CITY OF ARMADALE

MINUTES

OF **TECHNICAL SERVICES COMMITTEE** HELD IN THE **COMMITTEE ROOM**, ADMINISTRATION CENTRE, 7 ORCHARD AVENUE, ARMADALE ON **MONDAY, 5 MAY 2014 AT 7:00 PM.**

PRESENT:
Cr G Nixon (Chair)
Cr R Butterfield
Cr G A Best
Cr K Busby
Cr C Frost
Cr M S Northcott

APOLOGIES:
Cr J A Stewart (Leave of Absence)
Cr D Shaw (Leave of Absence)

OBSERVERS:
Cr C M Wielinga
Cr J H Munn JP CMC (7.15pm)

IN ATTENDANCE:

Mr G Davies	A/ Executive Director Technical Services
Mr P Lanternier	Manager Parks
Mr R Sutton	Manager Waste Services
Mrs S McKellar	Minute Secretary

PUBLIC: 1

*"For details of Councillor Membership on this Committee, please refer to the City's website – **www.armadale.wa.gov.au/your council/councillors**."*

DISCLAIMER

The Disclaimer for protecting Councillors and staff from liability of information and advice given at Committee meetings was read as a member of the public was present.

DECLARATION OF MEMBERS' INTERESTS

Nil.

QUESTION TIME

Nil.

DEPUTATION

Nil.

CONFIRMATION OF MINUTES

T26/5/14 **RECOMMEND**

Minutes of the Technical Services Committee Meeting held on 7 April 2014 be confirmed.

Moved Cr C Frost
MOTION CARRIED (6/0)

ITEMS REFERRED FROM INFORMATION BULLETIN

- **Outstanding Matters and Information Items**
  Various Items
- **Monthly / Quarterly Departmental Reports**
  Technical Services Works Programme

Committee Discussion

Committee noted the information with three items raised for discussion from the Technical Services Works Programme. The Acting Executive Director Technical Services confirmed:

- *A delay in the construction of the Jull Street Mall to early July, due to delays from contractors and suppliers;*
- *That the upgrade to the toilet and amenities at the depot has been included in the Annual Budget; and*
- *That irrigation works at Armadale Golf Course had been put on hold, pending assessment of future options at the course by Community Services.*

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TECHNICAL SERVICES COMMITTEE

5 MAY 2014

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***1.1 - RAILWAY AVENUE, KELMSCOTT - MERRIFIELD AVENUE TO WESTFIELD ROAD UPGRADE AND REHABILITATION

WARD	:	HERON
FILE No.	:	M/114/14
DATE	:	20 February 2014
REF	:	SF/JFG
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- Provide details of a road improvement grant for the widening and construction of Railway Avenue, Kelmscott, from Westfield Road to Merrifield Avenue.
- Details traffic statistics supporting the upgrade.
- Provides details of proposed funding.

- **Recommend:**

That Council:

1. Approve the upgrade and rehabilitation of Railway Avenue, between Merrifield to Westfield, as shown on Drawing SK-04 (as amended) for a total cost of $660,000.
2. Note the contribution from the Public Transport Authority of $182,000 (ex GST) to undertake partial works affecting the entries to the Kelmscott Railway Station land.
3. Pursuant to Section 6.8 of the Local Government Act 1995, authorise the necessary expenditure to complete the upgrade and rehabilitation of Railway Avenue, Kelmscott.

Tabled Items

- Construction Plans E13-155, E13-156 and E13-157.
- Sketch Plans SK-02 and SK-04.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhanced Natural and Built Environments.
   - 2.5 Safe and efficient movement of goods, services, and people.
     - 2.5.1 Provide a safe and efficient movement network including local and arterial roads and associated infrastructure.

Legislation Implications

Assessment of legislation indicates that the following is applicable:

- Local Government Act 1995 (As Amended) - Section 6.8 – Expenditure from municipal funds included in annual budget.

Council Policy/Local Law Implications

General assessment has not revealed any applicable Policies/Local Laws.

Budget/Financial Implications

The estimated cost of undertaking a combined widening and resurfacing of Railway Avenue, between Merrifield Avenue and Westfield Road, is $660,000.

Two Metropolitan Regional Road Group (MRRG) Grants for Improvement and Rehabilitation Works for the widening and resurfacing of Railway Avenue, between Merrifield Avenue and Westfield Road, have been approved by Main Roads WA (MRWA) for a total grant contribution of $425,000.

Further, the City has negotiated with the Public Transport Authority (PTA) for a provision of $182,000 towards the proposed road works to improve the access to and egress from the bus terminal and parking station associated with the Kelmscott Railway Station.

The Rehabilitation Grant was confirmed in time for Council contribution ($37,720) to be included in the 2013/14 Budget. The Improvement Grant requires a further allocation as detailed below:

ESTIMATED FUNDING REQUIREMENTS

Total estimated cost of works				
Upgrade and Resurfacing		**$**	**660,000**	
Available Funding				
MRRG Improvement Grant	(2/3)	$	360,000	
MRRG Rehabilitation Grant	(2/3)	$	65,000	
PTA Contribution		$	182,000	
MRRG Rehab CoA contribution	(1/3)	$	37,720	included in Budget 2013/14
Total		**$**	**644,720**	
Extra Municipal Funding Required		**$**	**15,280**	

Source of Funding from City of Armadale

Work on resurfacing part of the John Dunn car park has been delayed pending finalisation of the Master Plan for the reserve. As a result of this the allocated funding of $163,700 for the project can be reduced by $15,280. If necessary extra funds can be re-allocated in the 2014/15 Budget to replace this amount.

Consultation

- Main Roads Western Australia (MRWA).
- Public Transport Authority (PTA).
- Department of Parks and Wildlife (DoPW).
- Traffic Consultant.
- Intra-Directorate.

BACKGROUND

When the Kelmscott station and associated parking areas were improved some years ago, it was noted that there was a need to improve traffic flows in the area and also access to the new parking areas, specifically for buses. This requirement took the form of the provision of median islands, and turning lanes, especially to accommodate the buses waiting to turn right into the bus allocated areas at the Kelmscott Station. Without the proposed turning lanes, delays were anticipated to result in queuing behind the buses, resulting in a congested and unsafe situation. Unfortunately, due to limited funding availability at the time, these works were left unaddressed, but have always been a subject of grant applications by the City for proposed improvement and rehabilitation works.

In May 2012, the City applied for a MRRG Rehabilitation Grant (resurfacing and minor other works) for the resurfacing of Railway Avenue, Merrifield Avenue to Banyard Avenue, and received confirmation of funding approval in February 2013. This project was subsequently listed for implementation in the 2013/14 Capital Works Program with an estimated total cost of $113,100 and a grant contribution of $75,440.

This rehabilitation grant allocation has subsequently been reduced to $65,000 because of slight work overlaps between the rehabilitation and the now approved improvement project.

The scope of the MRRG Rehabilitation Grant entailed the resurfacing of the existing carriageway of Railway Avenue pavement from Merrifield Avenue to Banyard Avenue, as well as replacement of some kerbing on the western side.

In May 2012, the City also applied for a MRRG Improvement Grant ($540,000) for the widening of Railway Avenue, Merrifield Avenue to Westfield Road, and was not successful in the first round of considerations. However, due to cancellation of other Local Government allocations, the City was awarded approval for the project in late August 2013. Because of this late approval no supporting Council contribution was included in the 2013/14 Budget.

The following criteria are contributing factors for a successful Improvement Grant:

- Large increase in traffic volumes. (The volume of traffic on Railway Avenue has increased steadily since 2005/06 with the completion of the Tonkin Highway, the upgrade of the Kelmscott Rail and Bus Station, increased infill construction and new residential construction, the upgrade and increase of schools over the past 10 years, and the traffic movement improvements on Lake Road and Corfield Street).
- The large number of crashes over the past five years (2008 to 2012). The section from Westfield Road to Merrifield Avenue registered 31 accidents, with 7 needing medical treatment or hospitalisation. The most common crash type is the right turn and rear end crash.

The scope of proposed improvement works suggested by the City will overcome the majority of the above crashes by installing the necessary turning lanes.

The scope of the Improvement Grant entails the widening of the Railway Avenue pavement from Merrifield to Westfield, to allow Local Area Traffic Management (LATM) median islands and embayed turning lanes. Further, due to the widening, the existing footpath will need replacement as well as the removal of a number of mature trees (13). The improvement works do not include the resurfacing of any existing road pavement, as mentioned above but this resurfacing work is covered by the Rehabilitation Grant.

On receipt of the MRRG Improvement Grant approval, both projects (which overlapped one another) were put on hold until the mid-year budget review was finalised. As both projects are on the same section of road, it was a necessity that both projects be implemented at the same time.

The City has therefore, been seeking other avenues to supply the necessary matching funding, which includes revisiting the request to combine the Improvement and Rehabilitation Grants. Further, preliminary requests to the Public Transport Authority seem to be favorable to obtain additional funds to aid completion of the entire project scope, as the Authority agreed to pay $182,000 towards the completion of the improvement works to provide a safer road environment and reduce congestion, created during peak hours by the PTA bus services.

The investigation into the required improvements of Railway Avenue has been supported by the independent assessment report of the traffic consultant (details of his findings are mentioned in the next section), by providing a safer transport corridor, reducing unnecessary delays and congestion during peak morning and afternoon hours, through the provision of necessary road widening and embayed turning lanes.

TRAFFIC ASSESSMENT

The report of the independent traffic consulting engineers notes that observations during morning and afternoon peak hours indicate the following:

- The right turn movements occurring on Railway Avenue are observed to obstruct through traffic movements – in particular bus movements into the bus access and also car movements into the two car park access entry points, as well as into Banyard Avenue.
- During peak hours (08:00 to 09:00 in the morning and 17:00 to 18:00 in the afternoon) 10 bus movements into the bus access need to find a gap to turn while as many as 550 vehicles on the south bound through lane make it difficult to carry out this movement action, and create longer queuing during peak hours (waiting times of up to 2 minutes each time or a traffic congestion of up to 20 vehicles, or as long as 120-180 metres).
- The afternoon peak hour is creating a similar problem for traffic movements turning into Banyard Avenue with approximately 30 right-turn moving vehicles facing an average of over 520 north bound through traffic movements.
- Drivers will take risks and this is indicated in the 2008 to 2012 MRWA Crash Statistics for that period with 31 incidents/crashes, and at least 22 caused by right turn movement or rear-end accidents.
- The statistic also shows that 16 of the 31 crashes over the period 2008 to 2012 required medical treatment or hospitalisation, this alone indicates that this section of

road is in urgent need of widening and improvement to traffic circulation, safety and turning manoeuvers.

DETAILS OF PROPOSAL

The City seeks to provide the best possible treatment for Railway Avenue at a reasonable cost and with as little as possible impact on the natural or built environment. As such, the recommended improvement project includes the widening of Railway Avenue and provision of the required turning lanes, improvements to pathways and pedestrian crossing points, from Merrifield to Westfield.

A permit to clear native vegetation has being obtained from the Government of Western Australian; Department of Environment and Conservation in June 2012 and this permit has been extended to 29 June 2016 (Department of Environmental Regulation).

CONCLUSION

Following discussions with Ward Councillors, alternative designs to the one attached to this report have been assessed to provide options for saving the removal of some trees. These options will move traffic much closer to the western side of the Railway Avenue road reserve, and as such will have more impact on residences in that area. These options will be presented to the Committee. Options which move the road to the west may be more expensive and require extra reallocation of funding from the John Dunn car park resurfacing. Officers are calculating the details of possible extra cost and will provide full details at the Committee Meeting.

ATTACHMENTS

1. Railway Avenue - Proposed Draft Design Plans E13-155, E13-156, E13-157. *(Attachment 1.1.1)*

Committee Discussion

The Acting Executive Director Technical Services provided Committee with an overview of the available funding for the Railway Avenue project. Further discussion occurred in relation to the various options for works along Railway Avenue. It was noted that the revised sketch (SK-04) reduces the number of trees that would be affected by the works, and also that an amended sketch plan would be provided prior to the Council Meeting.

T27/5/14 **RECOMMEND**

That Council:

1. **Approve the upgrade and rehabilitation of Railway Avenue, between Merrifield to Westfield as shown on Drawing SK-04 (as amended) for a total cost of $660,000.**
2. **Note the contribution from the Public Transport Authority of $182,000 to undertake partial works affecting the entries to the Kelmscott Railway Station land.**
3. **Persuant to Section 6.8 of the Local Government Act 1995 (as amended):**

(i) Authorise* the following expenditures:

- **Upgrade and Rehabilitation of Railway Avenue Kelmscott** **$360,000**

And

(ii) Amend the 2013/14 Annual Budget as follows:

Revenue

- **Railway Ave MRRG Rehabilitation Grant Decrease by** **$ 10,400**
- **Railway Ave MRRG Improvement Grant Increase by** **$ 360,000**
- **Railway Ave PTA Contribution Increase by** **$ 182,000**

Expense

- **Railway Ave Reconstruction Decrease by** **$ 113,100**
- **Railway Ave Upgrade Increase by** **$ 660,000**
- **John Dunn Upgrade Car Park Decrease by** **$ 15,300**

For the purpose of upgrading and rehabilitating Railway Avenue, between Merrifield Avenue and Westfield Road.

***ABSOLUTE MAJORITY RESOLUTION REQUIRED**

Moved Cr R Butterfield
MOTION CARRIED (6/0)

1.2 - BROOKS ROAD, ROLEYSTONE - PARKING RESTRICTIONS

WARD	:	JARRAH
FILE No.	:	M/360/14
DATE	:	23 April 2014
REF	:	MC
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- Technical Services has received complaints from concerned residents regarding unsafe parking practices along Brooks Road and Raeburn Road, Roleystone adjacent to Roleystone Community College.
- Following investigation, the installation of yellow lines is recommended.

- **Recommend:**

That Council approve the installation of painted yellow lines (no stopping) on Brooks Road, Raeburn Road, Roleystone as depicted on Drawing No E14-49.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhanced Natural and Built Environments.
   2.5.1 Provide a safe and efficient movement network including local and arterial roads and associated infrastructure.

Legislation Implications

Assessment of legislation indicates that the following are applicable:

- Local Government Act 1995 – Schedule 9.1, Section 2.1 - Disturbing local government land or anything on it.
- Road Traffic Code 2000 – Part 12, Division 2, Section 140 – No Stopping Signs, Section 141 – No Parking Signs, Section 142 – No Stopping on Carriageway with Yellow Edge Line.

Council Policy/Local Law Implications

General assessment of Policy/Local Law indicates that the following is applicable:

- Local Law relating to Parking Facilities.

Budget/Financial Implications

All required expenditure can be contained within the Civil Works Maintenance and Operational Budget 2013/14.

Consultation

- Ranger Services.
- Residents in the area.

