Wonthaggi North East

Development Contributions Plan

November 2020

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SUMMARY

Table 1 provides an overview of the project categories and charges included within this Development Contributions Plan. A more detailed explanation of apportionment, methods of calculation, and the description and costs of individual projects is included within the document.

Table 1 Summary of charges

Summary - Net Developable Area (NDA) by charge area		
Charge area	**Hectares**	**Proportion of Total**
Residential (NDA-R)	**455.05**	**88%**
Employment (NDA-C)	**63.86**	**12%**
Total	**518.92**	**100%**

Summary - Development		
Charge area	**Total Cost of Contribution**	**Contribution per Net Developable Hectare (NDHa)**
Residential	$75,834,287	$166,649
Employment	$8,856,025	$138,678

Summary - Development infrastructure costs			
Projects	**Estimated Land Cost**	**Estimated Construction Cost**	**Total cost of project**
Roads	$0	$3,277,000	$3,277,000
Intersections	$424,220	$14,884,000	$15,308,220
Sub total Transport	$424,220	$18,161,000	$18,585,220
Bridges/Culverts	$0	$4,522,542	$4,522,542
Drainage	$12,939,267	$35,915,385	$48,854,652
Sub total Drainage	$12,939,267	$40,437,927	$53,377,194
Community Facilities	$794,954	$3,748,220	$4,543,174
Active Recreation	$1,204,605	$6,980,119	$8,184,724
Sub total Active Rec/Community	$1,999,559	$10,728,339	$12,727,898
Total	**$15,363,046**	**$69,327,265**	**$84,690,311**

Summary - Community infrastructure levy		
	Estimated dwellings	**Estimated total contribution**
Capped at $1116.52 per dwelling	**5,006**	**$5,588,850**

Summary - Total levies to be collected			
Infrastructure Type	**Total cost of project**	**Total levy collected**	**Estimated Total Contribution**
Development Infrastructure	$84,690,311	$84,690,311	$90,279,161
Community Infrastructure	$5,588,850	$5,588,850	

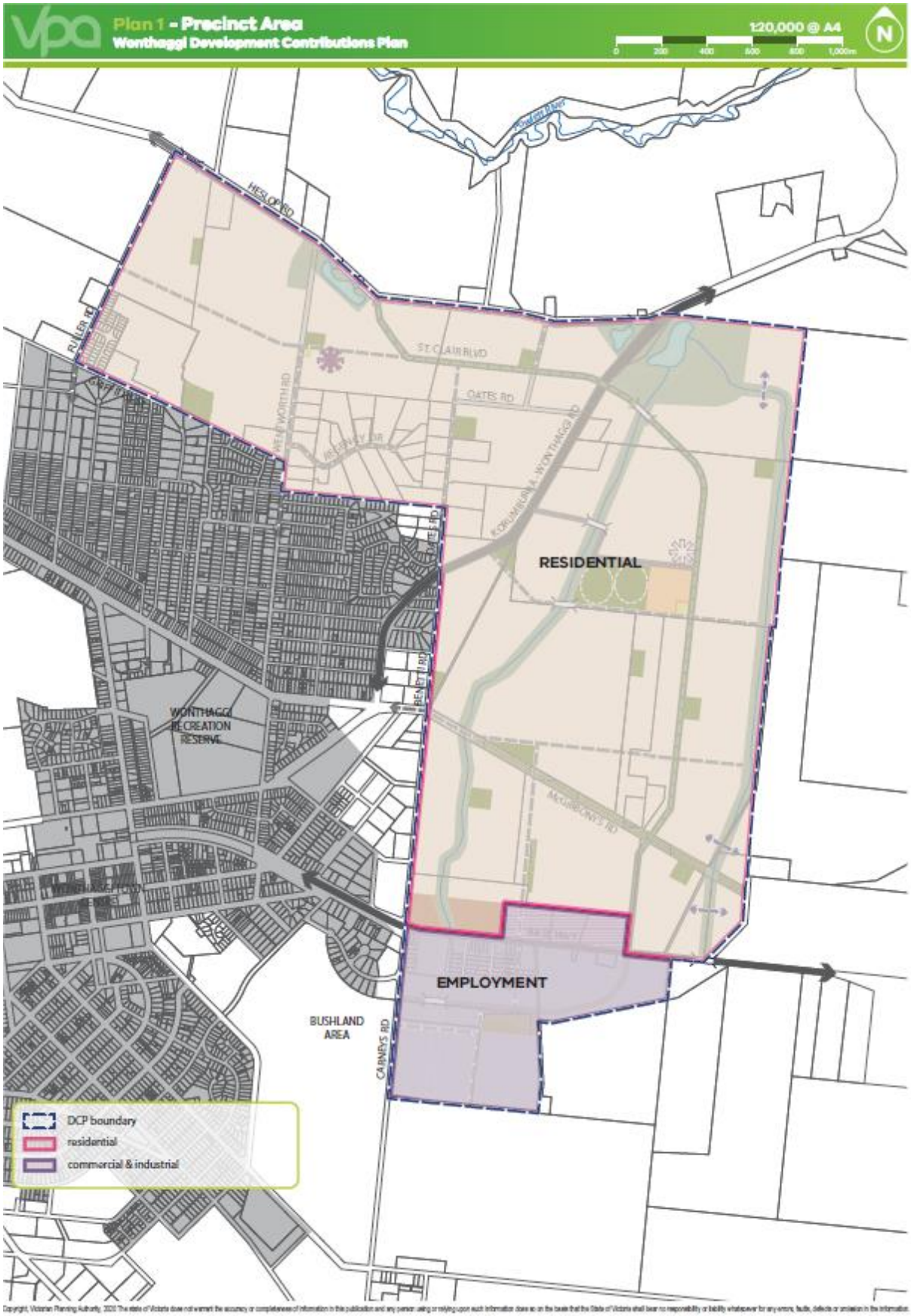


Figure 1 Precinct Area

1 INTRODUCTION

The Wonthaggi North East Development Contributions Plan (DCP) has been prepared by the Bass Coast Shire Council in partnership with the Victorian Planning Authority (VPA).

The DCP:

- Outlines projects required to ensure that future residents, visitors and workers in the precinct can be provided with timely access to infrastructure and services necessary to support a quality and affordable lifestyle.
- Establishes a framework for development proponents to make a financial contribution towards the cost of identified infrastructure projects.
- Ensures the cost of providing new infrastructure and services is shared equitably between various development proponents and the wider community.
- Provides the details of the calculation of financial contributions that must be made by future developments towards the nominated projects.
- Provides developers, investors and the local community with certainty about development contribution requirements and how these will be administered.

The DCP document comprises five parts:

PART 1 – STRATEGIC BASIS Part 1 clearly explains the strategic basis for the DCP.
PART 2 – JUSTIFICATION Part 2 provides justification for the various infrastructure projects included in the DCP.
PART 3 – CALCULATION OF CONTRIBUTIONS Part 3 sets out how the development contributions are calculated and costs apportioned.
PART 4 – ADMINISTRATION Part 4 focuses on administration of the DCP.
PART 5 – IMPLEMENTATION Part 5 focuses on implementation of the DCP.

The strategic basis for the DCP is informed by:

- State and Local Planning Policy Framework as set out in the Bass Coast Planning Scheme
- *Precinct Structure Planning Guidelines* (Growth Areas Authority, 2008)
- *Infrastructure Design Manual* (Local Government Infrastructure Design Association)
- *Wonthaggi North East Precinct Structure Plan* and supporting documents.

These documents set out a broad, long term vision for the sustainable development of the precinct and its surrounds.

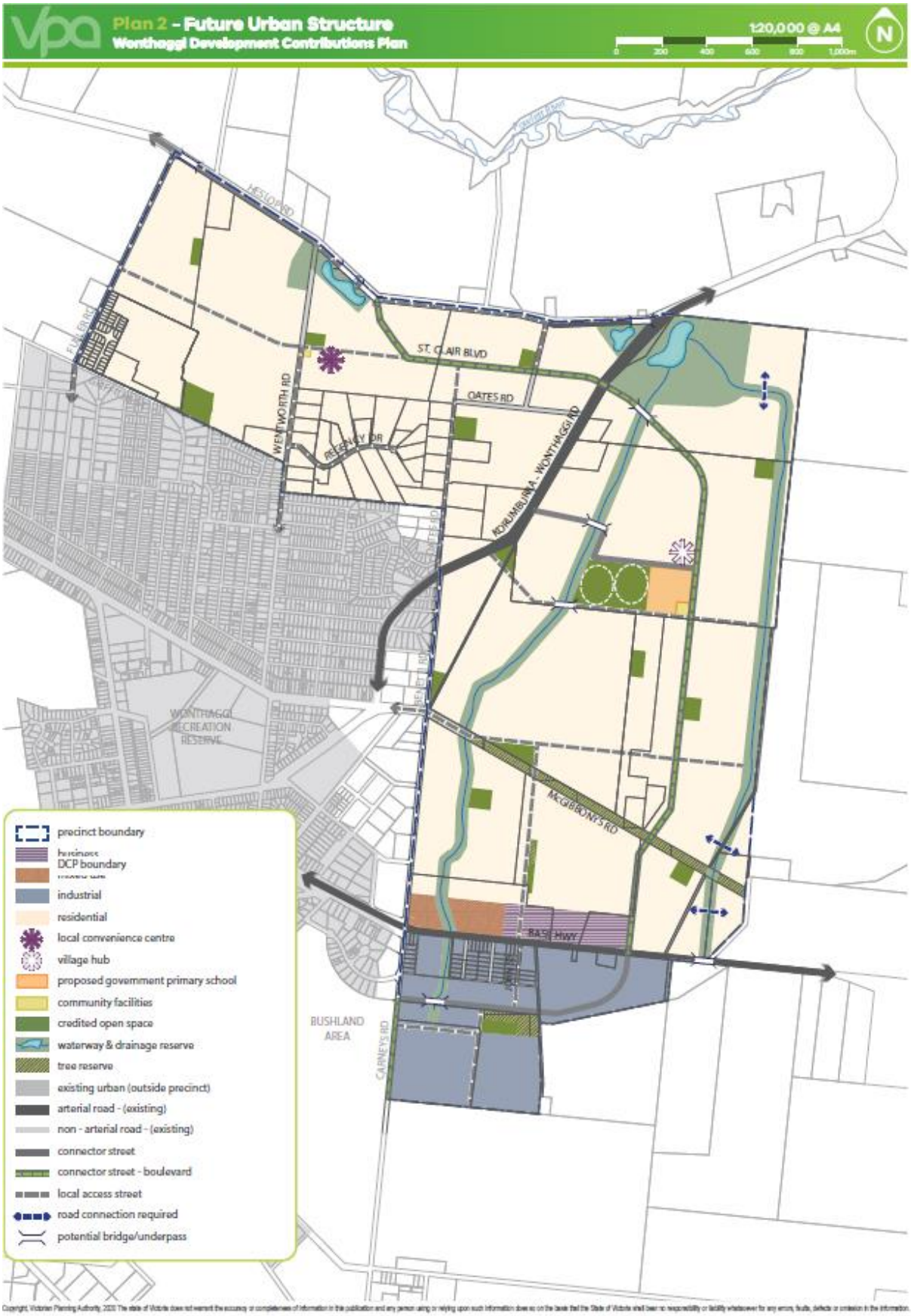


Figure 2 Future Urban Structure

1.1 *Planning and Environment Act 1987*

The DCP has been prepared in accordance with Part 3B of the *Planning and Environment Act 1987* (the Act) as well as other relevant legislation and has been developed in line with the State and Local Planning Policy Framework of the Bass Coast Planning Scheme. It is consistent with the *Ministerial Direction on the Preparation and Content of Development Contributions Plans and Ministerial Reporting Requirements for Development Contributions Plans* made under section 46M(1) of the Act and has had regard to the Victorian Government's Development Contributions Plan Guidelines.

The DCP provides for the charging of a Development Infrastructure Levy (DIL) pursuant to section 46J(a) of the Act towards works, services and facilities. It also provides for the charging of a Community Infrastructure Levy (CIL) pursuant to section 46J(b) of the Act as some items are classified as community infrastructure by reference to the Act, the Ministerial Direction on development contributions plans and the Development Contributions Plan Guidelines.

The DCP forms part of the Bass Coast Planning Scheme pursuant to section 46I of the Act and is an incorporated document under Clause 81 of the Bass Coast Planning Scheme. The DCP is implemented in the Bass Coast Planning Scheme through Schedule 1 to the Development Contributions Plan Overlay (DCPO1) that applies to the 'DCP area' illustrated on Plan 2.

1.2 Strategic Planning for Wonthaggi North East

The need for the infrastructure included within the DCP has been determined according to the anticipated development identified in Plan 2 of the Wonthaggi North East Precinct Structure Plan (the PSP). The PSP provides the rationale and justification for infrastructure items that have been included. Accordingly, the DCP is an implementation-based planning tool which identifies the infrastructure items required by the new community and apportions the cost of this infrastructure in an equitable manner across the plan area.

The Wonthaggi North East Background Report dated August provides an overview of the considerations that have informed the PSP and DCP.

1.3 Wonthaggi North East Precinct Structure Plan

The PSP sets out the vision for how land should be developed, illustrates the future urban structure and describes the objectives to be achieved by the future development. It also outlines the projects required to ensure that future residents, visitors and workers within the area are provided with timely access to service and transport infrastructure necessary to support a quality affordable lifestyle.

The PSP enables urban development and the future urban structure of the new community is depicted through a number of networks, including transport, open space and sporting reserves, community facilities, centres and housing.

The Wonthaggi North East precinct will deliver approximately 5000 dwellings to accommodate approximately 12,000 residents.

1.4 The area to which the Development Contributions Plan applies

In accordance with section 46K(1)(a) of the Act, the DCP applies to land illustrated on Plan 2; this area is known as the main catchment area (MCA). The area is identified as DCPO1 in the Bass Coast Planning Scheme.

In identifying infrastructure items for delivery, where items are wholly or in part funded by a mechanism other than this Development Contributions Plan, this has been identified in the Appendix A to this report

Table 2 Charge areas

Class of Development	Net Developable Area (Hectares)
Residential	455.05
Employment	63.86
Total	**518.92**

1.5 Related infrastructure agreements

A number of additional infrastructure agreements relate to the precinct area. These include Section 173 agreements of the *Planning and Environment Act 1987* that have been entered into to contribute funds towards infrastructure within the precinct.

An itemised account of infrastructure listed in the approved Section 173 Agreements is detailed in Appendix A.

1.6 Project identification and property identification

1.6.1 Project identification

The DCP uses a project identification system of project category and sequential number in its tables and plans. The following types of projects are included in the DCP:

- Transport projects
  - RD – Roads
  - IN – Intersections
- Community facility projects
  - CI – Community facilities
- Active recreation projects
  - SR – Sports reserve
- Drainage projects
  - RB – Retarding basins & piped drains
  - CU- Culverts
  - WL - Wetland

1.6.2 Property identification

Each of the properties in the Wonthaggi North East precinct has been given a unique property identification number that reflects the property numbers included within the PSP.

2 INFRASTRUCTURE PROJECT JUSTIFICATION

2.1 Infrastructure items included in the Development Contributions Plan

The need for infrastructure included in the DCP has been determined on the basis of the development scenario as described in the PSP and its supporting documents.

Items can be included in a DCP if the proposed development of an area is likely to create the need for infrastructure by its future community. New development does not have to trigger the need for new items in its own right. Furthermore, an item can be included in a DCP regardless of whether it is within or outside the DCP area.

Before inclusion in the DCP, all items have been assessed to ensure they have a relationship or nexus to proposed development in the PSP. The cost apportionment methodology adopted in the DCP relies on the nexus principle. A new development is deemed to have a nexus with an item if it is expected to make use of that item.

The infrastructure projects that have been included in the DCP all have the following characteristics:

- They are essential to the health, safety and wellbeing of the community;
- They will be used by a broad cross-section of the community;
- The will reflect the vision and strategic aspirations expressed in the PSP;
- They are not recurrent items; and
- The are the basis for the future development of an integrated network.

2.2 Infrastructure items not included in the Development Contributions Plan (developer works)

The following infrastructure is not included in the DCP, as it is considered to be normal to the construction of a development and is not considered to warrant cost sharing arrangements beyond those set out in this DCP and must be provided by developers as a matter of course and/or pursuant to agreements with servicing agencies in implementing the PSPs:

- Internal streets including creek and drainage line crossings and associated traffic management measures (except where nominated within this DCP);
- Waterway management works and drainage systems (except where nominated within this DCP);
- Intersections connecting the development to the existing road network (except where nominated within this DCP);
- Water, sewerage, underground power, gas and telecommunications services;
- Local pathways and connections to the regional and/or district pathway network;
- Basic levelling and water tapping of local parks;
- Preparation of local park masterplans and any associated works required by the PSP;
- Councils plan checking and supervision; and
- Bus stops.

This iInfrastructure is usually addressed and defined by an agreement under Section 173 of the Act and/or/ conditions in planning permits.

2.3 Infrastructure projects

The following four types of infrastructure projects are included in the DCP:

- Transport
- Recreation
- Community; and
- Drainage.

2.2.1 Transport projects

Transport projects are based on the transport network illustrated in Plan 3 and include a combination of:

- Construction of controlled intersections and associated works;
- Road construction;
- Construction of waterway crossing; and
- Land for the above.

The transport projects funded by the DCP are shown on Plan 3 and described in Table 3.

The open space and community facility projects funded under the DCP are shown on Plan 4 and described in Table 4.

The Integrated Water Management projects funded by the DCP are shown on Plan 5 and described in Table 5.

2.3.1 Transport projects

The PSP outlines an expanded urban structure intended to support the future residential growth of Wonthaggi North East, including connector streets, and local streets on a grid adjusted to meet the existing constraints of the area.

Where the precinct requires a new or upgraded intersection with the existing road network, the costs associated with that intersection have been included in the DCP.

Typically, arterial road widening and carriageway upgrades or construction are included in a DCP; however, a traffic impact assessment report (Wonthaggi North East Precinct Structure Plan Transport Impact Assessment – GTA Consultants, May 2020) undertaken as part of the preparation of the PSP indicates that additional capacity is not required on the arterial road network and upgrade projects have not been included in the DCP.

The transport projects include:

- Construction of controlled intersections and associated works
- Road construction listed in the DCP and consistent with the relevant cross-sections outlined in the PSP.

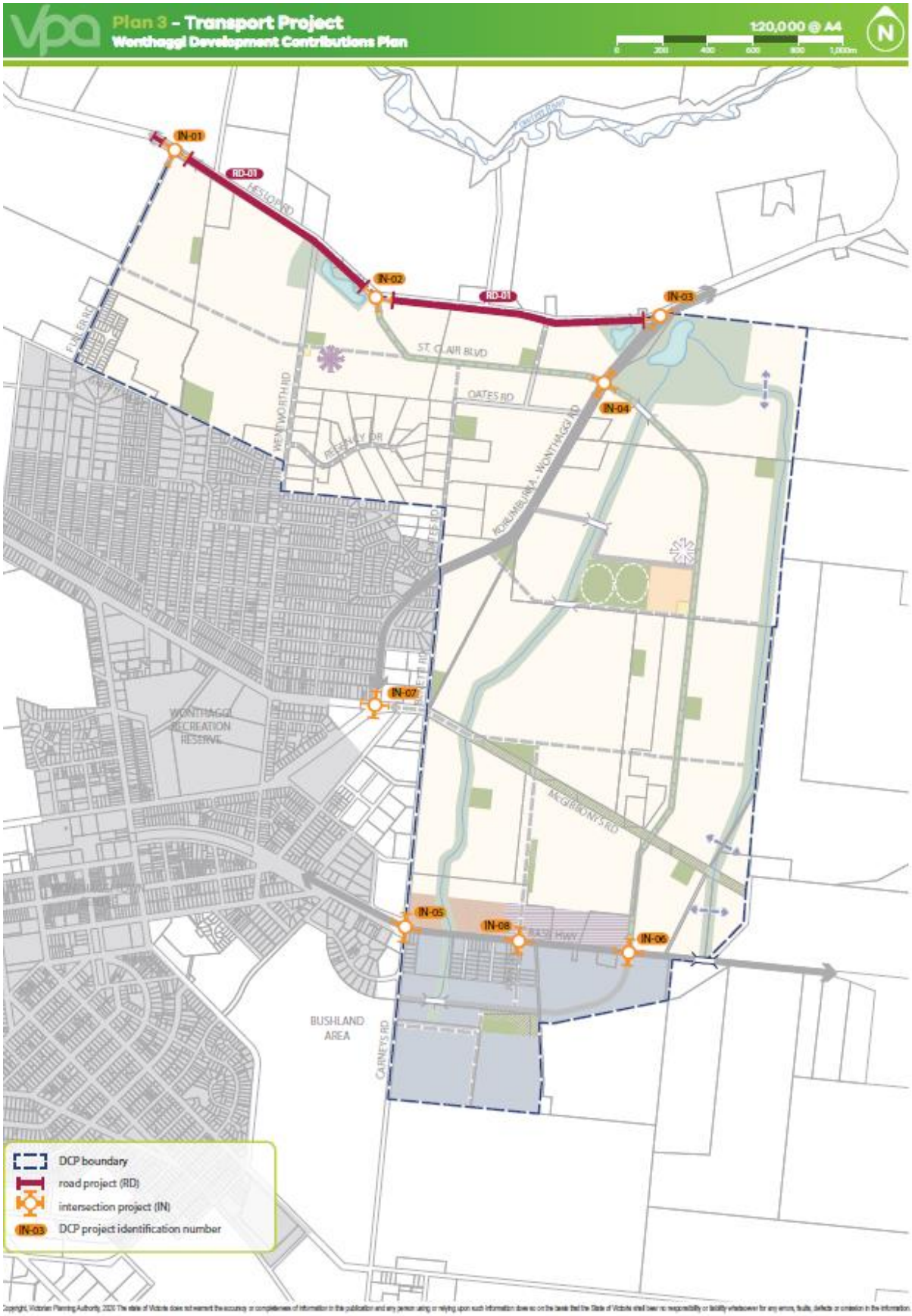


Figure 3 Transport Projects

Table 3 Transport Projects

DCP Project ID	Project Title & Description	Works Description	Charge areas contributing	Indicative provision trigger
RD-01	Heslop Road (Fuller Road to Korumburra-Wonthaggi Road) 2400m	Construction of a 2-lane connector road (rural seal)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-01	Heslop Road and Fuller Road	Construction of T- intersection	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-02	Heslop Road and St Clair Boulevard Connector Road	Construction of T-intersection	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-03	Heslop Road and Kourumburra - Wonthaggi Road	Construction of T-intersection	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-04	Korumburra Road - Wonthaggi Road and St Clair Boulevard	Land and Construction for a roundabout (Arterial Road to Boulevard Connector Road)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-05	Bass Highway and Carneys Road	Land and Construction for a roundabout (Arterial Road to Connector Road)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-06	Bass Highway and St Clair Boulevard	Land and Construction for a roundabout (Arterial Road to Boulevard Connector Road)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-07	McGibbonys Road and Korrumburra - Wonthaggi Road	Construction of turn lanes (Arterial Road to Connector Road)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
IN-08	Bass Highway and John Street	Land and Construction for a roundabout (Bass Highway and John Street Access Road)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding

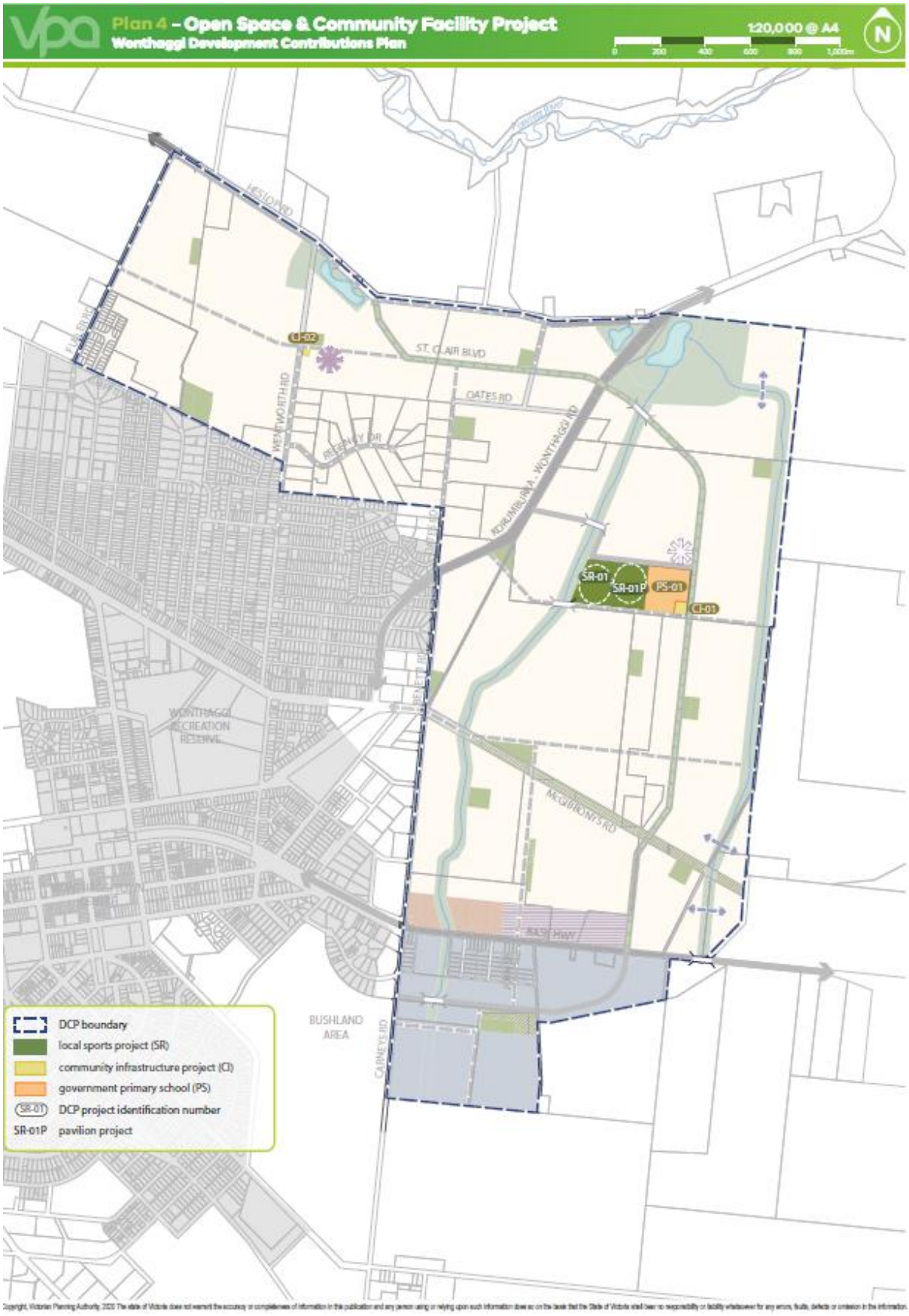


Figure 4 Community Facility & Open Space Projects

2.3.2 Community facility projects

Community projects include land and construction of community centres varying in size.

