

CENTRAL ROAD DRYSDALE

DEVELOPMENT CONTRIBUTIONS PLAN

AUGUST 2020

CITY OF GREATER GEELONG

AUTHORS

Paul Shipp

Brett Hannah

Madeleine Hornsby

Urban Enterprise

Urban Planning, Land Economics, Tourism Planning & Industry Software

Level 1 302-304 Barkly Street, Brunswick VIC 3056

(03) 9482 3888

www.urbanenterprise.com.au

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1. INTRODUCTION

1.1. BACKGROUND

This Central Road Drysdale Development Contributions Plan (DCP) has been developed to formalise the funding of shared infrastructure to support the development of the Central Road Drysdale precinct (the **Precinct**).

The DCP supports the objectives of the Planning Policy Framework, particularly Clause 19.03-1S, the objective of which is “to facilitate the timely provision of planned infrastructure to communities through the preparation and implementation of development contributions plans and infrastructure contribution plans”.

Improved social, economic, environmental and urban design outcomes are achieved through the provision of infrastructure early in the life of a new development. The delivery of key infrastructure in a timely and efficient manner is fundamental to sustainable outcomes in future residential areas such as Central Road Drysdale.

1.2. THE DCP AREA

The Precinct is located in the township of Drysdale within the City of Greater Geelong and is bounded by Jetty Road to the west, Wyndham Street to the south, Thomas Street and existing residential development to the north, and existing residential development to the east.

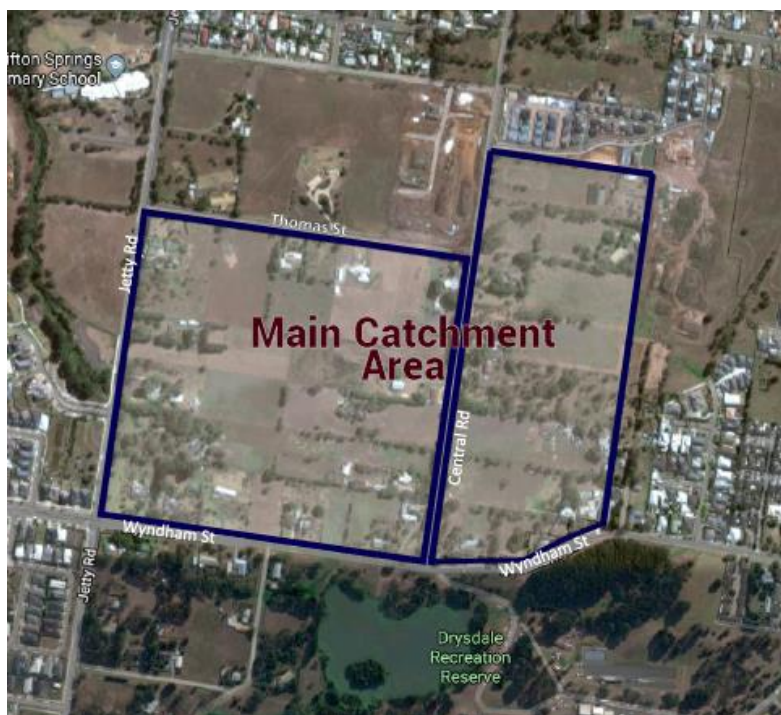
The Precinct is currently within the Rural Living Zone (RLZ) and is proposed to be rezoned to the General Residential Zone (GRZ). The Jetty Road Urban Growth Area is located immediately to the west of the Precinct.

The Precinct includes 41.567 ha of land (excluding existing road reserves) within 28 separate properties, with an average property size of 1.48ha.

The Precinct is the Main Catchment Area (**MCA**) for this DCP. The boundaries of the MCA are shown in Figure 1.

This DCP applies to the entire MCA and requires contributions from all landowners/developers.

FIGURE 1 MAIN CATCHMENT AREA



Source: Urban Enterprise.

1.3. INFRASTRUCTURE DELIVERY

A number of reports have been prepared to identify the infrastructure items required to support development of the Precinct, including roads, intersections, drainage, shared paths and open space. These reports are itemised in Section 3.2.

The infrastructure included in the DCP has been identified to support the entire Precinct. This DCP will enable collection of levies to ensure that shared infrastructure identified in the background reports is funded to enable Council and developers to provide the infrastructure.

This DCP is not the sole source of funding for all infrastructure in the Precinct. The full range of infrastructure identified will only be delivered if infrastructure is provided by a variety of funding sources.

The infrastructure items will be provided through a number of mechanisms including:

- Subdivision and development construction works by developers;
- Development contributions (as shown in this DCP);
- Utility service provider contributions; and
- Capital works projects by Council and state government agencies.

Decisions have been made about the type of infrastructure which will be funded by this DCP, and these decisions are in line with the *Ministerial Direction on the Preparation and Content of Development Contributions Plans and Ministerial Reporting Requirements for Development Contributions Plans*.

1.4. DCP TIMEFRAME

For the purposes of the DCP a 20-year life has been adopted. This period commences from the date that the DCP is incorporated into the Greater Geelong Planning Scheme.

The 20-year timeframe has been selected to reflect the anticipated take up rate of land in the Precinct.

2. STATUTORY FRAMEWORK

2.1. PLANNING AND ENVIRONMENT ACT 1987

Part 3B of the Planning and Environment Act 1987 outlines the statutory provisions relating to development contributions. In summary, Part 3B provides for, amongst other things:

- The inclusion of a DCP in the planning scheme, for the purpose of levying contributions for the provision of works, services and facilities (section 46I);
- The provision to impose either a development infrastructure levy or a community infrastructure levy (section 46J);
- The contents required of a DCP (section 46K);
- The setting of limits in respect of a community infrastructure levy. In the case of the construction of a dwelling, the community levy must not exceed \$1,150 in 2018-19 financial year (indexed to \$1,190 for the 2019-20 financial year) per dwelling (section 46L);
- The provision for the Minister to issue written directions relating to the preparation and content of a DCP (section 46M);
- The collection of a development infrastructure levy, by way of a condition on a planning permit either requiring the payment of a levy within a specified time, or entering into an agreement to pay the levy within a specified time (section 46N).

2.2. STATE PLANNING POLICY CONTEXT

The Ministerial Direction on the Preparation and Content of Development Contributions Plans (11 October 2016) outlines what may be funded with a development contribution levy, namely:

- Acquisition of land for roads, public transport corridors, drainage, public open space, community facilities;
- Construction of roads, including bicycle, footpaths and traffic management and control devices;
- Construction of public transport infrastructure, including fixed rail infrastructure, railway stations, bus stops and tram stops;
- Basic improvements to public open space, including earthworks, landscaping, fencing, seating and playground equipment;
- Drainage works; and
- Buildings and works for or associated with the construction of a maternal and child health centre, child care centre, kindergarten or a combination of these.

Under the Act, a DCP may also include a community infrastructure levy which can be used to fund the construction of all other buildings or facilities used for community of social purposes.

The Ministerial Direction states that a DCP must not impose a development infrastructure levy or a community infrastructure levy in respect of the development of land for a non-government school or housing provided by or on behalf of the Department of Health and Human Services.

The Direction also states that the Minister may grant exemptions from the need to comply with this Direction (in relation to a particular DCP) and that any exemption granted may be subject to conditions.

2.3. DEVELOPMENT CONTRIBUTIONS GUIDELINES

The Victorian State Government has published a set of documents which make up the *Development Contributions Guidelines (2007)*. The *Development Contributions Guidelines (2007)* are available through the Department of Environment, Land, Water and Planning (DELWP) website. These documents provide guidance as to how DCPs are to be prepared and administered including the matters that DCPs are to consider.

This DCP has been developed in accordance with the provisions of Part 3B of the *Planning and Environment Act (1987)* and the *Development Contributions Guidelines (2007)*.

4. NEED AND NEXUS

4.1. INTRODUCTION

This section identifies the relationship between the proposed development, infrastructure required to support development, and the approach to apportioning the cost of infrastructure items based on the principles of need and nexus.

4.2. NEED

The need for a range of infrastructure items to be funded by the DCP has been identified based on the local strategic context and supporting studies. Each item is needed in order to provide for the wellbeing, health and safety of the future residents of the Precinct.

4.3. NEXUS

The approach to apportioning the cost of each DCP infrastructure item relies on the nexus principle. The Precinct is deemed to have a nexus with an infrastructure item if the residents of the Precinct are likely to make use of the infrastructure item.

All properties in the MCA will make a contribution towards DCP infrastructure items on an equitable basis if the infrastructure studies identified that the future residents of the property will make use of the item.

In order to fairly levy developers achieving varying densities while maintaining financial certainty for Council, a standard 'per hectare of net developable land' demand unit is used for levies in this DCP.

4.4. LAND BUDGET

Table 1 shows the budget of allocated land uses for the MCA. A detailed land budget by title is provided in **Appendix A**.

TABLE 1 LAND BUDGET SUMMARY

LAND BUDGET	AREA (HA)
Total Site Area	41.576
Drainage Easement	0.437
Retarding Basins	1.585
<i>Sub Total – Encumbered Land</i>	<i>2.022</i>
Land required for roads	0.051
Public Open Space (unencumbered)	2.739 (7.45% of NDA)
Net Developable Area	36.765

Source: Property Land Budget, Tract, July 2019

Approximately 2ha of land within the Precinct is encumbered, including:

- A council easement in the south-west corner of the Precinct which provides for drainage;
- Low-lying land in the south-western corner of the Precinct that is subject to flooding; and
- Low lying land in the eastern section of the Precinct that is subject to flooding.

This encumbered land is proposed to be used for stormwater drainage purposes.

Unencumbered land to be used for open space equates to 7.45% of the Net Developable Area of the Precinct. The approach to the funding and delivery of open space is set out in Section 5.

4.5. DEMAND UNITS

In this DCP, 1 hectare of NDA equates to one demand unit for the Development Infrastructure Levy (**DIL**) and one dwelling equates to one demand unit for the Community Infrastructure Levy (**CIL**). The total number of demand units is shown in Table 2.

TABLE 2 DEMAND UNITS

LEVY CATEGORY	UNIT	DEMAND UNITS
DIL	NDA (Hectares)	36.765
CIL	Dwellings	550

Source: Property Land Budget, Tract, July 2019

5. INFRASTRUCTURE ITEMS

5.1. COMMUNITY INFRASTRUCTURE ITEMS

Council has identified a requirement for one community infrastructure item. The item is the Drysdale Regional and Community Learning Hub (CLCF_1). A “per dwelling” demand unit is used for the collection of CIL.

5.2. DEVELOPMENT INFRASTRUCTURE ITEMS

The supporting studies identify shared infrastructure types that will be required to support the development. Of those shared infrastructure types, the following are funded by this DCP:

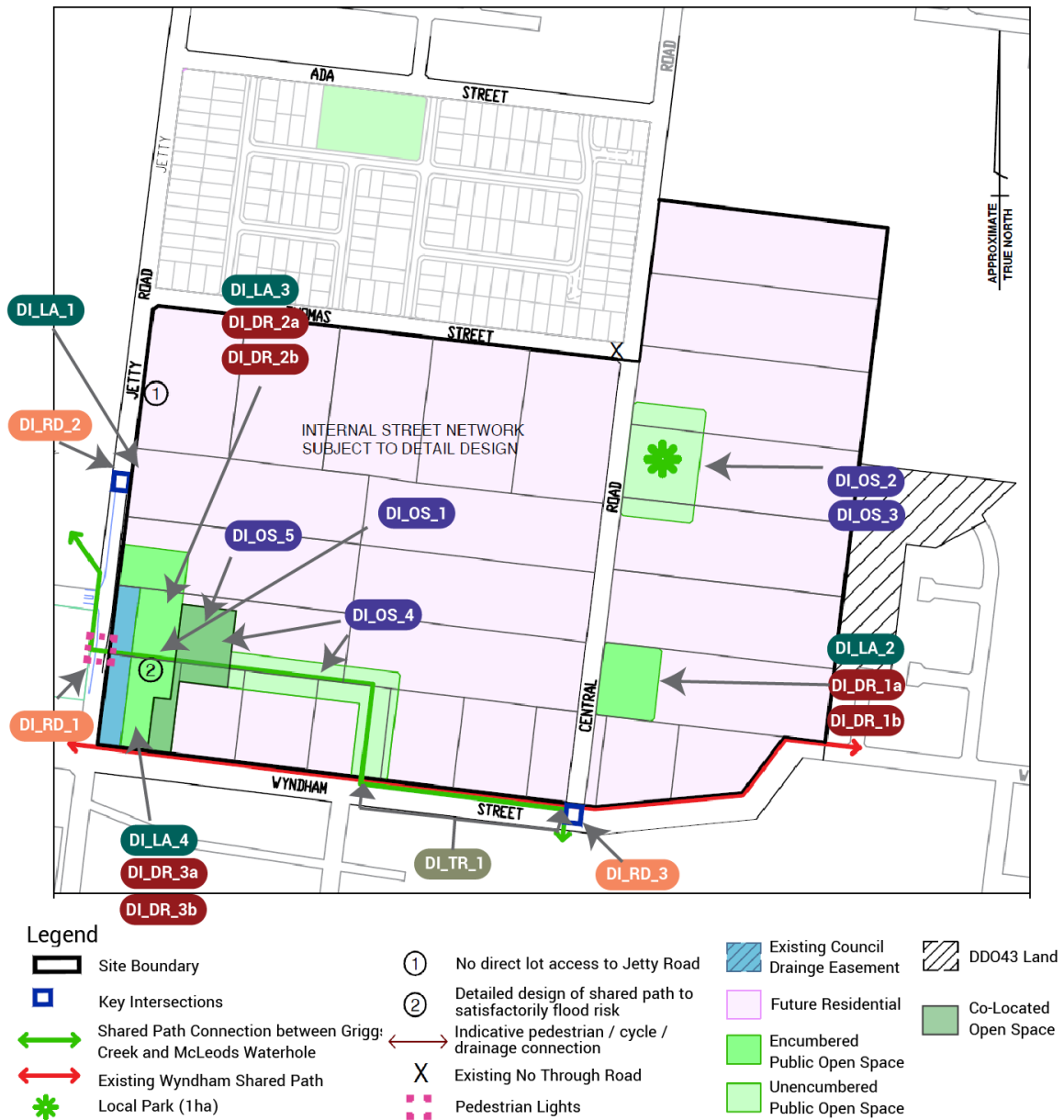
- Shared intersections;
- A signalised pedestrian crossing;
- Public Open Space improvements;
- A Pedestrian Link;
- Playgrounds; and
- Drainage land and works.

Table 3 provides a summary of the infrastructure items in the DCP, the strategic justification for the item and the trigger for item delivery.

5.3. INFRASTRUCTURE LOCATION MAP

The location of each infrastructure project is shown on the maps in Figure 3 and Figure 4.

FIGURE 3 LOCATION OF INFRASTRUCTURE ITEMS



Source: Development Plan, provided by Tract in Jan 2020. Annotated by Urban Enterprise, 2020.

FIGURE 4 INFRASTRUCTURE LOCATION MAP – SOUTH WEST INSET



Source: Landscape Masterplan, 2019

5.4. INFRASTRUCTURE ITEM LIST

Table 3 provides details for the full list of infrastructure items, including strategic justification and trigger for delivery.

TABLE 3 INFRASTRUCTURE ITEMS AND STRATEGIC JUSTIFICATION

Project Code	Project Name and Description	Project Strategic Justification	Delivery Trigger
Roads and Trails			
DI_RD_1	Jetty Road Pedestrian Lights: Signalised crossing for pedestrian use.	This project is required to provide a safe crossing for pedestrians.	Prior to statement of compliance being issued for the first residential allotment within 171-179 Jetty Road, Drysdale.
DI_RD_2	Jetty Road Intersection: Construction of a safe intersection at the main entry point.	This project is required to provide for the orderly and proper development of the area and ensures that the road hierarchy caters for projected traffic volumes. It is also required to ensure safe entry into the precinct.	Prior to the Statement of Compliance being issued for the first residential subdivision requiring access to Jetty Road.
DI_LA_1	Jetty Road Intersection Land: Land for Jetty Road intersection. Total 0.0509ha required.	This project is required to ensure land is available for the main entry point into the precinct and to ensure that the road hierarchy caters for projected traffic volume and to ensure that there is safe entry into the precinct.	Prior to the Statement of Compliance being issued for the first residential subdivision requiring access to Jetty Road.
DI_RD_3	Central Road / Wyndham Street Intersection: Construction of an upgraded intersection.	This project is required to provide for the orderly and proper development of the area and ensures that the road hierarchy caters for projected traffic volumes.	At or before the creation of the 360th lot in the Precinct or earlier at the discretion of the responsible authority.
DI_TR_1	Wyndham Street Shared Path: Construction of a shared path for use by cyclists and pedestrians with existing Wyndham Street road reserve (north-side), between Linear Open Space and Central Road (250 linear metres).	This project is required to create a shared trail for pedestrians and cyclists.	Within 24 months of delivery of OS_4.
Drainage - Land, Construction and Landscaping			
DI_LA_2	Central Road Basin - Land: Land required for Central Road basin. Total 0.512ha required.	This project is required to provide land for a drainage basin and to ensure development attenuates post development runoff to pre-development levels.	Prior to statement of compliance being issued for the first residential allotment in the Central Road RB drainage catchment (Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.
DI_DR_1a	Central Road Basin - Construction: Shared drainage construction works.	This project is required to construct a basin to ensure development attenuates post development runoff to pre-development levels.	Prior to Statement of Compliance being issued for the first residential allotment in the Central Road RB drainage catchment (Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.

Project Code	Project Name and Description	Project Strategic Justification	Delivery Trigger
DI_DR_1b	Central Road Basin - Landscaping: Improvements to open space within basin land.	This project is required to provide adequate open space facilities for residents and visitors and to ensure development attenuates post development runoff to pre-development levels.	Concurrent with the associated drainage basin works (DI_DR_1a).
DI_LA_3	Jetty Road Basin - Land (Interim): Land required for northern section of the Jetty Road Basin. Total 0.695ha required.	This project is required to provide land for adequate drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels.	Prior to Statement of Compliance being issued for the first residential allotment in the Central Road RB drainage catchment (Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.
DI_LA_4	Jetty Road Basin - Land (Ultimate): Land required for the southern section of Jetty Road Basin. Total 0.378ha required.	This project is required to provide land for adequate drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels.	Prior to the Statement of Compliance being issued for the residential subdivision in the Jetty Rd RB catchment (refer to Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) that requires an expansion to the interim drainage basin (approximately 190 lots created within the catchment) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.
DI_DR_2a	Jetty Road Basin - Construction (Interim): Shared drainage construction works.	This project is required to provide the required interim drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels.	Prior to the Statement of Compliance being issued for the first residential allotment in the Jetty Road RB Drainage Catchment (refer to Figure 3.4 in the Water Technology Stormwater Management Plan).
DI_DR_2b	Jetty Road Basin - Landscaping (Interim): Open space improvements of the northern section of the Jetty Road Basin.	This project is required to support the drainage function of the retarding basins for residents and to ensure development attenuates post development runoff to pre-development levels.	Concurrent with the associated drainage basin works (DI_DR_2a).
DI_DR_3a	Jetty Road Basin - Construction (Ultimate): Shared drainage construction works.	This project is required to provide the required interim drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels.	Prior to the Statement of Compliance being issued for the residential subdivision in the Jetty Rd RB catchment (refer to Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) that requires an expansion to the interim drainage basin (approximately 190 lots created within the catchment) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.
DI_DR_3b	Jetty Road Basin - Landscaping (Ultimate): Open space improvements of the southern section of the Jetty Road basin.	This project is required to support the drainage function of the retarding basins for residents and to ensure development attenuates post development runoff to pre-development levels.	Concurrent with the associated drainage basin works (DI_DR_3a).

