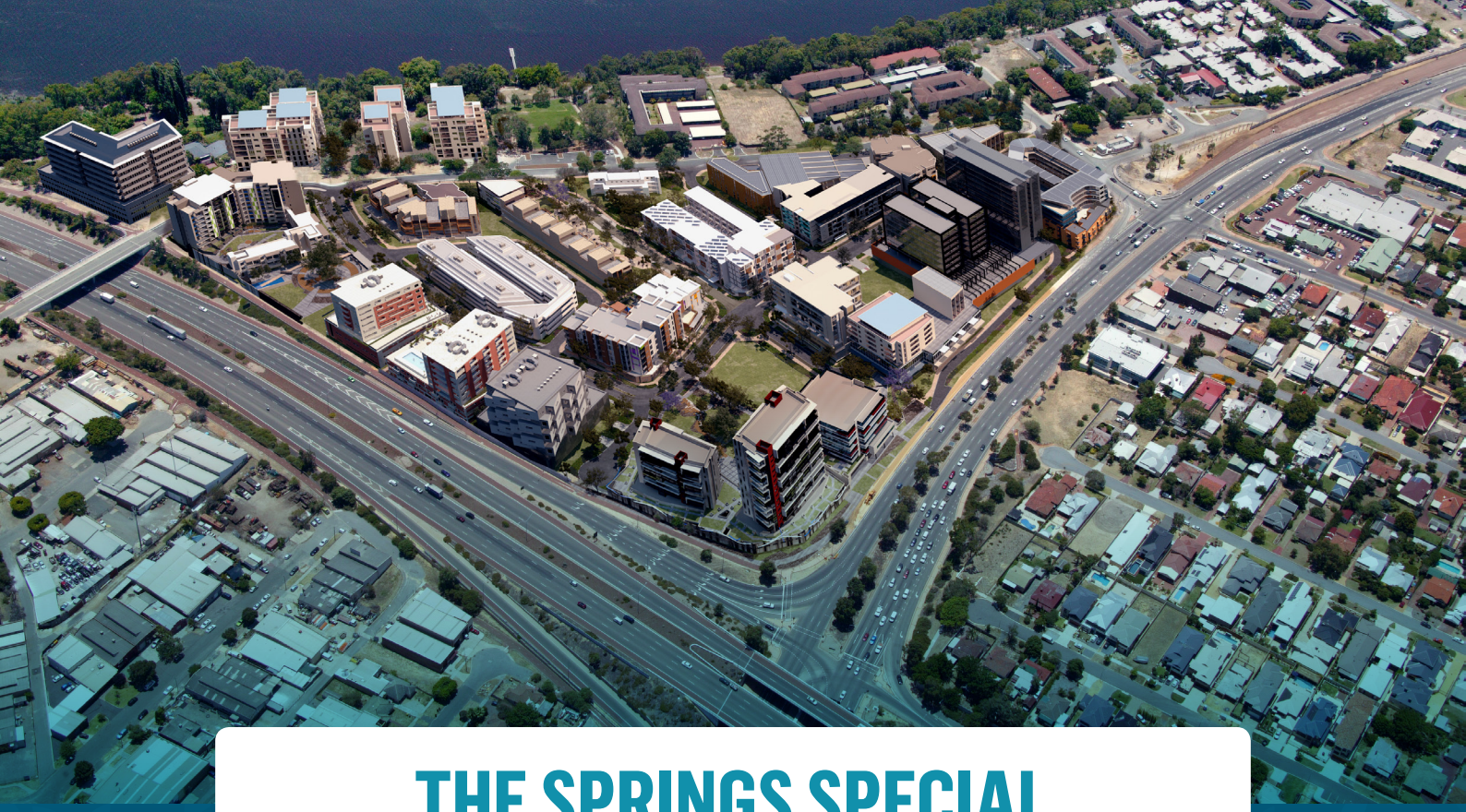

THE SPRINGS SPECIAL DEVELOPMENT PRECINCT

(The Development Contribution Area (DCA) comprises all the land referred to as The Springs Special Development Precinct identified by scheme maps as DCA 1)

LANDCORP

APRIL 2017

urbis

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

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Report Number	V9

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1 Introduction

This report includes information relating to the proposed Development Contribution Plan (DCP) for The Springs DCP area, an area of approximately 9.5ha, generally bounded by the Swan River, Graham Farmer Freeway, Great Eastern Highway and Brighton Road.

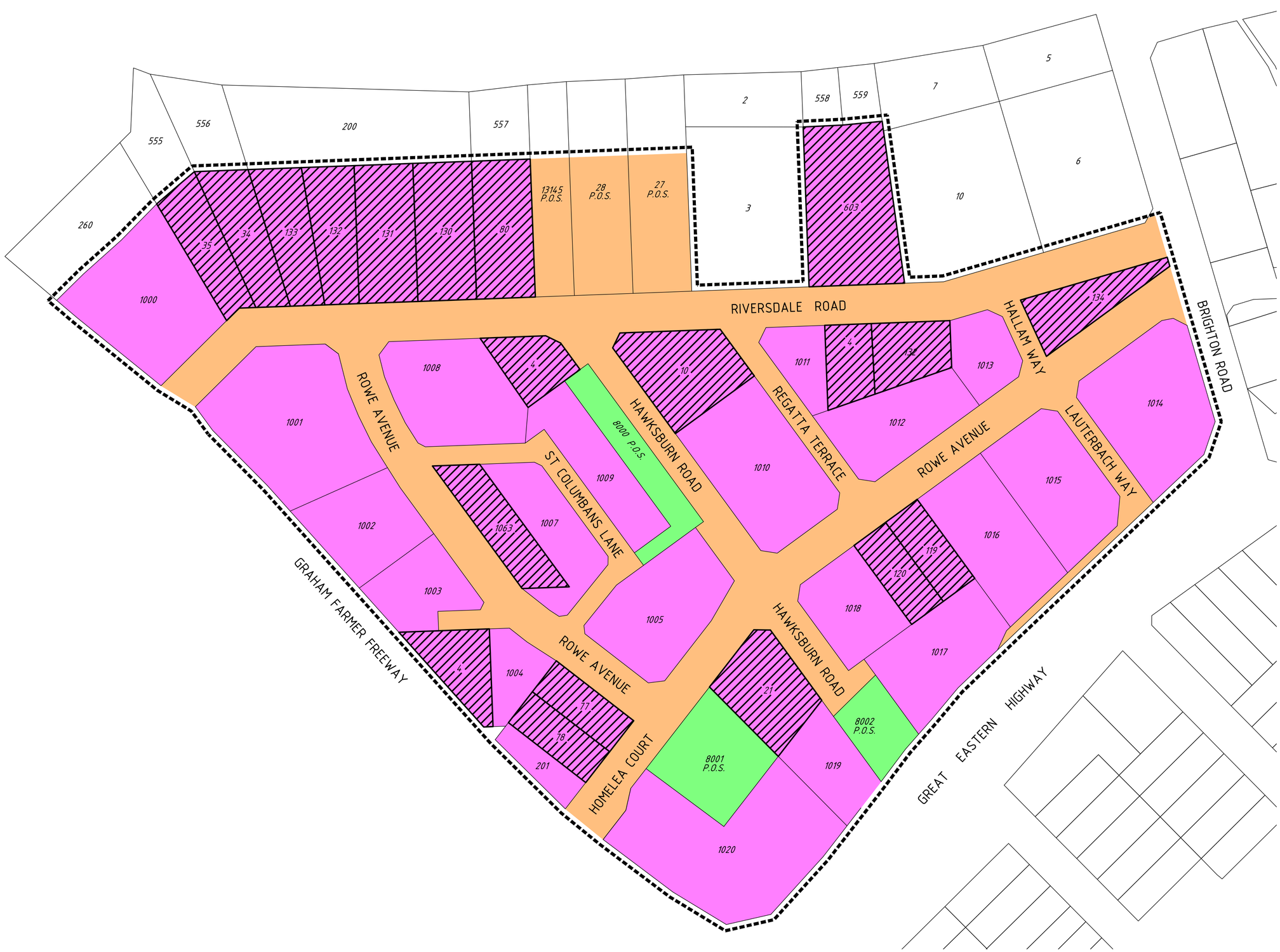
The Springs is included within;

- Development Area 11 (DA11) within Schedule 14 of Local Planning Scheme 15 (LPS15), and
- Schedule 16 – The Springs Special Development Precinct (DA11) as Development Contribution Area 1 (DCA1).

Traditionally a DCP is based on an estimate of infrastructure requirements; and consequently, an estimate of the associated construction costs. In this instance construction of the infrastructure included within 'The Springs' DCP has already occurred. This DCP report is therefore, a consolidation of previously written reports; whilst also incorporating the engineering construction drawings and importantly the actual costs that have been incurred.

At the time of gazettal of this DCP Report, there are a number of lots that have subject to amalgamation and subdivision. These lots are captured within the Appendix F Land Owners Schedule with apportionments redistributed to reflect the current titles.

The area, subject to this DCP is shown in **Figure 1.**



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SCALE 1:1000 @ ORIGINAL SHEET SIZE A1

PLAN
SCALE 1:1000

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DIAL 1100 BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	16.06.16	BS	DH		MINOR AMENDMENTS
A	02.06.16	BS	DH		ISSUED FOR INFORMATION

NOTE
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Certified Quality System to ISO 9001

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P: (08) 9227 0595 F: (08) 9227 8617

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE

DRAWING TITLE: NET DEVELOPABLE AREA

DRAWN: B. SENIOR	WAPC No.: 135544/142091
DESIGNED: B. SENIOR	SCALE @ A1: 1:1000
PROJECT MANAGER: D. HELLMUTH	DATUM: AHD; CO-ORDS: NONE
JDSi PROJECT No.: JDS10375.2	DRAWING No.: SK29; REVISION: B

1 Purpose of Development Contribution Plans

DCPs provide a framework for the coordination of infrastructure planning and delivery for urban development projects, whilst also ensuring that the cost of infrastructure is shared equitably amongst landowners. DCPs are commonly used by local governments and other government agencies to determine and allocate the equitable sharing of infrastructure costs amongst landowners within large development areas.

From a landowner perspective, developer contributions represent an investment by the landowner/developer towards the infrastructure required to enable or enhance their development. Return from such an investment is provided through the ability to develop/redevelop and release land that would otherwise be constrained, as well as through any potential value uplift associated with the increase in land use intensity.

In this instance the DCP has enabled development by providing certainty that prefunding costs borne by LandCorp will be recovered from future development contributions. Landowners within The Springs have benefitted from the DCP as it has enabled the provision of key infrastructure that to support redevelopment of the land for residential and mixed use purposes only that would not have otherwise been viable for a single developer to construct.

The purpose of the DA11 DCP1 is to:

- Enable the application of development contributions to develop new infrastructure that is required to support development as identified in the Springs Structure Plan.
- Provide for the equitable sharing of the costs of key enabling infrastructure.
- Provide confidence to landowners that infrastructure can be provided and costs recovered.
- Facilitate betterment of the precinct as a whole, and create of a sense of place for residents.

1.1 PURPOSE OF DEVELOPMENT CONTRIBUTION PLAN REPORT

The report provides supporting information regarding the shared cost arrangement as required under State Planning Policy 3.6 Development Contributions for Infrastructure (SPP3.6).

This report has been prepared to set out in detail:

- The infrastructure and other items for which the development contributions are to be collected (and specifically those items to which contributions are not being collected).
- The provision of the cost of infrastructure and other items.
- The cost contribution rates applicable to land within the development contribution area.
- General operational of the DCP.
- The period of operation of the DCP.

This report seeks to provide a clear methodology and transparency with respect to those items included in the DCP. Only where there is a clear improvement or betterment to the precinct, and to all of the landowners, have items been included. Those items that would ordinarily be part of subdivision works specific to one individual landowner, such as individual lot servicing connections, have not been included.

Given the infill nature of The Springs, it is as equally important to state those items that are not included as it is to identify those items that are included.

1.2 RELEVANT DOCUMENTS

1.2.1 THE SPRINGS STRUCTURE PLAN

The implementation measures of The Springs Structure Plan incorporated the requirement for an infrastructure cost sharing mechanism for landowners within The Springs (referred to as Amendment No 53 to Town Planning Scheme No 14 (TPS14) - this Amendment supersedes Amendment No 53 as TPS14 is no longer current).

The Structure Plan identified that shared costs may include infrastructure such as roads, public utility services, public open space, other public facilities normally required to be provided by the developer, and costs associated with creating and implementing the contribution scheme (including professional fees, administration costs, interest, statutory fees, auditing, etc). Part 7 of the Structure Plan acknowledged that the specific detail on the required infrastructure was yet to be settled at finalisation of the Structure Plan, however identifies the items that should typically be included as development costs.

1.2.2 STATE GOVERNMENT POLICY

State Planning Policy 3.6 (Developer Contributions for Infrastructure)

The Western Australian Planning Commission (WAPC) has prepared State Planning Policy 3.6 (SPP3.6) to assist with the preparation and implementation of development contributions for infrastructure. SPP3.6 sets out the principles and considerations that apply to development contributions for the provision of infrastructure in new and established urban areas, so as to:

- Promote the efficient and effective provision of public infrastructure and facilities to meet the demands arising from new growth and development.
- Ensure that development contributions are necessary and relevant to the development to be permitted and are charged equitably among those benefiting from the infrastructure and facilities to be provided.
- Ensure consistency and transparency in the system for apportioning, collecting and spending development contributions.
- Ensure the social well-being of communities arising from, or affected by, development.

SPP 3.6 states that the following principles are applied to development contributions:

- Need and nexus – the infrastructure has a clearly demonstrated need and the connection between the demand and the development is clearly established.
- Transparency – method for calculating and its application is clear, transparent and simple to understand/administer.
- Equity – must be levied from all developments based on need.
- Certainty – contributions must be clearly identified and methods for accounting determined at the start of the process.
- Efficiency – contributions are justified on a whole of life capital cost consistent with maintaining financial discipline on service providers by precluding over recovery of costs.
- Consistency – uniformly applied across Development Contribution Area (DCA) and methods being consistent.
- Right of consultation and review – owners have the right to be consulted and have the Development Contribution Plan (DCP) reviewed by a third party if they consider it's not reasonable.
- Accountable – accountability is required in relation to the manner in which contributions are determined and expended.

Local Planning Scheme No.14 - Scheme Amendment No. 2

Amendment No.53 to Town Planning Scheme No.14 was abandoned upon gazettal of Local Planning Scheme No. 15. Scheme Amendment No. 2 to Local Planning Scheme No.15 identified The Springs Special Development Precinct as a Development Contribution Area by amending Schedule 16 of Local Planning Scheme No. 15 and updating the Scheme Map. As discussed in more detail in the section below, Scheme Amendment No. 2 to Local Planning Scheme No.15 was gazetted 7 February 2017.

2 Period and Operation of the DCP

2.1 DEVELOPMENT CONTRIBUTION PLAN

The proposed DCP1 for DA11 is included overleaf. The DCP has been prepared in accordance with SPP3.6 and modifications as requested by the City of Belmont.

2.2 PERIOD OF THE PLAN AND ANNUAL REVIEW

The DCP for DA11 shall operate for a period of 5 years, from gazettal. and may be reviewed when considered appropriate.

Whilst these statutory provisions are in place (as are standard in most DCP's), this DCP is somewhat unique in that at the time of gazettal and approval to the Cost Apportionment Schedule all infrastructure works are complete (having been pre-funded by LandCorp). The costs are therefore, all known. There is no need for a contingency allowance for potential shortfalls as this would only occur if working with estimates and not the actual costs.