The community projects are based on the population projections determined through the preparation of the Wonthaggi North East Growth Area. The community facilities defined in these projects are the best estimates of the future requirements and specifications of the future communities of Wonthaggi North East.

The scope (as defined in Table 4) of each of the community projects is detailed in Appendix C – Project cost estimates & concept designs.

The detailed design and scope (as defined in Table 4) of each of the community projects will be reviewed by the Development Agency closer to the time that they are constructed.

In reviewing the scope of the facility, the Development Agency will have regard to the matters such as charging provision standards and models, the immediate needs of the community, current regulations and best practice and may adjust and refine the scope of the facility to respond to these matters.

The Development Agency may also adjust and refine the scope of a facility to reflect the capacity of any non-DCP funds that can be made available (for example a grant or other funding streams).

In adjusting and refining any project scope the Development Agency must ensure that the funds levied from developers/ land owners do not exceed the value nominated in the DCP (inclusive of any indexing provisions as allowed for by the DCP).

The community facility projects funded by the DCP are shown on Plan 4 and described in Table 4.

2.3.3 Active recreation projects

The open space projects include:

- Land take and/ or construction of facilities in sporting reserves.

In determining the scope of DCP funded projects within the sporting reserve and local parks, Council will have regard to matters such as changing provision standards and models, the immediate needs of the community, current regulations and best practice and may seek to adjust and refine the scope of the projects to these matters.

The open space projects funded by the DCP are shown on Plan 4 and described in Table 4.

Table 4 Community Facility & Open Space Projects

DCP Project number	Project Title Project Description	Charge areas contributing	Indicative provision trigger
Community projects			
PS-01	Purchase of land for the potential government primary school	Residential	As required according to demand levels, subject to DCP funding
CI-01	Purchase of land and construction of community centre to include foyer, reception office and auxillary spaces, outdoor space, multi-purpose space, early years / kindergarten spaces, maternal child and health and childcare facilities	Residential	As required according to demand levels, subject to DCP funding
CI-02	Purchase of land for a small community facility	Residential	As required according to demand levels, subject to DCP funding
Recreation projects			
SR-01	Purchase of land for 6 hectares multi purpose sporting reserve, construction of pitches and facilities	Residential	As required according to demand levels, subject to DCP funding

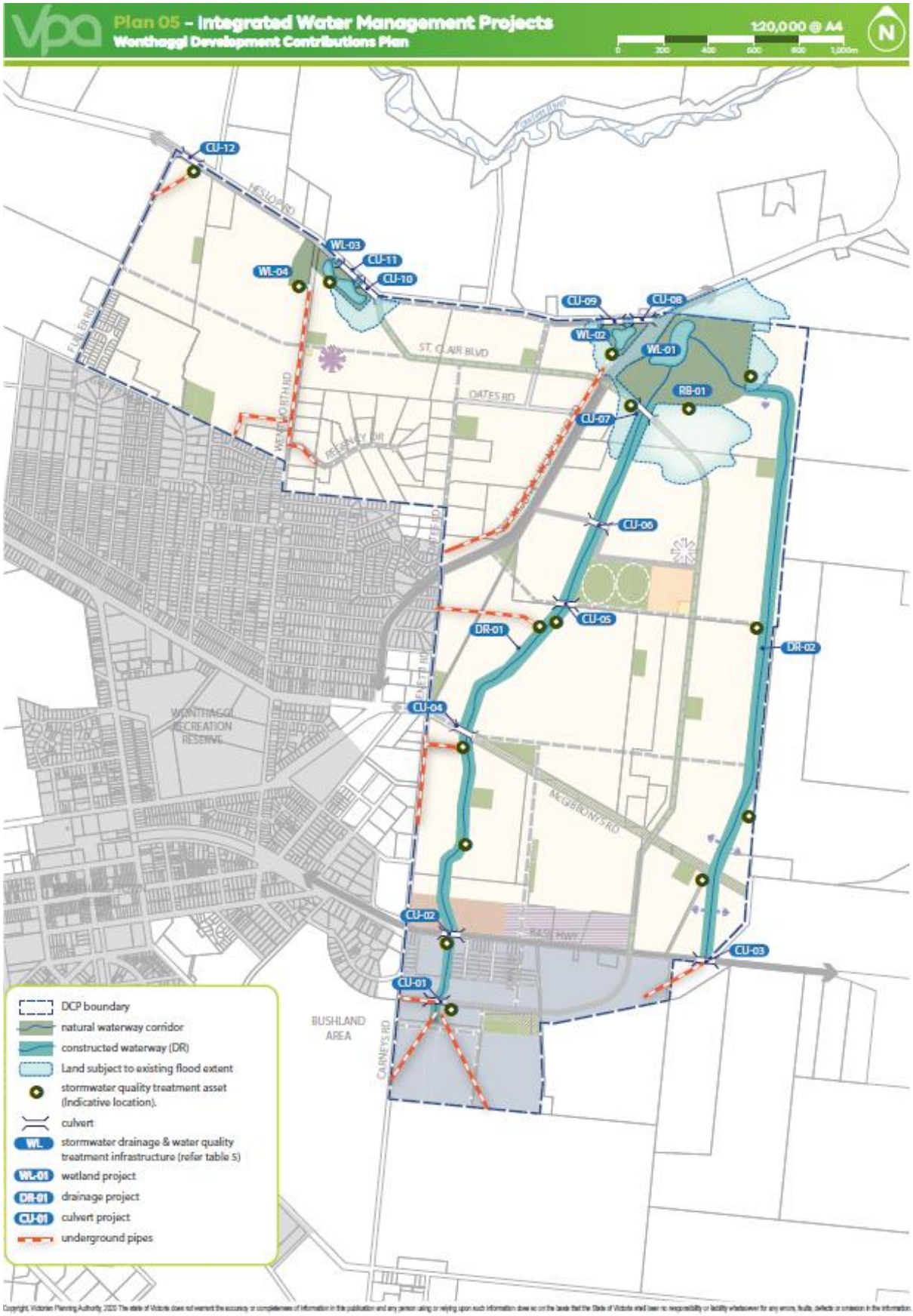


Figure 5 Integrated Water Management Projects

2.3.4 Drainage projects

The DCP makes funding available for the construction of all necessary drainage infrastructure. The DCP only makes an allowance for the acquisition of land for drainage infrastructure where the land required would be otherwise unencumbered.

The drainage infrastructure has been identified through hydraulic modelling undertaken as part of the Drainage Strategy for Wonthaggi North East Precinct Structure Plan, (October 2019 Engeny Consultants).

The drainage infrastructure is required to appropriately retard and treat stormwater flows from new urban development, in accordance with best practice principles and prior to discharge into rural areas at pre-development rates to the satisfaction of South Gippsland Water.

The drainage projects include:

- Land for and construction of retarding basins and wetlands.
- Channel works.
- A legal point of discharge for each parcel within the precinct.
- Piped drains.
- Culverts.

Table 5 Integrated Water Management Projects

Integrated Water Management Projects			
DCP Project ID	PROJECT TITLE	rge area contribu	PROVISION TRIGGER
CU-01	Industrial Boulevard Crossing (Location 16-17)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-02	Culvert at Bass Coast Highway (west) (Location 18-19)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-03	Culvert at Bass Coast Highway (east) (Location 2-3)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-04	Culvert at McGibbonys Road (Location 21-22)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-07	Culvert at Boulevard connector (Location 24)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-08	Culvert at Korumburra-Wonthaggi road embankment (Location 12-13)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-09	Culvert at Heslops Road downstream of WL-2 (Location 37-38)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-010	Culvert at Heslops Road downstream of WL-3 (Location 41-42)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-012	Culvert at Heslops Road downstream of SB12 (Location 45-46)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-05	Culvert at Minor Road (Location 23-23A)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-06	Culvert at Minor Road (Location 23B-23C)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-011	Culvert at Heslops Road downstream of WL-4 (Location 49-50)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
CU-012	Culvert at Heslops Road downstream of WL-4 (Location 49-50)	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
DR-01	Western Waterway	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
DR-02	Eastern Waterway	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
PIPE	Drainge Pipe assets	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
SD	Sediment basins	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
WL-01	Wetland 1	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
WL-02	Wetland 2	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
WL-03	Wetland 3	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
WL-04	Wetland 4	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding
RB-01	Retarding Basin for Wetland 1	Residential & Employment	At time of subdivision / access requirement demand, subject to availability of DCP funding

2.4 Project timing

Each infrastructure project in the DCP has an assumed indicative provision trigger specified in Tables 2–5. The timing of the provision and the items in the DCP are consistent with information available at the time the DCP was prepared.

Bass Coast Shire Council is the Development Agency as well as the Collecting Agency and will monitor and assess the required timing for individual items and have regard to its capital works program.

The Collecting Agency may consider alternatives to the priority delivery of works or land where:

- Infrastructure is to be constructed / provided by development proponents as works or land in kind, as agreed by the collecting agency.
- Network priorities require the delivery of works or land to facilitate broader road network connections.
- Community needs determine the delivery of works or land for community facilities, sports reserves and open space.

All items in the DCP will be provided as soon as is practicable and as soon as sufficient contributions are available, consistent with Section 4 and acknowledging the development agency's capacities to provide the balance of funds not recovered by the DCP.

2.5 Distinction between development and community infrastructure

In accordance with the Act and the *Ministerial Direction on the Preparation and Content of Development Contributions Plans and Ministerial Reporting Requirements for Development Contributions Plans*, the DCP makes a distinction between 'development' and 'community' infrastructure.

The timing of payment of contributions is linked to the type of infrastructure in question.

The Community Infrastructure Levy contributions are made by the home builder at the time of building approval (unless an alternative time is agreed between the Council and a development proponent). Community Infrastructure Levy contributions will be paid for at a 'per-dwelling' rate.

The Act currently stipulates that the amount that may be contributed under a community infrastructure levy is no more than $1,150 per dwelling. The Governor in Council may from time to time by Order published in the Government Gazette vary the maximum amount that may be collected by the community infrastructure levy.

If in the future the community infrastructure levy is amended, then the levy applicable to the release of the remaining dwellings may be adjusted in accordance with the revised legislative and regulatory approach as directed by the Minister for Planning.

All other infrastructure projects are classified as development infrastructure projects.

Contributions relating to development infrastructure are to be made by developers at the time of subdivision. If subdivision is not applicable payments must be made prior to construction of buildings and works (refer to Section 4.1).

Table 6 Community Infrastructure Levy Projects

DCP Project number	Project Title Project Description	Charge areas contributing
CI -02	Construction of Community Hall/Community Meeting Rooms	Residential
SR-01p	Construction of sporting pavilions for the sports reserve	Residential

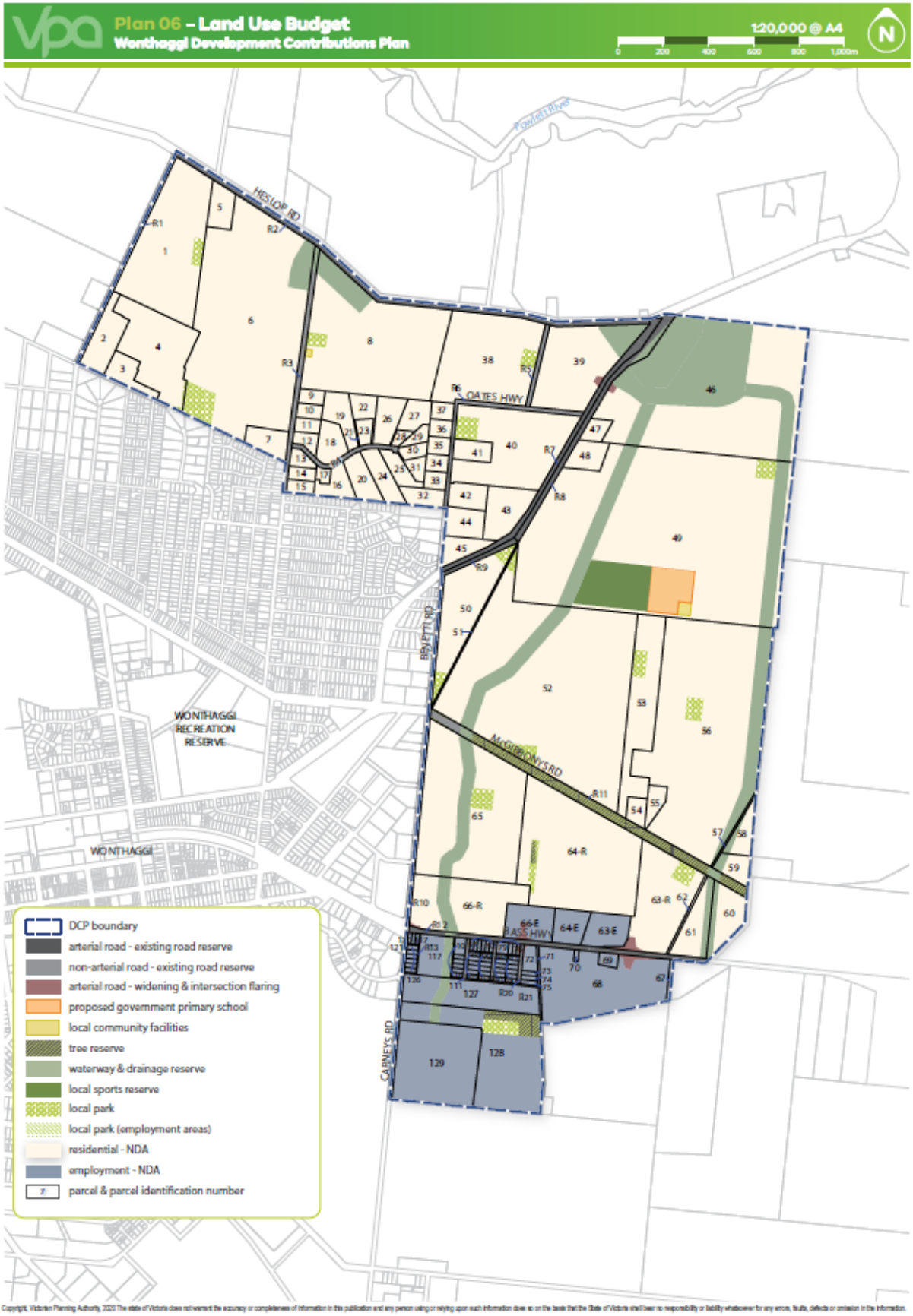


Figure 6 Land Use Budget

Table 7 Summary Land Budget

Description	PSP 1740		
	HECTARES	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	**632.89**		
Transport			
Arterial Road - Existing Road Reserve	14.56	2.30%	2.81%
Arterial Road - New / Widening / Intersection Flaring (DCP land)	1.25	0.20%	0.24%
Non-Arterial Road - Retained Existing Road Reserve	11.42	1.80%	2.20%
Sub-total Transport	27.23	4.3%	5.25%
Community & Education			
Future Government School (DCP land)	3.50	0.55%	0.67%
Local Community Facility (DCP land)	0.42	0.07%	0.08%
Sub-total Education	3.92	0.6%	0.8%
Open Space			
Uncredited Open Space			
Waterway and Drainage Reserve (DCP land)	57.95	9.16%	11.17%
Tree Reserve	6.85	1.08%	1.32%
Sub-total Service Open Space	64.80	10.24%	12.49%
Credited Open Space			
Local Sports Reserve (DCP land)	6.00	0.9%	1.16%
Local Network Park (via Cl 53.01) (employment areas)	0.90	0.1%	0.17%
Local Network Park (via Cl 53.01) (residential areas)	11.12	1.8%	2.14%
Sub-total Credited Open Space	18.02	2.8%	3.47%
Total All Open Space	82.82	13.1%	15.96%
TOTAL NET DEVELOPABLE AREA - (NDA) Ha	**518.92**	**81.99%**	
NET DEVELOPABLE AREA - RESIDENTIAL (NDAR) Ha	**455.05**	**71.90%**	
NET DEVELOPABLE AREA - EMPLOYMENT (NDAE) Ha	**63.86**	**10.09%**	

Description	PSP 1740	
Residential Local Open Space (expressed as % of NDAR)	Hectares	% of NDAR
Local Sports Reserve (DCP land)	6.00	1.32%
Local Network Park (via Cl 53.01) (residential areas)	11.12	2.44%
Sub-total	**17.12**	**3.76%**
Employment Local Open Space (expressed as % of NDAE)	Hectares	% of NDAE
Local Network Park (via Cl 53.01) (employment areas)	0.90	1.41%
Sub-total	0.90	**1.41%**
Total Open Space	**18.02**	3.47%

3 CALCULATION OF CONTRIBUTIONS

3.1 Calculation of Net Developable Area and demand units

The following section sets out how the net developable area (NDA) is calculated and outlines the development projections anticipated in the precinct.

3.1.1 Net developable area

In the DCP, all development infrastructure contributions are payable on the net developable area of land on any given development site. Calculations of NDA for each individual property is outlined in the property-specific land budget included at Appendix B.

For the purposes of the DCP the NDA is defined as the total amount of land within the precinct that is made available for development. It is the total precinct area minus community facilities, educational facilities, open space and encumbered land. NDA includes any land for lots for housing and employment buildings, all local streets (including some connector streets), and any small parks defined at subdivision stage that are in addition to those outlined in the PSP.

The NDA for the DCP is outlined in Table 7. The contributions 'per net developable hectare' must not and will not be amended to respond to minor changes to the land budget that may result from the subdivision process. In other words, the DCP is permanently linked to the calculation of the NDA set out in Appendix B.

The NDA may only change if the collecting agency agrees to a variation to the summary land use budget (Table 7) and the detailed property-specific land budget (Appendix B) and associated tables.

3.1.2 Land budget & demand units

The 'net developable hectare' is the demand unit for the DCP.

'Residential' development is defined broadly to include forms of development that support a residential land use, including residential subdivision and development within the local convenience centre.

'Residential' development also includes any non-residential uses within the residential area such as a place of worship, education centre, retirement village, nursing home, childcare centre, medical centre, convenience store or any other approved use.

The DCP contains a total of 455 net developable hectares for residential land and 64 net developable hectares for employment land.

3.2 Calculation of contributions charges

3.2.1 Calculation of costs

Each infrastructure project has been assigned a land and/or construction cost, as listed in Table 8. Costs are expressed in 2020 dollars and will be adjusted annually in accordance with the method specified in Section 4.6.

Road construction costs have been determined by GTA Consultants (refer to Appendix C for road cost sheets) in 2020.

Intersection and bridge construction costs have been determined by GTA Consultants (refer to Appendix C for intersection cost sheets) in 2020.

Community facilities costs have been determined by Bass Coast Shire (refer to Appendix C for community facilities cost sheets) in 2020.

Active recreation project costs have been determined by Bass Coast Shire Council (refer to Appendix C for open space cost sheets) in 2020.

Integrated water management costs have been determined by Engeny (refer Appendix C for integrated water management and drainage costs) in 2019 and have been indexed in accordance with the method specified in Section 4.6 to 2020 dollars.

3.2.2 Estimate of land value

The area of land to be acquired for each DCP project on each property was identified from the property specific land budget prepared for the PSP. A description of the precinct land area was provided to a registered valuer to prepare an estimate of value. This in turn determines the value for each project requiring land identified in the DCP.

The estimates of value were prepared using the Public Land Equalisation Method (PLEM). The PLEM calculates the average public land contribution required for the PSP (expressed as a percentage of NDA). The land required for each property is also calculated and compared against the average.

Public land contributions on a property that are less than or equal to the precinct average have an estimate of value using a per property broad hectare method. Any components of public land contributions that exceed the precinct average have an estimate of value using a site-specific method.

3.2.3 Per property broadectare estimate of value

The per property broad hectare estimate of value prepared for each individual property assumes the unencumbered, highest-and-best use as indicated by the PSP.

The estimates of value are prepared on a 'Before and After' basis where:

- The 'Before' assessment is based on the total developable area of each property and ignores the land and infrastructure items to be provided by the DCP. Any development that occurs subsequent to the approval of the DCP is ignored for the purpose of the valuation.

- The 'After' assessment comprises the remaining portion of each property after all land required by the DCP has been provided. Severance or enhancement, disturbance, special value etc. are ignored for the purpose of the 'after' valuation.

3.2.4 Site specific value estimate

The site-specific approach prepares an estimate of value for each separate infrastructure item. For example, if a landowner has land identified for a road widening, a community centre and a local sports reserve, a site-specific estimate of value would be prepared for all three items separately.

Site specific estimates of value generally assume that the land identified can be sold as serviced development lots, i.e. street frontages etc. have already been constructed, therefore the land has a lower expected development cost.

3.3 Cost apportionment

The DCP apportions a charge to new development according to its projected share of use of identified infrastructure items. Since development contribution charges are levied 'up-front', a measure of actual use by individual development sites is not possible. Therefore, costs must be shared in accordance with the estimated share of use.

The cost apportionment is expressed as a percentage in projects that are 100% apportioned to the DCP area are considered to be wholly required for the future development of the DCP area. Projects that are less than 100% apportioned to the DCP area are shared with other areas and funding sources.

3.3.1 Charge areas

The DCP contains two charge areas shown as the 'residential area' and 'employment area' in Plan 1.

The DCP clearly demonstrates the infrastructure required to service the Wonthaggi North East area. The charge area also defines the Main Catchment Area (MCA) for the various infrastructure projects. The MCA is the geographic area from which a given item of infrastructure will draw most of its use.

3.3.2 Non-government schools

The development of land for a non-government school is exempt from the requirement to pay a development infrastructure levy and a community infrastructure levy under the DCP.

3.3.3 Social and affordable housing

The Bass Coast Shire Council may consider an exemption or discount of the development infrastructure levy and the community infrastructure levy for the development of social and affordable housing.

3.3.4 Summary of charges per hectare

Tables 8 and 9 calculate the amount of contributions payable by each charge area for each infrastructure category.

Table 8 Calculation of costs – development infrastructure levy (DIL)

DCP Project No.	Project	Infrastructure Category	Land Area Ha	Estimated Project Cost: Land	Estimated Project Cost: Construction	Total Estimated Project Cost: Land & Construction	% Apportioned to DCP (Internal Use)	Total cost recovered by DCP	Residential - Contribution per NDHa	Employment - Contribution per NDHa
	Road Projects									
RD-01	Heslop Road (Fuller Road to Korumburra-Wonthaggi Road) 2400m	Development	0.00	$0.00	$3,277,000.00	$3,277,000.00	100%	$3,277,000	$6,315	$6,315
	Sub-total road projects		0.00	$0	$3,277,000	$3,277,000		$3,277,000	$6,315	$6,315
	Intersection Projects									
IN-01	Heslop Road and Fuller Road	Development	0.00	$0.00	$1,136,000.00	$1,136,000.00	100%	$1,136,000	$2,189	$2,189
IN-02	Heslop Road and St Clair Boulevard Connector Road	Development	0.00	$0.00	$1,310,000.00	$1,310,000.00	100%	$1,310,000	$2,524	$2,524
IN-03	Heslop Road and Kourumburra - Wonthaggi Road	Development	0.00	$0.00	$1,291,000.00	$1,291,000.00	100%	$1,291,000	$2,488	$2,488
IN-04	Korumburra Road - Wonthaggi Road and St Clair Boulevard	Development	0.22	$72,038.73	$2,280,000.00	$2,352,038.73	100%	$2,352,039	$4,533	$4,533
IN-05	Bass Highway and Carneys Road	Development	0.08	$31,332.73	$2,686,000.00	$2,717,332.73	100%	$2,717,333	$5,237	$5,237
IN-06	Bass Highway and St Clair Boulevard	Development	0.87	$288,248.27	$2,750,000.00	$3,038,248.27	100%	$3,038,248	$5,855	$5,855
IN-07	McGibbonys Road and Korrumburra - Wonthaggi Road	Development	0.00	$0.00	$1,701,000.00	$1,701,000.00	100%	$1,701,000	$3,278	$3,278
IN-08	Bass Highway and John Street	Development	0.08	$32,600.00	$1,730,000.00	$1,762,600.00	100%	$1,762,600	$3,397	$3,397
	Sub-total intersection projects		1.17	$424,220	$14,884,000	$15,308,220		$15,308,220	$29,500	$29,500
	Culvert Projects									
CU-01	Industrial Boulevard Crossing (Location 16-17)	Development	0.00	$0.00	$219,095.67	$219,095.67	100%	$219,096	$422	$422
CU-02	Culvert at Bass Coast Highway (west) (Location 18-19)	Development	0.00	$0.00	$259,857.65	$259,857.65	100%	$259,858	$501	$501
CU-03	Culvert at Bass Coast Highway (east) (Location 2-3)	Development	0.00	$0.00	$259,857.65	$259,857.65	100%	$259,858	$501	$501
CU-04	Culvert at McGibbonys Road (Location 21-22)	Development	0.00	$0.00	$503,410.51	$503,410.51	100%	$503,411	$970	$970
CU-07	Culvert at Boulevard connector (Location 24)	Development	0.00	$0.00	$503,410.51	$503,410.51	100%	$503,411	$970	$970
CU-08	Culvert at Korumburra-Wonthaggi road embankment (Location 12-13)	Development	0.00	$0.00	$912,049.40	$912,049.40	100%	$912,049	$1,758	$1,758
CU-09	Culvert at Heslops Road downstream of WL-2 (Location 37-38)	Development	0.00	$0.00	$136,552.65	$136,552.65	100%	$136,553	$263	$263
CU-010	Culvert at Heslops Road downstream of WL-3 (Location 41-42)	Development	0.00	$0.00	$434,115.14	$434,115.14	100%	$434,115	$837	$837
CU-012	Culvert at Heslops Road downstream of SB12 (Location 45-46)	Development	0.00	$0.00	$129,419.30	$129,419.30	100%	$129,419	$249	$249
CU-05	Culvert at Minor Road (Location 23-23A)	Development	0.00	$0.00	$503,410.51	$503,410.51	100%	$503,411	$970	$970
CU-06	Culvert at Minor Road (Location 23B-23C)	Development	0.00	$0.00	$503,410.51	$503,410.51	100%	$503,411	$970	$970
CU-011	Culvert at Heslops Road downstream of WL -4 (Location 49-50)	Development	0.00	$0.00	$157,952.69	$157,952.69	100%	$157,953	$304	$304
	Sub-total culvert projects		0.00	$0	$4,522,542	$4,522,542		$4,522,542	$8,715	$8,715
	Drainage Projects									
DR-01	Western Waterway	Development	6.55	$2,158,950.16	$6,699,232.15	$8,858,182.31	100%	$8,858,182	$17,070	$17,070
DR-02	Eastern Waterway	Development	14.31	$3,641,019.36	$10,001,971.95	$13,642,991.31	100%	$13,642,991	$26,291	$26,291
PIPE	Drainge Pipe assets	Development	0.00	$0.00	$4,541,904.12	$4,541,904.12	100%	$4,541,904	$8,753	$8,753
SD	Sediment basins	Development	0.00	$0.00	$2,322,414.07	$2,322,414.07	100%	$2,322,414	$4,475	$4,475
WL-01	Wetland 1	Development	5.42	$1,635,287.02	$3,504,511.62	$5,139,798.64	100%	$5,139,799	$9,905	$9,905
WL-02	Wetland 2	Development	1.73	$591,409.15	$1,036,373.46	$1,627,782.61	100%	$1,627,783	$3,137	$3,137
WL-03	Wetland 3	Development	2.75	$706,308.78	$1,971,861.00	$2,678,169.78	100%	$2,678,170	$5,161	$5,161
WL-04	Wetland 4	Development	1.70	$409,017.90	$1,426,669.46	$1,835,687.36	100%	$1,835,687	$3,538	$3,538
RB-01	Retarding Basin for Wetland 1	Development	13.12	$3,797,274.84	$4,410,446.72	$8,207,721.56	100%	$8,207,722	$15,817	$15,817
	Sub-total drainage projects		45.58	$12,939,267	$35,915,385	$48,854,652		$48,854,652	$94,147	$94,147
	Community Projects									
PS-01	Land for potential future government primary school	Development	3.50	$702,708.60	$0.00	$702,708.60	100%	$702,709	$1,544	$0
CI-01	Community facility within village hub	Development	0.32	$64,245.37	$3,748,220.00	$3,812,465.37	100%	$3,812,465	$8,378	$0
CI-02	Land for community facility co located with north-west local convenience centre	Development	0.10	$28,000.04	$0.00	$28,000.04	100%	$28,000	$62	$0
	Sub-total community projects		97.40	$766,954	$3,748,220	$4,515,174		$4,515,174	$9,984	$0
	Active recreation projects									
SR-01	Sports reserve and construction of sports pitches	Development	6.00	$1,204,605	$6,980,119	$8,184,724	100%	$8,184,724	$17,986	$0
	Sub-total (active recreation development infrastructure projects)		6.00	$1,204,605	$6,980,119	$8,184,724		$8,184,724	$17,986	$0
	Summary									
	Total cost all projects			**$15,335,046**	**$69,327,265**	**$84,662,311**		**$84,662,311**		
	Total Development Infrastructure Levy per NDA			$29,552	$133,599	$163,151		$163,151	**$166,648**	**$138,678**

