$ 634,969	\$ 158,742	\$ 95,245	\$ 888,956

QUEENS WHARF FUTURE ASSETS

ASSET ID	ASSET DESCRIPTION	QUANTITY TYPE	QUANTITY	ASSET COST PER QUANTITY	CBD FACTOR	ASSET COST	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
TRANSPORT							25%	15%	
PAVING									
T11(a)	Upgrade to existing paving (within road reserve)					\$ 8,191,223	\$ 2,047,806	\$ 1,228,683	\$ 11,467,712
	i) Demolition of Existing Paving	m ²	10885	\$ 75	1.5	\$ 1,224,563	\$ 306,141	\$ 183,684	\$ 1,714,388
	ii) Concrete Path	m ²	10885	\$ 90	1.5	\$ 1,469,475	\$ 367,369	\$ 220,421	\$ 2,057,265
	iii) Extra Over Granite Pavers	m ²	8708	\$ 210	1.5	\$ 2,743,020	\$ 685,755	\$ 411,453	\$ 3,840,228
	iv) Extra Over Exposed Aggregate	m ²	2177	\$ 30	1.5	\$ 97,965	\$ 24,491	\$ 14,695	\$ 137,151
	v) Soft Landscape	m ²	10885	\$ 19	1.5	\$ 310,223	\$ 77,556	\$ 46,533	\$ 434,312
	vi) Hard Landscape	m ²	10885	\$ 61	1.5	\$ 995,978	\$ 248,994	\$ 149,397	\$ 1,394,369
	vii) Traffic Management	days	300	\$ 1,500	3.0	\$ 1,350,000	\$ 337,500	\$ 202,500	\$ 1,890,000
T11(b)	Upgrade to existing paving (outside road reserve)					\$ -		\$ -	\$ -
	REFER TO COMMUNITY INFRASTRUCTURE								
TOTAL						\$ 8,191,223	\$ 2,047,806	\$ 1,228,683	\$ 11,467,712

QUEENS WHARF FUTURE ASSETS													
INF ASSET ID	ASSET DESCRIPTION	BRIDGE / CULVERT SPAN (m)	ROAD WIDTH (m)	AREA (sqm)	YEAR	COST (IN YEAR OF CONSTRUCTION)	CPI INDEX	COST (2016)	RATE (\$/SQM)	COST OF WORKS	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
TRANSPORT											25%	15%	
BRIDGES													
T19	Queens Wharf to Southbank Pedestrian Bridge DB is contracted to provide a footbridge with a 5m width, therefore the equivalent width has been adopted in this assessment. Referencing the draft PoD Volume 3 Attachment G - Traffic Engineering Report – 30 November 2016 Attachment A – Table 5.5 ‘Pedestrian demand at the new pedestrian bridge’, a value of 47% (\$25,404,804) for the background pedestrian traffic on the new footbridge has been derived.	450.44	4.5	2,027	2017	-	109.4	-	\$ 25,761	\$ 52,217,521	\$ 13,054,380	\$ 7,832,628	\$ 73,104,529*
	Kurilpa Bridge (high architectual complexity)	470	6.5	3,055	2009	63,000,000	93.4	78,699,816	\$ 25,761				
	Goodwill Bridge (medium architectual complexity)	450	6.5	2,925	2001	33,000,000	74.6	48,394,102	\$ 16,545				
TOTAL										\$ 52,217,521	\$ 13,054,380	\$ 7,832,628	\$ 73,104,529
ADJUSTED TOTAL										\$ 24,542,235	\$ 6,135,559	\$ 3,681,335	\$ 34,359,129

* Adjusted total represents 47% of the value of the bridge construction

Kurilpa Bridge cost \$63M (2009)

Based on CPI of 2.25% over 10 years, the bridge cost at todays prices would be \$78.7M.

QUEENS WHARF FUTURE ASSETS													
INF ASSET ID	ASSET DESCRIPTION	BRIDGE / CULVERT SPAN (m)	ROAD WIDTH (m)	AREA (sqm)	YEAR	COST (IN YEAR OF CONSTRUCTION)	CPI INDEX	COST (2016)	RATE (\$/SQM)	COST OF WORKS	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
TRANSPORT											25%	15%	
BRIDGES													
T19	Queens Wharf to Southbank Pedestrian Bridge DB is contracted to provide a footbridge with a 5m width, therefore the equivalent width has been adopted in this assessment. Referencing the draft PoD Volume 3 Attachment G - Traffic Engineering Report – 30 November 2016 Attachment A – Table 5.5 ‘Pedestrian demand at the new pedestrian bridge’, a value of 47% (\$25,404,804) for the background pedestrian traffic on the new footbridge has been derived.	450.44	4.5	2,027	2017	-	109.4	-	\$ 25,761	\$ 52,217,521	\$ 13,054,380	\$ 7,832,628	\$ 73,104,529*
	Kurilpa Bridge (high architectural complexity)	470	6.5	3,055	2009	63,000,000	93.4	78,699,816	\$ 25,761				
	Goodwill Bridge (medium architectural complexity)	450	6.5	2,925	2001	33,000,000	74.6	48,394,102	\$ 16,545				
TOTAL										\$ 52,217,521	\$ 13,054,380	\$ 7,832,628	\$ 73,104,529
ADJUSTED TOTAL										\$ 24,542,235	\$ 6,135,559	\$ 3,681,335	\$ 34,359,129

* Adjusted total represents 47% of the value of the bridge construction

Kurilpa Bridge cost \$63M (2009)

Based on CPI of 2.25% over 10 years, the bridge cost at todays prices would be \$78.7M.

