



Footpaths Infrastructure Asset Management Plan 2012

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Welcome to our Country

The City of West Torrens acknowledges the Kurna Aboriginal people and their descendants are still and will always be the first peoples of the land. The City of West Torrens commits to valuing and supporting the Kurna people's inherent relationship to the land

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ABBREVIATIONS

AAAC	Average annual asset consumption
AMP	Asset management plan
ARI	Average recurrence interval
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DoH	Department of Health
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SS	Suspended solids
vph	Vehicles per hour

GLOSSARY

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset management

The combination of management, financial, economic, and engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, eg. Extending a drainage or road network, the

provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. Resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that, will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. Widening the sealed area of an existing road, replacing drainage pipes

with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost "As New" (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. Roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets the components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) Use in the production or supply of goods or services or for administrative purposes; or
- (b) Sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality, for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap

Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. Parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that are still available for use in providing services (DRC/DA).

Strategic Management Plan (SA) **

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) The period over which an asset is expected to be available for use by an entity, or
- (b) The number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

1. EXECUTIVE SUMMARY

The Council, as a responsible authority, needs to strive to provide services that are commensurate with the needs of the community and within the means of the community. Once footpaths are provided, Councils have a responsibility to ensure these footpaths are maintained in a safe condition for the use by the community.

In May 2001 the High Court of Australia handed down its decision in relation to what is termed the *nonfeasance immunity*. Up until that time nonfeasance immunity had been implied with respect to the legal liability of local governments on such things as footpaths.

Council's duty of care to maintain footpaths means it must be aware of all issues relating to the condition of the footpaths. The High Court decision also pointed out that it was not requiring Councils to absolutely guarantee or ensure that injury or damage does not occur. The High Court recognised that available steps to reduce or exclude risks will involve expenditure of funds, which are not unlimited. The requirement for local government authorities with respect to footpaths is to satisfy the general duty of care owed to users by taking reasonable steps and precautions against foreseeable risks of injury and damage.

The Local Government (Financial Management and Rating) Amendment Act 2005 introduces accountability measures to strengthen provisions that require councils to give careful attention to strategic planning matters in consultation with their communities. The accountability measures add new obligations when undertaking long term infrastructure, asset management and financial planning and impose new requirements to conduct annual consultation with ratepayers regarding budgets, rating strategies and business plans.

In meeting the above needs, the City of West Torrens has recognised the importance of asset management. Council has subsequently adopted on 7 November 2006 an Asset Management Policy and developed this Infrastructure and Asset Management Plan (IAMP). The goal of the IAMP is to ensure that adequate provisions are made for existing and future infrastructure so that assets are fully utilised (i.e. their design life is achieved) in a cost effective manner.

This updated IAMP has been developed with consideration of the strategic reports, *City of West Torrens Transport Strategy*, *Transportation for the next Generation 2025*, and *Strategic Bicycle Report 2006* and the principles/methodologies found in the "Footpath Plan Report, September 2008. These strategic reports are underpinned by the Towards 2025 Community Plan of Council.

The purpose of the Footpath Plan Report, September 2008, report was to consider a safe, practical and manageable footpath network with an emphasis on the reduction of risk. To ensure that the Council manages its footpath assets, including shared use paths, in a manner most appropriate for the community, the Council has committed to a management strategy for footpaths based on the following objectives:

- To proactively reduce footpath faults by prioritising a patching program based on a risk profile.
- To responsibly renew existing footpaths commencing with replacing bitumen footpaths with concrete or block pavers.
- To ensure that all developed road reserves have a paved or concrete footpath on one side of the road.

This IAMP also presents a 10 Year Financial Forecasts, **Appendix A**. These forecast have been derived from the analysis modelling of Councils footpath/shared path assets, i.e. **515,716 m** of footpath and **26,209 m** of shared use path network, based on a detailed asset condition data collection and analysis undertaken in August 2011. The data has been collected at a level that will enable Council to better manage its network through developing proactive maintenance and renewal plans.

In total the footpath assets with a **total area of 800,439 m²** that have been considered in the IAMP have a Total Replacement Value of **\$58,121,362** (June 2012).

The analysis of the footpath network has identified that over the next ten years a total of **\$6,016,340** (includes staff labour costs) will be required for both planned and reactive maintenance works and **\$4,779,017** for footpath renewal (replacing an existing section of footpath), in addition to this, funding with a total of **\$5,354,440** will be required to construct new footpaths where no footpath previously existed. The 10 yr projected forecast to complete the new/upgrade footpath program is likely to be completed prior to 2022. The combined total of **\$10,133,457** in funding will be required to complete the new and renewed footpath programs. It can be noted that a significant improvement in reducing major height defects (trip steps) since the last condition audit was undertaken in 2005. The 2005 audit noted **1,057** major height differences compared with the current number being **566**.

The focus of planned expenditure is the reduction of risk to public safety through the reduction of height differentials and replacement of damaged panels and the construction of new footpaths to meet the *Disability Discrimination Act* intention and *City of West Torrens Transport Strategy, Transportation for the next Generation 2025*. The expenditure allocated to both the renewal and new footpaths is similar in value, however, as the remaining useful life of the footpath network reduces; there will be a need to increase funding allocated to the footpath renewal program in the long term.

The IAMP implementation for the footpath projected renewal program over the 10 years totals **\$4,779,010** (2012 dollars). By adopting this funding arrangement, the expenditure on the footpaths (excluding new footpaths) will begin to align with the annual depreciation cost for an 80-year life cycle for a footpath.

Continuous improvement of asset management processes, increased knowledge and better data will result in a more efficient service delivery and service performance by Council. The following key project will be carried out over the next few years seeking to improve Council's processes, knowledge and data:

- Develop an inspection program to log defects and manage routine maintenance for repair works in Conquest (Council's Asset Management System), based on the following frequency of inspection:

Category 1 = Critical Risk – once per year
Category 2 = Significant Risk – once per 3 years
Category 3 = Minor Risk – once per 5 years

This should be implemented progressively as the backlog of damage is cleared for each category identified in the plan.

Since the last IAMP, October 2008 a condition rating system, combined with the latest condition data, has been developed to provide a rating system to broadly address serviceability and remaining useful life, improving the development of footpath renewal and maintenance programs. Also, a priority rating system for the installation of new footpaths has been developed.

This IAMP now also recognises shared use paths as part of this asset class. The installations of these facilities are undertaken in-line with Councils *Strategic Bicycle Report 2006*, and funding is often received from the State Government as part of the annual State Bicycle Grants.

The key issues highlighted by this IAMP are as follows:

Gaining a clear understanding of the community requirements for levels of service.

Adapting change in service levels from those based on historic allocations to more condition-based models and to address backlog maintenance issues.

Implementing pro-active change in phasing increase scheduled and cyclic maintenance, rather than reactive maintenance.

Understanding the funding allocations required to support the levels of service according to community and legislative expectations.

Recognising the likely increase in future funding requirements as footpaths that are currently in good condition become scheduled for renewal as a result of natural deterioration over time.

2. INTRODUCTION

The City of West Torrens is located immediately west of the Central Business District (CBD). It is bounded by the River Torrens, City of Charles Sturt to the north and Cities of Holdfast Bay, Marion and Unley along its southern boundary. The eastern boundary is the western edge of the City of Adelaide Parklands. The western boundary includes a strip of coastal land which abuts the Gulf of St Vincent. The City covers an area of 36 square kilometres. It has a population of 56,960 (Census 2011).

The major land uses as a percentage of the total land area in the City are as follows:

- Residential - 40%
- Commercial/Industrial - 22.5%
- Adelaide Airport – 20%
- Other uses – 17.5%

The primary shopping centres are located in Kurralta Park, Torrensville and Hilton. Commercial developments are generally located along the main arterial footpaths. The areas experiencing greatest changes are the Adelaide Airport, the industrial zones in particular around Thebarton and Mile End, and in-fill residential developments. The West Torrens Community Profile identifies that overall there has been a general trend of decreasing dwelling approvals falling from 298 in 2010-11 to 243 in 2011-12. Approximately 64% of the City's housing stock is detached dwellings on individual allotments. This highlights the potential for a significant increase in housing stock through in-fill development, such as detached dwellings being replaced by two and sometimes three new dwellings.

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding required providing the required levels of service.

Council has acquired constructed and maintained this footpath network to provide a benefit to the community. The size, costs of replacement and ongoing maintenance, and proposed management systems for this footpath network to the community are presented in the following chapters.

Council has a duty of care to the community to ensure that the investment in this footpath network is managed in the most efficient and effective way, from concept planning to disposal. The life cycle cost of a footpath includes the total cost of planning, design, construction, maintenance and operations, rehabilitation and disposal. All physical components deteriorate and there is a need to ensure that the rate of deterioration is understood, as well as that the most appropriate maintenance activities are employed. It is therefore essential that the footpath network is designed to meet the appropriate levels of service over its design life and that maintenance and rehabilitation is applied at the most cost effective time.

The asset management plan is to be read with the following associated planning documents:

- Asset Management Policy, 7 November 2007
- Asset Management Strategy June 2005.
- City of West Torrens Transport Strategy Report, September 2009.
- Section 30 Development Plan Review, September 2008.
- Footpath Plan Report, September 2008
- Footpath Valuation Condition Assessment, August 2011 Report.
- Strategic Bicycle Plan report 2006
- Adopted Budget and Annual Business Plan 2012/13.

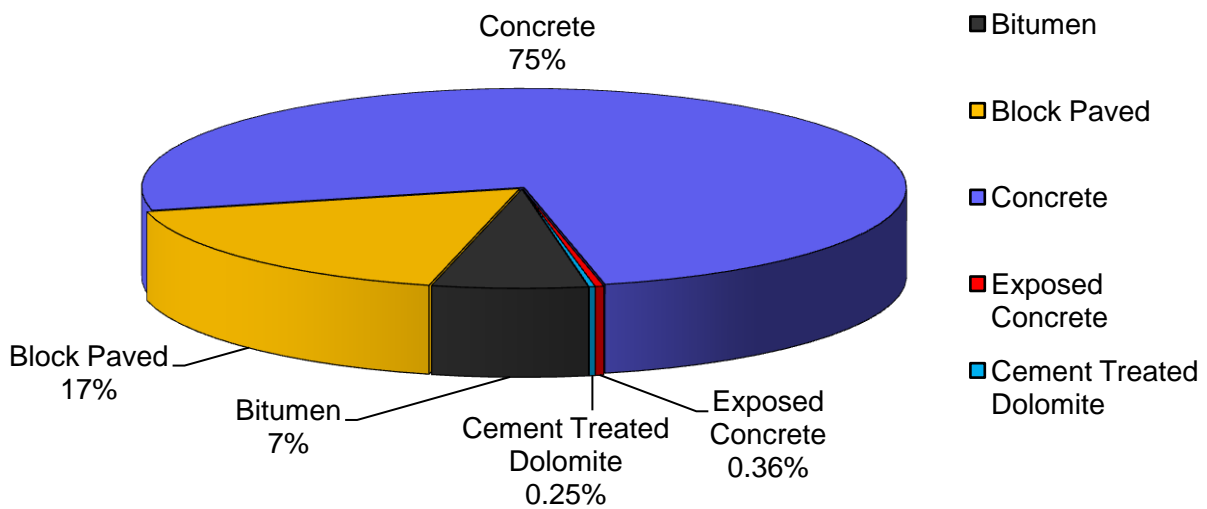
This asset management plan covers the Footpath Infrastructure assets:

Table 2.1 Assets covered by this Plan

Asset Category	Length(m)	Area (m ²)	Replacement Value \$
Footpaths	515,716	747,769	\$55,207,526
Shared Paths	26,209	52,670	\$2,913,836
Total	541,925	800,439	\$58,121,362

Valuations as at 30 June 2012

Chart 2.1 Value Distribution of Footpaths Type Covered by this IAMP



Key stakeholders in the preparation and implementation of this asset management plan are shown below in Tale 2.2:

Table 2.2 Key Stakeholders

Key Stakeholders	Function
Council Public Works Services Department	Scheduling of maintenance and capital works, preparation and revision of asset management plans.
Council City Assets Department	Programming of maintenance and capital works, preparation and revision of asset management plans.
Council Finance Department	Allocation of required funds for the implementation of this asset management plan.
Community	Key footpath and cycling users.
Council Elected Members	Approval of the asset management plan.

2.2 Goals and Objectives of Asset Management

The Council's core function is to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.¹

This asset management plan is prepared under the direction of Council's vision, mission, goals and objectives.

Council's vision is:

West Torrens – Between the City and the Sea.

Committed to being the best place to live, work and enjoy life.

Council's mission is:

To strive for excellence in serving our diverse community.

¹ IIMM 2006 Sec 1.1.3, p 1.3

Relevant Council goals and objectives and how these are addressed in this asset management plan are:

Table 2.2 Council Values and how these are addressed in this Plan

Value	Value Statement	How Values and Value Statements are addressed in IAMP
Accountability	We act on behalf of the West Torrens community and are therefore accountable to them for our actions.	Accountability to the community is enhanced in the IAMP by the minimisation of monetary resources through the development and use of a least life cycle cost technique.
Advocacy	We will act as an advocate with other levels of government and the private sector to help achieve Council's Vision.	Legislation.
Inclusively	We will foster the development of an inclusive city; one that recognises the value of all people celebrates their diversity and treats them all with respect and dignity.	Consultation with the community occurs with community forums. The concerns of the community are taken into account in preparation of the forward works program.
Community Involvement	We will regularly consult with our community and seek to actively engage them in the operations, functions and activities of Council.	Consultation with the community occurs with community forums and customer satisfaction surveys by email or mail. The concerns of the community are taken into account in preparation of the forward works program.
Community Capacity	We will work with local communities to assist them to strengthen their support and problem solving resources, so that they may obtain more control over their relationships, resources, learning, information and decision-making.	Sustainability of community services is enhanced by targeted funding for specific infrastructure. Data on footpath assets is enhanced through the preparation of this IAMP. Data on forward works programs is available. Levels of Service.
Quality	We will provide quality services that are continuously improving, focused on customer service and accountable to the community.	The concerns of the community are taken into account in preparation of the forward works program. Additional financial accountability through long term financial planning leads to increased quality in the levels of service provided to the community. Future demand identification.
Healthy Communities	Work in partnerships with stakeholders to provide a safe, clean, healthy and sustainable environment, one that balances social, cultural, heritage, environmental and economic factors.	Ensuring environmental factors are considered when undertaking road activities.

2.3 Plan Framework

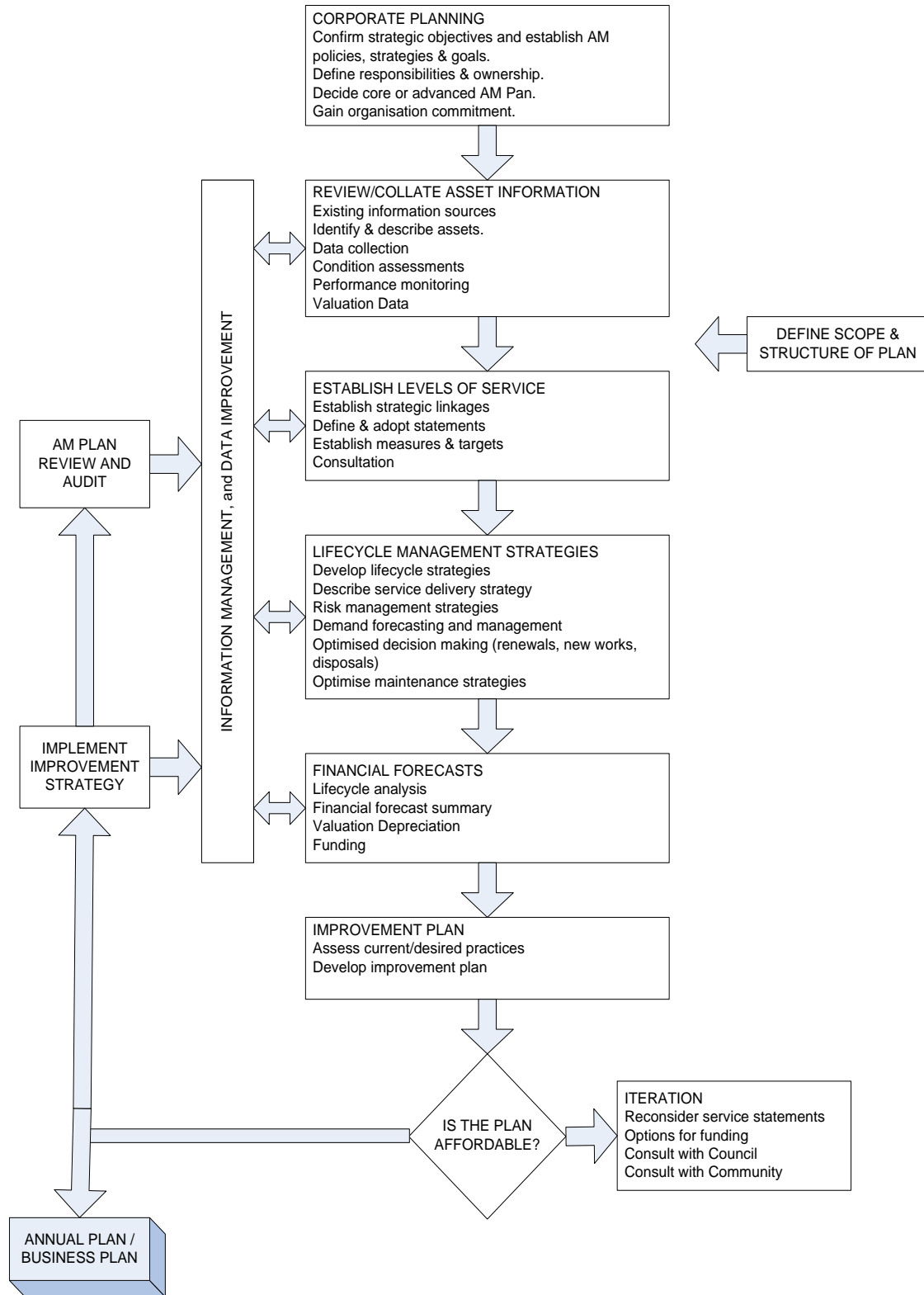
Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services.
- Asset management practices
- Monitoring – how the plan will be monitored to ensure it is meeting Council's objectives.
- Asset management improvement plan

A road map for preparing an asset management plan is shown in Figure 2.3 on the next page.

Figure 2.3 Road Map for preparing an Asset Management Plan

Source: IIMM Fig 1.5.1, p 1.11



2.4 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

3. LEVELS OF SERVICE

Levels of service dictate the targeted asset performance in relation to customer expectations, and associated legislative and technical provisions. They also provide achievable milestones for the continuous upgrading of the levels of service currently practised.

Understanding the level of service required of an asset is vital for its lifecycle management as this largely determines an asset's development, operation, maintenance, replacement and disposal. Levels of service are pivotal in asset management as they have a direct financial impact due to their importance in both operational and risk-based prioritisation.

When establishing Levels of Service they should be based on:

Stakeholder Expectations – information gained from stakeholders on expected quality and price of services.

Strategic and Corporate Goals – provides guidance for the scope of current and future services offered the manner of the services delivery and defines the specific levels of service, which Council wishes to achieve.

Legislative Requirements – legislation, regulations, environmental standards and industry and Australian Standards that impact on the way these footpath assets are managed.

3.1 Customer Research and Expectations

The City of West Torrens Council has prepared this footpath asset management plan as an updated IAMP. Council has undertaken a Community Satisfaction Survey in 2012 whereby the survey was emailed to the Council's Community Panel (the panel comprise of 255 local residents) and further person to person surveys were used to complete the process of setting the levels of service.