Table 9 Calculation of costs – community infrastructure levy (CIL)

DCP Project No.	Project	Infrastructure Category	Land Area Ha	Estimated Project Cost: Land	Estimated Project Cost: Construction	Total Estimated Project Cost: Land & Construction	% Apportioned to DCP (Internal Use)	Total cost attributed to DCP
CIL - Sports Reserves and Indoor Recreation								
SR-01p	Construction of sporting pavilions for the sports reserve	Community	0.00	$0	$4,125,000	$4,125,000	100%	$4,125,000
	Sub-total active recreation (community infrastructure levy)		0.00	$0	$4,125,000	$4,125,000		$4,125,000
CIL - Community Centres								
CI-02-c	Community facility co located with north-west local convenience centre	Community	0.00	$25,500.00	$1,415,055.00	$1,463,850	100%	$1,463,850
	Sub-total active recreation (community infrastructure levy)		0.00	$25,500	$1,415,055	$1,463,850		$1,463,850
	Summary							
	Total Community Infrastructure Levy per Dwelling							**$1,116.52**
	Total Community Infrastructure Levy Estimated Raised Via Wonthaggi North East DCP							**$5,588,850.00**

4 IMPLEMENTATION & ADMINISTRATION

This section sets out how the DCP will be administered and covers the:

- Timing of payment;
- Provision of works; and
- Land in kind and how funds generated by the DCP will be managed in terms of reporting, indexation and review periods.

The Development Infrastructure levy applies to subdivision and/or development of land.

The Community Infrastructure Levy applies to the construction of dwellings.

4.1 Collecting agency (agency responsible for collecting infrastructure levy)

The Bass Coast Shire Council is the Collecting Agency pursuant to section 46K(1)(fa) of the *Planning & Environment Act 1987,* which means that it is the public authority to whom all levies are payable. As the Collecting Agency, The Bass Coast Shire Council is responsible for the administration of the DCP and also its enforcement pursuant to section 46QC of the *Act*.

4.2 Development agency (agency responsible for works)

The Bass Coast Shire Council is the Development Agency and is responsible for the provision of all infrastructure projects funded the DCP and the timing of all works.

4.3 Payment of contributions and payment timing

4.3.1 Development infrastructure

For subdivision of land

A Development Infrastructure Levy in accordance with the Wonthaggi North East Development Contributions Plan, must be paid to the Collecting Agency for each demand unit (Net Developable Hectare - NDH) in the subdivision within the following specified time, namely after certification of the plan of subdivision but not more than 21 days prior to the issue of a Statement of Compliance in respect to that plan under the *Subdivision Act 1988* or included in an implementation agreement under Section 173 of the *Planning & Environment Act 1987.*

Where the subdivision is to be developed in stages, the Development Infrastructure Levy in accordance with the Wonthaggi North East Development Contributions Plan for the stage to be developed may only be paid to the collecting agency for each demand unit (NDH) in the stage within 21 days prior to the issue of a Statement of Compliance of that stage provided that a Schedule of Development Contributions is submitted with each stage of the plan of subdivision. This Schedule of Development Contributions must show the amount of the development contributions payable for each stage and value of the contributions for prior stages to the satisfaction of the collecting agency or included in an implementation agreement under Section 173 of the *Planning & Environment Act 1987*.

If the Collecting Agency agrees to works and/or provision of land in lieu of the payment of the infrastructure levy, the landowner must enter into an agreement under Section 173 of the *Planning & Environment Act 1987* in respect of the proposed works and/or provision of land in kind to specific requirements.

For development of land where no subdivision is proposed

Provided a Development Infrastructure Levy has not already been paid for the land, a Development Infrastructure Levy in accordance with the Wonthaggi North East DCP must be paid to the Collecting Agency each demand unit (Net Developable Hectare) proposed to be developed prior to the commencement of any development (i.e. Development includes the area of all buildings, car park, access ways, landscaping and ancillary components). The Collecting Agency may agree to a different time for payment. .

If the Collecting Agency agrees to works and/or provision of land in lieu of the payment of the infrastructure levy, the owner must enter into an agreement under Section 173 of the *Planning & Environment Act 1987* or other arrangement acceptable to the collecting agency proposed in respect of the proposed works and/or land to be provided in kind.

For development of land where no planning permit is required

Provided a Development Infrastructure Levy has not already been paid for the land, a Development Infrastructure Levy in accordance with the Wonthaggi North East DCP must be paid to the Collecting Agency for each demand unit (Net Developable Hectare) proposed to be developed prior to the commencement of any development. If the development is not a subdivision, development includes the area of all buildings, car park, access ways, landscaping and ancillary components. The Collecting Agency may agree to a different time for payment.

4.3.2 Community Infrastructure Levy

The Community Infrastructure Levy must be paid by the person applying for a building permit prior to the issue of a building permit.

Community Infrastructure Levies for 'residential buildings' will be calculated at the rate for a single dwelling. For all other forms of accommodation, a Community Infrastructure Levy must be paid for each dwelling within the development.

A Community Infrastructure Levy is not payable for a dwelling on a lot which was created prior to the approval date of this DCP.

4.3.3 Works-in-kind

Under Section 46P of the Act, Council as the Collecting Agency may accept the provision of land, works, services or facilities by the applicant in part, or in full, in lieu of the amount of levy payable. This can be agreed with Council before or after the application for the permit is made or before the development is carried out. The agreement must include a list of the DCP infrastructure that Council has agreed in writing to allow to be provided as works in lieu. As a guide, the agreement will also address:

- The works constitute projects funded by the DCP
- The Collecting Agency (Council) agrees that the timing of the works would be consistent with priorities in the DCP;
- The works are defined and agreed within a Section 173 Agreement;
- The development proponent complies with appropriate tendering, documentation, supervision and related provisions as required by the responsible authority;
- Works must be provided to a standard that generally accords with the DCP, unless an alternative is agreed by the collecting agency and the development agency;
- Detailed design must be approved by the collecting agency and the development agency and must generally accord with the standards outlined in the DCP unless an alternative is agreed by the collecting agency and the development agency;
- The construction of works must be completed to the satisfaction of the collecting agency and the development agency;
- There should be no negative financial impact on the DCP to the satisfaction of the collecting agency;

In particular, the works will only be accepted in lieu of a financial contribution required by the DCP to the extent that they constitute part or all of the design of the infrastructure item and reduce the cost to complete that design, to the satisfaction of the collecting agency. Temporary works will not be accepted as works in kind.

Where the Collecting Agency agrees that works are to be provided by a development proponent in lieu of cash contribution (subject to the arrangements specified above):

- The credit for the works provided (unless an alternative approach is agreed with the collecting agency) shall equal the final cost of the works up to the maximum identified in the DCP, taking into account the impact of indexation, or to an alternative figure approved by the Collecting Agency
- The value of works provided in accordance with the principle outlined above will be offset against the development contributions liable to be paid by the development proponent; and
- No further financial contributions will be required until the agreed value of any credits are used.

4.3.4 Credit for over-provision

Where the Collecting Agency agrees that a development proponent can deliver an infrastructure item (either works and/or land), the situation may arise where the developer makes a contribution with a value that exceeds the liability required by the DCP.

In such a case the developer may be entitled to credits against other projects in the DCP to the extent of the excess contribution. Alternatively, a developer may seek an agreement with the collecting agency to provide cash reimbursement where an over-contribution has been made.

The details of credits and reimbursements for construction will need to be negotiated with, and agreed to by the collecting agency. The value of credits and reimbursements for the transfer of land will need to be at the values that are outlined in the DCP, subject to revaluation and indexation of the land as specified in Section 4.6.

4.3.5 Non-government schools

Where land is subdivided or developed for the purpose of a non-government school and the use of that land is subsequently for a purpose other than a non-government school, the owner of that land must pay to the collecting agency development contributions in accordance with the provision of the DCP. The development infrastructure levy and, where applicable, the community infrastructure levy must be paid within 28 days of the date of the commencement of the construction of any buildings or works for that alternative use.

4.4 Projects funded or partially funded by existing agreements made under Section 173 of the *Planning and Environment Act 1987*

The DCP projects identified in the table in Appendix A of this DCP are paid for in full or partially by payments from the existing approved Section 173 Agreements.

In circumstances where an infrastructure item has been nominated in both the DCP and a Section 173 Agreement, payment of the DCP levy will be considered to also meet the requirements of the Section 173 Agreement and no further payment will be required.

4.5 Funds administration

The administration of the contributions made under the DCP will be transparent and development contributions charges will be held until required for provision of the items in that class. Details of funds received and expenditures will be held by the collecting agency in accordance with the provisions of the *Local Government Act 1989* and the *Planning and Environment Act 1987*.

The administration of contributions made under the DCP will be transparent and demonstrate the:

- Amount and timing of funds collected
- Source of the funds collected
- Amount and timing of expenditure on specific projects
- Project on which the expenditure was made
- Account balances for individual project classes
- Details of works in kind arrangements for project provision
- Pooling or quarantining of funds to deliver specific projects, where applicable.

The collecting agency will provide for regular monitoring, reporting and review of the monies received and expended in accordance with the DCP.

The collecting agency will establish interest bearing accounts and all monies held in these accounts will be used solely for the provision of infrastructure as itemised in the DCP, as required under section 46QA of the Act.

4.6 Construction and land value costs indexation

Capital costs of all infrastructure items, including land, are in 2020 dollars and will be adjusted by the Collecting Agency annually for inflation.

In relation to the costs associated with infrastructure items other than land, the cost must be adjusted according to the following method:

- Roads, intersections and bridges – indexed in line with the Australian Bureau of Statistics Producer Prices Indexes, Road and Bridge Construction Index, Victoria.
- All other construction items – indexed in line with the Australian Bureau of Statistics Producer Price Indexes, Non-Residential Building Construction Index, Victoria.

Estimates of land value will be revised annually by a registered valuer based on a PLEM methodology for each lot that includes land for a DCP project. Revisions may occur more frequently if market conditions warrant.

The collecting agency will publish the amended contributions on the collecting agency's website within 14 days of the adjustments being made.

Both the maximum levy amount and the payable dwelling amount for the Community infrastructure levy will be adjusted annually using the Producer Price Index for Non-Residential Building Construction in Victoria. The index is published by the Australian Bureau of Statistics. The indexed amount will be published by the Department on or before 1 July each year.

4.7 Development Contributions Review period

The DCP commenced on the date when it was first incorporated into the Bass Coast Planning Scheme.

The DCP adopts a long-term outlook for future development in Wonthaggi North East.

The DCP is expected to be revised and updated every five years (or more frequently if required). This may require an amendment to the Bass Coast Planning Scheme to replace this document with an alternative, revised document. Any review will need to have regard to any arrangements (e.g. Section 173 agreements under the Act) for the implementation of the DCP.

This review is anticipated to include:

- Updates to any aspects of the plan as required.
- Review of projects required, as well as their costs and scope (as relevant) and indicative provision trigger.

- Review of estimated net developable area (this will also be required in the PSP subject to a substantive amendment),
- Review of land values for land to be purchased though the DCP.

4.8 Adjustment to the infrastructure scope

The infrastructure projects in the DCP have been costed to a sufficient level of detail; however, all of the projects will require a detailed design process prior to construction.

As part of detailed design, the Council or a development proponent with the consent of the Council may amend or modify some aspects of projects, so long as they are still generally in accordance with the PSP and any direction regarding the scope outlined in the DCP.

A development proponent may also propose material changes to the use and development of land from that contemplated in the PSP, leading to an increased requirement for infrastructure. In these cases, there should be no negative impact on the DCP by requirement for the developer to bear the additional costs associated with the provision of the infrastructure item over and above the standard required by the DCP.

Where the Council or another agency seeks to change the scope of a DCP infrastructure item to meet changing standards imposed by adopted policy or a public regulatory agency, such changes of standards and the resulting cost changes should normally be made through a change to the DCP at the time of a regular review of the DCP.

Where, after the DCP has been approved, a Council or other agency proposes changes to the scope of a DCP infrastructure item for reasons other than changes in standards imposed by policy or regulation the net cost increases resulting from the change should normally be met by the agency requesting the change.

5 IMPLEMENTATION STRATEGY

This section provides further details regarding how the collecting agency intends to implement the DCP. In particular, this section clearly identifies the rationale for the implementation strategy and details the various measures that have been adopted to reduce the risk posed by the DCP to all parties.

5.1 Rationale for the implementation strategy

This implementation strategy has been included to provide certainty to both the collecting agency and development proponents. The implementation strategy recognises the complexities associated with infrastructure provision and funding and seeks to minimise risk to the collecting agency, development agency, development proponent and future community.

This implementation strategy has been formulated by:

- Assessing the PSP
- Having regard to the development context
- Assessing the need for finance requirements including upfront financing and pooling of funds
- Agreeing the land value and indexing it appropriately (where possible)
- Identifying preferred implementation mechanisms to achieve the above outcomes and reducing the risk associated with the DCP to ensure that it will be delivered as intended.

5.2 Implementation mechanism

Under section 46P of the Act, the collecting agency may accept (with the consent of the development agency where the collecting agency is not also the development agency) the provision of land, works, services or facilities by the applicant in part or full satisfaction of the amount of levy payment. This can be by agreement with the collecting agency before or after the application for the permit is made or before the development is carried out.

To coordinate the provision of infrastructure, Schedule 1 to the Urban Growth Zone and Schedule 1 to the General Residential in the Bass Coast Planning Scheme for the PSP requires an application for subdivision to be accompanied by an infrastructure plan to the satisfaction of the responsible authority.

The Public Infrastructure Plan needs to show the location, type, staging and timing of infrastructure on the land as identified in the Wonthaggi North East PSP or reasonably required as a result of the subdivision of the land and address the following:

- Stormwater drainage works
- Road works internal or external to the land consistent with any relevant traffic report or assessment
- The reserving or encumbrance of land for infrastructure, including for community facilities, sports reserves and open space
- Any infrastructure works which an applicant proposes to provide in lieu of development contributions in accordance with the DCP
- The effects of the provision of infrastructure on the land or any other land
- Any other relevant matter related to the provision of infrastructure reasonably required by the responsible authority.

Through the approval of these agreements, Bass Coast Shire Council (acting as the collecting agency) will consider if and what infrastructure should be provided as works in kind under the DCP in accordance with section 46P of the Act. The agreement must include a list of the DCP infrastructure projects that the collecting agency has agreed in writing to allow to be provided as works and/or land in lieu.

APPENDIX A – PROJECTS FUNDED OR PARTIALLY FUNDED BY EXISTING AGREEMENTS MADE UNDER SECTION 173 OF THE *PLANNING AND ENVIRONMENT ACT 1987*

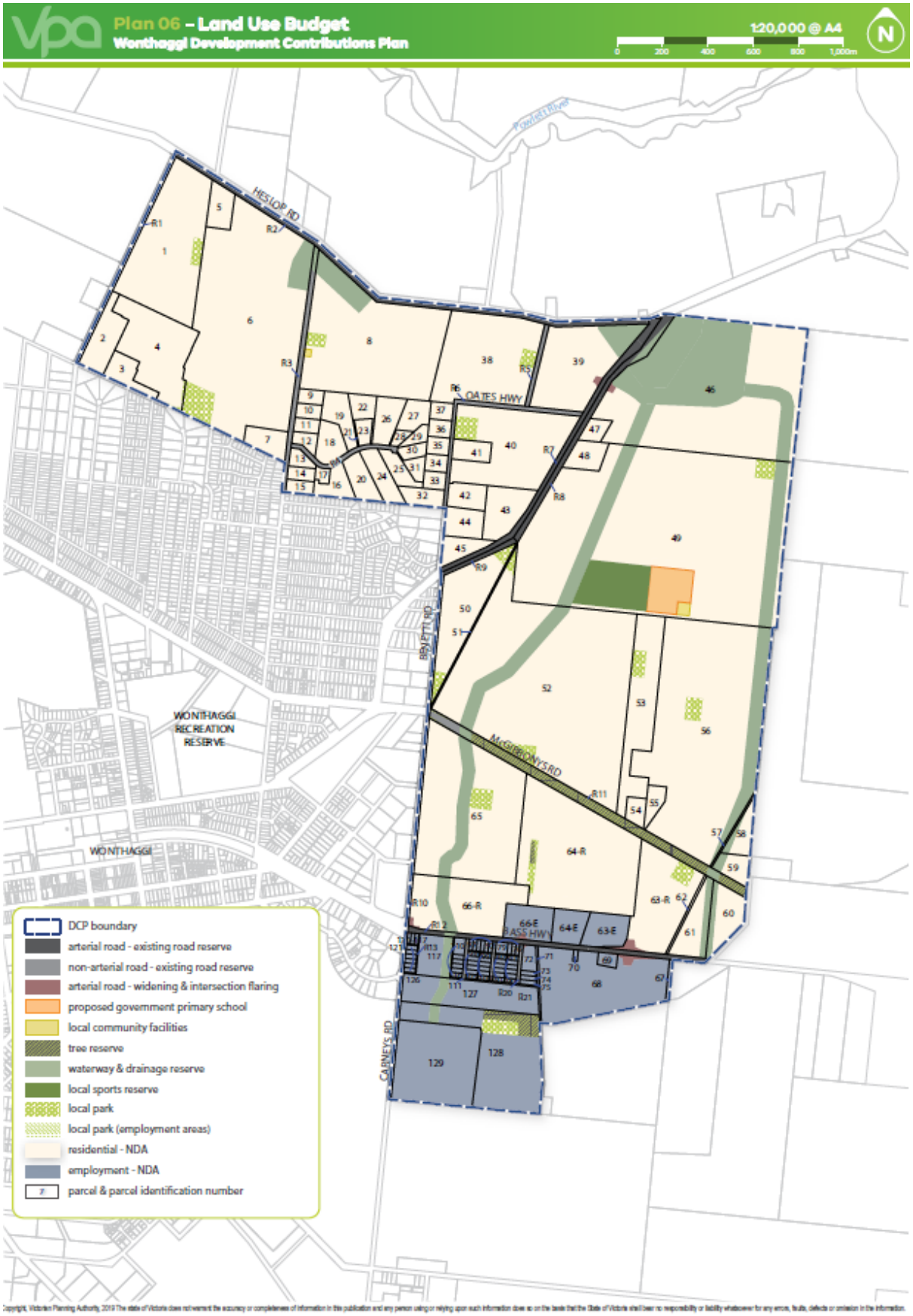
DCP Project ID	Project Title & Description	Section 173 Agreement	DCP Contributing area	Land Use Budget Lot ID
CIL	Community Infrastructure Levy	Certificate of Title Volume 11591, Folio 792, Lot 1 on Title Plan 700899Q	Residential	2, 3, 4
CL-01	Purchase of Land and Construction of Community Centre	Certificate of Title Volume 10008, Folio 696, Lot 2 on Plan of Subdivision PS 302494N	Residential	5
CL-02	Purchase of Land and Construction of Community Hall	Certificate of Title Volume 10008, Folio 696, Lot 2 on Plan of Subdivision PS 302494N	Residential	5
SR-01	Purchase of land for 6 hectares multi-purpose sporting reserve and construction of Sporting and Associated Facilities	Certificate of Title Volume 10008, Folio 696, Lot 2 on Plan of Subdivision PS 302494N	Residential	5
CU-11	Culvert 11	Certificate of Title Volume 10008, Folio 696, Lot 2 on Plan of Subdivision PS 302494N	Residential	5
RD-01	Heslop Road (Fuller Road to Korumburra-Wonthaggi Road) 2400m	Certificate of Title Volume 10008, Folio 696, Lot 2 on Plan of Subdivision PS 302494N	Residential	5
WL-04	Wetland 4	Certificate of Title Volume 11591, Folio 792, Lot 2 on Title Plan 700899Q	Residential and Employment	6
PIPE	Drainage Pipe Assets (47-47A, 47A-40)	Certificate of Title Volume 11591, Folio 792, Lot 2 on Title Plan 700899Q	Residential and Employment	6
CIL	Community Infrastructure Levy	Certificate of Title Volume 11591, Folio 792, Lot 2 on Title Plan 700899Q	Residential	6
CL-01	Purchase of Land and Construction of Community Centre	Certificate of Title Volume 10008, Folio 695, Lot 1 on Title Plan 302494N	Residential	7
CL-02	Purchase of Land and Construction of Community Hall	Certificate of Title Volume 10008, Folio 695, Lot 1 on Title Plan 302494N	Residential	7
SR-01	Purchase of land for 6 hectares multi-purpose sporting reserve and construction of Sporting and Associated Facilities	Certificate of Title Volume 10008, Folio 695, Lot 1 on Title Plan 302494N	Residential	7
RD-01	Heslop Road (Fuller Road to	Certificate of Title Volume 10008, Folio 695, Lot 1 on Title Plan 302494N	Residential	7

	Korumburra-Wonthaggi Road) 2400m			
CU-11	Culvert 11	Certificate of Title Volume 10008, Folio 695, Lot 1 on Title Plan 302494N	Residential	7
IN-07	McGibbonys Road and Korumburra - Wonthaggi Road	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential and Employment	65
CL-01	Purchase of Land and Construction of Community Centre	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential	65
CL-02	Purchase of Land and Construction of Community Hall	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential	65
SR-01	Purchase of land for 6 hectares multi-purpose sporting reserve and construction of Sporting and Associated Facilities	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential	65
WL-01	Wetland 1	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential and Employment	65
DR-01	Western Waterway	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential and Employment	65
CU-04	Culvert McGibbonys Road	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential and Employment	65
CIL	Community Infrastructure Levy	McGibbonys Road, Wonthaggi, Certificate of Title Volume 9882, Folio 057, Lot 1 on Plan of Subdivision PS 213550R	Residential	65
CL-01	Purchase of Land and Construction of Community Centre	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential	50, 51, 52
CL-02	Purchase of Land and Construction of Community Hall	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential	50, 51, 52
SR-01	Purchase of land for 6 hectares multi-purpose sporting reserve and construction of Sporting and Associated Facilities	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential	50, 51, 52
WL-01	Wetland 1	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential and Employment	50, 51, 52

IN-07	McGibbonys Road and Korumburra - Wonthaggi Road	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential and Employment	50, 51, 52
CU-04	Culvert McGibbonys Road	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential and Employment	50, 51, 52
CIL	Community Infrastructure Levy	16 Benetti Road, Wonthaggi, Certificate of Title Volume 11239, Folio 607, Lot 1 on Title Plan 635460X	Residential	50, 51, 52
CU-03	Culvert at Bass Highway (East)	9 Kevin Street, Wonthaggi Certificate of Title Volume 9569, Folios 221-225 (inclusive), Certificate of Title Volume 9699, Folios 79-83 (inclusive), and Certificate of Title 10354, Folio 747.	Residential and Employment	105, 110, 111, 114
DR-02	Eastern Waterway	9 Kevin Street, Wonthaggi Certificate of Title Volume 9569, Folios 221-225 (inclusive), Certificate of Title Volume 9699, Folios 79-83 (inclusive), and Certificate of Title 10354, Folio 747.	Residential and Employment	105, 110, 111, 114

APPENDIX B – PARCEL PROPERTY SPECIFIC LAND BUDGET

Detailed information on the developable area for each property is included in the Land Use Budget Plan and detailed land use budget (parcel specific) included in the PSP and provided below.