2.3 OPERATION OF THE DCP

The collection of costs within The Springs is yet to occur. In accordance with SPP3.6 Cl.5.4 does not allow the collection of payment until the DCP is in effect.

The DCP has been prepared in accordance with the provisions of SPP3.6 and came into effect on the 7 February, 2017, the date of gazettal of Amendment No.2.

The City of Belmont will administer the DCP. The items included in the DCP have been formulated through a collaborative and consultative approach between LandCorp, the City of Belmont, service providers, landowners and other stakeholders.

The Spring DCP is now in operation and the City of Belmont will now collect costs.

2.4 DEVELOPMENT CONTRIBUTION PLAN AREA OF OPERATION

This DCP relates to the area identified on The Springs Structure Plan Map within DA11 as described within the City of Belmont LPS15, as illustrated in **Figure 1.**

Reference No.	Development Contribution Plan 1
Area Name	The Springs Special Development Precinct (The Development Contribution Area (DCA) comprises all the land referred to as The Springs Special Development Precinct identified by scheme maps as DCA 1).
Relationship to other planning instruments	The development contribution plan has been prepared having regard to: ▪ City of Belmont Strategic Plan 2010-15; ▪ Local Planning Scheme No 15; ▪ Western Australian Planning Commission State Planning Policy 3.6 (Development Contributions for Infrastructure); and ▪ The Springs Structure Plan.
Infrastructure and administrative costs to be funded	Contributions shall be made towards the following items by all landowners: 1. Civil construction costs relating to the provision and upgrading of necessary and shared public infrastructure, specifically: ▪ Mobilisation. ▪ Site works. ▪ Retaining walls. ▪ Sewer reticulation. ▪ Stormwater and Drainage. ▪ Water reticulation. ▪ Road works to existing roads (excluding Riversdale Road east of Rowe Avenue and west of Brighton Road). 2. Electrical infrastructure costs, including high voltage reinforcement where necessary. 3. Landscaping construction and remediation costs, specifically: ▪ Public open space. ▪ Streetscape and public realm. 4. Professional and administrative fees relating to: ▪ Environmental Remediation (remediation of public open space only). ▪ Civil Engineering fees associated with: (relating to civil design and public utility upgrades). ▪ Civil and landscaping design. ▪ Infrastructure upgrades. ▪ Hydrological and urban water management. ▪ Parking & Traffic Impact System. ▪ Urban Water Management. ▪ Landscape Architecture (associated with public open space, streetscape and public realm). ▪ Civil Construction (relating to management of civil works).

Method for Calculating Contributions	The development contribution for each lot within The Springs shall be calculated on the basis of Infrastructure Costs + Electricity Upgrade Costs, as follows: The contributions outlined in this plan shall be derived based on the need for infrastructure generated by additional development in the Development Contribution Area. The development contribution for each lot within The Springs shall be calculated on the basis of Infrastructure Costs + Electricity Upgrade Costs, as follows: ▪ Infrastructure Costs: The contribution for individual lots for Infrastructure Costs shall be apportioned pro-rata based on the square meterage of each lot; ▪ Electricity Costs: The contribution for individual lots for Electricity Upgrade Costs shall be calculated pro-rata based on the anticipated demand generated by each lot (based on development potential) less the current electricity capacity; and ▪ High Voltage Electricity Reinforcement: The contribution for high voltage electricity reinforcement shall be apportioned to lots designated as 'Mixed Use' under The Springs Structure Plan and calculated pro-rata based on the anticipated demand generated by each lot (based on development potential) less the current electricity capacity. The following areas shall be excluded from the land area calculations of both the total land area in the Development Contribution Area and the Owner's land in the Development Contribution Area: ▪ Roads designated under the Metropolitan Region Scheme as Primary Regional Roads and Other Regional Roads. ▪ Existing public open space. ▪ Drainage reserves. ▪ Public utility sites. ▪ Other land required for Infrastructure Works.
Period of operation	The Development Contribution Plan shall operate for a period of 5 years from the date of gazettal.
Priority and timing	Clearing and Earthworks (Complete) Drainage Basin Retaining Walls (Complete) Roads (Complete) Drainage (Complete) Water Reticulation (Complete) Sewer Reticulation (Complete) Street Lighting and Power (Complete) Landscaping (Stage 2)

Participants / Contributors	All landowners within Development Area 11 (The Springs) and the Development Contribution Area.
Review process	The Development Contribution Plan shall be reviewed when considered appropriate having regard to the rate of subsequent development in the area since the last review and the degree of development potential still existing. The estimated infrastructure costs contained in the Cost Contribution Schedule shall be reviewed at least annually to reflect changes in funding and revenue sources and indexed based on the Building Cost Index or other appropriate index as approved by the qualified person undertaking the certification of costs referred to in Clause 6.3.11.3 of Local Planning Scheme No 15.

3 DCP Infrastructure Items

This section of the DCP report identifies the infrastructure items to be funded by development contributions collected from landowners with DA11. These items include:

- Civil Infrastructure Design and Construction
- Public Open Space Site Remediation and Landscaping Construction
- Professional Costs

3.1 CIVIL INFRASTRUCTURE DESIGN AND CONSTRUCTION

The scope of works for the DCP includes the cost of all works associated with provision of civil infrastructure including design and construction as outlined in the Table 1 below:

Table 1 - Civil Infrastructure Design and Construction

SCOPE	DESCRIPTION	COST APPORTIONMENT METHODOLOGY
Roadworks	The improvement to existing roads are shown in **Figure 2** and as outlined below: ▪ Riversdale Road. ▪ Rowe Avenue. ▪ Brighton Road. ▪ Hawksburn Road. ▪ Nannine Place. The DCP does not include any costs associate with the construction of new roads including Roads 1, 2, 3 and 4. The roads identified for upgrading are for the betterment of the overall Springs development - they are the key roads providing the main access into and out of The Springs, or provide access to the existing and proposed open space amenity areas.	Pro rata cost determined by proportion of Net Developable Area.
Sewer reticulation	All lots within the structure plan are required to be serviced by an appropriately sized main to allow for ultimate sewer flows created by increased density. This required the majority of the existing sewers to be upgraded from 150mm dia. to 225mm diameter sized pipes, and extension of a 225mm dia. sewer to service sites north of Riversdale Road (west of Hawksburn Road). The sewer network also required reconfiguring to allow for the road layout changes. Refer **Appendix A, Sewer Reticulation Plans.** Sewer connections for individual lots are not included in the DCP and are considered a standard subdivisional cost.	
Stormwater drainage	The existing stormwater pipes and storage were limited and did not meet Council's current minimum requirements. Water quality control was also identified as an issue as there is no pollution control infrastructure installed within the precinct. The stormwater drainage network has been completely redesigned to accommodate the stormwater catchment areas and to meet the requirements of the Urban Water Management Plan	

	(UWMP), refer **Appendix B Stormwater Reticulation Plan.** Stormwater connections for individual lots are not included in the DCP and are considered a standard subdivisional cost.	
Water reticulation	Although the existing lots had access to water services, the existing smaller water pipe sizes were not adequate to accommodate the proposed increased density and required upgrading. A majority of the existing water mains have been upgraded to 150, 200 and 250mm diameter. pipe sizes to ensure appropriate pressure is supplied to accommodate development of all lots within the structure plan. Refer **Appendix C Water Reticulation Plan**. Water connection points for individual lots are not included in the DCP and are considered a standard subdivisional cost.	
Mobilisation and Management	Required to progress the infrastructure works - includes but is not limited to the following cost items: ▪ Mobilisation of Machinery to site and establishment of site compound. ▪ Construction water for dust management. ▪ Survey and set out of works. ▪ Location of existing services. ▪ Contractor supervision and management. ▪ Preparation of management plans. ▪ Dilapidation surveys. ▪ Traffic management.	
Site works	▪ Bulk Earthworks for upgrading roads, installing new roads and POS areas. ▪ Stabilising areas for dust management. ▪ Protection of existing trees.	
Electrical infrastructure costs	The existing electrical infrastructure was not sufficient for the proposed increased density and required significant upgrading to allow the provision of the ultimate power demand to individual sites. The electrical network has been rationalised and upgraded to include new high and low voltage cables, streetlights, switchgear and transformers. Power reinforcement is required to meet the ultimate power demands for development sites, to enable this high voltage feeders installed from the Rivervale Zone substation to connect into the internal electrical infrastructure, which then distributed power throughout the structure plan area. Given the higher proportion of demand generated by the mixed use sites, it was determined that the costs associated with the high voltage feeder extension would be most equitably shared by the mixed use sites only and not the whole of the development. Refer **Appendix D Underground Power Distribution Plan HV Master Plan.**	Based on the demand created by the proposed density of development of each of the proposed lots less the existing supply.

NEED AND NEXUS - CIVIL INFRASTRUCTURE DESIGN AND CONSTRUCTION:

The existing road network and utilities were not of a sufficient standard to facilitate the scale of development contemplated by The Springs, and therefore required upgrading. In this area of fragmented ownership, sewer, stormwater, drainage, water reticulation and road works are undertaken to the benefit of the whole of the Development Area - without these works and upgrades, development at the scale and quality of betterment proposed

would not have been able to eventuate.

With fragmented ownership and limited financial or technical capacity of the individual landowners, inclusion of civil infrastructure works including design and construction, provides certainty for another party to prefund reconstruction of road or infrastructure upgrades and extensions, and enable the recovery of these costs at a later date. Civil infrastructure design and management of the construction is necessary to coordinate and facilitate the improvements on a holistic basis, and therefore, all aspects of design and construction is required to be included and shared amongst the Development Area.

New local roads within The Springs, comprising Roads 1, 2, 3 and 4, were considered to primarily provide access solely to the benefit of those lots created, and are under the ownership of LandCorp. These roads have, therefore, been excluded from the DCP.

These costs were identified within the Structure Plan which has been through an exhaustive public process.

3.2 PUBLIC OPEN SPACE SITE REMEDIATION AND LANDSCAPE CONSTRUCTION

The scope of works for the DCP includes the cost of all works associated with provision of landscape works within the public realm including design and construction as outlined in the Table 2 below:

TABLE 2 - PUBLIC OPEN SPACE SITE REMEDIATION AND LANDSCAPE CONSTRUCTION

SCOPE	DESCRIPTION	COST APPORTIONMENT METHODOLOGY
Landscaping	The public open space (POS) within The Springs comprises: ▪ Cracknell Park (existing). ▪ New areas of POS, being Lots 8001, 8002 and 8003. Whilst typically included, in this instance the land for public open space is not included within the DCP, and has been gifted by LandCorp. Only the costs for the improvement to the POS are included in the DCP. The DCP includes the costs to landscape Lots 8001, 8002 and 8003 in accordance with The Springs Structure Plan and City of Belmont open space policies including: ▪ Landscape and irrigation works including existing tree relocations. ▪ Street furniture (including seating, bike racks, bin enclosures, drinking fountain, table, bbq, stairs). ▪ Carparking. ▪ Turf and paving works. ▪ Retaining walls (including handrails and balustrades). ▪ Maintenance until hand-over to Council. In accordance with The Springs Structure Plan, relocation of trees within various parts of The Springs that were worthy of retention, were relocated to nominated locations within the POS.	Pro rata cost determined by proportion of Net Developable Area.

Remediation	A large portion of the site required remediation prior to development, including the disposal of impacted material (such as topsoil containing bonded Asbestos Containing Material (ACM) fragments. The reinstatement of the site was then undertaken to facilitate its development. The total area remediated was 6.26ha. The land that was remediated was then developed for residential purposes (6.21ha), and POS (0.49ha). The remediation costs have therefore, only been applied to the POS as a proportion of 0.49ha to the total 6.26ha.	Pro rata determined by proportion of Net Developable Area.

NEED AND NEXUS – LANDSCAPING CONSTRUCTION AND REMEDIATION COSTS:

POS within The Springs caters for local recreational needs and amenity for all residents, combined with fulfilling a drainage function. In accordance with WAPC Policy, the provision of POS can be in the form of land and/or contributions to the landscaping costs.

In the case of The Springs, the land for POS has been gifted by LandCorp at no cost, however, the costs for the items listed below are included, on the basis that the POS provides amenity benefits to all landowners, and is an asset in the DCP;

- Site remediation,
- Construction of POS; and
- Management and maintenance of POS until such time as it is handed over to the Council.

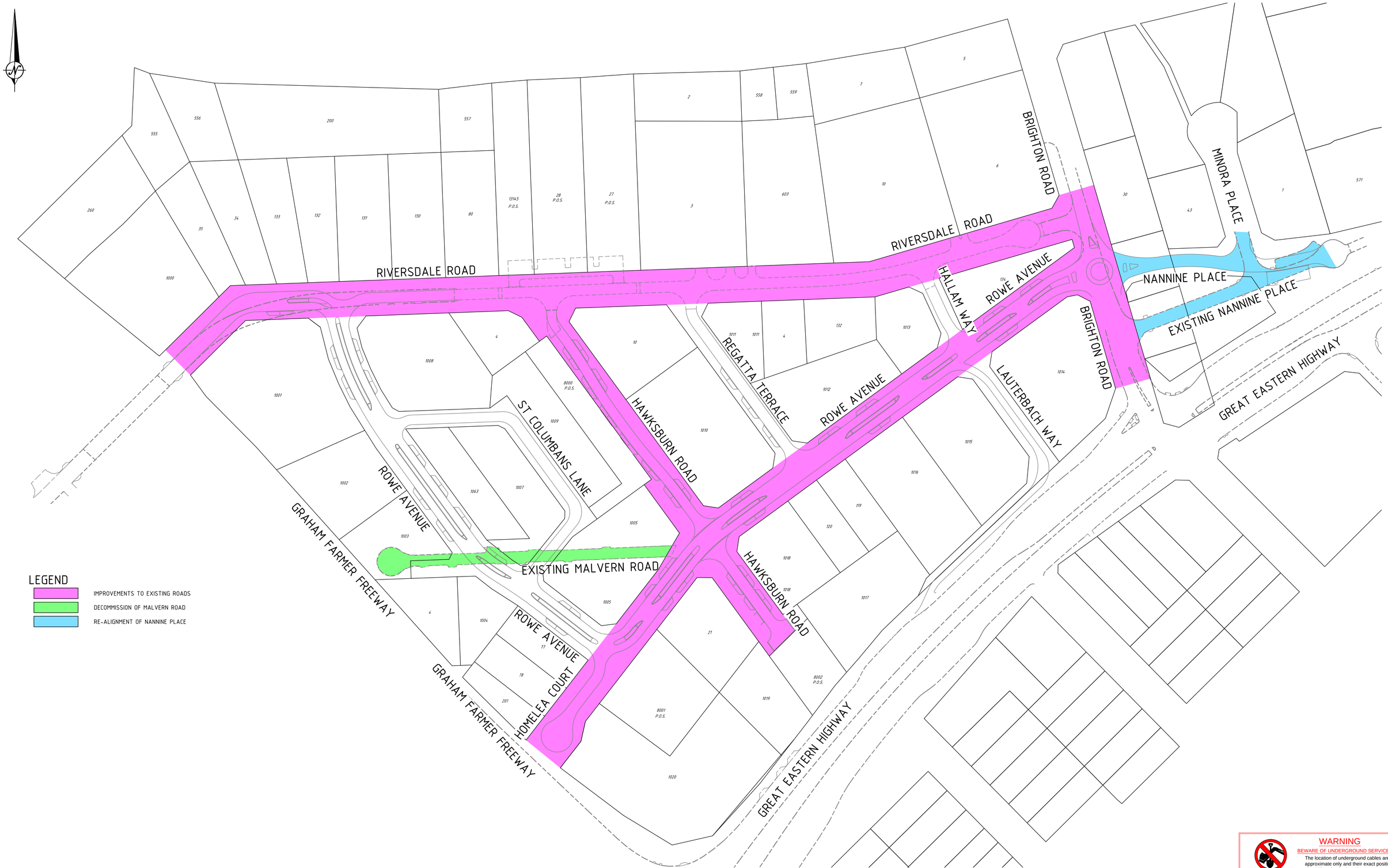
With fragmented ownership and limited financial or technical capacity of the individual landowners, inclusion of the landscape works, including design and construction, provides certainty for another party to prefund the landscaping and public realm works, and enable the recovery of these costs at a later date. A Landscape Concept Plan and identification of those items to be included within the DCP was included within the Structure Plan which has been through an exhaustive public process.