Queens Wharf Future Assets																				
Asset ID	Asset Description	Park 1A	Park 1C	Park 1D	Park 1E	Park 1F	Park 1G	Park 1I	Park 1H	Park 2A	Park 2B	Park 2C	Park 3	Cost Total	CBD Factor	Asset Cost	Contingency	Project Management & Design Cost - (Excluding Land)	Total Cost	
Community																Parks		15%	15%	
																River walls		25%	15%	
Parks (24/7 Public Access ONLY)																				
C1	Retain and embellish the existing parks in the PDA.	\$0	\$0	\$0	\$0	\$0	\$0	\$231,148	\$0	\$0	\$357,226	\$0	\$0	\$588,373	1.50	\$882,560	\$132,384	\$132,384	\$1,147,328	
	Provide all public realm infrastructure consistent with the vision of the QWB PDA including:																			
C2	landscape and Streetscape works	\$937,566	\$1,100,505	\$695,472	\$1,316,605	\$444,685	\$363,155	\$0	\$280,650	\$37,600	\$0	\$32,629	\$227,949	\$5,436,815	1.50	\$8,155,222	\$1,223,283	\$1,223,283	\$10,601,789	
C3	bulk earthworks	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1.50	\$0	\$0	\$0	\$0	
C4	park furniture	\$160,890	\$726,683	\$467,160	\$810,288	\$264,630	\$255,045	\$93,310	\$44,585	\$5,375	\$270,110	\$4,015	\$32,345	\$3,134,436	1.50	\$4,701,654	\$705,248	\$705,248	\$6,112,150	
C5	signage and wayfinding	\$0	\$31,350	\$19,800	\$36,300	\$13,200	\$19,800	\$1,650	\$0	\$0	\$3,300	\$0	\$0	\$125,400	1.50	\$188,100	\$28,215	\$28,215	\$244,530	
C6	public art and monuments	\$150,000	\$250,000	\$150,000	\$250,000	\$100,000	\$150,000	\$0	\$50,000	\$0	\$0	\$0	\$50,000	\$1,150,000	1.50	\$1,725,000	\$258,750	\$258,750	\$2,242,500	
C7	services, security and miscellaneous lifts/escalators	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1.50	\$0	\$0	\$0	\$0	
C8	upgrades to existing landings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1.50	\$0	\$0	\$0	\$0	
C9	buildings (amenity and shade buildings only)	\$0	\$491,425	\$160,950	\$545,075	\$107,300	\$160,950	\$0	\$0	\$0	\$107,300	\$0	\$0	\$1,573,000	1.50	\$2,359,500	\$353,925	\$353,925	\$3,067,350	
C10	attractions/features	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1.50	\$2,769,231	\$415,385	\$415,385	\$3,600,000	
C11	mangrove rehabilitation	\$0	\$13,260	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,260	1.50	\$19,890	\$2,984	\$2,984	\$25,857	
C11	marine works & structures including reclamation and river wall works (contingency 25%)	\$0	\$0	\$0	\$7,481,470	\$0	\$5,668,613	\$0	\$0	\$0	\$0	\$0	\$0	\$13,150,083	1.50	\$19,725,124	\$4,931,281.12	\$2,958,768.67	\$27,615,174	
C12	lightshow allowance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1.50	\$0	\$0	\$0	\$0	
	Total for Individual Parks (refer to community precinct cost breakdowns for further information). Includes river walls and reclamation.	\$1,248,456	\$2,613,223	\$1,493,382	\$10,439,737	\$929,815	\$6,617,563	\$326,108	\$375,235	\$42,975	\$737,936	\$36,644	\$310,294	\$25,171,367						
TOTAL																\$40,526,282		\$8,051,455	\$6,078,942	\$54,656,679

QUEENS WHARF FUTURE ASSETS

INT ASSET ID	ASSET DESCRIPTION	DIA (MM)	COST LENGTH (m)	AREA (m ²)	ASSET UNIT VALUE	TERRAIN TYPE	TERRAIN FACTOR RATE	ASSET COST	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
STORMWATER									25%	15%	
STORMWATER INFRASTRUCTURE											
ST4 Trunk Stormwater											
	300mm diameter RCP	300	182		250	CBD	0	\$ -	\$ -	\$ -	\$ -
	375mm diameter RCP	375	196		300	CBD	0	\$ -	\$ -	\$ -	\$ -
	450mm diameter RCP	450	77		350	CBD	0	\$ -	\$ -	\$ -	\$ -
	525mm diameter RCP	525	55		450	CBD	0	\$ -	\$ -	\$ -	\$ -
	600mm diameter RCP	600	75		550	CBD	2.5	\$ 103,125	\$ 25,781	\$ 15,469	\$ 144,375
	750mm diameter RCP	750	65		650	CBD	2.5	\$ 105,625	\$ 26,406	\$ 15,844	\$ 147,875
	DN800 PE100 PN16	800	28		1,500	CBD	2.5	\$ 105,000	\$ 26,250	\$ 15,750	\$ 147,000
	Allowance for headwall	-	4		2,000	CBD	2.5	\$ 20,000	\$ 5,000	\$ 3,000	\$ 28,000
	Allowance for manhole	-	19		7,500	CBD	2.5	\$ 356,250	\$ 89,063	\$ 53,438	\$ 498,750
	Allowance for low flow diversion structures	-	5		10,000	CBD	2.5	\$ 125,000	\$ 31,250	\$ 18,750	\$ 175,000
	ACO or similar trench grate (assumed 300 mm with stainless grate)	-	67		300	CBD	2.5	\$ 50,250	\$ 12,563	\$ 7,538	\$ 70,350
	Field inlet	-	11		3,000	CBD	2.5	\$ 82,500	\$ 20,625	\$ 12,375	\$ 115,500
	5 Cartridge Spel filter	-	-		-						Included below
	8 Cartridge Spel filter	-	-		-						Included below
	Allowance for flexible connection through retaining wall	-		1	10,000	CBD	2.5	\$ 25,000	\$ 6,250	\$ 3,750	\$ 35,000
	Allowance for trunk stormwater (Balance for remaining stormwater not yet documented)	-	-		-						N/A
TOTAL								\$ 972,750	\$ 243,188	\$ 145,913	\$ 1,361,850
STORMWATER TREATMENT											
ST3	Waterline Park bio-retention basin			885	\$ 400		2.00	\$ 708,000	\$ 177,000.00	\$ 106,200	\$ 991,200
								\$ 708,000	\$ 177,000	\$ 106,200	\$ 991,200
COMBINED TOTAL								\$ 1,680,750	\$ 420,188	\$ 252,113	\$ 2,353,050