Project Code	Project Name and Description	Project Strategic Justification	Delivery Trigger
Public Open Space - Land, Improvements and Landscaping			
DI_OS_1	Jetty Road Basin - Pedestrian link: Construction of shared use cycling and pedestrian trail connecting the linear open space to Jetty Road between the interim and ultimate Jetty Road drainage basins.	This project is required to provide passive open space and active transport access for residents and visitors.	Within 24 months of a Statement of Compliance being issued for the first residential allotment within 171-179 Jetty Road, Drysdale.
DI_OS_2	Central Road 1ha Reserve - Landscaping: Open space improvements to 1ha reserve.	This project is required to provide adequate open space facilities for residents and visitors.	As subdivision of the affected land progresses or within 24 months of the open space reserve being vested in Council.
DI_OS_3	Central Road 1ha Reserve – Playground: Open space improvement (playground construction).	This project is required to provide adequate open space facilities for residents and visitors.	Within 24 months of the relevant section of the open space reserve being vested in Council.
DI_OS_4	Linear and Co-Located Open Space - Landscaping: Open space improvement in the linear reserve and co-located open space including a shared path.	This project is required to provide adequate open space facilities for residents and visitors.	As subdivision of the affected land progresses or within 24 months of the open space reserve being vested in Council.
DI_OS_5	Co-Located Open Space – Playground: Open space improvement (playground construction).	This project is required to provide adequate open space facilities for residents and visitors.	Within 24 months of the relevant section of the open space reserve being vested in Council.
Other Items			
DI_P_1	Planning Costs: Preparation of DCP including infrastructure design and costing, land valuation and land capability studies.	Item required to prepare appropriate planning for the residential development. This includes land valuation and infrastructure design and costing.	Complete.
Community Infrastructure			
CI_CF_1	Regional Community and Learning Hub: Construction of a Regional Community and Learning Hub, to service existing and new Drysdale and Clifton Springs catchment.	Projections indicate the demand for library services by 2018 will be sufficient to support a regional Community and Learning Hub in Drysdale in the order of 1,000 square metres.	Expected delivery between 2022 and 2025 at Council's discretion.

5.5. PUBLIC OPEN SPACE CONTRIBUTIONS

The Greater Geelong Planning Scheme (at Clause 53.01) provides that all subdivisions of land zoned for residential purposes which creates two or more additional lots must make a contribution for public open space. This DCP does not include any public open space land items – all land is to be provided through Clause 53.01. Improvements to the open space are included in the DCP.

In some cases the proportion of land to be provided as public open space in accordance with the Development Plan is expected to exceed the required contribution under Clause 53.01. In these cases, the relevant landowners will be compensated by Council for any over-provision which will be secured through a section 173 agreement. Where the proportion of land to be provided as public open space is less than the required contribution under Clause 53.01, the relevant landowners will be required to pay the balance of the contribution to Council in accordance with Clause 53.01.

5.6. DRAINAGE

Based on hydrological analysis undertaken by Water Technology, two retarding basins (Jetty Road basin and Central Road basin) are required to ensure appropriate stormwater management within the Precinct. The Stormwater Management Plan identifies that the Jetty Road retarding basin can be constructed in two stages (ie an interim and ultimate basin).

The Stormwater Management Plan identifies that the Jetty Road Ultimate Basin (DI_DR_3a) would need to be constructed at the point when 16 hectares of the relevant catchment have been developed (equivalent to between 160 lots and 193 lots).

Therefore, this DCP includes separate items for the interim and ultimate Jetty Road Basins.

5.6.1. DRAINAGE SPECIAL CHARGES SCHEME

In 2017, the Council of Greater Geelong introduced a Special Charge Scheme for Central Road¹. This scheme was necessary due to the developer of a Retirement Village in Central Road, Clifton Springs contributing the full construction cost (\$1,492,827) of a main drainage outfall to Griggs Creek which benefited 38 properties.

Four of these properties (Property 1, 19, 20 and 21) are within the MCA for this DCP. Given that these properties drain to the north and will utilise separate drainage, these properties are not subject to drainage infrastructure contributions in this DCP.

5.7. CHARGE AREAS

The Charge Areas for this DCP are shown in Figure 5 and are defined by the properties included and excluded from the drainage requirements of the DCP. Properties identified in Charge Area 1 generate a need for drainage infrastructure, while properties in Charge Area 2 form part of the Special Charge Scheme discussed in Section 5.6.1.

Table 4 shows the demand units for each Charge Area and the total MCA.

TABLE 4 CHARGE AREA DEMAND UNITS (DIL)

LEVY CATEGORY	DEMAND UNITS (HA)
Charge Area 1	28.753
Charge Area 2	8.012
Total MCA	36.765

¹ City of Greater Geelong, Minutes of Ordinary Meeting, 27 June 2017.

FIGURE 5 CHARGE AREA MAP



Source: Urban Enterprise, 2019

5.8. ITEMS NOT FUNDED BY THE DCP

The DCP does not fund the following items which are to be delivered by developers:

- Local roads (land and construction);
- Open space land (to be funded through Clause 53.01);
- Land subject to a drainage easement (to be vested in Council at the time the relevant property is subdivided);
- Infrastructure as required by utility services providers, including water, sewerage, electricity, gas and telecommunications; and
- Special Charges required for drainage purposes and any other drainage infrastructure required to meet Council requirements within Charge Area 2.

6. CALCULATION OF LEVIES

6.1. INTRODUCTION

The method of levy calculation is described in this section.

6.2. PROJECT COSTS

Each item in the DCP has a cost specified for either capital works or land. These costs are listed in Table 5. The costs are expressed in September 2018 values and will be indexed annually in accordance with the method specified in this DCP.

6.3. COST APPORTIONMENT METHOD

The cost of each of the infrastructure items has been apportioned based upon the likelihood that an item will be used residents within and external to the MCA.

The method and justification for the cost apportionment that has been used for each infrastructure item is outlined in Table 5.

For each item in the DCP, the cost attributable to the MCA has been specified in Table 5. The proportion of costs attributable to external use is subtracted from the total project cost of an infrastructure item to give the cost attributable to the MCA for each infrastructure item.

All items are fully funded by this DCP, with the exception of CI_CF_1 which has usage demand generated from outside the Precinct. This item is located outside the MCA, with 93.9% of demand being generated by households external to the Precinct.

6.4. CALCULATION OF LEVIES

The cost attributable to the MCA for each infrastructure item is then divided by the number of demand units for that item to calculate the levy for each item. In this case, the number of demand units for each item is the number of hectares of NDA (for the DIL) and number of dwellings (CIL).

The levy amounts for each item are then aggregated to form an overall levy per demand unit for each Charge Area.

Table 5 provides details of the levy calculations for each infrastructure item. The levy amounts apply to any development type in each Charge Area.

TABLE 5 INFRASTRUCTURE LEVY CALCULATION BY INFRASTRUCTURE ITEM

PROJECT CODE	PROJECT NAME	TOTAL PROJECT COST	EXTERNAL %	COST TO MCA	DEMAND UNITS	DIL AMOUNT	CIL AMOUNT
Roads and Trails							
DL_RD_1	Jetty Road Pedestrian Lights	\$372,566.72	0%	\$372,566.72	36.765	\$10,133.64	
DL_RD_2	Jetty Road Intersection	\$310,777.97	0%	\$310,777.97	36.765	\$8,453.02	
DL_LA_1	Jetty Road Intersection - Land	\$66,170.00	0%	\$66,170.00	36.765	\$1,799.79	
DL_RD_3	Central Road / Wyndham Street Intersection	\$450,901.43	0%	\$450,901.43	36.765	\$12,264.31	
DL_TR_1	Wyndham Street Shared Path	\$40,000.00	0%	\$40,000.00	36.765	\$1,087.98	
Subtotal		\$1,240,416.12		\$1,240,416.12		\$33,738.75	
Drainage - Land, Construction and Landscaping							
DL_LA_2	Central Road Basin - Land	\$665,600.00	0%	\$665,600.00	28.753	\$23,148.70	
DL_DR_1a	Central Road Basin - Construction	\$277,660.60	0%	\$277,660.60	28.753	\$9,656.68	
DL_DR_1b	Central Road Basin - Landscaping	\$95,874.90	0%	\$95,874.90	28.753	\$3,334.40	
DL_LA_3	Jetty Road Basin - Land (Interim)	\$903,500.00	0%	\$903,500.00	28.753	\$31,422.56	
DL_LA_4	Jetty Road Basin - Land (Ultimate)	\$567,000.00	0%	\$567,000.00	28.753	\$19,719.52	
DL_DR_2a	Jetty Road Downstream Basin - Construction (Interim)	\$297,430.83	0%	\$297,430.83	28.753	\$10,344.26	
DL_DR_2b	Jetty Road Downstream Basin - Landscaping (Interim)	\$142,992.30	0%	\$142,992.30	28.753	\$4,973.09	
DL_DR_3a	Jetty Road Downstream Basin - Construction (Ultimate)	\$292,409.35	0%	\$292,409.35	28.753	\$10,169.62	
DL_DR_3b	Jetty Road Downstream Basin - Landscaping (Ultimate)	\$112,200.00	0%	\$112,200.00	28.753	\$3,902.17	
Subtotal		\$3,354,667.98		\$3,354,667.98		\$116,671.00	
Public Open Space - Land, Improvements and Landscaping							
DI_OS_1	Jetty Road Basin - Pedestrian link	\$525,800.00	0%	\$525,800.00	36.765	\$14,301.52	
DI_OS_2	Central Road 1ha Reserve - Landscaping	\$491,419.50	0%	\$491,419.50	36.765	\$13,366.38	
DI_OS_3	Central Road 1ha Reserve - Playground	\$116,600.00	0%	\$116,600.00	36.765	\$3,171.47	
DI_OS_4	Linear and Co-Located Open Space - Landscaping	\$786,809.10	0%	\$786,809.10	36.765	\$21,400.84	
DI_OS_5	Co-Located Open Space - Playground	\$48,950.00	0%	\$48,950.00	36.765	\$1,331.42	

Subtotal		\$1,969,578.60		\$1,969,578.60		\$53,571.63	
Other Items							
DLP_1	Planning Costs	\$265,000.00	0%	\$265,000.00	36.765	\$7,207.88	
Community Infrastructure							
CLCF_1	Regional Community and Learning Hub	\$9,100,000.00	93.2%	\$557,039.51	550		\$1,012.80
Subtotal		\$9,365,000.00		\$822,039.51		\$7,207.88	\$1,012.80
TOTAL		\$15,929,662.70		\$7,386,702.21		\$211,189.26	\$1,012.80

6.5. LEVY RATES PER DEMAND UNIT

A summary of the DIL and CIL payable for each Charge Area per demand unit by infrastructure type is outlined in Table 6. These contributions are in September 2018 dollars. Table 6 will be indexed annually in accordance with the method specified in Section 7.

TABLE 6 DEVELOPMENT AND COMMUNITY INFRASTRUCTURE LEVY BY DEMAND UNIT

Levy Type	CHARGE AREA 1		CHARGE AREA 2	
	DIL Amount (September 2018)	CIL Amount (September 2018)	DIL Amount (September 2018)	CIL Amount (September 2018)
Roads and Trails	\$33,738.75	\$0	\$33,738.75	\$0
Drainage	\$116,671.00	\$0	\$0.00*	\$0
Public Open Space	\$53,571.63	\$0	\$53,571.63	\$0
Other items	\$7,207.88	\$0	\$7,207.88	\$0
Community Infrastructure	\$0	\$1,012.80	\$0	\$1,012.80
Total DIL	\$211,189.26	\$1,012.80	\$94,518.26	\$1,012.80

Source: Urban Enterprise, 2020

*Development in Charge Area 2 will need to meet Council drainage infrastructure requirements separate to the DCP.

7. ADMINISTRATION AND IMPLEMENTATION

7.1. INDEXATION OF LEVIES

Land values and construction costs listed in this DCP are in September 2018 dollars. These will be indexed annually according to the following method:

The development contribution for each demand unit must be adjusted as follows:

- In relation to the costs associated with all infrastructure items other than land, the cost must be adjusted and the contribution amounts recalculated according to the following method:
 - The capital costs of each infrastructure item must be adjusted by reference to the Building Price Index (Melbourne) published by Rawlinsons, or similar index if not available.
 - The revised infrastructure costs and the adjustment of the contributions must be calculated as at 1 July in each year.
- In relation to the cost of land to be acquired under the DCP, the land value must be adjusted by adopting a revised land value for each parcel to be acquired based on the same valuation principles.
- The revised land value and the adjustment of the contributions must be calculated as of 1 July in each year.
- Within 14 days of the adjustments being made, the responsible authority must publish a notice of the amended contributions on its website.

The CIL cap (currently \$1,190 per dwelling for the 2019-20 financial year) is indexed annually on July 1 by the Minister for Planning and is published on the department website. Council reserves the right to increase the CIL in this DCP to allow for cost escalation in accordance with the indexation method in this DCP up to any new CIL cap. The higher levy will be collected from the date the new CIL cap is introduced.

7.2. VALUATION OF LAND

Valuations for land to be acquired under this DCP were provided by a qualified independent valuer. Land to be acquired was valued based on the 'before and after method'.

7.3. COLLECTING AGENCY

The City of Greater Geelong Council is the collecting agency pursuant to section 46K of the *Planning and Environment Act* (1987).

7.4. DEVELOPMENT AGENCY

The City of Greater Geelong is the development agency for all infrastructure items pursuant to section 46K of the *Planning and Environment Act* (1987).

7.5. COLLECTION OF LEVIES

The DIL will be payable to and collected by the collecting agency, for the:

- Subdivision of land; or
- Development of land which requires a planning permit; or
- Development of land which does not require a planning permit, as set out in this DCP.

DEVELOPMENT REQUIRING A PERMIT

A planning permit for the development of land to which this DCP applies must include a condition requiring the applicant to:

- Pay the DIL to the collecting agency within a time specified by the collecting agency which may include a requirement for payment prior to the commencement of any development or works; or
- Enter into an agreement with the collecting agency to pay the DIL to the collecting agency within the time for payment specified in the agreement.

DEVELOPMENT NOT REQUIRING A PERMIT

For a development which does not require a planning permit, the party who proposes to develop the land must:

- Pay the DIL to the collecting agency within a time and in a manner specified by the collecting agency which may include a requirement for payment prior to the commencement of any development or works; or
- Enter into an agreement with the collecting agency to pay the DIL to the collecting agency within the time specified in the agreement.

SUBDIVISIONS

In respect of the subdivision of land affected by the DCP, the following applies:

- A requirement may be imposed, including by a planning permit condition requiring payment of the DIL as a precondition to any statement of compliance being issued.
- If a staged subdivision, the DIL will be payable in respect of the NDA within the relevant stage, excluding any residual or superlot.
- In respect of any residual or superlot, the DIL will be incurred upon the subsequent subdivision or development of such lot.

COMMUNITY INFRASTRUCTURE LEVY

The CIL will be collected by the City of Greater Geelong at the Building Approval Stage in accordance with section 46(0) of the *Planning & Environment Act* (1987). However, developers/landowners are strongly encouraged to pay the CIL before the issue of a Statement of Compliance to simplify collection of development contributions, reduce the administrative burden on Council and facilitate the early provision of community infrastructure.

7.6. ADMINISTRATIVE PROCEDURES

The collecting agency will undertake ongoing accounting and review of this DCP in terms of:

- The relevance of projects listed in the DCP;
- The level of contributions collected;
- The construction costs of infrastructure projects;
- The land costs of infrastructure projects;
- Updating the DCP to reflect any relevant amendments to the Planning and Environment Act (1987), or any new Ministerial Directions relating to development contributions.

A formal review of this DCP will be required every five years during the lifespan of the DCP.

Funds collected through development contributions will be held in a specific interest-bearing reserve account in accordance with the provisions of the *Planning and Environment Act* (1987). All monies held in this account will be used solely for the provision of infrastructure as itemised in this DCP.

If Council resolves not to proceed with any of the infrastructure projects listed in this DCP, the responsible authority will comply with section 46(Q) of the *Planning and Environment Act* (1987).

7.7. PROVISION OF LAND AND WORKS IN-KIND

Payment of development contributions is to be made in cash (i.e. a financial contribution). Alternatively, infrastructure works and land may be provided by developers with a credit provided against their development contribution, subject to the agreement of the collecting agency.

The collecting agency may enter into Section 173 Agreements with landowners to formalise details of infrastructure items to be provided in-kind. All development infrastructure (including land) can be provided in-kind under this agreement.

Where a developer intends to undertake any DCP works in-kind, this must first be agreed to by the responsible authority.

In determining whether to agree to the provision of works in lieu of cash, the collecting agency will have regard to the following:

- Only works or land identified in the DCP can be provided in lieu of cash.
- Works must be provided to a standard that generally accords with the DCP unless agreed between the collecting agency and the developer.
- Detailed design must be approved by the collecting agency and generally accord with the standards outlined in the DCP unless agreed by the collecting agency and the developer.
- The construction of works must be completed to the satisfaction of the collecting agency.
- The impact on the DCP must be cost and revenue neutral.

Where the collecting agency agrees that works are to be provided by a developer in lieu of cash contributions:

- The credit for the works provided must equal the value identified in the DCP taking into account the impact of indexation;
- The value of works provided in accordance with the principles outlined above, will be offset against the development contributions liable to be paid by the developer;
- The developer will not be required to make cash payments for contributions until the value of any credits for the provision of agreed works-in-kind are exhausted;
- Where credit for works-in-kind cannot be offset against future levy payments, the developer must be reimbursed by the collecting agency for any excess credit at such time that cash to the equal value of the excess credit has been received by the collecting agency from other landowners in the Main Catchment Area;
- Where a developer chooses to bring forward works ahead of the scheduled time in the DCP, this can be done provided the impact on the DCP is cost and revenue neutral; and
- Where a developer is in credit against their development contributions liability, this credit will be indexed annually in accordance with the method outlined in Section 7.1.

7.8. LAND

As with works-in-kind, the provision of land would be agreed between the developer and the responsible authority pursuant to Section 173 of the *Planning and Environment Act* (1987). The value of the off-set for providing land will equal the value shown in the DCP, subject to indexation.