Council's knowledge of customer expectations is based on community feedback and analysis of customer services request and complaints and customer satisfaction measurement surveys. In particular, Council engaged the University of South Australia – Ehrenberg-Bass Institute for Marketing Science to undertake the Customer Satisfaction survey. In total, 135 members of the Panel participated and completed the survey, equating to a 53% response rate. In addition, the survey was undertaken by 229 non-panel members, primarily collected through intercept surveys. Therefore in total there were 364 responses recorded.

The report detailed the findings of the community research undertaken by the Ehrenberg-Bass Institute for Marketing Science (the 'Institute') for the City of West Torrens, regarding community assets and infrastructure. The statistics provide from the survey assisted in determining the level of satisfaction with Council's services.

This most recent Customer Satisfaction Survey (September 2012) is shown in Table 3.1 on the next page.

Table 3.1 depicts the community's satisfaction with Council's provision and management of the local road, footpath and cycling paths which was calculated based on the percentage of the number of respondents from a total of 364 responses.

Respondents were asked to indicate the importance that Council provides and maintains local roads, footpaths and cycling paths and then asked about their satisfaction with Council's performance when providing and maintaining these community assets and infrastructure. An overwhelming majority of respondents believed that it is important for Council to provide and maintain roads, footpaths and cycling paths and approximately half of the respondents indicated that they were satisfied.

Table 3.1 Customer Satisfaction Survey Results

Local roads, footpaths and cycling paths		
Answer	Total Respondents	Total (%)
Important	340	96
Satisfied	184	52

Data source – University of South Australia – Ehrenberg-Bass Institute for Marketing Science – City of West Torrens Customer Satisfaction Survey 2012

The 2012 Community Satisfaction Survey results on the level of community satisfaction on Councils performance in maintaining local roads, footpaths and cycling paths is seen in Table 3.1.1 below.

Table 3.1.1 Community Satisfaction Survey Levels

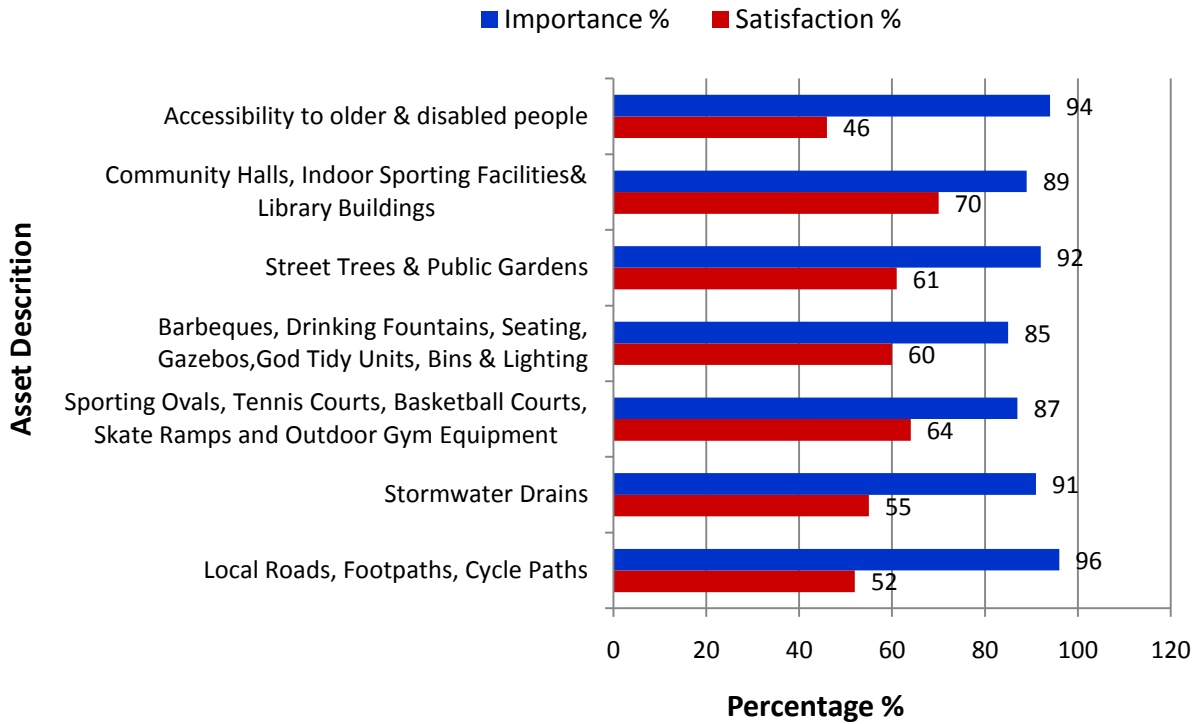
Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not Satisfied
	100% – 80%	80% – 60%	60% – 40%	40% – 20%	20% – 0%
How has your council performed in providing and maintaining roads, footpaths and cycling paths assets?			√		

Data source – University of South Australia – Ehrenberg-Bass Institute for Marketing Science – City of West Torrens Customer Satisfaction Survey 2012

Council utilises this information in developing the Council’s Strategic Management Plan and for the allocation of resources in the adopted budget and annual business plan.

Furthermore, the 2012 Community Satisfaction Survey results from the University of South Australia – Ehrenberg-Bass Institute for Marketing Science provided a comparison of data across all Council assets which has been summarised in Graph 3.1.2 on the next page.

Graph 3.1.2 Community Importance and Satisfaction Survey Results



It should be noted from this analysis that the community sees the local roads, footpaths and cycle paths service that Council provides as very important (96%) whereas the satisfaction level with this service is only 52%. Accordingly this should be seen as a critical asset group for Council to improve its management of.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. The key pieces of applicable legislation are listed in Table 3.2 below. These requirements form the minimum levels of service for Council's footpath assets.

Table 3.2 Legislative Requirements

Legislation	Requirement
Australian Accounting Standards.	Sets out the financial reporting standards relating to the (re)valuation and depreciation of infrastructure assets.
Civil Liability Act	Liability of road authorities – Section 42, May 2004 inclusion in the Act to provide a replacement for the non-feasance defence consequent to May 2001 High Court judgement.
Development Act 1993	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate.
Disability Discrimination Act 1992	The objectives of this act are to eliminate, as far as possible, discrimination against persons on the grounds of disability. It sets the standard for accessibility.
Highways Act	An Act to provide for the appointment of a Commissioner of Highways, and to make further and better provision for the construction and maintenance of footpaths and works.
Local Government (Financial Management and Rating) Amendment Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-term Financial Plan.
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by IAMP's for sustainable service delivery.
Native Vegetation Act	An Act to provide incentives and assistance to landowners in relation to the preservation and enhancement of native vegetation; to control the clearance of native vegetation.
Occupational Health, Safety and Welfare Act 1986	An Act to provide for the health, safety and welfare of persons at work.
Public and Environmental Health Act 1987	An Act dealing with public and environmental health.
Road Traffic Act	An Act to consolidate and amend certain enactments relating to road traffic.

3.3 Current Levels of Service

Council has defined service levels in two terms.

Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria as listed below in Table 3.3.

Table 3.3 Technical measures relating to service criteria

Service Criteria	Technical measures may relate to
Condition	Smoothness of footpaths, free from height defects (trip steps)
Function	Appropriate footpath network coverage
Safety	Number of accidents / incidents
Cost Effectiveness	Optimum intervention levels

Council's current service levels are detailed below in Table 3.3.1

Table 3.3.1 Current Service Levels

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Quality **	Provide an aesthetically pleasing smooth surface.	Customer Satisfaction Survey every 5 years	> 70% pa	52% (2011/12)
Function **	Provide Footpaths accessibility	No of customer requests	< 5 pa	19 (2011/2012)
Safety **	Reduce hazards and increase safety	No injury claims	< 10 pa	23 (2011/2012)
TECHNICAL SERVICE LEVELS				
Condition	Footpath condition is fit for purpose	Auditing of footpaths for Critical category – every year; Significant category – every 2 years; Minor Category - every 3 years for minor.	> 90% of network > condition score 3	22% (2011/2012)
Safety	Minimise height differences that may cause trip hazards	Annual audit	<80% of footpath network without defects	40.5% (2011/2012) Total defects 8,158 and 3,305 defects by height.
Cost effectiveness	Maintain footpaths by proactive maintenance	Percentage of maintenance undertaken by proactive repairs	>70% pro-active work repairs	78% (2011/12)

Note: Information provided based on 2011/12 financial year

*** As targets for levels of service provide the basis for lifecycle management strategies and works programs, the current levels of service will be reviewed to incorporate and satisfy the requirements of customers in subsequent versions of this plan.*

Council will attempt to measure levels of service using the following customer values:

- Accessibility – access for customers with various disabilities.
- Affordability / cost effectiveness – is the customer able to pay for the service level being delivered?
- Appearance – what is the customer's perception of how the asset impacts on their visual senses?
- Safety – consider the level of security that customers experience when using the asset.
- Condition – what is the customer's perception of the overall condition of the asset?
- Demand – does the asset or lack thereof meet the customers need?

3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including the City of West Torrens Customer Satisfaction survey, residents' feedback to Councillors and staff, service requests and correspondence. Council has yet to quantify desired levels of service. This will be done in future revisions of this asset management plan.

4. FUTURE DEMAND

This section identifies the effect of expected growth and consequent demand on Council's footpath asset infrastructure. Although the future demand factors have been identified, the anticipated impact has not been quantified. This will be carried out in future revisions of the IAMP. Forecasting future demand is essential in determining life cycle management for assets.

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, consumer preferences (block paving instead of concrete) and expectations, economic factors, environmental awareness, tourism growth, Section 30 Development Plan Reviews and 30 Year Greater Adelaide Plan.

Demand factor trends and impacts on service delivery are summarised below in Table 4.1.

Table 4.1 Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on Services
Population	56,960	Population projections indicate that the City of West Torrens is likely to experience a slight increase in population in the medium to long term, should all other factors remain constant.	Much of the population growth will be through urban consolidation and in particular demolition of existing single dwellings and replacement with 2 or 3 residences. This may impact negatively of Councils footpath infrastructure through developer damage to existing footpaths.
Demographics	<p>Age Structure</p> <ul style="list-style-type: none"> • Infants 0 to 4 years – 5.4 % • Children 5 to 17 years – 12.3 % • Adults 18 to 59 years – 59.5 % • Mature Adults 60 to 84 years – 19.3 % • Senior Citizens 85 years & over – 3.4 % <p>Population characteristics</p> <ul style="list-style-type: none"> • Indigenous population – 0.9% • Australian Born – 66.2 % • Overseas born – 29.3 % • Australian citizens – 82.7 % <p>Australian citizens aged 18+ – 67.4 %</p>	<p>Migration in and out of the area is expected to surpass its present high levels for the next decade and beyond and the median age of the population can be expected to reverse, with younger family units moving into the area.</p> <p>Percentage of over 60 year olds will increase.</p>	<p>Increase demand for accessibility for mobility impaired.</p> <p>An ageing population will present more demand on safe, DDA compliant footpaths with additional pram ramps.</p> <p>All defects to be managed proactively to prevent hazards, in particular for the disabled.</p> <p>High priority for disabled and public safety will demand a higher level of service.</p>
DDA	1.2m wide footpaths	1.5m wide paths to accommodate gophers.	Additional funds required to upgrade paths to provide free and unrestricted access around the city.

Source: Australian Bureau of Statistics, Census of Population and Housing, 2006 and 2011.

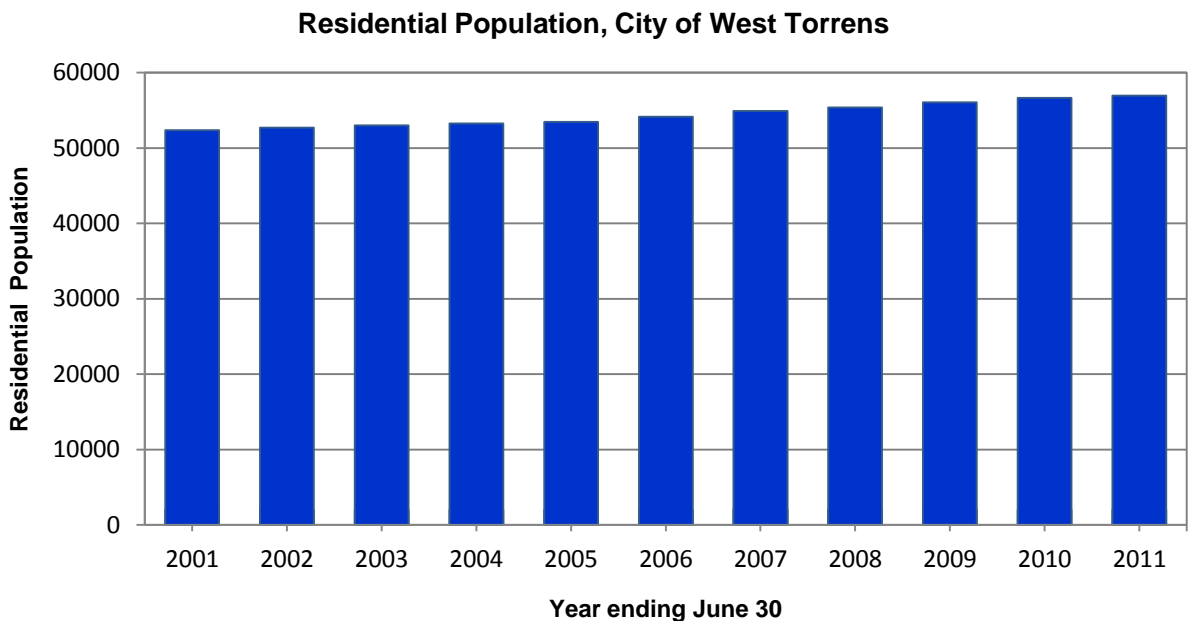
Table 4.2, Graph 4.1 & 4.2 below present Estimated Resident Population (ERP) figures. The ERP figures are updated annually taking into account births, deaths, internal and overseas migration. In addition, after every Census, ERP figures for the 5 previous years are “back cast”, using information from the current Census, to ensure the most accurate figures are available.

Table 4.2 Estimated Resident Population (ERP)

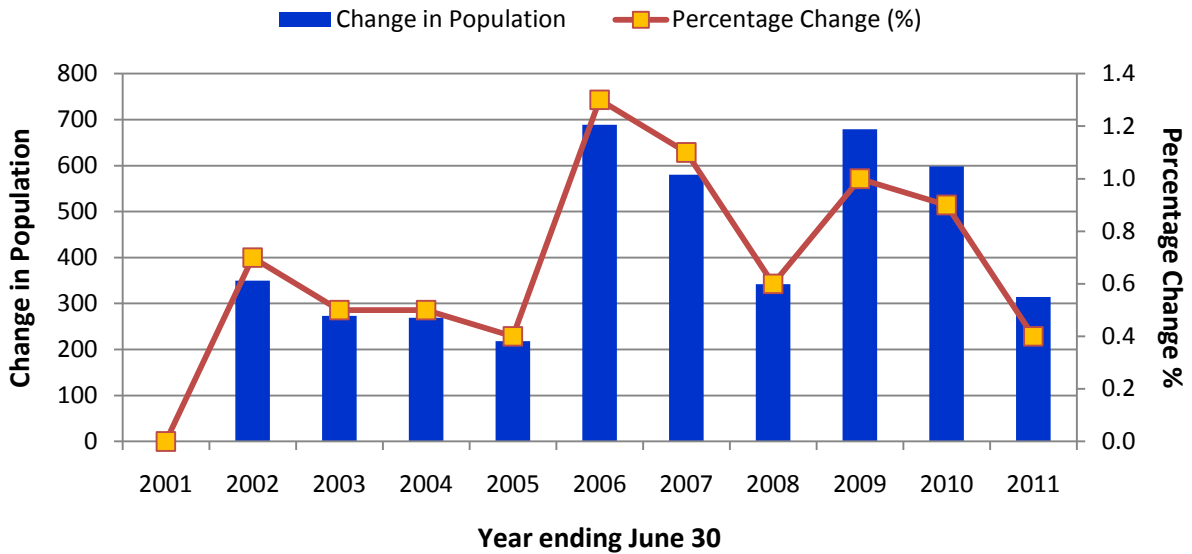
Estimated resident population (Revised estimates based on 2011 Census data)		Annual change	
Year (ending June 30)	Number	Number	Percent (%)
2011	56,960	314	0.4
2010	56,646	598	0.9
2009	56,048	679	1.0
2008	55,369	342	0.6
2007	54,896	580	1.1
2006	54,163	689	1.3
2005	53,474	218	0.4
2004	53,256	269	0.5
2003	52,987	273	0.5
2002	52,714	350	0.7
2001	52,364	-	-

Source: Australian Bureau of Statistics, *Regional Population Growth, Australia, (3218.0) - 2011*

Graph 4.1 Estimated Resident Population, City of West Torrens



Graph 4.2 Changes in Estimated Resident Population, City of West Torrens



Source: Australian Bureau of Statistics, *Regional Population Growth, Australia, (3218.0) - 2011*

Current trends indicate that there will be a minimal impact on services in the short term. However, over the next 10 years various trend changes may potentially impact on the demand for footpath infrastructure.

Analysis of the age structure of the City of West Torrens in 2011 compared to Adelaide Statistical Area shows that there is a larger proportion of people in the older age groups (60+) and 19.4% were aged 65 years and over. This could see the demand for wider footpaths to accommodate gophers as the trend for elderly people in maintaining their mobility independence is increasing together with requirements to upgrade more pram ramps to DDA complaint ramps.

It should be noted that the Australian Bureau of Statistics will be updating their information by the end of 2012, and subsequently this IAMP will be updated to reflect the new statistics.

The increasing urban consolidation through in-fill developments, regeneration of existing large industrial areas and large land holdings could also contribute to increase demands and damage to the footpath network.

Increases in shopping precincts, schools, age care facilities will also impact on the future demand for improved services. In addition, the shift in transport mode to bicycles will impact on the demand on shared use paths.

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the areas described in Table 4.2 below:

Table 4.2 Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Advanced Asset Management System	Improvement in extending the life of assets with greater ability to manage the assets through maintenance, capital works programming and modelling.
Financial Management System	Improved reporting on individual asset costs using the current Finance One system.
New Data Collection Technology	Collection of required works and current completed work on the fly in the field (e.g. Depot staff will be able to log work that is required as they are driving around the city and will also be able to mark work as completed as they complete it in the field). This will lead to improved accuracy of asset data.
Development of concrete additives	Increased useful life of footpaths.
New construction techniques at reduced cost	Reduced renewal costs

4.3 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures of footpaths.

The City of West Torrens Transport Strategy Report, September 2009, has identified strategies to assist the City in managing traffic movements, parking and pedestrian needs and to plan and implement transport strategies to meet the City's needs over the next 20 years. The Report provides strategies in a number of key areas:

- DPTI Road Network
- Managing freight impacts
- Pedestrian and Cycling Plans
- Public Transport
- Travel Demand Management

The Transport Strategy will influence Council's capital works programme to invest where the greatest benefit can be realised.

Opportunities identified to date for demand management practices are shown in Table 4.3 on the next page. Further opportunities will be developed in future revisions of this IAMP.

Table 4.3 Demand Management Plan Summary

Service Activity	Demand Management Plan
Prioritisation of renewals and defect repairs	Use risk profile that has been developed to actively for the basis of prioritising footpath defect repairs and renewals together with footpath upgrades to meet DDA requirements
Transport Management	As set out within “City of West Torrens Transport Strategy Report, September 2009”.