3.3 PROFESSIONAL COSTS

The scope of works for the DCP includes the cost of professional costs associated with the redevelopment as outlined in Table 4 below:

TABLE 3 - PROFESSIONAL COSTS

SCOPE	DESCRIPTION	COST APPORTIONMENT METHODOLOGY
Professional costs	Professional fees relating to: ▪ Environmental Remediation (remediation of public open space only). ▪ Civil Engineering (relating to civil design and public utility upgrades). ▪ Civil and landscaping design ▪ Infrastructure upgrades ▪ Hydrological and urban water management ▪ Parking & Traffic Impact System ▪ Urban Water Management. ▪ Landscape Architecture (associated with public open space, streetscape and public realm). ▪ Civil Construction (relating to management of civil works).	Pro rata cost determined by proportion of Net Developable Area.
NEED AND NEXUS – PROFESSIONAL AND ADMINISTRATIVE COSTS: Provision has been made for a contribution towards a range of professional costs associated with the redevelopment. It is reasonable that professional costs be reimbursed for those tasks which contribute holistically to the overall redevelopment, function and betterment of the precinct. Given that LandCorp has prefunded all planning and infrastructure works; the costs associated with planning and design, and administration of the DCA, do not form part of the development contribution.		



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Certified Quality System to ISO 9001

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P: (08) 9227 0595 F: (08) 9227 8617

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE
DRAWING TITLE: ROADS & ROADWORKS WITHIN DCP

DRAWN: B. SENIOR		WAPC No.: 135544/142091	
DESIGNED: B. SENIOR		SCALE @ A1: 1:1000	
PROJECT MANAGER: D. HELLMUTH		DATUM: AHD	CO-ORDS: PCG94
JDSi PROJECT No.: JDS10375	DRAWING No.: SK30		REVISION: B

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4 Development Contribution Calculations Methodology

Outlined below are the key principles and methodology for determining the development contributions applicable to the DCA, as nominated in the tables within Section 4.0.

4.1 COST APPORTIONMENT METHODOLOGY

A key objective of the cost apportionment methodology is the need to provide certainty to each landowner on their cost contribution and ensure costs are shared in a transparent and equitable manner. To achieve an equitable outcome, the development potential of each site has been determined in an equal and consistent manner.

As prescribed in SPP3.6, developer contributions should be calculated based on the need for new infrastructure that has been generated from demand within the development planning period.

In order for landowners to understand the costs applied to each lot, the methodology is described in more detail below with a greater explanation to those items that were a proportion of the pro rata cost determined as a proportion of Net Developable Area.

The apportionment of the costs for all infrastructure items is detailed in the **Cost Apportionment Schedule** included in **Appendix E.**

TABLE 4 – COST APPORTIONMENT METHODOLOGY

DCP ITEM	COST APPORTIONMENT METHODOLOGY
Pro rata cost determined by proportion of Net Developable Area	The majority of the development contributions have been calculated as a proportion of Net Developable Area of any landholding; to the total Net Developable Area of the Development Contribution Area. This approach offers a simple solution to apportioning costs for land with equal development potential. This approach is consistent with the overarching principle 'beneficiary pays' of the WAPC's SPP3.6. A DCP charge (rate per square metre) has been applied to each square metre of net developable land.
Public Open Space Site Remediation – Pro rata cost determined by proportion of Net Developable Area	A large portion of the site required remediation prior to development, including the disposal of impacted material (such as topsoil containing bonded Asbestos Containing Material (ACM) fragments. The reinstatement of the site was then undertaken to facilitate its development. The total area remediated was 6.26ha. The land that was remediated was then developed for residential purposes (6.21ha), and public open space (POS) (0.49ha). The remediation costs have therefore, only been applied to the POS as a proportion of 0.49ha to the total 6.26ha.
Electrical infrastructure costs (Internal to the development)	At the time of development, lots within The Springs had an electrical supply; however, provision was based on low density, predominantly single residential development. The existing electrical infrastructure was, therefore, not sufficient for the proposed increased density and required significant upgrading to allow the provision of the ultimate power demand to individual sites. The electrical network was rationalised and upgraded to include new high and low voltage cables, streetlights, switchgear and transformers. The costs for the electrical infrastructure have, therefore, been calculated pro-rata based on the anticipated demand generated by each lot, less the pre-development electric capacity. There is no readily available public information in relation to the pre-development capacity. This information would only be available to individual landowners via billing history and therefore, at the time of making the contribution the onus will be on the existing landowners to demonstrate the pre-development capacity that will be deducted.

High voltage reinforcement (External to the development)	Power reinforcement was required to meet the ultimate power demands for development sites, to enable this high voltage feeders were installed from the Rivervale Zone substation to connect into the internal electrical infrastructure which then distributed power throughout the structure plan area. Whilst beneficial to all lots, it is intended that the "Mixed Use' lots gain the greatest benefit and therefore, this contribution only relates to Lots 119, 120, 21, 1014-1016 and 1018 Rowe Avenue, Lots 1017 and 888 Hawksburn Road and Lot 889 Road 8.

4.2 DEVELOPMENT CONTRIBUTIONS

Development contributions are calculated from developable land area only (per sq.m). The following areas have been excluded from the Development Contribution Area:

- Cracknell Park (Existing Public Open Space)
- Existing road reserves
- Proposed road reserves

The proposed public open space is included within the Net Developable Area (NDA). The NDA for DCP1 is included in **Figure 1**.

A DCP charge has been applied to each square metre of net developable land. The resultant landowner contribution has been calculated for guiding purposes and is included within **Appendix F**. For comparative purposes this includes both the costs as at 2012 (as advertised) and the currently proposed costs as at 2016. It should be noted that the landowner costs have reduced from those in 2012. As mentioned these are based on actual construction costs and therefore, will not be subject to the usual contingency allowances or annual reviews as they will not be subject to escalation.

4.3 INFRASTRUCTURE ITEMS EXCLUDED FROM THE DCP

LandCorp has voluntarily not included a number of potential project costs, exclusively funding these items for the good will of the project. These include:

- Land for public open space, this has been gifted by LandCorp.
- Construction of new roads including Roads 1, 2, 3 and 4.
- The costs to prepare The Springs Structure Plan (notwithstanding that development would not have eventuated had this not been prepared, thereby benefitting all landowners within The Springs.
- All forward works (excluding remediation of the public open space).
- Costs associated with the road closure and amalgamation of Malvern and Hawksburn Road, which were essential to achieve the regularity of lot configuration, consolidation of lots and achieve the density of development proposed.
- Interest on the costs for the pre-funding of infrastructure.
- Administration by LandCorp of the construction of the DCP infrastructure.
- The cost of public art contained within public open space.

Disclaimer

This report is dated April 2017 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of LandCorp (**Instructing Party**) for the purpose of The Springs Development Contribution Plan Report (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

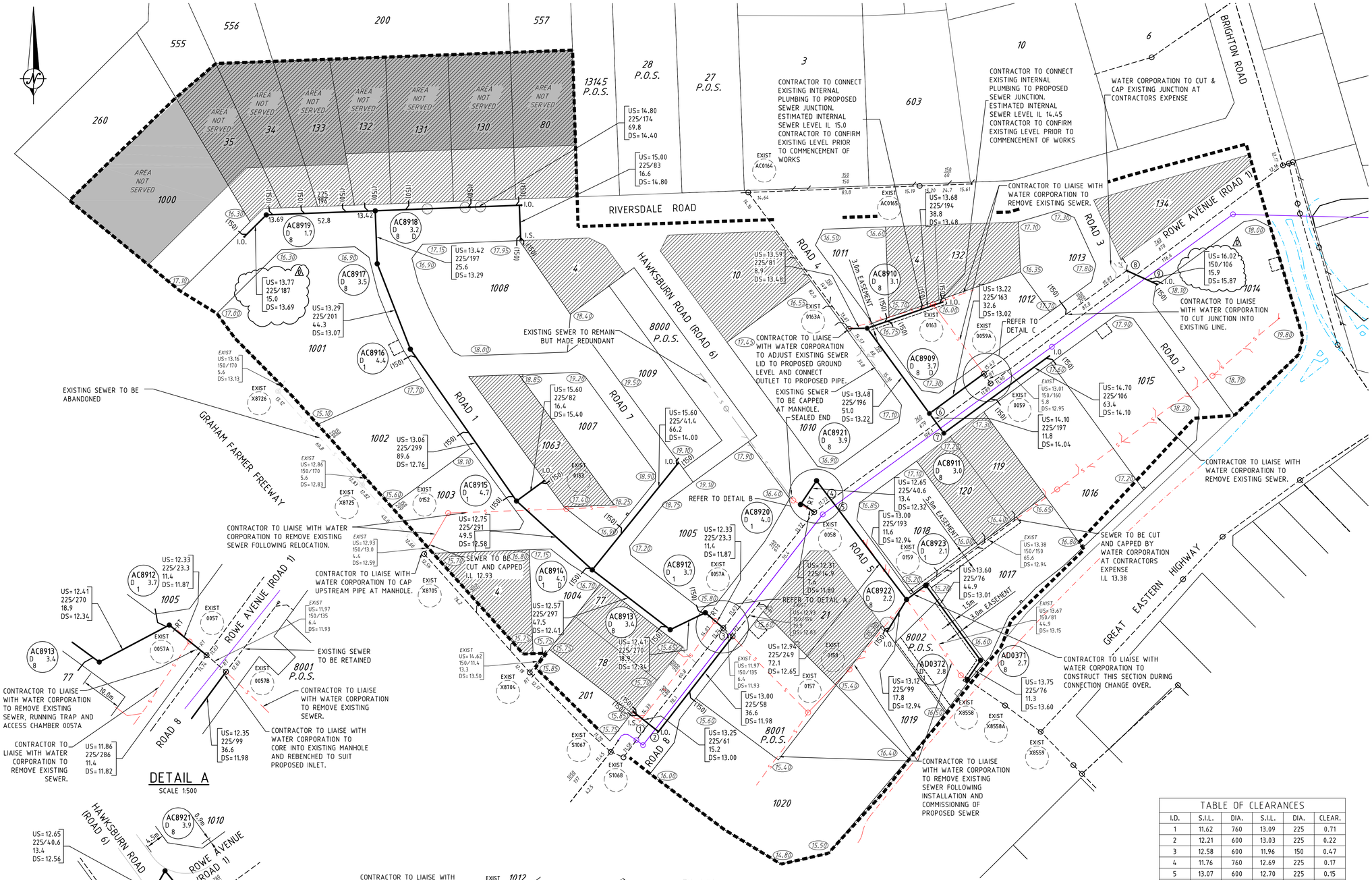
All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

Appendix A Sewer Reticulation Plan



NOTES

1. THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS, SPECIFICATION AND THE WATER CORPORATION'S WASTEWATER DESIGN MANUAL VOLUME 1.
2. ALL PIPE SIZES IN MILLIMETRES (DIA 150 U.O.S.). ALL DISTANCES AND LEVELS IN METRES.
3. DISTANCES GIVEN ARE AT THE INTERSECTION OF SEWERS.
4. THE CONTRACTOR SHALL ENSURE THAT ALL LOTS ARE SERVED WITH HOUSE CONNECTIONS.
5. LOCAL AUTHORITY - CITY OF BELMONT
6. ACCESS CHAMBER DEPTHS ARE SHOWN FOR WATER CORPORATION INFORMATION ONLY.
7. BASE INFORMATION
   - 1.1 LEVELS ARE REDUCED FROM AUSTRALIAN HEIGHT DATUM.
   - 1.2 ESTIMATED AAMGL RL 3.0m (A.H.D.)
   - 1.3 ALL LEVELS SHALL BE LOCATED FROM ESTABLISHED BENCHMARKS AS SUPPLIED BY MAPS PTY LTD.
8. CENTRELINES OF ACCESS CHAMBERS, SEWER PIPES AND END OF I.O. LINES ARE TO BE ON ALIGNMENTS OF 3.1m IN ROAD RESERVES AND 1.0m INSIDE LOTS UNLESS OTHERWISE SHOWN.
9. SEWER PIPES TO BE UPVC CLASS SN8 SOLVENT CEMENT JOINT UNLESS OTHERWISE SHOWN.
10. ALL I.S. SEWER ENDS DEEPER THAN 2m TO BE BROUGHT UP WITHIN 1.5m OF THE FINISHED SURFACE LEVEL.
11. ALL HOUSE CONNECTIONS DEEPER THAN 1.5m ARE TO BE BROUGHT UP TO WITHIN 1.0m OF THE SURFACE.
12. MINIMUM COVER OF SEWERS TO BE 1.0m IN ROAD CROSSINGS AND 0.75m IN LOTS AND ROAD VERGE. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT.
13. ALL CONNECTIONS TO LIVE SEWERS TO BE BY WATER CORPORATION AT CONTRACTORS EXPENSE.
14. WHERE A SEWER LINE INTERSECTS WITH A STORMWATER DRAINAGE LINE AND THE SEWER PASSES OVER THE DRAIN THEN THE SEWER SHALL HAVE A TIMBER PILE AND KEEL PROVIDED FOR THE FULL EXTENT NECESSARY TO SUPPORT THE SEWER DURING EXCAVATION FOR THE DRAIN.
15. ALL IS's AND PROPERTY CONNECTIONS TO BE EITHER 1m OR 7m FROM LOT BOUNDARY UNLESS OTHERWISE NOTED.
16. REFER TO DRG. JDS10375-C150 FOR EARTHWORKS LEVELS.

LEGEND

- PIPE DIA - CLASS / GRADE / I.L. / I.L. / LENGTH(m) — PROPOSED SEWERS WITH NOTATION.
- U/S 25.00 — UPSTREAM INVERT LEVEL
- 300 /16.5 — PIPE DIA / GRADE
- 16.5 — LENGTH
- D/S 24.00 — DOWNSTREAM INVERT LEVEL
- AA6680 / D 3.8 / 1 D — ACCESS CHAMBER NUMBER. CLASS OF COVER, ACCESS CHAMBER DEPTH. ACCESS CHAMBER TYPE, D = DROP.
- EXIST AA6680 — EXSTING ACCESS CHAMBER. ACCESS CHAMBER NUMBER.
- EXISTING SEWER
- FUTURE SEWERS
- EXISTING SEWER TO BE REMOVED
- EXISTING SEWER TO BE ABANDONED
- EXISTING REDUNDANT SEWER
- PROPOSED SEWER EASEMENT
- RETICULATION AREA BOUNDARY.
- Dx./G.H. — DUPLEX LOT / GROUP HOUSING SITE
- 521 — LOT NUMBERS
- (150) — 150 DIA SEWER JUNCTION
- RT — RUNNING TRAP
- BT — BOUNDARY TRAP
- LOTS NOT OWNED BY DEVELOPER. EXISTING SERVICES TO REMAIN.
- (15.50) — ULTIMATE EARTHWORK LEVEL BY OTHERS. LEVELS TO BE SHOWN ON THE LOT DAP PLANS.
- FUTURE DN600 MAIN BY WATER CORPORATION
- AREA UNABLE TO BE SERVICED BY GRAVITY SEWER.
- AREA OF EXISTING TREE. SEWER TO BE CONSTRUCTED BY TRENCHLESS METHODS.