QUEENS WHARF FUTURE ASSETS											
INF ASSET ID	ASSET DESCRIPTION	DIA (MM)	LENGTH (M)	MATERIAL	DEPTH	ASSET UNIT VALUE (\$/m)	TERRAIN FACTOR RATE	ASSET COST	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
SEWER							3		25%	15%	
GRAVITY MAINS											
SE2	Trunk sewer gravity main - Margaret Street to Turbot Street - VALUE TO BE CONFIRMED							\$ -	\$ -	\$ -	\$ -
TOTAL								\$ -		\$ -	\$ -

Community Precinct Cost Breakdowns

QUEENS WHARF FUTURE ASSETS											
INF ASSET ID	ASSET DESCRIPTION	ASSUMED DEPTH	LENGTH	AREA	VOLUME	CBD FACTOR	RATE (\$/UNIT)	COST OF WORKS	CONTINGENCY	PROJECT MANAGEMENT & DESIGN COST - (EXCLUDING LAND)	TOTAL COST
COMMUNITY: C11 - MARINE WORKS CALCULATION									25%	15%	
REVTMENT AND RECLAMATION											
RW1e	River Wall in precinct 1e (Concrete)	-	147	-	-	1.5		\$ 9,422,205	\$ 2,355,551	\$ 1,413,331	INCLUDED IN ITEM C11 (MARINE WORKS) IN COMMUNITY SECTION
RW1g	River Wall in precinct 1g (Concrete)	-	113	-	-	1.5		\$ 7,242,919	\$ 1,810,730	\$ 1,086,438	
RC1e	Reclamation of land in precinct 1e	3.0	-	5,000	15,000	1.5	\$ 80	\$ 1,800,000	\$ 450,000	\$ 270,000	
RC1g	Reclamation of land in precinct 1g	3.0	-	3,500	10,500	1.5	\$ 80	\$ 1,260,000	\$ 315,000	\$ 189,000	
TOTAL								\$ 19,725,124	\$ 4,931,281	\$ 2,958,769	\$ 27,615,174

A	IRD				
A10	PUBLIC REALM				
A10E	The Landing Precinct 1e (CUSP)				
A10E2	Marine Works (NOT YET UPDATED)				
A10E2B	Western Promontary				
A10E2B2	Sea Wall (147m)				
Marine Works		Unit	Qty	Rate	Amount
5043	"L" shaped precast skirt including all necessary hardware and fixings to front edge of capping beam 200 mm wide x 3250 mm high (Refer section D ARP-DRW-MAR-LW1-00204)	m²	75	500	37,500
5018	*** Establish 'Grab' dredge - REQUIRED?	No	1	150,000	150,000
5020	**Rate TBC**1000mm Dia x 30 mm thick GR450 1:3 raked tubular piles with cathodic protection system @ 4.6m centres approx 26 meters, no concrete fill or reinforcement)	No	33	25,000	825,000
5019	**Rate TBC**1000mm Dia x 30 mm thick GR450 vertical tubular piles with cathodic protection system @ 2.3m centres approx 26 meters, no concrete fill or reinforcement)	No	58	25,000	1,450,000
5023	**Rate TBC**Allow for Denso sea shield 100 series with HDPE Jacket to racking piles only (wrap to RL_MLWS -0.85)	m²	200	200	40,000
5026	**Rate TBC**Allow for temporary formwork to front of vertical sheet piles.	m²	222	150	33,300
5024	**Rate TBC**Intercostle double AZ26 Steel Sheet Piles (15m long)	m²	1,100	1,800	1,980,000
5048	Allow for 50mm compressible fill to tie in around existing structures.	m	158	10	1,580
5034	Allow for 1200mm high galvanised balustrade - rate increased for Stainless	m	135	850	114,750
5035	Allow for concrete to 300 thick topping slab	m²	166	300	49,800
5036	Allow for concrete to relieving slab	m²	0		
5031	Allow for detail formwork to capping beam around piles	No	91	150	13,650
5022	Allow for reinforcement to pile plug (Allowed at 220kg/m3)	t	288.15	2,000	576,300
5033	Allow for silane treatment to capping beam, precast skirt and cantilever slab	m²	1,652	20	33,040
5028	Concrete to 1200 mm deep x 3700 mm wide RC capping beam	m²	617	300	185,100
5025	Concrete to core fill sheet pile wall to RL_MLWS	m²	40	700	28,000
5016	Dredging to sheet pile wall (Excluded)	Item			
5017	Establish Barge / piling rig	No	1	150,000	150,000
5029	Formwork to sides of capping beam capping beam	m²	353	150	52,950
5039	Formwork to sides of relieving slab up to 200mm high	m	0		
5037	Formwork to sides of topping slab up to 300mm high	m	294	150	44,100
5030	Formwork to soffit of capping beam capping beam	m²	617	200	123,400
5040	Formwork to soffit of relieving slab	m²	0		
5038	Formwork to soffit of topping slab	m²	290	150	43,500
5021	RC Concrete to pile plug to RL-3.0	m²	400	700	280,000
5032	Reinforcement to capping beam (allowed at 200kg/m3)	t	0.62	2,000	1,240
5042	Reinforcement to relieving slab (allowed at 200kg/m3)	t	0.00		
5041	Reinforcement to topping slab (allowed at 200kg/m3)	t	33.02	2,000	66,040
5027	Stainless steel mesh to concrete filled sheet pile	m²	222	10	2,220
	Subtotal Walls				6,281,470
	CBD Factor (1.5)				9,422,205
	Reclamation of land in precinct 1e - including river transport to port or similar	m²	15,000	80	1,200,000
	CBD Factor (1.5)				1,800,000
Marine Works (Precinct 1e)					\$11,222,205
Marine Works (Precinct 1g)					
	Subtotal Walls				4,828,613
	CBD Factor (1.5)				7,242,919
	Reclamation of land in precinct 1e - including river transport to port or similar	m²	10,500	80	840,000
	CBD Factor (1.5)				1,260,000
Marine Works (Precinct 1g)					\$8,502,919