4.4 New Assets from Growth

Development growth within the City is slowing as opportunities for new developments reduce. The City of West Torrens contains very limited parcels of land suitable for sub division. Future development is likely to be limited to infill housing on generally smaller allotments. As such, assets emanating from growth are likely to be minimal and not considered in this IAMP.

However, the ageing of the population and growth in aged care facilities will increase the needs on existing infrastructure. This needs to be considered in terms of the effects it places on both the condition and the capacity of the infrastructure.

Future revisions of this IAMP will also consider the impact of changes to the Development Plan arising from the Section 30 review.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council manages and operates the assets at the agreed levels of service (defined in section 3) while optimising life cycle costs.

Assets are created and acquired to deliver the required services for Council. These assets are operated and maintained throughout their useful life and their performance and condition are monitored to ensure they deliver the necessary service.

The ability to meet the defined levels of service is determined, in part, by how the assets and resources are managed or utilised. When assets do not perform as required, they are rehabilitated, replaced or disposed of. The recurrent costs of operations and maintenance, the capital expenditure for rehabilitation and the one-off cost of replacement, all form part of the asset's life cycle costs.

The Lifecycle Management Plan outlines the management strategies, including operating strategies, maintenance strategies and capital investment strategies, for the entire life of footpath assets, through the development of the following plans:

- Operational and Routine Maintenance Plan
- Renewal / Replacement Plan
- Creation, Acquisition and Upgrade Plan
- Disposal Plan

These plans have been developed taking relevant economic and physical implications into account to ensure that the desired levels of service are met throughout the assets' useful life.

The focus of expenditure in the short term is on the reduction of risk to public safety through reduction of footpath.

The useful lives currently adopted by Council for footpath assets are as shown in Table 5.1 below together with the current unit rates for asset renewal:

Table 5.1 Asset Useful Life

Asset Component	Useful Life	Renewal Unit Rate (\$/m2)
Bitumen Footpath	30 Years	37.84
Block Paved Footpath	60 Years	87.55
Concrete Footpath	80 Years	81.84

Generally the footpath network is more susceptible to failure due to tree root problems and damage caused by contractors associated with urban infill development rather than by ageing and deterioration of the surface. Other factors such as driveway damage and service repairs also contribute to a reduction in serviceability. Materials may have a useful life of over 80 years, however due to these external factors; the level of service deteriorates and shortens the life span.

The frequency of replacing footpaths can be minimised by the implementation of proactive maintenance programs. However, while these maintenance programs will reduce the risk to public safety and help maintain the level of service of the footpaths in the short term it will not prevent the need to eventually replace a footpath once it has reached the end of its useful life.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this IAMP are shown below in Table 5.1.1.

Table 5.1.1 Footpath Assets

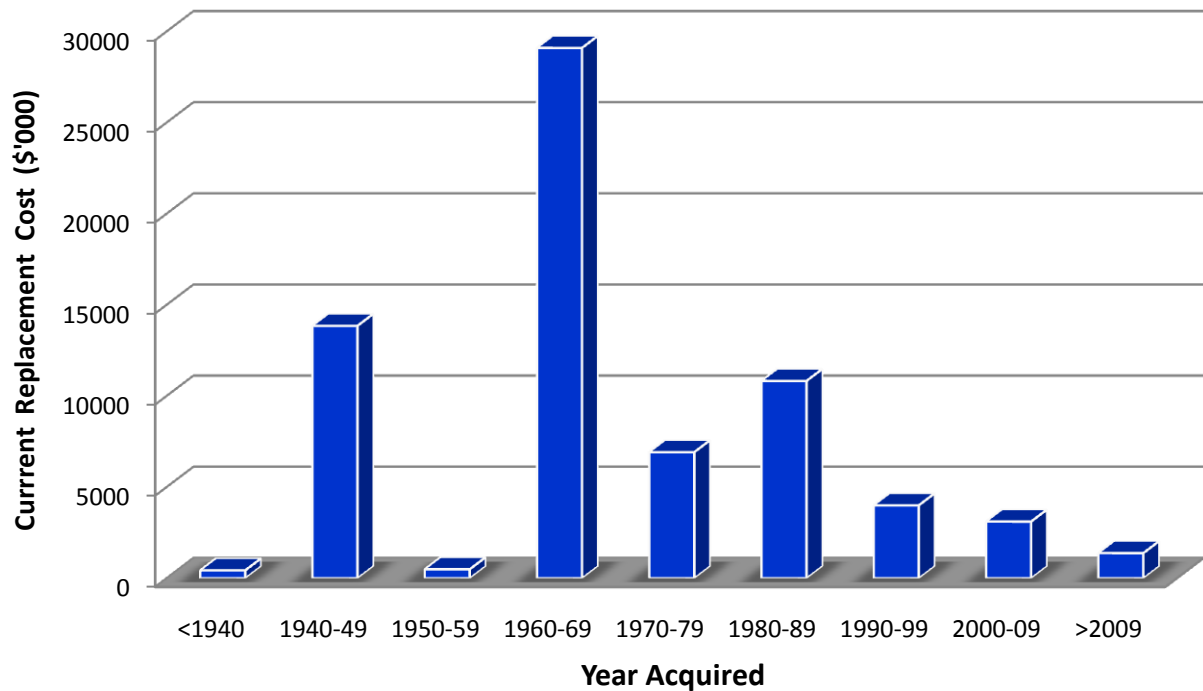
Asset Category	Length (m)	Area (m ²)	Valuation Replacement Value
Bitumen Footpath	38,594	79,679	\$3,815,496
Block Paved Footpath	67,937	121,018	\$10,167,193
Concrete Footpath	431,786	592,365	\$43,782,010
Exposed Concrete Footpath	2,096	2,837	\$209,667
Compacted Cement Treated Dolomite Footpath	1,513	4,539	\$146,996
Total	541,925	800,438	\$58,121,362

Note: Footpath Infrastructure values as at 30 June 2012 (includes shared use paths)

The above network comprises approximately **515,716 meters** of constructed footpaths and **26,209 metres** of shared use paths.

The approximate age profile of Council's footpath assets is shown below in Fig 5.1.1.

Graph 5.1.1 Asset Age Profile



The age of Council's assets in this asset category is varied (some sections may have been constructed earlier than others on the same street) and requires further verification which will be undertaken in further revisions of the IAMP. Hence, rather than examining footpaths as a whole street length, it would be more practical to examine the condition and life expectancy of segments of the footpath, for instance between Road A and Road B.

5.1.2 Asset Capacity and Performance

Council's services are generally designed to appropriate standards, where these standards are available.

Footpaths are susceptible to damage from building activity, environmental factors, such as ground movement and surface deterioration due to ageing.

Footpath locations where deficiencies in service performance are known are summarised below in Table 5.1.2:

Table 5.1.2 Known Service Performance Deficiencies

Location	Service Deficiency
Overall Footpath Network	556 height defects (trip steps $\geq 30\text{mm}$)
Overall Footpath Network	4,355 panels damaged (cracked)
Overall Footpath Network	23% of footpaths affected by Council tree roots
Sections of City	83,238 lineal metres of unsealed verge
Asset Management System	Integration with Customer Request System.

The defect deficiencies in Table 5.1.2 were identified from the condition audit of the Footpath Valuation Condition Assessment Report, August 2011.

5.1.3 Asset condition

5.1.3.1 Asset Collection Survey

Council is committed to responsibly maintaining the condition of the footpath network in a good operational condition.

The objective is to develop and implement a routine maintenance and annual reconstruction strategy that provides a safe and practically manageable footpath network with an emphasis on reduction in risk. It is Councils intention to target hazards and set priorities based on usage.

In August 2011, a recondition survey was undertaken on the entire footpath network. The mechanism used for the data collection was a scooter with a differential GPS and a data logger set up with a custom data dictionary to log the following footpath information as noted below in Table 5.1.3.1 against each footpath segment dependent upon construction type.

Table 5.1.3.1 Footpath Attributes

Footpath Type	Segment Level Condition Attribute
Asphaltic Concrete	Cracking
All Footpaths	Ravelling
	Slip hazard
	Edge drop off
	Overall appearance

Along with the segment level condition attribute, the information on defects as shown below in Table 5.1.3.1a were recorded as individual point entries, and stored against the footpath being logged.

Table 5.1.3.1a Point Defect Type

Point Defect Type	Details	Point Defect Criteria
Displacement	Concrete footpaths displacement recorded as the highest level.	>15mm and < 30mm height
	Concrete brick paved, clay brick paved, asphaltic concrete, rubber displacement more gradual and considered over 1 m straight edge	>30mm & < 50mm height
		>50mm height
Crack >2mm	Recorded for concrete footpaths only at the point defect level.	>2mm
	Recorded at the segment level for asphaltic concrete footpaths	
Gaps, Chips	Recorded for brick paved footpaths	Gaps 5-10mm some chipping, cracking
		Gaps > 10mm, pavers broken
Section Missing	Missing slabs of concrete footpaths or missing pavers etc. that occurred generally through reinstatements not being completed.	Individual panels

Where height defects (trip steps) or damage panels were found to be within a driveway area these were logged and used in a condition rating. However, these defects will not be used in calculating a cost for Council to repair, as these defects in driveways are the responsibility of the property owners. Also, defects found on the footpath that are due to service providers e.g. Telstra pits etc., were also logged for utilisation of a condition score but would not contribute to the cost of repair by Council as they are the responsibility of the relevant Service Providers.

The data collection involved field based data collection of condition attributes for each footpath at the segment level and individual defect level. Segment level condition attributes were recorded against the individual spatial footpath segments whereas the defects were collected as individual points.

Summarised in Table 5.1.3 .1b on the next page represents the percentages of total defects and the responsible stakeholder:

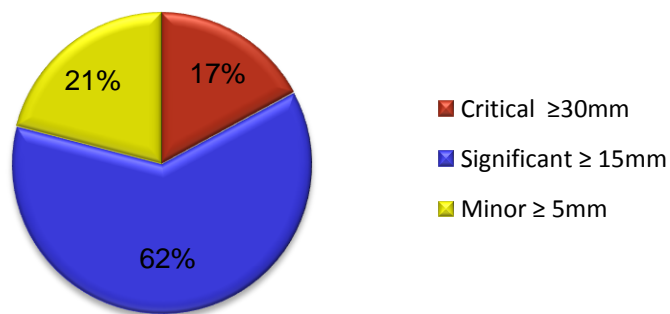
Table 5.1.3.1b Percentage of Damage Type

Stakeholder	Number of Defects	Percentage %
Council	3393	41.6%
Council Tree	1876	23.0%
ETSA	114	1.4%
Obstruction	3	0.0%
Origin	11	0.1%
Other authority / house	7	0.1%
Owner D/W	1534	18.8%
Owner S/W Pipe	334	4.1%
Owner Tree	155	1.9%
Sewer IP	237	2.9%
Telstra	466	5.7%
United Water	28	0.3%
Total	8158	100 %

A summary of footpath *displacement* defects by height can be seen in the following Chart 5.1.3.1c below:

Chart 5.1.3.1c Defects by Height

Footpath Defects by height as at June 2012



Summarised in Table 5.1.3.1d on the next page represents the percentages of total defects, the damage type and the responsible stakeholder:

Table 5.1.3.1d Percentage of Damage Type

Responsibility	Damage Type	Percentage %
Council	General	41.6
Council	Trees	23.0
Property Owners	Crossover, Stormwater Pipe, Electrical Mains, Tree	24.8
Service Providers	Electricity, Telecommunications, Sewer, Water, Gas	10.6

Data Source: Condition Survey August 2011

5.1.3.2 Data Analysis

Footpath network assets by their nature are more risk management-oriented than many other assets. This requires timely intervention to minimise risk of injury to the public due to trip hazards etc. Accordingly, the data analysis should seamlessly flow into work programs or action plans based on priorities associated with the risk identified. The condition assessment data is critical to good long term planning to maintain the network at a desired level of service.

All footpaths have been categorised by a risk profile as follows:

- Category 1 = Critical Risk
- Category 2 = Significant Risk
- Category 3 = Minor Risk

These categories are linked to land use and pedestrian usage. For instance, a resident footpath on a cul-de-sac is a minor risk, whereas a footpath fronting a shopping centre is a critical risk (being of significantly higher usage).

The 2011 data is currently being prioritised in the development of proactive renewal / maintenance programs using the risk categories documented above.

The individual defect and overall footpath segment condition has been combined and analysed to produce an overall footpath condition from 1-5 for valuation purposes.

The 1 – 5 rating system is shown below in Table 5.1.3.2.²

Table 5.1.3.2 Condition Measuring Score

Score	Description of Condition	Comments
1	Excellent condition	Only planned maintenance required
2	Very good	Minor maintenance required plus planned maintenance
3	Good	Significant maintenance required
4	Average	Significant renewal/upgrade required
5	Poor	Unserviceable.

² IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

A breakdown of the scores within the network is presented in the table 5.1.3.3 below:

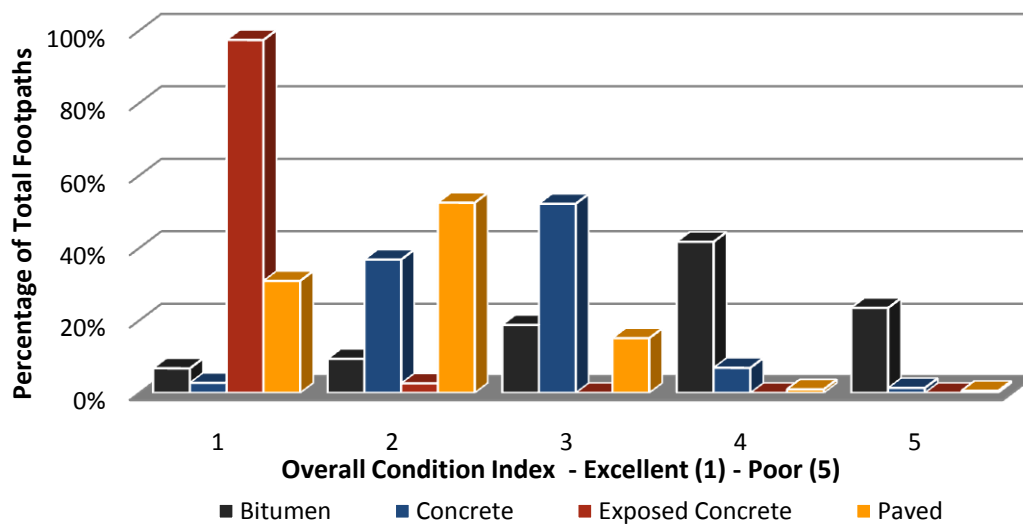
Table 5.1.3.3 Overall Footpath Segments Condition Score

Score	Number of Footpath Segments	% of Network
1	371	34
2	1744	25
3	2063	22
4	341	12
5	99	6
TOTAL	4618	100 %

Data Source: Condition Survey August 2011

The condition profile of Council's assets is shown below in Graph 5.1.3.4.

Graph 5.1.3.4 Asset Condition Profile



Source: Condition Rating undertaken by City Assets, 2011

Prior to the 2011 survey Council undertook a similar footpath condition survey in 2005. Since the data condition survey of 2005, Council has continued with implementing a proactive replacement program each year and to date the number of defects by height (height differentials) ranging from $\geq 5\text{mm}$ to $> 50\text{mm}$ decreased from 6,057 (2005) to 3,305 (2011); damaged panels have increased from 3,700 (2005) to 4,355 (2011); and the least number of defects recorded were for gaps caused by chipping or broken pavement which totalled 82.

In summary, the footpath network is considered to be in a good condition. A small percentage of the network requires major works with regard to the repairing of major height defects and damaged panels. There is a **small percentage (6%)** of the footpath network that requires renewal due to the segment length having a condition index score of 5, furthermore.

5.1.4 Asset valuations

The value of assets as at June 2012 covered by this IAMP is summarised in table 5.1.4 below. Assets were last re-valued at June 2012 and were valued at Brownfield rates.

Table 5.1.4 Asset Valuations

Value Type	Value (June 2012)
Current Replacement Cost	\$58,121,362
Depreciable Amount	\$58,121,362
Depreciated Replacement Cost	\$35,556,750
Annual Depreciation Expense	\$938,035

Council's sustainability reporting highlights the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

- **Asset Consumption 1.6%**
Rate of annual asset consumption*
 A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

(Average annual asset consumption (AAAC)*
 the amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset.
- **Asset renewal 0.5%**
Rate of annual asset renewal*
 A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).
- **Annual Upgrade/expansion 0.4%**
Rate of annual asset upgrade*
 (A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

5.2 Risk Management Plan

An assessment of risks³ associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the infrastructure risk management plan are summarised in Table 5.2 on the next page.

³ City of West Torrens "Core" Footpaths Infrastructure Risk Management Plan. Version 052008

Table 5.2 Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H, M)	Risk Treatment Plan
Footpath Network	Pedestrian falling due to trip hazards	H	Implement planned maintenance and renewal program for all footpaths linked to the risk rating. Investigate more suitable tree species and alternative treatments...
Footpath Network	DDA Discrimination	M	Continue to implement installation of hard paved surface on one side of the road reserve.
Paved Footpaths	Paver movement	H	Assess likelihood of recurrence. Isolate recurring faults, repair/replace as required. Investigate replacement of high recurrence areas with flexible surface treatment.

5.3 Routine Maintenance Plan

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Maintenance expenditure trends are shown below in Table 5.3.1.

Table 5.3.1 Maintenance Expenditure Trends

Year	Maintenance Expenditure
2009/10	\$986,563
2010/11	\$1,097,301
2011/12	\$1,214,270

Planned maintenance work is generally 22% of total maintenance expenditure whilst 78% is reactive maintenance work.

Maintenance expenditure levels are considered to be adequate to meet required service levels. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement. Reactive maintenance is recorded in Council's customer service system.

5.3.2 Standards and specifications

Maintenance work is carried out in accordance with the following Standards and Specifications.

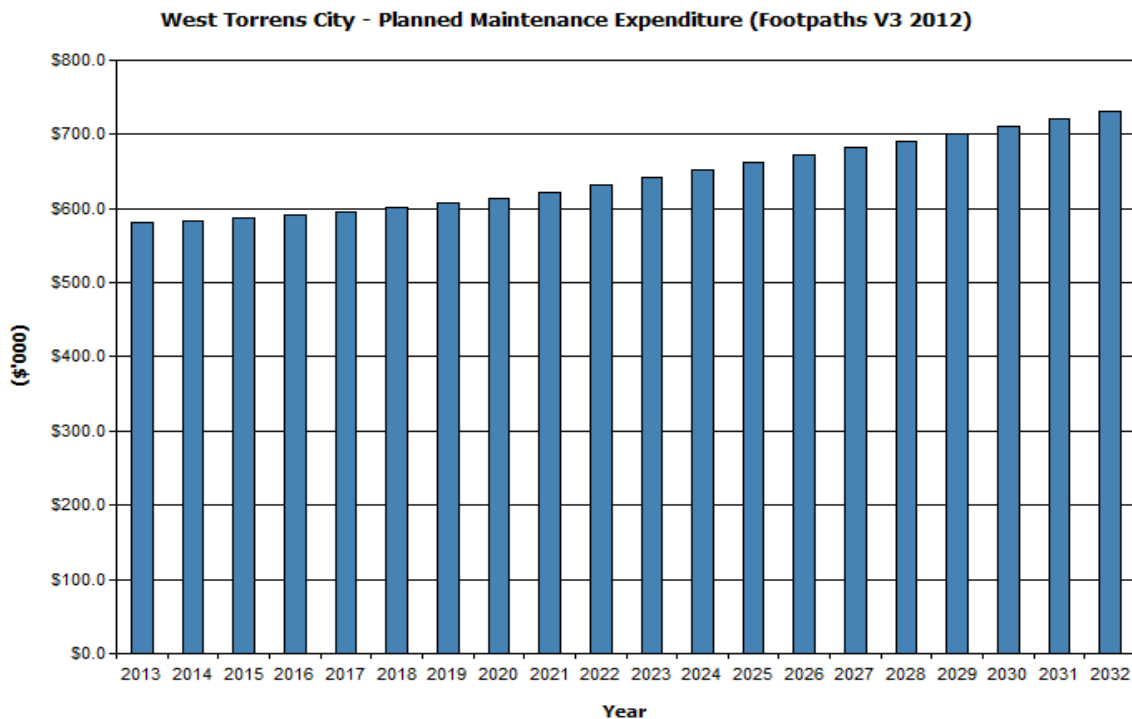
- Council's Standard Drawings
- Australian Standards

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast to trend in line with the condition standard being kept in mind when undertaking the assessment and is used as a guide when identifying work requirements. Graph 5.3.3 below show the expenditure forecast for projected planned and reactive maintenance respectively. Note that all costs are shown based on 2012 dollar values.