TABLE OF CLEARANCES					
I.D.	S.I.L.	DIA.	S.I.L.	DIA.	CLEAR.
1	11.62	760	13.09	225	0.71
2	12.21	600	13.03	225	0.22
3	12.58	600	11.96	150	0.47
4	11.76	760	12.69	225	0.17
5	13.07	600	12.70	225	0.15
6	11.84	760	14.06	225	1.46
7	13.21	600	14.08	225	0.27
8	12.05	760	15.93	225	3.12
9	13.48	600	15.97	225	1.89

(2) SEWER CROSSING I.D. NUMBER

DETAIL A
SCALE 1:500

DETAIL B
SCALE 1:500

DETAIL C
SCALE 1:500

PLAN
SCALE 1:1000

metres 0 10 20 30 40m
SCALE 1:500

metres 0 20 40 60 80 m
SCALE 1:1000

THIS PLAN IS ACCEPTED AS COMPLYING WITH OVERALL WASTEWATER PLANNING. COMPLIANCE WITH WATER CORPORATION SEWERAGE MANUAL HAS NOT BEEN CHECKED AND REMAINS THE RESPONSIBILITY OF THE CONSULTING ENGINEER.

..... FOR MANAGER DEVELOPMENT SERVICES

KJ31-202-1A

SUB FILE No. JTI 2007 07338

FILE No. JTI 2010 10016

RETICULATION AREA: RIVERVALE 2

DIAL 1100 BEFORE YOU DIG

WARNING

BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

REV	DATE	DRAWN	CHECKED	APPROVED	
0	02.05.11	CLC	MJH	DAH	ISSUED FOR CONSTRUCTION
D	25.02.11	BJS	MJH	DAH	LAYOUT AMENDED TO SUIT WATER CORPORATION AMENDMENTS
C	28.01.11	CLC	MJH	DAH	ISSUED FOR TENDER
B	22.12.10	CLC	MJH	DAH	DRAWING RE-NUMBERED AND RE-ISSUED FOR WATER CORPORATION APPROVAL.
A	05.11.10	CLC	MJH	DAH	ISSUED FOR INFORMATION.

NOTE
This drawing shall be preliminary only until it is Issued for Construction.
Certified Quality System to ISO 9001

JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE

DRAWING TITLE: SEWER RETICULATION PLAN OVERALL LAYOUT PLAN

DRAWN: C.CURRIE		WAPC No.: 135544/142091	
DESIGNED: M.HARRIS		SCALE @ A1: AS SHOWN	
PROJECT MANAGER: D.HELLMUTH		DATUM: AHD	CO-ORDS: PCG94
JDSi PROJECT No.: JDS10375.2	DRAWING No: C201		REVISION: 0

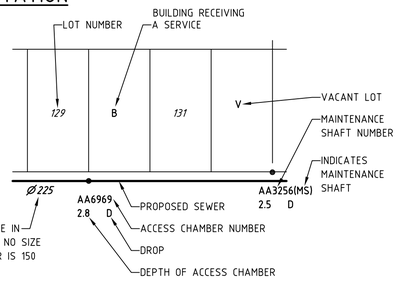
NOTES

1. LOCAL AUTHORITY : CITY OF BELMONT
2. ESTIMATED GROUND WATER LEVEL : 3.0m A.H.D.
3. LENGTH OF SEWER :
   150 DIAMETER - 15.9m
   225 DIAMETER - 986.9m
4. NUMBER OF ACCESS CHAMBERS - 7
   NUMBER OF MAINTENANCE SHAFTS - 10
5. TOTAL NUMBER OF LOTS BEING SERVED - 40
   PROPOSED LOTS - 21
   LOTS NOT OWNED BY CLIENT - 19
6. RETICULATION AREA:
   AREA TO BE SERVED - 8.58 ha
   GRAVITY SEWER DESIGN FLOW - 6.86 L/s
6. RETICULATION AREA IS CLASSIFIED AS 'DRY' IN ACCORDANCE WITH THE WATER CORPORATION WASTEWATER MANUAL VOL. 1

LEGEND

- PROPOSED GRAVITY SEWER AND ACCESS CHAMBER
- FUTURE GRAVITY SEWER AND ACCESS CHAMBER
- EXISITNG GRAVITY SEWER AND ACCESS CHAMBER
- FUTURE DN600 SEWER DUPLICATION BY WATER CORPORATION
- SUB-CATCHMENT AREA BOUNDARY
- RETICULATION AREA BOUNDARY
- 1.78 FLOW IN LITRES PER SECOND
- LOTS NOT OWNED BY CLIENT.

NOTATION



RESIDENTIAL

NET AREA (Ha) — FLOW LITRES/PERSON/DAY

1.12 - 52.5 / 180 - 0.17

PERSONS PER NET HECTARE — GRAVITY SEWER DESIGN FLOW (L/s)

NON RESIDENTIAL

NET AREA (Ha) — GRAVITY SEWER DESIGN FLOW (L/s)

0.85 - 14976 - 0.22

FLOW LITRES/NET HECTARE/DAY

PLAN

SCALE 1:1000

metres 0 20 40 60 80 m

SCALE 1:1000

WARNING

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DIAL 1100 BEFORE YOU DIG

THIS PLAN IS ACCEPTED AS COMPLYING WITH OVERALL WASTEWATER PLANNING. COMPLIANCE WITH WATER CORPORATION SEWERAGE MANUAL HAS NOT BEEN CHECKED AND REMAINS THE RESPONSIBILITY OF THE CONSULTING ENGINEER.

..... FOR MANAGER DEVELOPMENT SERVICES

SUB FILE No. JTI 2007 07338

FILE No. JTI 2010 10016

KJ31-201-1A

RETICULATION AREA: RIVERVALE 2

REV	DATE	DRAWN	CHECKED	APPROVED	
D	02.05.11	BJS	MJH	DAH	ISSUED FOR WATER CORPORATION FINAL APPROVAL
C	25.02.11	BJS	MJH	DAH	LAYOUT AMENDED TO SUIT WATER CORPORATION AMENDMENTS
B	22.12.10	CLC	MJH	DAH	DRAWING RE-NUMBERED AND RE-ISSUED FOR WATER CORPORATION APPROVAL.
A	05.10.10	CLC	MJH	DAH	ISSUED FOR INITIAL WATER CORPORATION APPROVAL.

NOTE
This drawing shall be preliminary only until it is issued for Construction.

Certified Quality System to ISO 9001

JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE

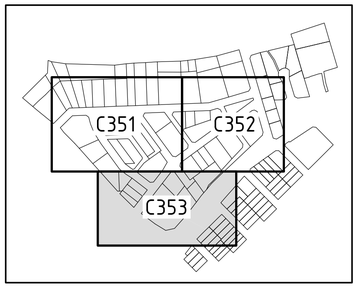
DRAWING TITLE: SEWER SITE AND DESIGN DATA PLAN

DRAWN: C.CURRIE		WAPC No.: 135544/142091	
DESIGNED: M.HARRIS		SCALE @ A1: 1:1000	
PROJECT MANAGER: D.HELLMUTH		DATUM: AHD	CO-ORDS: PCG94
JDSi PROJECT No.: JDS10375.2	DRAWING No: C200		REVISION: D

Appendix B Stormwater Reticulation Plan

NOTES

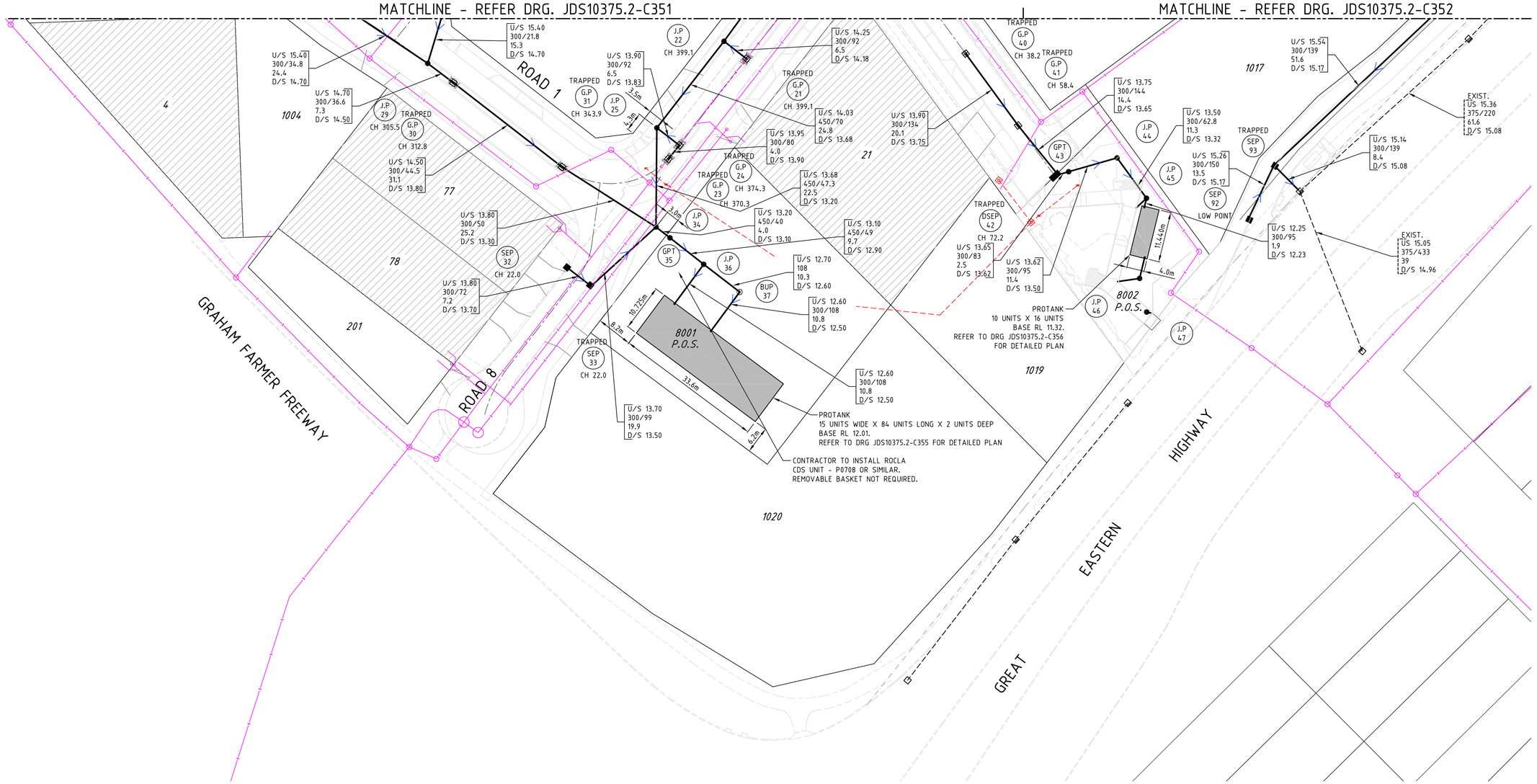
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.
2. FOR NOTES AND LEGEND REFER TO DRG JDS10375.2 - C351



KEY PLAN
NTS

MATCHLINE - REFER DRG. JDS10375.2-C351

MATCHLINE - REFER DRG. JDS10375.2-C352



PLAN
SCALE 1:500

metres
0 10 20 30 40m
SCALE 1:500

WARNING
BEWARE OF UNDERGROUND SERVICES
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DIAL 1100 BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
0	02.05.11	CLC	MJH	DAH	ISSUED FOR CONSTRUCTION
C	28.01.11	CLC	MJH	DAH	ISSUED FOR TENDER
B	17.12.10	CLC	MJH	DAH	RE-ISSUED FOR COUNCIL APPROVAL
A	05.11.10	CLC	MJH	DAH	ISSUED FOR COUNCIL APPROVAL

NOTE
This drawing shall be preliminary only until it is Issued for Construction.
Certified Quality System to ISO 9001

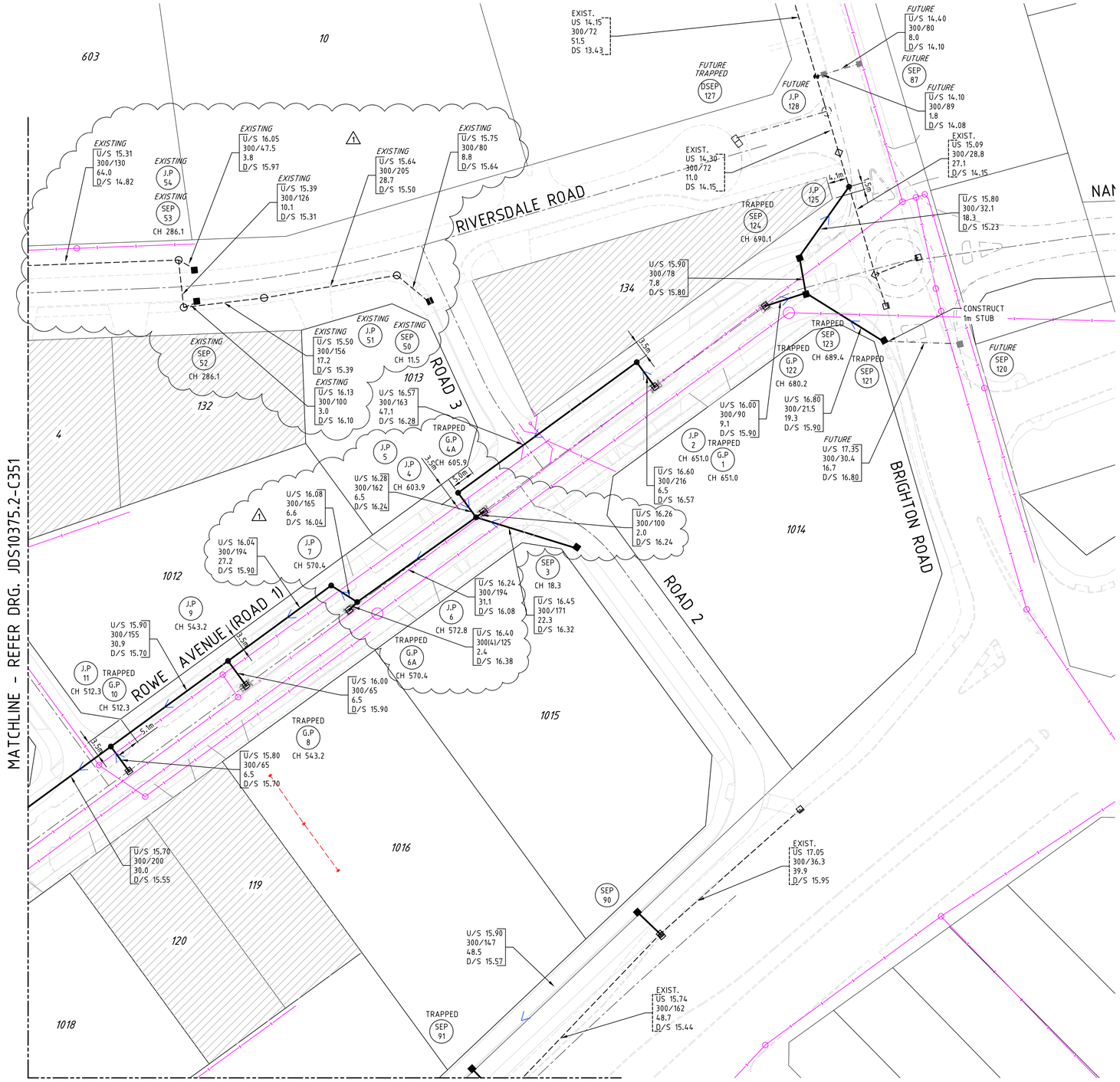
JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