BACKGROUND

At its meeting of 23 January 2012 Council approved the following recommendation (T4/1/12):

> *"That Council approve the installation of the parking restriction signage along Brooks Road and Raeburn Road in Roleystone as depicted in Drawing No 12-01."*

Whilst it is considered that these restrictions have reduced unsafe parking along Brooks Road and Raeburn Road, it is apparent that a number of motorists are now parking in an unsafe manner on adjacent residential streets and intersections, which is causing damage to reticulated verges and restricting sight lines for property owners and other motorists.

COMMENT

On site assessment of these parking practices has been undertaken, along with an informal audit to determine whether adequate parking arrangements are in place. Based on this investigation, it appeared that sufficient parking arrangements within the school vicinity exist, and as such dangerous and illegal parking should not be occurring along residential streets, within proximity to the school.

To this end, it is proposed that additional parking restriction zones be introduced along those streets (by way of painted yellow lines) where it is obvious that unsafe parking is occurring. Primarily this area is along Brooks Road, Roleystone and is highlighted on Drawing No. E14-49.

CONCLUSION

To ensure that unsafe parking practices are prohibited within close proximity to Roleystone Community College, it is recommended that painted yellow lines be installed as illustrated on Drawing No E14-49.

ATTACHMENTS

1. Brooks Road, Roleystone - Parking Restrictions - Drawing No. E14-49. *(Attachment 1.2.1)*

Committee Discussion

A question was raised regarding the proposed parking restrictions being installed only on the western side of Brooks Road. The Acting Executive Director Technical Services explained to Committee that this was not a safety concern and needed no further work to address any issues.

T28/5/14 **RECOMMEND**

That Council approve the installation of painted yellow lines (no stopping) on Brooks Road, Roleystone as depicted on Drawing No E14-49.

Moved Cr K Busby
MOTION CARRIED (6/0)

2.1 - CITY OF ARMADALE FINAL URBAN FOREST STRATEGY

WARD	:	ALL
FILE No.	:	M/306/14
DATE	:	14 April 2014
REF	:	PL
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- At the Council Meeting of 16 December 2013, the following was recommended:
  T86/12/13 Recommended
  1. *That Council advertise the City of Armadale 'Draft' Urban Forest Strategy for public comment.*
  2. *Following the comment and review period, the City of Armadale 'Final' Urban Forest Strategy be presented to Council in April 2014.*
- Urban Design and Landscape Architecture Consultants, UDLA, have been requested by the City of Armadale to undertake the preparation of an Urban Forest Strategy.
- The City of Armadale Urban Forest Strategy is to be prepared, implemented and managed by a collaborative process with shared input and responsibility from stakeholders, community, cultural and interest groups.
- The City of Armadale Urban Forest Strategy is to strengthen a diverse landscape character through allocating suitable tree diversity, to be proactive in appropriate landscape planning, while showcasing the City's botanic heritage and to distinguish an expanding 'tree change' destination from the existing Perth vernacular.
- **Recommend:**

That Council adopt the City of Armadale Urban Forest Strategy.

Tabled Items

- City of Armadale – Final Urban Forest Strategy.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhanced Natural and Built Environments
   - 2.1 Long term planning and development that is guided by a balance between economic, social and environmental objectives.
   - 2.4 Attractive and user friendly streetscapes and open space.
     - 2.4.1 Implement townscape, streetscape, and parkland improvements, to enhance the distinctive character of the City.
     - 2.4.2 Maintain and improve where required, the quality, amenity and accessibility of open spaces.
   - 2.9 Recognition of climate change.
     - 2.9.2 Identify and pursue appropriate initiatives to reduce greenhouse gases and energy consumption.

Legislation Implications

General assessment of relevant legislation (eg Local Government Act) has not revealed any restrictions.

Council Policy/Local Law Implications

General assessment has not revealed any applicable Policies/Local Laws.

Budget/Financial Implications

Within the City of Armadale Corporate Business Plan, the following action has been identified:

Assess public domain in key centres – Urban Forest Strategy as reported to Council, December 2013. An amount of $300,000 has been allocated in 2015 with an additional funding of $200,000 proposed to achieve required immediate impact.

'Draft' budget consideration 2014/2015 and beyond (refer 'draft' Urban Forest Strategy 5 Year Planting and Ongoing Maintenance Plan).

Consultation

- UDLA Consultants.
- Community, Stakeholders and interest group representatives.
- Bushcare Environmental Working Group.
- Technical Services Directorate.
- Intra Directorate
- MANEX.

BACKGROUND

At Council's meeting of 26 September 2011, Councillor Wielinga referred to the following;

"That the matter of an Urban Greening Strategy be referred to the Technical Services Committee."

T69/10/11Recommended
That Officers prepare a report on the possibility of the development of an Urban Green Strategy.

Councillor Wielinga provided comments for consideration by the Committee at this time which were considered in the preparation of the report of 2 December 2013 to the Technical Services Committee – City of Armadale 'Draft' Urban Forest Strategy.

Prior to the report of 2 December 2013, City's Parks Officers, along with the appointed consultants, held an Urban Forest Strategy Community Workshop on 26 September 2013, and a report on this matter was presented to the MANEX meeting of 8 November 2013.

At the Council meeting of 16 December 2013, the following was recommended:

T86/12/13 Recommended
1. *That Council advertise the City of Armadale 'Draft' Urban Forest Strategy for public comment.*
2. *Following the comment and review period, the City of Armadale 'Final' Urban Forest Strategy be presented to Council in April 2014.*

The 'Draft' Urban Forest Strategy was advertised for comment in the Community Newspaper 'Comment News' on 7 January 2014 and in the 'Examiner Newspaper' on 9 January 2014.

A copy of the 'Draft' Urban Forest Strategy was available on the City's website and the following locations, on 7 January 2014:

- Council's Administration Centre.
- Armadale Library.
- Kelmscott Library.
- Seville Grove Library.

An Urban Forest community meeting was held 11 February 2014 at the Council's Administration Centre followed on 12 February with a presentation on the 'Draft' Urban Forest Strategy to the Bushcare Environmental Working Group. The closing date for written comments was 28 February 2014.

DETAILS OF PROPOSAL

Urban Design and Landscape Architecture Consultants UDLA have been requested by the City of Armadale (COA) to undertake the preparation of an Urban Forest Strategy. The Urban Forest Strategy includes the entire jurisdiction of COA (prior to any impending boundary adjustments associated with the Local Government amalgamation processes) including streetscapes, open space, private residential, industrial and commercial areas.

An urban forest considers the cumulative benefits of an entire tree population. Examining holistically a town or cities urban forest and its associated ecosystem allows for consideration of the broader issues of:

- Climate change.
- Urban heat island effects.
- Fire management.

- Population growth.
- Planning policy.

All of which can influence a communities future green infrastructure.

The City of Armadale Urban Forest Strategy is to be prepared, implemented and managed by a collaborative process with shared input and responsibility from stakeholders, community, cultural and interest groups.

The holistic benefits of a healthy urban forest are more recently understood in relation to providing more than aesthetic and recreational values and include interrelated social, economic and environmental benefits. An urban forest is now understood as critical urban green infrastructure and is to be managed for health and wellbeing of community.

Effective urban forest strategies are required to be specific and unique to location. The City of Armadale is diverse in landscape character and should equally be diverse in its Urban Forest Strategy. This includes planning, implementation and management. High on our residents' agenda is the provision of a healthy urban forest, however equally as high is the appropriate management of trees with regard to bushfire safety.

What is Urban Forestry?

Urban forestry is the careful care and management of urban forests, i.e, tree populations in urban settings for the purpose of improving the urban environment. Urban forestry advocates the role of trees as a critical part of the urban infrastructure.

Urban forestry management is often considered a local government responsibility however frequently extends well beyond that; local communities, schools, community groups, developers, business, industry and State and Federal Government all have important roles to play. Every part of the City contributes in some way to the urban forest as a whole.

Defining the Urban Forest?

Defining the urban forest for the City of Armadale is important in determining visions for our future City and how we will go about realising them. Essentially, urban forestry is the meeting of arboriculture and forestry with other disciplines such as urban planning, landscape architecture, engineering and economics. Ensuring these groups work collaboratively will be integral to a genuinely Australian concept of urban forestry. Education and engagement is essential to increase understanding of trees and the collective urban forest as critical infrastructure.

Urban Forest Strategy 'Vision'

The vision of the City of Armadale Urban Forest Strategy is to strengthen a diverse landscape character through allocating suitable tree diversity, to be proactive in appropriate landscape planning while showcasing the City's botanic heritage and to distinguish an expanding 'tree change' destination from the existing Perth vernacular.

To achieve this vision, the Urban Forest Strategy process commences by understanding the unique and diverse landscape character precincts within the City of Armadale. From the fringing bushland reserves, European botanical heritage within the hills to the rapidly

expanding green field development of the Swan Coastal Plain, the Urban Forest Strategy aims to complement and enhance Armadale's qualities by focusing on its landscape characteristics achieved through analysis of land use, social / heritage and environmental values. The City of Armadale broadly defines four (4) landscape character precincts including; Swan Coastal Plain, Armadale Strategic Metropolitan Centre, Kelmscott Town Centre and Armadale Hills.

By unifying, sometimes strengthening and mostly understanding these diverse landscape characters, there is opportunity to guide future generations to develop a resilient, safe, healthy and diverse Urban Forest Strategy suitable to be implemented for each precinct and proactive in planning intention and management. In this way, the strategy promotes shared responsibility in ongoing governance of the urban forest planning including bushfire mitigation and management.

Bushfire Management

Bushfire management is most relevant within the City of Armadale's bushfire prone areas including the Armadale Hills and urban fringes, where residents are living within and adjacent to unmodified bushland. The City of Armadale Urban Forest Strategy is not a bushfire management plan but does consider appropriate 'firewise' landscape planning, including recognising WA's latest state bushfire guidelines.

The City of Armadale Urban Forest Strategy would seamlessly integrate into any future Bushfire Management Plan including those with the State Bushfire Management Guideline and future associated planning policies.

'Firewise' Urban Forest Planning

The term 'firewise' refers to a proactive way of being, living and doing what is required to be prepared for fire. It included the knowledge and use of strategies / procedures and sound community planning for protecting homes and lives from bushfire with emphasis on mitigation. The term is generally consistent as applied in a National and Australian context including bushfire protection zones and the use of low-flammable tree species.

Whilst the Urban Forest Strategy encourages the preservation of the urban forest including supplementation and additional vegetation planting where appropriate, the report is proactive in promoting best practice 'firewise' strategies.

The Urban Forest Strategy recognises that this is not a fire management plan for the City of Armadale, however the strategy understands the urban forest is a key component within a future plan.

Liveable Neighbourhoods

The City of Armadale's Urban Forest Strategy planning and mapping language aligns with 'Liveable Neighbourhoods', improving the ease of its application and increasing its relevance at a planning level, as well as, ensuring practical useability for long term planning and daily operations.

Tree Selection

Tree selection is a complex task and requires an understanding of how a particular tree will affect, and be affected by its' surroundings during the course of its lifetime. A major aspect to consider in tree planting is the potential effect of each tree on services.

The City of Armadale Urban Forest Strategy and assessment criteria and recommended tree selections are a guide only. Specific situation, safety, form and purpose is to be continually considered when determining the appropriate tree(s) planting.

Public Advertising of the 'Draft' Urban Forest Strategy

The 'Draft' Urban Forest Strategy was advertised from 7 January 2014, closing on 28 February 2014. This advertising was by notice in the local community newspapers and on the City's website and in the City's libraries. The City encouraged all interested parties and community members to submit a response to provide feedback on the 'Draft' Urban Forest Strategy.

The total number of submissions received was seventeen (17).

The issues raised by the submissions have been summarised and responses provided as follows:

Schedule of Submissions 'Draft' Urban Forest Strategy		
NO.	**RESUME OF SUBMISSION**	**RESPONSE**
1.	▪ Strategy to further consider Asset Protection Zones (APZ) or Building Protection Zones (BPZ). ▪ Many environmental and social benefits of enhancing tree canopy, it is important to recognise the increased bushfire risk that this approach can bring if the resulting fuel hazard is not appropriately managed.	Bush fire implications are now included in the following dedicated sections: ▪ A2.5 – What is 'firewise'?, ▪ A2.6 - What is 'firewise landscape planning'?, ▪ B4 - 'Firewise' Urban Forest Planning - Page 76 ▪ B4.1 - Overview ▪ B4.2 - Tree Planting in Building Protection Zones (BPZ) ▪ B4.3 - Tree Planting in Hazard Separation Zones (HSZ) ▪ C1.4 Promote 'Firewise' Urban Forest Planning ▪ C4.3 Promote Shared Responsibility 'firewise' Urban Forest Planning Additionally: ▪ Recommendation R4 suggests a detailed bushfire management plan be prepared. ▪ Detailed background study on bushfire implications was conducted as highlighted in A1.2 Fire wise references. ▪ Inclusion of a fire wise category in A2.4 and associated graphic page 24-25. ▪ Inclusion of fire wise category in the tree selection guide and "factors determining appropriate tree selection graphic page 80 - 87.
2.	▪ Reject the recommendations to increase the area of bushland. ▪ Do not agree with the concept of encouraging land owners to plant native trees, native trees have highly flammable foliage, containing volatile oils. ▪ Strategy to consider "Building Protection Zone" as recommended by DFES, WAPC and fire management experts.	
3.	▪ City of Armadale has been deemed to be a local government area with high bushfire risk. ▪ Question - If strategy looked into bushfire risk management planning and if consideration has been given to any increased risk from the urban forest strategy and how it can be mitigated?	
4.	▪ Support the idea of more trees in and around Armadale, provided they are not flammable native trees. ▪ Jarrah, Marri, Wandoo and Casuarina shed enormous amounts of flammable litter, sticks,	

	bark, and capsules, since fire is part of their ecology. They create the conditions for fire. ▪ Don't see how a native Urban Forest in Armadale can align with City of Armadale fire management.	▪ Every suggested tree species list has a suggested fire wise tree species category. ▪ All street section imagery has been modified to better following fire wise landscape principles.
5.	▪ Opportunity to put some of our smaller local species into the streetscape. ▪ It is important to get the WA flora into gardens and streetscapes to conserve the biodiversity and some will undoubtedly help the insects and birds.	▪ The number of Mallee species has increased in the suggested species list and local species remain prominent to assist biodiversity conservation.
6.	▪ Consider fire resistant and deciduous species. ▪ Consider planting strategic roads to provide a defendable network of fire breaks. ▪ Clean verges to reduce fire risk. ▪ Jarrah and Marri not compatible with close residential settlement, affected by dieback and residential development.	▪ See response to No. 1-4.
7.	▪ Lack of trees means hot dry summers, without any greenery around peoples health deteriorates. ▪ Support more trees.	▪ Submission is supportive of the Urban Forest Strategy and its objectives.
8.	▪ Existing vegetation needs to be recognised and given protection as a priority. ▪ Consider Vegetation corridors so that wildlife can move between isolated conservation areas such as Forrestdale Lake Nature Reserve and Jandakot Regional Park. ▪ City of Armadale's heritage tree list should be extended.	▪ The focus on protecting existing trees has increased and a dedicated section: "C1.1 Plan to Retain Canopy and C4.2 Retain Biodiversity and Bushland Character" has been included. ▪ Recommendation R2 suggests an enforceable Urban Tree Asset Management Plan is established.
9.	▪ Review document in regards to Building Protection Zone (BPZ) and Hazard Separation Zone (HSZ) guidelines. ▪ City should produce a Bushfire Management Strategy, this should inform and direct any Urban Forest Strategy. ▪ City should declare bushfire prone areas. ▪ Little has been learnt after the 2011 fires which devastated the hills district or the seminal Keelty report.	▪ See response to No. 1-4.
10.	▪ Recommend strategy revised and improved to include 'firewise' landscape principles. ▪ Support more tree planting across the City of Armadale to increase the area of tree canopy and to mitigate the impact of a warming climate. ▪ Recommend change in way select, arrange and manage new tree planting in bushfire prone areas to lessen the impact of uncontrolled bushfires, select and consider plants that are proven 'firewise' species. ▪ Hills plant species should include species with an association with the orchard heritage and landscape character of Roleystone, Karragullen and Bedfordale. ▪ Review document in regards to Building Protection Zone (BPZ) and Hazard Separation	▪ See response to No. 1-4. ▪ Orchard heritage is recognized in the hills precinct character description on page 62, and in section C4 – The Armadale Hills Precinct Application.