The projected maintenance response level is shown in Appendix B using the condition data as the source.

Graph 5.3.3 Planned Maintenance Expenditure



Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded is to be included in the risk assessment process in the infrastructure risk management plan.

Maintenance is funded from Council's operating budget and grants where available. This is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

5.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register worksheets on the '*Planned Expenditure template*'. Candidate proposals are inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below in Table 5.4.1.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Condition Score	70
Existing site conditions and presence of adjacent footpaths	10
Land Use	10
Proximity to pedestrian generators	10

Renewal will be undertaken using 'low-cost' renewal methods, such as resurfacing AC footpaths rather than replacing the entire footpath including the base. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

The footpath condition and defect data collection project has identified footpaths that are in very poor condition and in need of replacement since it would be more economic to replace them rather than repair individual defects. Furthermore it has broadly categorised footpaths into condition scores from 1-5 for valuation purposes.

The footpath network is more susceptible to failure due tree root problems and damage due to contractors associated with urban infill rather than by ageing and deterioration of the surface. Other factors such as driveway damage and service repairs also contribute to a reduction in serviceability. Materials could have life spans over 80 years, however due to such external factors the level of service deteriorates below acceptable standards over a shorter period of time.

Therefore the frequency of replacing footpaths can be minimised by the implementation of proactive maintenance programs. However, while these maintenance programs will reduce the risk to public safety and help maintain the level of service of the footpaths in the short term it will not prevent the need to eventually replace a footpath once it has reached the end of its useful life.

Due to the influence of maintenance activities (defect repairs) on a footpaths remaining life the footpath condition data collection project has only realistically identified footpaths segments in need of immediate economic replacement whereas the funds required for footpath renewals over the term of the 20 year asset management plan have been approximated by considering the age and useful life of paths.

The footpath condition analysis has identified renewals in the first year of the plan of \$1.27m as being required which essentially equates to existing footpaths that do not meet the defined levels of service. The age based analysis has identified that on average \$478k is required for the first 10 years of the plan and \$788k for the last 10 years of the plan. The construction dates show that approximately 80% of the network has greater than 50% of its useful life remaining. This indicates that within the following 10 years, based on available information, there will be no need for major footpath replacement to occur in order to maintain the current level of service standards.

It is also intended to resurface bitumen footpaths that do not have a shared use, such as bike tracks, to block pavers. The renewal cost for paving has been included in the analysis.

5.4.2 Renewal standards

Renewal work is carried out in accordance with the following Standards and Specifications.

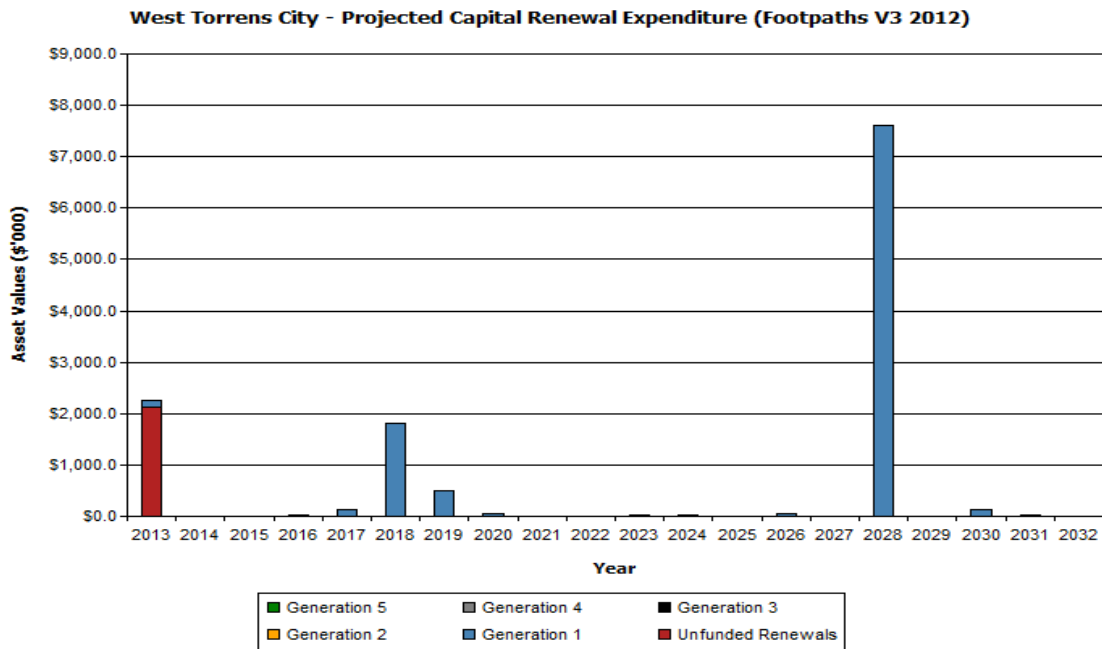
- Council’s Standard Drawings
- Council’s Work Specifications
- Austroads, Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths

5.4.3 Summary of future renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised below in **Graph 5.4.3**. Note that all costs are shown in current 2012 dollar values.

The projected capital renewal program is shown in Appendix C using the condition data as the source. Note that only the renewals that do not meet current service levels have been included.

Graph 5.4.3 Projected Capital Renewal Expenditure (age based analysis)



Deferred renewal, i.e. those assets identified for renewal and not scheduled for renewal in capital works programs are to be included in the risk assessment process in the risk management plan. Renewals are to be funded from Council’s capital works program and grants where available. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4. However, future development is likely to be limited to infill housing on smaller allotments. It is assumed that there is no creation / acquisition from new growth.

This IAMP considers recommendations adopted by Council in the strategic report *Bicycle Strategy 2006* and, *City of West Torrens Transport Strategy, Transportation for the next Generation 2025*, in particular the strategy recommendation in the latter "Part 1, Section 9 –Pedestrians and Bicycles":

Implement the footpath plan to guide the installation of pedestrian facilities including footpaths, shared use paths and support facilities.

The IAMP also considers shared use paths. The installations of these facilities are undertaken in-line with Councils Strategic Bicycle Plan report and funding is often received from the State Government as part of the annual State Bicycle Grants.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate.

In establishing a program for new paths a Priority System has been developed with the purpose to technically prioritise the order in which new footpaths are installed within Council via a rating system. The installation of new footpaths applies to:

Local roads that do not have a footpath on either side of the road;

Collector and arterial roads that do not have footpaths on both sides of the road; and

Local roads where a footpath is required on both sides of the road due to high pedestrian demand such as bus route, school, shopping centre, nursing home.

Under the Disability Discrimination Act (DDA) it is a requirement that there is a footpath on one side of all roads, for the safety and accessibility of pedestrians. Local and major collector roads which carry over 3,000 vehicles per day and are defined in Councils Transport Strategy should have a footpath on both sides of the road for the safety of pedestrians, along with areas that have high pedestrian demand.

For roads that require a footpath on one side of the road, a recommendation will be given on which side of the road a footpath should be placed based on location of existing paths and pedestrian movements from facilities. However, further investigation will be required to determine which side of the road the footpath shall be installed on as this listing of selections is only a desk top study.

On completion of the program, Council will have met its DDA requirements and undertaken the footpath works based on a priority system to ensure that footpaths are installed in a logical order. After completion of the program, local roads where there is one footpath on one side of the road can be assessed to determine if a footpath should be placed on the other side of the road.

The priority ranking criteria is detailed in Table 5.5.1 on the next page.

Table 5.5.1 New Assets Priority Ranking Criteria

Criteria	Weighting	
<p>Road Hierarchy - The hierarchy of roads is outlined in the <i>City of West Torrens Transport Strategy, Transportation for the next Generation 2025</i>.</p>	Road Hierarchy	Score
	Arterial Roads	5
	Major Collector Roads	4
	Local Collector Roads	3
	Local Roads	2
	Local Road (cul-de-sac)	1
<p>Land Use - The land use is based on the West Torrens Development Plan 2011 where the following zones are grouped together:</p> <p>Commercial/Industrial - Commercial Zone, Industrial Zone, Airfield Zone, Bulky Goods Zone</p> <p>Recreational/Shopping - communality zone, district centre zone, local centre zone, neighbourhood centre zone, open space zone, coastal open space zone</p> <p>Residential - residential zone</p>	Land Use	Score
	Commercial/Industrial	3
	Recreational/Shopping	2
	Residential	1
<p>Proximity to Pedestrian Generators - Pedestrian generators which create high pedestrian movements of children, elderly and people with a disability, score a high rating. Community Facility includes such uses as churches, libraries, community centres.</p>	Generator	Score
	Primary school within street	5
	Primary school within 500m	3
	High School or TAFE within street	4
	High School or TAFE within 500m	2
	Kindergarten within street	5
	Retirement / Nursing Home within street	5
	Shopping Centre within street	4
	Community Facility within street	4
	Park or Shared Use Path within street	3
	Bus Route within street	3
	Bus Route within 300m	2
	Other	1

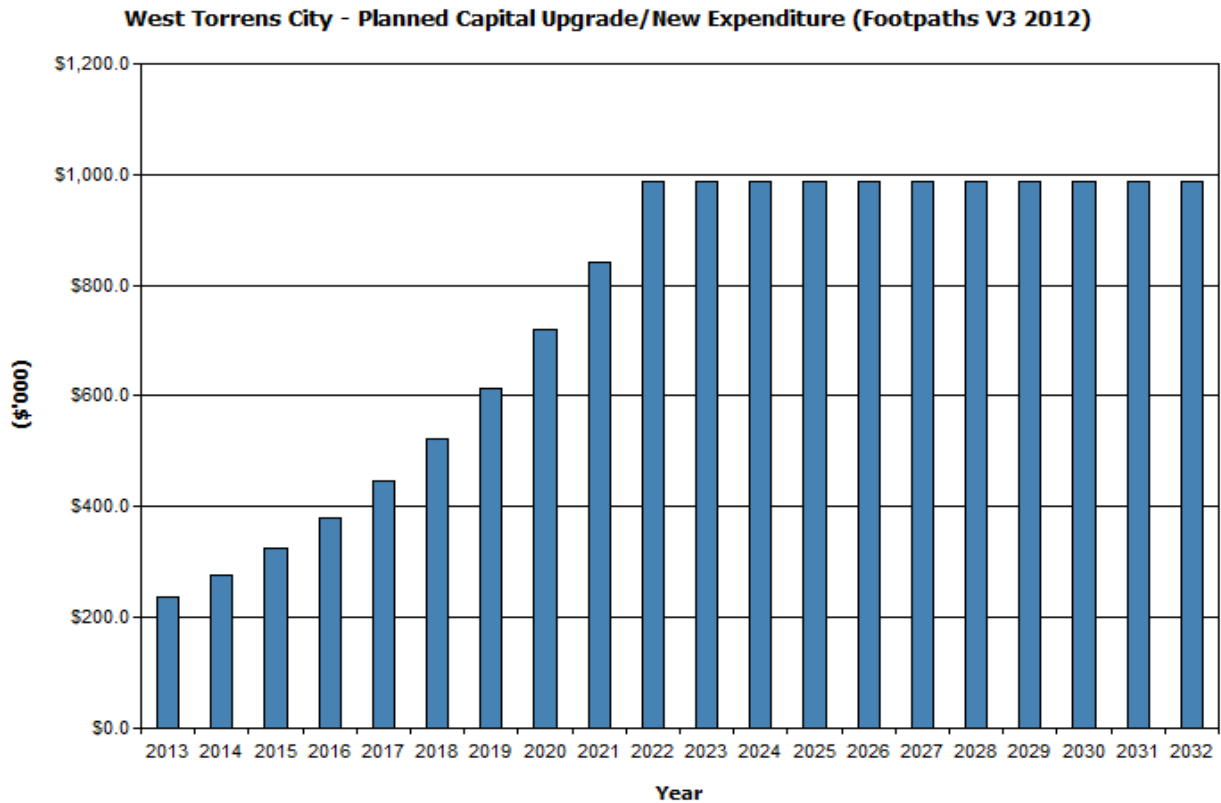
5.5.2 Standards and specifications

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of future upgrade/new assets expenditure

Planned Capital upgrade/new asset expenditures are summarised below in Graph 5.5.3. The planned upgrade/new capital works program is shown in Appendix D. All costs are shown in current 2012 dollar values.

Graph 5.5.3 Planned Capital Upgrade/New Asset Expenditure



New assets and services are to be funded from Council's Capital Works Program and grants where available. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation.

Since all current footpaths provide a level of service to the community no disposals have been identified in the preparation of this plan.

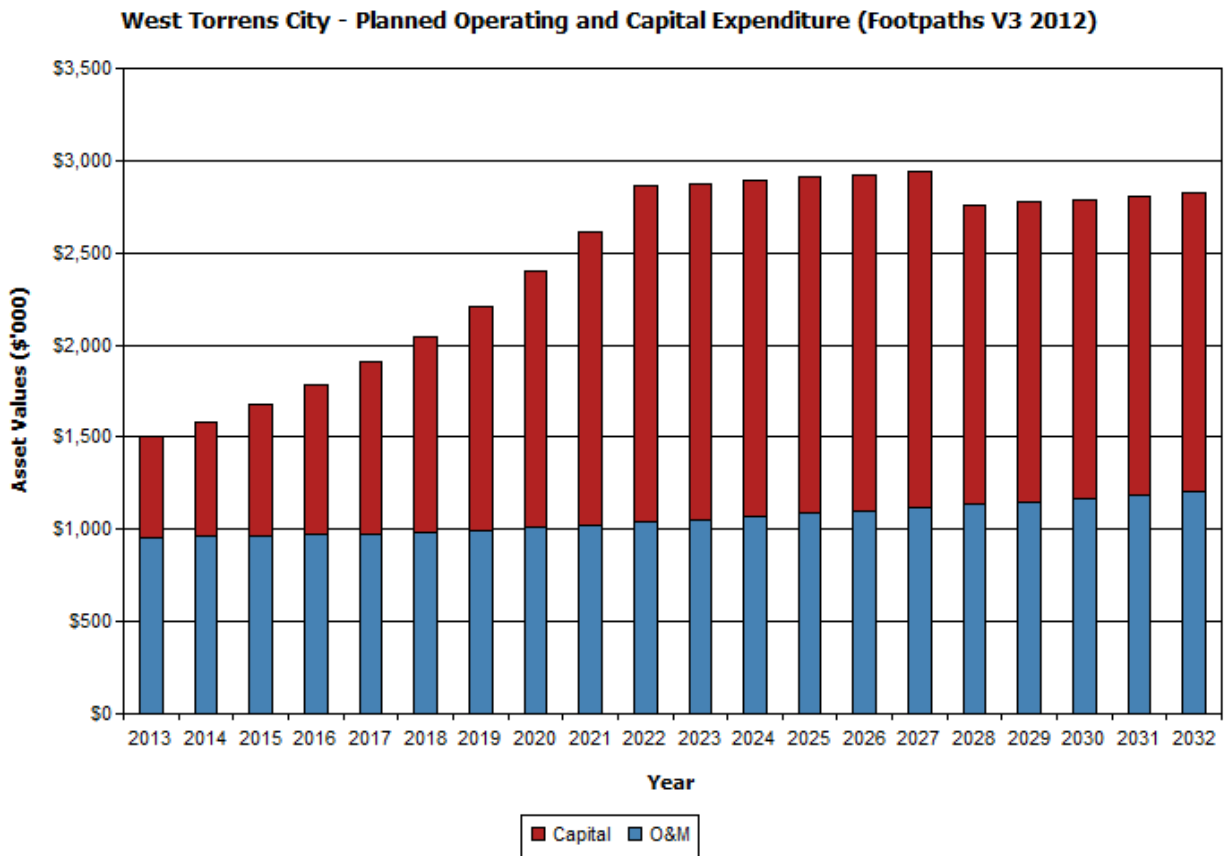
6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

6.1 Financial Statements and Projections

The financial projections are shown in Graph 6.1 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Graph 6.1 Planned Operating and Capital Expenditure



Note that all costs are shown in current 2012 dollar values.

The above 2013 costs include \$579k for maintenance (predominantly defect repairs), \$372k for operations (overheads on internal labour and contractors), \$310 for capital renewal and \$237k for capital new.

6.1.1 Sustainability of service delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The **annual average life cycle cost** for the services covered in this asset management plan is **\$1,687,457**.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The **life cycle expenditure at the start of the plan is \$1,278,002**.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this footpaths asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The life cycle gap for services covered by this asset management plan is **\$409,455 per annum**. The life cycle **sustainability index is 0.76**.

Medium term – 10 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This may be compared to existing or planned expenditures in the 10 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

Graph 6.1.1 on the next page shows the projected asset renewals in the 20 year planning period from the asset register (based on age). The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Table 6.1.1 on the next page shows the annual and cumulative funding gap between projected and planned renewals.