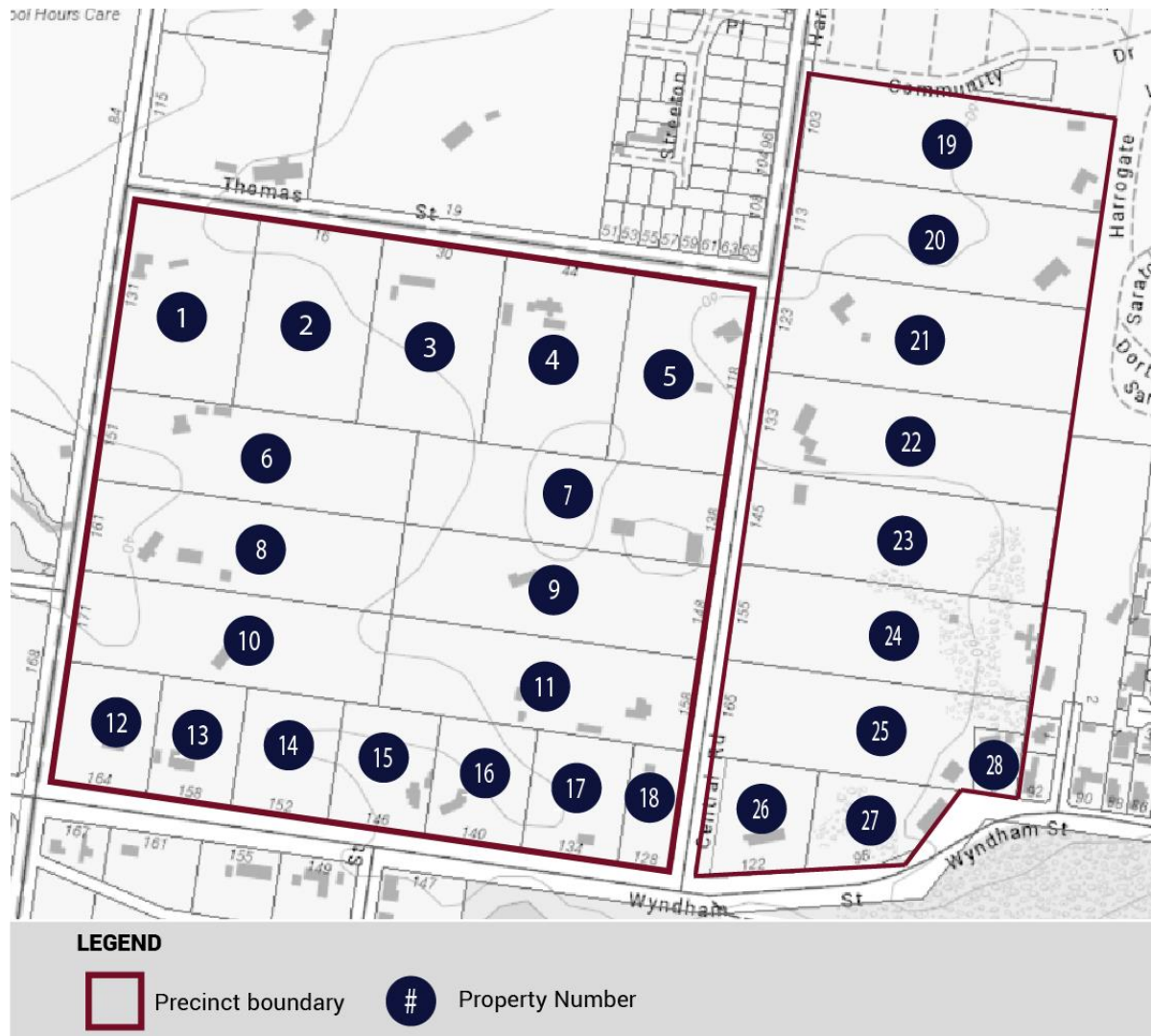
APPENDICES

APPENDIX A DETAILED LAND BUDGET

TABLE 7 LAND BUDGET

	PROPERTY NUMBER	TOTAL AREA (ha)	EXISTING DRAINAGE EASEMENT	WETLAND / RETARDING BASIN	UNENCUMBERED OPEN SPACE (to be funded via clause 53.01)			LAND FOR ROADS	NDA (ha)
					Co-Located	Linear	1ha Park		
131-149 Jetty Road	Property 1	1.797						0.009	1.788
16-28 Thomas Street	Property 2	1.554							1.554
30-42 Thomas Street	Property 3	1.549							1.549
44-56 Thomas Street	Property 4	1.678							1.678
118-136 Central Road	Property 5	1.599							1.599
151-159 Jetty Road	Property 6	1.922						0.042	1.880
138-146 Central Road	Property 7	1.958							1.958
161-169 Jetty Road	Property 8	1.970		0.328					1.642
148-156 Central Road	Property 9	1.971							1.971
171-179 Jetty Road	Property 10	1.971	0.187	0.367	0.379	0.245			0.793
158-166 Central Road	Property 11	1.971				0.113			1.858
164-169 Wyndham Street	Property 12	0.809	0.250	0.378	0.178				0.003
158-162 Wyndham Street	Property 13	0.708			0.122	0.037			0.550
152-156 Wyndham Street	Property 14	0.809				0.166			0.643
146-150 Wyndham Street	Property 15	0.809				0.420			0.389
140-144 Wyndham Street	Property 16	0.809				0.079			0.730
134-138 Wyndham Street	Property 17	0.810							0.810
128-138 Wyndham Street	Property 18	0.450							0.450
103-111 Central Road	Property 19	2.223							2.223
113-121 Central Road	Property 20	2.041							2.041
123-131 Central Road	Property 21	2.159					0.199		1.960
133-143 Central Road	Property 22	2.033					0.642		1.391
145-153 Central Road	Property 23	2.033					0.159		1.874
155-163 Central Road	Property 24	2.332							2.332
165-173 Central Road	Property 25	1.826		0.512					1.314
122-126 Wyndham Street	Property 26	0.862							0.862
96 Wyndham Street	Property 27	0.716							0.716
94 Wyndham Street	Property 28	0.207							0.207
TOTAL		41.576	0.437	1.585	0.679	1.060	1.000	0.051	36.765

FIGURE 6 PROPERTY NUMBER MAP



Source: VicPlan, 2018 base map annotated by Urban Enterprise, 2019

APPENDIX B DCP INFRASTRUCTURE PROJECT SHEETS

DI_RD_1	Jetty Road Pedestrian Lights	
Description	Signalised crossing for pedestrian use	
	Infrastructure Type	Infrastructure Category
	Development	Roads and Trails
Project Cost	\$372,566.72	
Indicative Provision Trigger	Prior to statement of compliance being issued for the first residential allotment within 171-179 Jetty Road, Drysdale.	
Strategic Justification	This project is required to provide a safe crossing for pedestrians	
External Usage Discount	0%	
Project Cost to MCA	\$372,566.72	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$10,133.64	
Costing Source	Cardno Estimate of Construction Costs V161743	

The Project Cost is expressed in September 2018 dollars

Ref#

1

Version 1.8

JULY 2020



DI_RD_2	Jetty Road Intersection	
Description	Construction of a safe intersection at the main entry point	
	Infrastructure Type	Infrastructure Category
	Development	Roads and Trails
Project Cost	\$310,777.97	
Indicative Provision Trigger	Prior to the Statement of Compliance being issued for the first residential subdivision requiring access to Jetty Road.	
Strategic Justification	This project is required to provide for the orderly and proper development of the area and ensures that the road hierarchy caters for projected traffic volumes. It is also required to ensure safe entry into the precinct.	
External Usage Discount	0%	
Project Cost to MCA	\$310,777.97	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$8,453.02	
Costing Source	Cardno Estimate of Construction Costs V161743	

The Project Cost is expressed in September 2018 dollars

Ref#

2

Version 1.8

JULY 2020



DI_LA_1	Jetty Road Intersection Land	
Description	Land for Jetty Road intersection. Total 0.0509ha required	
	Infrastructure Type	Infrastructure Category
	Development	Roads and Trails
Project Cost	\$66,170.00	
Indicative Provision Trigger	Prior to the Statement of Compliance being issued for the first residential subdivision requiring access to Jetty Road.	
Strategic Justification	This project is required to ensure land is available for the main entry point into the precinct and to ensures that the road hierarchy caters for projected traffic volume and to ensure that there is safe entry into the precinct	
External Usage Discount	0%	
Project Cost to MCA	\$66,170.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$1,799.79	
Costing Source	Westlink Valuation Report, February 2018	

The Project Cost is expressed in September 2018 dollars

Ref#

3

Version 1.8

JULY 2020

DI_RD_3	Central Road / Wyndham Street Intersection	
Description	Construction of an upgraded intersection	
	Infrastructure Type	Infrastructure Category
	Development	Roads and Trails
Project Cost	\$450,901.43	
Indicative Provision Trigger	At or before the creation of the 360th lot in the Precinct or earlier at the discretion of the responsible authority.	
Strategic Justification	This project is required to provide for the orderly and proper development of the area and ensures that the road hierarchy caters for projected traffic volumes	
External Usage Discount	0%	
Project Cost to MCA	\$450,901.43	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$12,264.31	
Costing Source	Cardno Estimate of Construction Costs V161743	

The Project Cost is expressed in September 2018 dollars

Ref#

4

Version 1.8

JULY 2020

DI_TR_1	Wyndham Street Shared Path				
Description	Construction of a shared path for use by cyclists and pedestrians with existing Wyndham Street road reserve (north-side), between Linear Open Space and Central Road (250 linear metres)				
	<table border="1"> <thead> <tr> <th>Infrastructure Type</th> <th>Infrastructure Category</th> </tr> </thead> <tbody> <tr> <td>Development</td> <td>Roads and Trails</td> </tr> </tbody> </table>	Infrastructure Type	Infrastructure Category	Development	Roads and Trails
Infrastructure Type	Infrastructure Category				
Development	Roads and Trails				
Project Cost	\$40,000.00				
Indicative Provision Trigger	Within 24 months of delivery of OS_4.				
Strategic Justification	This project is required to create a shared trail for pedestrians and cyclists				
External Usage Discount	0%				
Project Cost to MCA	\$40,000.00				
Apportionment of Costs	100% Central Road Drysdale DCP				
Demand Units	36.765				
Levy Amount	\$1,087.98				
Costing Source	Cost estimate provided by St Quentin Consulting				

The Project Cost is expressed in September 2018 dollars

Ref#

5

Version 1.8

JULY 2020

DI_LA_2	Central Road Basin - Land	
Description	Land required for Central Road basin. Total 0.512ha required	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$665,600.00	
Indicative Provision Trigger	Prior to statement of compliance being issued for the first residential allotment in the Central Road RB drainage catchment (Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.	
Strategic Justification	This project is required to provide land for a drainage basin and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$665,600.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$23,148.70	
Costing Source	Westlink Valuation Report, February 2018	

The Project Cost is expressed in September 2018 dollars

Ref#

6

Version 1.8

JULY 2020

DI_DR_1a	Central Road Basin - Construction	
Description	Shared drainage construction works	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$277,660.60	
Indicative Provision Trigger	Prior to Statement of Compliance being issued for the first residential allotment in the Central Road RB drainage catchment (Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.	
Strategic Justification	This project is required to construct a basin to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$277,660.60	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$9,656.68	
Costing Source	Cost estimate provided by St Quentin Consulting - 14246 Basin Costings	

The Project Cost is expressed in September 2018 dollars

Ref#

7

Version 1.8

JULY 2020

DI_DR_1b	Central Road Basin - Landscaping	
Description	Improvements to open space within basin land	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$95,874.90	
Indicative Provision Trigger	Concurrent with the associated drainage basin works (DI_DR_1a).	
Strategic Justification	This project is required to provide adequate open space facilities for residents and visitors and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$95,874.90	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$3,334.40	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

Ref#

8

Version 1.8

JULY 2020



DI_LA_3	Jetty Road Basin - Land (Interim)	
Description	Land required for northern section of the Jetty Road Basin. Total 0.695ha required	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$903,500.00	
Indicative Provision Trigger	Prior to Statement of Compliance being issued for the first residential allotment in the Central Road RB drainage catchment (Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.	
Strategic Justification	This project is required to provide land for adequate drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$903,500.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$31,422.56	
Costing Source	Westlink Valuation Report, February 2018	

The Project Cost is expressed in September 2018 dollars

DI_LA_4	Jetty Road Basin - Land (Ultimate)	
Description	Land required for the southern section of Jetty Road Basin. Total 0.378ha required	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$567,000.00	
Indicative Provision Trigger	Prior to the Statement of Compliance being issued for the residential subdivision in the Jetty Rd RB catchment (refer to Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) that requires an expansion to the interim drainage basin (approximately 190 lots created within the catchment) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.	
Strategic Justification	This project is required to provide land for adequate drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$567,000.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$19,719.52	
Costing Source	Westlink Valuation Report, February 2018	

The Project Cost is expressed in September 2018 dollars

DI_DR_2a	Jetty Road Basin - Construction (Interim)	
Description	Shared drainage construction works	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$297,430.83	
Indicative Provision Trigger	Prior to the Statement of Compliance being issued for the first residential allotment in the Jetty Road RB Drainage Catchment (refer to Figure 3.4 in the Water Technology Stormwater Management Plan).	
Strategic Justification	This project is required to provide the required interim drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$297,430.83	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$10,344.26	
Costing Source	Cost estimate provided by St Quentin Consulting - 14246 Basin Costings	

The Project Cost is expressed in September 2018 dollars

DI_DR_2b	Jetty Road Basin - Landscaping (Interim)	
Description	Open space improvements of the northern section of the Jetty Road Basin	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$142,992.30	
Indicative Provision Trigger	Concurrent with the associated drainage basin works (DI_DR_2a).	
Strategic Justification	This project is required to support the drainage function of the retarding basins for residents and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$142,992.30	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$4,973.09	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

DI_DR_3a	Jetty Road Basin - Construction (Ultimate)	
Description	Shared drainage construction works	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$292,409.35	
Indicative Provision Trigger	Prior to the Statement of Compliance being issued for the residential subdivision in the Jetty Rd RB catchment (refer to Figure 3.4 in Stormwater Management Plan, Water Technology, May 2019) that requires an expansion to the interim drainage basin (approximately 190 lots created within the catchment) or at the discretion of the responsible authority if an alternative approach to drainage works in the catchment is required.	
Strategic Justification	This project is required to provide the required interim drainage within the precinct and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$292,409.35	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$10,169.62	
Costing Source	Cost estimate provided by St Quentin Consulting - 14246 Basin Costings	

The Project Cost is expressed in September 2018 dollars

DI_DR_3b	Jetty Road Basin - Landscaping (Ultimate)	
Description	Open space improvements of the southern section of the Jetty Road basin	
	Infrastructure Type	Infrastructure Category
	Development	Drainage
Project Cost	\$112,200.00	
Indicative Provision Trigger	Concurrent with the associated drainage basin works (DI_DR_3a).	
Strategic Justification	This project is required to support the drainage function of the retarding basins for residents and to ensure development attenuates post development runoff to pre-development levels	
External Usage Discount	0%	
Project Cost to MCA	\$112,200.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	28.753	
Levy Amount	\$3,902.17	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

DI_OS_1	Jetty Road Basin - Pedestrian link	
Description	Construction of shared use cycling and pedestrian trail connecting the linear open space to Jetty Road between the interim and ultimate Jetty Road drainage basins	
	Infrastructure Type	Infrastructure Category
	Development	Public Open Space
Project Cost	\$525,800.00	
Indicative Provision Trigger	Within 24 months of a Statement of Compliance being issued for the first residential allotment within 171-179 Jetty Road, Drysdale.	
Strategic Justification	This project is required to provide passive open space and active transport access for residents and visitors	
External Usage Discount	0%	
Project Cost to MCA	\$525,800.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$14,301.52	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

DI_OS_2	Central Road 1ha Reserve - Landscaping	
Description	Open space improvements to 1ha reserve	
	Infrastructure Type	Infrastructure Category
	Development	Public Open Space
Project Cost	\$491,419.50	
Indicative Provision Trigger	As subdivision of the affected land progresses or within 24 months of the open space reserve being vested in Council.	
Strategic Justification	This project is required to provide adequate open space facilities for residents and visitors	
External Usage Discount	0%	
Project Cost to MCA	\$491,419.50	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$13,366.38	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

DI_OS_3	Central Road 1ha Reserve – Playground				
Description	Open space improvement (playground construction)				
	<table border="1"> <thead> <tr> <th>Infrastructure Type</th> <th>Infrastructure Category</th> </tr> </thead> <tbody> <tr> <td>Development</td> <td>Public Open Space</td> </tr> </tbody> </table>	Infrastructure Type	Infrastructure Category	Development	Public Open Space
Infrastructure Type	Infrastructure Category				
Development	Public Open Space				
Project Cost	\$116,600.00				
Indicative Provision Trigger	Within 24 months of the relevant section of the open space reserve being vested in Council.				
Strategic Justification	This project is required to provide adequate open space facilities for residents and visitors				
External Usage Discount	0%				
Project Cost to MCA	\$116,600.00				
Apportionment of Costs	100% Central Road Drysdale DCP				
Demand Units	36.765				
Levy Amount	\$3,171.47				
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost				

The Project Cost is expressed in September 2018 dollars

DI_OS_4	Linear and Co-Located Open Space - Landscaping	
Description	Open space improvement in the linear reserve and co-located open space including a shared path	
	Infrastructure Type	Infrastructure Category
	Development	Public Open Space
Project Cost	\$786,809.10	
Indicative Provision Trigger	As subdivision of the affected land progresses or within 24 months of the open space reserve being vested in Council.	
Strategic Justification	This project is required to provide adequate open space facilities for residents and visitors	
External Usage Discount	0%	
Project Cost to MCA	\$786,809.10	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$21,400.84	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

Ref#
20

Version 1.8
JULY 2020

DI_OS_5	Co-Located Open Space – Playground	
Description	Open space improvement (playground construction)	
	Infrastructure Type	Infrastructure Category
	Development	Public Open Space
Project Cost	\$48,950.00	
Indicative Provision Trigger	Within 24 months of the relevant section of the open space reserve being vested in Council.	
Strategic Justification	This project is required to provide adequate open space facilities for residents and visitors	
External Usage Discount	0%	
Project Cost to MCA	\$48,950.00	
Apportionment of Costs	100% Central Road Drysdale DCP	
Demand Units	36.765	
Levy Amount	\$1,331.42	
Costing Source	Cost estimate provided by Tract Consulting - Opinion of Probable Cost	

