

**Roads ACT**  
**Asset Management Plan**  
**2004–2007**

# Executive Summary



# Executive Summary

The Asset Management Plan covers the assets currently owned and managed by Roads ACT on behalf of the ACT Government. These assets include road pavements, bridges, streetlights, driveways, car parks, community paths, traffic signals, signs and lines, and stormwater assets both below ground and above ground (i.e. manholes, sumps, pipes, channels, flood-ways, cut-off drains, gross pollutant traps, retarding basins, dams, ponds and weirs). The replacement cost of Roads ACT assets as at 30 June 2004 was \$ 5.58 billion. Infrastructure assets were straight line depreciated in the 2003/04 former Department of Urban Services territorial accounts at a rate of \$ 58,794,165 for that year.

The Roads ACT Asset Management Plan, which is continuously improving, is a broad overarching document that discusses key road and road related assets which will be supported in the future with more detailed strategies for the individual assets for example, "*Strategic Plan for Community Paths in the ACT*".

The Department of Treasury first introduced the requirement for Asset Management Plans on a consistent basis across government agencies in 1997/98. This Roads ACT - Asset Management Plan (2004-2007) has been prepared to meet the requirements and objectives set out in the ACT Government's "*Asset Management Strategy*" and more specifically Urban Services' Publications "*Framework for an Asset Management Plan for Business Units in Urban Services*" and "*Best Practice Guide for Asset Management in Business Units in Urban Services*" which are in accordance with the "*International Infrastructure Management Manual*".



The main requirement in relation to roads and stormwater assets is that Roads ACT business units have a sound knowledge of the extent and condition of their assets, whole of life costs, government policy objectives and how they are performing to stakeholder demand. Importantly, maintenance funds need to be utilised with maximum efficiency and effectiveness.

The Asset Management Plan is structured into the following sections.

■ **Executive Summary**

■ **Section 1:** Gives an introduction

■ **Section 2:** Provides the individual assets “Levels of Service”

■ **Section 3:** Future demand on assets

■ **Section 4:** Lifecycle Management

■ **Section 5:** Financial Management and Reporting

■ **Section 6:** Asset Management Practices

■ **Section 7:** Plan Improvement and Monitoring

■ **Section 8:** Capital Works

From Section 2 onwards the Plan progressively works through the asset lifecycle from planning, construction, maintenance and disposal (where appropriate). Tabulated summaries (Table A to G) of each of the key assets are located within this Executive Summary. These Tables summarise the asset extent, design life, levels of service, asset condition & valuations, budget appropriation and the benchmarked target levels of service.

## Section 1:

# The Introduction

This section establishes the framework and objectives of asset ownership and details Roads ACT's operating environment through the vision, mission statements and key priorities, as well as, performance measures of the organisation. The key Roads ACT assets discussed in the Asset Management Plan are shown in Table A which indicates the asset extent and design life.



*Parramatta Street, Phillip—road extension*



*New road infrastructure—kerbing, barriers, footpath, drainage and pavement*

**Table A: Asset Extent and Design Life**

Asset Type	Extent	Design Life
<b>Road Pavements</b> (Territorial and Municipal)	5,625 lane kilometres (sealed) 220 lane kilometres (unsealed)	Sub structure 50 - 100 years  Wearing surface 10 – 20 years
<b>Bridges</b> General Access Routes B Double Route Total No.	687 380 1,067	30 – 80 years 30 – 80 years
<b>Stormwater</b> Stormwater pipes Lined Channels Cut off drains Grassed Floodways Stormwater sumps Manholes Dams Weir structures Gross Pollutant Traps Retarding Basins	3,091 kilometres 55.54 kilometres 120 kilometres 157 kilometres 60,047 25,936 2 12 88 14	50 – 80 years 50 – 80 years   20 – 50 years 20 – 50 years 50 – 80 years 50 – 80 years 20 – 50 years 50 – 100 years
<b>Traffic Signals</b> Intersection Signals Pedestrian Signals Pedestrian Crossings Road crossing flood warning sites Total No.	178 25 7 4 214	10 years 10 years 10 years 10 years
<b>Lines and Signs</b> Line Marking Guide signs Advisory signs Total No. Signs	6,000 kilometres 4,000 80% of signs 70,000	3 – 4 years 10 years
<b>Community Paths</b> Footpaths Cycle paths	1,860 kilometres 374 kilometres	15 – 50 years 15 – 50 years
<b>Streetlighting</b> Luminaires Category P <sup>1</sup> Luminaires Category V <sup>2</sup> Sports ground lighting Decorative light strings Total Columns	45,000 20,000 1,000 2,000 68,000 (approx) 61,300 (approx)	20 years 20 years 20 years 2 years