**Graph 6.1.1 Projected and Planned Renewals and Current Renewal Expenditure
(age based analysis)**

West Torrens City - Projected & Planned Renewals and Current Renewal Expenditure (Footpaths V3 2012)

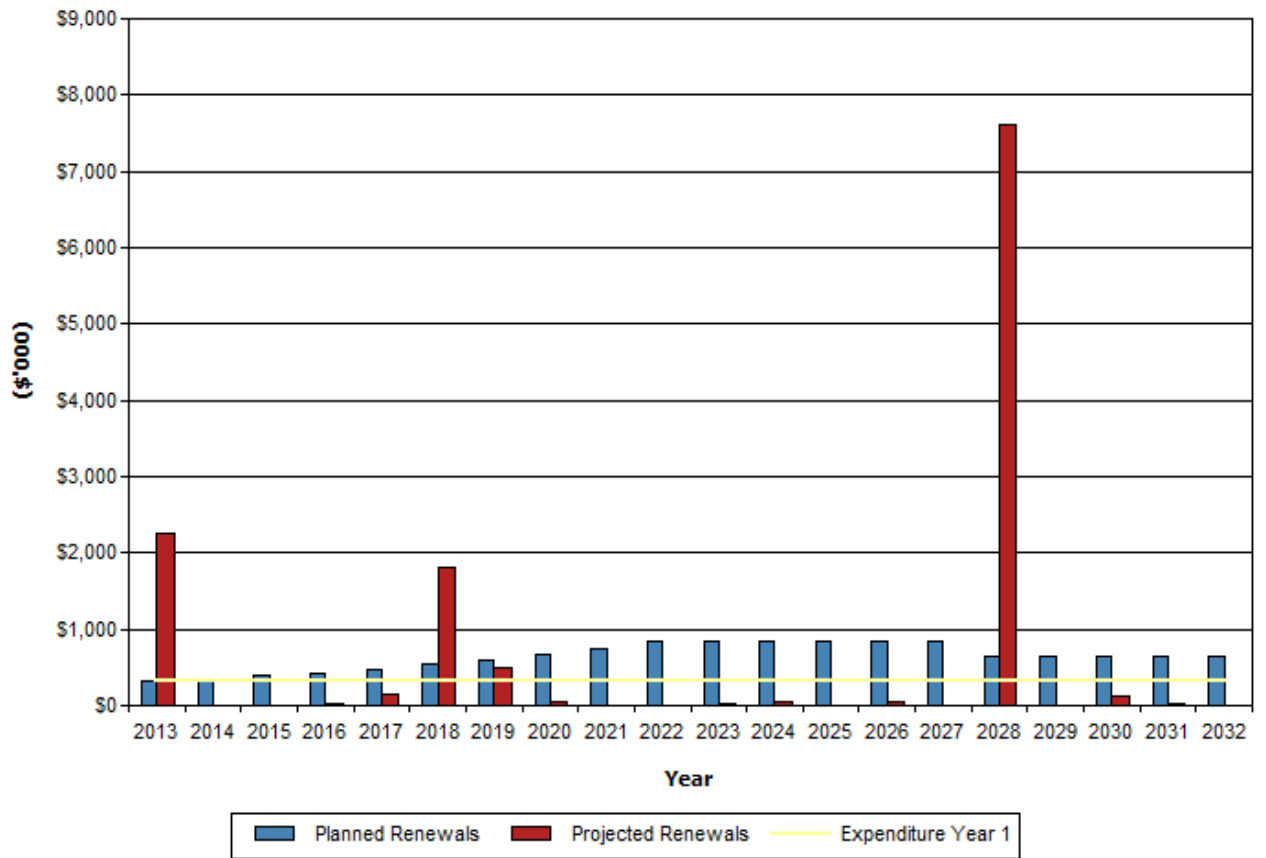


Table 6.1.1 below shows the gap between projected and planned renewals.

Table 6.1.1 Projected and Planned Renewals and Expenditure Gap (\$'000) (age based)

Year	Projected Renewals	Planned Renewals	Renewal Funding Gap	Cumulative Gap
2013	2255.66	310.72	1944.94	1944.94
2014	0	346.69	-346.69	1598.25
2015	0	386.83	-386.83	1211.42
2016	32.98	431.62	-398.64	812.78
2017	137.27	481.6	-344.33	468.45
2018	1820.68	537.36	1283.32	1751.76
2019	492.89	599.58	-106.68	1645.08
2020	39.53	669	-629.47	1015.61
2021	0	746.46	-746.46	269.15
2022	0	832.89	-832.89	-563.74
2023	14.03	832.89	-818.86	-1382.61
2024	39.06	832.89	-793.83	-2176.44
2025	0	832.89	-832.89	-3009.33
2026	43.24	832.89	-789.65	-3798.98
2027	0	832.89	-832.89	-4631.87
2028	7621.46	634.39	6987.07	2355.2
2029	5.11	634.39	-629.28	1725.92
2030	131.84	634.39	-502.55	1223.37
2031	20.12	634.39	-614.27	609.1
2032	7.51	634.39	-626.88	-17.78
Total	\$12,261.38	\$12,679.15	\$-17.76	\$1,050.28

Note: These figures are in present value terms and are not indexed by inflation.

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

Council will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services and commit to a lending program which incorporates the footpath assets.

Council's long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is **\$10,795,350**.

This is an average expenditure of \$1,079,535. Estimated maintenance and capital renewal expenditure in year 1 is \$892,080. The 10 year sustainability index is 1.05.

The analysis above indicates a surplus of \$564k at 10 years. It is proposed to allocate this surplus to the upgrade of footpaths on major roads to a higher level of service than initially used in the analysis of the data in the preparation of this plan.

6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from Council's operating and capital budgets, loans and reserves, Federal and State Government grants. The funding strategy is detailed in the Council's 10 year long term financial plan.

Achieving the financial strategy will require Council to commit to a loan program that will result in loan liabilities increasing from \$12.91 million to \$50.15 million which will incorporate all infrastructure assets. A significant but manageable increase is demonstrated in Table 6.2 below. Interest rate borrowings ranging from 6.25 to 6.75 per cent have been estimated, along with a 15 year borrowing term.

Loan repayments as a percentage of rates is the benchmark that is best used to assess a Council's relative indebtedness. The projected percentages for West Torrens based on the projected loan program are as follows:

Table 6.2 Projected Loan Repayments

Financial Year	Projected Loan Repayments	Loan % of Rates
2009/10	2,485,768	7.6
2010/11	2,280,570	6.1
2011/12	2,219,539	5.5
2012/13	2,219,539	5.2
2013/14	2,219,539	4.8
2014/15	2,864,981	5.8
2015/16	3,538,637	6.7
2016/17	4,105,045	7.3
2017/18	4,848,604	8.1
2018/19	4,734,718	7.4
2019/20	4,892,841	7.1
2020/21	5,580,316	7.6

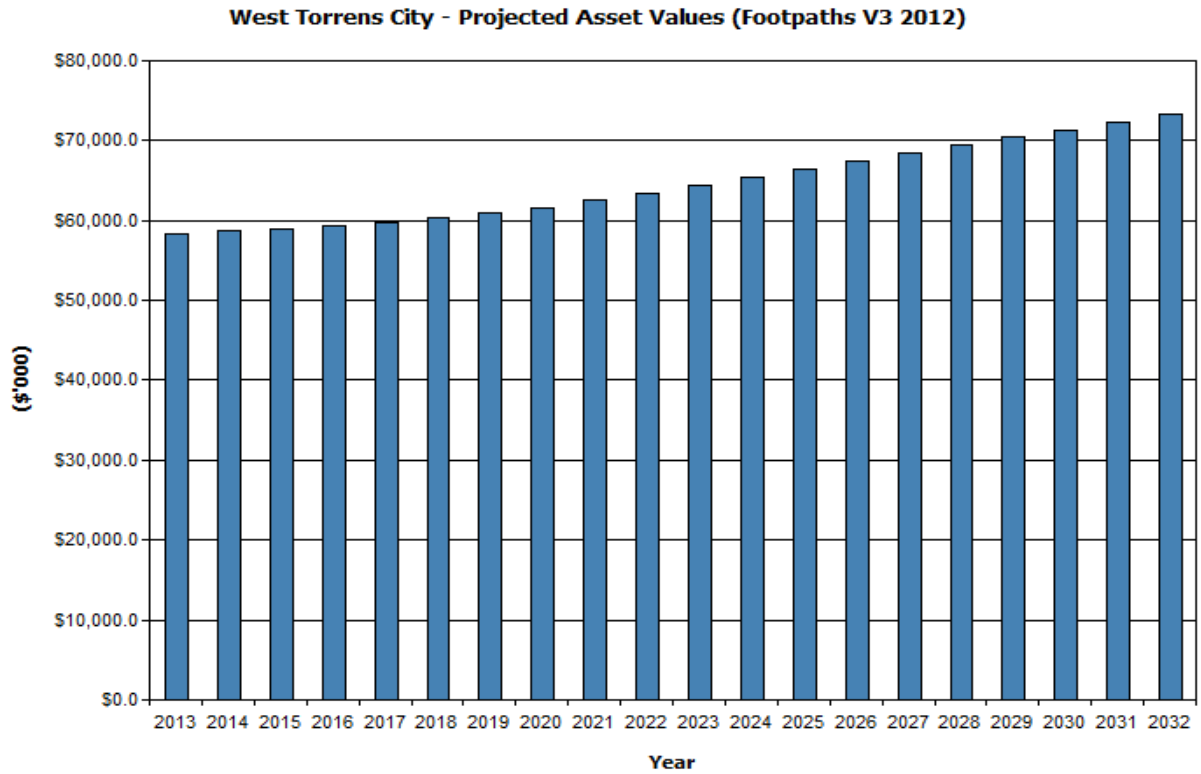
Data Source: Adopted budget and annual business plan 2012/13

A percentage between zero and 25 per cent would normally be considered as being reasonable. Metropolitan councils in South Australia ranged from 0.0 per cent to 24.1 per cent in 2008/2009.

6.3 Valuation Forecasts

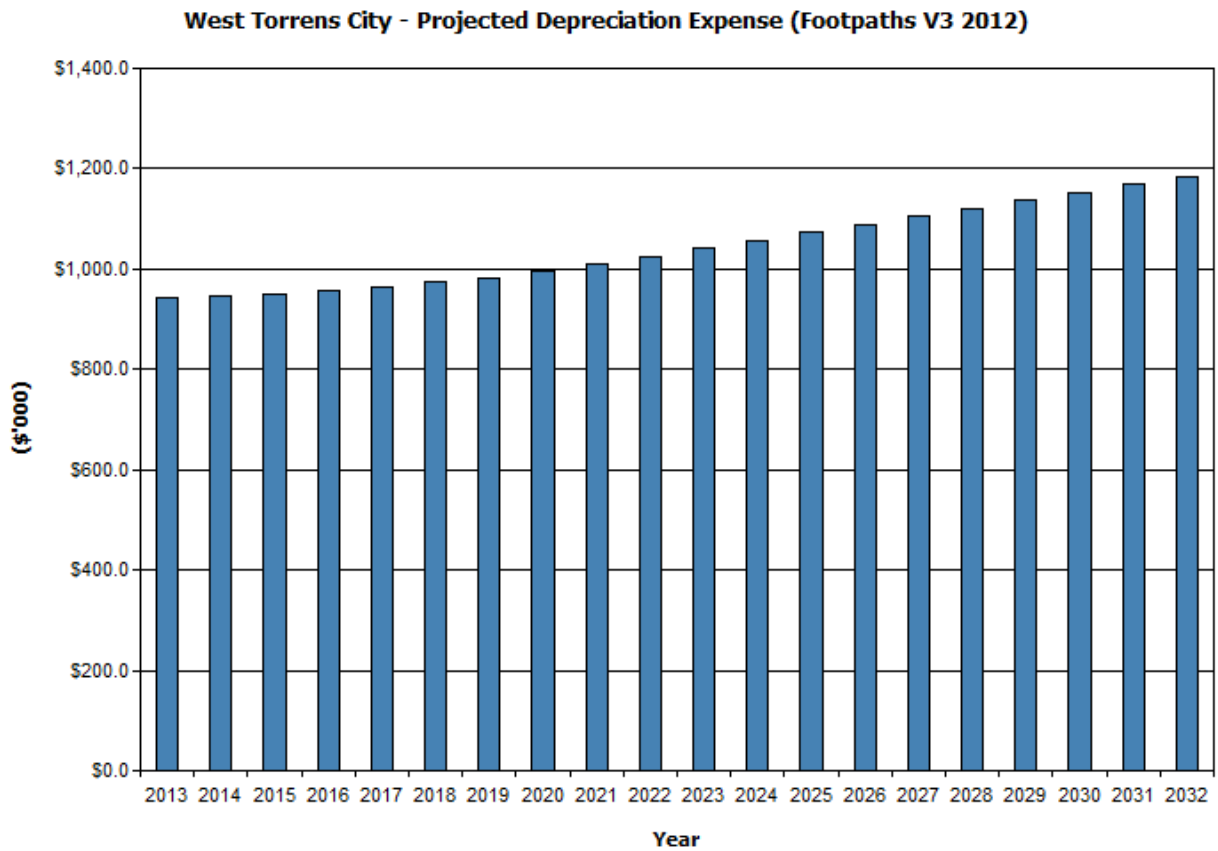
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Graph 6.3.1 below shows the projected replacement cost asset values over the planning period in current 2012 dollar values.

Graph 6.3.1 Projected Asset Values



Depreciation expense values are forecast in line with asset values as shown below in Graph 6.3.2.

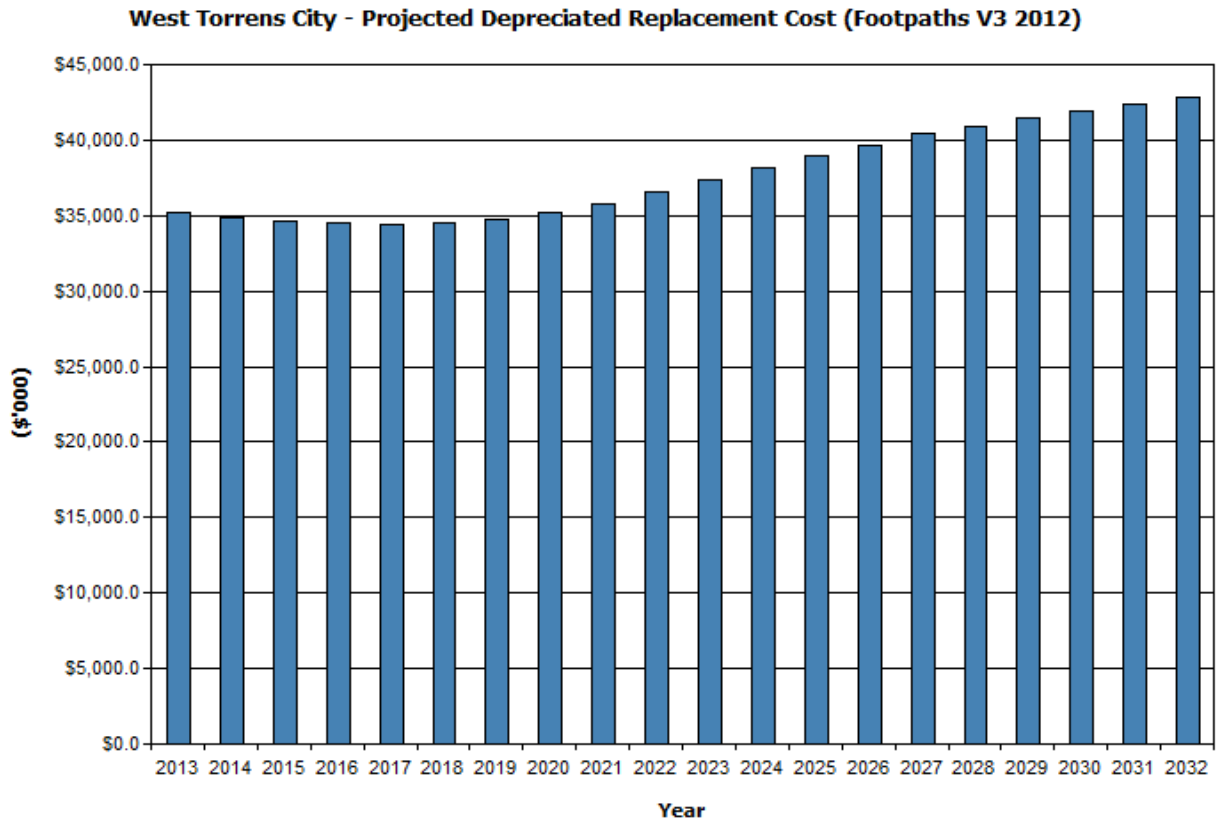
Graph 6.3.2 Projected Depreciation Expense



The depreciated replacement cost (current replacement cost less accumulated depreciation) will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in Graph 6.3.3 on the next page.

Council currently records depreciation for footpaths by the straight line method. The useful life of an asset is defined as the period which a depreciable asset is expected to be fully utilised, however, this period can be significantly impacted on by maintenance practices.

Graph 6.3.3 Projected Depreciated Replacement Cost



6.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

All figures are based on 2012 rates and are not adjusted by the inflation rate for the particular year of works.

The figures compare to an annual reported depreciation figure of **\$938k**.

- Nil growth.
- Present service levels to remain constant over the life of the plan.
- Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions.
- Regular 5 yearly condition survey of the footpath network.
- Defining community level service
- Consider improved condition rating system to address serviceability and remaining useful life.

6.5 Confidence Levels

Confidence in the data used as the basis for these forecasts has been assessed using the grading system as seen in Table 6.5

Table 6.5 Data Confidence Grading System

Grade	Definition
A	Very reliable. Data based on sound records, procedures, investigations and analysis that is properly documented and recognised as the best method of assessment.
B	Reliable. Data based on sound records, procedures, investigations and analysis that is properly documented but has some minor shortcomings, such as age.
C	Uncertain. Data based on records, procedures, investigations and analysis which is incomplete, unsupported, or extrapolated from a limited sample.
D	Very uncertain. Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

The overall confidence level has been based assessed as B.

To improve confidence in the figures, the following steps could be undertaken:

- In order to keep track on works and ensure all data on assets is meaningful and reliable all works and activities associated with a particular asset should be consistently attributed to the asset listed in Conquest.
- Validate age of assets.

7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

Council uses 'Finance One' as its corporate finance system and is administered through the Finance Department.

Guidance in recognising and reporting on assets is provided by;

- Local Government Act 1999
- Local Government (Financial Management) Regulations 1999
- AASB Accounting Standards

Council adopted a Capitalisation of Assets Policy (CPP.48) on 4 November 2008. In summary, for footpath, assets will be capitalised when:

- It is probable that the future economic benefits embodied in an asset will eventuate; and
- The asset possesses a cost that can be measured reliably, and its value, at the time of Council gaining control over the asset, is in excess of:

Footpaths - new construction/renewals	\$10,000
--	-----------------

Where the value of individual assets falls below the asset threshold for capitalisation, but the assets form part of a network or asset group, consideration will be given to capitalising the individual asset based on whether the aggregate value of those assets exceeds the capitalisation threshold. Assets to be considered will be referred to the Manager Financial Services for a determination.

Acquisition costs of assets with less than these values will be treated as operating expenses.

Changes to the financial system should be in the way of amending the chart of accounts to identify operational costs, maintenance cost and capital cost.

7.2 Asset Management Systems

Asset Management information systems are defined as the system that support asset management processes and manipulate the relevant data. This includes the following asset management functions:

Asset registers

Financial systems

Maintenance management systems

Capital works programming

As constructed plans

Geographical information systems

Advanced applications such as deterioration modelling

Future demand analysis

The City of West Torrens uses “Conquest” as its Asset Management System.

Currently there is no integration of Conquest with the ‘Finance One,’ Council’s corporate finance system. Capital expenditure is currently partially uploaded via CSV files and manually posted.

Conquest is administered through the City Assets business unit and has a full time coordinator responsible for its development and implementation together with one full time officer. In addition, the Asset Accountant, located within the Finance Department also has administrative responsibilities.

It is apparent through the development of this asset management plan that better integration is required with the finance system. Also, it is suggested that it would be appropriate to review the use of the Asset Management System to generate and report on proactive maintenance works programs.

7.3 Information Flow Requirements and Processes

The key information flows *into* this asset management plan are:

- The assets register data on size, age, value, and remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by council.
- The key information flows *from* this asset management plan are:
- The assumed Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

These will impact the Long Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets.

All capitalised expenditures are to be recorded in Council’s asset register and shall be properly identified, recorded and classified. For each asset, a determination shall be made of its total life, remaining useful life, cost for accounting purposes and method of depreciation.

All asset recorded in the fixed asset register should be correctly allocated to their specific asset class, asset category and asset group.

Assets acquired by Council shall be recorded using the cost method of accounting which is the fair value given as consideration plus costs incidental to acquisition including architect’s fees, engineering fees and all other costs incurred in preparing the asset ready to use.

The cost of assets constructed by Council shall include the cost of all materials used in construction, direct labour employed, contractor cost and an appropriate allowance for Council overheads.