The Project Cost is expressed in September 2018 dollars

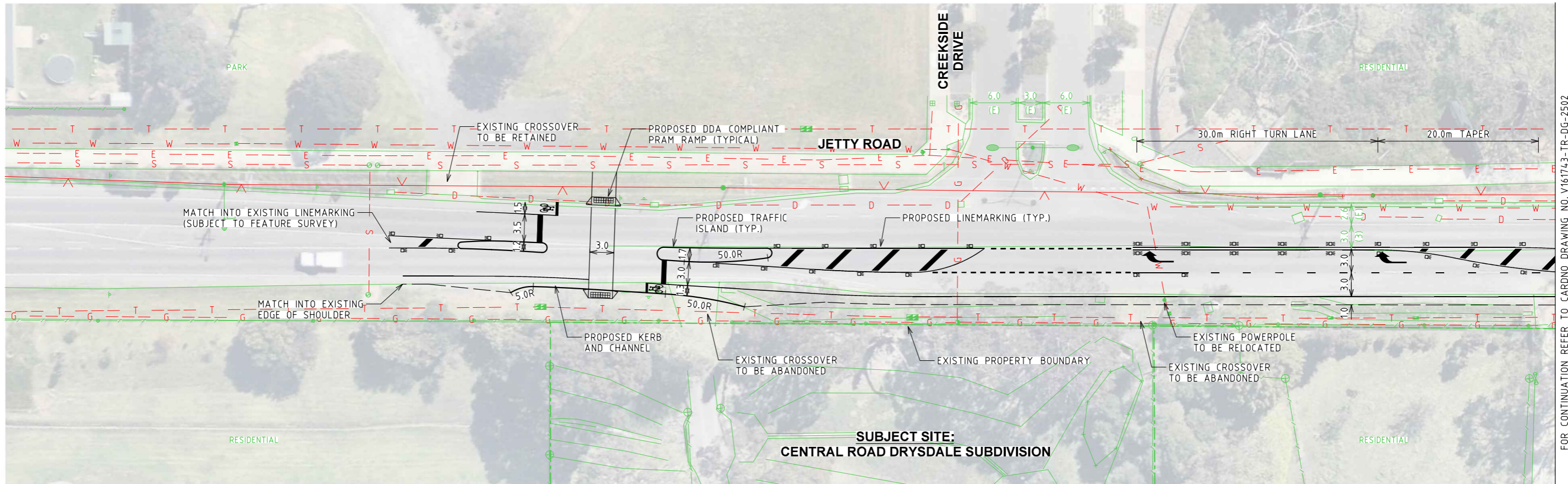
DI_P_1	Planning Costs				
Description	Preparation of DCP including infrastructure design and costing, land valuation and land capability studies				
	<table border="1"> <thead> <tr> <th>Infrastructure Type</th> <th>Infrastructure Category</th> </tr> </thead> <tbody> <tr> <td>Development</td> <td>Other</td> </tr> </tbody> </table>	Infrastructure Type	Infrastructure Category	Development	Other
Infrastructure Type	Infrastructure Category				
Development	Other				
Project Cost	\$265,000.00				
Indicative Provision Trigger	Complete.				
Strategic Justification	Item required to prepare appropriate planning for the residential development. This includes land valuation and infrastructure design and costing				
External Usage Discount	0%				
Project Cost to MCA	\$265,000.00				
Apportionment of Costs	100% Central Road Drysdale DCP				
Demand Units	36.765				
Levy Amount	\$7,207.88				
Costing Source	Based on consultant fees incurred				

The Project Cost is expressed in September 2018 dollars

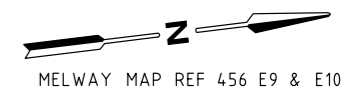
CI_CF_1	Regional Community and Learning Hub	
Description	Construction of a Regional Community and Learning Hub, to service existing and new Drysdale and Clifton Springs catchment	
	Infrastructure Type	Infrastructure Category
	Community	Community Infrastructure
Project Cost	\$9,100,000.00	
Indicative Provision Trigger	Expected delivery between 2022 and 2025 at Council's discretion.	
Strategic Justification	Projections indicate the demand for library services by 2018 will be sufficient to support a regional Community and Learning Hub in Drysdale in the order of 1,000 square metres	
External Usage Discount	93.9%	
Project Cost to MCA	\$557,039.51	
Apportionment of Costs	Demand generated by Central Road Drysdale (6.1%), Jetty Road Urban Growth Area (40%) and households external to the growth areas (53.2%)	
Demand Units	36.765	
Levy Amount	\$1,012.80	
Costing Source	Cost Estimates provided by council officers (July 2019).	

The Project Cost is expressed in September 2018 dollars

APPENDIX C INTERSECTION LAYOUT PLANS AND COSTINGS



FOR CONTINUATION REFER TO CARDNO DRAWING NO. V161743-TR-DG-2502



Rev	Date	Description	Drawn	Appr.
2	08.03.18	CLIENT COMMENTS	CS	MH
1	06.03.18	ISSUED FOR INFORMATION	CS	MH

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 1:500 @ A3

WARNING
 BEWARE OF UNDERGROUND SERVICES
 THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVIDED ON SITE.

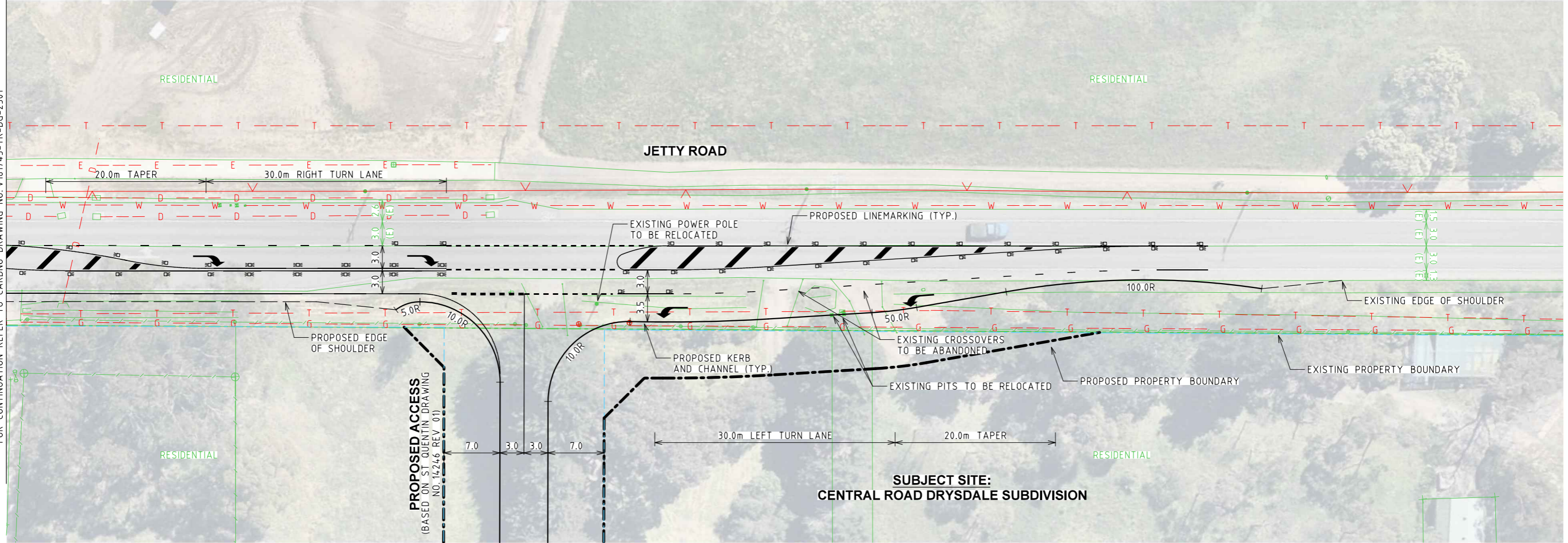
1. BASE INFORMATION SUPPLIED BY ST QUENTIN, REF NO. 14246_ROAD_GPS_230110_DATUM.DWG
2. ALL DIMENSIONS TO FACE OF KERB AND CHANNEL U.N.O
3. LOCAL ROAD - JETTY ROAD (SPEED ZONE 60KM/H) - CREEKSIDE DRIVE (SPEED ZONE 50KM/H)
4. LINEMARK IN ACCORDANCE WITH AUSTRROADS GUIDE TO TRAFFIC MANAGEMENT VOLUME 10, AS1742 AND RELEVANT VICROADS SUPPLEMENTS.
5. INSTALL RRPMS AND REMOVE ANY REDUNDANT MARKERS.

ABN: 47 106 610 913
 501 Swanston Street, Melbourne, VIC Australia 3000
 Phone (+61 3) 8415 7777 Fax (+61 3) 8415 7788
 Email: victoria@cardno.com.au Web: www.cardno.com.au/victoria

Drawn	C.SANSTOUPET
Designed	C.SANSTOUPET
Checked	S.MCKENZIE
Authorised	M.HAWKINS

Client	MCLEODS DEVELOPMENTS PTY LTD
Project	CENTRAL ROAD DRYSDALE SUBDIVISION CENTRAL ROAD, DRYSDALE CITY OF GREATER GEELONG
Title	CHANNELISED RIGHT TURN TREATMENT AND PEDESTRIAN OPERATED SIGNALS FUNCTIONAL LAYOUT PLAN

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	06.03.2018	Scale	1:500
Drawing Number	V161743-TR-DG-2501	Size	A3
Revision		Revision	2



Rev	Date	Description	Drawn	Appr.
1	06.03.18	ISSUED FOR INFORMATION	CS	MH

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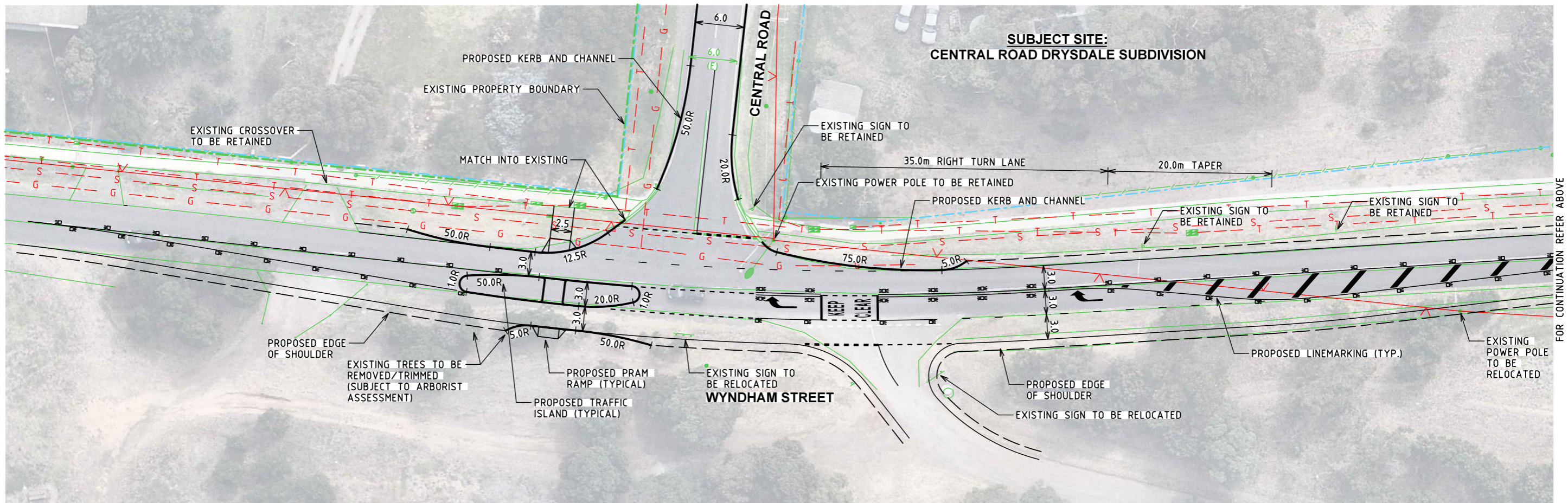
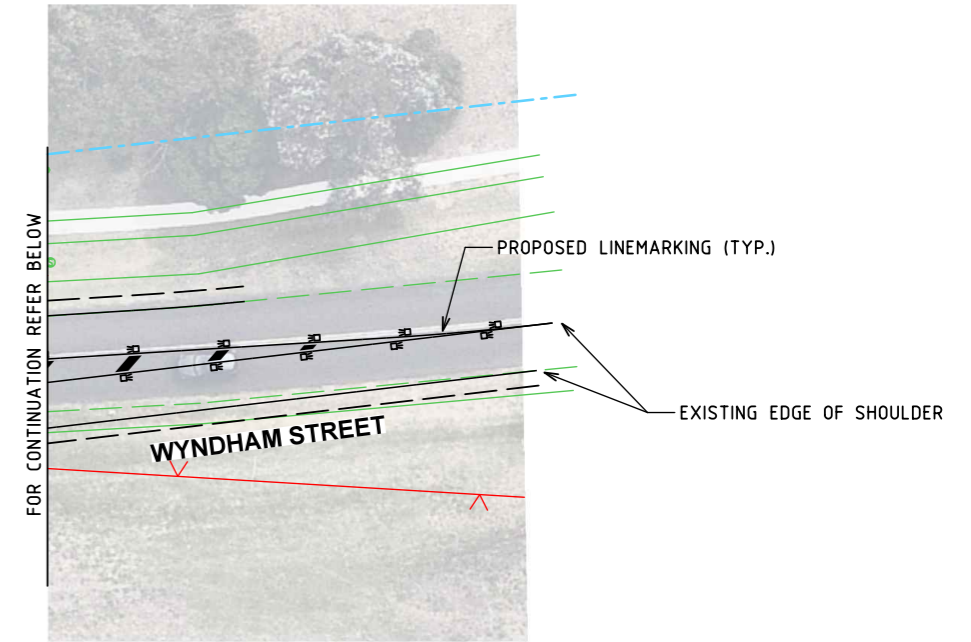
- 1.BASE INFORMATION SUPPLIED BY St QUENTIN, REF NO.14246_ROAD_GPS_230110_DATUM.DWG
- 2.ALL DIMENSIONS TO FACE OF KERB AND CHANNEL U.N.O
- 3.LOCAL ROAD - JETTY ROAD (SPEED ZONE 60KM/H).
 - PROPOSED ACCESS (SPEED ZONE 50KM/H)
- 4.LINEMARK IN ACCORDANCE WITH AUSTRROADS GUIDE TO TRAFFIC MANAGEMENT VOLUME 10, AS1742 AND RELEVANT VICROADS SUPPLEMENTS.
- 5.INSTALL RRP'S AND REMOVE ANY REDUNDANT MARKERS.

ABN: 47 106 610 913
 501 Swanston Street, Melbourne, VIC Australia 3000
 Phone (+61 3) 8415 7777 Fax (+61 3) 8415 7788
 Email: victoria@cardno.com.au Web: www.cardno.com.au/victoria

Drawn	C.SANSTOUPET
Designed	C.SANSTOUPET
Checked	S.McKENZIE
Authorised	M.HAWKINS

Client	MCLEODS DEVELOPMENTS PTY LTD
Project	CENTRAL ROAD DRYSDALE SUBDIVISION CENTRAL ROAD, DRYSDALE CITY OF GREATER GEELONG
Title	CHR TREATMENT FUNCTIONAL LAYOUT PLAN

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	06.03.2018	Scale	1:500
Size	A3	Revision	2
Drawing Number	V161743-TR-DG-2502		

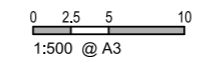


**SUBJECT SITE:
CENTRAL ROAD DRYSDALE SUBDIVISION**

MELWAY MAP REF 456 F10

Rev	Date	Description	Drawn	Appr.
3	07.05.18	CLIENT COMMENTS	CS	MH
2	08.03.18	CLIENT COMMENTS	CS	MH
1	06.03.18	ISSUED FOR INFORMATION	CS	MH

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WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE.

1. BASE INFORMATION SUPPLIED BY ST QUENTIN, REF NO. 14246_ROAD_GPS_230110_DATUM.DWG
2. ALL DIMENSIONS TO FACE OF KERB AND CHANNEL U.N.O
3. LOCAL ROAD - WYNDHAM STREET (SPEED ZONE 60KM/H). - CENTRAL ROAD (SPEED ZONE 50KM/H)
4. LINEMARK IN ACCORDANCE WITH AUSTRROADS GUIDE TO TRAFFIC MANAGEMENT VOLUME 10, AS1742 AND RELEVANT VICROADS SUPPLEMENTS.
5. INSTALL RRPMS AND REMOVE ANY REDUNDANT MARKERS.

Drawn	C.SANSTOUPET
Designed	C.SANSTOUPET
Checked	S.MCKENZIE
Authorised	M.HAWKINS

Client	MCLEODS DEVELOPMENTS PTY LTD		
Project	CENTRAL ROAD DRYSDALE SUBDIVISION CENTRAL ROAD, DRYSDALE CITY OF GREATER GEELONG		
Title	CHANNELISED RIGHT TURN TREATMENT FUNCTIONAL LAYOUT PLAN		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	06.03.2018	Scale	1:500
Drawing Number	V161743-TR-DG-2503	Size	A3
Revision			3

**PRELIMINARY ESTIMATE OF CONSTRUCTION COSTS
SUMMARY SHEET
V161743
Central Road, Drysdale
REVISION No 2**

12-April-2018

ITEM	DESCRIPTION	V161743 Preliminary Plan Drawing Number		
		DG2501	DG2502	DG2503
	Construction Costs	\$ 304,136.10	\$ 253,696.30	\$ 368,082.80
	CONTINGENCY			
	Lower Bound Contingency (0% of D)	\$ -	\$ -	\$ -
	Upper Bound Contingency (30% of D)	\$ 91,240.83	\$ 76,108.89	\$ 110,424.84
	PROJECT BUDGET			
	Total Lower Bound Estimate	\$ 304,136.10	\$ 253,696.30	\$ 368,082.80
	Total Upper Bound Estimate	\$ 395,376.93	\$ 329,805.19	\$ 478,507.64
	Project Budget (75% confidence)	\$ 372,566.72	\$ 310,777.97	\$ 450,901.43

Author: Romain Grenville

Reviewer: Greg Pollard

PLEASE NOTE THE FOLLOWING ASSUMPTIONS:

- i) All existing services assumed to be as shown on preliminary plans for job number V161743. Any additional services may result in additional costs.
- ii) Assumed no drainage structures along Jetty Road. All runoff assumed to fall to existing drainage to the west or to overland flow to the east.