	Zone (HSZ) guidelines.	
11.	▪ Trees are viewed as critical infrastructure and therefore have equal priority to other urban infrastructure (e.g. roads, services, footpaths). ▪ Focus on increasing trees age and longevity. ▪ Reduce 'urban heat island effect'. ▪ Retain existing.	▪ Submission is supportive of the Urban Forest Strategy and its objectives. ▪ See response to No. 8.
12.	▪ Support planting of street trees in City and surrounding areas of Armadale including parks. ▪ Developers to leave as many existing trees in new subdivisions.	▪ Submission is supportive of the Urban Forest Strategy and its objectives. ▪ See response to No. 8.
13.	▪ Concerned that there doesn't seem to have been any significant consideration of the bushfire implications in some areas.	▪ See response to No. 1-4.
14.	▪ Support for shared responsibility; this could be aided by providing a shared community facility a Landcare Centre in Roleystone. ▪ Keep trees as a priority rather than planting saplings, save existing grass trees. ▪ Keen to return local trees to many developed areas and important to establish local shrubs in the understorey below the new trees.	▪ Submission is supportive of the Urban Forest Strategy and its objectives including shared responsibility model. ▪ See response No. 8 for increased focus on tree retention. ▪ Understory species are considered beyond the scope of the Urban Forest Strategy.

15.	▪ Many planning related matters in respect to the Urban Forest Strategy raised including;
	  ▪ Needs to be written into our local planning laws that trees must be planned to meet the Urban Forest Strategy before planning approval is granted.
	  ▪ Incorporate the tree ordinance in the development code and ensure consistency with other codes.
	  ▪ Ordinances should include provisions for enforcement personnel.
	  ▪ Planning unit development regulations should include an Urban Forestry evaluation checklist.
	  ▪ Do all our carparks allow for a minimum canopy cover, say 30%?
	  ▪ Use our Urban Forest Strategy to support our other planning goals that set standards for the protection, care and planting of trees.
	  ▪ Tree bonds should be put in place to protect the trees that are on the sites and if a developer has to remove a tree on a site, should have to replace with 100 trees onto another site.
	▪ Comments on tree management issues;
	  ▪ Do we have a well-maintained easy to use record of all our existing canopy cover and its conditions for all of COA?
	  ▪ Plan for long term maintenance of trees and the need for money in budget to maintain our forest.
	  ▪ Need to have a clear framework for managing risks and benefits.
	▪ Species selection;
		▪ Submission is generally supportive of the Urban Forest Strategy however the level of detail in regards to enforceable planning measures can be studied in recommendation R1 – Develop Urban Tree Planning Policy and R2 – the creation of an Urban Tree Asset Management Plan.
		▪ Detailed study of current canopy cover is recommended in R3 – Urban Tree Implementation Plan.
		▪ Orchard heritage is recognised in the hills precinct character description on page 62, and in section C4 – The Armadale Hills Precinct Application.
		▪ R2 recommends the creation of an Urban Tree Asset Management Plan that will take an asset management approach and detail the increasing value of trees as infrastructure.

	▪ Tree species should be able to thrive and deliver their full range of benefits without causing problems. ▪ Local trees does not just mean natives, Roleystone / Karagullen has had orchards for over 100 years and this, now with the native species form the character of these suburbs. ▪ Some of the Pyrus species would do particularly well along the Brookton Highway as it would tie the orchard "sense of place". ▪ General; ▪ Need to take an asset management approach to looking after the trees in our forest. ▪ Trees are the only part of infrastructure that actually appreciates in value while the rest depreciates. ▪ Does not seem to have taken into account fires and tourism. ▪ Thought the strategy was a bit 'light on' for something that will change the face of the City of Armadale.	
16.	▪ Commented that the City of Armadale's Urban Forest Strategy is an excellent strategy that will put Armadale ahead of it's peers in the Perth Local Government sector for both leading the way in best practice, but also to strengthen its position as the tree change destination. ▪ Pleased and impressed with the depth and direction of the strategy, the background, methodology, vision and proposed application. ▪ Suggested a couple of trees on the selection list shouldn't be used due to their disease problems / susceptibility and suggested other more suitable trees for consideration. ▪ Suggested several of the trees listed on the tree selection matrix could be used more widely. ▪ Suggested a variety of tree species for use on primary distributor and integrator arterial roads for consideration within the City of Armadale.	▪ Submission is supportive of the Urban Forest Strategy and its objectives. ▪ The suggested species lists have been expanded to include a wider range of species including those detailed in the submission.
17.	▪ Congratulates the City of Armadale on this initiative. ▪ See this strategy filling in the gaps and a great opportunity to increase the awareness to our local community of the fantastic benefits of our natural environment. ▪ Opportunities for us to assist in the implementation of this Urban Forest Strategy.	▪ Submission is supportive of the Urban Forest Strategy and its objectives. ▪ Recommendation R3 – Urban Tree Implementation Plan mentions the requirement for a 5 year implementation plan developed with community consultation.

The City of Armadale Urban Forest Strategy recognises and appreciates the collaborative efforts and inputs from the Community, stakeholders and interest group representatives.

COMMENT

During implementation, strong community involvement can assist in increased education, awareness and contribution to the stewardship and management of the City of Armadale's Urban Forest. Fostering this shared ownership, aids in the COA showcasing its unique green assets, be proactive in managing its bushfire risk as well as developing new opportunities for shared responsibilities.

ANALYSIS

The Urban Forest Strategy has been prepared through an inclusive process with project team, various departments, workshops and initial public engagement. Further public engagement can continue in future stages of planning, implementation and management to increase involvement in this invaluable resource, as well as increased ownership and contribution to 'their' urban forest canopy.

The City of Armadale has a number of current 'greening' initiatives in place. There is opportunity during future works to strengthen and build upon current initiatives to further develop inclusive implementation process. This would aim to provide participants with increased opportunity to take ownership and contribute to the urban forest canopy.

CONCLUSION

The City of Armadale Urban Forest Strategy is a product of a collaborative and inclusive approach that is both holistic in methodology and practical in implementation. The document sets up an agreed 'vision' and guiding 'objectives' to provide a framework for future direction and guide implementation.

The Urban Forest Strategy draws upon the existing landscape character to define landscape precincts, which comprise land use, environmental and social values. By strengthening this landscape character there is opportunity to provide future generations with a resilient, healthy and diverse urban forest canopy.

Trees can coexist with increased urban density with poor urban forest outcomes experienced in contemporary urban development through poor early planning / design and not allowing adequate area within early open space, private lot and streetscape planning.

The City of Armadale Urban Forest Strategy recognises that this is not a fire management plan, however the strategy understands the urban forest is a key component within such a plan.

The City of Armadale Urban Forest Strategy will continue to evolve to include implementation and management opportunities such as the following:

- Continue to educate and engage with local community / stakeholders / land owners regarding implementation and management of the urban forest;
- Increased community implementation, ownership and management of public street trees;
- Develop innovative techniques in shared responsibility models;
- Integrate the Urban Forest Strategy with local planning policy and approvals;
- Investigate urban forest implementation and management funding options;

- Integrate the Urban Forest Strategy with a local fire management plan;
- Crowd source information regarding development and management of the urban forest;
- Inclusion of resident groups (e.g. Roleybushcare); and
- Develop interactive on-line tree mapping system.

ATTACHMENTS
City of Armadale Urban Forest Strategy (Final) – circulated as a separate attachment and available on the City's website under Publications

T29/5/14 **RECOMMEND**

That Council adopt the City of Armadale Urban Forest Strategy (Final) as circulated under separate cover on 1 May 2014.

Moved Cr R Butterfield
MOTION CARRIED (6/0)

2.2 - MINNAWARRA PRECINCT 'BOTANICAL GARDEN' REQUEST

WARD	:	ALL
FILE No.	:	M/351/14
DATE	:	17 April 2014
REF	:	PL
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- The matter of investigating the creation of a 'Botanical Garden' in the vicinity of the intersection of Orchard Avenue and Armadale Road was referred at the City Strategy Meeting of 17 September 2013.
- It was recommended that Officers investigate and report back to Committee the matter of the provision of a 'Botanical Garden' within the CBD City of Armadale.
- Officers investigating the matter of provision of a Botanical Garden in the following report and attachments.

- **Recommend:**

That Council receive the report on the request for the establishment of a Botanical Garden and note the potential options for developing the Minnawarra Precinct.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

1. Community Wellbeing.
   - 1.3 Access to a wide range of cultural, arts, and learning opportunities.
     - 1.3.3 Collect, preserve, interpret, and exhibit the moveable and record heritage of the district.
     - 1.3.4 Promote and support initiatives that enable the community to enjoy a variety of cultural experiences.
2. Enhanced Natural and Built Environments.
   - 2.4 Attractive and user friendly streetscapes and open space.
     - 2.4.1 Implement townscape, streetscape, and parkland improvements, to enhance the distinctive character of the City.
     - 2.4.2 Maintain and improve where required, the quality, amenity and accessibility of open spaces.

Legislation Implications

General assessment of relevant legislation (eg Local Government Act) has not revealed any restrictions.

Council Policy/Local Law Implications

General assessment has not revealed any applicable Policies/Local Laws.

Budget/Financial Implications

The adoption of the recommendation contained in this report has no direct financial implication.

Consultation

- Technical Services Directorate.

BACKGROUND

Council requested Officers investigate the creation of a 'Botanical Garden' in the vicinity of the intersection of Orchard Avenue and Armadale Road as Amendment to Recommendation CS93/9/13 - Landmark Building - Site Issues, in which a copse of trees behind the old library were removed to make way for the Landmark Building. This report has investigated precedent case studies of Botanical Gardens and the potential to incorporate a Botanical Garden in the vicinity of Orchard Avenue and Armadale Road.

What is a Botanical Garden?

A Botanic Garden is a garden dedicated to the collection, cultivation and exhibition of a wide range of plants labeled with their botanical names. The gardens usually feature plants from a particular part of the world and are linked by walkways with interpretative signage. The gardens are often grown in association with greenhouses, herbariums and laboratories.

Botanical Garden Case Studies

This report outlines examples of Botanical Gardens, the aim has been to understand what has been considered in the development of the gardens, principles applied and the extent of works involved to achieve a satisfactory outcome.

The following case studies have been selected to provide an example for Public Open Spaces (POS) which have elements or character of a Botanical Garden:

- The Australian Gardens, RBG Cranbourne, Vic.
- Singapore Botanical Gardens, Cluny Road, Singapore.
- Adelaide Botanic Gardens, Adelaide, SA.
- Town of Claremont (Claremont Meanders) Trail, Claremont WA.
- Champion Lakes Aboriginal Interpretive Centre, Champion Lakes WA.

Through the review of case studies and desktop research, it has been determined that the following elements would need to be considered to create a Botanical Garden:

- Themed garden spaces with a diversity of plant species;
- Walk trails with scientific and educational information signage;
- Source of supplementary planting such as a greenhouses or herbarium; and
- Educational services.

COMMENT

The request for a Botanical Garden has come from the desire to replicate the copse of trees removed to make way for the installation of the Landmark Building. Research by Officers cannot find any reference to a Botanical Garden in this vicinity.

Additionally, the majority of the verge at the intersection of Orchard Avenue and Armadale Road is zoned as a Primary Regional Road, with the extensive verge set aside for future road expansion. Locating a Botanical Garden within this area would not be possible due to its zoning.

However, there is an option to consider the design of the existing Minnawarra Precinct Gardens and revitalise the gardens by enhancing the garden beds through installing additional planting, additional trees, considering the park as a walk loop and incorporating interpretive signage reflecting the botanical and cultural history of the Minnawarra Precinct. The attached drawing outlines potential ideas for the 'greening' of the Minnawarra Precinct featuring historical and endemic species and including botanical and cultural interpretation.

CONCLUSION

Establishment of a Botanical Garden is not possible in the proposed location at the corner of Armadale Road and Orchard Avenue. It is recommended however, that Council note the report on future options for developing the Minnawarra Precinct.

In order to progress this matter further, the City's Landscape Architect would be required to undertake a detailed design and costing for future budget consideration.

ATTACHMENTS

1. Botanic Garden Case Studies. *(Attachment 2.2.1)*
2. Minnawarra Precinct Revitalisation - Botanical Themed Walk Trail Plan. *(Attachment 2.2.2)*

RECOMMEND

That Council receive the report on the request for the establishment of a Botanical Garden.

Committee Discussion

Following discussion, Committee agreed to amend the recommendation to include noting potential options for the development of the Minnawarra Precinct.

T30/5/14 **RECOMMEND**

That Council receive the report on the request for the establishment of a Botanical Garden and note the potential options for developing the Minnawarra Precinct.