**Note**

1. Category P is used primarily to provide a safe and comfortable visual environment for pedestrian movement at night.
2. Category V is used in roads on which the visual requirements of the motorists are dominant (e.g. traffic routes)

## Section 2:

# Levels of Service

This section defines the asset levels of service and their basis. The Levels of Service adopted by Roads ACT are constrained and influenced by a number of factors listed below.

1. **Legislative and Common Law requirements:** which includes the relevant ACT legislation that influences and affects operations including “duty of care” obligations.
2. **Customer expectations and demand:** the results of which are determined from various customer satisfaction and performance indice studies for each asset class undertaken independently through Artcraft and Austroads Customer Satisfaction Index Surveys and from the in-house Roads ACT Customer Service Requests Database. In 2004-05 Roads ACT commenced the City Management Customer Satisfaction Surveys.

Analysis of these surveys from a customer perspective indicate that whilst there has been no significant increase in the communities satisfaction levels of the overall maintenance of road and stormwater assets, there has been a slight drop in the community perception of footpaths, cycle-paths and signs maintenance. Furthermore, an analysis of the customer complaints received in the past year highlights these findings.



Customer Service Counter, Macarthur House

**3. Corporate strategies contained in the goals and objectives:** The former Department of Urban Services' vision, mission and key priorities relevant to the Asset Management Plan are documented in the Final Draft "Directions and Priorities 2004-07" and are aimed at ensuring that the following key organisational priorities are achieved. These are that Canberra:

- has a sustainable natural environment, evolving in harmony with community expectations;
- is renowned for its safe and sustainable built environment;
- is culturally rich vibrant community; and
- is functional and efficient, open to innovation and change.

Roads ACT's strategies are aimed at ensuring services provided in maintaining, managing and improving the infrastructure are focussed on achieving these key priorities at service levels that are supported by the community and funding levels.

**4. Technical Requirements:** As technical advances are made and where these are not an impost financially then operational processes and methods are improved. For example, through the use of reflectivity meters for line marking inspections or grinding machines to remove trip hazards.

**5. Safety and Environmental requirements:** to meet our duty of care obligations to the users of our assets and the environment from any detrimental impacts from operation or maintenance activities.

This section provides the current levels of service for key assets with respect to inspection & intervention and compares the service with best practice "target levels" of service as shown in Table B. The "target levels" of service have been identified from benchmarking with other local councils and road authorities (RTA NSW, DIER Tasmania, VicRoads, and Transit NZ).

**Table B: Asset Levels of Service**

	<b>Asset Attribute</b>	<b>Current Service Standards</b>	<b>Target Service Standards</b>	
<b>ROAD PAVEMENTS</b>				
<b>Programmed Maintenance</b>	Municipal Roads – resealing	Treat 3% annually	Treat 7 – 10% annually	
	Territorial Roads – resealing	Treat 3% annually	Treat 7 – 10% annually	
Intervention levels	Roughness		95% < 100 counts/Km 50% ,75 counts/Km	
	Rutting	Based on subjective assessment of safety	< 15 mm in >95% of any Km inspected	
	Cracking		30% on any 100m increment	
	Skid resistance		All sections >30m that exceed the Austroads recommended level to be investigated	
<b>Routine Maintenance</b>	Inspections	Ad required	Structured inspection program	
	Intervention Levels	Potholes	Repaired within 1 week	Repaired within 2 days
		Heavy Patching	Ad required	Repaired within 1 month
<b>BRIDGES</b>				
<b>Programmed Maintenance</b>	Replace Bridge joints	Every 20 – 30 years	As required following inspections	
	Re-level approach slabs	Every 15 – 20 years	As required following inspections	
	Replace bridge bearings	As required	As required following inspections	
	Re-analyse major arterial bridge strength	First analysis in progress	Prior to any increase in legal load	
<b>Routine Maintenance</b>	Inspect bridges	Based on structured inspection program and reaction to public complaints	Based on structured inspection program and reaction to public complaints	
	Cleanliness, waterways, removal of blockages & hazards	Based on assessment of safety & govt priorities (e.g. Look of Canberra)	Based on assessment of safety & govt priorities	
<b>STORMWATER</b>				
<b>Programmed Maintenance</b>	Above Ground	Reactive and some planned based on routine inspections	Fully planned program based on annual inspections	
	Below Ground	Reactive during and after storms to clear chokes		