PRELIMINARY ESTIMATE OF CONSTRUCTION COSTS
V161743
Central Road, Drysdale
DG2501

12 April 2018

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
	Construction				\$ 304,136	\$ 304,136
1	PRELIMINARIES					\$ 68,500
1.1	Site Establishment	1	item	\$ 6,000.00	\$ 6,000	
1.1	Site Management & supervision including QA	5	wks	\$ 5,000.00	\$ 25,000	
1.1	Provision for traffic	5	wks	\$ 7,500.00	\$ 37,500	
2	DEMOLITION					\$ 15,000
2.1	Breakout and remove redundant asphalt and any other road as required	1	Item	\$ 5,000.00	\$ 5,000	
2.2	Relocation of LV Powerpole	1	Item	\$ 10,000.00	\$ 10,000	
3	EARTHWORKS					\$ 11,531
3.1	Stripping topsoil (150mm)	439	m ²	\$ 12.00	\$ 5,268	
3.2	Excavation to sub-grade level for road	189	m ³	\$ 30.00	\$ 5,663	
3.3	Shaping of Swale drains	1	Item	\$ 600.00	\$ 600	
4	PAVEMENT					\$ 74,630
4.1	Asphalt (80mm in two layers)	439	m ²	\$ 85.00	\$ 37,315	
4.2	100mm Class 2 CR	439	m ²	\$ 35.00	\$ 15,365	
4.3	250mm Class 3 CR	439	m ²	\$ 40.00	\$ 17,560	
4.4	Preparation of subgrade	439	m ²	\$ 10.00	\$ 4,390	
5	DRAINAGE					\$ 10,300
5.1	subsoil drains 100mm dia - screenings	100	lm	\$ 55.00	\$ 5,500	
5.2	subsoil drains 100mm dia - no fines conc	80	lm	\$ 60.00	\$ 4,800	
6	CONCRETE WORKS					\$ 15,000
6.1	Kerb & channel (Semi Mountable)	100	lm	\$ 70.00	\$ 7,000	
6.2	Concrete Island Infill	100	m ²	\$ 80.00	\$ 8,000	
7	LANDSCAPING WORKS					\$ 700
7.1	Topsoiling seeding back of kerb	1	Item	\$ 700.00	\$ 700	
8	SIGNING					\$ 2,500
8.1	Install new and reinstate existing signage	1	Item	\$ 2,500.00	\$ 2,500.00	
9	LINEMARKING					\$ 5,000
9.1	Placing of new linemarking	1	Item	\$ 5,000.00	\$ 5,000.00	
10	MISCELLANEOUS					\$ 1,200
10.1	Tactile Pavers	2	No.	\$ 600.00	\$ 1,200.00	
11	SIGNALS		item			\$ 99,775
11.2	Conduits	1	item	\$ 24,550	\$ 24,550	
11.3	Pedestals	1	item	\$ 23,500	\$ 23,500	
11.4	Lanterns	1	item	\$ 16,800	\$ 16,800	
11.5	Distribution Box	1	item	\$ 7,000	\$ 7,000	
11.5	Controller Foundation and Liasing	1	item	\$ 7,000	\$ 7,000	
11.6	Deterctors	1	item	\$ 8,000	\$ 8,000	
11.7	Cabling & Connections	1	item	\$ 12,925	\$ 12,925	
E	Contingency					
	Lower Bound Contingency (0% of D)				0%	\$ -
	Upper Bound Contingency (30% of D)				30%	\$ 91,240.83
F	PROJECT BUDGET					
	Lower Bound Estimate					\$ 304,136
	Upper Bound Estimate					\$ 395,377
G	Project Budget (75% Confidence)					\$ 372,567

SIGNAL COSTS BREAKDOWN - INCLUDED ABOVE IN ITEM 11						
ITEM	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	AMOUNT	TOTALS
A	Construction					\$ 99,775
1	GENERAL ITEMS					\$ -
1.1	Site Establishment		item		\$ -	
2	CONDUITS					\$ 24,550
2.1	Conduit (100mm H/D Orange)	15	m	\$ 250	\$ 3,750	
2.2	Conduits Bored (100mm H/D Orange)	30	m	\$ 600	\$ 18,000	
2.3	Conduit Pit	4	No.	\$ 700	\$ 2,800	
3	PEDESTALS					\$ 23,500

M:\2016\1501_2000\V161743_Central_Road_Drysdale_Subdivision\1_ADMIN\Construction\Estimate\V161743 Central Road Drysdale .xlsm

12/04/2018

PRELIMINARY ESTIMATE OF CONSTRUCTION COSTS
V161743
Central Road, Drysdale
DG2501

12 April 2018

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
3.1	2B Pedestal	3	No.	\$ 4,500	\$ 13,500	
3.2	MA Pedestal	1	No.	\$ 10,000	\$ 10,000	
4	LANTERNS					\$ 16,800
4.1	3 Aspect Lanterns	8	No.	\$ 1,100	\$ 8,800	
4.2	Pedestrian Push Button & Lantern	1	item	\$ 8,000	\$ 8,000	
5	ELECTRICAL DISTRIBUTION BOX					\$ 7,000
5.1	Distribution Box	1	No.	\$ 7,000	\$ 7,000	
5	CONTROLLER					\$ 7,000
5.1	Liasie with VicRoads to install Controller	1	No.	\$ 1,000	\$ 1,000	
5.2	Foundation	1	No.	\$ 6,000	\$ 6,000	
6	DETECTORS					\$ 8,000
6.1	Loops	2	No.	\$ 3,000	\$ 6,000	
6.2	Detector Pit	2	No.	\$ 1,000	\$ 2,000	
7.1	CABLING & CONNECTIONS					\$ 12,925
7.1	Cable	65	m	\$ 95	\$ 6,175	
7.2	Power Cable	45	m	\$ 150	\$ 6,750	
8	MAINTENANCE (10 YEARS)					\$ -
8.1	Intersection with SCRAM		No.		\$ -	
8.2	P.O.S. with SCRAM		No.		\$ -	

PRELIMINARY ESTIMATE OF CONSTRUCTION COSTS
V161743
Central Road, Drysdale
DG2502

12 April 2018

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
	Construction				\$ 253,696	\$ 253,696
1	PRELIMINARIES					\$ -
1.1	Site Establishment		item	Included in estimate DG5201		
1.1	Site Management & supervision including QA		wks	Included in estimate DG5201		
1.1	Provision for traffic		wks	Included in estimate DG5201		
2	DEMOLITION					\$ 23,100
2.1	Breakout and remove redundant asphalt and any orther road as required	1	Item	\$ 3,100.00	\$ 3,100	
2.2	Sawcutting and profiling of existing pavement to ensure final asphalt matching in neatly	1	Item	\$ 5,000.00	\$ 5,000	
2.3	Relocation of Powerpole	1	Item	\$ 10,000.00	\$ 10,000	
2.4	Removal of trees	1	Item	\$ 5,000.00	\$ 5,000	
3	EARTHWORKS					\$ 24,331
3.1	Stripping topsoil (150mm)	937	m ²	\$ 12.00	\$ 11,244	
3.2	Excavation to sub-grade level for road	403	m ³	\$ 30.00	\$ 12,087	
3.3	Shaping of Swale drains	1	Item	\$ 1,000.00	\$ 1,000	
4	PAVEMENT					\$ 159,290
4.1	Asphalt (80mm in two layers)	937	m ²	\$ 85.00	\$ 79,645	
4.2	100mm Class 3 CR	937	m ²	\$ 35.00	\$ 32,795	
4.3	250mm Class 3 CR	937	m ²	\$ 40.00	\$ 37,480	
4.4	Preparation of subgrade	937	m ²	\$ 10.00	\$ 9,370	
5	DRAINAGE					\$ 22,758
5.1	subsoil drains 100mm dia - screenings	236	lm	\$ 55.00	\$ 12,978	
5.2	subsoil drains 100mm dia - no fines conc	163	lm	\$ 60.00	\$ 9,780	
6	CONCRETE WORKS					\$ 16,517
6.1	Kerb & channel (Semi Mountable)	236	lm	\$ 70.00	\$ 16,517	
7	LANDSCAPING WORKS					\$ 1,200
7.1	Topsoiling seeding back of kerb	1	Item	\$ 1,200.00	\$ 1,200	
8	SIGNING					\$ 1,500
8.1	Install new and reinstate existing signage	1	Item	\$ 1,500.00	\$ 1,500.00	
9	LINEMARKING					\$ 5,000
9.1	Placing of new linemarking	1	Item	\$ 5,000.00	\$ 5,000.00	
E	Contingency					
	Lower Bound Contingency (0% of D)				0%	\$ -
	Upper Bound Contingency (30% of D)				30%	\$ 76,108.89
F	PROJECT BUDGET					
	Lower Bound Estimate					\$ 253,696
	Upper Bound Estimate					\$ 329,805
G	Project Budget (75% Confidence)					\$ 310,778

PRELIMINARY ESTIMATE OF CONSTRUCTION COSTS
V161743
Central Road, Drysdale
DG2503

12 April 2018

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
	Construction				\$ 368,083	\$ 368,083
1	PRELIMINARIES					\$ 82,000
1.1	Site Establishment	1	item	\$ 7,000.00	\$ 7,000	
1.1	Site Management & supervision including QA	6	wks	\$ 5,000.00	\$ 30,000	
1.1	Provision for traffic	6	wks	\$ 7,500.00	\$ 45,000	
2	DEMOLITION					\$ 24,000
2.1	Breakout and remove redundant asphalt and any other road as required	1	Item	\$ 4,000.00	\$ 4,000	
2.2	Sawcutting and profiling of existing pavement to ensure final asphalt matching in neatly	1	Item	\$ 5,000.00	\$ 5,000	
2.3	Removal of Powerpole	1	Item	\$ 10,000.00	\$ 10,000	
2.4	Removal of trees	1	Item	\$ 5,000.00	\$ 5,000	
3	EARTHWORKS					\$ 28,193
3.1	Stripping topsoil (150mm)	1,072	m ²	\$ 12.00	\$ 12,864	
3.2	Excavation to sub-grade level for road	461	m ³	\$ 30.00	\$ 13,829	
3.3	Shaping of Swale drains	1	Item	\$ 1,500.00	\$ 1,500	
4	PAVEMENT					\$ 182,240
4.1	Asphalt (80mm in two layers)	1,072	m ²	\$ 85.00	\$ 91,120	
4.2	100mm Class 3 CR	1,072	m ²	\$ 35.00	\$ 37,520	
4.3	250mm Class 3 CR	1,072	m ²	\$ 40.00	\$ 42,880	
4.4	Preparation of subgrade	1,072	m ²	\$ 10.00	\$ 10,720	
5	DRAINAGE					\$ 27,230
5.1	subsoil drains 100mm dia - screenings	206	lm	\$ 55.00	\$ 11,330	
5.2	subsoil drains 100mm dia - no fines conc	265	lm	\$ 60.00	\$ 15,900	
6	CONCRETE WORKS					\$ 14,420
6.1	Kerb & channel (Semi Mountable)	206	lm	\$ 70.00	\$ 14,420	
7	LANDSCAPING WORKS					\$ 2,000
7.1	Topsoiling seeding back of kerb	1	item	\$ 2,000.00	\$ 2,000	
8	SIGNING					\$ 3,000
8.1	Install new and reinstate existing signage	1	Item	\$ 3,000.00	\$ 3,000.00	
9	LINEMARKING					\$ 5,000
9.1	Placing of new linemarking	1	Item	\$ 5,000.00	\$ 5,000.00	
E	Contingency					
	Lower Bound Contingency (0% of D)				0%	\$ -
	Upper Bound Contingency (30% of D)				30%	\$ 110,424.84
F	PROJECT BUDGET					
	Lower Bound Estimate					\$ 368,083
	Upper Bound Estimate					\$ 478,508
G	Project Budget (75% Confidence)					\$ 450,901

APPROXIMATE
TRUE NORTH



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Rev	Description	Date	By	App
24	Changes made to road layout	2/07/2018	JVC	CM
23	Changes made to open space and road layout	18/05/2018	JVC	CM
18	Changes made to public open space	16/11/2017	NC	CM

LEGEND

NOTATIONS

This plan is prepared from a combination of field survey and existing records for the purpose of designing new constructions on the land and should not be used for any other purpose. The title boundaries shown hereon were re-established but not marked by St. Quentin Consulting Pty. Ltd. at the time of survey. Services shown hereon have been located where possible by field survey.

Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services. This note is an integral part of this plan.

ST. QUENTIN
 Surveyors - Town Planners - Engineers
 51 LITTLE FYANS STREET,
 P.O. BOX 919, GEELONG 3220
 TELEPHONE (03) 5201 1811 FAX (03) 5229 2909

Project Name JETTY ROAD / CENTRAL ROAD
DRYSDALE

Title Info.

Drawing Title INTERSECTION REDLINE PLAN

Level Datum
Contour Interval
Date of Survey
Surveyed By
Drawn By JVC
Date Drawn 22/10/18
Scale 1:500 @ A1

SCALE 0 5 10 15 20 25 LENGTHS ARE IN METRES

Licensed Surveyor Approved

Project Ref.	Sheet No.	Rev.
14246	1	01

SURVEYING

APPENDIX D LANDSCAPING PLANS AND COSTINGS

05 DRAINAGE RESERVE A - INTERIM & ULTIMATE BASINS (INCLUDING COUNCIL DRAINAGE EASEMENT)

Legend

- - - DEVELOPMENT BOUNDARY
- EXISTING POST & WIRE FENCE TO BE RETAINED
- ↔ SHARED PATH
- EXISTING TREES TO BE RETAINED (& TPZ) SUBJECT TO ARBORICULTURAL ASSESSMENT
- EXISTING TREES TO BE REMOVED SUBJECT TO ARBORICULTURAL ASSESSMENT
- FEATURE FARM FENCE
- - - TIMBER POST & RAIL FENCE
- 1 WSUD WETLAND PLANTING
 - NOMINAL WATER LEVEL
 - EXTENDED DETENTION LEVEL
 - - - Q100
- 2 PEDESTRIAN LINK
REFER PEDESTRIAN LINK DESIGN DEVELOPMENT ATTACHED
- 3 COUNCIL DRAINAGE EASEMENT TO BE RETAINED
- 4 SCATTERED INFILL NATIVE TREE PLANTING TO DRAINAGE EASEMENT AS REQUIRED
- 5 EXISTING WSUD LOW VEGETATION TO BE RETAINED
- 6 SCATTERED NATIVE TREE PLANTING



SCALE 1:1000 (A3)



06 DRAINAGE RESERVE B - BASIN B

Legend

- - - DEVELOPMENT BOUNDARY

-  EXISTING TREES TO BE RETAINED (& TPZ)
SUBJECT TO ARBORICULTURAL ASSESSMENT
-  EXISTING TREES TO BE REMOVED
SUBJECT TO ARBORICULTURAL ASSESSMENT
- - - TIMBER POST & RAIL FENCE

- 1 WSUD WETLAND PLANTING
 - NOMINAL WATER LEVEL
 - EXTENDED DETENTION LEVEL
 - - - Q100

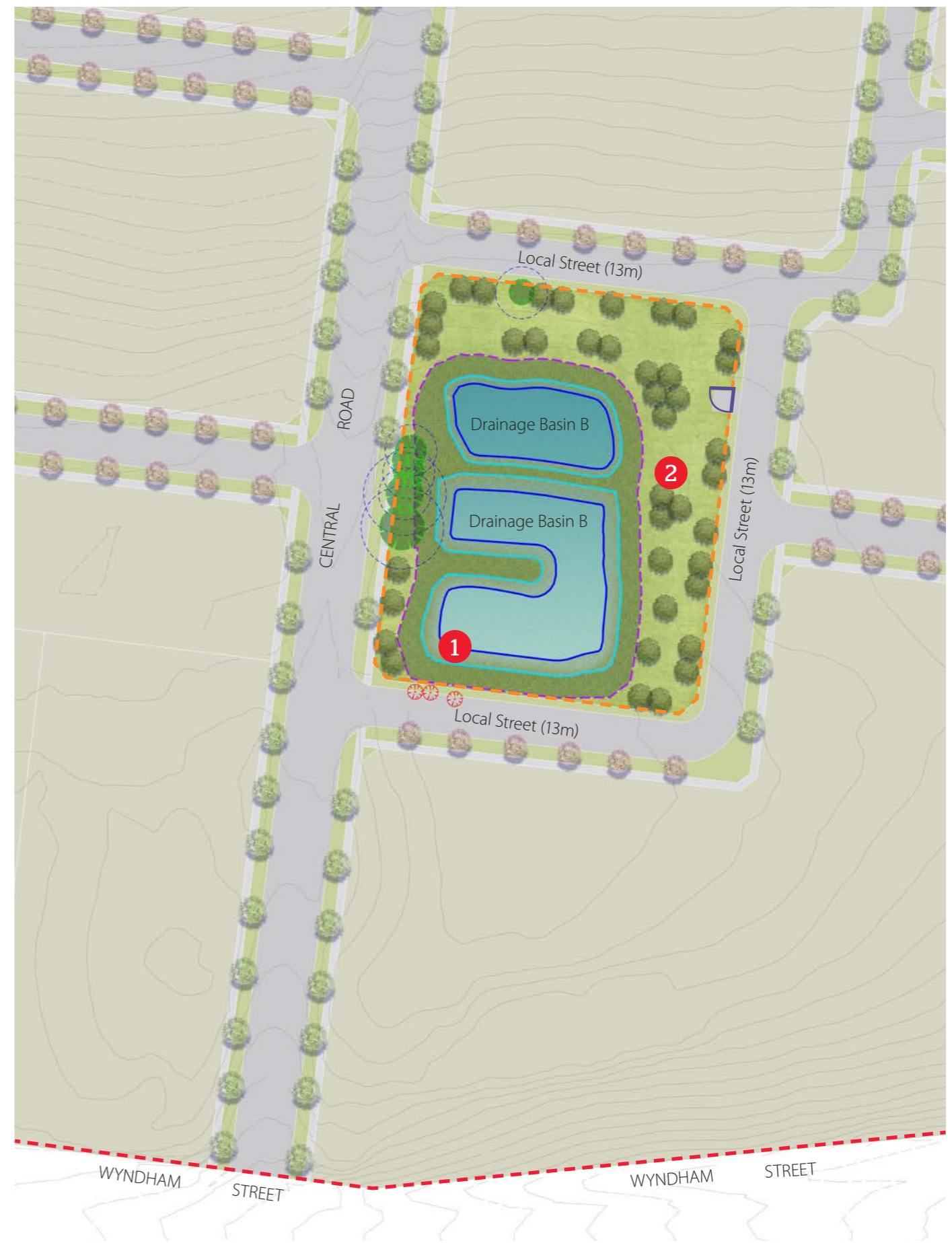
- 2 SCATTERED NATIVE TREE PLANTING



SCALE 1:1000 (A3)



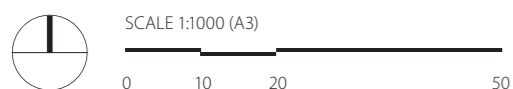
DRAFT ONLY



07 LINEAR RESERVE - OPEN SPACE MASTERPLAN

Legend

- - - DEVELOPMENT BOUNDARY
- EXISTING POST & WIRE FENCE TO BE RETAINED
- EXISTING TREES TO BE RETAINED (& TPZ) SUBJECT TO ARBORICULTURAL ASSESSMENT
- EXISTING TREES TO BE REMOVED SUBJECT TO ARBORICULTURAL ASSESSMENT
- RUBBISH BIN & DOG BAG HOLDER
- /// BIKE RACKS (X3)
- * DRINKING FOUNTAIN
- └┘ COUNCIL STANDARD MAINTENANCE ACCESS GATE
- FEATURE FARM FENCE
- - - TIMBER POST & RAIL FENCE
- 1 PEDESTRIAN LINK REFER PEDESTRIAN LINK DESIGN DEVELOPMENT
- 2 2.5M SHARED CONCRETE PATH
- 3 PICNIC & PLAY AREA WITH SCATTERED LOW PLANTING
- 4 1.5M GRAVEL PATH
- 5 SEATING ALCOVE (WITH BOULDER & LOW PLANTING)
- 6 ACTIVE OPEN SPACE
- 7 SECONDARY PICNIC NODE
- 8 ENTRANCE PLANTING
- 9 SCATTERED NATIVE TREE PLANTING
- 10 NODAL TREE/DECIDUOUS TREE