7.4 Standards and Guidelines

City of West Torrens, Asset Management Policy, 7 November 2007

City of West Torrens, Capitalisation of Assets Policy, 6 March 2012

City of West Torrens, Impairment of Assets Policy, 6 March 2012

City of West Torrens, Revaluation of Assets Policy, 6 March 2012

City of West Torrens, Annual Budget Policy, 4 March 2008

City of West Torrens, Treasury Policy, 6 March 2012

Local Government Act 1999

Local Government (Financial Management) Regulations 1999

AASB Accounting Standards

City of West Torrens, Transport Strategy, September 2009

City of West Torrens, Bicycle Strategy 2006

International Infrastructure Management Manual – 2006

Disability Discrimination Act, 1992

8. PLAN IMPROVEMENT AND MONITORING

8.1 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

The degree to which the required cashflows identified in this asset management plan are incorporated into council's long term financial plan and Strategic Management Plan;

The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan;

8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.2 below.

Table 8.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Council endorsement of this plan	City Assets		Dec. 2012
2	Develop an inspection program to log defects and manage routine maintenance.	City Assets		2013/14
3	Develop financial expenditure category identification	Finance Unit		2013/14
4	Undertake consultation exercise with stakeholders to determine appropriate levels of service.	Communication Unit/ City Assets	Budget Allocation	2014/15
5	Develop a Data Management Executive Standard	GIS Coordinator		2013/14
6	Develop the use of Conquest for proactive/cyclic and maintenance works, including recording all costs against each asset.	Asset Management Unit	Budget Allocation	2013/14
7	Documentation of accountabilities and responsibilities for Councils asset management system.	Asset Management Unit		2013/14
8	Review useful life of footpath asset components	City Asset	Budget Allocation	2013/14
9	Prioritise renewals and maintenance activities based upon risk category of footpath.	City Assets		2013/14

8.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

City of West Torrens Community Plan, "Towards 2025", November 2011

City of West Torrens Adopted Budget and Annual Business Plan 2012/13

City of West Torrens Asset Management Strategy Review, June 2005

City of West Torrens Transport Strategy Report, September 2009

City of West Torrens Bicycle Strategy Report, 2006

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<http://www.dvc.vic.gov.au/web20/dvclgv.nsf/allDocs/RWP1C79EC4A7225CD2FCA257170003259F6?OpenDocument>

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au

APPENDICES

Appendix A Long Term Financial Plan (2013 – 2022)

Appendix B Projected Footpath Maintenance Response

Appendix C Projected Footpath Renewals (based on condition) 5 year Capital Works

Appendix D Planned Upgrade/Expansion/New 10 year Capital Works Program (2013 – 2022)

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Appendix A – Long Term Financial Plan (2013 – 2022)

Financial Year	20012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Renewal Works – including strategic streetscape projects	\$310,715	\$346,692	\$386,833	\$431,623	\$481,598	\$537,360	\$599,578	\$669,000	\$746,460	\$832,890
Reactive Works	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000
New Footpaths – construction of new footpaths over existing grass verge or unsealed footpath	\$236,847	\$277,570	\$325,295	\$381,225	\$446,771	\$523,588	\$613,612	\$719,115	\$842,758	\$987,660
Total	\$677,562	\$754,261	\$842,128	\$942,847	\$1,058,369	\$1,190,948	\$1,343,190	\$1,518,115	\$1,719,218	\$1,950,549

Appendix B – Projected Footpath Maintenance Response

In order to maintain the footpath infrastructure to meet the intent of the level of service and risk elements of this plan a maintenance program will be developed on a risk priority system based on the condition data collected in August 2011.

All footpaths are categorised by a risk profile provided by the Council:

Category 1 = Critical Risk

Category 2 = Significant Risk

Category 3 = Minor Risk

These categories are linked to land use and pedestrian usage. For instance, a resident footpath on a cul-de-sac is a minor risk, where as a footpath fronting a shopping centre is a critical risk.

The priority ranking criteria for maintenance activities will follow the criteria set for new assets as seen in Table 5.5.1.

The following maintenance activity and standards have been established based on the importance of reducing the risk in each category and total work required:

- Critical footpaths are to be repaired within the next 1 year.
- Significant footpaths are to be repaired within the next 3 years.
- Minor footpaths are to be repaired within the next 5 years.

Appendix C - Projected Footpath Renewals 10 year Capital Works Programs (2013 – 2022)

West Torrens City >> Renewal Program (Footpaths V3 2012)								
UID	Asset ID	Sub	Asset Name	From	To	Remaining	Renewal	Useful
		Category				Life	Cost	Life
						(Years)	(\$)	(Years)
28006116	71898	Bitumen Footpath	Adelaide Shores Open Space Bitumen Footpath	0	0	5	\$143,897.20	30
28005027	68325	Block Paved Footpath	ANDERSON ST Left	STIRLING ST	HOLLAND ST	0	\$11,492.69	60
28005028	68326	Concrete Footpath	ANDERSON ST Left	STIRLING ST	HOLLAND ST	0	\$1,524.68	80
28005029	68881	Bitumen Footpath	ANN ST Left	WEST THEBAR	RD to END	0	\$9,467.66	30
28002859	69876	Block Paved Footpath	ASHLEY ST Right	HUNTRISS ST	SOUTH RD	0	\$11,533.84	60
28002856	69976	Concrete Footpath	ASHLEY ST Right	HUNTRISS ST	SOUTH RD	0	\$10,564.73	80
28002858	69975	Concrete Footpath	ASHLEY ST Right	HUNTRISS ST	SOUTH RD	0	\$6,441.63	80
28004971	66590	Bitumen Footpath	AUGUST ST Left	NEVILLE RD	SOUTH RD	4	\$13,349.62	30
28004973	66592	Bitumen Footpath	AUGUST ST Right	NEVILLE RD	SOUTH RD	4	\$32,106.34	30
28003268	68406	Block Paved Footpath	AUGUSTA ST Left	JENKINS ST	User CH 140	0	\$7,636.11	60
28003267	68405	Block Paved Footpath	AUGUSTA ST Right	JENKINS ST	User CH 140	0	\$7,841.85	60
28005107	69993	Bitumen Footpath	BALLANTYNE ST Right	DEW ST	BROWN ST	0	\$10,632.95	30
28002433	68852	Bitumen Footpath	BARTHOLOMEW ST Right	LUCAS ST	RICHMOND RD	0	\$3,054.62	30
28004546	68628	Bitumen Footpath	BECKMAN ST Right	GLENGYLE TER	WHEATON RD	0	\$7,456.63	30
28004217	71526	Bitumen Footpath	Birdwood Terrace (Dudley Avenue to Murdoch Avenue) Bitumen Footpath	0	0	5	\$21,658.12	30
28004215	71897	Bitumen Footpath	Birdwood Terrace (Keith Avenue to Dudley Avenue) Bitumen Footpath	0	0	5	\$24,530.63	30

28004152	71523	Bitumen Footpath	Birdwood Terrace (Mackay Avenue to Laverack Road) Bitumen Footpath	0	0	5	\$34,438.67	30
28004220	71521	Bitumen Footpath	Birdwood Terrace (Murdoch Avenue to Mackay Avenue) Bitumen Footpath	0	0	5	\$14,146.33	30
28002391	70604	Bitumen Footpath	BIRMINGHAM ST Left	SOUTH RD	PYMBRAH RD	0	\$18,138.61	30
28002388	70495	Bitumen Footpath	BIRMINGHAM ST Right	SOUTH RD	PYMBRAH RD	0	\$1,905.09	30
28003979	67859	Concrete Footpath	BONYTHON AV Left	NAGLE CRES	MORPHETT RD	0	\$4,814.65	80
28004003	68361	Concrete Footpath	BONYTHON AV Left	NAGLE CRES	MORPHETT RD	0	\$14,889.15	80
28004004	67815	Concrete Footpath	BONYTHON AV Left	NAGLE CRES	MORPHETT RD	0	\$9,075.24	80
28004005	67920	Concrete Footpath	BONYTHON AV Right	NAGLE CRES	MORPHETT RD	0	\$9,635.84	80
28004002	67919	Concrete Footpath	BONYTHON AV Right	NAGLE CRES	MORPHETT RD	0	\$15,191.14	80
28006188	70372	Concrete Footpath	BOSTON AV Left	ARDEN AV	ANTHUS ST	0	\$11,774.32	80
28006189	71011	Concrete Footpath	BOSTON AV Right	ARDEN AV	ANTHUS ST	0	\$11,598.36	80
28006161	70960	Concrete Footpath	BRIAN ST Right	BRIAN ST	END	0	\$3,943.87	80
28005212	69065	Bitumen Footpath	BROWN ST Left	WEST THEBAR	RD to BALLANTYNE ST	0	\$4,093.84	30
28005213	69067	Block Paved Footpath	BROWN ST Right	WEST THEBAR	RD to BALLANTYNE ST	0	\$9,378.36	60
28005214	69066	Block Paved Footpath	BROWN ST Right	WEST THEBAR	RD to BALLANTYNE ST	0	\$9,423.88	60
28005980	70085	Bitumen Footpath	BURBRIDGE RD Right	FAWNBRAKE CRES	TAPLEYS HILL RD	5	\$7,348.95	30
28006111	70084	Bitumen Footpath	BURBRIDGE RD Right	FAWNBRAKE CRES	User CH 250	5	\$36,194.05	30
28006112	71477	Bitumen Footpath	BURBRIDGE RD Right	User CH 250	CITY BOUNDARY	5	\$18,571.98	30
28006106	68178	Bitumen Footpath	BURBRIDGE RD Right	WES	ST to WESTON ST	5	\$7,146.46	30
28005985	66628	Bitumen Footpath	Burbridge Road (Fawnbrake Crescent to Tapleys Hill Road) Bitumen Footpath	0	0	5	\$4,531.59	30
28005137	71709	Block Paved Footpath	CAWTHORNE ST Left	PHILLIPS ST	ANDERSON ST	3	\$25,286.19	60
28005032	71708	Block Paved Footpath	CAWTHORNE ST Right	PHILLIPS ST	ANDERSON ST	3	\$7,694.77	60
28004588	69245	Bitumen Footpath	COLIN ST Right	CRESLIN TER	STONEHOUSE AV	0	\$1,806.16	30
28002483	68722	Block Paved Footpath	CRESLIN TER Left	COLIN ST	STONEHOUSE AV	0	\$5,175.08	60

28004259	70867	Bitumen Footpath	DEEDS RD Left	MOORINGE AV	KINKAID AV	0	\$4,076.33	30
28003012	69929	Bitumen Footpath	EAST ST Left	CARL	PDE to HENLEY BEACH RD	0	\$27,605.39	30
28003364	69434	Block Paved Footpath	EVERARD AV Left	ANZAC HWY	ASHFORD RD	0	\$19,352.93	60
28003367	69218	Bitumen Footpath	EVERARD AV Right	KENT RD	ASHFORD RD	0	\$12,337.55	30
28002072	69544	Bitumen Footpath	GOODENOUGH ST Right	EAST TCE	PARKER ST	0	\$12,614.20	30
28005925	70170	Block Paved Footpath	HALSEY RD Right	User CH 110	FITCH RD	0	\$30,991.82	60
28005926	69696	Block Paved Footpath	HALSEY RD Right	User CH 110	FITCH RD	0	\$10,217.09	60
28004347	68733	Concrete Footpath	HARE ST Left	BEAUCHAMP ST	SOUTH RD	0	\$17,027.63	80
28004345	66574	Bitumen Footpath	HARE ST Right	BEAUCHAMP ST	SOUTH RD	0	\$7,425.12	30
28004346	66575	Concrete Footpath	HARE ST Right	BEAUCHAMP ST	SOUTH RD	0	\$1,329.08	80
28004344	66573	Concrete Footpath	HARE ST Right	BEAUCHAMP ST	SOUTH RD	0	\$12,304.64	80
28003578	70720	Bitumen Footpath	HARVEY AV Left	MARION RD	DEBRA CT	0	\$4,252.30	30
28006244	70265	Block Paved Footpath	HENLEY BEACH RD Right	HAMP	ST to MALURUS AV	6	\$26,782.42	60
28005712	68107	Bitumen Footpath	HOLBROOKS RD Right	CITY BOUNDARY	ARMOUR AV	0	\$4,727.70	30
28005120	66903	Bitumen Footpath	HOLLAND ST Right	END	ANDERSON ST	0	\$11,815.75	30
28005122	70135	Bitumen Footpath	HOLLAND ST Right	END	ANDERSON ST	0	\$1,248.46	30
28004900	70864	Concrete Footpath	ILUKA ST Left	BONYTHON AV	WONGALA AV	0	\$12,796.50	80
28004953	70804	Concrete Footpath	ILUKA ST Left	BONYTHON AV	WONGALA AV	0	\$9,107.16	80
28004955	70865	Concrete Footpath	ILUKA ST Left	BONYTHON AV	WONGALA AV	0	\$9,996.76	80
28004954	68795	Concrete Footpath	ILUKA ST Right	BONYTHON AV	WONGALA AV	0	\$8,508.90	80
28004952	69370	Concrete Footpath	ILUKA ST Right	BONYTHON AV	WONGALA AV	0	\$8,256.02	80
28004899	68794	Concrete Footpath	ILUKA ST Right	BONYTHON AV	WONGALA AV	0	\$4,526.57	80
28006206	71118	Bitumen Footpath	JAMES PL Left	HENLEY BEACH RD	END	0	\$9,733.81	30
28003073	69590	Bitumen Footpath	JERVOIS ST Left	ASHWIN PD	RIVER RD	0	\$13,004.68	30
28003015	69803	Block Paved Footpath	JERVOIS ST Left	CARL	PDE to NORTH PDE	0	\$2,074.94	60

28003014	69802	Concrete Footpath	JERVOIS ST Left	CARL	PDE to NORTH PDE	0	\$20,437.08	80
28003017	71615	Block Paved Footpath	JERVOIS ST Right	CARL	PDE to NORTH PDE	0	\$1,914.72	60
28003016	69911	Concrete Footpath	JERVOIS ST Right	CARL	PDE to NORTH PDE	0	\$20,728.44	80
28002690	70156	Bitumen Footpath	JOHN ST Left	SARAH ST	SOUTH RD	0	\$7,070.54	30
28002638	68766	Block Paved Footpath	KINGSTON AV Left	User CH 410	DEACON AV	0	\$5,293.27	60
28002116	69530	Block Paved Footpath	KINTORE ST Right	SOUTH RD	PEARSON ST	0	\$1,063.73	60
28005215	69554	Bitumen Footpath	LIGHT TCE Right	DEW ST	ALBERT ST	0	\$11,472.55	30
28005217	69553	Bitumen Footpath	LIGHT TCE Right	DEW ST	ALBERT ST	0	\$23,369.72	30
28002423	71191	Bitumen Footpath	LONDON RD Left	User CH 200	User CH 400	0	\$9,001.89	30
28002422	71190	Bitumen Footpath	LONDON RD Left	User CH 400	SOUTH RD	0	\$3,549.28	30
28002420	71188	Bitumen Footpath	LONDON RD Right	User CH 200	User CH 400	0	\$5,548.04	30
28002417	68763	Bitumen Footpath	London Road (Railway Terrace to South Road) Bitumen Footpath	0	0	0	\$3,396.06	30
28004993	69075	Block Paved Footpath	LOWE ST Left	BALLANTYNE ST	BENNETT ST	0	\$4,612.13	60
28004992	69074	Block Paved Footpath	LOWE ST Right	BALLANTYNE ST	BENNETT ST	0	\$9,116.58	60
28003805	69192	Bitumen Footpath	LYDIA ST Left	ANZAC HWY	User CH 170	0	\$5,064.77	30
28002400	70498	Bitumen Footpath	MANCHESTER ST Left	PYMBRAH RD	RAILWAY TER	0	\$12,346.30	30
28003762	68580	Bitumen Footpath	MARION RD Right	KEILY ST	ANZAC HWY	0	\$16,085.56	30
28003140	67289	Block Paved Footpath	MARION RD Right	ELIZABETH ST	HENLEY BEACH RD	0	\$9,888.77	60
28003441	69227	Bitumen Footpath	MARLESTON AV Right	ANZAC HWY	ALEXANDER AV	6	\$14,301.29	30
28004881	70270	Bitumen Footpath	MILITARY RD Right	ANDERSON AV	User CH 250	6	\$31,983.77	30
28004882	71824	Bitumen Footpath	MILITARY RD Right	BARCOO RD	User CH 130	6	\$15,235.45	30
28006052	67632	Bitumen Footpath	MILITARY RD Right	BARCOO RD	User CH 130	6	\$4,633.15	30
28006098	67633	Bitumen Footpath	MILITARY RD Right	BARCOO RD	User CH 130	6	\$51,064.41	30
28006099	71823	Bitumen Footpath	MILITARY RD Right	BARCOO RD	User CH 130	6	\$129,212.42	30
28006118	67286	Bitumen Footpath	MILITARY RD Right	User CH 250	User CH 500	6	\$2,515.60	30

28004880	67813	Bitumen Footpath	MILITARY RD Right	User CH 250	User CH 500	6	\$11,854.27	30
28006100	67675	Bitumen Footpath	MILITARY RD Right	User CH 580	END	6	\$58,418.61	30
28006097	67631	Bitumen Footpath	MILITARY RD Right	User CH 580	END	6	\$16,115.33	30
28004616	70763	Block Paved Footpath	MOORINGE AV Right	MORPHETT RD	User CH 200	0	\$4,092.96	60
28006499	69714	Bitumen Footpath	MORESBY ST Left	BRECON ST	BURBRIDGE RD	0	\$2,943.43	30
28006504	69715	Bitumen Footpath	MORESBY ST Right	BRECON ST	BURBRIDGE RD	0	\$2,823.49	30
28005046	66589	Bitumen Footpath	NEVILLE RD Right	DOVE ST	GEORGE ST	4	\$18,523.83	30
28006530	71622	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$35,176.82	30
28004324	68943	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$21,554.42	30
28002819	68927	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$6,129.32	30
28002820	68941	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$22,102.34	30
28002821	68942	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$24,493.45	30
28002427	68764	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$830.59	30
28004805	69285	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$28,376.97	30
28004806	69286	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$34,317.47	30
28005960	70277	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$31,335.30	30
28005961	70278	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	0	\$53,152.33	30
28005959	67010	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$32,186.33	30
28006113	66812	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$16,306.01	30
28006114	66899	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$84,527.75	30
28005703	66736	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$43,217.06	30
28005704	66737	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$8,002.40	30
28005706	80760	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$60,007.43	30
28003179	66735	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$125,940.60	30
28004325	71522	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$2,035.79	30
28006521	66519	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$25,219.22	30
28006522	66740	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$80,828.13	30
28006524	66742	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$58,974.40	30