Plan 06 – Land Use Budget
Wonthaggi Development Contributions Plan
1:20,000 @ A4
0 200 400 600 800 1,000m
N
Powlett River
HESLOP RD
OATES HWY
BENETTI RD
McGIBBONYS RD
BASS HWY
CARNEYS RD
WONTHAGGI RECREATION RESERVE
WONTHAGGI
DCP boundary
arterial road - existing road reserve
non-arterial road - existing road reserve
arterial road - widening & intersection flaring
proposed government primary school
local community facilities
tree reserve
waterway & drainage reserve
local sports reserve
local park
local park (employment areas)
residential - NDA
employment - NDA
parcel & parcel identification number

PSP PROPERTY ID	TOTAL AREA (HECTARES)	Transport		Community & Education		Open Space					Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road	Other Transport			Uncredited Open Space	Credited Open Space					
		Arterial Road - New / Widening / Intersection Flaring (DCP land)	Non-Arterial Road - Retained Existing Road Reserve	Future Government School (DCP land)	Local Community Facility (DCP land)	Waterway and Drainage Reserve (DCP land)	Tree Reserve	Local Sports Reserve (DCP land)	Local Network Park (via Cl 53.01) (employment areas)	Local Network Park (via Cl 53.01) (residential areas)		
1	18.52	-	-	-	-	-	-	-	-	0.53	18.00	97.16%
2	3.57	-	-	-	-	-	-	-	-	-	3.57	100.00%
3	2.00	-	-	-	-	-	-	-	-	-	2.00	100.00%
4	10.36	-	-	-	-	-	-	-	-	0.15	10.21	98.55%
5	2.00	-	-	-	-	-	-	-	-	-	2.00	100.00%
6	44.46	-	-	-	-	1.70	-	-	-	1.93	40.83	91.83%
7	2.01	-	-	-	-	-	-	-	-	-	2.01	100.00%
8	27.68	-	-	-	0.10	2.52	-	-	-	0.50	24.55	88.72%
9	0.72	-	-	-	-	-	-	-	-	-	0.72	100.00%
10	0.72	-	-	-	-	-	-	-	-	-	0.72	100.00%
11	0.70	-	-	-	-	-	-	-	-	-	0.70	100.00%
12	0.77	-	-	-	-	-	-	-	-	-	0.77	100.00%
13	0.71	-	-	-	-	-	-	-	-	-	0.71	100.00%
14	0.71	-	-	-	-	-	-	-	-	-	0.71	100.00%
15	0.71	-	-	-	-	-	-	-	-	-	0.71	100.00%
16	1.70	-	-	-	-	-	-	-	-	-	1.70	100.00%
17	0.42	-	-	-	-	-	-	-	-	-	0.42	100.00%
18	2.00	-	-	-	-	-	-	-	-	-	2.00	100.00%
19	2.33	-	-	-	-	-	-	-	-	-	2.33	100.00%
20	2.11	-	-	-	-	-	-	-	-	-	2.11	100.00%
21	0.05	-	-	-	-	-	-	-	-	-	0.05	100.00%
22	1.33	-	-	-	-	-	-	-	-	-	1.33	100.00%
23	0.76	-	-	-	-	-	-	-	-	-	0.76	100.00%
24	2.16	-	-	-	-	-	-	-	-	-	2.16	100.00%
25	1.43	-	-	-	-	-	-	-	-	-	1.43	100.00%
26	2.25	-	-	-	-	-	-	-	-	-	2.25	100.00%
27	1.63	-	-	-	-	-	-	-	-	-	1.63	100.00%
28	0.42	-	-	-	-	-	-	-	-	-	0.42	100.00%
29	0.66	-	-	-	-	-	-	-	-	-	0.66	100.00%
30	0.73	-	-	-	-	-	-	-	-	-	0.73	100.00%
31	0.78	-	-	-	-	-	-	-	-	-	0.78	100.00%
32	1.47	-	-	-	-	-	-	-	-	-	1.47	100.00%
33	0.77	-	-	-	-	-	-	-	-	-	0.77	100.00%
34	0.75	-	-	-	-	-	-	-	-	-	0.75	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	Transport		Community & Education		Open Space					Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road	Other Transport			Uncredited Open Space	Credited Open Space					
		Arterial Road - New / Widening / Intersection Flaring (DCP land)	Non-Arterial Road - Retained Existing Road Reserve	Future Government School (DCP land)	Local Community Facility (DCP land)	Waterway and Drainage Reserve (DCP land)	Tree Reserve	Local Sports Reserve (DCP land)	Local Network Park (via Cl 53.01) (employment areas)	Local Network Park (via Cl 53.01) (residential areas)		
35	0.76	-	-	-	-	-	-	-	-	-	0.76	100.00%
36	0.77	-	-	-	-	-	-	-	-	-	0.77	100.00%
37	0.77	-	-	-	-	-	-	-	-	-	0.77	100.00%
38	16.37	-	-	-	-	-	-	-	-	0.50	15.87	96.95%
39	12.26	0.12	-	-	-	1.73	-	-	-	-	10.41	84.91%
40	14.81	-	-	-	-	-	-	-	-	1.00	13.81	93.25%
41	1.52	-	-	-	-	-	-	-	-	-	1.52	100.00%
42	1.89	-	-	-	-	-	-	-	-	-	1.89	100.00%
43	3.88	-	-	-	-	-	-	-	-	-	3.88	100.00%
44	2.18	-	-	-	-	-	-	-	-	-	2.18	100.00%
45	1.76	-	-	-	-	-	-	-	-	-	1.76	100.00%
46	45.72	0.11	-	-	-	22.06	-	-	-	-	23.56	51.52%
47	1.00	-	-	-	-	-	-	-	-	-	1.00	100.00%
48	1.95	-	-	-	-	-	-	-	-	-	1.95	100.00%
49	79.49	-	-	3.50	0.32	9.05	-	6.00	-	0.70	59.92	75.38%
50	8.90	-	-	-	-	-	-	-	-	0.89	8.01	90.00%
51	0.54	-	-	-	-	-	-	-	-	0.19	0.35	65.25%
52	56.30	-	-	-	-	4.28	-	-	-	1.29	50.73	90.10%
53	9.57	-	-	-	-	-	-	-	-	0.70	8.87	92.68%
54	1.00	-	-	-	-	-	-	-	-	-	1.00	100.00%
55	1.12	-	-	-	-	-	-	-	-	-	1.12	100.00%
56	46.09	-	-	-	-	5.69	-	-	-	0.70	39.71	86.15%
57	0.30	-	-	-	-	0.28	-	-	-	-	0.02	6.67%
58	1.80	-	-	-	-	0.46	-	-	-	-	1.34	74.42%
59	1.62	-	-	-	-	0.37	-	-	-	-	1.25	77.27%
60	3.63	-	-	-	-	0.92	-	-	-	-	2.71	74.66%
61	3.62	-	-	-	-	0.99	-	-	-	-	2.63	72.62%
62	0.39	-	-	-	-	-	-	-	-	-	0.39	100.00%
63-E	2.74	0.01	-	-	-	-	-	-	-	-	2.73	99.63%
63-R	10.57	0.42	-	-	-	-	-	-	-	0.70	9.45	89.39%
64-E	2.19	-	-	-	-	-	-	-	-	-	2.19	100.00%
64-R	24.27	-	-	-	-	-	0.16	-	-	0.51	23.60	97.25%
65	26.79	-	-	-	-	3.57	-	-	-	0.83	22.39	83.58%
66-E	3.24	0.04	-	-	-	-	-	-	-	-	3.20	98.77%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	Transport		Community & Education		Open Space					Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road	Other Transport			Uncredited Open Space	Credited Open Space					
		Arterial Road - New / Widening / Intersection Flaring (DCP land)	Non-Arterial Road - Retained Existing Road Reserve	Future Government School (DCP land)	Local Community Facility (DCP land)	Waterway and Drainage Reserve (DCP land)	Tree Reserve	Local Sports Reserve (DCP land)	Local Network Park (via Cl 53.01) (employment areas)	Local Network Park (via Cl 53.01) (residential areas)		
66-R	10.91	0.06	-	-	-	1.38	-	-	-	-	9.46	86.76%
67	0.28	-	-	-	-	-	-	-	-	-	0.28	100.00%
68	14.59	0.42	-	-	-	-	-	-	-	-	14.18	97.14%
69	0.50	0.02	-	-	-	-	-	-	-	-	0.48	95.83%
70	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
71	0.31	-	-	-	-	-	-	-	-	-	0.31	100.00%
72	0.72	0.02	-	-	-	-	-	-	-	-	0.70	97.23%
73	0.14	-	-	-	-	-	-	-	-	-	0.14	100.00%
74	0.14	-	-	-	-	-	-	-	-	-	0.14	100.00%
75	0.15	-	-	-	-	-	-	-	-	-	0.15	100.00%
76	0.08	0.02	-	-	-	-	-	-	-	-	0.06	75.58%
77	0.09	0.003	-	-	-	-	-	-	-	-	0.08	97.01%
78	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
79	0.26	-	-	-	-	-	-	-	-	-	0.26	100.00%
80	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
81	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
82	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
83	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
84	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
85	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
86	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
87	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
88	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
89	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
90	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
91	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
92	0.09	-	-	-	-	-	-	-	-	-	0.09	100.00%
93	0.09	-	-	-	-	-	-	-	-	-	0.09	100.00%
94	0.09	-	-	-	-	-	-	-	-	-	0.09	100.00%
95	0.09	-	-	-	-	-	-	-	-	-	0.09	100.00%
96	0.09	-	-	-	-	-	-	-	-	-	0.09	100.00%
97	0.09	-	-	-	-	-	-	-	-	-	0.09	100.00%
98	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
99	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	Transport		Community & Education		Open Space					Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road	Other Transport			Uncredited Open Space		Credited Open Space				
		Arterial Road - New / Widening / Intersection Flaring (DCP land)	Non-Arterial Road - Retained Existing Road Reserve	Future Government School (DCP land)	Local Community Facility (DCP land)	Waterway and Drainage Reserve (DCP land)	Tree Reserve	Local Sports Reserve (DCP land)	Local Network Park (via CI 53.01) (employment areas)	Local Network Park (via CI 53.01) (residential areas)		
100	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
101	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
102	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
103	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
104	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
105	0.11	-	-	-	-	-	-	-	-	-	0.11	100.00%
106	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
107	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
108	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
109	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
110	0.37	-	-	-	-	-	-	-	-	-	0.37	100.00%
111	0.25	-	0.25	-	-	-	-	-	-	-	0.00	0.00%
112	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
113	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
114	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
115	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
116	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
117	2.73	-	-	-	-	0.73	-	-	-	-	2.00	73.24%
118	0.08	-	-	-	-	-	-	-	-	-	0.08	100.00%
119	0.08	-	-	-	-	-	-	-	-	-	0.08	100.00%
120	0.08	0.01	-	-	-	-	-	-	-	-	0.07	83.77%
121	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
122	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
123	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
124	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
125	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
126	0.10	-	-	-	-	-	-	-	-	-	0.10	100.00%
127	7.41	-	-	-	-	0.52	-	-	-	-	6.89	93.00%
128	15.19	-	-	-	-	0.35	1.60	-	0.90	-	12.33	81.20%
129	12.88	-	-	-	-	-	-	-	-	-	12.88	100.00%
SUB-TOTAL	**600.72**	**1.25**	**0.25**	**3.50**	**0.42**	**56.60**	**1.76**	**6.00**	**0.90**	**11.12**	**518.92**	86.38%

APPENDIX C – PROJECT COST ESTIMATES & CONCEPT DESIGNS

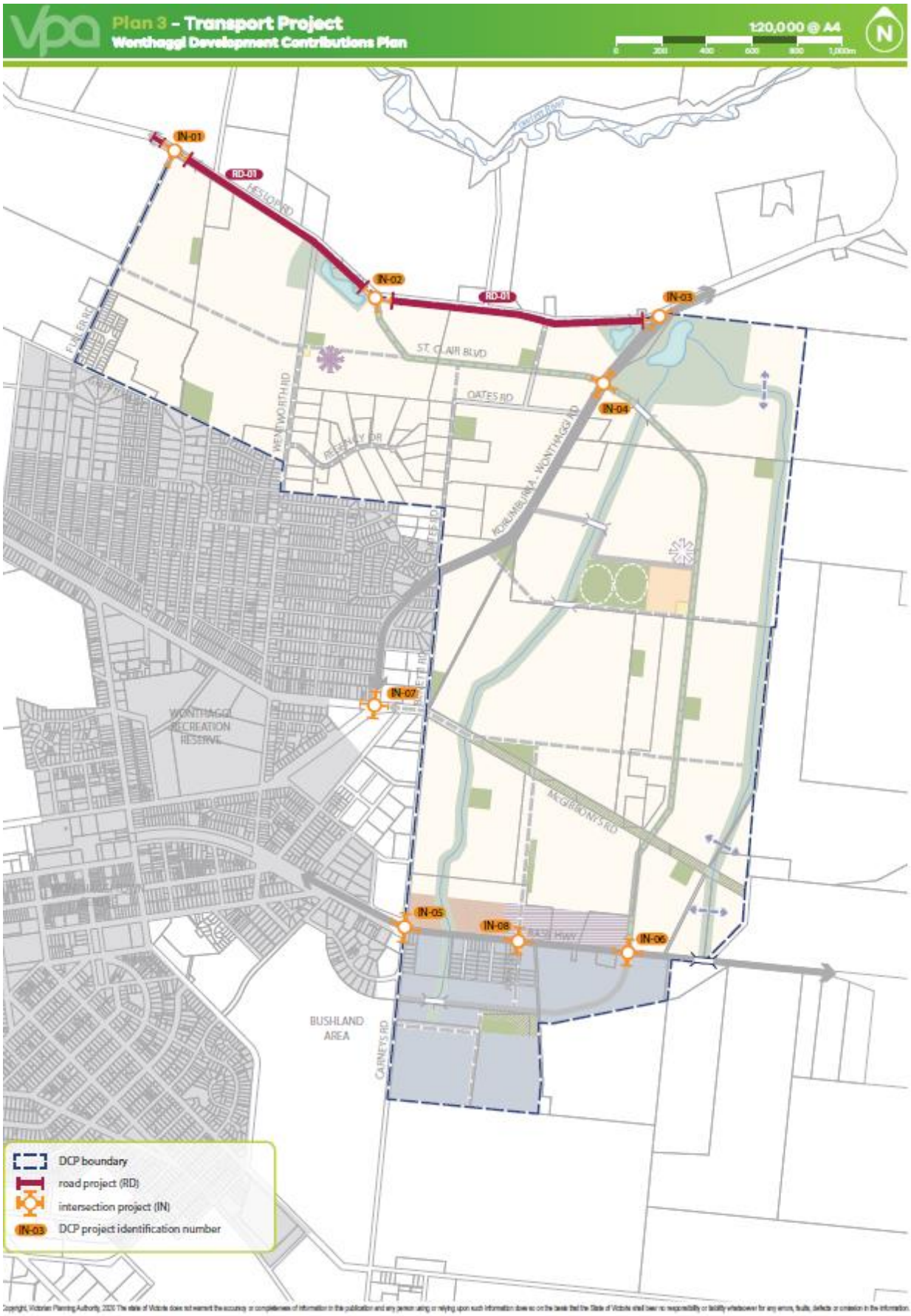
The following cost estimates and designs are provided for information purposes only to provide an indication about how the DCP project costs were calculated.

All projects be subject to detail design prior to delivery.

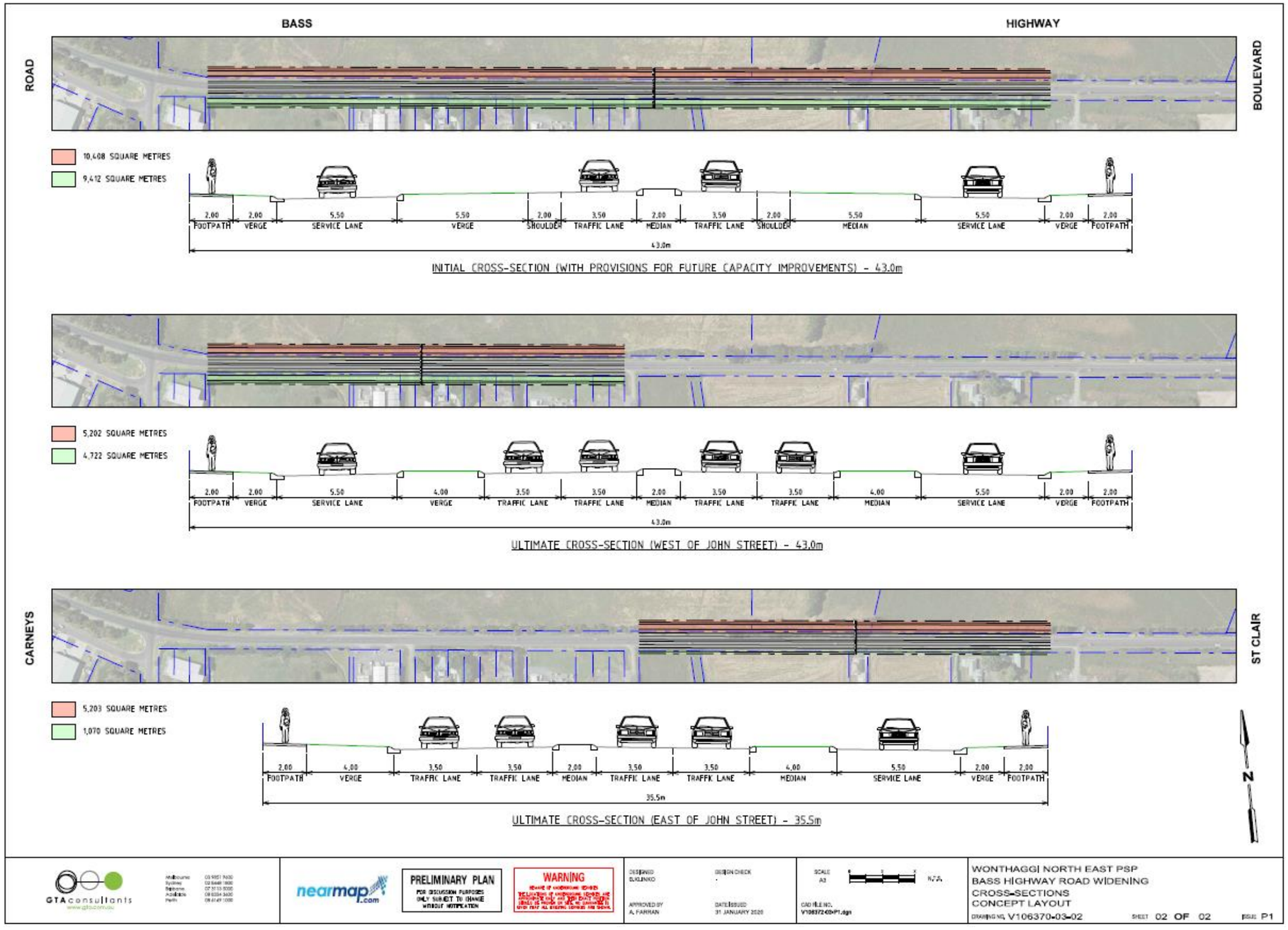
For information in addition to what is included in this Appendix refer to:

- Wonthaggi North PSP Concept Layout and Costings of Road Infrastructure – prepared by GTA Consultants
- Wonthaggi North PSP Stormwater Management Plan - Concept Wetland / Retarding basin – prepared by Engeny Water Management Consultants
- Infrastructure Costings – Community Infrastructure - prepared by Bass Coast Council in collaboration with the Victorian Planning Authority

TRANSPORT PROJECT DESIGNS AND COST ESTIMATES



RD-01 HESLOP ROAD (FULLER ROAD TO KORUMBURRA-WONTHAGGI ROAD) 2400m



RD-01

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V106370: Wonthaggi North East PSP - Heslop Rd (from Fuller Rd to Korumburra-Wonthaggi Rd)					
Civil Construction					
Date	7/02/2020				
Basis of Estimate					
This cost estimate is based on google aerial map only (No Fuller Road and Wentworth Road intersections)					
	Heslop Rd (from Fuller Rd to Korumburra-Wonthaggi Rd)				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 10,000.00	$ 10,000.00
1.02	Insurance	1	Item	$ 2,000.00	$ 2,000.00
1.03	Traffic Management and Control	70	Day	$ 500.00	$ 35,000.00
1.04	Supervision	1	Item	$ 12,000.00	$ 12,000.00
1.05	Surveying	1	Item	$ 12,000.00	$ 12,000.00
1.06	Sedimentation Control	1	Item	$ 6,000.00	$ 6,000.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 2,500.00	$ 2,500.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 6,000.00	$ 6,000.00
2.02	Tree Removals	15	No	$ 160.00	$ 2,400.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 200,000.00	$ 200,000.00
4.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
4.01	450mm Heavy duty pavement				
4.01.1	Road pavements as specified and required	15400	m^2	$ 105.00	$ 1,617,000.00
4.01.2	Road shoulder pavement	4400	m^2	$ 45.00	$ 198,000.00
5.00	DRAINAGE				
5.01	Drainage Pipes and Culverts				
5.01.1	300mm dia RCP Class 2, RRJ	60	Lm	$ 250.00	$ 15,000.00
5.01.2	RCBC culvert (600 x 450)	50	Lm	$ 600.00	$ 30,000.00
5.02	Drainage Pits				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
5.02.2	Other				
5.02.2.1	Culvert end walls	6	Item	$ 4,000.00	$ 24,000.00
6.00	AGRICULTURAL DRAINS				
6.01	100mm dia grade 1000 AG drain, screening backfill	100	Lm	$ 55.00	$ 5,500.00
6.02	SSD Pit/ flushout riser/ outlet	6	Item	$ 1,250.00	$ 7,500.00

RD-01

GTAconsultants

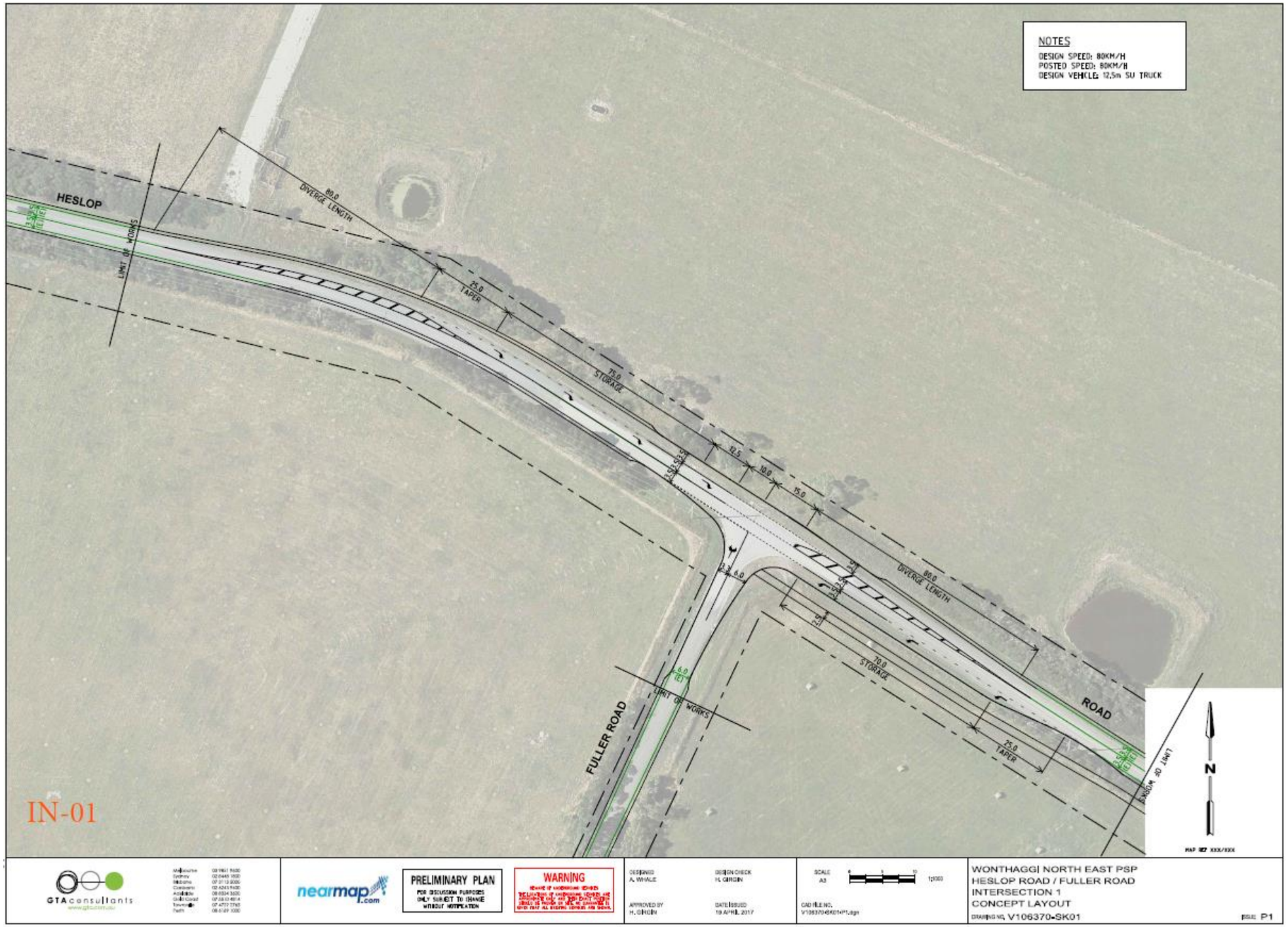
7.00	**DELINEATION**				
7.01	**Signage**				
7.01.1	**The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified**	**1**	**Item**	**$ 3,000.00**	**$ 3,000.00**
7.02	**Line marking**				
7.02.1	**Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive**				
7.02.2	**Thermoplastic to VicRoads standards**	**1**	**Item**	**$ 4,000.00**	**$ 4,000.00**
8.00	**LANDSCAPING/TOPSOILING & REINSTATEMENT**				
8.01	**Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period**	**2300**	**m^2**	**$ 40.00**	**$ 92,000.00**
9.00	**MISCELLANEOUS**				
9.01	**Final clean-up, Including demobilisation and removal of temporary structures, etc.**	**1**	**Item**	**$ 8,000.00**	**$ 8,000.00**
	Sub Total _Civil				***$ 2,291,900.00***
	Total				***$ 2,291,900.00***
	Total with 10% Project Management Fee				***$ 2,521,090.00***
	Total with 10% Project Management Fee + 30% contingency				***$ 3,277,417.00***

Please also note the followings assumptions and exclusions:

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Land acquisition
6. Price escalation is not included in the estimate
7. Excludes any allowance for abnormal weather conditions
8. No allowance has been made for night-works if required
9. No Pedestrian or Shared path cost is included in this estimate

The above opinion of probable costs should be considered current to the date of the document only. GTA Consultants cannot provide any form of assurance that the costings provided will not change due to changes in design and/or future costs of materials. The future outcome may vary, and this variation may be material.
Any party requiring detailed costing for budgeting, quoting or construction purposes should seek a detailed cost estimate from a suitably qualified quantity surveyor.