Moved Cr R Butterfield
MOTION CARRIED (6/0)

3.1 - TENDER NO. 3/14 - SUPPLY OF HIRED PLANT - WET HIRE OF EXCAVATORS

WARD	:	ALL
FILE No.	:	M/296/14
DATE	:	10 April 2014
REF	:	JK
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- Tender No. 3/14 was recently called for the Supply of Hired Plant - Wet Hire of Excavators for Civil Works projects within the City of Armadale.
- The Request for Tender seeks the provision of the required services for a period of twelve (12) months, with an option to extend for a further two (2) periods of twelve (12) months.
- **Recommend:**

That Council:

1. Accepts the tender from Aussie Earthworks for an initial period of twelve (12) months commencing from 1 May 2014, at an estimated annual cost of approximately $204,000 including GST, in accordance with their submitted tender, Council contract documentation and budget allocation.
2. Authorise the Chief Executive Officer to extend the contract for two (2) periods of twelve (12) months up to 30 April 2017, subject to satisfactory performance by the contractors, and price adjustments as specified in the Request for Tender document Clause 4.1.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhance Natural and Built Environments.
   - 2.5 Safe and efficient movement of goods, services and people.
     - 2.5.1 Provide a safe and efficient movement network, including local and arterial roads and associated infrastructure.

Legislation Implications

Assessment of legislation indicates that the following apply:

- Local Government Act 1995 - Section 3.57– Tenders for providing goods or services.
- Local Government (Functions and General) Regulations 1996 - Division 2– Tenders for providing goods or services.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following is applicable:

- Council Policy ADM 19 – Procurement of Goods or Services.

Budget/Financial Implications

Works will be accommodated within the 2014/2015 Civil Works Budget.

Consultation

- Inter-Directorate.

BACKGROUND

Tender No. 3/14 for the Supply of Hired Plant - Wet Hire of Excavators was advertised in the Saturday, 15 February 2014 edition of 'The West Australian' newspaper, and in a notice which was displayed on the Administration Centre, Armadale, Kelmscott and Seville Grove Libraries public notice boards.

The tender calls for the wet hire (i.e. machine with operator) of various types of excavators, which are used extensively in various roles within civil works operations.

DETAILS OF PROPOSAL

For the purpose of the tender, the City requires the hire services of the following types of excavators, with qualified operators:

- Track type excavators between 3T and 22T.
- Rubber tyre type excavators between 14T and 16T licensed for road use.
- Rock breaker attachment (occasionally required).

Following assessment of the lodged tenders for this service, Council approval is sought to award the tender to Aussie Earthworks for a period of twelve (12) months, from 1 May 2014 to 30 April 2015, with an option to be extended for a further two (2) periods of twelve (12) months.

DETAILS OF NEW CONTRACT

Contract Type	Schedule of Rates
Initial Contract Duration	12 Months
Commencement Date	1 May 2014
Expiry Date	30 April 2015
Extension Permitted	Yes - As per Request for Tender Clause 4.1 Two (2) x 12 Month Extensions
Initial Contract Cost (12 months)	$204,000 (Approximately)
Total Contract Cost (36 months)	$612,000 (Approximately)
Rise and Fall Clause Included	Fixed for the first term

COMMENT

Analysis

Tender No. 3/14 for the Supply of Hired Plant - Wet Hire of Excavators, closed at 2:00pm on Tuesday, 4 March 2014.

	Tenderer's OR Respondent's Name
1.	GSS Hire
2.	Brooks Hire
3.	Aussie Earthworks
4.	HAS Group
5.	Mayday Earthmoving
6.	Ultimate Drainage

No tenders were received after the close of deadline and no non-conforming tenders were received.

An evaluation process was undertaken having specific regard to the following qualitative criteria:

- 60% - Price.
- 10% - Relevant Experience.
- 10% - Key Personnel Skills and Experience.
- 10% - Tenderer's Resources.
- 10% - Demonstrated Understanding.

The ranking of the compliant tender submissions as determined by the evaluation panel is as follows:

Tenderer	Relevant Experience	Key Personnel	Tenderers Resources	Demonstrated Understanding	Sub Total	Tendered Price	Overall Total	Ranking
	10%	**10%**	**10%**	**10%**	**40**	**60%**	**100**	
GSS Hire	5.00	5.00	6.00	5.50	21.50	42.78	64.28	5
Brooks Hire	7.00	5.00	8.00	5.50	25.50	45.45	70.95	3
Aussie Earthworks	7.00	6.00	6.00	6.50	25.50	60.00	85.50	1
HAS Group	8.00	7.50	6.00	7.50	29.00	37.62	66.62	4
Mayday Earthmoving	4.50	4.00	4.00	4.00	16.50	41.96	58.46	6
Ultimate Drainage	7.00	5.50	5.50	6.50	24.50	50.85	75.35	2

Each company's past record of achievements, experience, personnel, resources and understanding of the Request for Tender have been closely examined and assessed based on the selection criteria.

Based on the panel's evaluation, using a combination of the above qualitative criteria and price, the submission from Aussie Earthworks represents the most advantageous submission.

Aussie Earthworks have provided excellent wet hire plant support services to the City of Armadale, supporting the construction and maintenance operations areas, for the past 3 years and combined with this submission, it is recommended that this firm be selected as the City's preferred supplier for the Supply of Hired Plant - Wet Hire of Excavators.

CONCLUSION

Tender No. 3/14 for the Supply of Hired Plant - Wet Hire of Excavators was recently invited with Six (6) conforming tenders being received and assessed by an evaluation panel against compliance and qualitative criteria.

The result was that the submission received from Aussie Earthworks is the most advantageous tender to the City of Armadale and is recommended to be accepted for the Supply of Hired Plant - Wet Hire of Excavators.

The evaluation panel therefore recommends that the contract be awarded to Aussie Earthworks at an estimated cost of $204,000 including GST, for an initial period of twelve (12) months, with an option to extend for a further two (2) periods of twelve (12) months.

ATTACHMENTS
There are no attachments for this report.

T31/5/14 **RECOMMEND**

That Council:

1. **Accepts the tender from Aussie Earthworks for an initial period of twelve (12) months commencing from 1 May 2014, at an estimated cost of approximately $204,000 including GST, in accordance with their submitted tender, Council contract documentation and budget allocation.**
2. **Authorise the Chief Executive Officer to extend the contract for two (2) periods of twelve (12) months up to 30 April 2017, subject to satisfactory performance by the contractors, and price adjustments as specified in the Request for Tender document Clause 4.1.**

Moved Cr R Butterfield
MOTION CARRIED (6/0)

3.2 - TENDER NO. 7/14 - SUPPLY OF HIRED PLANT - WET HIRE OF WATER TRUCK

WARD	:	ALL
FILE No.	:	M/305/14
DATE	:	14 April 2014
REF	:	JK
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- Tender No. 7/14 was recently called for the Supply of Hired Plant - Wet Hire of Water Truck for Civil Works projects within the City of Armadale.
- The Request for Tender seeks the provision of the required services for a period of twelve (12) months, with an option to extend for a further two (2) periods of twelve (12) months.
- **Recommend:**

That Council:

1. Accepts the tender from Aussie Earthworks for an initial period of twelve (12) months commencing from 1 May 2014, at an estimated annual cost of approximately $180,000 including GST, in accordance with their submitted tender, Council contract documentation, and budget allocation.
2. Authorise the Chief Executive Officer to extend the contract for two (2) periods of twelve (12) months up to 30 April 2017, subject to satisfactory performance by the contractors, and price adjustments as specified in the Request for Tender document Clause 4.1.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhance Natural and Built Environments.
   - 2.5 Safe and efficient movement of goods, services and people.
     - 2.5.1 Provide a safe and efficient movement network, including local and arterial roads and associated infrastructure.

Legislation Implications

Assessment of legislation indicates that the following apply:

- Local Government Act 1995 - Section 3.57– Tenders for providing goods or services.
- Local Government (Functions and General) Regulations 1996 - Division 2– Tenders for providing goods or services.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following is applicable:

- Council Policy ADM 19 – Procurement of Goods or Services.

Budget/Financial Implications

Works can be accommodated within the 2014/2015 Civil Works Budget.

Consultation

- Intra-Directorate.

BACKGROUND

Tender No. 7/13 being for Supply of Hired Plant: Wet Hire Water Truck was advertised in the Saturday, 1 March 2014 edition of 'The West Australian' newspaper, and in a notice which was displayed on the Administration Centre, Armadale, Kelmscott and Seville Grove Libraries public notice boards.

The tender calls for the wet hiring (includes provision of a driver) of Water Trucks, which are to be used in various roles within Civil Works operations, primarily road construction.

DETAILS OF PROPOSAL

For the purpose of the tender, the City requires the hire services of the following equipment with qualified operators. The capacity of the water trucks required for this tender are as follows:

- Up to 9000L capacity or equivalent.
- Up to 11000L capacity or equivalent.
- Up to 13000L capacity or equivalent.

The Tenderer will be required to supply their own Water Corporation compliant hydrant and hoses. The services will be required for construction and maintenance projects within the City's boundary, according to annual construction and maintenance programmes.

Council approval is sought to award the tender for a period of twelve (12) months, from 1 May 2014 to 30 April 2015, with an option to be extended for further two (2) periods of twelve (12) months.

DETAILS OF NEW CONTRACT

Contract Type	Schedule of Rates
Initial Contract Duration	12 Months
Commencement Date	1 May 2014
Expiry Date	30 April 2015
Extension Permitted	Yes - As per Request for Tender Clause 4.1 Two (2) x 12 Month Extensions
Initial Contract Cost (12 months)	$180,000 (Approximately)
Total Contract Cost (36 months)	$540,000 (Approximately)
Rise and Fall Clause Included	Fixed For The First term

COMMENT

Analysis

Tender No. 7/14 for the Supply of Hired Plant - Wet Hire of Water Trucks, closed at 2:00pm on Tuesday, 18 March 2014.

Tenderer's OR Respondent's Name	
1.	Mayday Earth Moving
2.	Aussie Earthworks
3.	HAS Group
4.	Aqua Trucks
5.	All Earth Group

No tenders were received after the close of deadline nor were there any non-conforming tenders.

An evaluation process was undertaken having specific regard to the following Qualitative Criteria:

- 60% - Price.
- 10% - Relevant Experience.
- 10% - Key personnel skills and experience.
- 10% - Tenderer's Resources.
- 10% - Demonstrated Understanding.

Each company's past record of achievements, experience, personnel, resources, and understanding of the Request for Tender have been closely examined and assessed based on the selection criteria.

The ranking of the compliant tender submissions as determined by the evaluation panel is as follows:

Tenderer	Relevant Experience	Key Personnel	Tenderers Resources	Demonstrated Understanding	Sub Total	Tendered Price	Overall Total	Ranking
	10%	10%	10%	10%	40	60%	100	
Mayday Earth Moving	3.00	2.33	2.33	2.33	9.99	34.29	44.28	5
Aussie Earthworks	4.33	4.33	4.00	4.33	16.99	60.00	76.99	1
HAS Group	5.00	5.00	4.00	4.33	18.33	53.33	71.66	2
Aqua Trucks	4.00	3.33	3.00	3.67	14.00	56.47	70.47	3
All Earth Group	4.33	5.00	3.67	3.33	16.33	42.24	58.57	4

Based on the panel's evaluation, using a combination of the above qualitative criteria and price, the submission from Aussie Earthworks represents the most advantageous submission. It is therefore recommended this firm be selected as the City's preferred supplier for the Supply of Hired Plant - Wet Hire of Water Truck.

Aussie Earthworks has provided various wet hired plant support to the City of Armadale for the past 3 years and combined with this submission, it is recommended that this firm be selected as the City's preferred supplier for this service.

CONCLUSION

Tender No. 7/14 for the Supply of Hired Plant - Wet Hire of Water Truck was recently invited with five (5) conforming tenders being received and assessed by an evaluation panel against compliance and qualitative criteria.

The result was that the submission received from Aussie Earthworks is the most advantageous tender to the City of Armadale.

The evaluation panel therefore recommends that the contract be awarded to Aussie Earthworks at an estimated cost of $180,000 including GST, for an initial period of twelve (12) months, with an option to extend for a further two (2) periods of twelve (12) months.

ATTACHMENTS
There are no attachments for this report.

T32/5/14 **RECOMMEND**

That Council:

1. **Accepts the tender from Aussie Earthworks for an initial period of 12 months commencing from 1 May 2014, at an estimated cost of approximately $180,000 including GST, in accordance with their submitted tenders, Council contract documentation and budget allocation.**
2. **Authorise the Chief Executive Officer to extend the contract for two (2) periods of 12 months up to 30 April 2017, subject to satisfactory performance by the contractors, and price adjustments as specified in the Request for Tender document Clause 4.1.**

Moved Cr R Butterfield
MOTION CARRIED (6/0)

3.3 - TENDER NO. 6/14 - PROVISION OF LANDSCAPING AND IRRIGATION WORKS TO NICHOLSON ROAD STAGE 2-3

WARD	:	ALL
FILE No.	:	M/298/14
DATE	:	10 April 2014
REF	:	PL
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- Tender No. 6/14 for the Provision of Landscaping and Irrigation Works to Nicholson Road Stage 2-3.
- The request for tender seeks the provision of landscaping and irrigation construction services for the installation of landscaping to Nicholson Road.
- **Recommend:**

That Council accepts the tender from Landscaping WA Pty Ltd for a lump sum amount of $468,878.16 including GST, in accordance with the submitted tender and contract documentation.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhanced Natural and Built Environments.
   - 2.4 Attractive and user friendly streetscapes and open space.
     - 2.4.1 Implement townscape, streetscape, and parkland improvements, to enhance the distinctive character of the City.
     - 2.4.2 Maintain and improve where required, the quality, amenity and accessibility of open spaces.

Legislation Implications

Assessment of legislation indicates that the following apply:

- Local Government Act 1995 - Section 3.57– Tenders for providing goods or services.
- Local Government (Functions and General) Regulations 1996 - Division 2– Tenders for providing goods or services.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following is applicable:

- Council Policy ADM 19 – Procurement of Goods or Services.

Budget/Financial Implications

Works are funded by the Developer Contribution Scheme. The tendered component of the project cost of $468,878.16 including GST is within the pre-approval budget allocated by the Developer Contribution Scheme.

Consultation

- Intra-Directorate.

BACKGROUND

In 2013, the City's Landscape Architect prepared plans for the landscaping of the Nicholson Road median island, from Wright Road to Piara Drive, as part of the Nicholson Road Development, funded by the Developer Contribution Scheme. The landscape concept aims to provide a high level landscape treatment with a hierarchy of planting mixes. The landscape design will:

- Utilise endemic species suited to the harsh road environment.
- Feature a high density mix with irrigation to ensure successful long term establishment.
- Provide a two phase planting program to ensure successful long term establishment.
- Source water for irrigation by connecting to existing systems either under City of Armadale (CoA) control or to be under CoA control in the future.

DETAILS OF PROPOSAL

Tender No. 6/14 for the Provision of Landscaping and Irrigation Works to Nicholson Road Stage 2-3 was advertised in the Saturday, 1 March 2014 edition of 'The West Australian' newspaper, the City's website and in a notice which was displayed on the Administration Centre, Armadale, Kelmscott and Seville Grove Libraries public notice boards.