**Table B: Asset Levels of Service continued**

	<b>Asset Attribute</b>	<b>Current Service Standards</b>	<b>Target Service Standards</b>
<b>STORMWATER continued</b>			
	Dam Maintenance	Safety inspections annually. Comprehensive inspections every 5 years. Major inspections after floods and earthquakes	Safety inspections annually. Comprehensive inspections every 5 years. Major inspections after floods and earthquakes
	Hydrology & Hydrographics	Continuous monitoring	Continuous monitoring
	Gross Pollutant Traps	Clean twice yearly or when sediment >50% Empty trash racks when blocked more than 30%	Clean twice yearly or when sediment >50% Empty trash racks when blocked more than 30%
	<b>Routine Maintenance</b>	Reactive based on complaints and reports of system failures	Based on surveillance and reaction to public complaints
<b>TRAFFIC SIGNALS</b>			
	<b>Programmed Maintenance</b>	Inspection and safety checks <sup>1</sup>	Inspect and correct 3 times/year
		Bulb replacement	Inspect and correct 3 times/year
		Incandescent bulb annually. Quartz Halogen bulbs every 2 years. LED's every 10 years	Incandescent bulb annually. Quartz Halogen bulbs every 2 years. LED's every 10 years
	<b>Routine Maintenance</b>	Response times to different fault categories are defined in the technical specification of the Maintenance Contract - Traffic Signals <sup>2</sup>	Response times to different fault categories are defined in the technical specification of the Maintenance Contract - Traffic Signals
<b>LINES AND SIGNS</b>			
	<b>Programmed Maintenance</b>	Linemarking	Linemarking every 5 to 8 years
		Signs	Every 5 years
		Signs replacement 2% annually	8% annually
	<b>Routine Maintenance</b>	Linemarking and Signs	Reactive based on public complaints
			Proactive – based on surveillance

**Table B: Asset Levels of Service continued**

	Asset Attribute	Current Service Standards	Target Service Standards
<b>COMMUNITY PATHS</b>			
<b>Programmed Maintenance</b>	Foot paths and Cycle paths	Frequency of inspection depends on path hierarchy	Frequency of inspection depends on path hierarchy
<b>Routine Maintenance</b>	Foot paths and Cycle paths	Based on complaints between 5 days (Category 1) and 6 months (Category 3) <sup>3</sup>  High risk area once per year  Medium risk - Nil  Low risk - Nil	Reactive based on complaints – between 1 day (95%) to <2 months (90%)  Once per year  Once every 2 Years  Once every 3 years
<b>STREETLIGHTS</b>			
<b>Programmed Maintenance</b>	Streetlighting	Nil	Bulk replacement every 3 years
<b>Routine Maintenance</b>	Streetlighting	Spot replacement on an as needs basis	Spot replacement on an as needs basis

**Note**

1. Traffic Signals Design – Current Levels of Service (Level D in peak hours, Level B during business hours), Target levels of Service (Level d in peak hours and Level B in Business hours).
2. Roads ACT has contracted “Ecowise Services” Canberra for the maintenance and management of traffic signals in the ACT.
3. Community Paths are categorised based on the risk profile of the area (High (1) i.e. Town centres, Medium (2) Local shopping centres, Low (3) residential areas)

## Section 3:

# Future Demands

This section describes the impact of changes to demand on asset utilisation of roads and stormwater infrastructure managed by Roads ACT. Factors that influence demand are population growth, changes in land use, modes of transport, vehicle ownership etc., which requires the active intervention of Roads ACT to forecast the consequences to assets so that the assets are managed effectively to avoid, or defer, capital expenditure.

In addition, key ACT Government and national initiatives aimed at addressing present and future infrastructure, transport and land use needs (Canberra Plan, AUSLINK, Heavy Vehicle Reforms etc) has required Roads ACT to develop strategies for the management and upgrade of infrastructure to meet these present and future demands.