CLIENT: LANDCORP

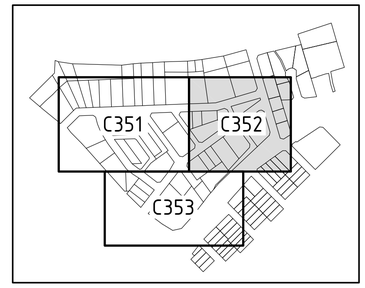
PROJECT: THE SPRINGS RIVERVALE STAGE 1

DRAWING TITLE: DRAINAGE LAYOUT PLAN SHEET 3 OF 3

DRAWN: C.CURRIE		WAPC No.: 135544/142091	
DESIGNED: M.HARRIS		SCALE @ A1: 1:500	
PROJECT MANAGER: D.HELLMUTH		DATUM: AHD	CO-ORDS: PCG94
JDSi PROJECT No.: JDS10375.2	DRAWING No: C353		REVISION: 0



PLAN
SCALE 1:500



KEY PLAN
NTS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.
2. FOR NOTES AND LEGEND REFER TO DRG JDS10375.2 - C351

metres
0 10 20 30 40m
SCALE 1:500

WARNING
BEWARE OF UNDERGROUND SERVICES.
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DIAL 1100 BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
1	16/06/11	MJH	MJH	DAH	EXISTING DRAINAGE MODIFIED TO SUIT CITY OF BELMONT AS-CON INFO AND DRAINAGE BETWEEN PITS 5 TO 9 AMENDED.
0	02.05.11	CLC	MJH	DAH	ISSUED FOR CONSTRUCTION
C	28.01.11	CLC	MJH	DAH	ISSUED FOR TENDER
B	17.12.10	CLC	MJH	DAH	RE-ISSUED FOR COUNCIL APPROVAL
A	05.11.10	CLC	MJH	DAH	ISSUED FOR COUNCIL APPROVAL

NOTE
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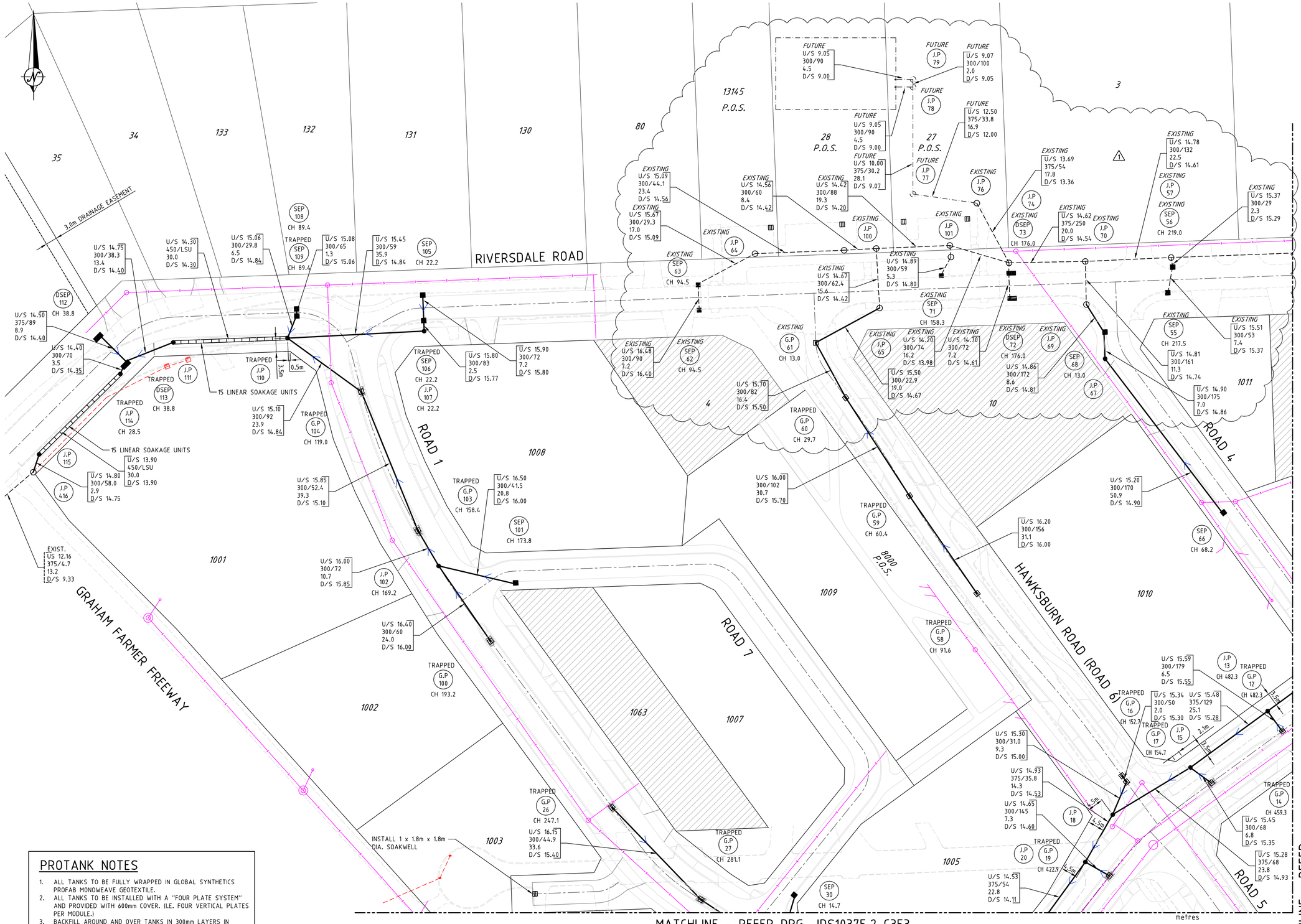
JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE STAGE 1

DRAWING TITLE: DRAINAGE LAYOUT PLAN SHEET 2 OF 3

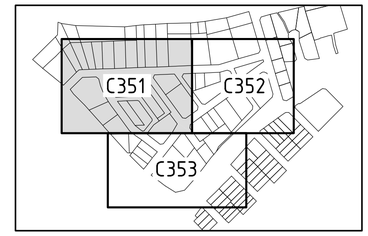
DRAWN C.CURRIE		WAPC No. 135544/142091	
DESIGNED M.HARRIS		SCALE @ A1 1:500	
PROJECT MANAGER D.HELLMUTH		DATUM AHD	CO-ORDS PCG94
JDSI PROJECT No.: JDS10375.2	DRAWING No C352		REVISION 1



MATCHLINE - REFER DRG. JDS10375.2-C353

PLAN

SCALE 1:500



KEY PLAN

NTS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.
2. THE CONSTRUCTION OF THE WORKS SHALL BE TO THE APPROVAL OF THE LOCAL AUTHORITY FOR ALL INTERNAL ROADS.
3. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.
4. ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR.
5. ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE.
6. CENTRELINES OF DRAINAGE MANHOLES SHALL BE ALIGNED 3.0m FROM THE ROAD RESERVE BOUNDARY UNLESS SHOWN OTHERWISE.
7. ALL JUNCTION PITS AND ENTRY PITS SHALL BE LOCATED AS SHOWN IRRESPECTIVE OF PIPE LENGTHS SHOWN ON THE DRAWINGS.
8. AT LOW POINTS THE ENTRY PITS SHALL BE LOCATED AT THE LOW POINT OF THE ROAD PAVEMENT.
9. THE JUNCTION PIT AND ENTRY PIT LIDS SHALL BE SET TO SUIT THE VERGE SLOPE, NOMINALLY 2% UPWARDS FROM THE TOP OF BACK OF KERB.
10. WHERE A SEWER LINE INTERSECTS WITH STORMWATER DRAINAGE LINE AND THE SEWER PASSES OVER THE DRAIN THEN THE SEWER SHALL HAVE A TIMBER PILE AND KEEL PROVIDED FOR THE FULL EXTENT NECESSARY TO SUPPORT THE SEWER DURING EXCAVATION FOR THE DRAIN.
11. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT.
12. THE CONTRACTOR SHALL SAW-CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION.
13. IRRIGATION DUCTS TO BE DETERMINED ON SITE WITH SUPERINTENDENT.
14. FOR SERVICE CROSSINGS LEVELS, REFER TO DRAINAGE LONGITUDINAL SECTIONS FOR DETAILS.
15. ROAD PAVEMENT TYPES AND BRICK PAVING REMOVED FOR CLARITY. REFER TO PAVEMENT DRAWING FOR DETAILS.

LEGEND

- PROPOSED STORMWATER DRAINAGE & FLOW DIRECTION
- FUTURE STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE TO BE REMOVED
- SEWER LAYOUT (PROPOSED, EXISTING AND FUTURE)
- JP 158 / CH 23.0 — PIT NUMBER, TYPE AND CHAINAGE
- JP — JUNCTION PIT
- DSEP — DOUBLE SIDE ENTRY PIT
- GP — GRATED PIT (TRAPPED WHEN IN SWALES)
- SEP — SIDE ENTRY PIT
- EC — INFILTATION PIPE END CAP
- PIC — PIPE INLET CONNECTION
- BUP — BUBBLE-UP PIT
- GPT — GROSS POLLUTANT TRAP
- PROPOSED JUNCTION PIT
- PROPOSED SIDE ENTRY PIT
- PROPOSED DOUBLE SIDE ENTRY PIT
- PROPOSED COMBINATION SIDE ENTRY/GULLY GRATE PIT
- PROPOSED GULLY PIT
- U/S 25.00 / 300 /16.5(4) / 16.5 / D/S 24.00 — UPSTREAM INVERT LEVEL; PIPE DIA / GRADE (CLASS OTHER THAN 2); LENGTH; DOWNSTREAM INVERT LEVEL
- LOTS NOT OWNED BY CLIENT
- ROCK PITCHING AROUND PITS IN SWALES

PROTANK NOTES

1. ALL TANKS TO BE FULLY WRAPPED IN GLOBAL SYNTHETICS PROFAB MONOWEAVE GEOTEXTILE.
2. ALL TANKS TO BE INSTALLED WITH A "FOUR PLATE SYSTEM" AND PROVIDED WITH 600mm COVER. (I.E. FOUR VERTICAL PLATES PER MODULE.)
3. BACKFILL AROUND AND OVER TANKS IN 300mm LAYERS IN ACCORDANCE WITH THE SPECIFICATION.
4. ALL MODULES ARE INSTALLED WITH A BASE WIDTH OF 400mm AND A BASE LENGTH OF 715mm.

MATCHLINE - REFER DRG. JDS10375.2-C352

WARNING

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DIAL1100 BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
1	2.06.11	CLC	DAH	DAH	EXISTING DRAINAGE MODIFIED TO SUIT CITY OF BELMONT AS-CONSTRUCTED INFORMATION
0	02.05.11	CLC	MJH	DAH	ISSUED FOR CONSTRUCTION
C	28.01.11	CLC	MJH	DAH	ISSUED FOR TENDER
B	17.12.10	CLC	MJH	DAH	RE-ISSUED FOR COUNCIL APPROVAL
A	05.11.10	CLC	MJH	DAH	ISSUED FOR COUNCIL APPROVAL

NOTE
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Certified Quality System to ISO 9001

JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

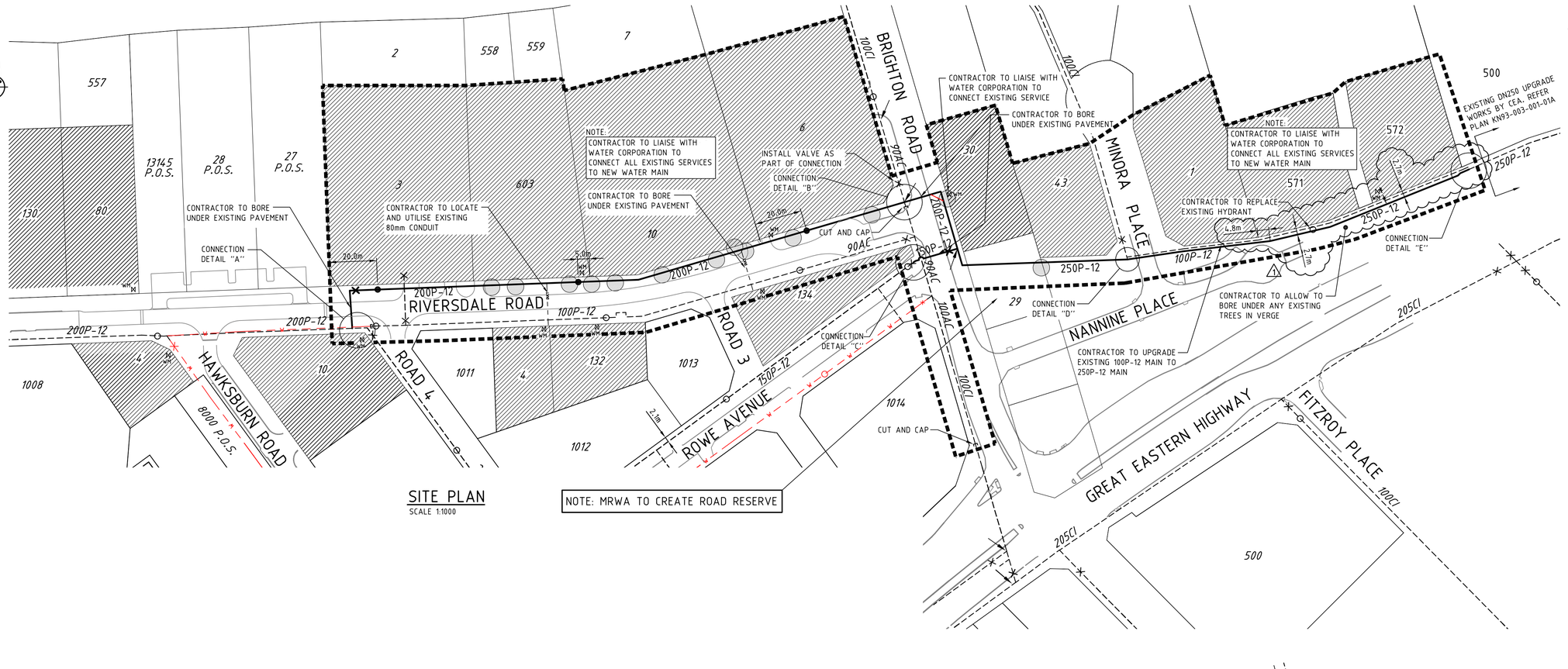
CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE STAGE 1

DRAWING TITLE: DRAINAGE LAYOUT PLAN SHEET 1 OF 3

DRAWN: C.CURRIE		WAPC No.: 135544/142091	
DESIGNED: M.HARRIS		SCALE @ A1: 1:500	
PROJECT MANAGER: D.HELLMUTH		DATUM: AHD	CO-ORDS: PCG94
JDSI PROJECT No.: JDS10375.2	DRAWING No: C351		REVISION: 1

Appendix C Water Reticulation Plan



SITE PLAN

SCALE 1:1000

NOTE: MRWA TO CREATE ROAD RESERVE

NOTES

1.0 GENERAL

1.1 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.