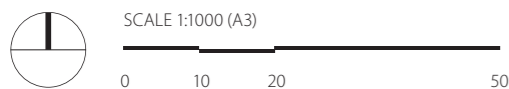


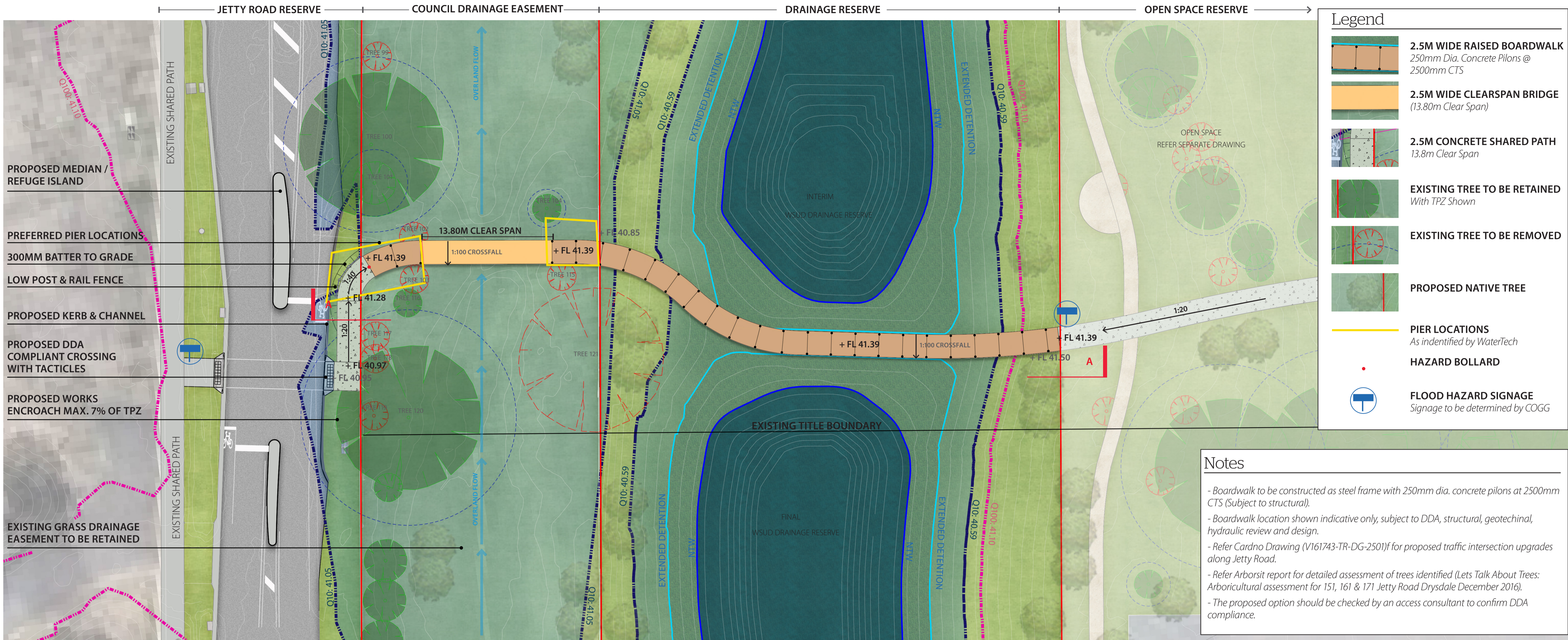
08 1HA PARK - OPEN SPACE MASTERPLAN

Legend

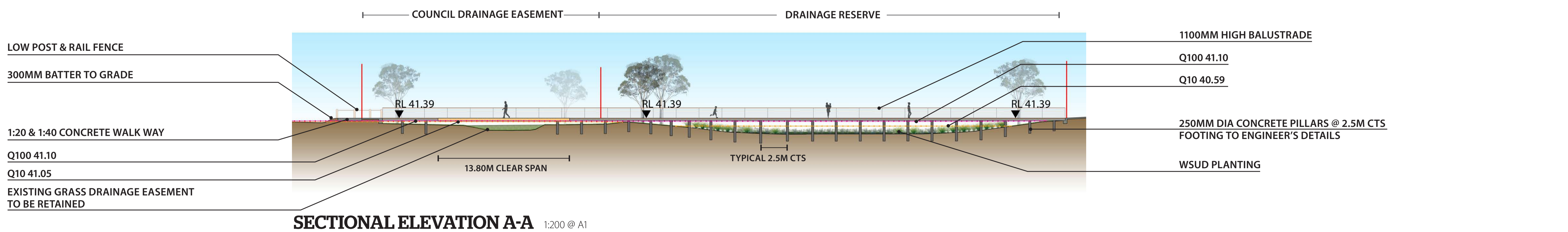
- - - DEVELOPMENT BOUNDARY
- EXISTING POST & WIRE FENCE TO BE RETAINED
- EXISTING TREES TO BE RETAINED SUBJECT TO ARBORICULTURAL ASSESSMENT
- EXISTING TREES TO BE REMOVED SUBJECT TO ARBORICULTURAL ASSESSMENT
- RUBBISH BIN & DOG BAG HOLDER
- /// BIKE RACKS (X3)
- * DRINKING FOUNTAIN
- └┘ COUNCIL STANDARD MAINTENANCE ACCESS GATE
- - - FEATURE FARM FENCE
- - - TIMBER POST & RAIL FENCE
- 1 OPEN SPACE KICKABOUT
- 2 1.5M CONCRETE PATH
- 3 PICNIC & PLAY AREA WITH SCATTERED LOW PLANTING
- 4 SEATING ALCOVE (WITH BOULDER & LOW PLANTING)
- 5 SCATTERED NATIVE TREE PLANTING
- 6 NODAL/DECIDUOUS TREE

NOTE:
EXISTING TREES SHOWN INDICATIVELY ONLY,
SUBJECT TO DETAIL ARBORICULTURAL
ASSESSMENT



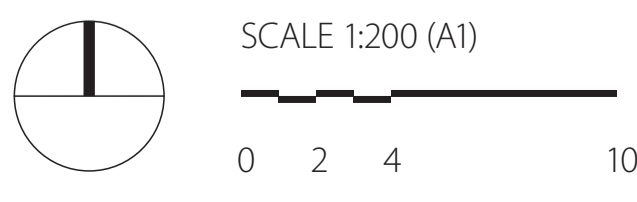


PLAN 1:200 @ A1



Notes

- Nominal freeboard of 290mm clearance allowance above Q100 (41.10) has been provided.
- All structures are located min. 340mm above Q10 (41.05). This is in general accordance with Melbourne Water / COGG guidelines for siting bridges & boardwalks.



Pedestrian Link - Design Development
Jetty / Central Road, Drysdale

OPINION OF PROBABLE COST

21-Nov-18

Revision 05

Jetty / Central Road, Drysdale

Prepared by Tract Consultants - Based on Landscape Masterplan Report

EXCLUSIONS: Signage, lighting, public art, irrigation, bulk earthworks,

LINEAR RESERVE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	TOTAL
1.0	SITE ESTABLISHMENT AND PRELIMINARIES					
	Site establishment including provisions of access, facilities, storage survey setout, insurances, traffic management, Soil Tests, temporary fencing	item	1	\$ 5,000.00	\$ 5,000.00	
	Weed Eradication deemed necessary from site inspection	Item	1	\$ 10,000.00	\$ 10,000.00	
	Arborist - pruning and dead-wooding existing trees to make safe	Unit	1	\$ 60,000.00	\$ 60,000.00	
					PRELIMINARIES SUBTOTAL	\$ 75,000.00
2.0	Fine Garding & Ground Preparation					
	Grassing Topsoil - Cultivate subgrade to 100mm depth and place 100mm imported topsoil	m2	12133	\$ 8.50	\$ 103,130.50	
	Minor Grading Works	item	1	\$ 4,000.00	\$ 4,000.00	
	Garden Bed - Cultivate subgrade to 150mm depth and place 200mm imported topsoil	m2	180	\$ 15.00	\$ 2,700.00	
	Supply and installation of 90mm Subsoil Drains including filter fabric, crushed rock, backfilling and connection to closest existing Stormwater Pit as specified.	Item	1	\$ 3,000.00	\$ 3,000.00	
					PRELIMINARIES SUBTOTAL	\$ 9,700.00
3.0	HARDWORKS					
3.1	Paving & Surfaces					
	Plain Grey Concrete with Sawcuts	m2	917	\$ 90.00	\$ 82,530.00	
	Gravel Paving	m2	558	\$ 45.00	\$ 25,110.00	
	300mm Depth Playground Softfall Mulch	m2	93	\$ 32.00	\$ 2,976.00	
3.2	Edging					
	Timber Edging to Gravel Path	Lm	607	\$ 15.00	\$ 9,105.00	
	Spade Edge to Garden Beds	Lm	16	\$ 7.00	\$ 112.00	
3.3	Picnic & Play Area					
	Picnic Area & Play Equipment	item	1	\$ 120,000.00	\$ 120,000.00	
3.4	Fencing					
	Maintennace Access Gate	item	2	\$ 1,800.00	\$ 3,600.00	
	Timber Post & Rail Fence (per 3.6m fence section)	Each	13	\$ 320.00	\$ 4,160.00	
	Feature Farm Fence	item	12	\$ 100.00	\$ 1,200.00	
					HARDWORKS SUBTOTAL	\$ 248,793.00
4.0	SOFTWORKS					
4.1	Lawn					
	Hydroseed Grass	m2	12460	\$ 2.50	\$ 31,150.00	
4.2	Trees					
	100 Litre Trees , 2.5m Height min, 40mm Cal	No.	5	\$ 350.00	\$ 1,750.00	
	75 Litre Trees , 1.8m Height min, 25mm Cal	No.	40	\$ 300.00	\$ 12,000.00	
	Native Trees (45 Litre Pots)	No.	220	\$ 220.00	\$ 48,400.00	
4.3	Planting					
	Tubestock Planting	No.	720	\$ 5.00	\$ 3,600.00	
4.4	Mulch					
	75mm organic mulch to all garden bed areas & existing TPZs	No.	3646	\$ 8.00	\$ 29,168.00	
					SOFTWORKS SUBTOTAL	\$ 126,068.00
5.0	MAINTENANCE					
	13 Week Establishment Period	Visits	13	\$ 500.00	\$ 6,500.00	
	91 week ongoing maintenance	Visits	91	\$ 200.00	\$ 18,200.00	
					SOFTWORKS SUBTOTAL	\$ 24,700.00
					LINEAR RESERVE TOTAL (ex. gst)	\$ 484,261.00
					10% CONTINGENCY TOTAL (ex. GST)	\$ 532,687.10

OPINION OF PROBABLE COST

21-Nov-18

Revision 05

Jetty / Central Road, Drysdale

Prepared by Tract Consultants - Based on Landscape Masterplan Report

EXCLUSIONS: Signage, lighting, public art, irrigation, bulk earthworks.

1 ha PARK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	TOTAL
1.0	SITE ESTABLISHMENT AND PRELIMINARIES					
	Site establishment including provisions of access, facilities, storage survey setout, insurances, traffic management, Soil Tests, temporary fencing	item	1	\$ 5,000.00	\$ 5,000.00	
	Weed Eradication deemed necessary from site inspection	Item	1	\$ 7,500.00	\$ 7,500.00	
	Arborist - pruning and dead-wooding existing trees to make safe	Item	1	\$ 65,000.00	\$ 65,000.00	
					PRELIMINARIES SUBTOTAL	\$ 77,500.00
2.0	Fine Garding & Ground Preparation					
	Grassing Topsoil - Cultivate subgrade to 100mm depth and place 100mm imported topsoil	m2	6618	\$ 8.50	\$ 56,253.00	
	Garden Bed - Cultivate subgrade to 150mm depth and place 200mm imported topsoil	m2	125	\$ 15.00	\$ 1,875.00	
	Supply and installation of 90mm Subsoil Drains including filter fabric, crushed rock, backfilling and connection to closest existing Stormwater Pit as specified.	Item	1	\$ 3,000.00	\$ 3,000.00	
					PRELIMINARIES SUBTOTAL	\$ 4,875.00
3.0	HARDWORKS					
3.1	Paving & Surfaces					
	Plain Grey Concrete with Sawcuts	m2	580	\$ 90.00	\$ 52,200.00	
	Gravel Paving	m2	62	\$ 45.00	\$ 2,790.00	
	300mm Depth Playground Softfall Mulch	m2	125	\$ 32.00	\$ 4,000.00	
3.2	Edging					
	Timber Edging to Gravel Path	Lm	75	\$ 15.00	\$ 1,125.00	
3.3	Furniture					
	Play Equipment	item	1	\$ 55,000.00	\$ 55,000.00	
	500-1000mm dia. Boulder	Each	40	\$ 60.00	\$ 2,400.00	
	Rock Stairs to Playground	Item	1	\$ 5,000.00	\$ 5,000.00	
	Litter Bins & Rubbish Bag Holders	Each	1	\$ 1,500.00	\$ 1,500.00	
	Picnic settings	Each	2	\$ 5,000.00	\$ 10,000.00	
	Drinking Fountain & Connections	Each	1	\$ 8,000.00	\$ 8,000.00	
	Benches with Back & Arms	Item	2	\$ 1,500.00	\$ 3,000.00	
	Bike Racks	Item	3	\$ 1,500.00	\$ 4,500.00	
3.4	Fencing					
	Maintennace Access Gate	item	1	\$ 1,800.00	\$ 1,800.00	
	Timber Post & Rail Fence (per 3.6m fence section)	Each	24	\$ 320.00	\$ 7,680.00	
	Feature Farm Fence	item	12	\$ 100.00	\$ 1,200.00	
					HARDWORKS SUBTOTAL	\$ 160,195.00
4.0	SOFTWORKS					
4.1	Lawn					
	Hydroseed Grass	m2	4468	\$ 2.50	\$ 11,170.00	
	Turf Grassing	m2	2040	\$ 13.00	\$ 26,520.00	
4.2	Trees					
	100 Litre Trees , 2.5m Height min, 40mm Cal	No.	3	\$ 350.00	\$ 1,050.00	
	75 Litre Trees , 1.8m Height min, 25mm Cal	No.	10	\$ 300.00	\$ 3,000.00	
	Native Trees (45 Litre Pots)	No.	90	\$ 220.00	\$ 19,800.00	
4.3	Planting					
	Tubestock Planting	No.	500	\$ 5.00	\$ 2,500.00	
4.4	Mulch					
	75mm organic mulch to all garden bed areas & existing TPZs	No.	2408	\$ 8.00	\$ 19,264.00	
					SOFTWORKS SUBTOTAL	\$ 83,304.00
5.0	MAINTENANCE					
	13 Week Establishment Period	Visits	13	\$ 500.00	\$ 6,500.00	
	91 week ongoing maintenance	Visits	91	\$ 200.00	\$ 18,200.00	
					SOFTWORKS SUBTOTAL	\$ 24,700.00
					CENTRAL PARK TOTAL (ex. gst)	\$ 350,574.00
					10% CONTINGENCY TOTAL (ex. GST)	\$ 385,631.40

OPINION OF PROBABLE COST

21-Nov-18

Revision 05

Jetty / Central Road, Drysdale

Prepared by Tract Consultants - Based on Landscape Masterplan Report

EXCLUSIONS: Signage, lighting, public art, irrigation, bulk earthworks, Topsoil (to Drainage Basin Disturbed Areas)

DRAINAGE RESERVE - A - Interim (INCLUDING COUNCIL DRAINAGE EASEMENT)

Works north of existing Title Boundary shown on plan

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	TOTAL
1.0	SITE ESTABLISHMENT AND PRELIMINARIES					
	Site establishment including provisions of access, facilities, storage survey setout, insurances, traffic management, temporary fencing	item	1	\$ 5,000.00	\$ 5,000.00	
	Rabbit Baiting Programme	item	1	\$ 2,500.00	\$ 2,500.00	
	Weed Eradication deemed necessary from site inspection	item	1	\$ 2,500.00	\$ 2,500.00	
	Arborist - pruning and dead-wooding existing trees to make safe	item	1	\$ 20,000.00	\$ 20,000.00	
					PRELIMINARIES SUBTOTAL	\$ 30,000.00
2.0	HARDWORKS					
2.1	Fencing & Gates					
	Maintenance Access Gate	Item	1	\$ 1,800.00	\$ 1,800.00	
	Timber Post & Rail Fence (per 3.6m fence section)	lm	20	\$ 320.00	\$ 6,400.00	
	Feature Farm Fence	lm	12	\$ 100.00	\$ 1,200.00	
					HARDWORKS SUBTOTAL	\$ 9,400.00
3.0	SOFTWORKS					
3.1	Lawn					
	Hydroseed Grass	m2	1800	\$ 2.50	\$ 4,500.00	
3.2	WSUD Planting					
	Wetland Planting to Aquatic/Deep Marsh/Shallow Marsh @2-3/sqm (600cc)	no.	5553	\$ 5.00	\$ 27,765.00	
	Wetland Planting to Ephemeral @ 6/sqm (Hikocell)	no.	5508	\$ 2.50	\$ 13,770.00	
	Wetland Margin @ 3/sqm (200cc)	No	5202	\$ 3.00	\$ 15,606.00	
	Jute Matt to Ephemeral Zone	m2	918	\$ 6.00	\$ 5,508.00	
3.3	Trees					
	Native Trees (45 Litre Pots)	No.	80	\$ 220.00	\$ 17,600.00	
3.4	Mulch					
	75mm Depth mulch to wetland margin	No.	1743	\$ 8.00	\$ 13,944.00	
					SOFTWORKS SUBTOTAL	\$ 98,693.00
4.0	MAINTENANCE					
	13 Week Establishment Period	Visits	13	\$ 250.00	\$ 3,250.00	
	91 week ongoing maintenance	Visits	91	\$ 150.00	\$ 13,650.00	
					SOFTWORKS SUBTOTAL	\$ 16,900.00
					DRAINAGE RESERVE A - TOTAL (ex. gst)	\$ 154,993.00
					10% CONTINGENCY TOTAL (ex. GST)	\$ 170,492.30

OPINION OF PROBABLE COST

21-Nov-18

Revision 05

Jetty / Central Road, Drysdale

Prepared by Tract Consultants - Based on Landscape Masterplan Report

EXCLUSIONS: Signage, lighting, public art, irrigation, bulk earthworks, Topsoil (to Drainage Basin Disturbed Areas)

DRAINAGE RESERVE - A - Ultimate(INCLUDING COUNCIL DRAINAGE EASEMENT)