The works comprise the installation of approximately 9700m^2 of soft landscaping and irrigation within the Nicholson Road Landscape project, due to commence in July 2014.

The works include the provision of all materials, labour, traffic management, equipment and cartage as indicated on Nicholson Road Stage 2-3 Landscape Drawings and as necessary for the due and proper completion of the works, comprising of but not limited to the following:

- Site establishment, storing of materials, mobilisation and coordination of works;
- Site preparation, weed control, minor earthworks, unwanted waste removal including soil, final grading and soil cultivation;
- Preparation of soil including the installation of soil conditioner and wetting agent;
- Planting and staking of trees as specified;
- Planting and mulching of shrubs as specified;

- Planting of supplementary tubestock in April-June 2015;
- Design, supply, installation and coordination of an automatic irrigation system in accordance with the City of Armadale Standard Specification for Irrigation System Design and Installation;
- Removal of all waste generated by the execution of the contract and making good any damage or defect to existing infrastructure or landscaping;
- As constructed drawings in O-Spec; and
- Complete after care, maintenance and weed control up to and including a 13 week Consolidation Period.

Council approval is sought to award the Tender for the Provision of Landscaping and Irrigation Works for Nicholson Road Stage 2-3 for the period of 25 weeks from July 2014 to approximately December 2014.

Contract Type	Lump Sum
Contract Duration	25 weeks
Commencement Date	July 2014
End Date	December 2014
Extension Permitted	Not applicable
Total Contract Cost	$468,878.16 incl GST
Rise And Fall Clause Included	Not applicable

COMMENT

Analysis / Evaluation

The Request for Tender seeks the provision of the required services of an appropriately qualified landscape construction company to supply and construct landscape gardens and irrigation system for a period of twelve (12) weeks, commencing on 1 July 2014, with a maintenance period of an additional thirteen (13) weeks.

Tender No. 6/14 for the Provision of Landscaping and Irrigation Works to Nicholson Road Stage 2-3 closed at 2pm on Tuesday 25 March 2014, with five submissions received from the following:

	Tenderer's OR Respondent's Name
1.	BOS Civil
2.	Environmental Industries
3.	Landscaping WA Pty Ltd
4.	BCL Group Pty Ltd
5.	Frogmat

No tenders were received after the close of deadline.

All tenders were conforming however, clarification was sought on the following points in order to complete the evaluation:

- Confirmation that the lump sum was being priced in accordance with the Specification and Drawings and provide confirmation of the final lump sum amount.
- Confirm that the submitted tender sum included all horizontal boring required to install the irrigation system.

Environmental Industries had included a list of clarifications to apply to their submission and within that it was stated that they had not allowed for horizontal boring in their pricing but did provide lineal metre rates. In line with these rates they confirmed their final price.

BOS Civil confirmed their irrigation price was incorrect due to a typing error and confirmed their final lump sum.

An evaluation process was undertaken having specific regard to the following Qualitative Criteria:

- 20% Relevant Experience.
- 10% Key Personnel Skills and Experience.
- 10% Tenderer's Resources.
- 10% Demonstrate Understanding.
- 50% Tendered Price.

The ranking of the compliant tender submissions, as determined by the evaluation panel, is as follows:

Tenderer	Relevant Experience	Key Personnel	Tenderers Resources	Demonstrated Understanding	Sub Total	Tendered Price	Overall Total	Ranking
	20%	**10%**	**10%**	**10%**	**50**	**50%**	**100**	
BOS Civil	7.34	5.00	5.00	4.50	21.84	41.72	63.56	5
Environmental Industries	14.00	6.50	6.67	3.00	30.17	46.98	77.15	2
Landscaping WA Pty Ltd	12.00	6.00	5.67	6.33	30.00	49.10	79.10	1
BCL Group Pty Ltd	9.34	5.17	4.33	4.67	23.51	50.00	73.51	3
Frogmat	10.00	4.67	3.67	4.67	23.01	47.46	70.47	4

Based on the evaluation panel's assessment of submitted tenders in accordance with the tender conditions, qualitative criteria, specifications and price schedule, the submission from Landscaping WA was considered to be the most advantageous submission to the City.

In consideration of each the submitted tenders performance against the evaluation criteria, the City's Parks Department can confirm support for the appointment of Landscaping WA as the preferred tenderer on the basis of relevant experience, resources, understanding and price.

CONCLUSION

Tenders for the Provision of Landscaping and Irrigation works to Nicholson Road Stage 2-3 were recently invited, with five (5) tenders being received and assessed by an evaluation panel against compliance and qualitative criteria.

The result was that the submission received from Landscaping WA Pty Ltd represented the most advantageous tender to the City of Armadale.

The evaluation panel therefore recommends that the contract be awarded to Landscaping WA Pty Ltd at a price of $468,878.16 including GST, for a period of twelve (12) weeks with a maintenance period at thirteen (13) weeks.

ATTACHMENTS

There are no attachments for this report.

T33/5/14 **RECOMMEND**

That Council accepts the tender from Landscaping WA Pty Ltd for a lump sum amount of $468,878.16 including GST, in accordance with the submitted tender and contract documentation.

Moved Cr K Busby
MOTION CARRIED (6/0)

***3.4 - TENDER NO. 4/14 - SUPPLY AND INSTALLATION OF SITE ELECTRICAL SERVICES TO THE HOPKINSON ROAD LANDFILL FACILITY HILBERT

WARD : ALL

FILE No. : M/363/14

DATE : 23 April 2014

REF : RS

RESPONSIBLE MANAGER : Executive Director Technical Services

In Brief:

- The landfill upgrade approved by Council necessitated the upgrade of the power supply to the landfill because the present system could not supply sufficient power to support all necessary activities.
- Tender No. 4/14 was called to install the electrical services required.
- **Recommend:**

That Council:

1. Accepts the tender from Interlec WA Pty Ltd for the amount of $699,247.31 inclusive of GST, a contingency provision of $95,000, in accordance with their submitted tender.
2. Pursuant to section 6.8 of the Local Government Act 1995, authorise the necessary expenditure to complete the electrical upgrade works at the landfill site.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhanced Natural and Built Environments.
   - 2.10 Best practice integrated waste management.
     - 2.10.1 Maintain determined service standards related to municipal waste and recycling collection services.
     - 2.10.2 Implement continuous improvement of recycling, reuse and minimisation of waste.

Legislation Implications

Assessment of legislation indicates that the following are applicable:

- Local Government Act 1995 - Section 3.57 – Tenders for providing goods or services.
- Local Government (Functions and General) Regulations 1996 - Division 2 – Tenders for providing goods or services.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following is applicable:

- Council Policy ADM 19 – Procurement of Goods or Services.

Budget/Financial Implications

Budget allocation of $452,000, Total of $903,907 required**,** $478,907 to be reallocated from the Waste Reserve.

Consultation

- Executive Director Corporate Services.
- Manager Governance and Administration.

BACKGROUND

At its meeting of 23 January 2012, Council resolved the following:

T6/1/12

1. *That Council adopt the proposals detailed in the Site Optimisation Plan prepared for the future planning of the Landfill and Recycling Facility located at Hopkinson Road,*
2. *That the financial implications related to this adoption be formalised and included in the deliberation of the 15 Year Plan.*

To implement the Site Optimisation Plan (the PLAN) the power supply needs to be upgraded. There are several criteria to be considered:

1. Western Power required that the line into the Landfill be upgraded at Council cost.
2. The power supply to the facility is inadequate for the operations currently on site, (to operate certain pieces of equipment, others were required to be switched off) and there is insufficient power to operate proposed new facilities.
3. The uncertainty of the role the Armadale Landfill Site will play in the context of the Rivers Regional Council and the proposed Regional Waste Processing Facility(s).

A preliminary electrical design was subsequently prepared for the needs of all possible future operations. It was initially proposed to upgrade the Western Power external supply, splicing into the existing internal electrical infrastructure and install new cabling as the various projects come on line. A budget of $452,000 was allocated for this work.

A final design was prepared dividing the projects into short and long term with the following considerations:

1. The long term projects such as Construction and Demolition (C&D) waste processing, organic waste processing, municipal waste (MSW) compaction equipment (for more efficient transport), and a materials recovery facility (MRF) were the large users of electrical power and have a 50-50 chance of being constructed.
2. Western Power requires a bank guarantee, cash or lodged payment, for the infrastructure that they install. This guarantee ensures that the costs can be recovered by adequate utilisation in this cost. If the infrastructure is adequately utilised, the Western Power project charges of $173,228, will be reduced to $43,228 by way of a $130,000 cash refund. If inadequately utilised the total cost will be borne by Council.
3. Western Power's infrastructure capacity is built up in 650 amp units. One unit is required for the short term projects and possibly one for the long term projects. Another unit would be required if and when the other long term projects came on line.

Considering the financial implications the following was decided:

1. To only have Western Power install infrastructure for one unit of power but make provision for a second unit if needed in the future. This would half the initial cost and reduce the exposure of Council to paying the full cost of Western Power's installation if the demand for power for the long term projects could not be met.
2. There are considerable savings to be made laying cables in a common trench. It would be an advantage to upgrade the cabling to the existing infrastructure in association with the proposed short term projects.
3. In consultation with the Executive Manager Corporate Services it was determined that the surety required by Western Power should be by way of a cash payment and not as a bank guarantee.

A tender was prepared to provide and install the following:

- The ducting and foundation for the Western Power infrastructure;
- Distribution switchboards;
- Cabling and connection to existing switch boards; and
- Cabling and ducting for proposed projects.

It was estimated that the original budget of $452,000, in addition to $100,000 from the Waste reserve allocation, would cover the cost of the revised project.

Tender No. 4/14 for Supply and Installation of Site Electrical Services to the Hopkinson Road Landfill Facility Hilbert was therefore advertised in the Saturday, 1 March 2014 edition of 'The West Australian' newspaper, and in a notice which was displayed on the Administration Centre, Armadale, Kelmscott and Seville Grove Libraries public notice boards.

The successful tenderer will be required to install electrical cabling, ducting, switchboards and switch gear at the landfill site to enable the infrastructure approved in the Site Optimisation Plan to be constructed.

COMMENT

Analysis

Tender No. 4/14 closed at 2pm on 25 March 2014. Tenders were received from the following:

	Tenderer's OR Respondent's Name
1.	Interlec WA Pty Ltd
2.	Future Power WA Pty Ltd
3.	Cablelogic Pty Ltd

No tenders were received after the close of deadline and no non-conforming tenders were received.

An evaluation process was undertaken having specific regard to the following qualitative criteria:

- 15% - Relevant Experience.
- 15% - Key Personnel Skills & Experience.
- 10% - Tenderer's Resources.
- 10% - Demonstrated Understanding.
- 50% - Tendered Price.

The ranking of the compliant tender submissions, as determined by the evaluation panel, is as follows:

Tenderer	Relevant Experience	Key Personnel	Tenderers Resources	Demonstrated Understanding	Sub Total	Tendered Price	Overall Total	Ranking
	15%	15%	10%	10%	50%	50%	100	
Cable Logic	8.75	9.50	4.67	5.33	28.25	42.39	70.64	3
Future Power	10.50	8.00	6.33	4.67	29.50	49.28	78.78	2
Interlec	9.50	9.00	6.00	4.33	28.83	50.00	78.83	1

Based on the panel's evaluation of the qualitative criteria, the two highest scores are close enough to be assessed as equal. The three contractors are all capable of carrying out the work and have a history of similar projects completed satisfactorily. Price then becomes the deciding criteria. Interlec who also received number one ranking, provided the lowest price of $635,679.37 plus GST and is therefore considered the most advantageous tender for the City.

Funding

There is a funding shortfall of up to $451,907 over the $452,000 allowed for in the 2013-14 Budget. Funds are available from the Waste Reserve to cover the additional funding required. This shortfall will be reduced by $130,000 with the return of the surety from Western Power with development of the site.

The tendered prices for the electrical infrastructure are approximately $150,000 over the revised estimate and $240,000 over the funding allocated in the budget. This is due to the additional work requested and the Contractors' perceived difficulty working at the landfill.

The funding required is as follows:

Tender Price	$635,679
Western Power Surety	$173,228
Contingency	$75,000
Supervision Fees	$20,000
	$903,907
Less funding allocated	$452,000
Balance required from Waste Reserve	$451,907

CONCLUSION

Tenders for the Supply and Installation of Site Electrical Services to the Hopkinson Road Landfill Facility Hilbert were recently invited with three conforming tenders being received and assessed by an evaluation panel against compliance and qualitative criteria.

The result was that the submission received from Interlec WA Pty Ltd represented the most advantageous tender to the City of Armadale.

The evaluation panel therefore recommends that the contract be awarded to Interlec WA Pty Ltd at a price of $635,679.37 plus GST for the work specified.

The budget shortfall of $451,907 to cover the installation of the electrical services at the landfill can be allocated from the Waste Reserve.

ATTACHMENTS
There are no attachments for this report.

T34/5/14 **RECOMMEND**

That Council:

1. Accepts the tender from Interlec WA Pty Ltd for the amount of $699,247.31 inclusive of GST, plus a contingency provision of $95,000, in accordance with their submitted tender, Council contract documentation and budget allocation.

2. Pursuant to section 6.8 of the Local Government Act 1995,
(i) authorise* the following expenditure :-

- **Electrical Upgrade Works at Landfill site - $903,800**

and

(ii) amend the 2014 Annual Budget as follows:-

- **Increase the Transfer from Waste Management Reserve revenue account budget by $451,907**

and

- **Increase Electrical Upgrade Landfill Site capital expenditure account budget by $451,907**

thereby providing sufficient funds to complete the Electrical Upgrade Works at the Landfill site.

***ABSOLUTE MAJORITY RESOLUTION REQUIRED**

Moved Cr M S Northcott
MOTION CARRIED (6/0)

Item 3.5 – Tender No 5/14 – Nicholson Road Water Main Relocation

The Chairman determined that due to public gallery attendance, and the earlier provision of confidential information to Elected Members in relation to this item of business, that the report would be considered behind closed doors at the end of the meeting.

4.1 - LANDMARK BUILDING PROGRESS REPORT

WARD	:	MINNAWARRA
FILE No.	:	M/197/14
DATE	:	27 March 2014
REF	:	AB
RESPONSIBLE MANAGER	:	Executive Director Technical Services

In Brief:

- The tender for the Landmark Building was approved by Council on 26 August 2013.
- A project update was provided to the November 2013 Technical Services Committee.
- **Recommend:**

That Council note the Progress Report for the Landmark Building as at the end of March 2014.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

The provision of a Landmark Building in the strategic regional centre which meets the City's accommodation needs and a demand for government accommodation (while fulfilling a commercial business caste), represents strong leadership by the City and meets the following objectives:

2. Enhanced Natural and Built Environments.
   - 2.2 A revitalised City of Armadale.
     - 2.2.2 Plan and implement projects to revitalise the Armadale City Centre.
   - 2.3 Diverse and attractive development that is integrated with the distinctive character of the City.
     - 2.3.2 Ensure preservation and maintenance of heritage buildings, heritage items, and places.
   - 2.4 Attractive and user friendly streetscapes and open space.
     - 2.4.1 Implement townscape, streetscape, and parkland improvements, to enhance the distinctive character of the City.
   - 2.7 Assets and infrastructure managed over the long term to meet current and future needs.
     - 2.7.3 Maintain effective liaison with other levels of government and regional bodies to ensure coordinated provision of regional infrastructure.