1.2 THE CONSTRUCTION OF THE WORKS SHALL COMPLY WITH THE WATER CORPORATION'S WATER SUPPLY RETICULATION MANUAL.

1.3 ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

1.4 THE MAINS SHALL BE LAID ON A 2.1m (COMMON TRENCHING) ALIGNMENT MEASURED FROM THE CENTRE OF THE PIPE TO THE ROAD RESERVE BOUNDARY

1.5 THE MAINS SHALL BE LAID BETWEEN A MINIMUM COVER OF 600mm AND MAXIMUM COVER OF 700mm EXCEPT THAT THE DIFFERENCE IN LEVELS BETWEEN THE CROWN OF THE PIPE AND ADJACENT ROAD GUTTER LEVEL SHALL BE BETWEEN 600mm AND 700mm.

1.6 ALL SERVICES TO LOTS SHALL BE FULLY PRELAID UNLESS NOTED OTHERWISE.

1.7 THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT.

1.8 THE CONTRACTOR SHALL ENSURE THAT COVER ON WATER MAIN TO BE LOWERED TO ACCOMODATE FUTURE INTERSECTIONS.

1.9 REFER TO DRAWING JDS10375-C150 FOR EARTHWORKS LEVELS.

2.0 MAINS AND SERVICES

2.1 CONSTRUCT MAINS OF:

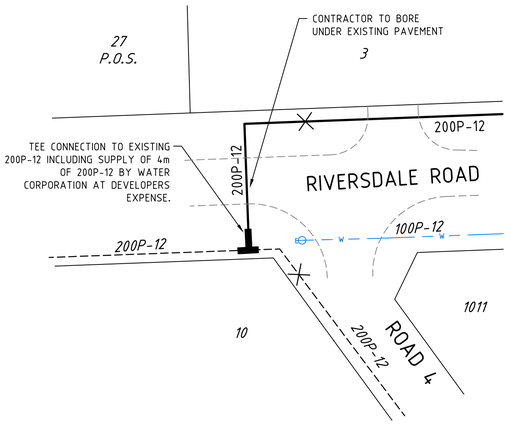
150P-12		15m
200P-12	-	295m
250P-12	-	227m

2.2 CONSTRUCT SERVICES:

SHORT SINGLE	-	0
SHORT DUAL	-	0
LONG SINGLE	-	0
LONG DUAL	-	0
DEFERRED SERVICE	-	0
TOTAL LOTS SERVED	-	0
FUTURE LOTS SERVED	-	0

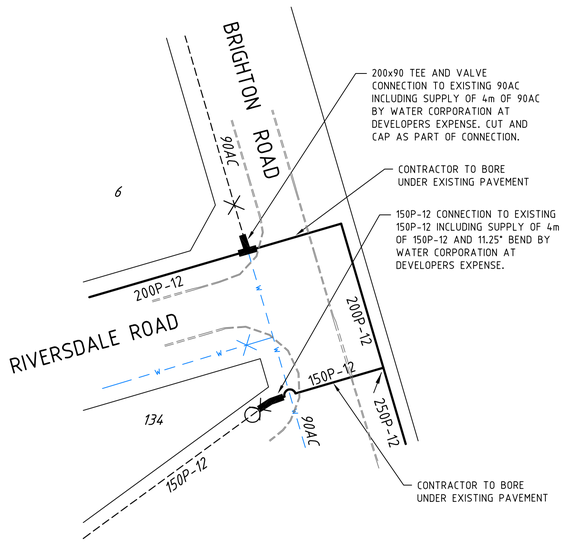
LEGEND

- 150P-12 — EXISTING WATER MAIN LAYOUT, MAIN SIZE AND TYPE
- 150P-12 — PROPOSED WATER MAIN LAYOUT, MAIN SIZE AND TYPE
- 150P-12 — FUTURE WATER MAIN LAYOUT, MAIN SIZE AND TYPE
- EXISTING WATER MAIN TO BE REMOVED
- EXISTING WATER MAIN TO BE MADE REDUNDANT
- SERVICE CROSSING COMPLETE
- PROPOSED SLUICE VALVE
- EXISTING VALVE
- PROPOSED HYDRANT
- EXISTING HYDRANT
- CHANGE IN PIPE SIZE
- FP — FLUSHING POINT
- PROPOSED 150 DIA. PVC DUCT
- RETICULATION AREA BOUNDARY
- 'D' — DEFERRED SERVICE
- EXISTING METER LOCATION
- LOTS NOT OWNED BY CLIENT. EXISTING SERVICES TO REMAIN.
- AREA OF EXISTING TREE. WATER TO BE CONSTRUCTED BY TRENCHLESS METHODS.



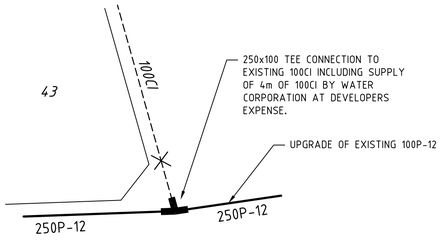
CONNECTION DETAIL 'A'

SCALE DIAGRAMMATIC



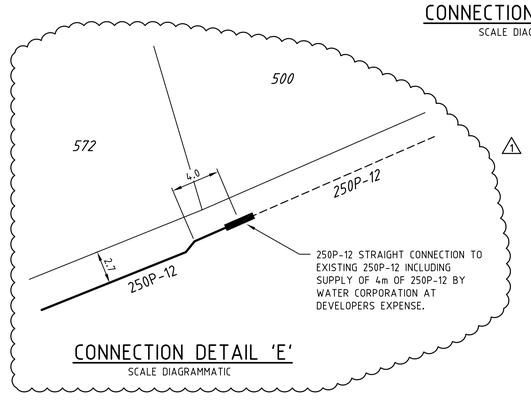
CONNECTION DETAILS 'B' & 'C'

SCALE DIAGRAMMATIC



CONNECTION DETAIL 'D'

SCALE DIAGRAMMATIC



CONNECTION DETAIL 'E'

SCALE DIAGRAMMATIC

metres 0 20 40 60 80 m

SCALE 1:1000

KN67-103-1A

SUB FILE: JTI 2011 03929
ME FILE: JTI 2011 03968

THIS PLAN IS ACCEPTED AS COMPLYING WITH OVERALL WATER SUPPLY PLANNING COMPLIANCE WITH WATER MANUALS REMAINS THE RESPONSIBILITY OF THE CONSULTING ENGINEER.

..... FOR MANAGER DEVELOPMENT SERVICES BRANCH

WARNING

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DIAL 1100 BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
1	17.01.11	CLC	DAH	DAH	WATER MAIN ALIGNMENT AMENDED TO AVOID GAS MAIN
0	20.10.11	CLC	MJH	DAH	ISSUED FOR CONSTRUCTION
D	05.09.11	CLC	MJH	DAH	ISSUED FOR FINAL WATER CORPORATION APPROVAL
C	25.07.11	BJS	MJH	DAH	ISSUED FOR WATER CORPORATION APPROVAL
B	02.05.11	BJS	MJH	DAH	ISSUED FOR INFORMATION ONLY
A	04.03.11	CLC	MJH	DAH	ISSUED TO WATER CORPORATION FOR INITIAL APPROVAL.

JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE STAGE 1

DRAWING TITLE: WATER RETICULATION PLAN PHASE 3

DRAWN C.CURRIE		WAPC No. 135544 / 142091	
DESIGNED M.HARRIS		SCALE @ A1 1:1000	
PROJECT MANAGER D.HELLMUTH		DATUM AHD	CO-ORDS PCG94
JDSI PROJECT No.: JDS10375.2	DRAWING No C410		REVISION 1

RIVERSDALE ROAD
BRIGHTON ROAD
MINORA PLACE
FITZROY PLACE
ROWE AVENUE (ROAD 1)
HAWKSBURN ROAD (ROAD 6)
GRAHAM FARMER FREEWAY
GREAT EASTERN HIGHWAY
ROAD 1
ROAD 2
ROAD 3
ROAD 4
ROAD 5
ROAD 7
ROAD 8

CONTRACTOR TO LIAISE WITH WATER CORPORATION TO RECONNECT SERVICE TO LOT 27 FROM EXISTING 100CI MAIN TO PROPOSED 200P-12 MAIN.

CONTRACTOR TO INSTALL 3 WAY TEE

FUTURE STAGE 2 VALVE AS PART OF CONNECTION

FUTURE CUT AND CAP

INSTALL VALVE

CUT AND CAP

CUT AND CAP AS PART OF CONNECTION

FUTURE STAGE 2 CUT AND CAP

EXISTING METER LOCATION TO BE CONFIRMED.

3.0M EASEMENT

8000 P.O.S.

8001 P.O.S.

8002 P.O.S.

13145 P.O.S.

28 P.O.S.

27 P.O.S.

1000 'FUTURE'

NOTES

1.0 GENERAL

1.1 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.

1.2 THE CONSTRUCTION OF THE WORKS SHALL COMPLY WITH THE WATER CORPORATION'S WATER SUPPLY RETICULATION MANUAL.

1.3 ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

1.4 THE MAINS SHALL BE LAID ON A 2.1m (COMMON TRENCHING) ALIGNMENT MEASURED FROM THE CENTRE OF THE PIPE TO THE ROAD RESERVE BOUNDARY

1.5 THE MAINS SHALL BE LAID BETWEEN A MINIMUM COVER OF 600mm AND MAXIMUM COVER OF 700mm EXCEPT THAT THE DIFFERENCE IN LEVELS BETWEEN THE CROWN OF THE PIPE AND ADJACENT ROAD GUTTER LEVEL SHALL BE BETWEEN 600mm AND 700mm.

1.6 ALL SERVICES TO LOTS SHALL BE FULLY PRELAID UNLESS NOTED OTHERWISE.

1.7 THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT.

1.8 THE CONTRACTOR SHALL ENSURE THAT COVER ON WATER MAIN TO BE LOWERED TO ACCOMODATE FUTURE INTERSECTIONS.

1.9 REFER TO DRAWING JDS10375-C150 FOR EARTHWORKS LEVELS.

2.0 MAINS AND SERVICES

2.1 CONSTRUCT MAINS OF: (0)

150P-12 - 839m
200P-12 - 408m

2.2 CONSTRUCT SERVICES:

SHORT SINGLE	-	0
SHORT DUAL	-	0
LONG SINGLE	-	2
LONG DUAL	-	1
DEFERRED SERVICE	-	20
TOTAL LOTS SERVED	-	24
FUTURE LOTS SERVED	-	1

SITE PLAN
SCALE 1:1000

LEGEND

- 150P-12 — EXISTING WATER MAIN LAYOUT, MAIN SIZE AND TYPE
- 150P-12 — PROPOSED WATER MAIN LAYOUT, MAIN SIZE AND TYPE
- 150P-12 — FUTURE WATER MAIN LAYOUT, MAIN SIZE AND TYPE
- EXISTING WATER MAIN TO BE REMOVED
- EXISTING WATER MAIN TO BE MADE REDUNDANT
- SERVICE CROSSING COMPLETE
- PROPOSED SLUICE VALVE
- EXISTING VALVE
- PROPOSED HYDRANT
- EXISTING HYDRANT
- CHANGE IN PIPE SIZE
- FP — FLUSHING POINT
- PROPOSED 150 DIA. PVC DUCT
- RETICULATION AREA BOUNDARY
- 'D' — DEFERRED SERVICE
- EXISTING METER LOCATION
- LOTS NOT OWNED BY CLIENT. EXISTING SERVICES TO REMAIN.
- AREA OF EXISTING TREE. WATER TO BE CONSTRUCTED BY TRENCHLESS METHODS.

metres
0 20 40 60 80 m
SCALE 1:1000

KJ31-104-1A

SUB FILE: JTI 2007 07338
ME FILE: JTI 2010 10015

THIS PLAN IS ACCEPTED AS COMPLYING WITH OVERALL WATER SUPPLY PLANNING COMPLIANCE WITH WATER MANUALS REMAINS THE RESPONSIBILITY OF THE CONSULTING ENGINEER.

..... FOR MANAGER DEVELOPMENT SERVICES BRANCH

WARNING
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REV	DATE	DRAWN	CHECKED	APPROVED	
0	02.05.11	CLC	MJH	DAH	ISSUED FOR CONSTRUCTION
D	01.03.11	BJS	MJH	DAH	WATER MAIN IN ROAD 6 RELOCATED TO ROAD 4
C	28.01.11	CLC	MJH	DAH	ISSUED FOR TENDER
B	22.12.10	CLC	MJH	DAH	DRAWING RE-NUMBERED AND RE-ISSUED FOR WATER CORPORATION APPROVAL.
A	05.11.10	CLC	MJH	DAH	ISSUED FOR INFORMATION

NOTE
This drawing shall be preliminary only until it is issued for Construction.
Certified Quality System to ISO 9001

JDSi CONSULTING ENGINEERS
3/5 Tully Road, East Perth Western Australia 6004
P: (08) 9225 4110 F: (08) 9225 4121

CLIENT: LANDCORP

PROJECT: THE SPRINGS RIVERVALE STAGE 1

DRAWING TITLE: WATER RETICULATION PLAN OVERALL LAYOUT

DRAWN: C.CURRIE		WAPC No.: 135544 / 142091	
DESIGNED: M.HARRIS		SCALE @ A1: 1:1000	
PROJECT MANAGER: D.HELLMUTH		DATUM: AHD	CO-ORDS: PCG94
JDSi PROJECT No.: JDS10375.2	DRAWING No: C400		REVISION: 0

Appendix D Underground Power Distribution Plan HV Master Plan

SCHEME BDY.