Works south of existing Title Boundary shown on plan

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	TOTAL
1.0	SITE ESTABLISHMENT AND PRELIMINARIES					
	Site establishment including provisions of access, facilities, storage survey setout, insurances, traffic management, temporary fencing	item	1	\$ 3,500.00	\$ 3,500.00	
	Rabbit Baiting Programme	item	1	\$ 2,500.00	\$ 2,500.00	
	Weed Eradication deemed necessary from site inspection	item	1	\$ 2,500.00	\$ 2,500.00	
	Arborist - pruning and dead-wooding existing trees to make safe	item	1	\$ 5,000.00	\$ 5,000.00	
	Topsoil - Cultivate subgrade to 150mm depth and place 150mm imported topsoil	m2	1138	\$ 12.00	\$ 13,656.00	
					PRELIMINARIES SUBTOTAL	\$ 27,156.00
2.0	SOFTWORKS					
2.1	Lawn					
	Hydroseed Grass	m2	2176	\$ 2.50	\$ 5,440.00	
2.2	WSUD Planting					
	Wetland Planting to Aquatic/Deep Marsh/Shallow Marsh @2-3/sqm (600cc)	no.	2250	\$ 5.00	\$ 11,250.00	
	Wetland Planting to Ephemeral @ 6/sqm (Hikocell)	no.	2508	\$ 2.50	\$ 6,270.00	
	Wetland Margin @ 3/sqm (200cc)	No	2100	\$ 3.00	\$ 6,300.00	
	Jute Matt to Ephemeral Zone	m2	418	\$ 6.00	\$ 2,508.00	
2.3	Trees					
	Native Trees (45 Litre Pots)	No.	80	\$ 220.00	\$ 17,600.00	
2.4	Mulch					
	75mm Depth mulch to wetland margin	No.	700	\$ 8.00	\$ 5,600.00	
					SOFTWORKS SUBTOTAL	\$ 54,968.00
3.0	MAINTENANCE					
	13 Week Establishment Period	Visits	13	\$ 250.00	\$ 3,250.00	
	91 week ongoing maintenance	Visits	91	\$ 150.00	\$ 13,650.00	
					SOFTWORKS SUBTOTAL	\$ 16,900.00
					DRAINAGE RESERVE A Ultimate- TOTAL (ex. gst)	\$ 99,024.00
					10% CONTINGENCY TOTAL (ex. GST)	\$ 108,926.40

OPINION OF PROBABLE COST

21-Nov-18

Revision 05

Jetty / Central Road, Drysdale

Prepared by Tract Consultants - Based on Landscape Masterplan Report

EXCLUSIONS: Signage, lighting, public art, irrigation, bulk earthworks, Topsoil (to Drainage Basin Disturbed Areas)

DRAINAGE RESERVE - B - BASIN B

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	TOTAL
1.0	SITE ESTABLISHMENT AND PRELIMINARIES					
	Site establishment including provisions of access, facilities, storage survey setout, insurances, traffic management, temporary fencing	item	1	\$ 3,000.00	\$ 3,000.00	
	Weed Eradication deemed necessary from site inspection	item	1	\$ 2,500.00	\$ 2,500.00	
	Arborist - pruning and dead-wooding existing trees to make safe	item	1	\$ 20,000.00	\$ 20,000.00	
					PRELIMINARIES SUBTOTAL	\$ 25,500.00
2.0	HARDWORKS					
2.1	Fencing & Gates					
	Maintenance Access Gate	Item	1	\$ 1,800.00	\$ 1,800.00	
	Timber Post & Rail Fence (per 3.6m fence section)	lm	60	\$ 320.00	\$ 19,200.00	
					HARDWORKS SUBTOTAL	\$ 21,000.00
3.0	SOFTWORKS					
3.1	Lawn					
	Hydroseed Grass	m2	1000	\$ 2.50	\$ 2,500.00	
3.2	WSUD Planting					
	Wetland Planting to Aquatic/Deep Marsh/Shallow Marsh @3/sqm (600cc)	no.	3543	\$ 5.00	\$ 17,715.00	
	Wetland Planting to Ephemeral @ 6/sqm (Hikocell)	no.	3732	\$ 2.50	\$ 9,330.00	
	Wetland Margin @ 3/sqm (200cc)	No	3138	\$ 3.00	\$ 9,414.00	
	Jute Matt to Ephemeral Zone	m2	622	\$ 6.00	\$ 3,732.00	
3.3	Trees					
	Native Trees (45 Litre Pots)	No.	70	\$ 220.00	\$ 15,400.00	
3.4	Mulch					
	75mm Depth mulch to wetland margin	No.	1046	\$ 8.00	\$ 8,368.00	
					SOFTWORKS SUBTOTAL	\$ 66,459.00
4.0	MAINTENANCE					
	13 Week Establishment Period	Visits	13	\$ 200.00	\$ 2,600.00	
	91 week ongoing maintenance	Visits	91	\$ 100.00	\$ 9,100.00	
					SOFTWORKS SUBTOTAL	\$ 11,700.00
					DRAINAGE RESERVE B - TOTAL (ex. gst)	\$ 124,659.00
					10% CONTINGENCY TOTAL (ex. GST)	\$ 137,124.90

OPINION OF PROBABLE COST

21-Nov-18

Revision 03

Jetty / Central Road, Drysdale

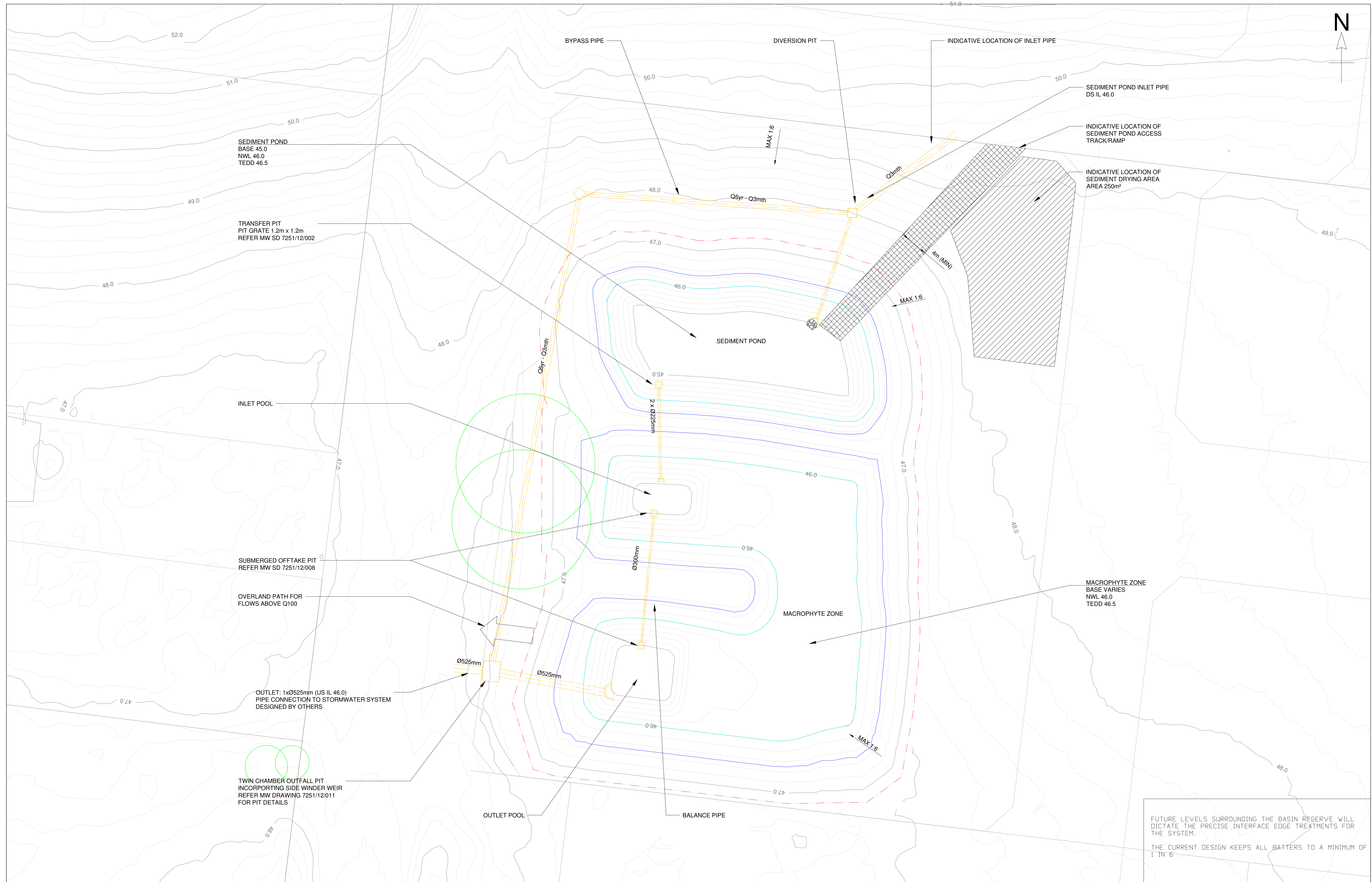
Prepared by Tract Consultants - Based on Landscape Masterplan Report (Pedestrian Link)

EXCLUSIONS: Lighting, public art, bulk earthworks.

PEDESTRIAN LINK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	TOTAL
1.0	SITE ESTABLISHMENT AND PRELIMINARIES					
	Site establishment including provisions of access, facilities, storage survey setout, insurances, traffic management, temporary fencing	item	1	\$ 10,000.00	\$ 10,000.00	
	Minor Earthworks (To achieve walkway grade & battering)	m2	1	\$ 5,000.00	\$ 5,000.00	
					PRELIMINARIES SUBTOTAL	\$ 15,000.00
2.0	HARDWORKS					
2.1	Paving & Surfaces					
	Plain Grey Concrete with Sawcuts	m2	27	\$ 90.00	\$ 2,430.00	
2.2	Decking					
	2.5m Wide Raised Boardwalk (with balustrade)	m2	154	\$ 2,250.00	\$ 346,500.00	
	2.5m Wide Clearspan Bridge (with balustrade)	m2	35	\$ 3,000.00	\$ 105,000.00	
2.3	Fencing & Gates					
	Low Post & Rail Fence	lin m	12	\$ 100.00	\$ 1,200.00	
2.4	Signage					
	Hazard Signage (Flood Warning)	Item	1	\$ 5,000.00	\$ 5,000.00	
					HARDWORKS SUBTOTAL	\$ 460,130.00
3.0	MAINTENANCE					
	104 Week Maintenance Period	Visits	13	\$ 200.00	\$ 2,600.00	
					SOFTWORKS SUBTOTAL	\$ 2,600.00
					PEDESTRIAN LINK - TOTAL (ex. gst)	\$ 477,730.00
					10% CONTINGENCY TOTAL (ex. GST)	\$ 525,503.00

APPENDIX E DRAINAGE PLANS AND COSTINGS



SEDIMENT POND
BASE 45.0
NWL 46.0
TEDD 46.5

TRANSFER PIT
PIT GRATE 1.2m x 1.2m
REFER MW SD 7251/12/002

INLET POOL

SUBMERGED OFFTAKE PIT
REFER MW SD 7251/12/008

OVERLAND PATH FOR
FLOWS ABOVE Q100

OUTLET: 1xØ525mm (US IL 46.0)
PIPE CONNECTION TO STORMWATER SYSTEM
DESIGNED BY OTHERS

TWIN CHAMBER OUTFALL PIT
INCORPORATING SIDE WINDER WEIR
REFER MW DRAWING 7251/12/011
FOR PIT DETAILS

BYPASS PIPE

DIVERSION PIT

INDICATIVE LOCATION OF INLET PIPE

SEDIMENT POND INLET PIPE
DS IL 46.0

INDICATIVE LOCATION OF
SEDIMENT POND ACCESS
TRACK/RAMP

INDICATIVE LOCATION OF
SEDIMENT DRYING AREA
AREA 250m²

SEDIMENT POND

MACROPHYTE ZONE

MACROPHYTE ZONE
BASE VARIES
NWL 46.0
TEDD 46.5

OUTLET POOL

BALANCE PIPE

FUTURE LEVELS SURROUNDING THE BASIN RESERVE WILL
DICTATE THE PRECISE INTERFACE EDGE TREATMENTS FOR
THE SYSTEM.
THE CURRENT DESIGN KEEPS ALL BATTERS TO A MINIMUM OF
1 IN 6

Issue	Description	Date	Issue	Description	Checked	Approved	Date
03	REVISED RB BATTERS	TJC	09/07/2018				
02	REVISED RB BATTERS TO NO STEEPER THAN 1 IN 6	BFS	01/05/2018				
01	PRELIMINARY ISSUE	CBD	05/04/2018				

Scale **HORZ 1:200**
VERT 1:200

Client **ST QUENTIN**

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Drawn ADV/BYT
Designed BFS/ADV
Modelled BFS
Project: **J4663-02**

Legend

- NORMAL WATER LEVEL (NWL)
- TOP EXTENDED DETENTION DEPTH (TEDD)
- SEDIMENT DRYING AREA
- PROPOSED PIPES
- GOOD RETENTION VALUE VEGETATION
- 1% AEP FLOOD LEVEL (47.2)

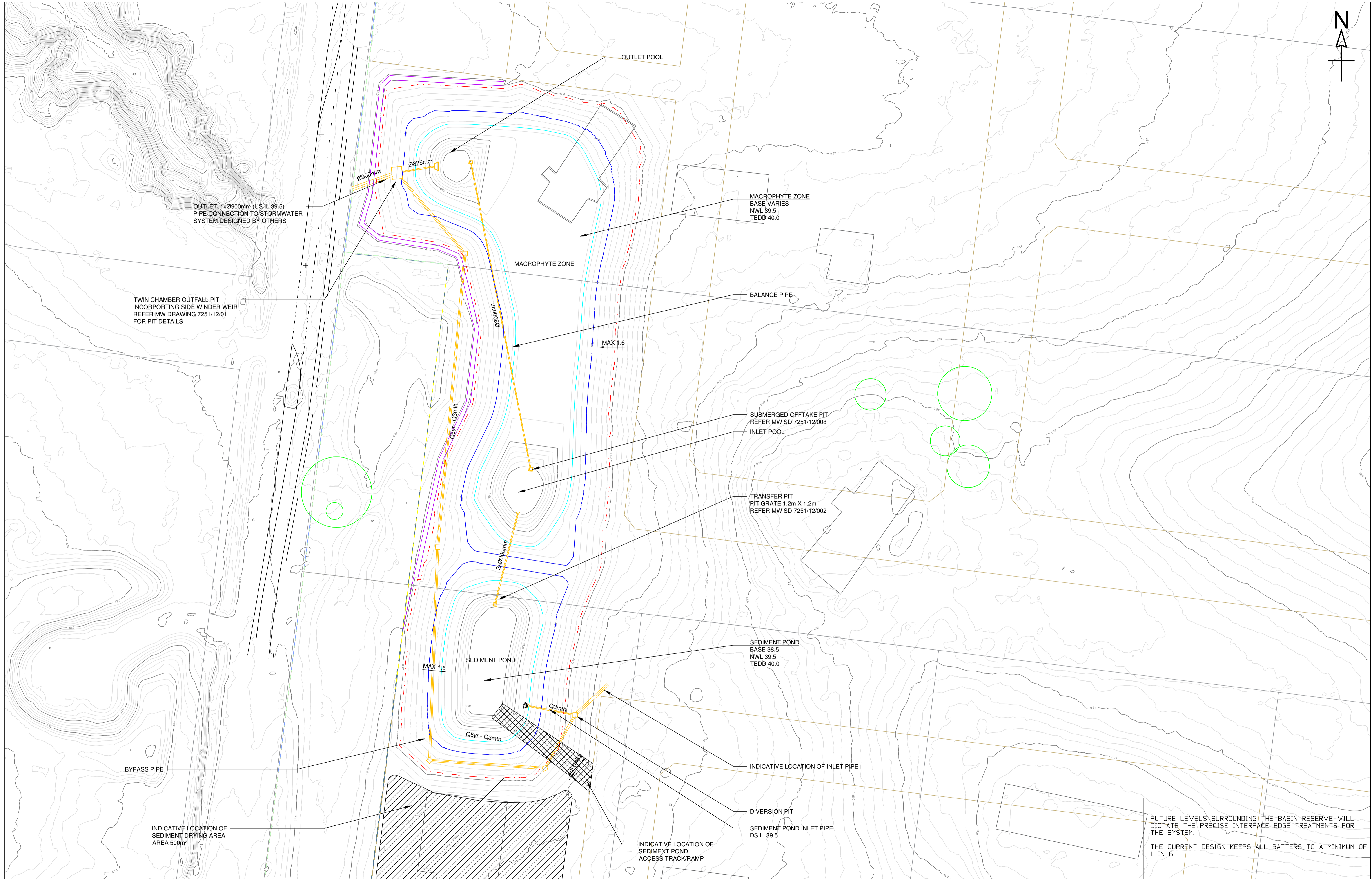
Water Technology
Pty Ltd

15 Business Park Drive
Notting Hill
VIC 3168
ACN 056 019 713

Tel: +61 3 8526 0800
Fax: +61 3 9558 9365
Email: admin@watertech.com.au
Web: http://www.watertech.com.au

Title **CENTRAL ROAD, DRYSDALE
US WL/RB
FUNCTIONAL LAYOUT PLAN**

Dwg. No. **1**
Job No. **J4663-02**
Page Size **A1**



Issue	Description	Approved	Date	Issue	Description	Checked	Approved	Date
03	REVISED RB BATTERS	TJC	09/07/2018					
02	REVISED RB BATTERS TO NO STEEPER THAN 1 IN 6	BFS	01/05/2018					
01	PRELIMINARY ISSUE	CBD	05/04/2018					

Scale
 HORZ 1:400
 VERT 1:400

Client
 ST QUENTIN

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Drawn
 ADV/BYT

Designed
 BFS/ADV

Modelled
 BFS

Project:
 J4663-02

- Legend
- NORMAL WATER LEVEL (NWL)
 - TOP EXTENDED DETENTION DEPTH (TEDD)
 - BASIN EMBANKMENT
 - SEDIMENT DRYING AREA
 - PROPOSED PIPES
 - GOOD RETENTION VALUE VEGETATION
 - - - 1% AEP FLOOD LEVEL (40.9)

Water Technology
 Pty Ltd

15 Business Park Drive
 Notting Hill
 VIC 3168
 ACN 056 019 713

Tel: +61 3 8526 0800
 Fax: +61 3 9558 9365
 Email: admin@watertech.com.au
 Web: http://www.watertech.com.au