IN-01 HESLOP ROAD AND FULLER ROAD



IN-01

GTAconsultants

V106370: Wonthaggi North East PSP - Heslop Rd / Fuller Rd					
Civil Construction					
Date	7/02/2020				
Basis of Estimate					
This cost estimate is based on GTA plan V106370-SK01 P1 dated 19 Apr 2017 (Taper end along Heslop Road and 50m along Fuller Road)					
	Heslop Rd / Fuller Rd - Proposed T intersection				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 8,000.00	$ 8,000.00
1.02	Insurance	1	Item	$ 2,000.00	$ 2,000.00
1.03	Traffic Management and Control	40	Day	$ 700.00	$ 28,000.00
1.04	Supervision	1	Item	$ 8,000.00	$ 8,000.00
1.05	Surveying	1	Item	$ 6,000.00	$ 6,000.00
1.06	Sedimentation Control	1	Item	$ 1,500.00	$ 1,500.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 1,000.00	$ 1,000.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 3,500.00	$ 3,500.00
2.02	Tree Removals	6	No	$ 160.00	$ 960.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 25,000.00	$ 25,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	Kerb and Channel, Concrete Strength				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	300	Lm	$ 70.00	$ 21,000.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	Concrete Footpath Pavement, including bedding as specified Concrete Strength				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	540	m^2	$ 125.00	$ 67,500.00
5.01.2	Reconstruction of pram ramp in accordance with council standards	4	Item	$ 1,250.00	$ 5,000.00
6.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	450mm Heavy duty pavement				
6.01.1	Road pavements as specified and required	3950	m^2	$ 125.00	$ 493,750.00
7.00	DRAINAGE				
7.01	Drainage Pipes and Culverts				
7.01.1	300mm dia RCP Class 2, RRJ	40	Lm	$ 250.00	$ 10,000.00
7.02	Drainage Pits				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	Side Entry Pits, as specified				
7.02.1.1	900 x 900	6	No	$ 1,850.00	$ 11,100.00
8.00	AGRICULTURAL DRAINS				
8.01	100mm dia grade 1000 AG drain, screening backfill	300	Lm	$ 55.00	$ 16,500.00
8.02	SSD Pit/ flush out riser/ outlet	6	Item	$ 1,250.00	$ 7,500.00

IN-01

GTAconsultants

9.00	**DELINEATION**				
9.01	**Signage**				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 2,500.00	$ 2,500.00
9.02	**Line marking**				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to VicRoads standards	1	Item	$ 3,000.00	$ 3,000.00
10.00	**LANDSCAPING/TOPSOILING & REINSTATEMENT**				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	600	m^2	$ 50.00	$ 30,000.00
11.00	**MISCELLANEOUS**				
11.01	Public lights	3	No	$ 12,800.00	$ 38,400.00
11.02	Final clean-up, including demobilisation and removal of temporary structures, etc.	1	Item	$ 4,000.00	$ 4,000.00
	Sub Total Civil				*$ 794,210.00*
	Total				*$ 794,210.00*
	Total with 10% Project Management Fee				*$ 873,631.00*
	Total with 10% Project Management Fee + 30% contingency				***$ 1,135,720.30***

Please also note the following assumptions and exclusions

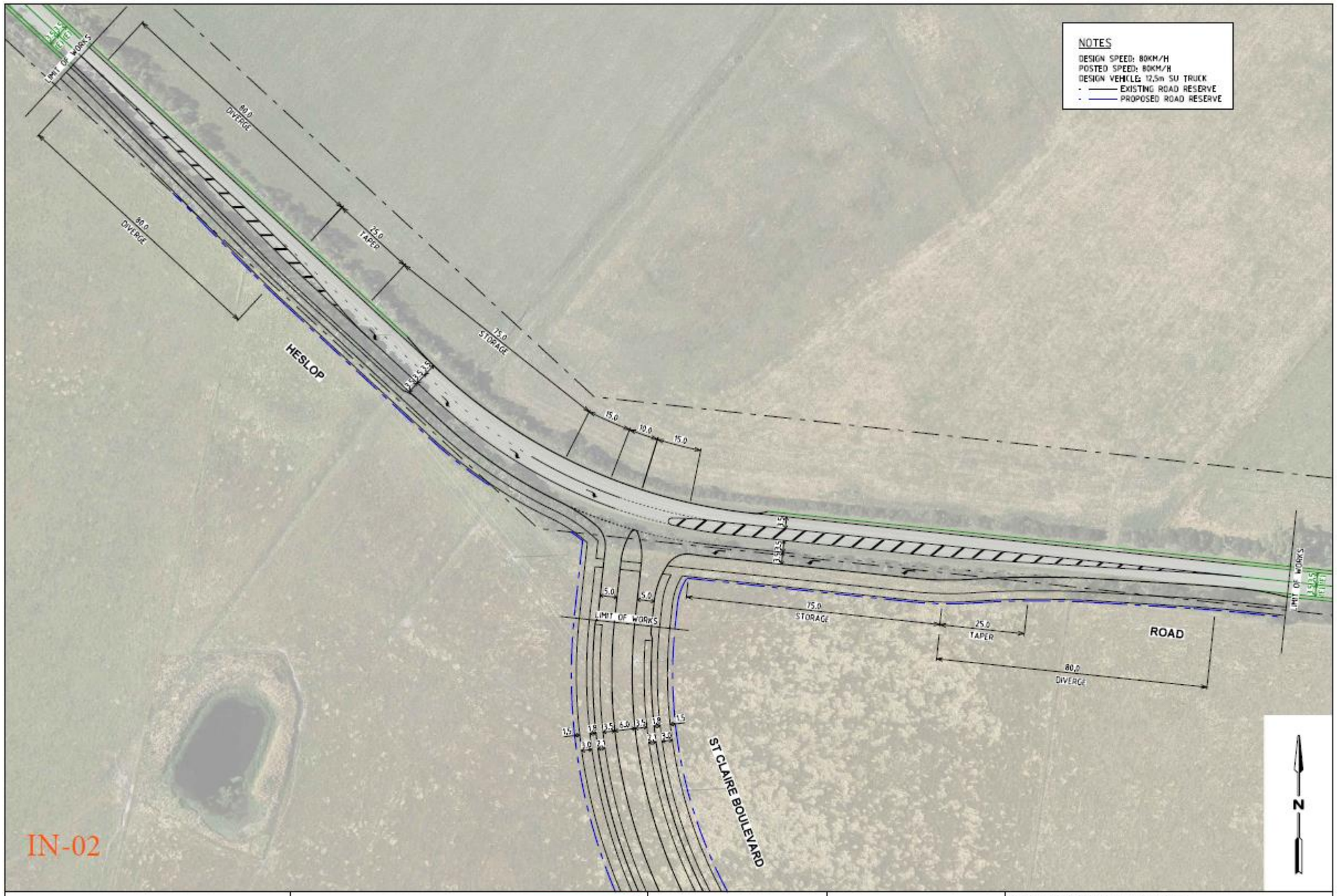
1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required

The above opinion of probable costs should be considered current to the date of the document only. GTA Consultants cannot provide any form of assurance that the costings provided will not change due to changes in design and/or future costs of materials. The future outcome may vary, and this variation may be material.

This potential for variation should be considered in any circumstances where the costings are to be used for high level budgeting purposes, even in the short term.

Any party requiring detailed costing for quoting or construction purposes should seek a detailed cost estimate from a suitably qualified quantity surveyor.

IN-02 HESLOP ROAD AND ST CLAIR BOULEVARD



IN-02

GTAconsultants

V106373: Wonthaggi North East PSP - Heslop Rd / St Claire Boulevard					
Civil Construction					
Date	7/02/2020				
Basis of Estimate					
This cost estimate is based on GTA plan V106373-01 P1 dated 06 May 2019					
	Heslop Rd / St Claire Boulevard - Proposed T intersection				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 10,000.00	$ 10,000.00
1.02	Insurance	1	Item	$ 2,000.00	$ 2,000.00
1.03	Traffic Management and Control	60	Day	$ 750.00	$ 45,000.00
1.04	Supervision	1	Item	$ 10,000.00	$ 10,000.00
1.05	Surveying	1	Item	$ 8,000.00	$ 8,000.00
1.06	Sedimentation Control	1	Item	$ 1,500.00	$ 1,500.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 1,500.00	$ 1,500.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 5,500.00	$ 5,500.00
2.02	Saw cutting of existing pavements where required to match new pavement or kerb and channel etc.	400	Lm	$ 12.00	$ 4,800.00
2.03	Tree Removals	120	No	$ 450.00	$ 54,000.00
2.04	Permanently remove or blackout existing line marking	1	Item	$ 3,500.00	$ 3,500.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 75,000.00	$ 75,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	Kerb and Channel, Concrete Strength				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	420	Lm	$ 70.00	$ 29,400.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	Concrete Footpath Pavement, including bedding as specified Concrete Strength				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	1230	m^2	$ 125.00	$ 153,750.00
5.01.2	Construction of pram ramp in accordance with council standards	4	Item	$ 1,250.00	$ 5,000.00
5.01.3	Concrete infill	90	m^2	$ 130.00	$ 11,700.00
6.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	450mm Heavy duty pavement				
6.01.1	Road pavement as specified and required	1620	m^2	$ 125.00	$ 202,500.00
6.01.2	Asphalt Resheet/Regulation with type V or H asphalt	2100	m^2	$ 45.00	$ 94,500.00
7.00	DRAINAGE				
7.01	Drainage Pipes and Culverts				
7.01.1	300mm dia RCP Class 2, RRJ	120	Lm	$ 250.00	$ 30,000.00
7.02	Drainage Pits				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	Side Entry Pits, as specified				
7.02.1.1	750 x 1000	12	No	$ 1,850.00	$ 22,200.00
8.00	AGRICULTURAL DRAINS				
8.01	100mm dia grade 1000 AG drain, screening backfill	840	Lm	$ 55.00	$ 46,200.00
8.02	SSD Pit/ flush out riser/ outlet	8	Item	$ 1,250.00	$ 10,000.00

IN-02

9.00	**DELINEATION**				
9.01	**Signage**				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 2,500.00	$ 2,500.00
9.02	**Line marking**				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to VicRoads standards	1	Item	$ 3,000.00	$ 3,000.00
10.00	**LANDSCAPING/TOPSOILING & REINSTATEMENT**				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	600	m^2	$ 50.00	$ 30,000.00
11.00	**MISCELLANEOUS**				
11.01	Public lights	4	No	$ 12,800.00	$ 51,200.00
11.02	Final clean-up, including demobilisation and removal of temporary structures, etc.	1	Item	$ 4,000.00	$ 4,000.00
	Sub Total Civil				*$ 916,750.00*
	Total				*$ 916,750.00*
	Total with 10% Project Management Fee				*$ 1,008,425.00*
	Total with 10% Project Management Fee + 30% contingency				***$ 1,310,952.50***

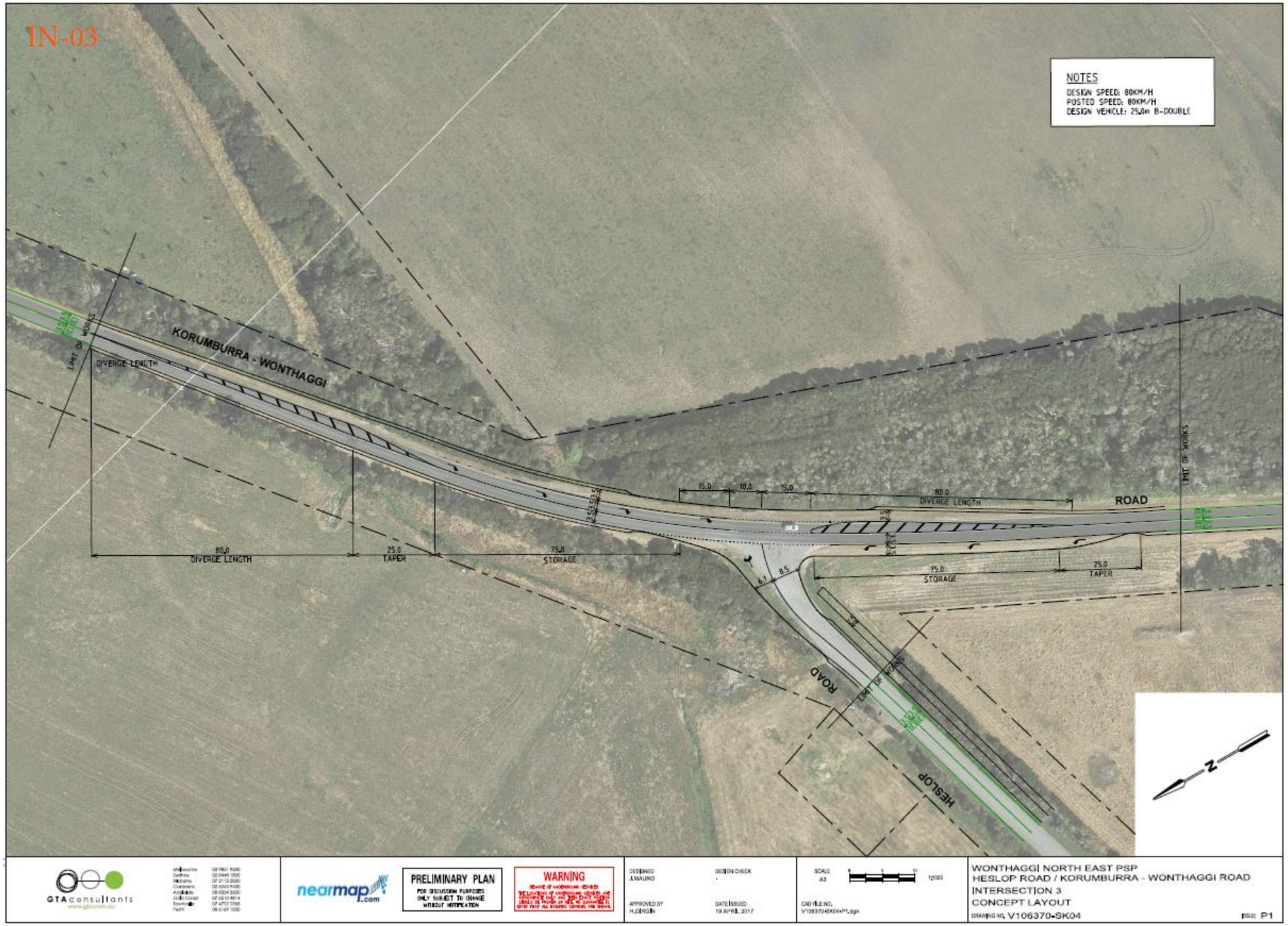
Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required
10. The above opinion of probable costs should be considered current to the date of the document only. GTA Consultants cannot provide any form of assurance that the costings provided will not change due to changes in design and/or future costs of materials. The future outcome may vary, and this variation may be material.

This potential for variation should be considered in any circumstances where the costings are to be used for high level budgeting purposes, even in the short term.

Any party requiring detailed costing for quoting or construction purposes should seek a detailed cost estimate from a suitably qualified quantity surveyor.

IN-03 HESLOP ROAD AND KORUMBURRA-WONTHAGGI ROAD



IN-03

GTAconsultants

V106370: Wonthaggi North East PSP - Heslop Rd / Korumburra - Wonthaggi Rd					
Civil Construction					
Date	7/02/2020				
Basis of Estimate					
This cost estimate is based on GTA plan V106370-SK04 P1 dated 19 Apr 2017 (Upto the taper end along Korumburra- Wonthaggi Road and 60m along Heslop Road)					
	Heslop Rd / Korumburra - Wonthaggi Rd - Proposed T intersection				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 10,000.00	$ 10,000.00
1.02	Insurance	1	Item	$ 2,500.00	$ 2,500.00
1.03	Traffic Management and Control	40	Day	$ 800.00	$ 32,000.00
1.04	Supervision	1	Item	$ 9,000.00	$ 9,000.00
1.05	Surveying	1	Item	$ 7,000.00	$ 7,000.00
1.06	Sedimentation Control	1	Item	$ 2,500.00	$ 2,500.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 1,500.00	$ 1,500.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 7,500.00	$ 7,500.00
2.02	Tree Removals	10	No	$ 200.00	$ 2,000.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 60,000.00	$ 60,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	Kerb and Channel, Concrete Strength				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	280	Lm	$ 70.00	$ 19,600.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	Concrete Footpath Pavement, including bedding as specified Concrete Strength				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	150	m^2	$ 125.00	$ 18,750.00
5.01.2	Reconstruction of pram ramp in accordance with council standards	2	Item	$ 1,250.00	$ 2,500.00
6.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	600mm Heavy duty pavement				
6.01.1	Road pavement as specified and required	2600	m^2	$ 125.00	$ 325,000.00
6.01.2	Asphalt Regulation works	2140	m^2	$ 45.00	$ 96,300.00

IN-03

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7.00	DRAINAGE				
7.01	Drainage Pipes and Culverts				
7.01.1	300mm dia RCP Class 2, RRJ	60	Lm	$ 250.00	$ 15,000.00
	Box Culvert extension	1	Item	$ 40,000.00	$ 40,000.00
7.02	Drainage Pits				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	Side Entry Pits, as specified				
7.02.1.1	900 x 900	6	No	$ 1,850.00	$ 11,100.00
7.02.2	Other				
7.02.2.1	End wall for RCBC as required	1	Item	$ 10,000.00	$ 10,000.00
8.00	AGRICULTURAL DRAINS				
8.01	100mm dia grade 1000 AG drain, screening backfill	280	Lm	$ 55.00	$ 15,400.00
8.02	SSD Pit/ flush out riser/ outlet	6	Item	$ 1,250.00	$ 7,500.00
9.00	DELINEATION				
9.01	Signage				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 3,000.00	$ 3,000.00
9.02	Line marking				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to vicroads standards	1	Item	$ 3,500.00	$ 3,500.00
10.00	LANDSCAPING/TOPSOILING & REINSTATEMENT				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	1200	m^2	$ 50.00	$ 60,000.00
11.00	MISCELLANEOUS				
11.01	Public lights	5	No	$ 12,800.00	$ 64,000.00
11.02	Guard fence protection	540	Lm	$ 80.00	$ 43,200.00
11.03	End Terminals - Guard fence (MASH)	5	No	$ 6,000.00	$ 30,000.00
11.04	Final clean-up, Including demobilisation and removal of temporary structures, etc.	1	Item	$ 4,000.00	$ 4,000.00
	Sub Total _Civil				*$ 902,850.00*
	Total				*$ 902,850.00*
	Total with 10% Project Management Fee				*$ 993,135.00*
	Total with 10% Project Management Fee + 30% contingency				***$ 1,291,075.50***

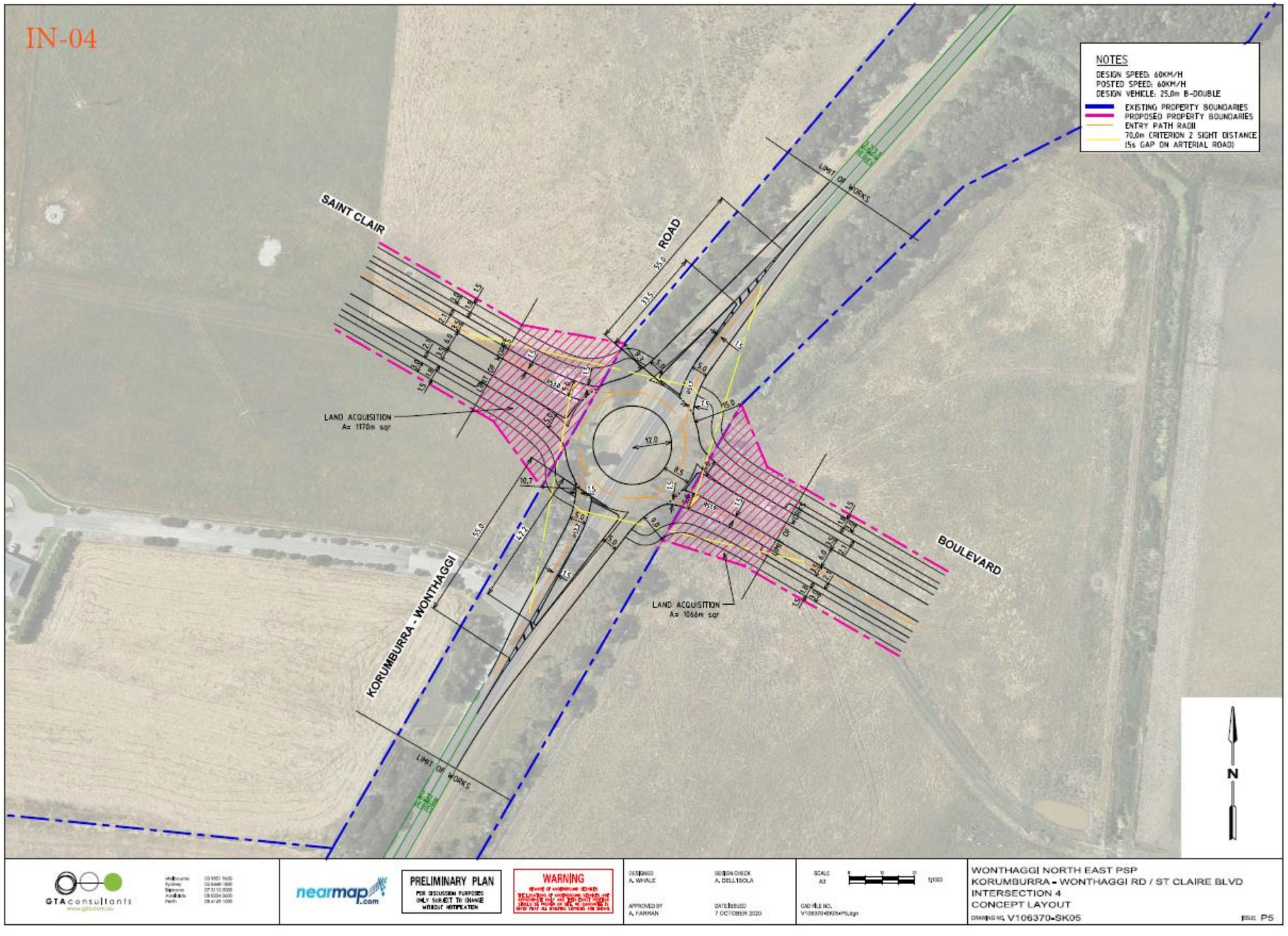
Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required

The above opinion of probable costs should be considered current to the date of the document only. GTA Consultants cannot provide any form of assurance that the costings provided will not change due to changes in design and/or future costs of materials. The future outcome may vary, and this variation may be material.

Any party requiring detailed costing for budgeting, quoting or construction purposes should seek a detailed cost estimate from a suitably qualified quantity surveyor.

IN-04 KORUMBURRA ROAD – WONTHAGGI ROAD AND ST CLAIRE BOULEVARD



IN-04

GTAconsultants

V106370: Wonthaggi North East PSP - Korumburra-Wonthaggi Rd / St Claire Blvd					
Civil Construction					
Date	6/10/2020				
Basis of Estimate					
This cost estimate is based on GTA plan V106370-SK05 P4 dated 1 Oct 2020 (Limit of works as highlighted)					
	Korumburra-Wonthaggi Rd / St Claire Blvd - Proposed Roundabout - Option 1				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 20,000.00	$ 20,000.00
1.02	Insurance	1	Item	$ 4,000.00	$ 4,000.00
1.03	Traffic Management and Control	90	Day	$ 800.00	$ 72,000.00
1.04	Supervision	1	Item	$ 20,000.00	$ 20,000.00
1.05	Surveying	1	Item	$ 10,000.00	$ 10,000.00
1.06	Sedimentation Control	1	Item	$ 2,500.00	$ 2,500.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 2,000.00	$ 2,000.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 8,000.00	$ 8,000.00
2.02	Saw cutting of existing pavements where required to match new pavement or kerb and channel etc.	20	Lm	$ 12.00	$ 240.00
2.03	Permanently remove or blackout existing line marking	20	Lm	$ 20.00	$ 400.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 120,000.00	$ 120,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	**Kerb and Channel, Concrete Strength**				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	855	Lm	$ 70.00	$ 59,850.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	**Concrete Footpath Pavement, including bedding as specified Concrete Strength**				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	360	m^2	$ 125.00	$ 45,000.00
5.01.2	Reconstruction of pram ramp in accordance with council standards	8	Item	$ 1,250.00	$ 10,000.00
5.01.3	Concrete infill	840	m^2	$ 130.00	$ 109,200.00
6.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	**600mm Heavy duty pavement**				
6.01.1	Road pavement as specified and required	2970	m^2	$ 125.00	$ 371,250.00
6.01.2	Asphalt Resheet with type V asphalt	200	m^2	$ 45.00	$ 9,000.00

IN-04

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7.00	**DRAINAGE**				
7.01	**Drainage Pipes and Culverts**				
7.01.1	300mm dia RCP Class 2, RRJ	140	Lm	$ 250.00	$ 35,000.00
7.02	**Drainage Pits**				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	**Side Entry Pits, as specified**				
7.02.1.1	750 x 1000	16	No	$ 1,850.00	$ 29,600.00
8.00	**AGRICULTURAL DRAINS**				
8.01	100mm dia grade 1000 AG drain, screening backfill	860	Lm	$ 55.00	$ 47,300.00
8.02	SSD Pit/ flush out riser/ outlet	8	Item	$ 1,250.00	$ 10,000.00
9.00	**DELINEATION**				
9.01	**Signage**				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 5,000.00	$ 5,000.00
9.02	**Line marking**				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to VicRoads standards	1	Item	$ 6,000.00	$ 6,000.00
10.00	**LANDSCAPING/TOPSOILING & REINSTATEMENT**				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	800	m^2	$ 50.00	$ 40,000.00
11.00	**MISCELLANEOUS**				
11.01	Public lights	11	No	$ 12,800.00	$ 140,800.00
11.02	Final clean-up, Including demobilisation and removal of temporary structures, etc.	1	Item	$ 4,500.00	$ 4,500.00
	Sub Total _ Civil				$ *1,181,640.00*
	Total				$ ***1,181,640.00***
	Total with 10% Project Management Fee				$ ***1,299,804.00***
	Total with 10% Project Management Fee + 30% contingency				$ ***1,689,745.20***

Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required

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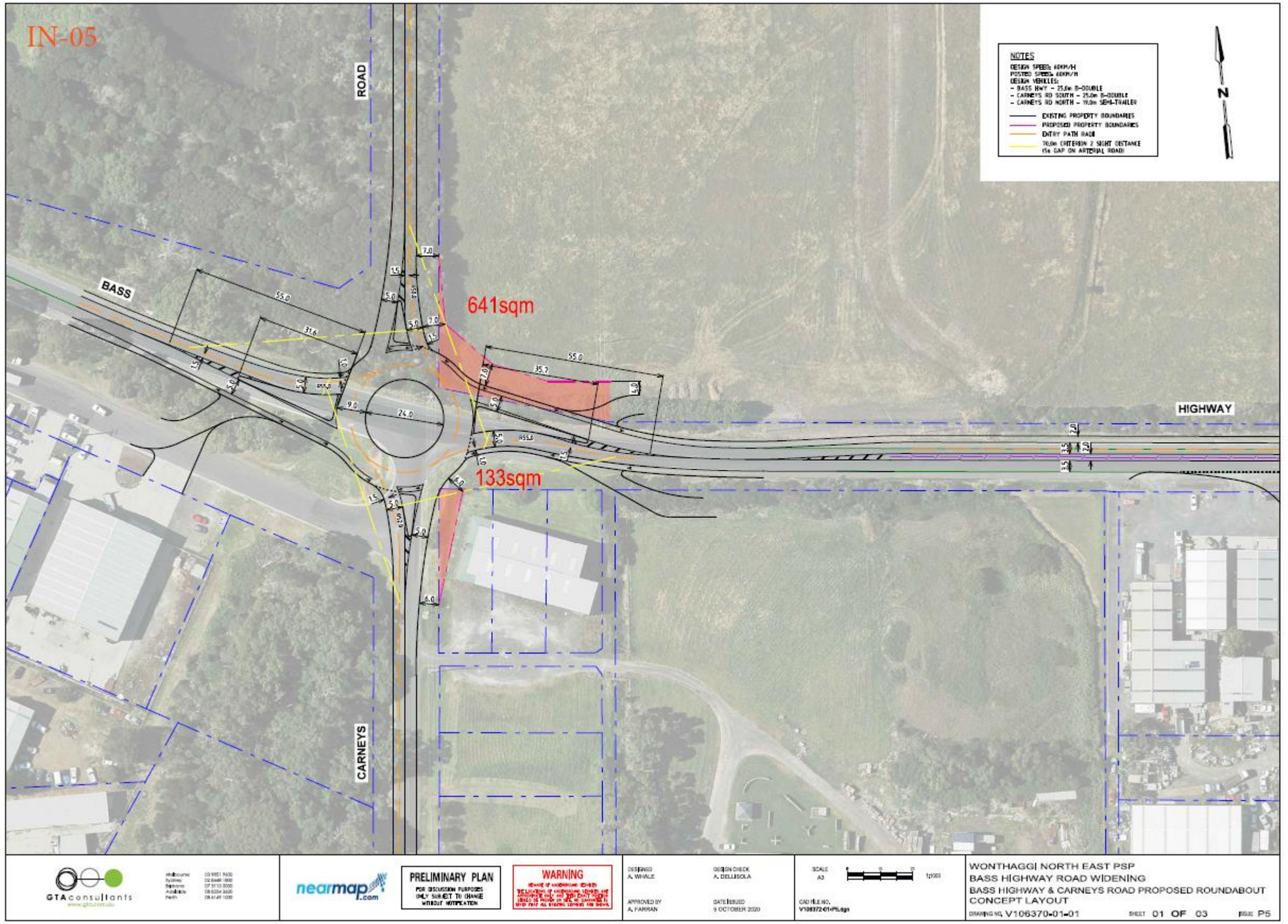
IN-05 BASS HIGHWAY AND CARNEYS ROAD



IN-05

GTAconsultants

6.00	**PAVEMENTS, FLEXIBLE**				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	**450mm Heavy duty pavement**				
6.01.1	Road pavement as specified and required	3050	m^3	$ 125.00	$ 381,250.00
6.01.2	Asphalt Resheet with type V or other type asphalt	500	m^3	$ 45.00	$ 22,500.00
7.00	**DRAINAGE**				
7.01	**Drainage Pipes and Culverts**				
7.01.1	300mm dia RCP Class 2, RRJ	110	Lm	$ 250.00	$ 27,500.00
7.01.2	450 X 300 RCBC	24	Lm	$ 450.00	$ 10,800.00
7.02	**Drainage Pits**				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	**Side Entry Pits, as specified**				
7.02.1.1	750 x 1000	14	No	$ 1,850.00	$ 25,900.00
7.02.2	**Other**				
7.02.2.1	End wall as required	3	Item	$ 2,500.00	$ 7,500.00
8.00	**AGRICULTURAL DRAINS**				
8.01	100mm dia grade 1000 AG drain, screening backfill	610	Lm	$ 55.00	$ 33,550.00
8.02	SSD Pit/ flushout riser/ outlet	8	Item	$ 1,250.00	$ 10,000.00
9.00	**DELINEATION**				
9.01	**Signage**				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 5,000.00	$ 5,000.00
9.02	**Line marking**				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to vicroads standards	1	Item	$ 6,000.00	$ 6,000.00
10.00	**LANDSCAPING/TOPSOILING & REINSTATEMENT**				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	650	m^3	$ 50.00	$ 32,500.00
11.00	**MISCELLANEOUS**				
11.01	Public lights	9	No	$ 12,800.00	$ 115,200.00
11.02	Final clean-up, including demobilisation and removal of temporary structures, etc.	1	Item	$ 5,500.00	$ 5,500.00
	Sub Total Civil				*$ 1,252,460.00*
	Total				***$ 1,252,460.00***
	Total with 10% Project Management Fee				***$ 1,377,706.00***
	Total with 10% Project Management Fee + 30% contingency				***$ 1,791,017.80***

Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required

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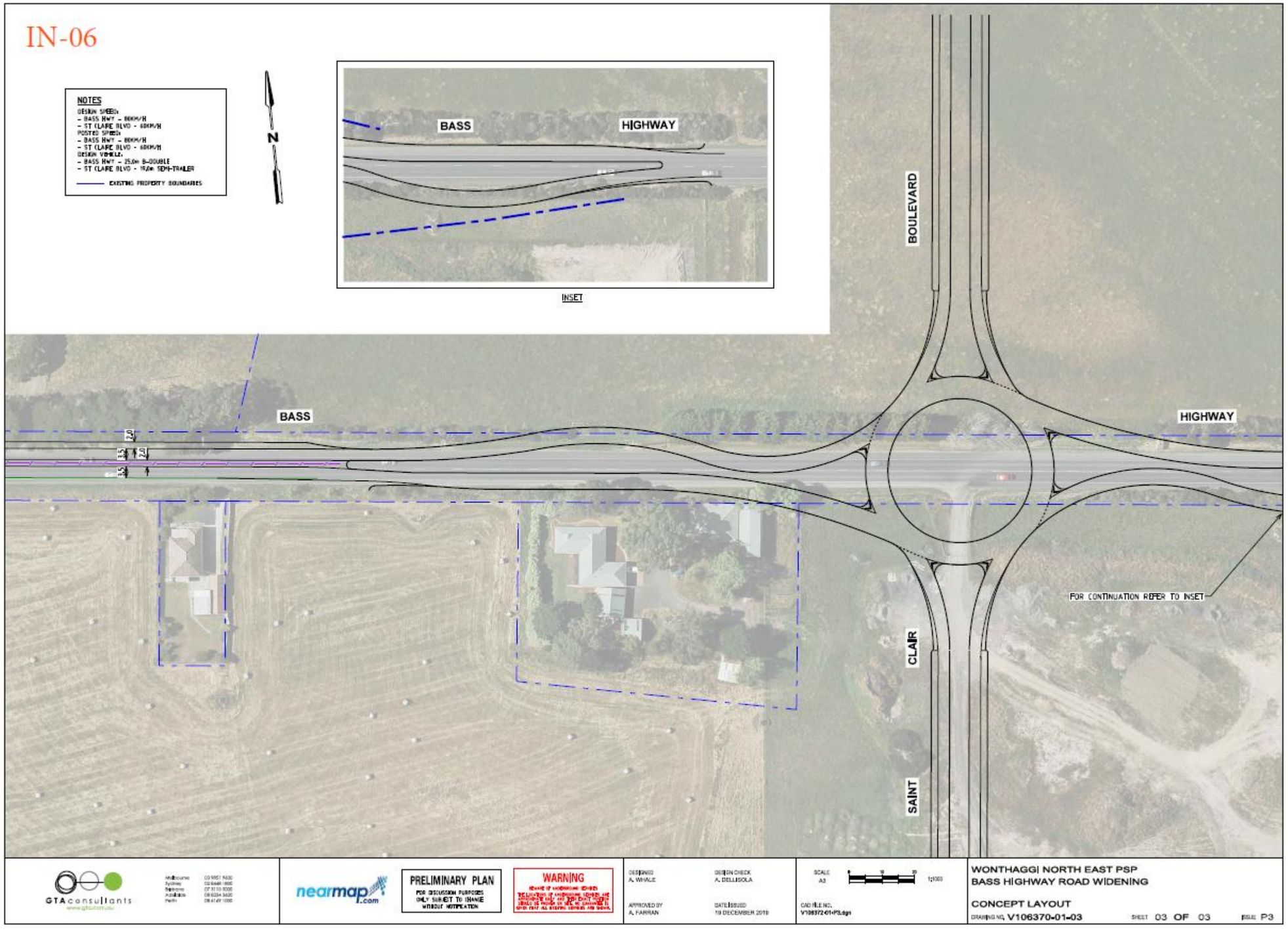
IN-05

GTAconsultants

V106370: Wonthaggi North East PSP - Bass Hwy / Carneys Rd					
Civil Construction					
Date	9/10/2020				
Basis of Estimate					
This cost estimate is based on GTA plan V106370-01-01 - P5 dated 5 Oct 2020 (Approximately 55m of each legs)					
	Bass Hwy / Carneys Rd - Proposed Roundabout				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 16,000.00	$ 16,000.00
1.02	Insurance	1	Item	$ 3,500.00	$ 3,500.00
1.03	Traffic Management and Control	80	Day	$ 900.00	$ 72,000.00
1.04	Supervision	1	Item	$ 20,000.00	$ 20,000.00
1.05	Surveying	1	Item	$ 10,000.00	$ 10,000.00
1.06	Sedimentation Control	1	Item	$ 3,500.00	$ 3,500.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 2,000.00	$ 2,000.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 12,000.00	$ 12,000.00
2.02	Breakout and remove redundant existing kerb and channel	80	Lm	$ 15.00	$ 1,200.00
2.03	Saw cutting of existing pavements where required to match new pavement or kerb and channel etc.	130	Lm	$ 12.00	$ 1,560.00
2.04	Tree Removals	40	No	$ 160.00	$ 6,400.00
2.05	Remove redundant end wall	1	Item	$ 400.00	$ 400.00
2.06	Permanently remove or blackout existing line marking	100	Lm	$ 20.00	$ 2,000.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 120,000.00	$ 120,000.00
3.02	Trimming of subgrade under kerbs as necessary to provide 100mm min. bedding depth	1	Item	$ 2,000.00	$ 2,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	Kerb and Channel, Concrete Strength				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	610	Lm	$ 70.00	$ 42,700.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	Concrete Footpath Pavement, including bedding as specified Concrete Strength				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	600	m^2	$ 125.00	$ 75,000.00
5.01.2	Reconstruction of pram ramp in accordance with council standards	8	Item	$ 1,250.00	$ 10,000.00
5.01.3	Concrete infill	1300	m^2	$ 130.00	$ 169,000.00

IN-06 BASS HIGHWAY AND ST CLAIR BOULEVARD



IN-06

GTAconsultants

V106370: Wonthaggi North East PSP - Bass Hwy / St Claire Blvd					
Civil Construction					
Date	7/02/2020				
Basis of Estimate					
This cost estimate is based on GTA plan V106370-SK07 P2 dated 29 May 2017 (Approximately 150m of Bass Highway legs and 50m of Saint Clair Boulevard legs)					
	Bass Hwy / St Claire Blvd - Proposed Roundabout				
Item	Description of works	Quantity	Unit	Rate	Amount
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 18,000.00	$ 18,000.00
1.02	Insurance	1	Item	$ 4,000.00	$ 4,000.00
1.03	Traffic Management and Control	75	Day	$ 800.00	$ 60,000.00
1.04	Supervision	1	Item	$ 18,000.00	$ 18,000.00
1.05	Surveying	1	Item	$ 10,000.00	$ 10,000.00
1.06	Sedimentation Control	1	Item	$ 3,000.00	$ 3,000.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 1,800.00	$ 1,800.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 8,000.00	$ 8,000.00
2.02	Saw cutting of existing pavements where required to match new pavement or kerb and channel etc.	40	Lm	$ 12.00	$ 480.00
2.03	Tree Removals	20	No	$ 160.00	$ 3,200.00
2.04	Permanently remove or blackout existing line marking	40	Lm	$ 20.00	$ 800.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 125,000.00	$ 125,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	Kerb and Channel, Concrete Strength				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	1550	Lm	$ 70.00	$ 108,500.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	Concrete Footpath Pavement, including bedding as specified Concrete Strength				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	1080	m^2	$ 125.00	$ 135,000.00
5.01.2	Reconstruction of pram ramp in accordance with council standards	8	Item	$ 1,250.00	$ 10,000.00
5.01.3	Concrete infill	385	m^2	$ 130.00	$ 50,050.00
6.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	600mm Heavy duty pavement				
6.01.1	Road pavement as specified and required	5200	m^2	$ 125.00	$ 650,000.00
6.01.2	Asphalt Resheet with type V asphalt	200	m^2	$ 45.00	$ 9,000.00
7.00	DRAINAGE				
7.01	Drainage Pipes and Culverts				
7.01.1	375mm dia RCP Class 2, RRJ	150	Lm	$ 300.00	$ 45,000.00
7.02	Drainage Pits				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	Side Entry Pits, as specified				
7.02.1.1	750 x 1000	12	No	$ 1,850.00	$ 22,200.00

IN-06

8.00	AGRICULTURAL DRAINS				
8.01	100mm dia grade 1000 AG drain, screening backfill	950	Lm	$ 55.00	$ 52,250.00
8.02	SSD Pit/ flush out riser/ outlet	12	Item	$ 1,250.00	$ 15,000.00
9.00	DELINEATION				
9.01	Signage				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 6,000.00	$ 6,000.00
9.02	Line marking				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to VicRoads standards	1	Item	$ 6,500.00	$ 6,500.00
10.00	LANDSCAPING/TOPSOILING & REINSTATEMENT				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	3550	m^2	$ 50.00	$ 177,500.00
11.00	MISCELLANEOUS				
11.01	Public lights	16	No	$ 12,800.00	$ 204,800.00
11.02	Final clean-up, including demobilisation and removal of temporary structures, etc.	1	Item	$ 4,000.00	$ 4,000.00
	Sub Total _Civil				*$ 1,748,080.00*
	Total				*$ 1,748,080.00*
	Total with 10% Project Management Fee				*$ 1,922,888.00*
	Total with 10% Project Management Fee + 30% contingency				***$ 2,499,754.40***

Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required

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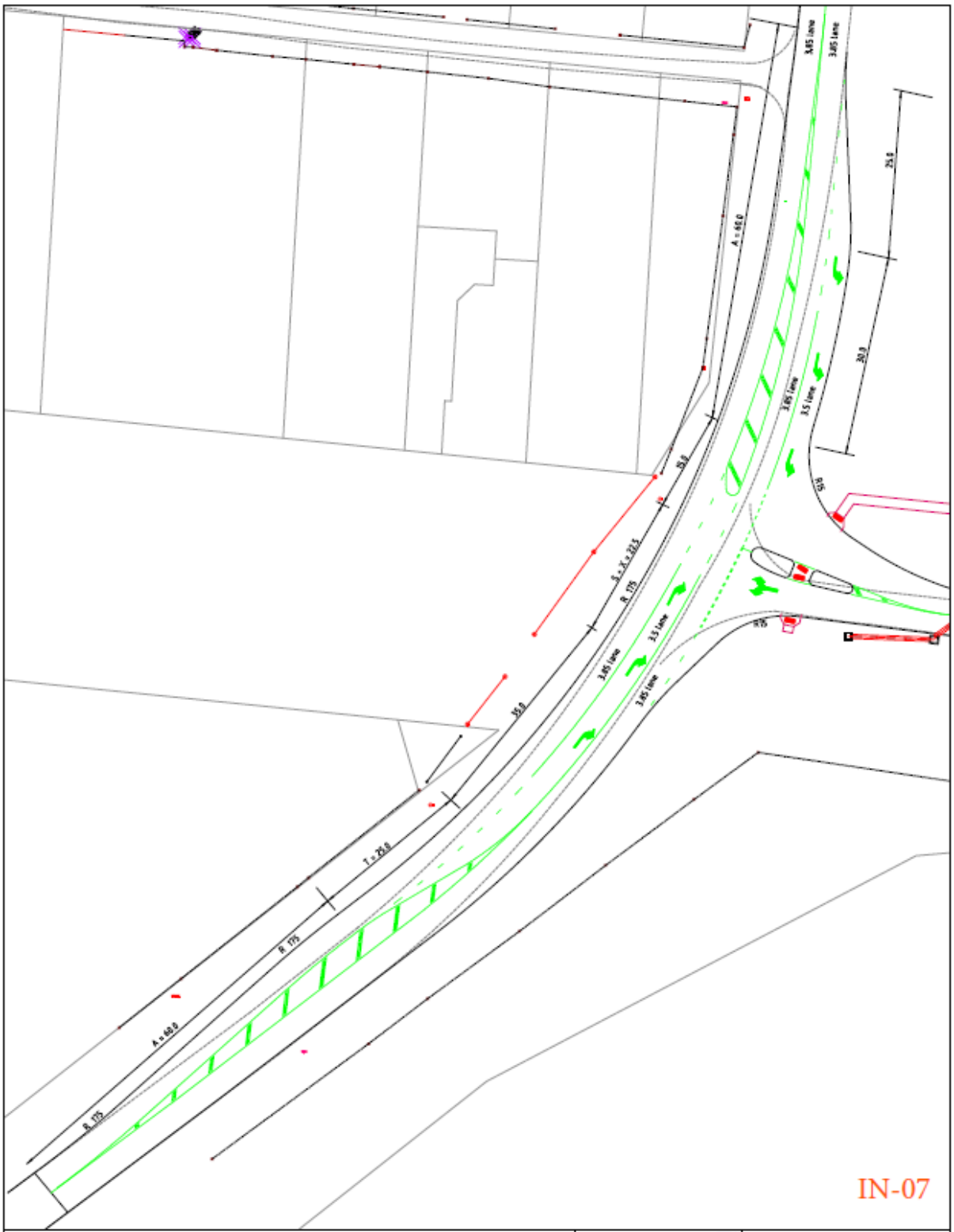
IN-07 MCGIBBONYS ROAD AND KORRUMBURRA – WONTHAGGI ROAD



Issue	Appd	Date	Comments
D	JDH	5/11/17	Further modifications per VicRoads
C	JDH	7/07/17	Further modifications per VicRoads
B	DJH	12/11/14	Splitter Island provided per VicRoads
A	DJH	26/05/14	Original Issue

TTM Consulting Pty Ltd
Transport and Traffic Engineers

PARKLANDS DEVELOPMENT
WONTHAGGI
INTERSECTION McGIBBONYS ROAD
AND KORUMBURRA ROAD
FUNCTIONAL LAYOUT PLAN

Scale 1:500 @ A3
Drawing No : 7402311
Sheet No : 1 Issue : D

IN-07

GTAconsultants

	V106370: Wonthaggi North East PSP - Korumburra Road & McGibbonys Road Intersection Upgrade					
	Civil Construction					
	Date	7/02/2020				
	Basis of Estimate					
	This opinion of probable cost estimate is based on TTM Consulting Pty Ltd Functional layout plan 7402311 D dated 05 Nov 2017 with sketch V106370/SK/100 including 245m internal road					
		Korumburra Road & McGibbonys Road Intersection Upgrade				
	Item	Description of Works	Quantity	Unit	Rate	Amount
	1.00	GENERAL				
	1.01	Site establishment	1	Item	$ 16,000.00	$ 16,000.00
	1.02	Insurance	1	Item	$ 1,500.00	$ 1,500.00
	1.03	Traffic Management and Control	60	Day	$ 900.00	$ 54,000.00
	1.04	Supervision	1	Item	$ 50,000.00	$ 50,000.00
	1.05	Surveying	1	Item	$ 8,500.00	$ 8,500.00
	1.06	Sedimentation Control	1	Item	$ 6,500.00	$ 6,500.00
	1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 1,800.00	$ 1,800.00
	2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (including removal from site)				
	2.01	Proving existing services	1	Item	$ 10,000.00	$ 10,000.00
	2.02	Saw cutting of existing pavements where required to match new pavement or kerb and channel etc.	450	Lm	$ 12.00	$ 5,400.00
	2.03	Tree Removals	5	No	$ 450.00	$ 2,250.00
	2.04	Permanently remove or blackout existing line marking	10	Lm	$ 20.00	$ 200.00
	3.00	BULK EARTHWORKS				
	3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 90,000.00	$ 90,000.00
	4.00	KERB AND CHANNEL / CONCRETE WORKS				
		Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
	4.01	Kerb and Channel, Concrete Strength				
		25MPa Standard				
	4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	940	Lm	$ 70.00	$ 65,800.00
	4.01.1	Semi Mountable kerb - SM1 or Council equivalent	60	Lm	$ 60.00	$ 3,600.00
	5.00	PAVEMENTS, RIGID				
		Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
	5.01	Concrete Footpath Pavement, including bedding as specified Concrete Strength				
		25MPa Standard				
	5.01.1	125mm depth pavement, colour and finish as specified	413	m^2	$ 125.00	$ 51,625.00
	5.01.2	Reconstruction of pram ramp and TGSI tactiles in accordance with council standards	4	Item	$ 1,250.00	$ 5,000.00
	5.01.3	Concrete infill	40	m^2	$ 130.00	$ 5,200.00
	6.00	PAVEMENTS, FLEXIBLE				
		The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
	6.01	600mm Heavy duty pavement				
	6.01.1	Road pavement as specified and required	2860	m^2	$ 125.00	$ 357,500.00
	6.01.2	Asphalt Resheet with type V asphalt	1540	m^2	$ 45.00	$ 69,300.00

IN-07

GTAconsultants

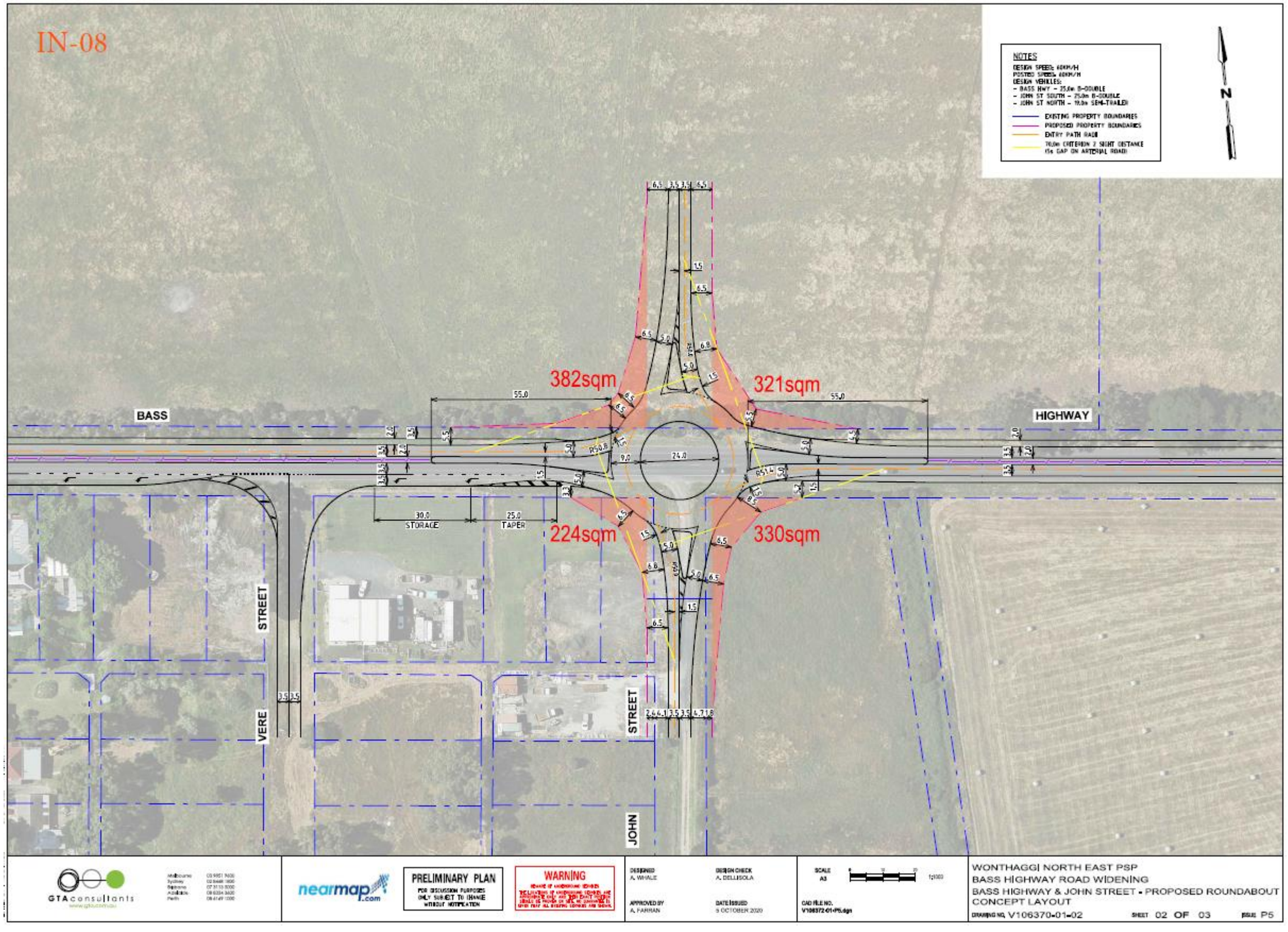
	7.00	DRAINAGE				
	7.01	Drainage Pipes and Culverts				
	7.01.1	375mm dia RCP Class 2, RRJ	135	Lm	$ 250.00	$ 33,750.00
	7.02	Drainage Pits				
		Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
	7.02.1	Side Entry Pits, as specified				
	7.02.1.1	750 x 1000	12	No	$ 1,850.00	$ 22,200.00
	8.00	AGRICULTURAL DRAINS				
	8.01	100mm dia grade 1000 AG drain, screening backfill	1370	Lm	$ 55.00	$ 75,350.00
	8.02	SSD Pit/ flush out riser/ outlet	10	Item	$ 1,250.00	$ 12,500.00
	9.00	DELINEATION				
	9.01	Signage				
	9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 4,000.00	$ 4,000.00
	9.02	Line marking				
	9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
	9.02.2	Thermoplastic to VicRoads standards	1	Item	$ 7,500.00	$ 7,500.00
	10.00	LANDSCAPING/TOPSOILING & REINSTATEMENT				
	10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	2480	m^2	$ 50.00	$ 124,000.00
	11.00	MISCELLANEOUS				
	11.01	Public lighting inclusive of point of supply'.	8	No	$ 12,800.00	$ 102,400.00
	11.02	Final clean-up, including demobilisation and removal of temporary structures, etc.	1	Item	$ 3,500.00	$ 3,500.00
		Sub Total _Civil				*$ 1,189,375.00*
		Total				***$ 1,189,375.00***
		Total with 10% Project Management Fee				***$ 1,308,312.50***
		Total with 10% Project Management Fee + 30% contingency				***$ 1,700,806.25***

Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation of approvals/offers for lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as opinion of probable costs estimate has been based on desktop study.
5. Asphalt resheet has been included for the full intersection over existing pavement within the extent of works
6. Land acquisition
7. Price escalation and GST are not included in the opinion of probable costs
8. Excludes any allowance for abnormal weather conditions and rock boring
9. No allowance has been made for night-works if required
10. Guard fence protection and existing pavement rehabilitation (patching) are not included in the opinion of probable cost. This need to be investigated at detailed design stage
11. It is assumed that Kerb and channel along full extent of intersection works with underground stormwater drainage pit and pipe system to replace existing table drains within road verge.
12. It is also assumed that New public lighting can be installed without need to upgrade existing electrical supply.