4. Good Governance and Management.
   4.6 Financial sustainability and accountability for performance.
      4.6.2 Actively pursue alternative sources of revenue for Council's assets and operation.

Legislation Implications

Assessment of legislation indicates that the following apply:

- Local Government Act 199.- Section 3.59 – Commercial enterprises by local governments – business plans for major land transactions.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following are applicable:

- Council Policy ADM2 – Property Lease Rentals.
- Council Policy FIN4 – Investments.

Budget/Financial Implications

Any expenditure associated with the contents of this report can be accommodated within the approved budget relating to the Landmark Building.

Consultation

- Contractor and Consultant Team.
- Inter-Directorate.
- Intra-Directorate.

BACKGROUND

The tender for the Landmark Building was approved by Council on 26 August 2013. As from this date, there has been a series of meetings and communications towards the implementation of the project.

A report to the September 2013 City Strategy Committee provided an update on preliminary works and site issues thus far (CS93/9/13). A further report to the October 2013 City Strategy Committee recommended that Council approve the signing of a Lease Agreement with the Department of Finance, Building Management & Works (CS100/10/13).

A further project update was provided to the November 2013 Technical Services Committee (T82/11/13).

DETAILS OF PROPOSAL

This report provides a progress update on the Landmark Building, with the following main activities during this period:

- Building license for full structural works approved on 31st January.
- 100% design completed on 4th February.
- Tower crane installed on 5th February.
- Lift core completed on 5th March.
- Ground floor slab completed on 9th March.
- Basement car park slab completed on 31st March.
- Basement perimeter walls completed on 31st March.
- First floor slab completed on 5th April.

Key construction milestones determined:

- Second floor slab complete 20th May.
- Commence external façade 24th May.
- Third floor slab complete 4th June.
- Roof complete 2nd July.
- Complete external façade 12th August.
- Practical completion 27th October.

COMMENT

Following a relatively slow start prior to Christmas 2013, Georgiou Building has rapidly escalated construction work. Initial delays were experienced due to a clash between the building footprint and a water main at the corner of Jull Street and Orchard Avenue (which was originally laid outside of the allotted easement). The realignment of the water main required the services of the Water Corporation. These works have now been carried out. In order to mitigate these delays, Georgiou Building adopted a revised method of formwork for the slab construction, where the formwork is integrated into the slab, reducing time involved in stripping formwork. The installation and commissioning of the tower crane greatly improved site efficiency, eliminating the need for multiple mobile cranes on an already constrained site.

Due to the number of concrete pours required, a number of full and partial road closures have occurred (and will continue), however disruptions to traffic have been kept to a minimum with concrete deliveries scheduled for very early mornings wherever possible, resulting in traffic conditions returning to normal by mid-morning in most instances.

Time lost to adverse weather conditions has primarily been caused due to high winds rather than temperature, with approximately 20 hours lost due to the crane being unable to operate due to windy conditions. The building program contains allowances for time lost due to inclement weather.

Fit-out design, both for the Department for Child Protection and Family Services (CPFS) and the City is progressing well, with final designs due for completion in May.

BUDGET (Rounded)

Tender Amount	$14,500,000
Contingencies Provision	$1,600,000
Works Outside of Contract Provision	$1,800,000
Fit-Out Provision	$1,600,000
TOTAL	**$19,500,000**
Expenditure-to-date	$3,116,604

CONCLUSION

The Landmark Building project is progressing well and on target, minor issues are being addressed in a timely manner and no significant delays or major expenditure variations are expected. The Contractor team continues to be cooperative and professional in their approach.

ATTACHMENTS

1. Progress Photos - Landmark Building Update. *(Attachment 4.1.1)*

Committee Discussion

The Acting Executive Director Technical Services provided the Committee with a brief overview of the Landmark Building progress to date.

T35/5/14 **RECOMMEND**

That Council note the Progress Report for the Landmark Building project as at the end of March 2014.

Moved Cr G A Best
MOTION CARRIED (6/0)

4.2 - MAINTENANCE OF CORNER VERGES

At the Technical Services Committee Meeting held on 7 April 2014, Cr Frost referred the following matter to the Technical Services Committee.

> *That the matter of maintenance of corner verges be referred to the Technical Services Committee.*

Comment from Cr Frost

Residents have complained about the neglect and deterioration of corner verges which is the cause of concern for potential fire hazards and obstruction to traffic. The lack of maintenance to verges is unsightly and some residents regard this as not being their problem.

Cr Frost has requested that Council develop a policy on the maintenance of verges.

Cr Frost's further comments on the issue of verge maintenance have been forwarded under separate cover.

ATTACHMENTS
There are no attachments for this report.

Committee Discussion

Cr Frost provided Committee with further information on the neglected verges in various areas within the City of Armadale. Discussion occurred which resulted in the request for further investigation by Officers, and Committee agreed on the following recommendation to Council:

T36/5/14 **RECOMMEND**

1. **That Officers provide a report on the matter to the July Technical Services Committee Meeting.**
2. **That Officers investigate the opportunities for minimising unmaintained verges by way of appropriate subdivision design.**

Moved Cr C Frost
MOTION CARRIED (6/0)

Cr Busby moved that the meeting be adjourned at 7.40pm.

Cr Butterfield moved that the meeting be reconvened at 8.22pm with all attendees present, with the exception of Manager Parks and Manager Waste.

3.5 - TENDER NO. 5/14 - NICHOLSON ROAD WATER MAIN RELOCATION

Item 3.5 was discussed behind closed doors due to the confidential nature of the report.
The Acting Executive Director Technical Services provided Elected Members with a revised copy of Report Item 3.5 – Tender No 5/14 – Nicholson Road Water Main Relocation, for consideration at this meeting. The revised report included extra information on the reasons for seeking approval for a contingency sum for the contract.

WARD : ALL

FILE No. : M/286/14

DATE : 9 April 2014

REF : CM

RESPONSIBLE MANAGER : Executive Director Technical Services

In Brief:

- Tender No. 5/14 was recently called for Nicholson Road Water Main Relocation Stage 1.

- **Recommend:**

That Council:
1. Accepts the tender from Firedam Civil for a cost of $453,930.03 excluding GST, in accordance with their submitted tender and Council contract documentation.
2. Approves extra expenditure of up to $150,000 excluding GST, if required to cover unforeseen items associated with the works, subject to approval by the Executive Director Technical Services.

Tabled Items

Nil.

Officer Interest Declaration

Nil.

Strategic Implications

2. Enhanced Natural and Built Environments.
   - 2.5 Safe movement of goods, services and people.
     - 2.5.1 Provide a safe and efficient movement network, including local and arterial roads, and associated infrastructure.
3. Economic Growth
   - 3.5 A well developed relationship with industry, commerce and government.
     - 3.5.2 Develop and maintain intergovernmental economic development relationships.

Legislation Implications

Assessment of legislation indicates that the following apply:

- Local Government Act 1995 (as amended) – Section 3.57 – Tenders for providing Goods and Services.
- Local Government (Functions and General) Regulations 1996 – Division 2 – Tenders for Providing Goods and Services.
- WSAA Water Supply Code of Australia (Water Services Association of Australia) WSA03-2002.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following is applicable:

- ADM19 - Procurement of Goods and Services.

Budget/Financial Implications

All works to be funded from the Development Contribution Scheme No. 3.

Consultation

- Intra-Directorate.
- Department of Justice.
- Water Corporation.
- Nominated Consultant.

BACKGROUND

Following a request from the Department of Justice, the City's ongoing upgrade of Nicholson Road is to include the provision of a replacement uninterrupted water supply pipeline to service Hakea Prison.

This realignment has been deemed necessary due to the current pipeline alignment being located directly beneath the upgraded Nicholson Road alignment, thus potentially making future repairs to this service difficult.

Nicholson Road Water Main Relocation Stage 1 involves the installation of this pipeline to run adjacent to Nicholson Road from Keane Road across Main Street to Piara Drive, within the roadside verge and central median strips. Stage 2 will continue further towards Armadale Road and is to be tendered at a later date when development in that section provides the necessary land for Nicholson Road widening.

There has been extensive consultation to develop the final detailed design, and to develop the Action Plan, with comment sought from the Department of Justice, Water Corporation, Nominated Consultant, as well as internally.

Tender No. 5/14 for Nicholson Road Water Main Relocation Stage 1 was therefore advertised on Saturday, 1 March 2014 in "The West Australian" Newspaper, on the City's website, and in a notice displayed on notice boards at the City's Administration Centre and in the Armadale, Kelmscott and Seville Grove Libraries.

DETAILS OF PROPOSAL

The successful tenderer will be required to carry out the works to meet the requirements in terms of the works program under the direction of the City's supervising and consulting Engineer.

ANALYSIS

The Tender closed at 2:00PM Thursday, 27 March 2014. Five (5) tender submissions were received from the following:

	Tenderer's OR Respondent's Name
1.	Georgiou
2.	Cobey
3.	Prestige Civil Contractors
4.	Firedam Civil Pty Ltd
5.	Underground Services

All of which were conforming tenders. There were no tenders presented after the deadline.

An evaluation process was undertaken having specific regard to the following Qualitative Criteria:

- 10% - Relevant Experience.
- 10% - Key Personnel Skills & Experience.
- 10% - Tenderer's Resources.
- 10% - Demonstrated Understanding.
- 60% - Tendered Price.

Pricing was assessed with the Qualitative Criteria as follows:

Tenderer	Relevant Experience	Key Personnel	Tenderers Resources	Demonstrated Understanding	Sub Total	Tendered Price	Overall Total	Ranking
	10%	**10%**	**10%**	**10%**	**40**	**60%**	**100**	
Georgiou	7.03	7.17	7.23	8.08	29.51	37.28	66.79	3
Cobey	7.53	6.33	6.00	3.00	22.86	27.45	50.31	4
Prestige Civil	5.50	5.58	6.10	6.33	23.51	24.18	47.69	5
Firedam Civil	6.33	6.23	5.57	6.50	24.63	60.00	84.63	1
Underground Services	7.17	6.83	7.00	7.17	28.17	43.37	71.54	2

Based on the panel's evaluation using a combination of the above qualitative criteria, price and positive feedback from reference checks, the tender submission from Firedam Civil represents the most advantageous submission for the City of Armadale.

OPTIONS

Following on from the evaluation panel's outcome, it is recommended that Council accepts the contract for Tender No. 5/14 - Nicholson Road Water Main Relocation Stage 1 to be awarded to Firedam Civil for their tendered price.

It is also recommended that Council approve extra expenditure of up to $150,000 excluding GST, if required to cover unforeseen items associated with the project. This is because there is a potential for unforeseen items, not specifically identified in the contact documents, to arise. This may relate to the contract works due to the fact that the works will be undertaken during winter traffic conditions or to extra works outside the contract. Such issues may include, but are not limited to:

- Relocation of services.
- Multiple mobilisation / demobilisations;
- Underground boring facilities;
- Sheet piling / vertical supports;
- Allowances for other works occurring in the vicinity at the same time;
- specialist equipment;
- Site dewatering; and
- Importing of ballast material for trench bedding in wet ground.

Approval and payment of any extra expenditure, which will apply regardless of to which tenderer the contract is awarded to, will only be made following the assessment and approval by the Executive Director Technical Services.

CONCLUSION

Tenders for Nicholson Road Water Main Relocation Stage 1 were recently invited with five tenders being received and assessed by an evaluation panel against compliance and qualitative criteria.

The result was that the submission from Firedam Civil represented the most advantageous tender to the City of Armadale.

The evaluation panel therefore recommends that the contract for Tender No. 5/14 be awarded to Firedam Civil for their tendered price of $453,930.03 excluding GST. It is also recommended that Council approves a further $150,000.00 extra expenditure if required for potential immeasurable items associated with the works.

ATTACHMENTS
There are no attachments for this report.

Committee Discussion

The Acting Executive Director Technical Services advised Committee on the reasons for the confidential nature of this report and explained that they related to operational issues and did not affect tender analysis or award. The Acting Executive Director Technical Services also explained that in order to ensure that the tender process and analysis details were open to the public, it was proposed that the final report be included in the publicly available minutes.

T37/5/14 **RECOMMEND**

That Council:

1. **Accepts the tender from Firedam Civil for their tendered price of $453,930.03 excluding GST, in accordance with their submitted tender and Council contract documentation.**
2. **Approves extra expenditure of up to $150,000 excluding GST, if required, to cover unforeseen items associated with the project, subject to approval by the Executive Director Technical Services.**

Moved Cr C Frost
MOTION CARRIED (6/0)

COUNCILLORS' ITEMS

Nil.

EXECUTIVE DIRECTOR TECHNICAL SERVICES REPORT

Nil.