Key initiatives likely to impact on the management and operational performance of Roads ACT assets include the following.

1. **Canberra Plan:** (including the “*Social Plan*”, “*Spatial Plan*”, “*Sustainable Transport Plan*” and “*Economic White Paper*”) set out the strategic framework for future development in the ACT in a 30 year time frame. Principles of “*The Spatial Plan*” relevant to Roads ACT are:
  - forecasting the population growth demand for existing infrastructure; and
  - containing growth within 15 km of the city to reduce cost of providing new infrastructure.

while the following:

- increasing the number of homes within 7.5km of the city;
- locating new residential areas close to town centres and transport;
- locating employment close to residential areas; and
- providing good travel connections to minimise journey times and trip length

seeks to influence future public transport demands to reduce the reliance on the use of private motor vehicles to achieve lower green house gas emissions, lower pollution, reduced accidents yet maintain the high level of accessibility with the shift towards more use of walking, cycling and public transport.

- 2. Sustainability Policy for the ACT:** provides for people, protecting our place and creates prosperity, now and in the future through a more sustainable ACT.

A compact and connected city strengthens social cohesion, is a more efficient use of land, with houses, services and employment in close proximity. This emphasises similar outcomes of the “*Canberra Plan*”.

Resource Efficiency, Air Quality and Greenhouse Gas Emissions is another dimension of Sustainability that influences Roads ACT, particularly with regard to reducing electricity consumption through more efficient streetlighting and reduced congestion resulting in improved air quality.

- 3. Development in NSW adjacent to ACT border:** (e.g. Tralee) influences the road network development by requiring improved connectivity.
- 4. National Heavy Vehicle Reforms and AUSLINK:** influences the connectivity with the surrounding region as increased heavy vehicle load limits, proposed by the National Transport Commission (NTC), impact on our bridge and pavement assets.

## Section 4:

# Lifecycle Management

This section outlines the plan for the management and operation of the major asset groups to meet target levels of service whilst optimising lifecycle costs. These costs do not include the future demands that may be placed on the Roads ACT assets. Lifecycle is the cycle of activities that an asset goes through from planning, design, construction, maintenance to decommissioning and disposal.

This section of the Asset Management Plan provides a high level overview of the lifecycle plan for each of the key assets, which includes the methodologies used in asset delivery including the procurement, maintenance and disposal of assets (i.e. standards and technical specifications), asset condition (summarised in Table C below), and maintenance expenditure for current and target service levels and the implications of key ACT Government and National Initiatives on infrastructure performance which are briefly described below.



**Roads:** The age of the road network and population growth (especially around the town centres) has placed increased demands on an already ageing road network (approx 70% of the network is older than 20 years which is the design service life of roads). Furthermore, current and future demands by the Heavy Vehicle Industry for increased vehicle axle load limits has resulted in an accelerated deterioration of the road pavement.

**Bridges:** Similar to roads, bridges are continually susceptible to the requirements to support increased heavy vehicle loading. Whilst the general condition of bridges in the ACT has been found to be in a fair to good condition, national initiatives encouraging higher load limits and the subsequent changes to the Bridge Design Code will require bridge upgrading works. Roads ACT has commenced an annual bridge strengthening programme to accommodate these increased load limits on the B Double (62.5 tonnes) and General Access (42.5 tonnes) routes.



**Stormwater:** The “Canberra Spatial Plan” strategy to maximise safety and perceptions of safety within the community from natural disasters such as flooding is further complicated by the need to contain growth of the urban areas by residential intensification to within a 7.5 kilometre radius of the city. Changes in the design standards and rainfall patterns used for stormwater design since 1987 has reinforced the deficiencies identified by the then NCDC in the older areas of Canberra. One of the effects of this redevelopment has been to increase the amount of impervious area within the suburbs. The effect of an increase in impervious area, where no ameliorating measures are taken, is to reduce the intensity of rainfall which is required for the pipe system to reach capacity which results in overland flow and flooding into leases or possible accidents on the roadway.



The stormwater assets have an age profile commensurate to the development of the individual suburbs. The oldest suburbs have pipe systems that do not meet current standards and these are more than 80 years old.