1A - Cross Block Link 24/7 Public Access				Area 6824m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	0	\$10.00	\$0.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	43.67	\$1,070.00	\$46,726.90	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	41	\$250.00	\$10,250.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	41	\$140.00	\$5,740.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	818.8	\$30.00	\$24,564.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	545.92	\$45.00	\$24,566.40	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	1364.8	\$25.00	\$34,120.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	2619	\$90.00	\$235,710.00	C2
16	Supply and install coloured concrete	m²	2183.68	\$110.00	\$240,204.80	C2
17	Supply and install tiles over concrete	m²	545.92	\$180.00	\$98,265.60	C2
18	Supply and install off form concrete seating wall 600mm high	lm	93.4	\$605.00	\$56,507.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	0	\$6,475.00	\$0.00	C4
21	Supply and install maintenance hosecock	item	7	\$1,295.00	\$9,065.00	C4
22	Supply and install park bench - gossi	item	51	\$1,360.00	\$69,360.00	C4
23	Supply and install picnic table and benches	item	17	\$4,760.00	\$80,920.00	C4
24	Supply and install Bike Racks	item	3	\$515.00	\$1,545.00	C4
25	Supply and install Bin	item	0	\$2,780.00	\$0.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	0	\$1,745.00	\$0.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	0	\$1,650.00	\$0.00	C5
Structures						
34	Supply and install art	pc	3	\$50,000.00	\$150,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	0	\$26,825.00	\$0.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	98	\$1,365.00	\$133,770.00	C2
39	stairs concrete 2 m, rails and retaining	lm	12.45	\$2,180.00	\$27,141.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$1,248,455.70	

1c - Private Park 24/7 Public Access				Area 9482m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	948.2	\$10.00	\$0.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	9	\$1,310.00	\$11,790.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	57	\$1,070.00	\$60,990.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	66	\$250.00	\$16,500.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	57	\$140.00	\$7,980.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	853	\$30.00	\$25,590.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	568	\$45.00	\$25,560.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	442	\$30.00	\$13,260.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	2369.2	\$25.00	\$59,230.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	2489	\$90.00	\$224,010.00	C2
16	Supply and install coloured concrete	m²	1137	\$110.00	\$125,070.00	C2
17	Supply and install tiles over concrete	m²	0	\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	95	\$605.00	\$57,475.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	307	\$880.00	\$270,160.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	4	\$6,475.00	\$25,900.00	C4
21	Supply and install maintenance hosecock	item	20	\$1,295.00	\$25,900.00	C4
22	Supply and install park bench - gossi	item	35	\$1,360.00	\$47,600.00	C4
23	Supply and install picnic table and benches	item	12	\$4,760.00	\$57,120.00	C4
24	Supply and install Bike Racks	item	9	\$515.00	\$4,635.00	C4
25	Supply and install Bin	item	19	\$2,780.00	\$52,820.00	C4
26	Supply and install BBQ includes connections	item	3	\$13,450.00	\$40,350.00	C4
27	Supply and install fitness equipment	m²	47.41	\$745.00	\$35,320.45	C4
28	Supply and install balustrades/handrails	lm	55	\$485.00	\$26,675.00	C4
29	Supply and Concrete Bollards	item	64	\$1,745.00	\$111,680.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	426.69	\$700.00	\$298,683.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	19	\$1,650.00	\$31,350.00	C5
Structures						
34	Supply and install art	pc	5	\$50,000.00	\$250,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	9	\$26,825.00	\$241,425.00	C9
36	Supply and install toilet block	pc	1	\$250,000.00	\$250,000.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	132	\$1,365.00	\$180,180.00	C2
39	stairs concrete 2 m, rails and retaining	lm	16.5	\$2,180.00	\$35,970.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$2,613,223.45	

1D - Private Park 24/7 Public Access				Area 5833m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	583	\$10.00	\$5,830.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	6	\$1,310.00	\$7,860.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	35	\$1,070.00	\$37,450.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	41	\$250.00	\$10,250.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	35	\$140.00	\$4,900.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	525	\$30.00	\$15,750.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	350	\$45.00	\$15,750.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²		\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	1458	\$25.00	\$36,450.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²		\$100.00	\$0.00	C2
15	Supply and install concrete	m²	1520	\$90.00	\$136,800.00	C2
16	Supply and install coloured concrete	m²	699	\$110.00	\$76,890.00	C2
17	Supply and install tiles over concrete	m²		\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	74	\$605.00	\$44,770.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	193	\$880.00	\$169,840.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	3	\$6,475.00	\$19,425.00	C4
21	Supply and install maintenance hosecock	item	11	\$1,295.00	\$14,245.00	C4
22	Supply and install park bench - gossi	item	21	\$1,360.00	\$28,560.00	C4
23	Supply and install picnic table and benches	item	7	\$4,760.00	\$33,320.00	C4
24	Supply and install Bike Racks	item	6	\$515.00	\$3,090.00	C4
25	Supply and install Bin	item	12	\$2,780.00	\$33,360.00	C4
26	Supply and install BBQ includes connections	item	2	\$13,450.00	\$26,900.00	C4
27	Supply and install fitness equipment	m²	29	\$745.00	\$21,605.00	C4
28	Supply and install balustrades/handrails	lm	33	\$485.00	\$16,005.00	C4
29	Supply and Concrete Bollards	item	50	\$1,745.00	\$87,250.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	262	\$700.00	\$183,400.00	C4
31	Cycleway Furniture	item		\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item		\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	12	\$1,650.00	\$19,800.00	C5
Structures						
34	Supply and install art	pc	3	\$50,000.00	\$150,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	6	\$26,825.00	\$160,950.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item		\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	81	\$1,365.00	\$110,565.00	C2
39	stairs concrete 2 m, rails and retaining	lm	10.26	\$2,180.00	\$22,366.80	C2
40	Ramps 2 metres wide, rails and retaining	lm		\$1,270.00	\$0.00	C2
Total					\$1,493,381.80	