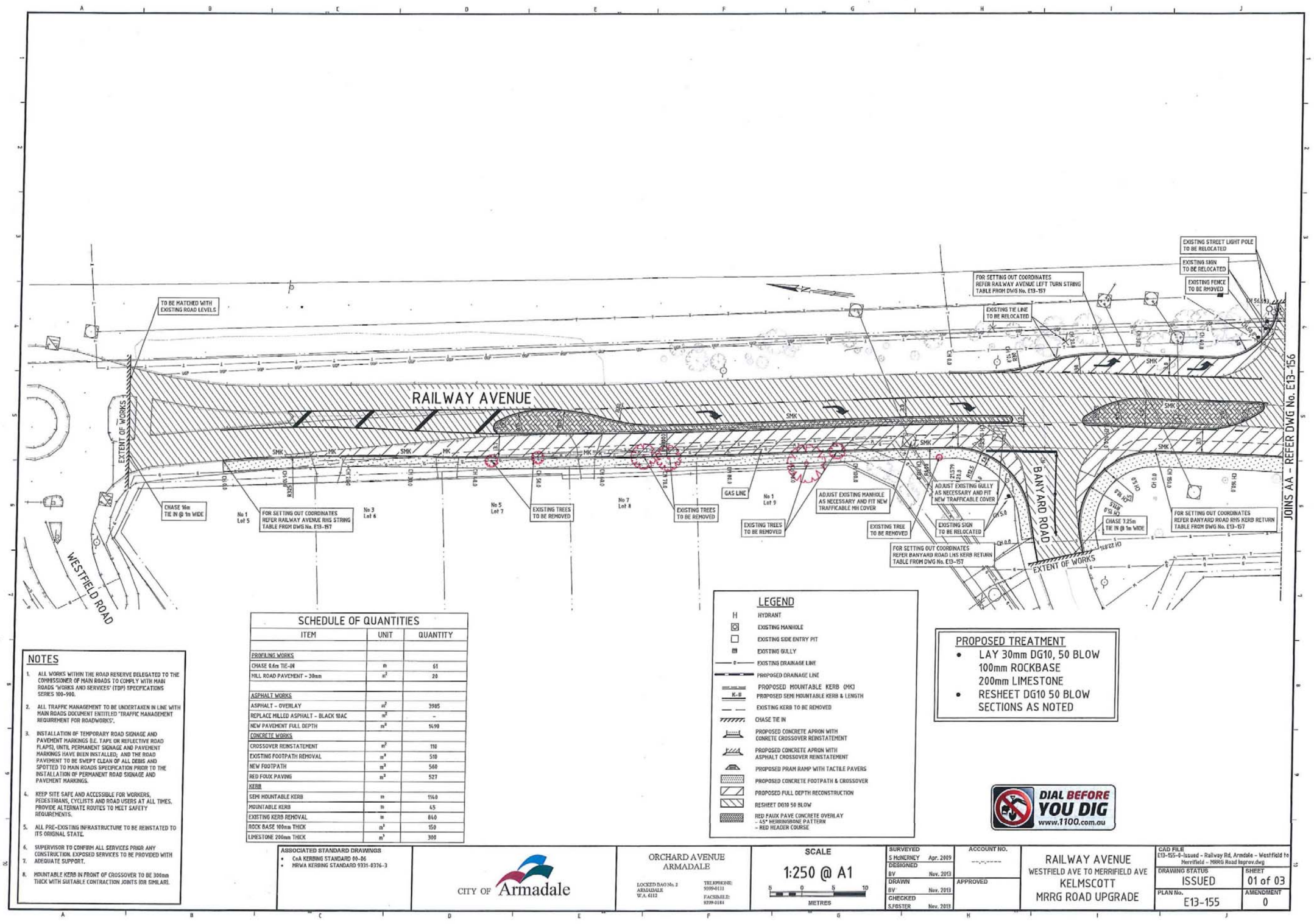
MEETING DECLARED CLOSED AT 8.45pm

TECHNICAL SERVICES COMMITTEE

SUMMARY OF "A" ATTACHMENTS

5 MAY 2014

ATT NO.	SUBJECT	PAGE
1.1	**RAILWAY AVENUE, KELMSCOTT - MERRIFIELD AVENUE TO WESTFIELD ROAD UPGRADE AND REHABILITATION**	
1.1.1	Railway Avenue - Proposed Draft Design Plans E13-155, E13-156, E13-157.	62
1.2	**BROOKS ROAD, ROLEYSTONE - PARKING RESTRICTIONS**	
1.2.1	Brooks Road, Roleystone - Parking Restrictions - Drawing No. E14-49	65
2.2	**MINNAWARRA PRECINCT 'BOTANICAL GARDEN' REQUEST**	
2.2.1	Botanic Garden Case Studies.	66
2.2.2	Minnawarra Precinct Revitalisation - Botanical Themed Walk Trail Plan.	71
4.1	**LANDMARK BUILDING PROGRESS REPORT**	
4.1.1	Progress Photos - Landmark Building Update.	72



NOTES

1. ALL WORKS WITHIN THE ROAD RESERVE DELEGATED TO THE COMMISSIONER OF MAIN ROADS TO COMPLY WITH MAIN ROADS "WORKS AND SERVICES" (TDP) SPECIFICATIONS SERIES 100-900.
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7. ADEQUATE SUPPORT.
8. MOUNTABLE KERB IN FRONT OF CROSSOVER TO BE 300mm THICK WITH SUITABLE CONTRACTION JOINTS (OR SIMILAR).

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
PROFILING WORKS		
CHASE 0.6m TIE-IN	m	61
MILL ROAD PAVEMENT – 30mm	m^2	20
ASPHALT WORKS		
ASPHALT – OVERLAY	m^2	3985
REPLACE MILLED ASPHALT – BLACK 10AC	m^2	–
NEW PAVEMENT FULL DEPTH	m^2	1490
CONCRETE WORKS		
CROSSOVER REINSTATEMENT	m^2	110
EXISTING FOOTPATH REMOVAL	m^2	510
NEW FOOTPATH	m^2	560
RED FOUX PAVING	m^2	527
KERB		
SEMI MOUNTABLE KERB	m	1140
MOUNTABLE KERB	m	45
EXISTING KERB REMOVAL	m	840
ROCK BASE 100mm THICK	m^3	150
LIMESTONE 200mm THICK	m^3	300

LEGEND

- H HYDRANT
- EXISTING MANHOLE
- EXISTING SIDE ENTRY PIT
- EXISTING GULLY
- EXISTING DRAINAGE LINE
- PROPOSED DRAINAGE LINE
- PROPOSED MOUNTABLE KERB (MK)
- K-II PROPOSED SEMI MOUNTABLE KERB & LENGTH
- EXISTING KERB TO BE REMOVED
- CHASE TIE IN
- PROPOSED CONCRETE APRON WITH CONRETE CROSSOVER REINSTATEMENT
- PROPOSED CONCRETE APRON WITH ASPHALT CROSSOVER REINSTATEMENT
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- PROPOSED CONCRETE FOOTPATH & CROSSOVER
- PROPOSED FULL DEPTH RECONSTRUCTION
- RESHEET DG10 50 BLOW
- RED FAUX PAVE CONCRETE OVERLAY – 45° HERRINGBONE PATTERN – RED HEADER COURSE

PROPOSED TREATMENT

- LAY 30mm DG10, 50 BLOW
  100mm ROCKBASE
  200mm LIMESTONE
- RESHEET DG10 50 BLOW
  SECTIONS AS NOTED

DIAL BEFORE YOU DIG www.1100.com.au

ASSOCIATED STANDARD DRAWINGS
- CoA KERBING STANDARD 00-06
- MRWA KERBING STANDARD 9331-0376-3

CITY OF Armadale

ORCHARD AVENUE
ARMADALE

LOCKED BAG No. 2
ARMADALE
W.A. 6112

TELEPHONE: 9399-0111
FACSIMILE: 9399-0184

SCALE
1:250 @ A1
5 0 5 10
METRES

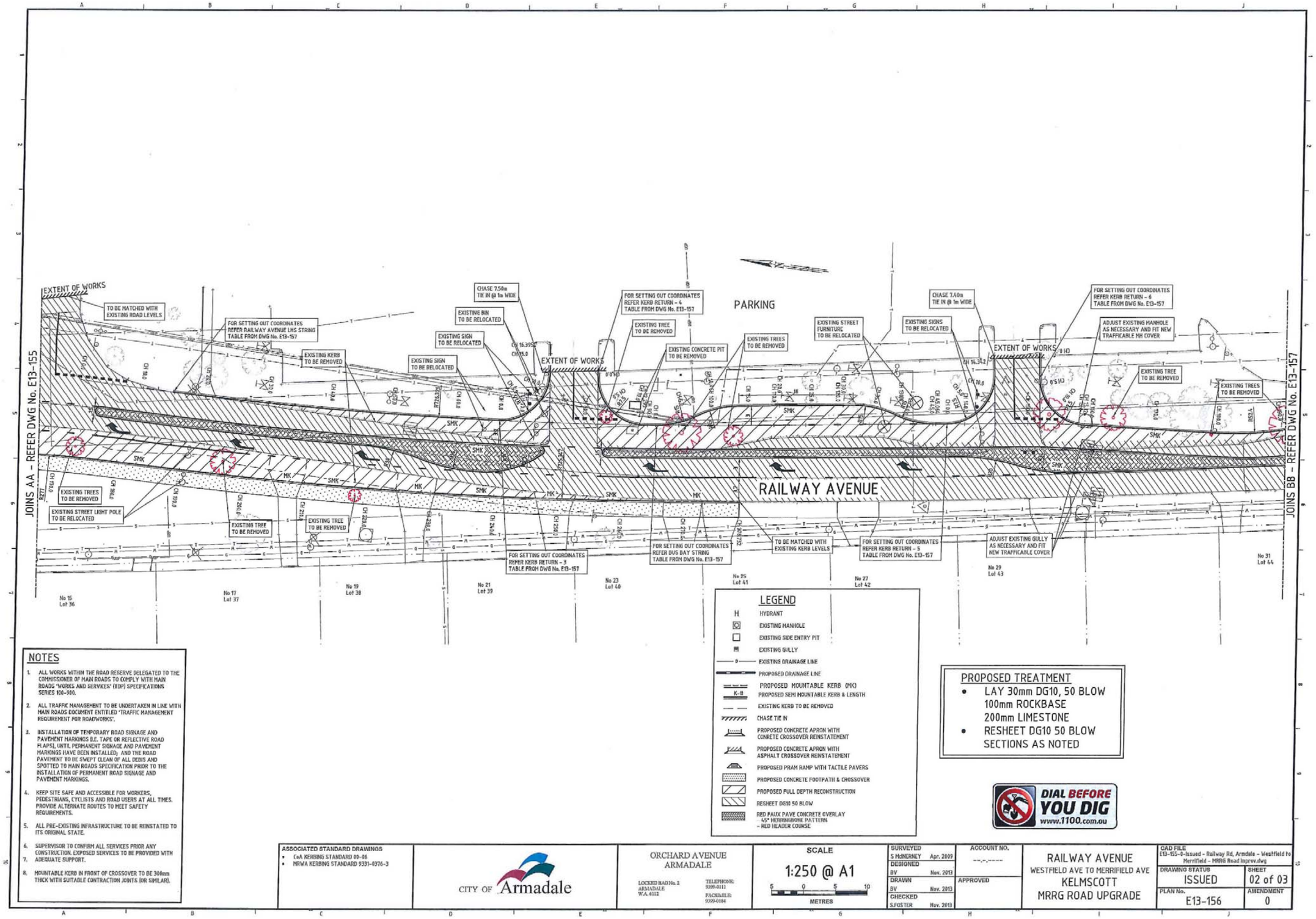
SURVEYED	S McNERNEY	Apr. 2009
DESIGNED	BV	Nov. 2013
DRAWN	BV	Nov. 2013
CHECKED	S.FOSTER	Nov. 2013

ACCOUNT NO. --.-.-----

APPROVED

RAILWAY AVENUE
WESTFIELD AVE TO MERRIFIELD AVE
KELMSCOTT
MRRG ROAD UPGRADE

CAD FILE: E13-155-0-Issued - Railway Rd, Armdale - Westfield to Merrifield - MRRG Road Improv.dwg
DRAWING STATUS: ISSUED
SHEET: 01 of 03
PLAN No.: E13-155
AMENDMENT: 0



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KELMSCOTT
MRRG ROAD UPGRADE

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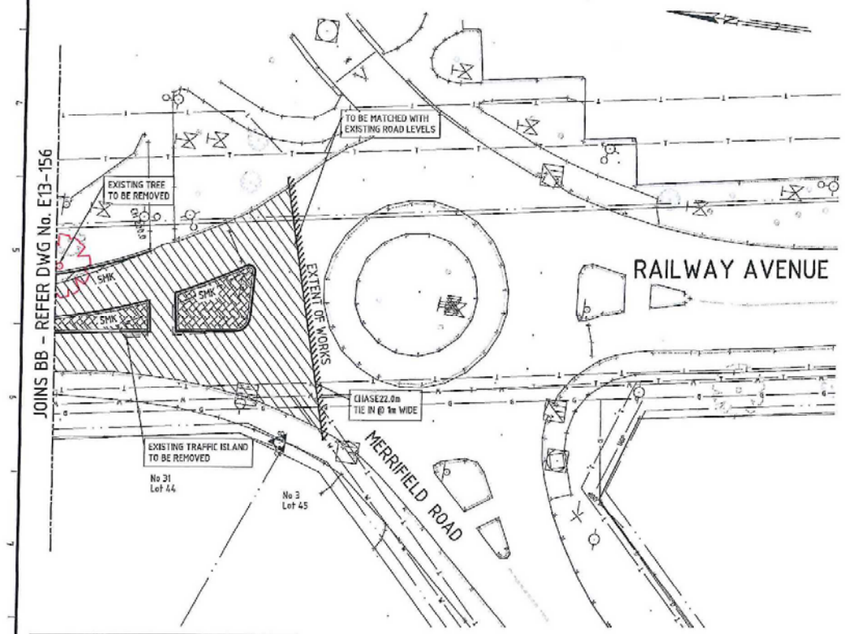
DRAWING STATUS: ISSUED
SHEET: 02 of 03
PLAN No.: E13-156
AMENDMENT: 0



RAILWAY AVENUE RHS STRING

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68463.495	245854.010	25.237
10	68465.454	245844.204	25.315
20	68467.110	245834.343	25.393
30	68468.462	245824.436	25.470
40	68469.697	245814.511	25.548
50	68471.029	245804.602	25.626
60	68472.461	245794.704	25.703
70	68473.992	245784.824	25.781
80	68475.622	245774.955	25.858
90	68477.330	245765.105	25.901
100	68479.045	245755.250	25.894
110	68480.755	245745.400	25.846
120	68482.302	245735.518	25.795
130	68483.602	245725.606	25.744
140	68484.689	245715.663	25.695
150	68485.748	245705.722	25.684
160	68486.784	245695.773	25.724
170	68487.534	245685.805	25.799
180	68487.924	245675.810	25.875
190	68488.116	245665.816	25.951
200	68488.435	245655.817	26.028
210	68488.890	245645.832	26.104
220	68489.682	245635.845	26.180
230	68490.208	245625.876	26.233
240	68491.071	245615.909	26.236
250	68492.068	245605.964	26.193
260	68493.202	245596.023	26.142
270	68494.479	245586.104	26.091
289.732	68495.687	245577.457	26.046

RAILWAY AVENUE LHS STRING

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68499.391	245683.444	26.057
10	68499.874	245673.444	26.092
20	68500.095	245663.447	26.127
30	68500.453	245653.454	26.161
40	68500.949	245643.466	26.196
50	68501.582	245633.486	26.231
60	68502.352	245623.516	26.263
70	68503.269	245613.557	26.255
80	68504.305	245603.612	26.198
90	68505.486	245593.683	26.122
100	68506.804	245583.769	26.046
110	68508.242	245573.875	25.971
120	68509.697	245563.980	25.895
130	68511.151	245554.088	25.819
140	68512.606	245544.192	25.743
150	68514.058	245534.301	25.679
160	68515.522	245524.357	25.661
170	68515.927	245514.392	25.693
180	68516.734	245504.422	25.776
190	68518.563	245496.618	25.901
200	68522.223	245485.315	26.030