**Traffic Signals:** The current traffic signal system cannot support the introduction of additional controls for such things as bus priority or cycle lanterns as the existing control panels are at capacity or obsolete. Factors relating to the age (obsolescence of component parts), technology (shift to the use of long life, low maintenance, efficient LED lamps) and usage (bus bay and cycleway lanterns) have resulted in a requirement for Roads ACT to upgrade, replace and/or refurbish the current traffic signals through a phased capital upgrade program to accommodate these environmental factors.



**Lines Marking:** Linemarking needs to be replaced regularly to ensure the contrast, delineation and visibility of the linemarking is in accordance with Australian Standards, which requires linemarking to be replaced once every 5 years approximately. Trends relating to the urban densification of town centres will result in increased wear and subsequent rapid deterioration of linemarking.

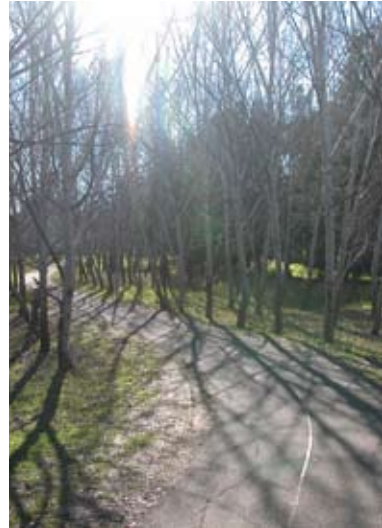


**Signs:** The condition and age of signs in the ACT is normally correlated with the age of the suburb. In the past the replacement of signs in the ACT have been ad hoc and generally in response to customer complaints to damaged signs. Thus whilst the condition of signage may be adequate, many signs do not meet the Australian Standards for regulatory signs and these will need to be programmed for replacement.





**Community Paths:** Canberra's Community Paths consist primarily of footpaths and cyclepaths. There has been a rapid deterioration of the community path network as a result of age, increased usage and other environmental factors (i.e. tree root intrusion etc). The government has recognised this and has made a commitment to expand the footpath maintenance program particularly in the older suburbs, by \$4.0 million over three years commencing 2005/06.



**Street Lighting:** Streetlighting is required to ensure the safety of motorists, and assist pedestrians and cyclists. The streetlighting types need to reflect the users, take into account government initiatives to encourage walking and cycling and crime prevention. Streetlighting studies in a number of Canberra's older suburbs have found the existing network to be inadequate and not in accordance with the relevant Australian Standards with regards to number, condition and luminescence. In addition to this NCA and ACT Planning and Land Authority require different standards for all roads forming the boundary to the Parliamentary Triangle, as well as, designated areas, and all the main avenues and high activity areas such as Town, Group and local centres.



**Table C: Asset Condition Summary as at 2002**

<b>Asset Condition<sup>1</sup></b>	<b>Excellent (%)</b>	<b>Good (%)</b>	<b>Satisfactory/ Fair (%)</b>	<b>Poor (%)</b>	<b>Unsatisfactory/ Very Poor (%)</b>
<b>Road Pavements</b>					
Territorial	6	32	31	24	7
Municipal	2	29	35	28	6
<b>Bridges</b>					
Structures	5	20	30	40	5
<b>Stormwater</b>					
Channels	30	30	20	10	10
Pipes	20	30	20	10	20
Dams & Weirs	10	90	0	0	0
<b>Traffic Signals</b>					
	23	38	28	11	0
<b>Line- marking</b>					
Territorial		69	19	12	0
Municipal		31	19	50	0
Raised pavement		90	0	10	
Painted		46	30	24	
<b>Signs</b>					
Sign blades		5.5	89.6	4.9	
<b>Community paths</b>					
Paths	36	25	27	8	4
<b>Streetlights</b>					
Luminaires (50 yrs design life)	60	1	9	20	10
Cables	70	1	10	10	9
Control points	60	1	8	30	1
Luminaires (25 yrs design life)	50	1	5	25	20

**Note :**

- I. Based on the ARRB "ARRB "Strategic Study into Asset Management, Condition, Audit and the Development of Performance Based Standards" and comprised of:
  - a sample of 5% Territorial and 5% Municipal Roads;
  - a sample of 5% of 400 strategically important bridges;
  - condition of 235 poles, 1700 lamps and 25 sets of signals were checked, only 2 out of the 1700 were not functioning properly;
  - a sample of 2% linemarking and 235 Directional (Guide) Signs; and
  - a sample of 5% community paths.