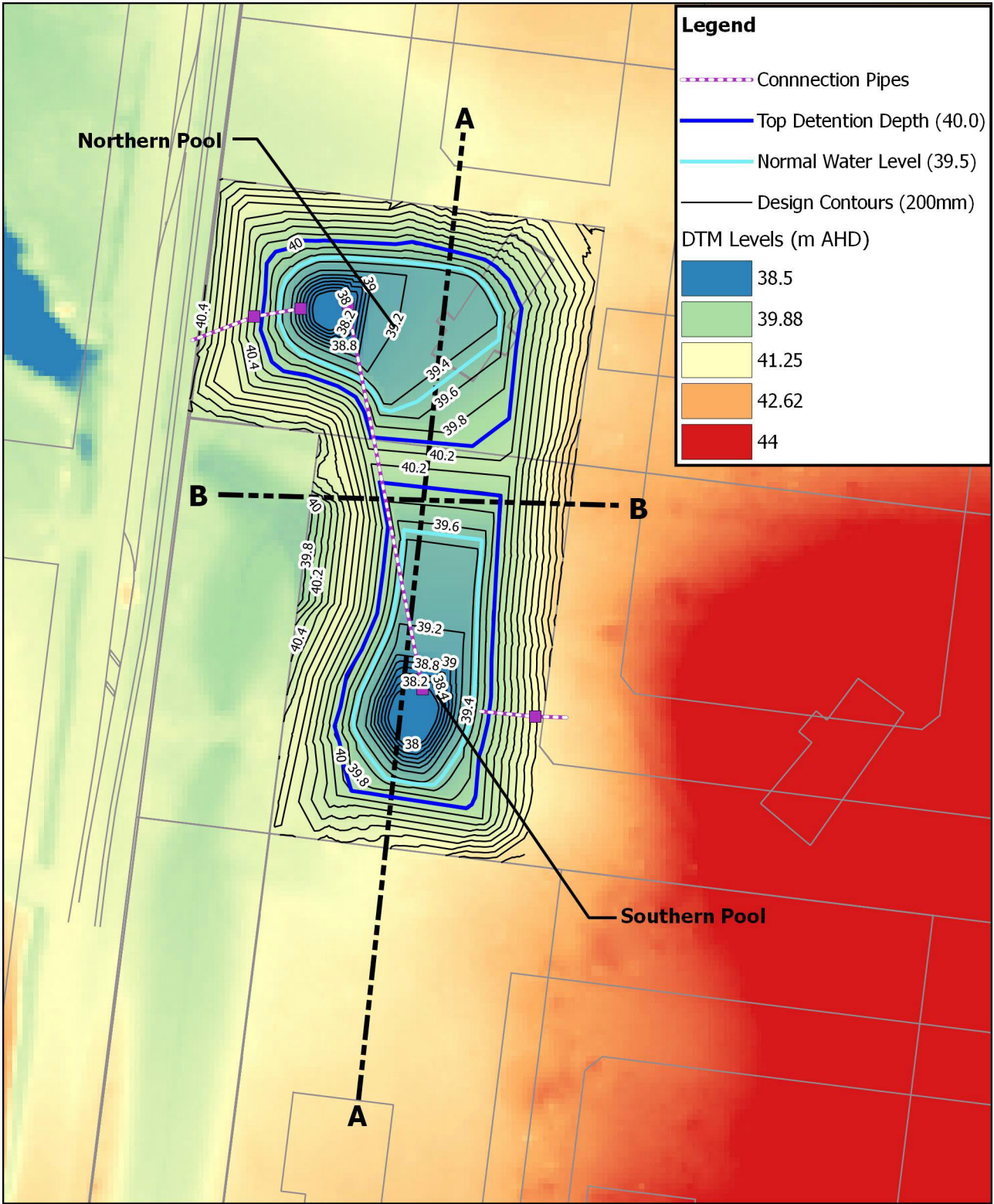
Title
**CENTRAL ROAD, DRYSDALE
 DS WL/RB
 FUNCTIONAL LAYOUT PLAN**

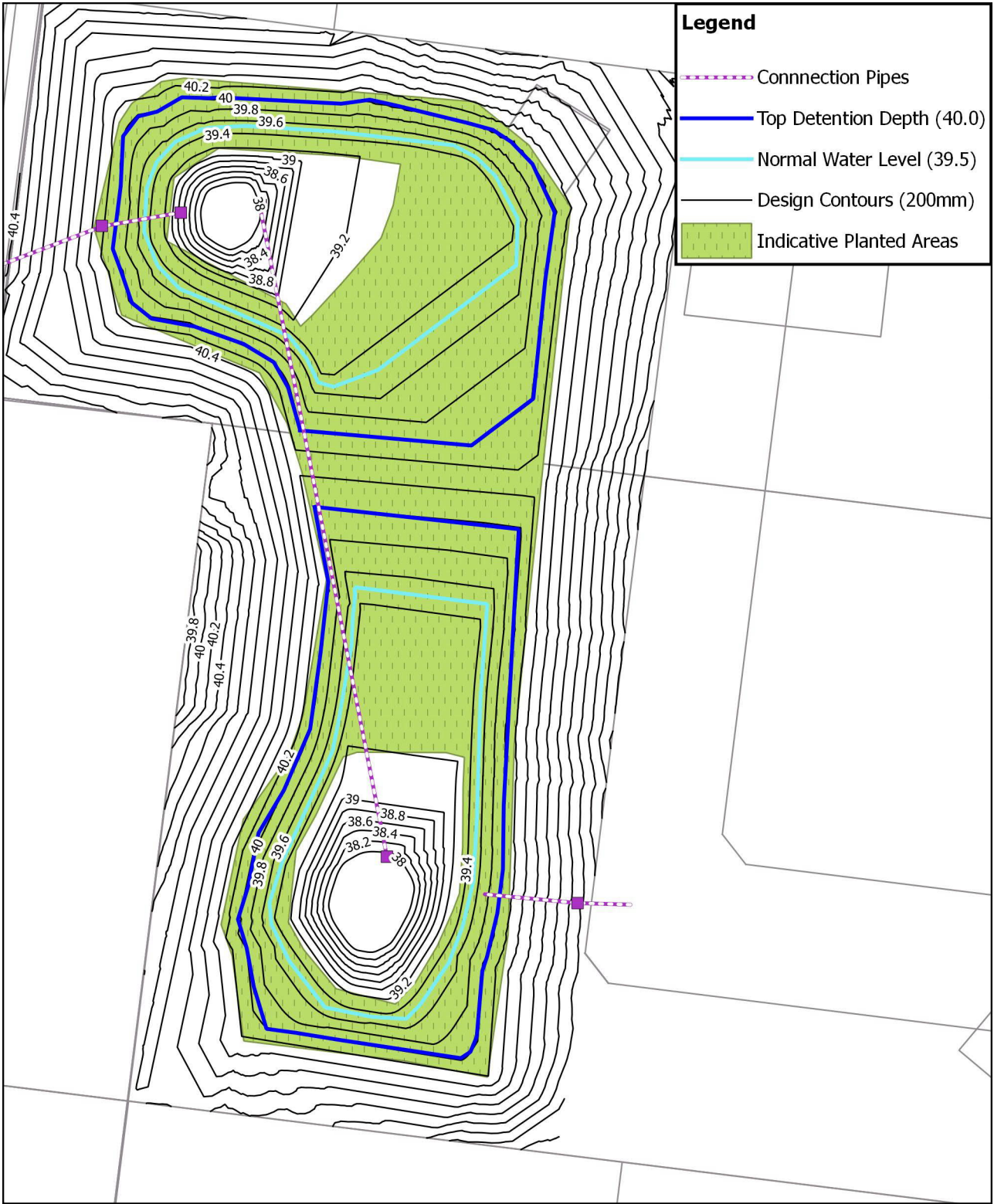
Dwg. No.
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Job No.
 J4663-02






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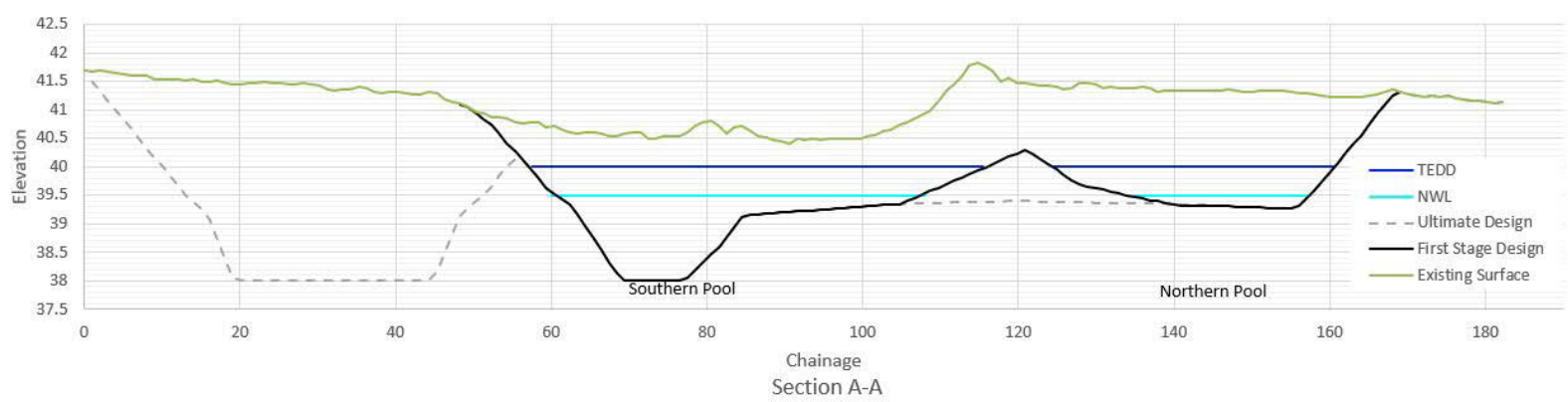
FUTURE LEVELS SURROUNDING THE BASIN RESERVE WILL DICTATE THE PRECISE INTERFACE EDGE TREATMENTS FOR THE SYSTEM.
 THE CURRENT DESIGN KEEPS ALL BATTERS TO A MINIMUM OF 1 IN 5





Legend

-  Connection Pipes
-  Top Detention Depth (40.0)
-  Normal Water Level (39.5)
-  Design Contours (200mm)
-  Indicative Planted Areas



PRELIMINARY ESTIMATE OF BASIN CONSTRUCTION



Part C: Ultimate Basin - Upstream

Ref: 14246
Date: 5/09/2018

Superintendent

St. Quentin Consulting Pty.Ltd
51 Little Fyans Street,
Geelong, 3220

Item	Description	Quantity	Unit	Rate	Amount
1.0	SITE WORKS AND EARTHWORKS				
1.1	Site establishment including provision of access, survey setout, preparation of site management	1	Item	\$10,000.00	\$10,000.00
2	Basin Earthworks				
2.1	Strip 150mm of topsoil and stockpile onsite. Hydromulch stockpile.	3900.00	sq.m	\$0.80	\$3,120.00
2.2	Cut (Solid)	2577	cu.m	\$20.00	\$51,540.00
2.3	Fill (Solid)	381.00	cu.m	\$25.00	\$9,525.00
2.4	Reinstate 150mm topsoil to disturbed areas and hydromulch.	2650.00	sq.m	\$4.00	\$10,600.00
2.5	Reinstate 150mm topsoil to disturbed areas with Jute matting and hydromulch.	1000.00	sq.m	\$12.00	\$12,000.00
2.6	Sedimentation Basin Rock (400mm)	128.00	sq.m	\$70.00	\$8,960.00
2.8	150 mm thick compact crushed rock with 100mm thick layer of ballast type material on top	250.00	sq.m	\$30.00	\$7,500.00
3	Pavement(s)				
3.1	Trimming, preparation and compaction of subgrade	280.00	sq.m	\$1.00	\$280.00
3.2	Basecourse - 100 mm compacted depth, 40mm class 4 FCR	280.00	sq.m	\$16.50	\$4,620.00
3.3	Subbase - 100 mm compacted depth, 40mm class 4 FCR	280.00	sq.m	\$16.50	\$4,620.00
3.4	Gravel maintance access ramp in sedimentation basin.				
3.5	Trimming, preparation and compaction of subgrade	40.00	sq.m	\$2.10	\$84.00
3.6	Basecourse - 100 mm compacted depth, 40mm class 4 FCR with 6% cement stabalized below NWL	40.00	sq.m	\$25.00	\$1,000.00
3.7	Subbase - 100 mm compacted depth, 40mm class 4 FCR with 6% cement stabalized below NWL	40.00	sq.m	\$25.00	\$1,000.00
4.0	Drainage				
4.1	300mm dia Pipe	13.0	l.m	120	\$1,560.00
4.2	2 X 300mm dia Pipe	13.00	l.m	200	\$2,600.00
4.3	525mm dia Pipe	85.0		250	\$21,250.00
4.4	Junction pit 1200 X 1200mm	3.0	No.	\$2,500.00	\$7,500.00
4.5	Submergeged offtake pit	2.0	No.	\$2,500.00	\$5,000.00
4.6	End Wall - 375mm dia	1.00	No.	\$685.00	\$685.00
4.7	End Wall - 2 X 375mm dia	1.00	No.	\$2,000.00	\$2,000.00
4.8	Basin Twin Chamber Outfall Pit	1.00	Item	\$12,500.00	\$12,500.00
4.9	Rock Beaching	2.00	Item	\$500.00	\$1,000.00
5	Structural				
5.1	Rock gabion 1x1m	125.00	l.m	\$500.00	\$62,500.00
6	PROVISIONAL ALLOWANCE - Include an amount of 15% of the estimated cost of the works				
6.1	Not be expended without written instruction of the Superintendent	1	Item		\$36,216.60
Tender Amount (GST exclusive)					\$277,660.60
Plus 10% GST					\$27,766.06
LUMP SUM TOTAL (inclusive of GST)					\$305,426.66

PRELIMINARY ESTIMATE OF BASIN CONSTRUCTION



Part A: Down Stream - Interim Basin

Ref: 14246
Date: 5/09/2018

Superintendent

St. Quentin Consulting Pty.Ltd
51 Little Fyans Street,
Geelong, 3220

Item	Description	Quantity	Unit	Rate	Amount
1.0	SITE WORKS AND EARTHWORKS				
1.1	Site establishment including provision of access, survey setout, preparation of site management	1	Item	\$10,000.00	\$10,000.00
2.0	Basin Earthworks				
2.1	Strip 150mm of topsoil and stockpile onsite. Hydromulch stockpile.	6990.00	sq.m	\$0.80	\$5,592.00
2.2	Cut (Solid)	5964	cu.m	\$20.00	\$119,280.00
2.3	Fill (Solid)	406.00	cu.m	\$25.00	\$10,150.00
2.4	Reinstate 150mm topsoil to disturbed areas and hydromulch.	5890.00	sq.m	\$4.00	\$23,560.00
2.5	Reinstate 150mm topsoil to disturbed areas with Jute matting and hydromulch.	1100.00	sq.m	\$12.00	\$13,200.00
2.7	Sediment drying area: 150 mm thick compact crushed rock topped with 100mm thick layer of ballast type material	500.00	sq.m	\$30.00	\$15,000.00
3.0	Pavement(s)				
3.1	Trimming, preparation and compaction of subgrade	600.00	sq.m	\$1.00	\$600.00
3.2	Basecourse - 100 mm compacted depth, 40mm class 4 FCR	600.00	sq.m	\$16.50	\$9,900.00
3.3	Subbase - 100 mm compacted depth, 40mm class 4 FCR	600.00	sq.m	\$16.50	\$9,900.00
4.0	Drainage				
4.1	300mm dia Pipe	75.0	l.m	120	\$9,000.00
4.2	450mm dia Pipe	15.0	l.m	170	\$2,550.00
4.3	825mm dia Pipe	7.0	l.m	350	\$2,450.00
4.4	900mm dia Pipe	8.0	l.m	400	\$3,200.00
4.5	Junction pit 1200 X 1200mm	1.0	No.	\$2,500.00	\$2,500.00
4.6	Submerged offtake pit	2.0	No.	\$2,500.00	\$5,000.00
4.6	End Wall - 450mm dia	1	No.	\$753.50	\$753.50
5.6	End Wall - 825mm dia	1	No.	\$1,500.00	\$1,500.00
5.12	Rock Beaching	4.00	Item	\$500.00	\$2,000.00
5.16	Basin Twin Chamber Outfall Pit	1.00	Item	\$12,500.00	\$12,500.00
5.0	PROVISIONAL ALLOWANCE - Include an amount of 15% of the estimated cost of the works				
5.10	Not be expended without written instruction of the Superintendent	1	Item		\$38,795.33
Tender Amount (GST exclusive)					\$297,430.83
Plus 10% GST					\$29,743.08
LUMP SUM TOTAL (inclusive of GST)					\$327,173.91

PRELIMINARY ESTIMATE OF BASIN CONSTRUCTION



Part B: Down Stream - Ultimate Basin

Ref: 14246
Date: 5/09/2018

Superintendent

St. Quentin Consulting Pty.Ltd
51 Little Fyans Street,
Geelong, 3220

Item	Description	Quantity	Unit	Rate	Amount
1.0	SITE WORKS AND EARTHWORKS				
1.1	Site establishment including provision of access, survey setout, preparation of site management	1	Item	\$10,000.00	\$10,000.00
2	Basin Earthworks				
2.1	Strip 150mm of topsoil and stockpile onsite. Hydromulch stockpile.	5800.00	sq.m	\$0.80	\$4,640.00
2.2	Cut (Solid)	3125	cu.m	\$20.00	\$62,500.00
2.3	Fill (Solid)	119.00	cu.m	\$25.00	\$2,975.00
2.4	Reinstate 150mm topsoil to disturbed areas and hydromulch.	4800.00	sq.m	\$4.00	\$19,200.00
2.5	Reinstate 150mm topsoil to disturbed areas with Jute matting and hydromulch.	650.00	sq.m	\$12.00	\$7,800.00
2.6	Sedimentation Basin Rock (400mm)	262.00	sq.m	\$70.00	\$18,340.00
2.8	Sediment drying area: 150 mm thick compact crushed rock topped with 100mm thick layer of ballast type material	500.00	sq.m	\$30.00	\$15,000.00
3	Pavement(s)				
3.1	Trimming, preparation and compaction of subgrade	320.00	sq.m	\$1.00	\$320.00
3.2	Basecourse - 100 mm compacted depth, 40mm class 4 FCR	320.00	sq.m	\$16.50	\$5,280.00
3.3	Subbase - 100 mm compacted depth, 40mm class 4 FCR	320.00	sq.m	\$16.50	\$5,280.00
3.4	Gravel maintance access ramp in sedimentation basin.				
3.5	Trimming, preparation and compaction of subgrade	40.00	sq.m	\$2.10	\$84.00
3.6	Basecourse - 100 mm compacted depth, 40mm class 4 FCR with 6% cement stabalized below NWL	40.00	sq.m	\$25.00	\$1,000.00
3.7	Subbase - 100 mm compacted depth, 40mm class 4 FCR with 6% cement stabalized below NWL	40.00	sq.m	\$25.00	\$1,000.00
4.0	Drainange				
4.1	2 X 300mm dia Pipe	13.00	l.m	200	\$2,600.00
4.2	450mm dia Pipe	15.00	l.m	170	\$2,550.00
4.3	750mm dia Pipe	232.00	l.m	330	\$76,560.00
4.4	Junction pit 1200 X 1200mm	6.0	No.	\$2,500.00	\$15,000.00
4.5	End Wall - 300mm dia	1.00	No.	\$640.00	\$640.00
4.6	End Wall - 2 X 300mm dia	1.00	No.	\$2,000.00	\$2,000.00
4.7	Rock Beaching	3.00	Item	\$500.00	\$1,500.00
5.0	PROVISIONAL ALLOWANCE - Include an amount of 15% of the estimated cost of the works				
5.10	Not be be expended without written instruction of the Superintendent	1	Item		\$38,140.35
Tender Amount (GST exclusive)					\$292,409.35
Plus 10% GST					\$29,240.94
LUMP SUM TOTAL (inclusive of GST)					\$321,650.29

Urban Enterprise

Level 1 302-304 Barkly Street,
Brunswick VIC 3056

(03) 9482 3888

www.urbanenterprise.com.au