1E - Private Park 24/7 Public Access				Area 10958m²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m²	1095.8	\$10.00	\$10,958.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	11	\$1,310.00	\$14,410.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	65	\$1,070.00	\$69,550.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	76	\$250.00	\$19,000.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	65	\$140.00	\$9,100.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	985.8	\$30.00	\$29,574.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	657	\$45.00	\$29,565.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m²		\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m²	2738.6	\$25.00	\$68,465.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²		\$100.00	\$0.00	C2
15	Supply and install concrete	m²	3195	\$90.00	\$287,550.00	C2
16	Supply and install coloured concrete	m²	1314.8	\$110.00	\$144,628.00	C2
17	Supply and install tiles over concrete	m²	0	\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	102	\$605.00	\$61,710.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	363	\$880.00	\$319,440.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	5	\$6,475.00	\$32,375.00	C4
21	Supply and install maintenance hosecock	item	21	\$1,295.00	\$27,195.00	C4
22	Supply and install park bench - gossi	item	41	\$1,360.00	\$55,760.00	C4
23	Supply and install picnic table and benches	item	14	\$4,760.00	\$66,640.00	C4
24	Supply and install Bike Racks	item	11	\$515.00	\$5,665.00	C4
25	Supply and install Bin	item	21	\$2,780.00	\$58,380.00	C4
26	Supply and install BBQ includes connections	item	3	\$13,450.00	\$40,350.00	C4
27	Supply and install fitness equipment	m²	54	\$745.00	\$40,230.00	C4
28	Supply and install balustrades/handrails	lm	37.5	\$485.00	\$18,187.50	C4
29	Supply and Concrete Bollards	item	69	\$1,745.00	\$120,405.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	493	\$700.00	\$345,100.00	C4
31	Cycleway Furniture	item		\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item		\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	22	\$1,650.00	\$36,300.00	C5
Structures						
34	Supply and install art	pc	5	\$50,000.00	\$250,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	11	\$26,825.00	\$295,075.00	C9
36	Supply and install toilet block	pc	1	\$250,000.00	\$250,000.00	C9
37	Supply and install Boardwalk	item		\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	154	\$1,365.00	\$210,210.00	C2
39	stairs concrete 2 m, rails and retaining	lm	19.47	\$2,180.00	\$42,444.60	C2
40	Ramps 2 metres wide, rails and retaining	lm		\$1,270.00	\$0.00	C2
Marine Works included elsewhere						
Total					\$2,958,267.10	

1F - Private Park 24/7 Public Access				Area 3837m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	383	\$10.00	\$3,830.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	4	\$1,310.00	\$5,240.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	23	\$1,070.00	\$24,610.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	26	\$250.00	\$6,500.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	23	\$140.00	\$3,220.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	345	\$30.00	\$10,350.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	230	\$45.00	\$10,350.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	958	\$25.00	\$23,950.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²		\$100.00	\$0.00	C2
15	Supply and install concrete	m²	821	\$90.00	\$73,890.00	C2
16	Supply and install coloured concrete	m²	460	\$110.00	\$50,600.00	C2
17	Supply and install tiles over concrete	m²	0	\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	60	\$605.00	\$36,300.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	123	\$880.00	\$108,240.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	2	\$6,475.00	\$12,950.00	C4
21	Supply and install maintenance hosecock	item	8	\$1,295.00	\$10,360.00	C4
22	Supply and install park bench - gossi	item	14	\$1,360.00	\$19,040.00	C4
23	Supply and install picnic table and benches	item	5	\$4,760.00	\$23,800.00	C4
24	Supply and install Bike Racks	item	4	\$515.00	\$2,060.00	C4
25	Supply and install Bin	item	8	\$2,780.00	\$22,240.00	C4
26	Supply and install BBQ includes connections	item	1	\$13,450.00	\$13,450.00	C4
27	Supply and install fitness equipment	m²	19	\$745.00	\$14,155.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	15	\$1,745.00	\$26,175.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	172	\$700.00	\$120,400.00	C4
31	Cycleway Furniture	item		\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	1	\$30,000.00	\$30,000.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	8	\$1,650.00	\$13,200.00	C5
Structures						
34	Supply and install art	pc	2	\$50,000.00	\$100,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	4	\$26,825.00	\$107,300.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	53	\$1,365.00	\$72,345.00	C2
39	stairs concrete 2 m, rails and retaining	lm	7	\$2,180.00	\$15,260.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$959,815.00	

1G - Private Park 24/7 Public Access				Area 6043m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	906	\$10.00	\$9,060.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	6	\$1,310.00	\$7,860.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	36	\$1,070.00	\$38,520.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	42	\$250.00	\$10,500.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	36	\$140.00	\$5,040.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	543	\$30.00	\$16,290.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	362	\$45.00	\$16,290.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	850	\$30.00	\$25,500.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	1811	\$25.00	\$45,275.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	0	\$90.00	\$0.00	C2
16	Supply and install coloured concrete	m²	270	\$110.00	\$29,700.00	C2
17	Supply and install tiles over concrete	m²	0	\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	76	\$605.00	\$45,980.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	3	\$6,475.00	\$19,425.00	C4
21	Supply and install maintenance hosecock	item	12	\$1,295.00	\$15,540.00	C4
22	Supply and install park bench - gossi	item	30	\$1,360.00	\$40,800.00	C4
23	Supply and install picnic table and benches	item	0	\$4,760.00	\$0.00	C4
24	Supply and install Bike Racks	item	6	\$515.00	\$3,090.00	C4
25	Supply and install Bin	item	12	\$2,780.00	\$33,360.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	m²	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	111	\$485.00	\$53,835.00	C4
29	Supply and Concrete Bollards	item	51	\$1,745.00	\$88,995.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	12	\$1,650.00	\$19,800.00	C5
Structures						
34	Supply and install art	pc	3	\$50,000.00	\$150,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	6	\$26,825.00	\$160,950.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	m2	1335	\$400.00	\$534,000.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	84	\$1,365.00	\$114,660.00	C2
39	stairs concrete 2 m, rails and retaining	lm	11	\$2,180.00	\$23,980.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total						
					\$1,508,450.00	