## Section 5:

# Financial Management Reporting and Requirements

This section presents information on valuation forecasts, present and future funding strategies and the key assumptions made in financial forecasts. Assets are the major component of the financial management by Roads ACT and this requires an integrated approach for planning and reporting.

The Ownership Agreement requires Roads ACT to use financial reporting, maintenance of accounts and records that satisfy the requirements of the *Financial Management Act 1996*, and the ACT Accounting Policy Manual to provide the financial position regarding operating cash flow results, planning and reporting.

The main funding sources for Roads ACT assets are from Commonwealth Government grants (Black Spot and the Roads to Recovery Programs), user pays revenue and the ACT budget through government purchased outputs (GPO) of \$41 million. Some \$50 million of assets annually are gifted to Roads ACT from private land developers and redevelopment.

The 20 year expenditure forecasts made in this section are based on the assumption that the assets are depreciated in a straight line, estimates are in “todays” dollars, asset depreciation percentage is applied equally to the entire replacement value independent of the rate of asset depreciation, all like assets deteriorate at the same rate no matter where they are in their life cycle and that the level of future routine and planned maintenance and asset creation is increased in proportion to the number of future households estimated for Canberra.

Table D shows for each key asset type past budgets have not made any allowance for asset growth or CPI increases. The budget amount allocated to assets in some financial years has actually decreased. The Commonwealth Grants Commission in the *Roads Assessment Discussion Paper CGC 220/34, August 2002* noted that the ACT’s per capita expenditure on road maintenance is the lowest of any State and is about half of the Australian standard.

This section of the asset management plan also notes the general issues likely to impact on the management of the assets in the future as briefly discussed below.

1. **Ageing infrastructure:** As the Roads ACT assets age they require more maintenance intervention to return them to their safe use. A number of asset classes, in particular roads, are not receiving optimum maintenance so with increased demand these assets deteriorate more rapidly. By only proactively treating 3% of Territorial roads annually with reseals, this means that it would take in excess of 33 years to return to the same asset maintained in Year 1. This is some 10 to 20 years beyond the useful life of the wearing surface of the pavements (wearing surfaces on pavements have a life of between 10 to 20 years). Innovation and additional funding will be required to increase the annual treatment to 7 to 10% annually to meet the target levels of service.

A similar methodology can be used for all Roads ACT assets that do not meet the best practice service standard targets. Table D indicates the past and current budgets for the asset classes managed by Roads ACT. Past budgets appropriated do not take into consideration increases required for CPI, inflation or growth of asset base. The consequence of not achieving growth in funding will see a more rapid deterioration of the assets, with greater liabilities to the ACT Government. To readdress this situation more expensive rehabilitation or reconstruction works will be required, often these are beyond recurrent maintenance capabilities which require large Capital funding injections.

2. **Increased Asset Utilisation:** The 20 year expenditure projections are based on the assumption that funding will increase in proportion to the growth rate of the number of future households (not taking CPI or inflation into account) and do not take into account the increased asset utilisation that is likely to occur through national and ACT Government initiatives. Urban densification around town centres of Canberra will reduce the requirement for new assets, however the existing assets will have greater demands placed on them.
3. **Increased asset loading due to changes in allowable mass limits:** The recent Heavy Vehicle Transport Reforms requiring an increase in the mass limits for heavy vehicles will result in an accelerated deterioration of road and bridge assets requiring more frequent pavement maintenance and bridge strengthening to meet the load limits.