The above opinion of probable costs should be considered current to the date of the document only. GTA Consultants cannot provide any form of assurance that the costings provided will not change due to changes in design and/or future costs of materials. The future outcome may vary, and this variation may be material.
Any party requiring detailed costing for budgeting, quoting or construction purposes should seek a detailed cost estimate from a suitably qualified quantity surveyor.

IN-08 BASS HIGHWAY AND JOHN STREET



IN-08

GTAconsultants

V106370: Wonthaggi North East PSP - John Street/Bass Highway					
Civil Construction					
Date	**9/10/2020**				
Basis of Estimate					
This cost estimate is based on GTA plan V106370-01-02- P5 dated 09 October 2020 (Approximately 55m of each leg)					
	John Street/Bass Highway - Proposed Roundabout				
Item	**Description of works**	**Quantity**	**Unit**	**Rate**	**Amount**
1.00	GENERAL				
1.01	Site establishment	1	Item	$ 12,500.00	$ 12,500.00
1.02	Insurance	1	Item	$ 3,000.00	$ 3,000.00
1.03	Traffic Management and Control	80	Day	$ 800.00	$ 64,000.00
1.04	Supervision	1	Item	$ 15,000.00	$ 15,000.00
1.05	Surveying	1	Item	$ 8,000.00	$ 8,000.00
1.06	Sedimentation Control	1	Item	$ 2,000.00	$ 2,000.00
1.07	As Built Drawing preparation as per council and Vic Roads requirement	1	Item	$ 1,800.00	$ 1,800.00
2.00	DEMOLITION, SITE PREPARATION AND RELOCATION ITEMS (Including removal from site)				
2.01	Proving existing services	1	Item	$ 7,000.00	$ 7,000.00
2.02	Saw cutting of existing pavements where required to match new pavement or kerb and channel etc.	60	Lm	$ 12.00	$ 720.00
2.03	Permanently remove or blackout existing line marking	20	Lm	$ 20.00	$ 400.00
3.00	BULK EARTHWORKS				
3.01	Stripping and stockpiling of selected topsoil for reuse, excavation to proposed formation levels, including trimming, rolling, cutting and shaping, compaction of subgrades, removal and disposal of trees, shrubs, spoil, surplus unapproved soil, etc. This item is to incorporate the supply and placement of fill material as specified and directed including compaction to 98% modified compaction, as per AS1289, where specified.	1	Item	$ 115,000.00	$ 115,000.00
4.00	KERB AND CHANNEL / CONCRETE WORKS				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
4.01	**Kerb and Channel, Concrete Strength**				
	25MPa Standard				
4.01.1	Semi Mountable kerb and channel - SM2 or Council equivalent	770	Lm	$ 70.00	$ 53,900.00
5.00	PAVEMENTS, RIGID				
	Construction of the following items including provision of all necessary plant and materials, trimming, bedding, forming, mixing, paving, jointing, making and finishing.				
5.01	**Concrete Footpath Pavement, including bedding as specified Concrete Strength**				
	25MPa Standard				
5.01.1	125mm depth pavement, colour and finish as specified	420	m^2	$ 125.00	$ 52,500.00
5.01.2	Reconstruction of pram ramp in accordance with council standards	8	Item	$ 1,250.00	$ 10,000.00
5.01.3	Concrete infill	1700	m^2	$ 130.00	$ 221,000.00
6.00	PAVEMENTS, FLEXIBLE				
	The supply and installation of the following compacted depth asphalt base and wearing courses including labour, materials, compaction and bituminous prime coat, to relevant specifications and as specified.				
6.01	**600mm Heavy duty pavement**				
6.01.1	Road pavement as specified and required	2840	m^2	$ 125.00	$ 355,000.00
6.01.2	Asphalt Resheet with type V asphalt	200	m^2	$ 45.00	$ 9,000.00

IN-08

GTAconsultants

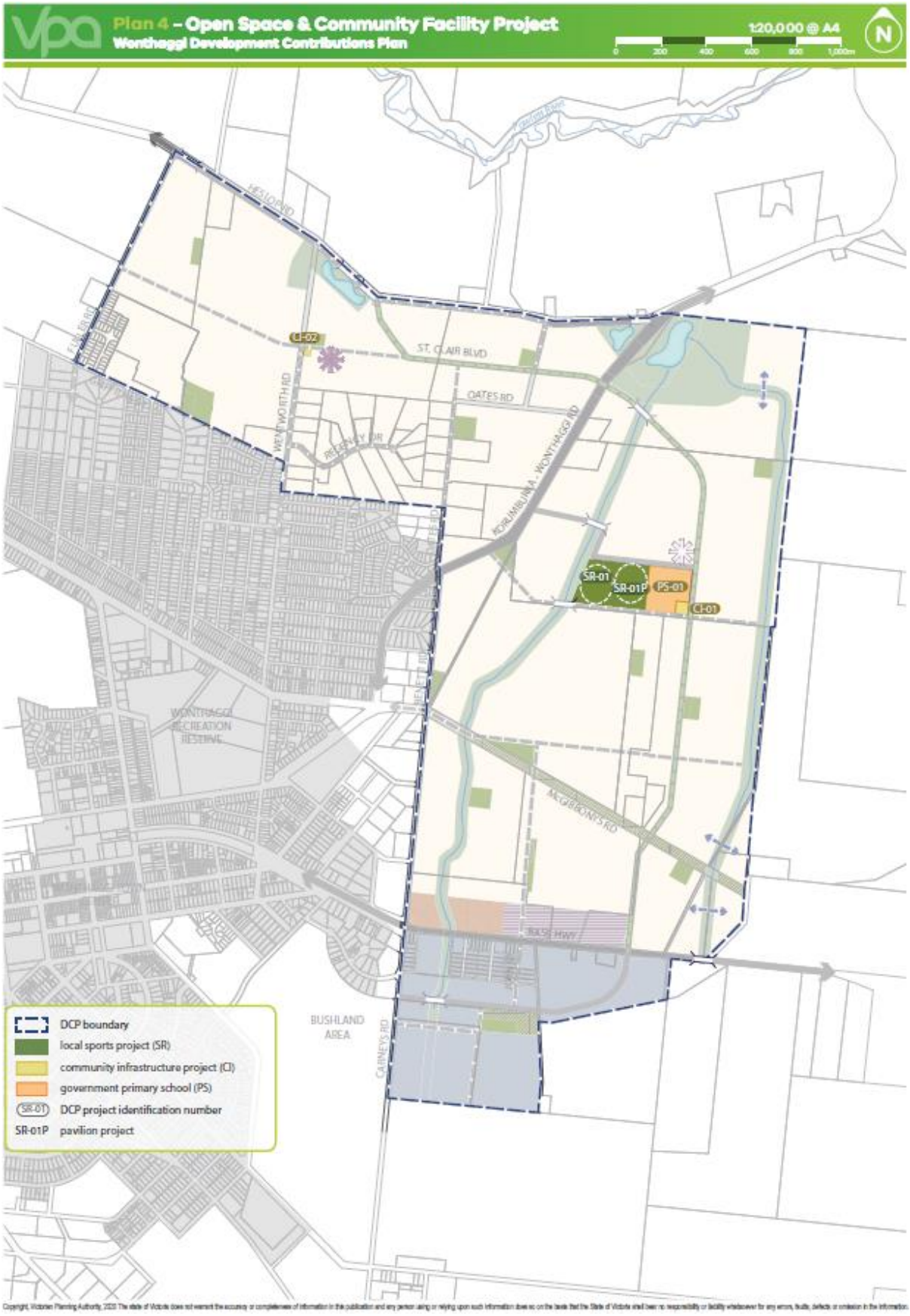
7.00	DRAINAGE				
7.01	Drainage Pipes and Culverts				
7.01.1	300mm dia RCP Class 2, RRJ	80	Lm	$ 250.00	$ 20,000.00
7.02	Drainage Pits				
	Excavate for and construct concrete drainage structures including all materials, plant, labour, temporary covers, final pit lid and surround, step irons, forming, mixing, pouring, finishing and barricading all inclusive, unless otherwise defined.				
7.02.1	Side Entry Pits, as specified				
7.02.1.1	750 x 1000	12	No	$ 1,850.00	$ 22,200.00
8.00	AGRICULTURAL DRAINS				
8.01	100mm dia grade 1000 AG drain, screening backfill	770	Lm	$ 55.00	$ 42,350.00
8.02	SSD Pit/ flush out riser/ outlet	8	Item	$ 1,250.00	$ 10,000.00
9.00	DELINEATION				
9.01	Signage				
9.01.1	The supply and installation/relocation of directional and advisory traffic signage all inclusive and removal of all redundant signs as specified	1	Item	$ 4,500.00	$ 4,500.00
9.02	Line marking				
9.02.1	Installation of proposed line marking, including but not limited to lane division lines, directional arrows, bus lane surface treatment, stopping lines and RRPM's all inclusive				
9.02.2	Thermoplastic to VicRoads standards	1	Item	$ 5,000.00	$ 5,000.00
10.00	LANDSCAPING/TOPSOILING & REINSTATEMENT				
10.01	Topsoiling and seeding of nature strips, medians, batters, and all disturbed areas to a min. of 150mm min depth including regrading, cultivation throughout the duration of the works and the maintenance period	850	m^2	$ 50.00	$ 42,500.00
11.00	MISCELLANEOUS				
11.01	Public lights	10	No	$ 12,800.00	$ 128,000.00
11.02	Final clean-up, Including demobilisation and removal of temporary structures, etc.	1	Item	$ 4,500.00	$ 4,500.00
	Sub Total_Civil				*$ 1,209,870.00*
	Total				*$ 1,209,870.00*
	Total with 10% Project Management Fee				*$ 1,330,857.00*
	Total with 10% Project Management Fee + 30% contingency				***$ 1,730,114.10***

Please also note the following assumptions and exclusions

1. Design and documentation fees or authority fees, charges, levies and overview including insurances, bank guarantees.
2. Existing services relocations and facilitation including lowering or realignment thereof.
3. Protection of underground services during construction.
4. 30% contingency applied as order of magnitude estimate has been based on desktop study.
5. Asphalt resheet has been included for the approaches of the intersection only
6. Land acquisition
7. Price escalation is not included in the estimate
8. Excludes any allowance for abnormal weather conditions
9. No allowance has been made for night-works if required

The above opinion of probable costs should be considered current to the date of the document only. GTA Consultants cannot provide any form of assurance that the costings provided will not change due to changes in design and/or future costs of materials. The future outcome may vary, and this variation may be material.
This potential for variation should be considered in any circumstances where the costings are to be used for high level budgeting purposes, even in the short term.
Any party requiring detailed costing for quoting or construction purposes should seek a detailed cost estimate from a suitably qualified quantity surveyor.

COMMUNITY & RECREATION PROJECT COST ESTIMATES



CI-01 COMMUNITY CENTRE WITHIN VILLAGE HUB

Name: **Site Area:** **Scope of works:** **Project: CI- 01**	**Community centre within village hub** **0.32 hectares** **Multi-purpose Community Centre, Double Kindergarten with carparking, Maternal Child and Healthcare with reception and outdoor areas in the Village Hub**

Total building area	**1,000.00 sqm**		
Community Centre - CL-01	**Area sqm**	**Rate $ / sqm**	**Total Cost**
Dual room kindergarten	200.00	$2,200.00	$440,000.00
Community meeting space	150.00	$2,000.00	$300,000.00
MCH Room	50.00	$2,700.00	$135,000.00
Breastfeeding room	16.00	$2,650.00	$42,500.00
Meeting / interview room	20.00	$2,200.00	$44,000.00
Offices general	25.00	$2,200.00	$55,000.00
Staff room for 12 staff	25.00	$2,400.00	$60,000.00
Kitchen / kiosk	50.00	$3,500.00	$175,000.00
Toilets for staff and children	64.00	$2,600.00	$166,400.00
Waiting area	50.00	$2,100.00	$105,000.00
Storage	50.00	$1,900.00	$95,000.00
Foyer, lobby and corridors	180.00	$2,000.00	$360,000.00
Entry canopy and verandah	120.00	$1,514.00	$181,680.00
Landscaping, carparking areas	2000.00	$120.00	$240,000.00
Outdoor area for kindergarten	300.00	$220.00	$66,000.00
SUB TOTAL			**$2,465,480.00**
Contingency		35%	$862,918.00
Services for buildings item		$50,000.00	$50,000.00
Survey and Design		5%	$123,274.00
Overheads (supervision)		10%	$246,548.00
TOTAL			**$3,748,220.00**

Note: Costs based on estimates from previous community centres across metropolitan Melbourne and Regional Victoria, as compiled from Councils and VPA strategic costing estimates.

Rates per sqm are based on Rawlinsons Construction Cost Guide - As at November 2018.

Pre-design phase therefore 35% contingency – due to long timeframe before design and delivery.

* This opinion of probable costs should not be interpreted as a cost estimate or bill of quantities. It has been prepared in accordance and level of detail of the masterplan and is based on quotes, current contractor rates, annual supply rates for estimating/budgetary purposes. Further detailed design and cost estimates are required prior to commencement of any actions or tasks

CI-02-c COMMUNITY CENTRE WITHIN LOCAL CONVENIENCE CENTRE

Name:	**Community centre within local convenience centre**
Site Area:	**0.1 hectare**
Scope of works:	**Community meeting and hall spaces**
Project: CI- 02-c	

Community Centre CI-02-c	Area sqm	Rate $ / sqm	Total Cost
Community meeting space	230.00	$2,000.00	$460,000.00
Hall space	50.00	$2,500.00	$125,000.00
Toilets	20.00	$2,600.00	$52,000.00
Administration area	50.00	$2,250.00	$112,500.00
Entry canopy and verandah	100.00	$1,514.00	$151,400.00
Facility storage	50.00	$1,500.00	$75,000.00
SUB TOTAL			**$975,900.00**
Contingency		35%	$341,565.00
Survey and Design		5%	$48,795.00
Overheads (supervision)		10%	$97,590.00
TOTAL			**$1,463,850.00**

Note: Costs based on estimates from previous community centres across metropolitan Melbourne and Regional Victoria, as compiled from Councils and VPA strategic costing estimates.

Rates per sqm are based on Rawlinsons Construction Cost Guide 2018.

Pre-design phase therefore 30% contingency – due to long timeframe before design and delivery.

* This opinion of probable costs should not be interpreted as a cost estimate or bill of quantities. It has been prepared in accordance and level of detail of the masterplan and is based on quotes, current contractor rates, annual supply rates for estimating/budgetary purposes. Further detailed design and cost estimates are required prior to commencement of any actions or tasks

SR-01 SPORTS RESERVE

Name: **Site Area:** **Scope of works:** **Project: SR- 01**	**Wonthaggi North East - Sporting Reserve** **11.60 hectares** **Two AFL fields, two netball courts, skate park and playground**		
Sporting reserve - SR-01	**Area sqm**	**Rate $ / sqm**	**Total Cost**
Sporting oval (2 ovals)	35,000.00	$60.00	$2,100,000.00
Sporting oval lighting	2.00	$150,000.00	$300,000.00
Netball courts (2 courts)	1,600.00	$200.00	$320,000.00
Netball courts lighting	2.00	$50,000.00	$100,000.00
Playground	1.00	$600,000.00	$600,000.00
Skate park	1.00	$500,000.00	$ 500,000.00
Landscaping	2,000.00	$25.00	50,000.00
Servicing (Water, Gas, Sewer, Lighting and Electricity)	1.00	$350,000.00	$350,000.00
Carparking pavement	3,000.00	$100.00	$300,000.00
Carparking kerb and channel	500.00	$50.00	$25,000.00
Carparking drainage pipes	500.00	$180.00	$90,000.00
Carparking drainage pits	20.00	$2,500.00	$50,000.00
Allowance for external works including landscaping and civil works	1.00	$50,000.00	$50,000.00
Allowance for tiered seating (lightweight construction)	1.00	$60,000.00	$60,000.00
SUB TOTAL			**$4,785,000.00**
Overheads (supervision)		10%	$478,500.00
Contingency		35%	$1,674,750.00
Site establishment		2.50%	$41,868.75
TOTAL			**$6,980,118.75**

Note: Costs based on estimates from previous sporting reserves across metropolitan Melbourne and Regional Victoria, as compiled from Councils and VPA strategic costing estimates.
Pre-design phase therefore 35% contingency – due to long timeframe before design and delivery.
Costs prepared in February 2020.

SR-01-p SPORTS RESERVE (PAVILION)

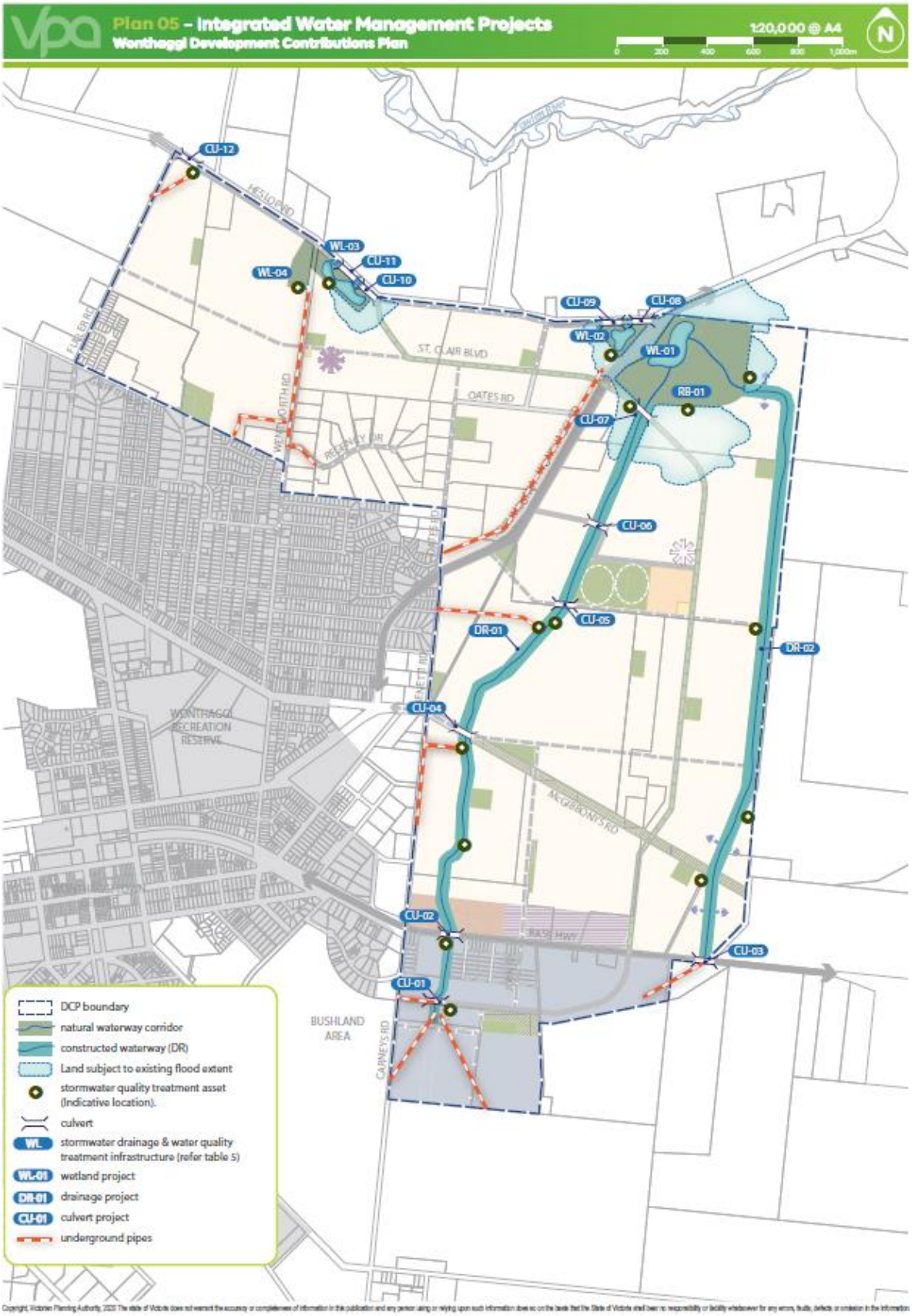
Name: Scope of works: Project: SR-01-p	Pavilion Includes 6-8 change rooms/canteen, club room		
Sports Pavilion SR-01-p	**Area sqm**	**Rate $ / sqm**	**Total Cost**
Sports pavilion Change rooms Umpire rooms Canteen / kiosk Club Room	1000	$2,750.00	$2,750,000.00
SUB TOTAL			**$2,750,000.00**
Contingency		35%	$962,500.00
Survey and Design		5%	$137,500.00
Overheads (supervision)		10%	$275, 000.00
TOTAL			**$4,125,000.00**

Note: Costs based on estimates from previous sporting pavilions across metropolitan Melbourne and regional Victoria, as compiled from Councils and VPA strategic costing estimates.

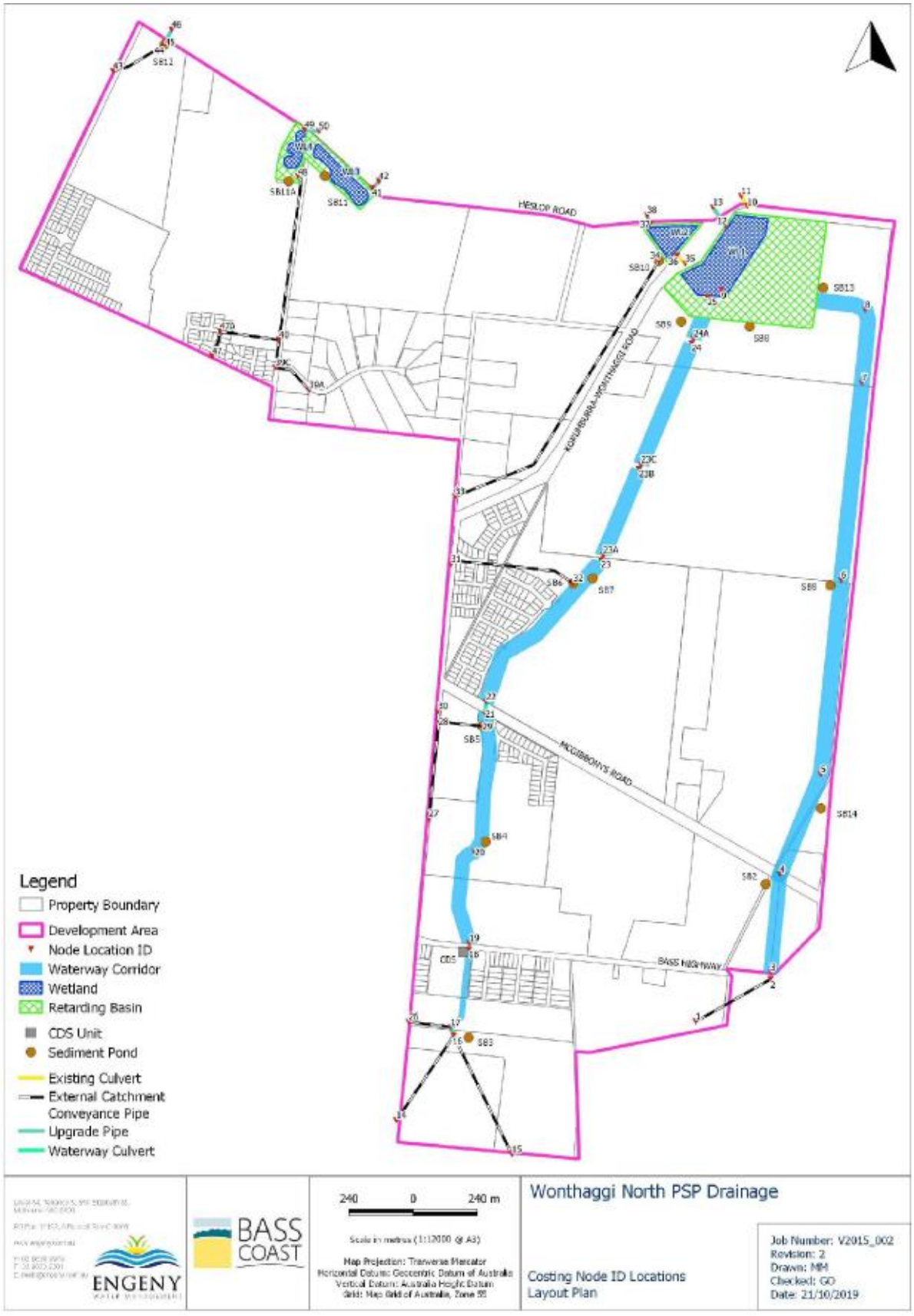
Rates per sqm are based on Rawlinsons Construction Cost Guide 2018.

Rates are estimates as per prices from 2018.