RETAINING WALL

CABLE

400mm2	HV	25mm2	LV
240mm2	HV	16mm2	SL
185mm2	HV	10mm2	SL
95mm2	HV		
50mm2	HV	40 C PILOT	
35mm2	HV		
240mm2	LV		
185mm2	LV		
120mm2	LV		

STREET LIGHTS — EXISTING

CUSTOMER NUMBER — SWITCH OFF

50w MV	70w HPS	70/75w MH
80w MV	150w HPS	150w MH
125w MV	250w HPS	250w MH

AERIAL CONDUCTORS AND POLES

NEW POLE (ANY TYPE AS INDICATED)

EXISTING POLE (ANY TYPE AS INDICATED)

EXISTING AERIAL CONDUCTORS (SIZE AND TYPE AS INDICATED)

PILLARS

MINI - WORKING END — LINK

UNIVERSAL — 100AMP CUTOUT

MINI — 200AMP CUTOUT

TRANSFORMERS — SWITCHGEAR

DRAWING SCHEDULE

DRAWING	TITLE
DE-100	UNDEGROUND POWER DISTRIBUTION LOCALITY PLAN, LEGEND, NOTES & DETAILS
DE-200	STAGE 1 PHASE 1 - PART 'A' RELOCATION OF EXISTING BRIGHTON RD RMU
DE-300	STAGE 1 PHASE 1 - PART 'B' REMOVAL OF EXISTING ROWE AVENUE TRANSFORMER
DE-400	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-401	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-402	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-403	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-404	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-405	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-406	STAGE 1 PHASE 1 - PART 'C' UNDERGROUND POWER DISTRIBUTION
DE-500	STAGE 1 PHASE 2 - PART 'D' UNDERGROUND POWER DISTRIBUTION HAWKSBURN ROAD WORKS
DE-501	STAGE 1 PHASE 2 - PART 'D' UNDERGROUND POWER DISTRIBUTION HAWKSBURN ROAD WORKS
DE-502	STAGE 1 - SINGLE LINE DIAGRAM

NOTE:

STAGE 1 - PHASE 1 - PART 'A' WORKS (REF: DE-200) TO BE UNDERTAKEN ONLY AFTER PART 'C' & PART 'D' WORKS ARE COMPLETE.

NOTE:

CONTRACTOR AND WESTERN POWER TO ALLOW FOR PHASING OF THE STAGE 1 WORKS & PARTIAL HANDOVER TO WESTERN POWER TO MAINTAIN EXISTING POWER SUPPLIES. THE PHASING SEQUENCE AND TIMING TO APPROVAL

1.1 STAGE 1 PHASE 1 - PART A
RELOCATION OF EXISTING BRIGHTON ROAD RMU DE-200

1.2 STAGE 1 PHASE 1 - PART B
RELOCATION OF EXISTING TRANSFORMER ROWE AVENUE DE-300 (HANDED OVER TO WP)

1.3 STAGE 1 PHASE 1 - PART C
SUBDIVISION WORKS EXCLUDING HAWKSBURN AVENUE DE-400 TO DE-406 (HANDED OVER TO WP)

2.0 STAGE 1 PHASE 2 - PART D
SUBDIVISION WORKS HAWKSBURN ROAD DE-500 TO DE-502

LEGEND

NOT TO SCALE

- DRAWING DEMARCATION LINE
- SCHEME BOUNDARY
- INDICATES PRIVATE LOTS (NON LANDCORP LOTS)
- INDICATES FUTURE HV FEEDER CABLE ROUTES TO RIVERVALE ZONE SUBSTATION REFER TO WESTERN POWER JOB REFERNCE MS014179 (CURRENTLY UNDER DESIGN)

NOTES:

1. STREET LIGHTING TO BE WESTERN POWER DECORATIVE STREET VISION RANGE. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1500 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS, TREES AND RAMPS.
2. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
3. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY. LOCATE AND HAND EXCAVATE THE EXISTING CABLES AND JOINTS.
4. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDES OF THE ROAD.
5. THE UDS DESIGN HAS BEEN BASED ON AND INCLUDES WESTERN POWER STANDARD EQUIPMENT INCLUDING SWITCHGEAR AND TRANSFORMER, THEREFORE FOR ANY NON STANDARD EQUIPMENT WRITTEN APPROVAL MUST BE OBTAINED FROM THE CONSULTING ENGINEER AND WESTERN POWER, AS STATED IN THE UDS MANUAL.
6. CONTRACTOR MUST ARRANGE AND ATTEND START UP MEETING WITH WESTERN POWER BEFORE COMMENCING CONSTRUCTION OF WORKS TO DISCUSS AND CONFIRM INSTALLATION DETAILS, PHASING AND CONSTRUCTION PROGRAM REQUIREMENTS.
7. CONTRACTOR MUST SUBMIT "AS CONSTRUCTED" UDS DRAWING (IN ELECTRONIC FORMAT) TO WESTERN POWER A MINIMUM TWO WEEKS PRIOR TO PRE-HANDOVER. PARTIAL 'AS CONSTRUCTED' DRAWINGS WILL NEED TO BE SUBMITTED TO WESTERN POWER FOR EACH PARTIAL HANDOVER.
8. WHERE CABLE ROUTES ARE SHOWN PARALLEL TO RETAINING WALLS & FENCING CONTRACTOR TO INSTALL CABLES IN CONDUITS FOR THE ENTIRE LENGTH OF RETAINING WALL. REFER TO CIVIL ENGINEERING DRAWINGS FOR THE EXACT LOCATION AND LENGTH OF THE RETAINING WALLS AND EXISTING FENCING. CONFIRM CONDUIT ALIGNMENT WITH WESTERN POWER BEFORE INSTALLATION OF CONDUITS.
9. THE CONTRACTOR MUST COMPLY WITH ALL WP STANDARD REQUIREMENTS APPLICABLE TO ALL WORKS TO BE UNDERTAKEN AROUND AND NEAR ALL UNDERGROUND CABLES AND OVERHEAD LINES.THE CONTRACTOR MUST LODGE ALL APPLICATIONS AND ARRANGE FOR ALL NECESSARY WORK PERMITS AS REQUIRED BY WP BEFORE CONSTRUCTION COMMENCES.
10. WHERE SUBSTATION IS SET BACK FROM LOT BOUNDARY CONDUITS ARE TO BE INSTALLED TO ROAD RESERVE AS PER WESTERN POWER DRAWING DSM-6-01
11. SUBSTATION SITE MUST BE SURVEY PEGGED BEFORE INSTALLATION OF ANY EQUIPMENT WITHIN THE SITE. SURVEY PEGS MUST BE INSTALLED TO IDENTIFY SUBSTATION STANDARD AREA IN ADDITION TO ANY EXTENDED AREA REQUIRED TO ACCOMMODATE RETAINING/SCREENING WALL OR SUBSTATION SET BACK FROM ROAD RESERVE.

AS CONSTRUCTED
FULL - HANDOVER

BRIERTY LIMITED
38 MANDARIN ROAD, MADDINGTON, WA, 6109
PH: 9459 2855
NAME: STUART POWELL

WARNING

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ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALIGNED

DUCTS TO BE LAID TO WPC SPECIFICATION AS OUTLINED IN UNDERGROUND DISTRIBUTION SCHEMES MANUAL - POLICY AND INSTALLATION OPTIONS

DENOTES PREVIOUSLY REQUESTED DUCTS

WARNING

NO OTHER UTILITY SERVICES SHALL BE LOCATED WITHIN THE SERVICE PILLAR EXCLUSION ZONE (500mm SEPARATION FROM WATER, GAS & SANITARY DRAINAGE AND 600mm FOR STORM WATER DRAINAGE) SEE UDS 5.3.6 FOR DETAILS

WARNING

IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES CONTRACTOR TO COMPLY WITH "WORKSAFE" CLEARANCES DURING CONSTRUCTION

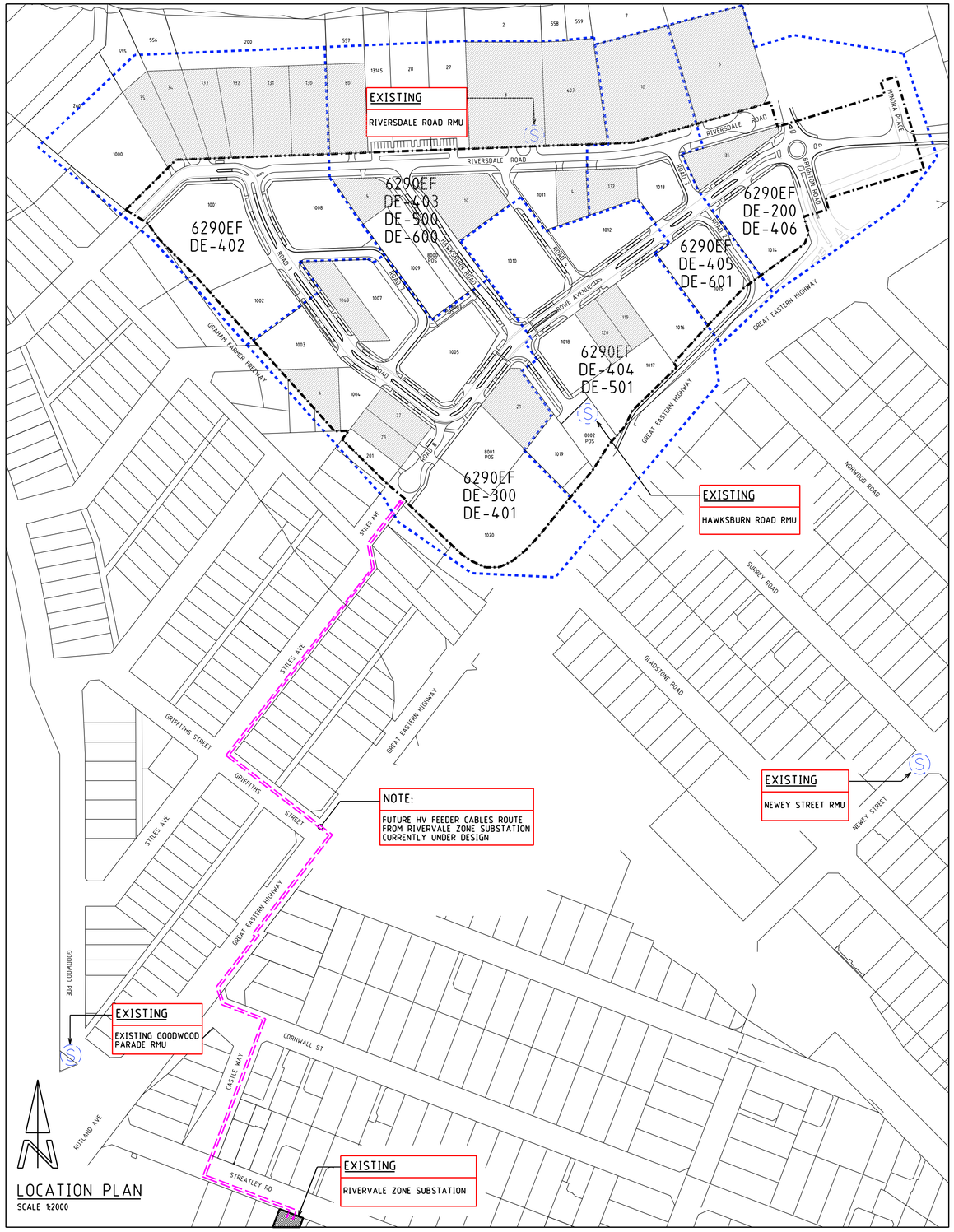
THE SPRINGS RIVERVALE DEVELOPMENT

TOTAL LOAD: 3051kVA

BASED ON THE MINIMUM PROVISION OF 3.1kVA PER UNIT FOR RESIDENTIAL LOTS
200kVA/Ha FOR MIXED (RESIDENTIAL/COMMERCIAL USE) LOTS & LOT AREA

NOTE:

ELECTRICAL POWER CONNECTIONS TO LOTS HAVE BEEN PROVIDED BASED ON THE MINIMUM POWER REQUIREMENTS. ULTIMATE POWER REQUIREMENT TO A LOT IF IN EXCESS OF THE POWER ALLOCATED UNDER THIS SCHEME WILL NEED TO BE ARRANGED THROUGH THE MAJOR PROJECT DESIGN SECTION OF WESTERN POWER.



LOCATION PLAN

SCALE 1:2000

J	AS CONSTRUCTED - REVISED	B.H.	B.H.	E.F.	E.F.	05/06/12
I	AS CONSTRUCTED - FULL HANDOVER	B.H.	B.H.	E.F.	E.F.	21/03/12
H	GENERAL REVISION - DRAWINGS UPDATED	B.H.	B.H.	E.F.	E.F.	20/10/11
	TO INCLUDE PARTIAL HANDOVER WORKS					
G	AS CONSTRUCTED - PARTIAL HANDOVER	B.H.	B.H.	E.F.	E.F.	16/09/11
F	REVISION WHILE UNDER CONSTRUCTION	B.H.	B.H.	E.F.	E.F.	06/06/11
	STAGING REVISED, DRAWINGS UPDATED TO SUIT					
Rev.	ISSUE OR REVISION DESCRIPTION	DRN	CHKD	DESIGN	ENG	DATE

westernpower

DISTRIBUTION ASSET INTEGRATION

ETC Engineering Technology Consultants PTY LTD
61 Loftus Street, Leederville Western Australia 6007 ACN 009 146 829
Phone: (08) 9328 5500 Facsimile: (08) 9328 5522 Email: etc@etcpl.com.au

LOT DETAILS
Residential Lots:
Group Housing : 13
Mixed: 7
Pos: 3
Existing Lots: (Non landcorp) 12

DFIS LOCATION
Lat: 31°57 22"S
Long: 115°54'20"E

STREET SMART
Page: 374
Map Ref: A3

PROJECT NAME: THE SPRINGS RIVERVALE DEVELOPMENT - STAGE 1

DRAWING TITLE: UNDERGROUND POWER DISTRIBUTION LOCATION PLAN, NOTES & DETAILS

CLIENT / DEVELOPER: LANDCORP

DESIGNER CONTACT DETAILS
Name: E.FRYDRYCH Tel: 9328 5500

W.A.P.C. REFERENCE No.: 142091, 135544

WESTERN POWER REFERENCE No.: MS013978

A1

SCALE: 1:1000

DATE: JULY 2010

SHT 1 OF 13

DRAWING No.: 6290EF DE-100

REV: J

Appendix E Cost Apportionment Schedule

The Springs

Cost Item	Description	Cost Apportionment Methodology	Project total Cost
Civil Engineering Design - Refer to Table 1 of the Development Contribution Report			
Road Works	The roads identified for upgrading are for the betterment of the overall Springs development. This includes road providing multiple access points into and out of the Springs development as well as roads infrastructure required to access public open spaces. This includes Nannine Place realignment.	Pro-rata based net developable area (NDA)	$2,006,498.99
Sewer reticulation	All lots within the structure plan were required to be serviced by an appropriately sized main to allow for ultimate sewer flows created by increased density. The sewer network also required reconfiguring to allow for the road layout changes. Sewer connections for individual lots are not included in the DCP and are considered a standard subdivisional cost.	Pro-rata based net developable area (NDA)	$433,368.16
Stormwater and drainage	The stormwater drainage network was completely redesigned to accommodate the all stormwater catchment areas and to meet the requirements of the Urban Water Management Plan, Council minimum requirements and pollution controls. Stormwater connections for individual lots are not included in the DCP and are considered a standard subdivisional cost.	Pro-rata based net developable area (NDA)	$755,271.88
Water reticulation	Although the existing lots had access to water services, the existing smaller water pipe sizes were not adequate to accommodate the proposed increased density and required upgrading. A majority of the existing water mains were upgraded to 150, 200 and 250mm dia. pipe sizes to ensure appropriate pressure was supplied to accommodate development of all lots within the structure plan.Water connection points for individual lots are not included in the DCP and are considered a standard subdivisional cost.	Pro-rata based net developable area (NDA)	$368,149.90
Mobilisation & Managament	Required to progress the infrastructure works includes but is not limited to the following cost items: • Mobilisation of Machinery to site and establishment of site compound • Construction water for dust management • Survey and Setout of works • Location of existing services • Contractor Supervision and Management • Preparation and implementation of Management Plans including dust and traffic • Dilapidation Surveys • Bulk Earthworks for upgrading roads, installing new roads and POS areas • Protection of existing trees	Pro-rata based net developable area (NDA)	$1,430,432.67
Site Works	• Bulk Earthworks for upgrading roads installing new roads and POS areas • stabilise areas for dust management • protection of existing trees	Pro-rata based net developable area (NDA)	$217,172.47
Electrical Reticulation	The existing electrical infrastructure was not sufficient for the proposed increased density and required significant upgrading to allow the provision of the ultimate power demand to individual sites. The electrical network was rationalised and upgraded to include new high and low voltage cables, streetlights, switchgear and transformers. Power reinforcement is required to meet the ultimate power demands for development sites, to enable this high voltage feeders installed from the Rivervale Zone substation to connect into the internal electrical infrastructure, which then distributed power throughout the structure plan area.	Based on the demand created by the proposed density of development of each of the proposed lots.	$1,624,779.12
Electrical HV Reinforcement	Power reinforcement was required to meet the ultimate power demands for development sites, to enable this high voltage feeders were installed from the Rivervale Zone substation to connect into the internal electrical infrastructure which then distributed power throughout the structure plan area.	Based on the demand created by the proposed density of development of each of the proposed mixed use lots.	$602,133.00