BUS BAY STRING

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68505.647	245592.418	26.112
2	68506.031	245590.457	26.098
4	68506.674	245588.564	26.083
6	68507.561	245586.774	26.068
8	68508.613	245585.072	26.053
10	68509.477	245583.231	26.038
12	68510.095	245581.369	26.023
14	68510.461	245579.485	26.008
16	68510.752	245577.625	25.994
18	68511.043	245575.446	25.979
20	68511.334	245573.468	25.964
22	68511.625	245571.489	25.949
24	68511.916	245569.510	25.934
26	68512.207	245567.532	25.919
28	68512.498	245565.553	25.904
30	68512.788	245563.576	25.890
32	68513.072	245561.595	25.875
34	68513.168	245559.600	25.860
36	68512.998	245557.607	25.845
38	68512.565	245555.657	25.830
40	68512.060	245553.721	25.815
42	68511.812	245551.738	25.800
44	68511.829	245549.739	25.786
45	68511.546	245548.685	25.778

RAILWAY AVENUE LEFT TURN STRING

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68493.036	245742.361	26.128
5	68493.754	245737.413	26.111
10	68494.785	245732.526	26.094
15	68496.607	245727.876	26.093
20	68498.401	245723.214	26.114
25	68499.397	245718.321	26.127
30	68499.927	245713.349	26.119
35	68500.455	245708.377	26.110
40	68500.984	245703.405	26.101
45	68501.810	245698.491	26.126
50	68504.775	245694.542	26.234
55	68509.372	245692.751	26.410
56.693	68511.062	245692.751	26.660

KERB RETURN – 3

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68502.944	245616.861	26.263
2	68503.391	245614.918	26.285
4	68504.337	245613.159	26.308
6	68505.709	245611.716	26.330
8	68507.420	245610.682	26.352
10	68509.333	245610.137	26.374
12	68511.335	245610.116	26.396
14	68513.314	245610.604	26.419
16	68515.292	245610.694	26.441
16.395	68515.675	245610.750	26.445

KERB RETURN – 4

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68512.440	245602.645	26.465
2	68510.485	245602.241	26.410
4	68508.694	245601.363	26.355
6	68507.199	245600.044	26.299
8	68506.103	245598.376	26.244
10	68505.487	245596.482	26.189
12	68505.391	245594.487	26.134
12.295	68505.422	245594.196	26.126

BANYARD ROAD LHS KERB RETURN

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68469.345	245725.216	25.998
2	68471.242	245725.784	25.981
4	68473.177	245726.362	25.965
6	68475.018	245727.138	25.948
8	68476.712	245728.199	25.932
10	68478.215	245729.514	25.915
12	68479.491	245731.054	25.899
14	68480.503	245732.774	25.882
16	68481.229	245734.638	25.865
18	68481.648	245736.589	25.849
20	68481.752	245738.588	25.832
21.579	68481.608	245740.156	25.819

BANYARD ROAD RHS KERB RETURN

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68485.480	245708.237	25.682
2	68485.697	245710.197	25.679
4	68484.379	245712.062	25.685
6	68483.351	245713.774	25.710
8	68482.841	245715.283	25.753
10	68482.491	245716.541	25.808
12	68478.745	245717.514	25.846
14	68476.859	245718.168	25.892
16	68474.886	245718.487	25.928
18	68472.898	245718.469	25.950
20	68470.925	245718.087	25.959
22	68469.040	245717.420	25.959
22.816	68468.281	245717.133	25.959

KERB RETURN – 5

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68512.199	245516.961	25.764
2	68512.749	245545.045	25.844
4	68513.784	245543.340	25.924
6	68515.219	245541.979	26.003
8	68516.998	245541.028	26.084
10	68518.934	245540.584	26.164
12	68520.926	245540.667	26.244
14	68522.895	245541.007	26.324
14.342	68523.234	245541.066	26.338

KERB RETURN – 6

CHAINAGE	EASTING	NORTHING	ELEVATION
0	68525.201	245534.137	26.443
2	68523.229	245533.822	26.340
4	68521.251	245533.546	26.236
6	68519.353	245532.917	26.133
8	68517.666	245531.842	26.029
10	68516.333	245530.372	25.926
12	68515.475	245528.586	25.822
14	68515.023	245526.633	25.718
15.126	68515.029	245525.507	25.660

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METRES

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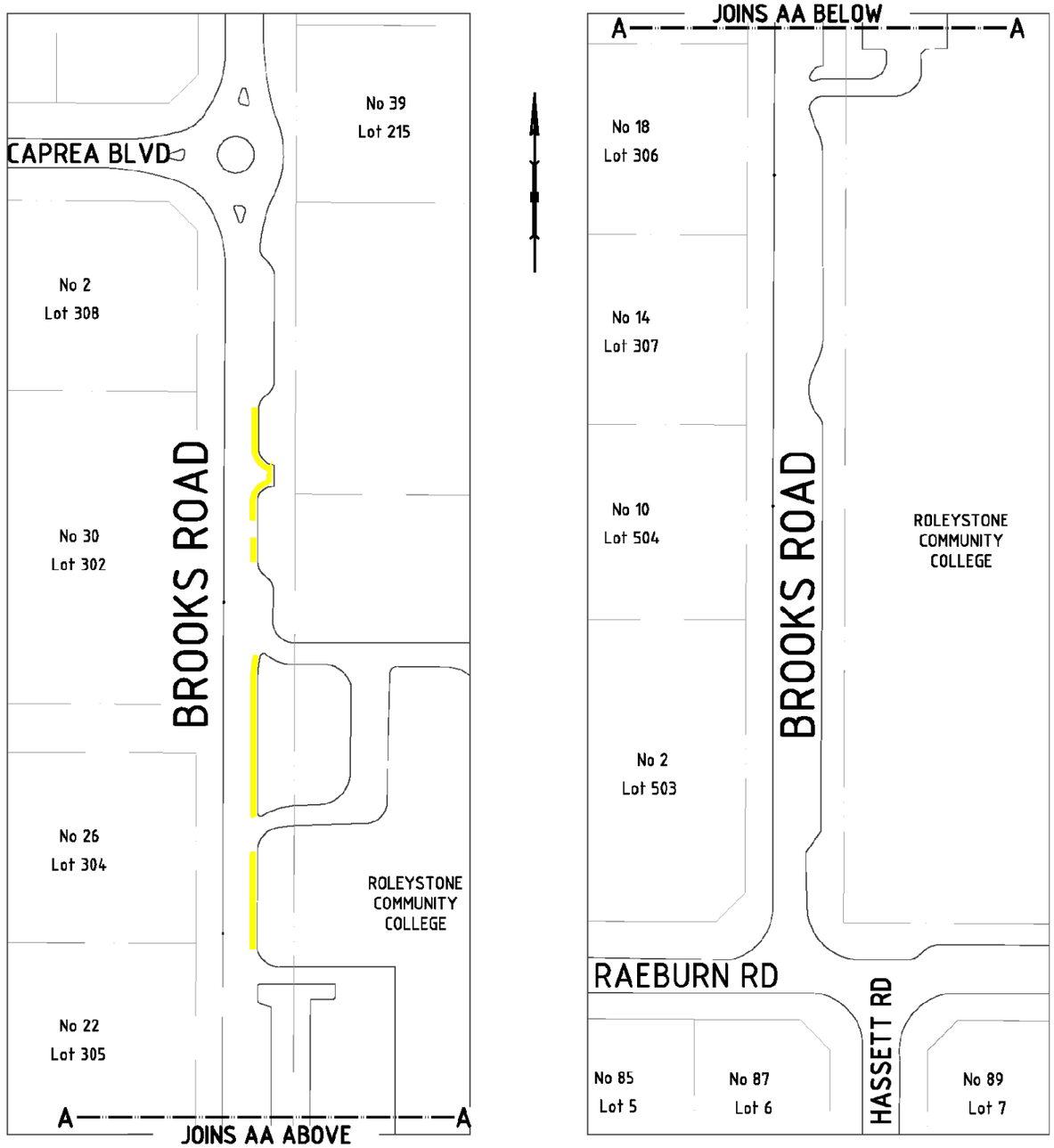
KELMSCOTT
MRRG ROAD UPGRADE

CAD FILE: E13-155-0-Issued - Railway Rd, Armdale - Westfield to Merrifield - MRRG Road Improv.dwg
DRAWING STATUS: ISSUED
SHEET: 03 of 03
PLAN No.: E13-157
AMENDMENT: 0



AMENDMENTS				
No	DESCRIPTION	DRAWN	AUTH'D	DATE
1	YELLOW LINES AMENDED	BV		29/04/14

LEGEND

YELLOW PAINTED LINES
(NO STOPPING ANYTIME AS LOCAL LAW)

	SCALE 1 : 1000 @ A3 (5 0 5 10 METRES)	SURVEYED TOPO .	ACCOUNT NO. .	BROOKS ROAD, ROLEYSTONE PARKING RESTRICTIONS	CAD FILE E14-49 – 0 – Issued – Brooks Rd, ROLEYSTONE – Parking restrictions.dwg
		DESIGNED – –			DRAWING STATUS ISSUED / SHEET 01 of 01
		DRAWN M CARROLL APR 2014	APPROVED		PLAN No. E14-49 / AMENDMENT 1
		CHECKED			

CASE STUDY 1 - AUSTRALIAN GARDEN, CRANBOURNE

Overview

The Australian Garden is a place of beauty, enjoyment and education that can be appreciated at several levels – as a celebration of the diversity of Australian plants, as a source of knowledge about our environment and its management, and as a demonstration of sustainable practices for home gardeners. Native planting are planted throughout the garden and elements in the garden are representative of the Australian landscape. It also has a broad promenade with framing views, treed walkway of granitic gravel and a waterside section of timber decking connecting the Rockpool Waterway, the Display Gardens and Howson Hill. It also contains an amphitheatre that provides an outdoor gathering space fringed with Australian plants and shade-providing trees.

General Information

Location: Cranbourne, Melbourne
Design Team: Taylor Cullity Lethlean + Paul Thompson
Design Timeframe: 2007-2012
Opening Date: October 2012
Cost: AU$11 million
Funding Sources: Extensive donors
Opening Hours: 9am – 5pm, Daily except Christmas Day

Garden Features

- Various Australian themed gardens including Red Sand Garden, Dry River Bed, River Walk
- Artworks and Sculptures
- Public event space + Picnic area
- Interpretive and botanical signage
- Display garden for practical ‘take home’ ideas

Site Photos

CASE STUDY 2 - SINGAPORE BOTANIC GARDENS

Overview

The Singapore Botanic Gardens is a 74-hectare botanical garden. The garden is made up of a combination of individual themed gardens linked through a footpath and decked walkway. The footpath differs in material throughout the walk to help define and distinguish the different garden sections.

General Information

Location: Singapore
Design Team: Laurence Niven
Established since: 1859
Opening Hours: 5am – 12midnight, Daily

Garden Features

- Various themed gardens including National Orchid Garden, Rainforest Trail, Evolution Garden, Ginger Garden, Botany Centre, Children's Garden
- Public event space + function area
- Walk trails with interpretive and botanical signage
- Regional centre for botanical and horticultural research

Site Photos

CASE STUDY 3 – ADELAIDE BOTANIC GARDEN

Overview

Adelaide Botanic Garden (ABG) is a 125 acre public garden located in the north-east corner of the Adelaide City Centre. The Botanic Garden features a mix of exotic and native plants, set amongst iconic cultural collections and historic buildings. One of the gardens includes the SA Water Mediterranean Garden which demonstrates water sensitive urban design and was developed demonstrate the importance of wetlands in urban environments. The Garden of Health displays plant species that have been used for generations for their benefits to health and wellbeing. The gardens also feature a rose trial garden, which tests new roses suitability to the Australian Climate.

General Information

Type of POS: Botanic Garden
Location: Adelaide City Centre
Opened since: 1857
Opening Hours: 9am Daily– various closing hours

Garden Features

- Various themed gardens including SA Water Mediterranean Garden, Garden of Health, Bicentennial Conservatory, The Australian Native Garden, Palm House, First Creek Wetland, International Rose Garden
- Temporary art installations by South Australian artists and designers
- Walk trails with interpretive and botanical signage
- Centre for botanical and horticultural research, seed conservation centre, school education Service

Site Photos

CASE STUDY 4 – TOWN OF CLAREMONT (CLAREMONT MEANDERS)

Overview

This case study is not a botanic garden however the trail demonstrates how the rich history of the Town of Claremont is expressed and explored through a series of Heritage walking trail maps. These maps tell a story of Claremont's oldest residential areas and places of significance.

General Information

Type of POS: Heritage Trail
Location: Claremont, WA

Features

- 4 different trails each with its own historical map
- Cobbler and Convicts Trail
- The Yargine Track
- Trail of Memories
- Rediscovering the Terrace

Trail Map

CASE STUDY 5 - CHAMPION LAKES ABORIGINAL INTERPRETIVE CENTRE

Construction of an Aboriginal Interpretive Centre (AIC) at the Champion Lakes Regatta Centre began in Oct 2009 after consultation with indigenous community members. The facility was constructed to recognise the strong traditional presence of the Nyoongar people in the region. The Interpretive Centre includes an amphitheatre with a seating capacity of 350 people. Local artefacts are displayed along the interpretive walkway and there are trails which includes bush tucker and medicine plantings. Whilst the interpretive centre is not a botanical garden as such, it features a walktrail with endemic species and botanical signage.

General Information

Type of POS: Interpretive Centre

Location: Champion Lakes

Design: GresleyAbas

Design Timeframe: 2004-2009

Opening Date: 2010

Cost: $ 2 million

Features

- walk trail with endemic species and botanical signage
- Community Artwork
- Amphitheatre for performance

Site Photos

Interpretive Wall (Gresleyabas)

Canopy Artwork (Gresleyabas)

MINNAWARRA PRECINCT REVITALISATION

PROPOSED EUROPEAN SECTION

- Showcase european plant species
- Include interpretive signage on plant species and historical interests

PROPOSED MINNAWARRA HISTORIC

- Showcase species which has particular significance to the development of the Minnawarra Historic Precinct i.e. *Eucalyptus Cladocalyx*.
- Include interpretive signage on plant species and historical interests

PROPOSED ENDEMIC SECTION

- Showcase native trees + planting
- Include interpretive signage on plant species and environmental and indigenous history of Nerrigen Brook

CITY OF Armadale

PROJECT: MINNAWARRA PRECINCT REVITALISATION DRAWN: JA

DRAWING: BOTANICAL THEMED WALK TRAIL DATE: APRIL 2014

Progress Photos

November 10th 2013

February 2nd 2014

February 4th 2014

February 18th 2014

March 5th 2014

March 6th 2014

March 27th 2014