28006525	66745	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$41,617.95	30
28006526	66900	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$20,581.18	30
28006527	67163	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$13,974.31	30
28004072	67863	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$45,596.06	30
28004073	67864	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$1,707.34	30
28004075	70276	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$14,919.93	30
28004068	71392	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$25,923.43	30
28003924	66839	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$40,006.34	30
28003925	66840	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$52,233.96	30
28003926	66841	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$35,824.64	30
28003928	66864	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$2,923.52	30
28003930	70809	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$18,179.85	30
28004969	71899	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$101,618.94	30
28002822	71326	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$26,159.93	30
28002667	66618	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$6,291.28	30
28002668	68926	Bitumen Footpath	Open Space Assets Bitumen Footpath	0	0	5	\$34,477.16	30
28005198	70044	Bitumen Footpath	PHILLIPS ST Left	CAWTHORNE ST	PORT RD	0	\$11,850.77	30
28005193	70140	Bitumen Footpath	PHILLIPS ST Left	JAMES ST	CAWTHORNE ST	0	\$7,422.49	30
28005190	68933	Block Paved Footpath	PHILLIPS ST Right	JAMES ST	CAWTHORNE ST	0	\$10,958.63	60
28005192	68932	Block Paved Footpath	PHILLIPS ST Right	JAMES ST	CAWTHORNE ST	0	\$11,263.31	60
28006443	70965	Bitumen Footpath	PIERSON ST Right	ROWELLS RD	MALURUS AV	0	\$24,086.76	30
28002396	71193	Bitumen Footpath	RAILWAY TER Right	LONDON RD	MANCHESTER ST	0	\$49,000.86	30
28002405	71194	Bitumen Footpath	RAILWAY TER Right	MANCHESTER ST	RICHMOND RD	0	\$71,356.75	30
28002395	71186	Bitumen Footpath	RAILWAY TER Right	SCOTLAND RD	LONDON RD	0	\$12,847.96	30
28002408	71893	Bitumen Footpath	RAILWAY TER Right	User CH 300	SCOTLAND RD	0	\$15,691.59	30
28003147	67947	Bitumen Footpath	RANKINE RD Right	User CH 290	HOUNSLOW AV	0	\$9,073.68	30
28005012	68320	Bitumen Footpath	REID ST Left	STIRLING ST	QUEEN ST	4	\$11,347.36	30
28003362	69329	Bitumen Footpath	RICHMOND RD Right	E	RD to MARLOW RD	0	\$17,607.18	30

28002573	68857	Bitumen Footpath	RICHMOND RD Right	MARION RD	SUTTON TER	0	\$3,115.90	30
28003372	69324	Bitumen Footpath	RICHMOND RD Right	MARLOW RD	ETON RD	0	\$19,994.67	30
28002575	68855	Block Paved Footpath	RICHMOND RD Right	MARION RD	SUTTON TER	0	\$6,615.28	60
28003326	70212	Bitumen Footpath	RICHMOND RD Right	ANZAC HWY	HAMPTON RD	5	\$8,347.89	30
28003358	70901	Bitumen Footpath	RICHMOND RD Right	CHATHAM RD	ASHFORD RD	5	\$9,649.76	30
28003359	70904	Bitumen Footpath	RICHMOND RD Right	CHATHAM RD	ASHFORD RD	5	\$21,163.46	30
28002837	69365	Bitumen Footpath	River Road (Jervois Street to End) Right Bitumen Footpath	0	0	0	\$12,437.35	30
28002385	71288	Block Paved Footpath	ROSSLYN ST Left	BURBRIDGE RD	User CH 90	0	\$11,058.44	60
28002382	71175	Block Paved Footpath	ROSSLYN ST Right	BURBRIDGE RD	User CH 90	0	\$12,497.76	60
28006541	71074	Bitumen Footpath	ROWELLS RD Right	BRIAN ST	CITY BOUNDARY	0	\$3,319.02	30
28006222	70070	Block Paved Footpath	RUTLAND AV Right	User CH 240	BURBRIDGE RD	0	\$9,584.10	60
28004034	71403	Bitumen Footpath	SARATOGA DR Right	User CH 430	MORPHETT RD	5	\$36,457.57	30
28004476	68369	Bitumen Footpath	SELBY ST Right	ANZAC HWY	MORTIMER ST	0	\$5,048.13	30
28006221	69713	Bitumen Footpath	SIR DONALD BRADMAN DR Left	RUTLAND AV	BRECON ST	5	\$3,785.66	30
28003331	69706	Bitumen Footpath	SIR DONALD BRADMAN DR Right	JAMES CONGDON DR	CITY BOUNDARY	5	\$7,824.34	30
28006566	71452	Bitumen Footpath	SIR DONALD BRADMAN DR Right	MAY TER	KOPURLO AV	5	\$50,732.60	30
28006560	67409	Bitumen Footpath	SIR DONALD BRADMAN DR Right	RUTLAND AV	User CH 300	5	\$4,666.42	30
28006561	67490	Bitumen Footpath	SIR DONALD BRADMAN DR Right	User CH 650	MAY TER	5	\$1,609.17	30
28006569	67389	Bitumen Footpath	SIR DONALD BRADMAN DR Right	User CH 650	MAY TER	5	\$57,634.48	30
28006505	67436	Bitumen Footpath	SIR DONALD BRADMAN DR Right	User CH 650	User CH 300	5	\$43,111.37	30
28006506	67475	Bitumen Footpath	SIR DONALD BRADMAN DR Right	User CH 650	User CH 300	5	\$131,342.51	30
28006502	66620	Bitumen Footpath	Sir Donald Bradman Drive (Tapleys Hill Road to Moresby Street) Bitumen Footpath	0	0	0	\$8,377.66	30
28002565	68776	Bitumen Footpath	SOUTH RD Right	ALBERT ST	DEACON AV	5	\$5,123.43	30
28002640	68987	Bitumen Footpath	SOUTH RD Right	DEACON AV	STUART RD	5	\$3,162.31	30

28002425	71297	Bitumen Footpath	SOUTH RD Right	STUART RD	DEACON AV	5	\$5,496.39	30
28004085	70868	Bitumen Footpath	STARR AV Left	User CH 200	DEEDS RD	5	\$39,383.49	30
28005097	68324	Bitumen Footpath	STIRLING ST Left	END	WEST THEBARTON RD	0	\$6,286.97	30
28005098	71304	Bitumen Footpath	STIRLING ST Left	END	WEST THEBARTON RD	0	\$7,113.44	30
28005096	68319	Bitumen Footpath	STIRLING ST Right	END	WEST THEBARTON RD	0	\$13,596.52	30
28003661	68209	Bitumen Footpath	STONEHOUSE AV Left	ANZAC HWY	WHELAN AV	0	\$9,355.59	30
28003716	68208	Bitumen Footpath	STONEHOUSE AV Left	ANZAC HWY	WHELAN AV	0	\$6,613.53	30
28004715	69133	Bitumen Footpath	STONEHOUSE AV Left	CLIF	ST to User CH 240	6	\$26,163.44	30
28004717	69131	Bitumen Footpath	STONEHOUSE AV Left	CLIF	ST to User CH 240	6	\$25,938.44	30
28004689	69232	Bitumen Footpath	STONEHOUSE AV Left	CROMER ST	CLIFTON ST	6	\$25,919.18	30
28004687	69235	Bitumen Footpath	STONEHOUSE AV Left	CROMER ST	CLIFTON ST	6	\$26,376.19	30
28004719	69129	Bitumen Footpath	STONEHOUSE AV Left	User CH 240	MORPHETT RD	6	\$26,380.57	30
28003343	71356	Bitumen Footpath	SURREY RD Left	User CH 150	RICHMOND RD	0	\$11,695.80	30
28003394	67734	Block Paved Footpath	SYME ST Right	ANZAC HWY	HERBERT RD	0	\$12,964.40	60
28006103	71819	Bitumen Footpath	TAPLEYS HILL RD Right	AFRICAINE RD	WARREN AV	0	\$29,710.09	30
28006104	71864	Bitumen Footpath	TAPLEYS HILL RD Right	AFRICAINE RD	WARREN AV	0	\$47,016.10	30
28004883	71820	Bitumen Footpath	TAPLEYS HILL RD Right	AFRICAINE RD	WARREN AV	0	\$91,221.85	30
28006093	70078	Bitumen Footpath	TAPLEYS HILL RD Right	CHARLES VEALE DR	WEST BEACH RD	0	\$57,247.19	30
28006087	69739	Bitumen Footpath	TAPLEYS HILL RD Right	DEWEY ST	User CH 250	0	\$4,265.44	30
28005841	69738	Bitumen Footpath	TAPLEYS HILL RD Right	DEWEY ST	User CH 250	0	\$6,665.18	30
28006092	70079	Bitumen Footpath	TAPLEYS HILL RD Right	INGERSON ST	CHARLES VEALE DR	0	\$55,205.53	30
28005839	69737	Bitumen Footpath	TAPLEYS HILL RD Right	User CH 250	DEWEY ST	0	\$6,272.96	30
28006552	69736	Bitumen Footpath	TAPLEYS HILL RD Right	User CH 250	DEWEY ST	0	\$4,852.02	30
28006102	70671	Bitumen Footpath	TAPLEYS HILL RD Right	User CH 850	AFRICAINE RD	0	\$367,349.29	30
28006091	70080	Bitumen Footpath	TAPLEYS HILL RD Right	WES	ST to INGERSON ST	0	\$71,327.86	30
28006115	68177	Bitumen Footpath	TAPLEYS HILL RD Right	User CH 250	BURBRIDGE RD	5	\$1,664.96	30
28006090	68079	Bitumen Footpath	Tapleys Hill Road (Ingerson Street to Weston Street) Right Bitumen Footpath	0	0	5	\$8,881.95	30

28006089	68080	Bitumen Footpath	Tapleys Hill Road (Weston Street to Burbridge Road) Right Bitumen Footpath	0	0	5	\$4,641.03	30
28006303	71705	Bitumen Footpath	TORRENS AV Left	END	DARTMOOR ST	5	\$2,302.57	30
28003225	71591	Block Paved Footpath	TURNER ST Left	SIR DONALD BRADMAN DR	JENKINS ST	0	\$12,434.73	60
28003214	68036	Block Paved Footpath	TURNER ST Left	SIR DONALD BRADMAN DR	NEILL RD	0	\$10,695.11	60
28003215	68037	Block Paved Footpath	TURNER ST Left	SIR DONALD BRADMAN DR	NEILL RD	0	\$10,988.40	60
28003223	68293	Block Paved Footpath	TURNER ST Right	SIR DONALD BRADMAN DR	JENKINS ST	0	\$12,915.38	60
28003213	68035	Block Paved Footpath	TURNER ST Right	SIR DONALD BRADMAN DR	NEILL RD	0	\$10,647.83	60
28003212	68034	Block Paved Footpath	TURNER ST Right	SIR DONALD BRADMAN DR	NEILL RD	0	\$11,802.62	60
28005078	70028	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$6,216.93	30
28005079	67007	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$1,130.27	30
28005081	67008	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$4,456.30	30
28005085	70130	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$1,888.45	30
28005073	70023	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$1,698.47	30
28005074	70024	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$1,509.36	30
28005075	70025	Bitumen Footpath	WEST THEBARTON RD Left	BROWN ST	QUEEN ST	0	\$3,734.88	30
28005069	71777	Bitumen Footpath	WEST THEBARTON RD Left	SOUTH RD	BROWN ST	4	\$8,858.31	30
28005067	71775	Bitumen Footpath	WEST THEBARTON RD Left	SOUTH RD	BROWN ST	4	\$4,234.79	30
28005076	71780	Bitumen Footpath	WEST THEBARTON RD Right	BROWN ST	QUEEN ST	4	\$7,294.67	30
28005077	67847	Bitumen Footpath	WEST THEBARTON RD Right	BROWN ST	QUEEN ST	4	\$7,832.22	30
28005082	68965	Bitumen Footpath	WEST THEBARTON RD Right	BROWN ST	QUEEN ST	4	\$7,197.49	30
28005080	67846	Bitumen Footpath	WEST THEBARTON RD Right	BROWN ST	QUEEN ST	4	\$872.00	30
28005070	69068	Bitumen Footpath	WEST THEBARTON RD Right	SOUTH RD	BROWN ST	4	\$9,411.63	30
28005068	68880	Bitumen Footpath	WEST THEBARTON RD Right	SOUTH RD	BROWN ST	4	\$8,185.05	30
28005064	67120	Bitumen Footpath	WEST THEBARTON RD Right	SOUTH RD	BROWN ST	4	\$5,161.95	30

28005065	67232	Bitumen Footpath	WEST THEBARTON RD Right	SOUTH RD	BROWN ST	4	\$2,893.53	30	
28005380	67758	Concrete Footpath	WESTERN PD Left	MARION RD	User CH 210	0	\$20,040.98	80	
28003694	67692	Concrete Footpath	WHEATON RD Left	BECKMAN ST	CHARLES ST	0	\$9,387.05	80	
28003696	67695	Concrete Footpath	WHEATON RD Left	BECKMAN ST	CHARLES ST	0	\$9,621.93	80	
28003697	68448	Concrete Footpath	WHEATON RD Right	BECKMAN ST	CHARLES ST	0	\$12,103.32	80	
28003695	68447	Concrete Footpath	WHEATON RD Right	BECKMAN ST	CHARLES ST	0	\$9,390.32	80	
28002414	71173	Block Paved Footpath	WILLIAM ST Left	SIR DONALD BRADMAN DR	ROSSLYN ST	0	\$7,809.46	60	
28002413	71172	Concrete Footpath	WILLIAM ST Left	SIR DONALD BRADMAN DR	ROSSLYN ST	0	\$4,175.48	80	
28002415	71214	Concrete Footpath	WILLIAM ST Left	ROSSLYN ST	User CH 270	5	\$41,952.00	80	
28002412	71171	Concrete Footpath	WILLIAM ST Right	SIR DONALD BRADMAN DR	ROSSLYN ST	0	\$10,150.62	80	
28002416	71215	Concrete Footpath	WILLIAM ST Right	ROSSLYN ST	User CH 270	7	\$39,529.54	80	
28005017	68323	Concrete Footpath	WINWOOD ST Left	HOLLAND ST	END	0	\$20,589.31	80	
28005016	68322	Concrete Footpath	WINWOOD ST Right	HOLLAND ST	END	0	\$5,916.21	80	
28005015	68321	Bitumen Footpath	Winwood Street (Holland Street to Stirling Street) Right Bitumen Footpath	0	0	0	\$3,283.13	30	
Program Total								\$4,779,017.33	

Appendix D – Planned Upgrade/Expansion/New 10 year Capital Works Program (2013 – 2022)

Asset ID	Asset Description	Cost Adjusted \$	Priority Ranking
67402	Alexander Court (Standford Avenue to End) Left Grass Footpath	\$11,874.18	5.8
66887	Allendale Avenue (Lindfield Avenue to Montana Drive) Left Grass Footpath	\$6,299.18	6.3
66999	Allendale Avenue (Montana Drive to Windermere Avenue) Left Grass Footpath	\$6,708.64	5.8
66991	Allendale Avenue (Montana Drive to Windermere Avenue) Left Grass Footpath	\$7,126.98	5.8
66885	Allendale Avenue(Troon Street to Lindfield Avenue) Left Grass Footpath	\$6,418.34	5.8
66794	Arcoona Avenue (Fulham Park Drive to End) Left Grass Footpath	\$10,813.44	6.3
70351	Arctic Avenue (Atlantic Avenue to Pacific Parade) Right Grass Footpath	\$3,840.15	10.0
67084	Arctic Avenue (Pacific Parade to Dennis Drive) Right Grass Footpath	\$4,895.75	10.0
70062	Arctic Avenue (Windsor Terrace to Atlantic Avenue) Right Grass Footpath	\$8,525.26	10.0
66833	Audrey Street (Sheoak Avenue to Old Drive) Right Grass Footpath	\$10,859.96	5.8
67493	Autumn Avenue (Huelin Street to End) Left Grass Footpath	\$36,711.17	6.3
66884	Avalon Avenue (Troon Street to Lindfield Avenue) Right Grass Footpath	\$6,075.14	7.1
67398	Ayliffe Place (Stanford Avenue to End) Left Grass Footpath	\$9,765.69	5.8
66683	Bagshaw Way (Victoria Street to End) Right Grass Footpath	\$6,936.22	4.6
67196	Baltic Avenue (Formosa Avenue to Timor Court) Left Grass Footpath	\$11,395.92	4.6
67086	Baltic Avenue (Harman Avenue to Irish Avenue) Left Grass Footpath	\$5,311.44	4.6
66607	Baltic Avenue (Irish Avenue to Formosa Avenue) Left Grass Footpath	\$2,594.58	4.6
67085	Baltic Avenue (Northern Avenue to Harman Avenue) Left Grass Footpath	\$18,049.64	4.6
67195	Baltic Avenue (Timor Court to Pacific Parade) Left Grass Footpath	\$10,257.46	4.6
67504	Barker Court (Daringa Street to End) Right Grass Footpath	\$14,031.27	4.6
71608	Bartlett Drive (Comley Court to Morphett Road) Left Grass Footpath	\$7,756.82	5.8
67393	Bartlett Drive (Henning Court to End) Right Grass Footpath	\$28,170.07	5.8
67293	Bartlett Drive (Henning Court to Martine Court) Left Grass Footpath	\$30,162.24	5.8
67294	Bartlett Drive (Martine Court to Comley Court) Left Grass Footpath	\$18,437.38	5.8
70602	Birmingham Street (South Road to Pymbra Street) Left Gravel Footpath	\$3,912.09	7.1
66769	Bond Street (Richmond Road to Fleet Street) Right Gravel Footpath	\$14,666.25	5.8
70691	Bonython Avenue (City Boundary to St Andrews Crescent) Left Grass Footpath	\$8,127.46	4.2
69822	Bonython Avenue (City Boundary to St Andrews Crescent) Left Gravel Footpath	\$64,175.94	3.8
69823	Bonython Avenue (Harvey Terrace to McCann Avenue) Left Gravel Footpath	\$17,629.62	3.8

69782	Bonython Avenue (Muirfield Street to Nagle Crescent) Left Grass Footpath	\$32,019.60	3.8
70692	Bonython Avenue (St Andrews Crescent to Muirfield Street) Left Grass Footpath	\$53,414.00	3.8
66703	Boswarva Avenue (Crews Crescent to Emma Place) Right Grass Footpath	\$6,399.32	6.3
67487	Boswarva Avenue (Emma Place to End) Right Grass Footpath	\$5,629.83	6.3
66789	Burbridge Road (Pennine Street to Fawnbrake Crescent) Left Grass Footpath	\$7,306.35	10.0
66665	Burbridge Road (Tapleys Hill Road to Weston Street) Right Grass Footpath	\$7,086.24	10.0
66525	Burbridge Road (Tapleys Hill Road to Weston Street) Right Grass Footpath	\$14,064.79	10.0
66605	Burbridge Road (Weston Street to Davis Street) Right Grass Footpath	\$2,294.63	8.8
67212	Burbridge Road (Weston Street to Davis Street) Right Grass Footpath	\$9,418.73	8.8
66981	Capri Avenue (Troon Street to Pine Avenue) Left Grass Footpath	\$6,086.16	7.1
67678	Carnegie Crescent (Harris Street to End) Left Grass Footpath	\$20,065.15	4.6
67004	Chapel Street (Albert Street to Admella Street) Left Gravel Footpath	\$4,905.25	4.6
66825	Charles Leitch Court (Stanford Avenue to End) Right Grass Footpath	\$11,156.48	5.8
71863	Charles Veale Drive (Mountbatten Grove to Tapleys Hill Road) Left Gravel Footpath	\$5,980.94	8.8
66976	Charles Veale Drive (Mountbatten Grove to Tapleys Hill Road) Right Gravel Footpath	\$3,018.87	8.8
66647	Cleo Court (Clifford Street to End) Left Grass Footpath	\$3,392.92	4.6
67583	Cleo Court (Clifford Street to End) Left Grass Footpath	\$6,614.36	4.6
67255	Clyde Avenue (Frontage Road to Castlebar Road) Right Grass Footpath	\$32,784.51	5.4
66722	Coach House Drive (Saratoga Drive to Sheoak Avenue) Right Grass Footpath	\$21,900.97	5.8
66723	Coach House Drive (Sheoak Avenue to Old Drive) Right Grass Footpath	\$14,634.76	5.4
67681	Collett Avenue (Ernest Place to End) Right Grass Footpath	\$11,064.22	4.6
67011	Collett Avenue (Harvey Avenue to Ernest Place) Right Grass Footpath	\$13,897.74	4.6
67396	Comley Court (Bartlett Drive to End) Left Grass Footpath	\$14,724.65	5.4
70020	Corona Avenue (Durham Avenue to Fulham Park Drive) Left Grass Footpath	\$10,703.15	6.3
66719	Cygnets Street (Old Drive to Saratoga Drive) Left Grass Footpath	\$37,812.38	5.4
66775	Daly Street (Garfield Avenue to Cross Terrace) Left Gravel Footpath	\$1,358.33	7.1
67381	David Court (Matt Street to End) Left Grass Footpath	\$6,255.95	4.6
66807	Debra Court (Harvey Avenue to End) Left Grass Footpath	\$22,557.13	4.6
67513	Devlin Road (Jacklin Road to End) Left Grass Footpath	\$3,134.30	4.6
67511	Devlin Road (Jacklin Road to End) Left Grass Footpath	\$3,518.01	4.6
66982	Doncaster Avenue (Windermere Avenue to Troon Street) Left Grass Footpath	\$32,550.60	6.3
68781	Durham Avenue (Castlebar Road to Corona Avenue/Horsley Street) Right Grass Footpath	\$14,873.86	6.7
67236	Eltham Court (Henley Beach Road to Henley Beach Road) Right Grass Footpath	\$19,664.57	4.6
66797	Eringa Avenue (Fulham Park Drive to End) Right Grass Footpath	\$10,805.83	6.7