Retaining walls	Retaining walls only those associated with the underpass.	Pro-rata based net developable area (NDA)	$170,615.10
Landscaping Construction and Remediation - Refer to Table 2 of the Development Contribution Report			
Landscaping	The public open space within The Springs comprises: • Cracknell Park (existing) • New areas of public open space, being Lots 8001, 8002 and 8003 Whilst typically included, in this instance the land for public open space is not included within the DCP, and has been gifted by LandCorp. Only the costs for the improvement to the open space are included as outlined below. The DCP includes the costs to landscape Lots 8001, 8002 and 8003 in accordance with The Springs Structure Plan and City of Belmont open space policies including: • Landscape and irrigation works • Street furniture (including seating, bike racks, bin enclosures, drinking fountain, table, bbq, stairs) • Carparking • Turf and paving works • Retaining walls (including handrails and balustrades) Relocation of trees within various part of The Springs that are worthy of retention to nominated locations within the public open space	Pro-rata based net developable area (NDA)	$3,478,326.91
Remediation	A total of 6.26ha was subject to remediation. Portion of the remediated land was developed for residential purposes (6.21ha), and portion of the land was developed for public open space (0.49ha). The remediation costs have therefore, only been applied to the POS as a proportion of 0.49ha to the total 6.26ha.	Pro rata cost based on the portion of the site comprising public open space as a proportion of the total land that was subject to remediation.	$114,498.73
Professional and Administrative Costs - Refer to Table 4 of the Development Contribution Report			
Engineering Fees	Professional and administrative fees relating to: •Environmental Remediation (remediation of public open space only). • Civil Engineering fees associated with: (relating to civil design and public utility upgrades). • Civil and landscaping design. • Infrastructure upgrades. • Hydrological and urban water management. • Parking & Traffic Impact System. • Urban Water Management. • Landscape Architecture (associated with public open space, streetscape and public realm). • Civil Construction (relating to management of civil works)	Pro-rata based net developable area (NDA)	$1,082,923.78
Landscaping Architectual Fees		Pro-rata based net developable area (NDA)	$462,646.23
Parking & Traffic Impact System		Pro-rata based net developable area (NDA)	$55,552.00
Urban Water Management		Pro-rata based net developable area (NDA)	$44,488.22
Totals			$12,846,857.16

Appendix F Landowner Contribution Schedule

Title No.	Lot No. (2017)	Street Name	Advertised Draft LandOwner Contribution Schedule (Forecast Costs @2012)					Final LandOwner Contribution Schedule (Actual Costs @2017)									
											Power (2017)						
			Former Lot No. (2012)	Former Land Area (m2)	Infrastructure (2012)	Power (2012)	DCP Ex. GST (2012)	Final Lot No. (2017)	Final Land Area (m2)	Infrastructure (2017)	Electrical Demand (kVa)	Power Retic Costs	HV Feeder Costs	Total Power Costs	DCP Ex. GST (2017)	GST Amount (10%)(2017)	DCP Incl GST (2017)
150/80	35	Riversdale	35	1486	$174,246.32	$36,531.65	$210,777.97	35	1486	$165,908.73	200	$20,542.12	$0.00	$20,542.12	$186,450.85	$18,645.09	$205,095.94
2210/605	34	Riversdale	34	1610	$188,786.39	$39,454.19	$228,240.58	34	1610	$179,753.06	216	$22,185.49	$0.00	$22,185.49	$201,938.56	$20,193.86	$222,132.41
2871/498	888	Riversdale	133 (1999/338)	1602	$187,848.32	$39,454.19	$227,302.51	888 (Former 133)	7484	$835,572.63	216	$22,185.49	$0.00	$105,175.66	$940,748.29	$94,074.83	$1,034,823.12
			132 (1999/337)	1594	$186,910.25	$39,454.19	$226,364.44	888 (Former 132)			216	$22,185.49					
			131 (1999/336)	2144	$251,402.50	$54,066.85	$305,469.35	888 (Former 131)			296	$30,402.34					
			130 (1999/335)	2144	$251,402.50	$54,066.85	$305,469.35	888 (Former 130)			296	$30,402.34					
2221/121	80	Riversdale	80	2144	$251,402.50	$54,066.85	$305,469.35	80	2144	$239,373.03	296	$30,402.34	$0.00	$30,402.34	$269,775.37	$26,977.54	$296,752.90
2610/473	4	Malvern	4	1289	$151,146.37	$29,225.32	$180,371.69	4	1289	$143,914.10	160	$16,433.70	$0.00	$16,433.70	$160,347.80	$16,034.78	$176,382.58
1981/824	77	Rowe	77	1012	$118,665.73	$21,918.99	$140,584.72	77	1012	$112,987.64	120	$12,325.27	$0.00	$12,325.27	$125,312.91	$12,531.29	$137,844.21
1415/247	78	Rowe	78	1012	$118,665.73	$23,380.26	$142,045.99	78	1012	$112,987.64	128	$13,146.96	$0.00	$13,146.96	$126,134.60	$12,613.46	$138,748.06
371/179A	4	Riversdale (East)	4	971	$113,858.13	$10,228.86	$124,086.99	4	971	$108,410.08	56	$5,751.79	$0.00	$5,751.79	$114,161.87	$11,416.19	$125,578.06
1304/438	4	Riversdale (West)	4	1052	$123,356.08	$11,690.13	$135,046.21	4	1052	$117,453.56	64	$6,573.48	$0.00	$6,573.48	$124,027.03	$12,402.70	$136,429.74
1921/485	63	Malvern	63	1571	$184,213.31	$20,457.73	$204,671.04	63	1571	$175,398.80	112	$11,503.59	$0.00	$11,503.59	$186,902.39	$18,690.24	$205,592.62
1827/669	21	Rowe	21	1991	$233,461.93	$116,901.29	$350,363.22	21	1991	$222,290.90	640	$65,734.79	$41,352.63	$107,087.42	$329,378.32	$32,937.83	$362,316.15
1977/731	120	Rowe	120	1012	$118,665.73	$37,627.60	$156,293.33	120	1012	$112,987.64	206	$21,158.39	$13,310.38	$34,468.76	$147,456.40	$14,745.64	$162,202.04
S16632	119	Rowe	119	1012	$118,665.73	$37,627.60	$156,293.33	119	1012	$112,987.64	206	$21,158.39	$13,310.38	$34,468.76	$147,456.40	$14,745.64	$162,202.04
SP14729	10	Riversdale	10	2315	$271,453.72	$27,764.06	$299,217.78	10	2315	$258,464.81	152	$15,612.01	$0.00	$15,612.01	$274,076.82	$27,407.68	$301,484.51
1689/392	134	Riversdale (East)	134	1416	$166,038.22	$13,151.40	$179,189.62	134	1416	$158,093.38	72	$7,395.16	$0.00	$7,395.16	$165,488.54	$16,548.85	$182,037.40
2132/908	603	Riversdale	603	3720	$436,202.10	$93,521.03	$529,723.13	603	3720	$415,330.06	512	$52,587.83	$0.00	$52,587.83	$467,917.89	$46,791.79	$514,709.68
371/180A	132	Riversdale (East)	132	1371	$160,761.58	$10,228.86	$170,990.44	132	1216	$135,763.81	56	$5,751.79	$0.00	$5,751.79	$141,515.60	$14,151.56	$155,667.16
						Private Lot Sub-Total :	**$4,577,971.04**						**Private Lot Sub-Total :**	**$4,109,089.65**	**$410,908.97**	**$4,519,998.62**
	13145(POS)	Cracknell Park	13145(POS)		$0.00	$0.00	$0.00	13145(POS)		$0.00		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	28(POS)		28(POS)		$0.00	$0.00	$0.00	28(POS)		$0.00		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	27(POS)		27(POS)		$0.00	$0.00	$0.00	27(POS)		$0.00		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	8000(POS)	Hawksburn	8000(POS)	1389	$162,872.23	$547.97	$163,420.20	8000(POS)	1389	$155,078.89	3	$308.13	$0.00	$308.13	$155,387.02	$15,538.70	$170,925.72
	8001(POS)	Road 8	8001(POS)	2463	$288,808.00	$547.97	$289,355.97	8001(POS)	2463	$274,988.69	3	$308.13	$0.00	$308.13	$275,296.83	$27,529.68	$302,826.51
	8002(POS)	Underpass	8002(POS)	1127	$132,150.47	$547.97	$132,698.44	8002(POS)	1127	$125,827.15	3	$308.13	$0.00	$308.13	$126,135.28	$12,613.53	$138,748.80
	8003(PAW)	Hawksburn	8003(PAW)	305	$35,763.88	$547.97	$36,311.85	8003(PAW)	305	$34,052.60	3	$308.13	$0.00	$308.13	$34,360.73	$3,436.07	$37,796.80
						POS Sub-Total :	**$621,786.46**						**POS Sub-Total :**	**$591,179.85**	**$59,117.99**	**$650,297.84**
2228/415	201	Homolea	201	710	$83,253.63	$16,073.93	$99,327.56	201	710	$79,269.99	88	$9,038.53	$0.00	$9,038.53	$88,308.52	$8,830.85	$97,139.37
2880/196	1000	Riversdale	1000	4069	$477,125.36	$102,288.63	$579,413.99	1000	4069	$454,295.17	560	$57,517.94	$0.00	$57,517.94	$511,813.11	$51,181.31	$562,994.42
2806/612	1001	Rowe	1001	5100	$598,019.00	$113,978.76	$711,997.76	1001	5100	$569,404.12	624	$64,091.42	$0.00	$64,091.42	$633,495.54	$63,349.55	$696,845.09
2806/613	1002	Rowe	1002	2358	$276,495.85	$59,911.91	$336,407.76	1002	2358	$263,265.67	328	$33,689.08	$0.00	$33,689.08	$296,954.75	$29,695.47	$326,650.22
2806/614	1003	Rowe	1003	1754	$205,671.63	$48,221.78	$253,893.41	1003	1754	$195,830.36	264	$27,115.60	$0.00	$27,115.60	$222,945.96	$22,294.60	$245,240.55
2806/615	1004	Rowe	1004	1036	$121,479.94	$23,380.26	$144,860.20	1004	1036	$115,667.19	128	$13,146.96	$0.00	$13,146.96	$128,814.15	$12,881.41	$141,695.56
2806/616	1005	Hawksburn	1005	3312	$388,360.58	$45,299.25	$433,659.83	1005	3312	$369,777.73	248	$25,472.23	$0.00	$25,472.23	$395,249.96	$39,525.00	$434,774.96
2806/617	1007	St Columbans	1007	2149	$251,988.79	$29,225.32	$281,214.11	1007	2149	$239,931.26	160	$16,433.70	$0.00	$16,433.70	$256,364.96	$25,636.50	$282,001.46
2806/618	1008	St Columbans	1008	3289	$385,663.63	$40,915.45	$426,579.08	1008	3289	$367,209.83	224	$23,007.18	$0.00	$23,007.18	$390,217.01	$39,021.70	$429,238.71
2806/619	1009	Hawksburn	1009	2230	$261,486.74	$24,841.52	$286,328.26	1009	2230	$248,974.74	136	$13,968.64	$0.00	$13,968.64	$262,943.38	$26,294.34	$289,237.72
2800/274	1010	Hawksburn	1010	4013	$470,558.88	$43,837.98	$514,396.86	1010	4013	$448,042.89	240	$24,650.55	$0.00	$24,650.55	$472,693.43	$47,269.34	$519,962.78
2800/275	1011	Riversdale	1011	1054	$123,590.59	$8,767.60	$132,358.19	1011	1054	$117,676.85	48	$4,930.11	$0.00	$4,930.11	$122,606.96	$12,260.70	$134,867.66
2800/276	1012	Rowe Ave	1012	2535	$297,250.62	$33,609.12	$330,859.74	1012	2535	$283,027.34	184	$18,898.75	$0.00	$18,898.75	$301,926.09	$30,192.61	$332,118.70
2800/277	1013	Riversdale	1013	1264	$148,214.91	$16,073.93	$164,288.84	1013	1264	$141,122.90	88	$9,038.53	$0.00	$9,038.53	$150,161.44	$15,016.14	$165,177.58
2800/278	1014	Rowe Ave	1014	3992	$468,096.44	$223,756.38	$691,852.82	1014	3992	$445,698.28	1225	$125,820.50	$79,151.51	$204,972.01	$650,670.29	$65,067.03	$715,737.32
2883/995	1117	Rowe Ave	1015 (2800/279)	3217	$377,221.01	$185,032.82	$562,253.83	1117 (Former 1015)	6385	$712,871.63	1013	$104,045.85	$65,453.45	$301,852.65	$1,014,724.28	$64,805.97	$1,079,530.25
			1016 (2800/280)	3168	$371,475.33	$144,482.69	$515,958.02	1117 (Former 1016)			791	$81,244.09	$51,109.26				
2809/680	1017	Hawksburn	1017	2826	$331,372.88	$138,637.62	$470,010.50	1017	2826	$315,516.87	759	$77,957.35	$49,041.63	$126,998.98	$442,515.85	$44,251.59	$486,767.44
2806/622	1018	Hawksburn	1018	2006	$235,220.81	$106,855.09	$342,075.90	1018	2006	$223,965.62	585	$60,085.71	$37,798.88	$97,884.59	$321,850.21	$32,185.02	$354,035.23
2848/461	888	Hawksburn	1019 (2792/228)	1620	$189,958.98	$96,078.25	$286,037.23	888 (Former 1019)	2370	$264,605.44	526	$54,025.78	$33,986.69	$88,012.47	$352,617.91	$35,261.79	$387,879.70
2848/462	889	Homelea	1020 (2792/224)	5821	$682,562.48	$615,193.04	$1,297,755.52	889 (Former 1020)	5071	$566,166.33	3368	$345,929.33	$217,618.19	$563,547.52	$1,129,713.85	$112,971.39	$1,242,685.24
						LandCorp Lot Sub-Total :	**$8,861,529.41**						**LandCorp Lot Sub-Total :**	**$8,146,587.66**	**$814,658.77**	**$8,961,246.42**
Total				**95275**	**$11,171,815.80**	**$2,889,471.11**	**$14,061,286.91**		**95120**	**$10,619,945.04**	**15819**	**$1,624,779.12**	**$602,133.00**	**$2,226,912.12**	**$12,846,857.16**	**$1,284,685.72**	**$14,131,542.88**
										Mix Use Demand	**9319**						

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