**Table D: Asset Maintenance Expenditure for key asset classes**

Maintenance Expenditure	Financial Year 2002/2003	Financial Year 2003/2004	Financial Year 2004/2005	Financial Year 2005/2006
Road Pavements	\$7.42 M	\$10.5 M	\$12.7 M	\$11.03M
Bridges	\$0.77 M	\$1.47 M	\$1.25 M	\$1.50M
Stormwater	\$2.34 M	\$2.55 M	\$2.89 M	\$3.01M
Traffic Signals	\$0.57 M	\$0.87 M	\$0.87 M	\$0.88M
Lines & Signs	\$1.92 M	\$1.76 M	\$1.90 M	\$1.80M
Community Paths	\$2.00 M	\$2.26 M	\$2.50 M	\$2.68M
Streetlights	\$3.33 M	\$3.45 M	\$3.60 M	\$3.71M
Maintenance Levels	Appropriated Budget (2006/2007)			
<b>Road Pavements</b>				
<i>Programmed</i>				
Municipal	\$4,200,000			
Territorial	\$6,115,000			
<i>Routine</i>				
Municipal	\$1,000,000			
Territorial	\$970,000			
<b>Bridges</b>				
<i>Programmed</i>	\$1,350,000			
<i>Routine</i>	\$ 250,000			
<b>Stormwater</b>				
<i>Programmed</i>	\$3,800,000			
<b>Traffic Signals</b>				
<i>Programmed</i>	\$ 644,000			
<i>Routine</i>	\$ 46,000			
<b>Lines and Signs</b>				
<i>Programmed</i>				
Lines	\$ 900,000			
Signs	\$ 400,000			
<i>Routine</i>				
Lines				
Signs	\$ 850,000			
<b>Community Paths</b>				
<i>Programmed</i>	\$3,365,000			
<i>Routine</i>	\$ 253,000			
<b>Streetlighting</b>				
<i>Programmed</i>				
<i>Routine</i>	\$4,480,000			
<b>Total Appropriated Budget (key assets only)</b>	<b>\$28,623,000</b>			

**Note:** (the above \$ figures do not include asset growth, CPI etc)

## Section 6:

# Asset Management Practices

This section provides an outline of the asset management information available and the information systems used (i.e. software, files). Information provided in this section covers Accounting/Financial Systems (ORACLE), Annual Expenditure (Recurrent, Capital Works etc), methodology for the justification of capital works programs including standards, guidelines and risk assessment criteria used. This section also provides an insight into the Integrated Asset Management System (IAMS) currently being developed and the information datasets that will be available once completed to complement current asset management practices and procedures. IAMS will provide more accurate asset inventories for improved asset management decisions. IAMS has come on line and will be partially operational in March 2006. The data currently being imported into IAMS is shown in Table E below.

**Table E. Asset Management Datasets**

Database	Inventory Data	Condition Data	Maintenance History	Spatial Data
Road /Pavement	x	x	x	x
Bridges and Structures	x	x	x	x
Bus Stops /Shelters	x			x
Bus Routes				x
Community Paths	x			x
Guard rails, fences and barriers	x		x	x
Retaining Walls	x			x
Shopping Pavements	x	x		x
Stock Grids	x			
Streetlighting <sup>1</sup>				x
Stormwater	x			x
Linemarking	x			x
Signs	x			x
Traffic Island/Roundabouts	x			x
Driveways/Intersections/ Pedestrian Crossing	x			x
Traffic Counts/Accidents <sup>2</sup>				

**Note:**

1. IAMS system incorporating streetlighting information is yet to be developed.
2. Traffic Count/Accident Data collected will include traffic count location, accident data and other attributes.

## Section 7:

# Plan Improvement and Monitoring

This section of the Asset Management Plan provides an overview to the future and continued development of the AMP. This section highlights the key improvements that the Asset Management Plan should encompass to address concerns and provide solutions aimed at improving the safe use of our assets.

## Section 8:

# Capital Works

The challenge confronting Roads ACT is to provide a balanced delivery of the Capital Works program, accounting for increasing community expectations, government regulations and policies, the cost of servicing against constraints in funding levels and competition from other government agencies Capital Works requirements.

This section provides a broad overview of Capital Works funding programs and includes the staged funding process of Feasibility Studies, Forward Design and Construction. The justification for the Capital Works Upgrade program and individual projects are closely aligned to recent government policies and initiatives, such as *"The Canberra Plan"*. To provide certainty and confidence in the programming of future Capital Works, an annual Capital Upgrade programme of \$4.7 million with the three key asset categories listed below has been put in place from 2005/06 for the next five years.

- Roads and Bridges (\$2,550 million);
- Sustainable Transport Initiatives (\$700,000); and
- Neighbourhood Improvements (\$1.5 million).

This section provides a breakdown of the asset categories into 13 programs that make up Roads ACT's annual Capital Upgrade program. The objective, background, current needs assessment / project justification, methodology for project ranking & evaluation and the steps to be taken to develop the five year rolling Capital Upgrades is provided for each program.