DRAINAGE PROJECT COST ESTIMATES



LAYOUT OF COSTING ASSET IDS IN ENGENY DRAINAGE STRATEGY



DR-01 & DR-02 WESTERN WATERWAY & EASTERN WATERWAY

Reference	Design Flow $Q_{100year}$	Pilot Channel.																
		Design Flow $Q_{1 year}$	Length L	NS Elev u/s	NS Elev d/s	Grade (1 in ..)	Manning's 'n'	Side Slope	Base Width (B_t)	Pilot Channel Depth (d_t)	Pilot Channel x-sect Area	Velocity v_p	Pilot Channel Top Width	Pilot Channel Q_{full}	Volume	Excavation Rate	Vegetation Rate	Cost
	m³/s	m³/s	m	m	m				m	m	m²	m/s	m	m³/s	m³	$/m³	$/m²	$
Eastern Waterway																		
3-4	13.35	2.67	367	22.00	20.02	185	0.050	3	6.5	0.50	4.0	0.82	9.50	3.27	1,466	8.20	13.40	$58,677
4-5	13.26	2.65	404	20.02	17.83	185	0.050	3	7.0	0.50	4.3	0.82	10.00	3.49	1,718	8.20	13.40	$68,253
5-6	28.64	5.73	729	17.83	16.79	700	0.050	3	10.0	0.90	11.4	0.61	15.40	6.99	8,336	8.20	13.40	$218,853
6-7	28.50	5.70	740	16.79	15.74	700	0.050	3	10.0	0.90	11.4	0.61	15.40	6.99	8,457	8.20	13.40	$222,034
7-8	38.00	7.60	274	15.74	15.34	700	0.050	3	10.0	1.00	13.0	0.65	16.00	8.44	3,565	8.20	13.40	$88,018
8-9	36.03	7.21	545	15.34	14.56	700	0.050	3	10.0	1.00	13.0	0.65	16.00	8.44	7,089	8.20	13.40	$175,041
Western Waterway																		
17-18	13.87	2.77	306	23.62	21.70	160	0.050	3	3.0	0.80	4.3	1.04	7.80	4.51	1,322	8.20	13.40	$42,823
19-20	17.07	3.41	369	21.65	19.80	200	0.050	3	4.0	0.80	5.1	0.97	8.80	4.95	1,892	8.20	13.40	$59,077
20-21	18.32	3.66	528	19.80	18.48	400	0.050	3	4.0	1.00	7.0	0.77	10.00	5.40	3,697	8.20	13.40	$101,086
22-23	23.75	4.75	703	18.38	16.82	450	0.050	3	4.0	1.00	7.0	0.73	10.00	5.09	4,923	8.20	13.40	$134,621
23A-23B	24.05	4.81	346	16.78	16.01	450	0.050	3	4.0	1.00	7.0	0.73	10.00	5.09	2,424	8.20	13.40	$66,288
23C-24	22.29	4.46	488	15.96	14.88	450	0.050	3	4.0	1.00	7.0	0.73	10.00	5.09	3,419	8.20	13.40	$93,493
24A-25	22.84	4.57	163	14.83	14.47	449	0.050	3	4.0	1.00	7.0	0.73	10.00	5.10	1,138	8.20	13.40	$31,125

Reference	Main Channel													
	Design Flow Q_{100} - Pilot Channel Q_{Pil}	Main Channel Depth (d_2)	Base Width (B_2)	Manning's 'n'	Side Slope	Area A	Velocity v	Freeboard	Top Width with freeboard	Channel Capacity Q_{Pil}	Excavation Area	Excavation Volume V	Excavation and Disposal Rate	Cost
	m^3/s	m	m			m^2	m/s	m	m	m^3/s	m^2	m^3	$/$m^3$	$
Eastern Waterway														
3-4	10.09	0.60	17.50	0.05	5	12.3	0.95	0.60	30	11.71	28.2	10,335	$24	$243,913
4-5	9.76	0.60	18.00	0.05	5	12.6	0.95	0.60	30	12.02	28.8	11,642	$24	$274,740
5-6	21.64	0.90	35.00	0.05	5	35.6	0.65	0.60	50	23.25	63.8	46,493	$24	$1,097,232
6-7	21.50	0.90	35.00	0.05	5	35.6	0.65	0.60	50	23.25	63.8	47,169	$24	$1,113,180
7-8	29.56	1.10	33.00	0.05	5	42.4	0.73	0.60	50	31.11	70.6	19,345	$24	$456,538
8-9	27.58	1.10	33.00	0.05	5	42.4	0.73	0.60	50	31.11	70.6	38,471	$24	$907,914
Western Waterway														
17-18	9.36	0.80	7.80	0.05	5	9.4	1.11	0.60	22	10.52	20.7	6,340	$24	$149,632
19-20	12.12	0.80	16.80	0.05	5	16.6	1.08	0.60	31	17.96	33.3	12,310	$24	$290,518
20-21	12.92	0.80	18.00	0.05	5	17.6	0.77	0.60	32	13.52	35.0	18,485	$24	$436,244
22-23	18.65	1.00	18.00	0.05	5	23.0	0.82	0.60	34	18.93	41.6	29,259	$24	$690,521
23A-23B	18.95	1.00	19.00	0.05	5	24.0	0.83	0.60	35	19.86	43.2	14,961	$24	$353,090
23C-24	17.20	1.00	19.00	0.05	5	24.0	0.83	0.60	35	19.85	43.2	21,102	$24	$498,005
24A-25	17.74	1.00	19.00	0.05	5	24.0	0.83	0.60	35	19.87	43.2	7,025	$25	$172,820

Reference		Reinstatement					Pool and Riffle				Total Cost
		Revegetation Area	Revegetation Rate	Topsoiling	Topsoiling Rate	Cost	No. of Pools and Riffles	Rockwork Volume	Rockwork Rate	Cost	Total Estimated Basic Cost excluding Land Acquisition
		m²	$/m²	m²	$/m²	$	no.	m³	$/m³	$	$
Eastern Waterway											
3-4		7,330	$12	7,330	$3	$113,615	2.48	262	200	$52,370	$468,575
4-5		8,084	$12	8,084	$3	$125,308	2.69	296	200	$59,173	$527,474
5-6		25,234	$12	25,234	$3	$391,124	2.92	1,194	200	$238,731	$1,945,939
6-7		25,601	$12	25,601	$3	$396,808	2.96	1,213	200	$242,515	$1,974,537
7-8		9,323	$12	9,323	$3	$144,503	1.10	487	200	$97,367	$786,427
8-9		18,540	$12	18,540	$3	$287,373	2.18	982	200	$196,438	$1,566,766
Western Waterway											
17-18		4,284	$12	4,284	$3	$66,402	2.81	205	200	$40,908	$299,764
19-20		8,128	$12	8,128	$3	$125,982	2.40	406	200	$81,188	$556,765
20-21		11,619	$12	11,619	$3	$180,096	3.30	687	200	$137,440	$854,865
22-23		16,880	$12	16,880	$3	$261,646	4.14	947	200	$189,385	$1,276,173
23A-23B		8,658	$12	8,658	$3	$134,203	1.98	481	200	$96,240	$649,821
23C-24		12,212	$12	12,212	$3	$189,282	2.79	693	200	$138,588	$919,368
24A-25		4,066	$12	4,066	$3	$63,015	0.93	229	200	$45,842	$312,802

PIPE DRAINAGE PIPE ASSETS

Pipe Ref.	Upstream Area A	Cumulative Upstream Area A	5 Year ARI Runoff Coefficient C_5	ARI (y)	Effective Area A_e	Cumulative Effective Area A_e	Time of Concentration t_c	Rainfall Intensity I_y	Design Flow Q_y	Length L	NS Elev u/s	NS Elev d/s	Slope S	Pipe Diameter	Pipe Type/Backfill	No of Pipes	Full Flow Q_{full}	Full Velocity v_{full}	Time in Pipe t_{pipe}	Pipe/Crossing Cost		Total Estimated Basic Cost (incl. 35 % contingency)
	ha	ha			ha	ha	min	mm/hr	m³/s	m	m	m	1 in ...	mm			m³/s	m/s	min	Condition	$	$
1-2	138.79	138.790	0.23	5	32.30	32.298	51.31	24.73	2.22	320	22.84	22.00	380	1350	IFJ-100% FCR	1	2.74	1.91	2.79	Greenfields	$349,120	$471,000
15-16	53.77	53.770	0.20	5	10.75	10.754	36.47	30.33	0.91	490	28.25	27.25	490	1050	IFJ-100% FCR	1	1.23	1.42	5.74	Greenfields	$349,513	$472,000
14-16	61.81	61.810	0.30	5	18.54	18.539	15.41	49.04	2.53	379	31.70	27.00	81	1050	IFJ-100% FCR	1	3.04	3.51	1.80	Greenfields	$270,156	$365,000
26-17	72.69	72.690	0.50	5	36.45	36.455	18.75	44.20	4.48	158	28.25	26.75	105	1350	IFJ-100% FCR	1	5.20	3.63	0.72	Greenfields	$172,269	$233,000
27-28	29.00	29.000	0.43	5	12.41	12.406	14.25	51.05	1.76	360	23.50	22.26	290	1200	IFJ-100% FCR	1	2.29	2.02	2.97	Greenfields	$320,760	$433,000
30-28	7.91	7.910	0.48	5	3.79	3.793	10.95	58.17	0.61	40	22.40	22.26	286	825	IFJ-100% FCR	1	0.85	1.59	0.42	Greenfields	$19,480	$26,000
28-29	36.91	36.910	0.44	5	16.20	16.199	17.22	46.26	2.08	163	22.26	21.40	190	1200	IFJ-100% FCR	1	2.83	2.50	1.09	Greenfields	$145,500	$196,000
31-32	48.76	48.760	0.49	5	23.82	23.822	18.25	44.85	2.97	473	21.95	18.34	131	1200	IFJ-100% FCR	1	3.41	3.01	2.62	Greenfields	$421,443	$569,000
33-34	21.44	21.440	0.47	5	10.01	10.014	14.07	51.38	1.43	1200	23.50	14.60	135	900	IFJ-100% FCR	1	1.56	2.45	8.16	Greenfields	$667,200	$901,000
39A-39C	5.61	5.610	0.50	5	2.81	2.805	10.02	60.67	0.47	144	25.16	24.00	124	600	IFJ-100% FCR	1	0.55	1.95	1.23	Greenfields	$44,208	$60,000
39C-40	10.57	10.570	0.50	5	5.29	5.285	11.25	57.42	0.84	105	24.00	21.00	35	600	IFJ-100% FCR	1	1.04	3.68	0.47	Greenfields	$32,143	$43,000
47-47A	12.92	12.920	0.47	5	6.09	6.094	12.53	54.48	0.92	92	24.00	22.25	53	750	IFJ-100% FCR	1	1.54	3.48	0.44	Greenfields	$39,100	$53,000
47A-40	12.92	12.920	0.47	5	6.09	6.094	11.69	56.35	0.95	221	22.25	20.50	126	750	IFJ-100% FCR	1	0.99	2.24	1.64	Greenfields	$ 93,713	$127,000
40-48	23.49	23.490	0.48	5	11.38	11.379	13.36	52.74	1.67	600	20.50	13.85	90	900	IFJ-100% FCR	1	1.91	3.00	3.34	Greenfields	$333,600	$450,000
43-45	8.19	8.190	0.20	5	1.64	1.638	16.31	47.61	0.22	210	24.50	22.25	93	450	IFJ-100% FCR	1	0.30	1.86	1.89	Greenfields	$43,260	$58,000

WETLAND AND RETARDING BASIN ASSETS

	TREATMENT POND SIZING (Using MUSIC)									
REFERENCE	NWL	Level outlet	Extended Detention Depth	Permanent Pond Depth	Basin Area	Depth TED to Cutline	Area at base	AREA at Top of EDD	Total Treatment Pond, incl. Batters	Treatment Pond Excavation Volume
	(m AHD)	(m AHD)	(m)	(m)	(m²)	(m)	(m²)	(m²)	(m²)	(m³)
WL1	14.3	15.2	0.35	0.4	38000	0.55	34,693	40,215	44,969	62,049
WL2	14	14.7	0.35	0.4	8000	0.35	6,505	9,026	10,448	11,234
WL3	13.0	14.0	0.35	0.4	13220	0.65	11,286	14,533	17,938	37,472
WL4	13.3	15.5	0.35	0.4	5850	1.85	4,577	6,730	13,929	27,979

		PLANTING & EARTHWORKS													WETLAND FOOTPRINT AREA	
REFERENCE		Grassing Area	Aquatic Vegetation Area	Terrestial Vegetation Area	Stripping and stockpiling of 250mm Topsoil	Topsoiling	Additional Excavation (top of cutline, if required)	Total Excavation Volume	Disposal of surplus soil	Clay lining @ 300mm thickness	Rockwork/Concrete Base Area	First clean out	Access Track Area	COST	TOTAL	Total Estimated Basic Cost incl. 35 % contingency
		(m²)	(m²)	(m²)	(m²)	(m²)	(m³)	(m³)	(m³)	(m²)	(m²)	$	(m²)	$	m²	$
WL1		5,043	38,000	2,551	46,394	40,551		62,535	50,028	38,800	198	$21,100	150	$2,547,333	53,800	$3,438,900
WL2		1,781	8,000	1,381	12,062	9,381	8,600	20,369	16,295	8,900	257	$21,100	150	$753,166	17,000	$1,016,774
WL3		4,250	13,220	1,775	20,795	14,995		39,738	35,562	14,770	680	$21,100	150	$1,433,045	38,000	$1,934,611
WL4		8,045	5,850	1,341	16,786	7,191		33,444	26,755	7,400	680	$21,100	150	$1,037,115	38,000	$1,400,105

Ref	Description		Qty	Unit	Rate ($/unit)	Estimated Basic Cost $	Estimated Basic Cost (incl 35 % Contingency) $
WL1							
Excavation Volume equals the storage required to retard developed 39 % AEP flows back to existing conditions flow	Land Acquisition						
		Developable land	0.00	ha	$0		$ -
		Land within drainage / electricity easement	0.00	ha	$0		$ -
	Embankment						
		Construction and Compaction	0	m³	23.60	$ -	
		Topsoiling	0	m²	3.10	$ -	
		Grassing	0	m²	2.10	$ -	
	Outlet Works	(Select outlet type) Pipe					
	-	-		m	0.00	$ -	
	Input data here	====>	0	m	0.00	$ -	
	Culvert - Base slab (For box type only)		0	m	0.00	$ -	
	Culvert - Link slab (For box type only)		0	m	0.00	$ -	
	Laying & Installation					$ -	
	Inlet / Outlet Structures		2	no.	$5,160	$ 10,320	
	Construct Spillway		0	item	$48,000	$ -	
	Earthworks						
		Excavation	201,000	m³	8.20	$1,648,200	
		Disposal of surplus soil (50%)	100,500	m³	15.40	$1,547,700	
		Grassing	0	m²	2.10	$ -	
					Subtotal	$3,206,220	
					Subtotal (Incl. 35 % Contingency	$4,328,000	

SD SEDIMENT BASINS

		POND SIZING (Using Fair & Geyer Equation)														
REFERENCE	Sediment Basin Type	Batter Slope (NWL to Base)	Upstream Untreated Residential Area	Q_3 DESIGN FOR TREATMENT	Permanent Pond Depth, dp	Extended Detention Depth,de	Depth below permanent pool that is sufficient to retain sediment, d*	Hydraulic Efficiency (λ)	Basin Area (NWL)	Capture Efficiency	Cleanout Frequency (years)	Storage volume for drying	Area for drying the sediments	Area at base	AREA at Top of EDD	Total Area, incl. batters & drying area
		1 in ..	(ha)	(m^3/s)	(m)	(m)	(m)		(m^2)	%	years	(m^3)	(m^2)	(m^2)	(m^2)	(m^2)
SB1	Stand Alone	3	34.8	0.48	1.5	0.35	1.00	0.26	600	97 %	3.0	162	324	89	894	2,431
SB2	Stand Alone	3	40.00	0.44	1.5	0.35	1.00	0.26	600	98 %	3.0	188	376	89	894	2,483
SB3	Stand Alone	3	28.16	0.49	1.5	0.35	1.00	0.26	500	97 %	3.0	131	262	41	770	2,166
SB4	Stand Alone	3	66.60	0.79	1.5	0.35	1.00	0.26	780	97 %	3.0	310	620	187	1,112	3,073
SB5	Stand Alone	3	59.6	0.83	1.5	0.35	1.00	0.26	740	96 %	3.0	275	549	164	1,064	2,927
SB6	Stand Alone	3	55.23	0.79	1.5	0.35	1.00	0.26	700	96 %	3.0	254	509	142	1,016	2,811
SB7	Stand Alone	3	73	0.90	1.5	0.35	1.00	0.26	840	96 %	3.0	336	673	221	1,184	3,237
SB9	Stand Alone	3	31	0.31	1.5	0.35	1.00	0.26	600	99 %	3.0	147	295	89	894	2,402
SB12	Stand Alone	3	11	0.20	1.5	0.35	1.00	0.26	600	99 %	3.0	52	105	89	894	2,212
SB13	Stand Alone	3	8	0.12	1.5	0.35	1.00	0.26	450	99 %	3.0	38	76	19	707	1,875
SB14	Stand Alone	3	9	0.13	1.5	0.35	1.00	0.26	450	99 %	3.0	43	86	19	707	1,884

	PLANTING & EARTHWORKS											
REFERENCE	Grassing Area	Terrestial Vegetation Area	Stripping and stockpiling of 250mm Topsoil	Topsoiling	Additional Excavation (top of cutline, if required)	Inlet Pond Excavation Volume	Disposal of surplus soil	Clay lining @ 300mm thickness	Rockwork/Concrete Base Area	First clean out	Access Track Area	COST
	(m^2)	(m^2)	(m^2)	(m^2)	(m^3)	(m^3)	(m^3)	(m^2)	(m^2)	$	(m^2)	$
SB1	1,537	294	2,431	294		2,473	1,978	600	227	$21,100	150	$118,453
SB2	1,590	294	2,483	294		2,473	1,978	600	227	$21,100	150	$118,725
SB3	1,397	270	2,166	270		2,120	1,696	500	164	$21,100	150	$102,848
SB4	1,961	332	3,073	332		3,104	2,483	780	187	$21,100	150	$132,999
SB5	1,863	324	2,927	324		2,964	2,372	740	164	$21,100	150	$126,841
SB6	1,795	316	2,811	316		2,824	2,259	700	293	$21,100	150	$134,870
SB7	2,052	344	3,237	344		3,314	2,651	840	221	$21,100	150	$142,010
SB9	1,508	294	2,402	294		2,473	1,978	600	227	$21,100	150	$118,300
SB12	1,318	294	2,212	294		2,473	1,978	600	227	$21,100	150	$117,312
SB13	1,168	257	1,875	257		1,942	1,554	450	134	$21,100	150	$94,318
SB14	1,177	257	1,884	257		1,942	1,554	450	134	$21,100	150	$94,367

		OUTLET STRUCTURE							SED BASIN FOOTPRINT AREA	Total Cost	Total Cost
REFERENCE		No. of drop pits	Length of Pipe	Pipe Diameter	No. of Pipes	Qfull	Outlet Structures Allowance	COST	TOTAL	Total Estimated Basic Cost excluding Land Acquisition	Total Estimated Basic Cost including 35 % contingency
			(m)	(mm)		(m³/s)	$	$	m²	$	$
SB1		1	25	600	1	0.43	$10,320	$35,245	2,431	$153,698	$207,493
SB2		1	25	600	1	0.43	$10,320	$35,245	2,483	$153,970	$207,860
SB3		1	25	600	1	0.43	$10,320	$35,245	2,166	$138,093	$186,425
SB4		1	25	600	1	0.43	$10,320	$35,245	3,073	$168,244	$227,129
SB5		1	25	600	1	0.43	$10,320	$35,245	2,927	$162,086	$218,816
SB6		1	25	600	1	0.43	$10,320	$35,245	2,811	$170,115	$229,656
SB7		1	25	600	1	0.43	$10,320	$35,245	3,237	$177,255	$239,295
SB9		1	25	600	1	0.43	$10,320	$35,245	2,402	$153,545	$207,286
SB12		1	25	600	1	0.43	$10,320	$35,245	2,212	$152,557	$205,952
SB13		1	25	600	1	0.43	$10,320	$35,245	1,875	$129,563	$174,910
SB14		1	25	600	1	0.43	$10,320	$35,245	1,884	$129,612	$174,976

CU CULVERTS

Industrial Boulevard Crossing (Location 16-17)							
	Design ARI	100					
	Design Flow (m³/s)	9.1					
	Pipe diameter (mm)	1350					
	Installation (Laying)	RRJ-100% FCR	3	20	m	$1,463	$87,780.00
	Headwalls & Endwalls		6	2.18	m³	$2,676	$35,002.08
	Installation (Road, Rail factors)	Major Council Roads					$26,334.00
	Allowance for Service Alterations		Factor			1.00	$0.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$159,406**
						Subtotal (incl.35 % contingency)	**$215,000**

Bass Coast Highway (Location 18-19)							
	Design ARI	100					
	Design Flow (m³/s)	13.9					
	Pipe diameter (mm)	1500					
	Installation (Laying)	RRJ-100% FCR	3	20	m	$ 1,779	$106,740.00
	Headwalls & Endwalls		6	2.48	m³	$ 2,676	$39,818.88
	Installation (Road, Rail factors)	Major Council Roads					$32,022.00
	Allowance for Service Alterations		Factor			1.00	$0.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$188,871**
						Subtotal (incl.35 % contingency)	**$255,000**

McGibbonys Rd (Location 21-22)							
	Design ARI	100					
	Design Flow (m³/s)	18.32					
	Pipe diameter (mm)	1650					
	Installation (Laying)	RRJ-100% FCR	4	20	m	$2,127	$170,160.00
	Headwalls & Endwalls		6	4.3	m³	$2,676	$92,054.40
	Installation (Road, Rail factors)	Major Council Roads					$51,048.00
	Allowance for Service Alterations	Yes	Factor			1.25	$42,540.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$366,092**
						Subtotal (incl. 35 % contingency)	**$494,000**

Proposed Minor Road (Location 23-23A)							
	Design ARI	100					
	Design Flow (m³/s)	23.04					
	Pipe diameter (mm)	1650					
	Installation (Laying)	RRJ-100% FCR	4	20	m	$2,127	$170,160.00
	Headwalls & Endwalls		6	4.3	m³	$2,676	$92,054.40
	Installation (Road, Rail factors)	Major Council Roads					$51,048.00
	Allowance for Service Alterations	Yes	Factor			1.25	$42,540.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$366,092**
						Subtotal (incl. 35 % contingency)	**$494,000**

Proposed Minor Road (Location 23B-23C)							
	Design ARI	100					
	Design Flow (m^3/s)	28.92					
	Pipe diameter (mm)	1650					
	Installation (Laying)	RRJ-100% FCR	4	20	m	$2,127	$170,160.00
	Headwalls & Endwalls		6	4.3	m^3	$2,676	$92,054.40
	Installation (Road, Rail factors)	Major Council Roads					$51,048.00
	Allowance for Service Alterations	Yes	Factor			1.25	$42,540.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$366,092**
						Subtotal (incl. 35 % contingency)	**$494,000**

Proposed boulevard connector road (Location 24-24A)							
	Design ARI	100					
	Design Flow (m^3/s)	24.01					
	Pipe diameter (mm)	1650					
	Installation (Laying)	RRJ-100% FCR	4	20	m	$2,127	$170,160.00
	Headwalls & Endwalls		8	5.08	m^3	$2,676	$92,054.40
	Installation (Road, Rail factors)	Major Council Roads					$51,048.00
	Allowance for Service Alterations	Yes	Factor			1.25	$42,540.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$366,092**
						Subtotal (incl. 35 % contingency)	**$494,000**

Bass Coast Highway (2-3)							
	Design ARI	100					
	Design Flow (m³/s)	13.3					
	Pipe diameter (mm)	1500					
	Installation (Laying)	RRJ-100% FCR	3	20	m	$2,127	$106,740.00
	Headwalls & Endwalls		6	2.48	m³	$2,676	$39,818.88
	Installation (Road, Rail factors)	Major Council Roads					$32,022.00
	Allowance for Service Alterations	Yes	Factor			1.25	$0.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$188,871**

Subtotal (incl. 35 % contingency) $255,000

Korrumburra-Wothaggi Road Embankment (Location 12-13)	*Developed with no overtopping of Existing Road in 1 %AEP Storm event						
	Design ARI	100					
	Design Flow (m³/s)	SIZED USING RORB					
	Pipe diameter (mm)	1200					
	Installation (Laying)	RRJ-100% FCR	14	20	m	$ 1,198	$335,440.00
	Headwalls & Endwalls		28	1.77	m³	$ 2,676	$132,622.56
	Installation (Road, Rail factors)	Major Council Roads					$100,632.00
	Allowance for Service Alterations	Yes	Factor			1.25	$83,860.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$662,845**

Subtotal (incl. 35 % contingency) $895,000

Heslops Road (Location 37-38) downstream of WL2							
	Design ARI	100					
	Design Flow (m3/s)	5.8					
	Pipe diameter (mm)	1650					
	Installation (Laying)	RRJ-100% FCR	1	20	m	$2,127	$42,540.00
	Headwalls & Endwalls		2	4.3	m3	$2,676	$23,013.60
	Installation (Road, Rail factors)	Major Council Roads					$12,762.00
	Allowance for Service Alterations	Yes	Factor			1.25	$10,635.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$99,241**
						Subtotal (incl. 35% contingency)	**$134,000**

Heslops Road (Location 49-50) downstream of WL4							
	Design ARI	>5yr					
	Design Flow (m^3/s)	2.0					
	Pipe diameter (mm)	1050					
	Installation (Laying)	RRJ-100% FCR	1	65	m	$955	$62,075.00
	Headwalls & Endwalls		2	1.52	m3	$2,676	$8,135.04
	Installation (Road, Rail factors)	Major Council Roads					$18,622.50
	Allowance for Service Alterations	Yes	Factor			1.25	$15,518.75
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	**$114,641**
						Subtotal (incl. 35 % contingency)	**$155,000**

Heslops Road (Location 41-42) downstream of WL3							
	Design ARI	100					
	Design Flow (m3/s)	3.03					
	Supply - Crown Units	1200 x 450	2	40	m	$ 622	$ 49,760
	Supply - Base Slab		3	40	m	$ 505	$ 60,600
	Supply - Link Slab		1	40	m	$ 505	$ 20,200
	Installation (Laying)		3	40	m	$ 1,632	$ 88,128
	Headwalls & Endwalls		6	1.31	m³	$ 2,676	$ 20,953
	Installation (Road, Rail factors)	Major Council Roads					$ 65,606
	Allowance for Service Alterations	No	Factor			1.00	$ -
	Traffic management		item				$ 10,290
						Subtotal	$315,537
						Subtotal (incl. 35 % contingency)	$426,000

Heslops Road (Location 45-46) downstream of SB12							
	Design ARI	100					
	Design Flow (m³/s)	3.14					
	Pipe diameter (mm)	750					
	Installation (Laying)	RRJ-100% FCR	4	20	m	$528	$42,240.00
	Headwalls & Endwalls		8	0.87	m³	$2,676	$18,624.96
	Installation (Road, Rail factors)	Major Council Roads					$12,672.00
	Allowance for Service Alterations	Yes	Factor			1.25	$10,560.00
	Traffic management		item				$10,290.00
	Minor regrading of channel d/s of culverts					item	
						Subtotal	$94,387
						Subtotal (incl. 35 % contingency)	$127,000