1H - Cross Block Link 24/7 Public Access				Area 1818m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	0	\$10.00	\$0.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	14	\$1,070.00	\$14,980.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	11	\$250.00	\$2,750.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	11	\$140.00	\$1,540.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	217	\$30.00	\$6,510.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	145	\$45.00	\$6,525.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	363	\$25.00	\$9,075.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	636.1	\$90.00	\$57,249.00	C2
16	Supply and install coloured concrete	m²	581	\$110.00	\$63,910.00	C2
17	Supply and install tiles over concrete	m²	145.4	\$180.00	\$26,172.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	76	\$605.00	\$45,980.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	0	\$6,475.00	\$0.00	C4
21	Supply and install maintenance hosecock	item	2	\$1,295.00	\$2,590.00	C4
22	Supply and install park bench - gossi	item	13	\$1,360.00	\$17,680.00	C4
23	Supply and install picnic table and benches	item	5	\$4,760.00	\$23,800.00	C4
24	Supply and install Bike Racks	item	1	\$515.00	\$515.00	C4
25	Supply and install Bin	item	0	\$2,780.00	\$0.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	0	\$1,745.00	\$0.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	0	\$1,650.00	\$0.00	C5
Structures						
34	Supply and install art	pc	1	\$50,000.00	\$50,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	0	\$26,825.00	\$0.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	28	\$1,365.00	\$38,220.00	C2
39	stairs concrete 2 m, rails and retaining	lm	3.55	\$2,180.00	\$7,739.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$375,235.00	

1i - Public Park 24/7 Public Access				Area 772m²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m²	308	\$10.00	\$3,080.00	C1
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C1
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	2	\$490.00	\$980.00	C1
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item		\$1,070.00	\$0.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	5	\$250.00	\$1,250.00	C1
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	11	\$140.00	\$1,540.00	C1
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	154	\$30.00	\$4,620.00	C1
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	0	\$45.00	\$0.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	43	\$20.00	\$860.00	C1
12	Supply and install Rehabilitation Works to Mangroves	m²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m²	0	\$25.00	\$0.00	C2
3-5&7-9b	Establishment	%	0.25	\$11,470.00	\$2,867.50	C1

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C1
15	Supply and install concrete	m²	0	\$90.00	\$0.00	C1
16	Supply and install coloured concrete	m²	0	\$110.00	\$0.00	C1
17	Supply and install tiles over concrete	m²	0	\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	0	\$605.00	\$0.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	1	\$6,475.00	\$6,475.00	C4
21	Supply and install maintenance hosecock	item	1	\$1,295.00	\$1,295.00	C4
22	Supply and install park bench - gossi	item	6	\$1,360.00	\$8,160.00	C4
23	Supply and install picnic table and benches	item	2	\$4,760.00	\$9,520.00	C4
24	Supply and install Bike Racks	item	1	\$515.00	\$515.00	C4
25	Supply and install Bin	item	1	\$2,780.00	\$2,780.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	37	\$1,745.00	\$64,565.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive educational signage	item	1	\$1,650.00	\$1,650.00	C5
Structures						
34	Supply and install art	pc	0	\$50,000.00	\$0.00	C6
35	Supply and install shade structures (includes slab and footings)	item	0	\$26,825.00	\$0.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	0	\$1,365.00	\$0.00	C1
39	stairs concrete 2 m, rails and retaining	lm	17.5	\$2,180.00	\$38,150.00	C1
40	Ramps 2 metres wide, rails and retaining	lm	140	\$1,270.00	\$177,800.00	C1
Total					\$326,107.50	

2A - Cross Block Link 24/7 Public Access				Area 312m²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m²	0	\$10.00	\$0.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	2	\$1,070.00	\$2,140.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	2	\$250.00	\$500.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	2	\$140.00	\$280.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	38	\$30.00	\$1,140.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	24.4	\$45.00	\$1,098.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m²	62.4	\$25.00	\$1,560.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	124	\$90.00	\$11,160.00	C2
16	Supply and install coloured concrete	m²	49	\$110.00	\$5,390.00	C2
17	Supply and install tiles over concrete	m²	12.4	\$180.00	\$2,232.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	20	\$605.00	\$12,100.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	0	\$6,475.00	\$0.00	C4
21	Supply and install maintenance hosecock	item	1	\$1,295.00	\$1,295.00	C4
22	Supply and install park bench - gossi	item	3	\$1,360.00	\$4,080.00	C4
23	Supply and install picnic table and benches	item	0	\$4,760.00	\$0.00	C4
24	Supply and install Bike Racks	item	0	\$515.00	\$0.00	C4
25	Supply and install Bin	item	0	\$2,780.00	\$0.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	0	\$1,745.00	\$0.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	0	\$1,650.00	\$0.00	C5
Structures						
34	Supply and install art	pc	0	\$50,000.00	\$0.00	C6
35	Supply and install shade structures (includes slab and footings)	item	0	\$26,825.00	\$0.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	0	\$1,365.00	\$0.00	C2
39	stairs concrete 2 m, rails and retaining	lm	0	\$2,180.00	\$0.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$42,975.00	

2B - Public Park 24/7 Public Access				Area 4193m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	1677.2	\$10.00	\$16,772.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	21	\$490.00	\$10,290.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	21	\$1,070.00	\$22,470.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	31	\$250.00	\$7,750.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	31	\$140.00	\$4,340.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	503.16	\$30.00	\$15,094.80	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	355.44	\$45.00	\$15,994.80	C2
11	Supply and install concrete edging - garden edging to turf	lm	22	\$20.00	\$440.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	0	\$25.00	\$0.00	C2
3-Nov	Establishment	%	0.25	\$93,151.60	\$23,287.90	c1

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	1250.6	\$90.00	\$112,554.00	C2
16	Supply and install coloured concrete	m²	335.44	\$110.00	\$36,898.40	C2
17	Supply and install tiles over concrete	m²	0	\$180.00	\$0.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	75	\$605.00	\$45,375.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	2	\$6,475.00	\$12,950.00	C4
21	Supply and install maintenance hosecock	item	4	\$1,295.00	\$5,180.00	C4
22	Supply and install park bench - gossi	item	31	\$1,360.00	\$42,160.00	C4
23	Supply and install picnic table and benches	item	10	\$4,760.00	\$47,600.00	C4
24	Supply and install Bike Racks	item	2	\$515.00	\$1,030.00	C4
25	Supply and install Bin	item	4	\$2,780.00	\$11,120.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	86	\$1,745.00	\$150,070.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive educational signage	item	2	\$1,650.00	\$3,300.00	C5
Structures						
34	Supply and install art	pc	0	\$50,000.00	\$0.00	C6
35	Supply and install shade structures (includes slab and footings)	item	4	\$26,825.00	\$107,300.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	28	\$1,365.00	\$38,220.00	C2
39	stairs concrete 2 m, rails and retaining	lm	3.55	\$2,180.00	\$7,739.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$737,935.90	