67683	Ernest Place (Collett Avenue to End) Right Grass Footpath	\$3,568.60	4.6
67500	Farrow Place (Daringa Street to End) Right Grass Footpath	\$10,743.76	4.6
66772	Ferris Street (Torrens Street to End) Right Gravel Footpath	\$9,148.66	4.2
69341	Fleet Street (Main Terrace to South Road) Right Gravel Footpath	\$23,340.80	6.7
67722	Foreman Street (Davis Street to End) Right Grass Footpath	\$4,609.37	8.8
67101	Formosa Avenue (Northern Avenue to Baltic Avenue) Left Grass Footpath	\$13,877.70	5.8
67257	Frontage Road (Clyde Avenue to Fulham Park Drive) Left Grass Footpath	\$11,906.82	4.6
67259	Frontage Road (Durham Avenue to Horsley Street) Left Grass Footpath	\$13,133.09	5.8
70167	Frontage Road (Fulham Park Drive to Durham Avenue) Left Grass Footpath	\$12,001.88	5.8
69702	Frontage Road (Sandilands Street to Clyde Avenue) Left Grass Footpath	\$18,410.22	5.8
67256	Fulham Park Drive (Castlebar Road to Frontage Road) Right Grass Footpath	\$3,453.36	6.3
67408	Glen Court (James Melrose Road to End) Right Grass Footpath	\$7,689.59	4.2
66946	Good Street (Good Street to Good Street) Left Grass Footpath	\$23,647.81	4.6
67117	Grant Avenue (Pierson Street to Tracey Crescent) Left Grass Footpath	\$29,299.06	7.1
66650	Guy Street (Carnarvon Avenue to Edwin Street) Left Gravel Footpath	\$10,181.56	4.6
67233	Halsey Road (Burnley Street to Lowry Street) Left Grass Footpath	\$28,481.05	5.8
67220	Hardys Road (Wilford Avenue to City Boundary) Left Gravel Footpath	\$14,163.38	4.6
67205	Harman Avenue (Baltic Avenue to Northern Avenue) Right Grass Footpath	\$9,383.22	4.6
66852	Harvey Terrace (City Boundary to McLachlan Avenue) Left Grass Footpath	\$5,650.09	4.2
66850	Harvey Terrace (Fairway Avenue to Warren Avenue) Left Grass Footpath	\$15,501.38	3.8
66851	Harvey Terrace (McLachlan Avenue to Fairway Avenue) Left Grass Footpath	\$13,416.78	3.8
66848	Harvey Terrace (Warren Avenue to James Melrose Road) Left Grass Footpath	\$19,715.67	3.3
67406	Havelock Close (James Melrose Road to End) Right Grass Footpath	\$7,971.81	3.3
67645	Hayward Avenue Extension (End to Ashwin Parade) Left Gravel Footpath	\$30,743.45	5.4
67435	Henley Beach Road (Samuel Street to Suburb Boundary) Left Grass Footpath	\$2,042.21	4.6
67317	Henley Beach Road (Suburb Boundary to Chippendale Avenue) Left Grass Footpath	\$6,404.94	4.2
67390	Henning Court (Bartlett Drive to End) Left Grass Footpath	\$19,074.28	5.4
67006	Holland Street (Anderson Street to Phillips Street) Left Gravel Footpath	\$20,436.34	5.4
67005	Holland Street (Winwood Street to Anderson Street) Left Gravel Footpath	\$9,074.01	4.2
67258	Horsley Street (Frontage Road to Durham Avenue) Left Grass Footpath	\$28,303.82	6.3
67056	Horwood Close (Victoria Street to End) Right Grass Footpath	\$13,716.43	4.2
67207	Indian Avenue (Northern Avenue to Ingerson Street) Right Grass Footpath	\$8,378.84	5.8
68714	Ingerson Street (Kitt Street to Davis Street) Right Grass Footpath	\$23,808.96	8.8
68713	Ingerson Street (Tapleys Hill Road to Kitt Street) Right Grass Footpath	\$13,884.91	8.3

66662	Jacklin Road (Oakmont Crescent to Links Road) Right Grass Footpath	\$12,778.19	5.8
67083	Joseph Court (Dennis Drive to Dennis Drive) Left Grass Footpath	\$10,433.14	4.2
66747	Kennedy Street (Clifford Street to Airport Road) Left Grass Footpath	\$16,851.25	5.4
67214	Kevin Avenue (Arabian Avenue to Northern Avenue) Right Grass Footpath	\$6,958.43	8.3
67092	Kevin Avenue (Cambridge Avenue to Southern Avenue) Right Grass Footpath	\$7,774.98	7.9
67213	Kevin Avenue (Southern Avenue to Arabian Avenue) Right Grass Footpath	\$4,393.99	7.9
67263	Kitt Street (Ingerson Street to Northern Avenue) Left Grass Footpath	\$8,956.15	5.8
67198	Lantana Court (Hopson Street to End) Right Gravel Footpath	\$12,826.18	5.4
71884	Leander Avenue (Lindfield Avenue to Windermere Avenue) Left Grass Footpath	\$23,624.44	7.1
69269	Leander Avenue (Troon Street to Lindfield Avenue) Left Grass Footpath	\$6,187.82	7.1
66986	Lindfield Avenue (Avalon Avenue to Leander Avenue) Left Grass Footpath	\$15,044.54	7.1
71281	Lindfield Avenue (Avalon Avenue to Pitcairn Avenue) Right Grass Footpath	\$8,374.13	7.1
71282	Lindfield Avenue (Pitcairn Avenue to Allendale Avenue) Right Grass Footpath	\$15,797.80	7.1
66539	Lisa Court (Henley Beach Road to City Boundary) Left Grass Footpath	\$10,430.69	5.4
66542	Louise Avenue (Carolyn Avenue to End) Right Grass Footpath	\$7,425.47	5.0
66798	Macumba Avenue (Fulham Park Drive to End) Left Grass Footpath	\$10,213.82	6.3
67394	Martine Court (Bartlett Drive to End) Left Grass Footpath	\$28,562.53	5.0
67478	Mattner Avenue (Wongala Avenue/Aroona Pace to Aroona Place) Left Grass Footpath	\$3,131.90	5.8
69969	Mawson Crescent (Rutland Avenue to Rutland Avenue) Left Grass Footpath	\$42,176.72	4.2
67128	May Terrace (Henley Beach Road to Sir Donald Bradman Drive) Right Gravel Footpath	\$23,141.52	7.5
67127	May Terrace (Henley Beach Road to Sir Donald Bradman Drive) Right Gravel Footpath	\$18,062.34	7.5
67129	Michael Street (Matt Street to End) Left Grass Footpath	\$10,181.98	7.1
67130	Michael Street (Peter Street to Matt Street) Right Grass Footpath	\$26,807.77	7.1
67514	Miller Court (Graham Crescent to End) Left Grass Footpath	\$22,902.44	5.0
67327	Miranda Avenue (Rutland Avenue to Netley Avenue) Left Grass Footpath	\$27,043.73	6.3
71169	Montana Drive (Pitcairn Avenue to Allendale Avenue) Left Grass Footpath	\$15,502.62	7.1
71170	Montana Drive (Sycamore Avenue to Pitcairn Avenue) Left Grass Footpath	\$15,059.23	7.1
66997	Montana Drive (Sycamore Avenue to Pitcairn Avenue) Left Grass Footpath	\$6,796.56	7.1
66622	Montana Drive (Windermere Avenue to Sycamore Avenue) Left Grass Footpath	\$6,833.30	7.1
67110	Mooringe Avenue (Deeds Road to Morphett Road) Right Gravel Footpath	\$4,407.01	7.1
66617	Morley Street (Ralph Street to End) Left Gravel Footpath	\$5,286.41	3.3
66853	Morphett Road (James Melrose Road to End) Left Gravel Footpath	\$14,321.32	5.0
67109	Morphett Road (Kinkaid Avenue to Starr Avenue) Right Gravel Footpath	\$11,082.53	5.0
67113	Morphett Road (Mooringe Avenue to Penong Avenue) Right Gravel Footpath	\$3,859.09	7.1

67520	Nagle Crescent (Bonython Avenue to End) Right Grass Footpath	\$27,328.16	3.3
67690	Neptune Crescent (Ingerson Street to End) Right Grass Footpath	\$19,717.70	5.4
67151	Netley Avenue (Strathmore Avenue to Rutland Avenue) Left Grass Footpath	\$10,822.25	7.1
66831	New Drive (Old Drive to End) Right Grass Footpath	\$2,831.43	5.8
71428	Northern Avenue (Kitt Street to Baltic Avenue) Left Grass Footpath	\$5,759.96	5.0
71481	Old Drive (Audrey Street to New Drive) Right Grass Footpath	\$11,086.94	5.8
67111	Old Drive (Coach House Drive to Cygnet Street) Right Grass Footpath	\$8,798.70	5.8
71285	Old Drive (Cygnet Street to End) Right Grass Footpath	\$7,763.48	5.8
67112	Old Drive (New Drive to Coach House Drive) Right Grass Footpath	\$15,769.70	5.8
71501	Old Drive (Saratoga Drive to Audrey Street) Right Grass Footpath	\$15,066.43	5.8
66632	Orana Avenue (Iluka Street to City Boundary) Right Grass Footpath	\$20,574.48	5.8
67237	Orwin Court (Henley Beach Road to Henley Beach Road) Right Grass Footpath	\$19,647.71	4.2
66699	Osborne Terrace (Boswarva Avenue to End) Right Grass Footpath	\$17,078.38	6.3
66702	Osborne Terrace (Crews Crescent to Boswarva Avenue) Right Grass Footpath	\$15,123.60	5.8
70344	Pacific Parade (Southern Avenue to Arctic Avenue) Right Grass Footpath	\$7,006.95	7.1
67677	Pape Crescent (Watson Avenue to End) Right Grass Footpath	\$20,329.38	4.2
70285	Penong Avenue (Suburb Boundary to Myer Avenue) Left Grass Footpath	\$4,837.15	5.0
70286	Penong Avenue (Whelan Avenue to Suburb Boundary) Left Grass Footpath	\$5,165.78	5.8
66625	Pine Avenue (Bonython Avenue to Capri Avenue) Left Grass Footpath	\$30,659.20	5.8
66980	Pine Avenue (Capri Avenue to City Boundary) Left Grass Footpath	\$30,635.11	5.8
66889	Pitcairn Avenue (Montana Drive to Lindfield Avenue) Left Grass Footpath	\$6,102.08	7.1
66685	Portland Court (Portland Road to End) Left Grass Footpath	\$10,760.63	4.2
67140	Pymbrah Road (Birmingham Street to Manchester Street) Left Gravel Footpath	\$10,730.81	3.8
66603	Queen Street (Reid Street to West Thebarton Road) Right Gravel Footpath	\$28,256.73	7.1
66806	Railway Terrace (Suburb Boundary to Richmond Road) Right Gravel Footpath	\$108,138.99	4.2
66652	Ralph Street (Morley Street to End) Right Grass Footpath	\$10,453.54	2.9
66782	Reese Avenue (Deacon Avenue to Kingston Avenue) Right Gravel Footpath	\$8,708.51	7.1
67187	Richmond Road (Hudson Court to Transport Avenue) Left Gravel Footpath	\$42,936.81	5.0
70467	Richmond Road (Hudson Court to Transport Avenue) Right Grass Footpath	\$42,366.46	5.0
67188	Richmond Road (Suburb Boundary to Hudson Court) Left Gravel Footpath	\$10,996.97	5.0
71334	Richmond Road (Suburb Boundary to Hudson Court) Right Gravel Footpath	\$9,830.46	5.0
67499	Rose Lane (Parker Street to End) Right Gravel Footpath	\$23,654.77	5.0
67385	Rostrata Street (End to Willingale Avenue) Right Grass Footpath	\$6,463.23	5.8
66791	Rostrata Street (Willingale Avenue to End) Right Grass Footpath	\$6,439.61	6.3

66634	Ruddock Avenue (Milner Road to Verran Avenue) Left Grass Footpath	\$7,402.85	4.2
66800	Russo Court (Kandy Street to End) Left Grass Footpath	\$11,017.84	4.2
68954	Rutland Avenue (Darwin Street to Mawson Crescent) Left Grass Footpath	\$8,901.13	4.2
68955	Rutland Avenue (Mawson Crescent to Darwin Street) Left Grass Footpath	\$8,123.88	4.2
69968	Rutland Avenue (Moresby Street to Mawson Crescent) Left Grass Footpath	\$1,509.52	4.2
67150	Rutland Avenue (Netley Avenue to Southerly Avenue) Left Grass Footpath	\$34,139.91	5.0
69912	Rutland Avenue (Southerly Avenue to Moresby Street) Left Grass Footpath	\$9,100.48	5.4
66543	Sandilands Street (Frontage Road to End) Left Grass Footpath	\$4,538.69	2.9
71357	Saratoga Drive (Coach House Drive to Violet Court) Right Grass Footpath	\$16,009.13	7.1
71300	Saratoga Drive (Cygnet Street to Coach House Drive) Right Grass Footpath	\$7,825.87	7.1
67165	Saratoga Drive (Pine Avenue to Cygnet Street) Right Grass Footpath	\$1,421.27	7.1
71480	Saratoga Drive (Sheoak Avenue to Old Drive) Right Grass Footpath	\$17,470.63	7.1
71478	Saratoga Drive (Violet Court to Sheoak Avenue) Right Grass Footpath	\$20,362.88	7.1
67505	Scott Court (Stanford Avenue to End) Left Grass Footpath	\$11,647.19	5.8
71104	Shannon Avenue (Burrupa Avenue to Aroona Place) Left Grass Footpath	\$1,261.57	7.1
71371	Sheoak Avenue (Audrey Street to Saratoga Drive) Right Grass Footpath	\$7,003.40	7.1
71358	Sheoak Avenue (Coach House Drive to Audrey Street) Right Grass Footpath	\$7,246.00	7.1
67238	Sherwin Court (Henley Beach Road to Henley Beach Road) Right Grass Footpath	\$20,145.26	4.2
66971	Simcock Street (Cambridge Avenue to City Boundary) Right Grass Footpath	\$3,970.31	5.8
67509	Stanford Avenue (Alexander Court to End) Left Grass Footpath	\$11,859.75	5.8
67404	Stanford Avenue (Alexander Court to End) Left Grass Footpath	\$8,103.31	5.8
71843	Stanford Avenue (Ayliffe Place to Charles Leitch Court) Left Grass Footpath	\$7,498.45	5.8
71844	Stanford Avenue (Charles Leitch Court to Scott Court) Left Grass Footpath	\$26,690.01	5.8
71842	Stanford Avenue (Morphett Road to Ayliffe Place) Left Grass Footpath	\$5,225.95	5.8
66827	Stanford Avenue (Scott Court to Alexander Court) Left Grass Footpath	\$7,620.47	5.8
67588	Swan Court (Swan Avenue to End) Right Grass Footpath	\$6,903.89	4.2
66998	Sycamore Avenue (Allendale Avenue to Montana Drive) Right Grass Footpath	\$30,619.42	7.1
71862	Tapleys Hill Road (Charles Veale Drive to Ingerson Street) Left Gravel Footpath	\$1,826.00	7.1
67590	Timor Court (Baltic Court to End) Right Grass Footpath	\$6,878.20	5.0
67115	Tracey Crescent (Grant Avenue to End) Left Grass Footpath	\$3,903.52	6.7
67114	Tracey Crescent (White Avenue to Grant Avenue) Left Grass Footpath	\$6,773.29	6.7
66843	Transport Avenue (Beare Avenue to Suburb Boundary) Right Gravel Footpath	\$17,753.07	4.2
71283	Troon Street (Allendale Avenue to Doncaster Avenue) Right Grass Footpath	\$8,165.22	5.8
70681	Troon Street (Avalon Avenue to Capri Avenue) Right Grass Footpath	\$6,456.37	5.8

71284	Troon Street (Capri Avenue to Allendale Avenue) Right Grass Footpath	\$18,101.41	5.8
71168	Troon Street (Doncaster Avenue to End) Right Grass Footpath	\$7,658.14	5.8
70682	Troon Street (Leander Avenue to Avalon Avenue) Right Grass Footpath	\$19,300.65	5.8
68791	Troon Street (St Andrews Crescent to Leander Avenue) Right Grass Footpath	\$8,460.60	5.8
67518	Violet Court (Saratoga Drive to End) Right Grass Footpath	\$6,301.84	5.4
67724	Wakefield Place (Bedford Street to End) Right Grass Footpath	\$15,548.94	5.0
66760	Walter Street (Ralph Street to Trennery Street) Left Gravel Footpath	\$11,942.67	4.2
66688	Warramunga Street (Halsey Road to End) Right Grass Footpath	\$7,426.83	4.6
66609	Weston Street (Tapleys Hill Road to Burbridge Road) Left Grass Footpath	\$26,815.97	5.4
67069	Willingale Avenue (Henley Beach Road to Rostrata Street) Right Grass Footpath	\$21,822.25	5.4
67375	Willingale Avenue (Rostrata Street to Acacia Avenue) Right Grass Footpath	\$11,556.66	4.6
69946	Windermere Avenue (Allendale Avenue to Doncaster Avenue) Left Grass Footpath	\$7,418.77	6.3
67516	Windermere Avenue (Doncaster Avenue to End) Right Grass Footpath	\$6,497.70	6.3
70861	Windermere Avenue (Leander Avenue to Montana Drive) Left Grass Footpath	\$8,601.95	6.3
69832	Windermere Avenue (Montana Drive to Allendale Avenue) Left Grass Footpath	\$32,868.20	6.3
71859	Windsor Terrace (Artic Avenue to Charles Veal Drive) Right Grass Footpath	\$3,153.98	4.2
71858	Windsor Terrace (Mount Batten Grove to Arctic Avenue) Right Grass Footpath	\$14,504.92	4.2
67000	Witter Place (Hampton Street to Lewis Street) Right Gravel Footpath	\$7,550.43	4.2
	Total Expenditure	\$3,023,765.58	