2C - Cross Block Link 24/7 Public Access				Area 209m²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m²	0	\$10.00	\$0.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	2	\$1,070.00	\$2,140.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	1	\$250.00	\$250.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	1	\$140.00	\$140.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	25.08	\$30.00	\$752.40	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	16.72	\$45.00	\$752.40	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m²	41.8	\$25.00	\$1,045.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	83.5	\$90.00	\$7,515.00	C2
16	Supply and install coloured concrete	m²	66.8	\$110.00	\$7,348.00	C2
17	Supply and install tiles over concrete	m²	16.7	\$180.00	\$3,006.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	16	\$605.00	\$9,680.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	0	\$6,475.00	\$0.00	C4
21	Supply and install maintenance hosecock	item	1	\$1,295.00	\$1,295.00	C4
22	Supply and install park bench - gossi	item	2	\$1,360.00	\$2,720.00	C4
23	Supply and install picnic table and benches	item	0	\$4,760.00	\$0.00	C4
24	Supply and install Bike Racks	item	0	\$515.00	\$0.00	C4
25	Supply and install Bin	item	0	\$2,780.00	\$0.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	0	\$1,745.00	\$0.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	0	\$1,650.00	\$0.00	C5
Structures						
34	Supply and install art	pc	0	\$50,000.00	\$0.00	C6
35	Supply and install shade structures (includes slab and footings)	item	0	\$26,825.00	\$0.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	0	\$1,365.00	\$0.00	C2
39	stairs concrete 2 m, rails and retaining	lm	0	\$2,180.00	\$0.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$36,643.80	

3 - Cross Block Link 24/7 Public Access				Area 1373m ²		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m ²	0	\$10.00	\$0.00	C2
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	C2
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	C2
6	Supply and install Tree 200L with GRATE to paving/concrete - with tree grates (1 x cube of soil)	item	11	\$1,070.00	\$11,770.00	C2
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	8	\$250.00	\$2,000.00	C2
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	8	\$140.00	\$1,120.00	C2
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	164	\$30.00	\$4,920.00	C2
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m ²	109	\$45.00	\$4,905.00	C2
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	C2
12	Supply and install Rehabilitation Works to Mangroves	m ²	0	\$30.00	\$0.00	C11
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m ²	274	\$25.00	\$6,850.00	C2

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m²	0	\$100.00	\$0.00	C2
15	Supply and install concrete	m²	518	\$90.00	\$46,620.00	C2
16	Supply and install coloured concrete	m²	439	\$110.00	\$48,290.00	C2
17	Supply and install tiles over concrete	m²	137	\$180.00	\$24,660.00	C2
18	Supply and install off form concrete seating wall 600mm high	lm	51	\$605.00	\$30,855.00	C2
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$880.00	\$0.00	C2
Furniture						
20	Supply and install Taps/Bubblers	item	0	\$6,475.00	\$0.00	C4
21	Supply and install maintenance hosecock	item	2	\$1,295.00	\$2,590.00	C4
22	Supply and install park bench - gossi	item	11	\$1,360.00	\$14,960.00	C4
23	Supply and install picnic table and benches	item	3	\$4,760.00	\$14,280.00	C4
24	Supply and install Bike Racks	item	1	\$515.00	\$515.00	C4
25	Supply and install Bin	item	0	\$2,780.00	\$0.00	C4
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	C4
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	C4
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	C4
29	Supply and Concrete Bollards	item	0	\$1,745.00	\$0.00	C4
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	\$700.00	\$0.00	C4
31	Cycleway Furniture	item	0	\$0.00	\$0.00	C4
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	C10
33	Supply and install Interpretive signage (wayfinding and educational)	item	0	\$1,650.00	\$0.00	C5
Structures						
34	Supply and install art	pc	1	\$50,000.00	\$50,000.00	C6
35	Supply and install shade structures (includes slab and footings)	item	0	\$26,825.00	\$0.00	C9
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	C9
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	C11
38	Ramps 3 metres wide, rails and retaining	lm	28	\$1,365.00	\$38,220.00	C2
39	stairs concrete 2 m, rails and retaining	lm	3.55	\$2,180.00	\$7,739.00	C2
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	C2
Total					\$310,294.00	

Streetscape Costing (Soft and Furniture)				Linear Metres - 2360		
Date:			Issue:			
Item	Description	Unit	Quantity	Rate	Cost	Parks Category
1	preliminaries		excluded	\$0.00	\$0.00	
2	earthworks		excluded	\$0.00	\$0.00	
Soft Landscape						
3	turf - 100mm imported soil, excavation	m²	0	\$10.00	\$0.00	
4	Supply and install Tree Ex Ground in turf and soil to garden bed or turf (2 x cube of soil)	item	0	\$1,310.00	\$0.00	
5	Supply and install Tree 200L and soil to garden bed or turf (1 x cube of soil)	item	0	\$490.00	\$0.00	
6	Supply and install Tree 200L with GRATE to paving/concrete with tree grates (1 x cube of soil)	item	144	\$1,070.00	\$154,080.00	ii
7	Supply and install Tree 100L and soil to garden bed or turf (.5 x cube of soil)	item	144	\$250.00	\$36,000.00	ii
8	Supply and install Tree 45L and soil to garden bed or turf (.5 x cube of soil)	item	0	\$140.00	\$0.00	
9	Supply and install gardens - 200mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	768	\$30.00	\$23,040.00	ii
10	Supply and install planter gardens - 600mm imported soil, 75mm mulch, subsoil drainage, 4 x 140mm plant	m²	0	\$45.00	\$0.00	
11	Supply and install concrete edging - garden edging to turf	lm	0	\$20.00	\$0.00	
12	Supply and install Rehabilitation Works to Mangroves	m²	0	\$30.00	\$0.00	
13	Supply and install irrigation - automated drip subsurface irrigation to gardens and popup system to turf	m²	0	\$25.00	\$0.00	
6-7&9	Establishment	%	0.25	\$213,120.00	\$53,280.00	ii

Hard Landscape						
14	Supply and install concrete paths (ped/cycle)	m ²	0	\$100.00	\$0.00	
15	Supply and install concrete	m ²	0	\$90.00	\$0.00	
16	Supply and install coloured concrete	m ²	0	\$110.00	\$0.00	
17	Supply and install tiles over concrete	m ²	0	\$180.00	\$0.00	
18	Supply and install off form concrete seating wall 600mm high	lm	0	\$605.00	\$0.00	
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	\$0.00	\$0.00	
Furniture						
20	Supply and install Taps/Bubblers	item	3	\$6,475.00	\$19,425.00	iii
21	Supply and install maintenance hosecock	item	0	\$1,295.00	\$0.00	
22	Supply and install park bench - gossi	item	144	\$1,360.00	\$195,840.00	iii
23	Supply and install picnic table and benches	item	0	\$4,760.00	\$0.00	
24	Supply and install Bike Racks	item	3	\$515.00	\$1,545.00	iii
25	Supply and install Bin	item	48	\$2,780.00	\$133,440.00	iii
26	Supply and install BBQ includes connections	item	0	\$13,450.00	\$0.00	
27	Supply and install fitness equipment	item	0	\$745.00	\$0.00	
28	Supply and install balustrades/handrails	lm	0	\$485.00	\$0.00	
29	Supply and Concrete Bollards	item	0	\$1,745.00	\$0.00	iii
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m ²	0	\$700.00	\$0.00	
31	Cycleway Furniture	item	0	\$0.00	\$0.00	
32	Sports Courts (Half Court) full depth colour	item	0	\$30,000.00	\$0.00	
33	Supply and install Interpretive signage (wayfinding and educational)	item	0	\$1,650.00	\$0.00	
Structures						
34	Supply and install art	pc	3	\$50,000.00	\$150,000.00	iii
35	Supply and install shade structures (includes slab and footings) BUS SHELTER	item	6	\$26,825.00	\$160,950.00	iii
36	Supply and install toilet block	pc	0	\$250,000.00	\$0.00	
37	Supply and install Boardwalk	item	0	\$400.00	\$0.00	
38	Ramps 3 metres wide, rails and retaining	lm	0	\$1,365.00	\$0.00	
39	stairs concrete 2 m, rails and retaining	lm	0	\$2,180.00	\$0.00	
40	Ramps 2 metres wide, rails and retaining	lm	0	\$1,270.00	\$0.00	
Total					\$927,600.00	

[illegible]

Hard Landscape										
14	Supply and install concrete paths (ped/cycle) 9m wide	m²	8550	3510	0	\$100.00	\$855,000.00	\$351,000.00	\$0.00	
15	Supply and install concrete	m²	0	0	0	\$90.00	\$0.00	\$0.00	\$0.00	
16	Supply and install coloured concrete	m²	0	0	0	\$110.00	\$0.00	\$0.00	\$0.00	
17	Supply and install tiles over concrete	m²	0	0	0	\$180.00	\$0.00	\$0.00	\$0.00	
18	Supply and install off form concrete seating wall 600mm high	lm	0	0	0	\$605.00	\$0.00	\$0.00	\$0.00	
19	Supply and install off form concrete terracing 500 high and conc flat stand 3 metres wide	lm	0	0	0	\$880.00	\$0.00	\$0.00	\$0.00	
Furniture										
20	Supply and install Taps/Bubblers	item	0	0	2.14	\$6,475.00	\$0.00	\$0.00	\$13,856.50	
21	Supply and install maintenance hosecock	item	0	0	0	\$1,295.00	\$0.00	\$0.00	\$0.00	
22	Supply and install park bench - gossi	item	0	0	2.14	\$1,360.00	\$0.00	\$0.00	\$2,910.40	
23	Supply and install picnic table and benches	item	0	0	0	\$4,760.00	\$0.00	\$0.00	\$0.00	
24	Supply and install Bike Racks	item	0	0	2.14	\$515.00	\$0.00	\$0.00	\$1,102.10	
25	Supply and install Bin	item	0	0	2.14	\$2,780.00	\$0.00	\$0.00	\$5,949.20	
26	Supply and install BBQ includes connections	item	0	0	0	\$13,450.00	\$0.00	\$0.00	\$0.00	
27	Supply and install fitness equipment	item	0	0	0	\$745.00	\$0.00	\$0.00	\$0.00	
28	Supply and install balustrades/handrails	lm	0	0	40	\$485.00	\$0.00	\$0.00	\$19,400.00	
29	Supply and Concrete Bollards	item	0	0	20	\$1,745.00	\$0.00	\$0.00	\$34,900.00	
30	Supply and install Playground - includes drainage, shade sails, soft fall and edging	m²	0	0	0	\$700.00	\$0.00	\$0.00	\$0.00	
31	Cycleway Furniture	item	0	0	0	\$0.00	\$0.00	\$0.00	\$0.00	
32	Sports Courts (Half Court) full depth colour	item	0	0	0	\$30,000.00	\$0.00	\$0.00	\$0.00	
33	Supply and install Interpretive signage (wayfinding)	item	0	0	8	\$1,650.00	\$0.00	\$0.00	\$13,200.00	
Structures										
34	Supply and install art	pc	0	0	0	\$50,000.00	\$0.00	\$0.00	\$0.00	
35	Supply and install shade structures (includes slab and footings)	item	0	0	0	\$26,825.00	\$0.00	\$0.00	\$0.00	
36	Supply and install toilet block	pc	0	0	0	\$250,000.00	\$0.00	\$0.00	\$0.00	
37	Supply and install Boardwalk	item	0	0	0	\$400.00	\$0.00	\$0.00	\$0.00	
38	Ramps 3 metres wide, rails and retaining	lm	0	0	0	\$1,365.00	\$0.00	\$0.00	\$0.00	
39	stairs concrete 2 m, rails and retaining	lm	0	0	0	\$2,180.00	\$0.00	\$0.00	\$0.00	
40	Ramps 2 metres wide, rails and retaining	lm	0	0	0	\$1,270.00	\$0.00	\$0.00	\$0.00	
Total							\$855,000.00	\$351,000.00	\$91,318.20	