

Contributing Departments

Public Works >99%
 Corporate Accounts <1%
 2007 Budget: \$88.9 million

Roadway Construction & Maintenance

Includes:

- *Regional Streets Construction & Maintenance*
- *Bridge Construction & Maintenance*
- *Local Streets Construction & Maintenance*
- *Sidewalk Construction & Maintenance*

Service Overview

DESCRIPTION

To provide citizens with access to well-maintained roadways, sidewalks and bridges in order to ensure the safe, efficient movement of people, goods and services.

KEY GOALS

1. Develop and implement Roadway Asset Management systems.
2. Support Downtown revitalization.
3. Provide optimized delivery of infrastructure projects.
4. Utilize principals of environmental stewardship.
5. Coordinate processes with other major project stakeholders.
6. Implement active transportation components in regional street projects where feasible

SERVICE LEVEL STATISTICS

Description	2004	2005	2006	3 Year Average
Capital Addition of Regional Streets (lane-km)	0.0	1.7	0.0	0.6
Capital Reconstruction of Regional Streets (lane-km)	7.4	0.0	0.58	2.66
Capital Rehabilitation of Regional Streets (lane-km)	17.9	21.45	42.8	27.4
Capital Addition of Local Streets (lane-km)	1.9	0.18	0.0	0.66
Capital Reconstruction of Local Streets (lane-km)	9.17	3.38	5.6	6.0
Capital Rehabilitation of Local Streets (lane-km)	41.87	29.37	34.3	35.2
Capital Addition of Surfaced Alleys (lane-km)	0.22	0.49	0.17	0.29
Capital Reconstruction of Alleys (lane-km)	0.0	0.97	2.91	1.29
New pedestrian/cycle pathways (meters)	2300	2000	1400	1900
Major Bridge Rehabilitations	1 location \$510,000	1 location \$2,340,000	2 locations \$11,300,000	\$4,720,000
Significant Bridge Maintenance Repair Works	17 locations \$450,000	16 locations \$380,000	13 locations \$285,000	\$370,000
Slope Stabilization Works	nil	1 location \$230,000	2 locations \$50,000	\$95,000
Bridge Deck Sealing Program	3 locations \$5,000	6 locations \$330,000	15 locations \$160,000	\$165,000
Bridge Roadside Safety Improvements	nil	1 location \$10,000	2 locations \$160,000	\$55,000
Overhead Sign Structure Maintenance	4 structures \$60,000	nil	3 structures \$40,000	\$35,000
Underpass Pumphouse Repairs	1 locations \$25,000	1 location \$18,000	nil	\$15,000

Strategic Direction

LINK TO *PLAN WINNIPEG*

- 3C-01 Provide Integrated Transportation Network
- 3D-01 Commit Foremost to the Maintenance and Renewal of Existing Infrastructure
- 3D-02 Invest Strategically in New Infrastructure
- 3D-04 Direct Arterial Street System Investment
- 4B-03 Promote Safety on Streets and Sidewalks
- 5E-02 Designate and Enhance Image Routes and Scenic Drives

SYNOPSIS OF POLICY DIRECTION

This service aligns with Council's long-term vision for Winnipeg, as articulated in Plan Winnipeg. Specific sub-services provided include roadway construction and maintenance, as well as maintenance and construction of bridges and structures.

- Plan Winnipeg 2020
- Workplace Health and Safety
- City of Winnipeg Streets By-Laws
- Strategic Infrastructure Reinvestment Policy (SIRP)
- Public Works Asset Management Performance Audit (Section 1.1 Roadway Construction and Maintenance)

KEY FACTORS INFLUENCING SERVICE DELIVERY

Competition for Construction Resources

The boom in residential and commercial building as well as provincial infrastructure spending has provided a "seller's" market with suppliers able to command higher prices for labour, equipment and materials. In 2006, bid prices on construction projects were significantly higher than those of 2005 (~23%). At least for the next several years, it is anticipated that construction contract inflation will exceed that of the Consumer Price Index by approximately 20%.

Labour Shortage

Current labour shortages across the construction industry make it difficult to acquire qualified staff for seasonal work, or to replace retiring permanent staff.

Interdepartmental Cooperation

Better communication between departments is required to reduce project conflicts and their subsequent delays. A work management initiative is being implemented to improve operational efficiencies through quality management and process improvement.

Criminal Code Amendment

The Criminal Code of Canada now includes new legal duties for workplace health and safety which imposes serious penalties for violations that result in injuries or death. This has resulted in an increased demand for operator training and qualification standards. Safety program improvements have been implemented to meet the requirements of the Workplace Safety and Health Act.

Asset Management Strategic Plan

The *Strategic Infrastructure Reinvestment Policy* (SIRP) report outlined some of our very real challenges with respect to infrastructure. In that report, which was adopted by Council, the condition of the roadways and bridges were laid out, along with the investment required to sustain them. Our own "*Financing Infrastructure Preservation*" report updated these figures and included expenditures (current and recommended) for maintenance. We can use these figures to gauge improvements (or decline) in condition, as well as our capital and maintenance expenditures.

The Asset Management Strategic Plan allows for:

- the production of a 2-3 year proposed project list
- commissioned studies and designs well in advance of tendering
- project coordination with other agencies to avoid competition for resources

The planned annual investment and required annual investment for Roadways and Bridges for 2004 to 2008 are shown in the charts below. It illustrates a \$50 million dollar annual infrastructure deficit.

The difference between planned and required investment for roadways is \$40.2M and for bridges is \$9.2M.

REQUIRED INVESTMENT TO MAINTAIN CURRENT CONDITIONS (average annual in millions)

	Maintenance	Capital	Total
Roadways	\$37.3	\$55.2	\$92.5
Bridges	\$1.5	\$15.0	\$16.5
TOTAL	\$38.8	\$70.2	\$109.0

	PLANNED INVESTMENT (average annual in millions)		
	Maintenance	Capital	Total
Roadways	\$25.0	\$27.3	\$52.3
Bridges	\$0.6	\$6.7	\$7.3
TOTAL	\$25.6	\$34.0	\$59.6

SUMMARY OF GOALS AND STRATEGIES

1. Develop and implement Roadway Asset Management systems

- Identify and prioritize maintenance and renewal needs to optimize investment using lifecycle costing.
- Evaluate and improve construction and maintenance strategies, practices, materials, methods.
- Report more clearly on how funding level/ program decisions affect the condition of roadway assets.
- Research other cities for best practices such as the City of Edmonton, who has put considerable effort into developing an Infrastructure Strategy.

2. Support Downtown revitalization

- Facilitate and coordinate roadway construction impacts with downtown initiatives e.g. Manitoba Hydro facility.
- Provide faster response to resolve downtown roadway problems.

3. Optimize delivery of infrastructure projects

- Ensure timely tendering of capital projects.
- Schedule projects to minimize impact on citizens and businesses.
- Work with consultants and contractors to investigate the most cost effective delivery of capital work.

4. Utilize principals of environmental stewardship

- Continue to expand the use of recycled construction materials in infrastructure projects.
- Explore the use of geotextile materials to reduce the requirement for processed stone.
- Promote asset management strategies to maximize the life-cycle of public infrastructure.

5. Coordinate processes with other major project stakeholders

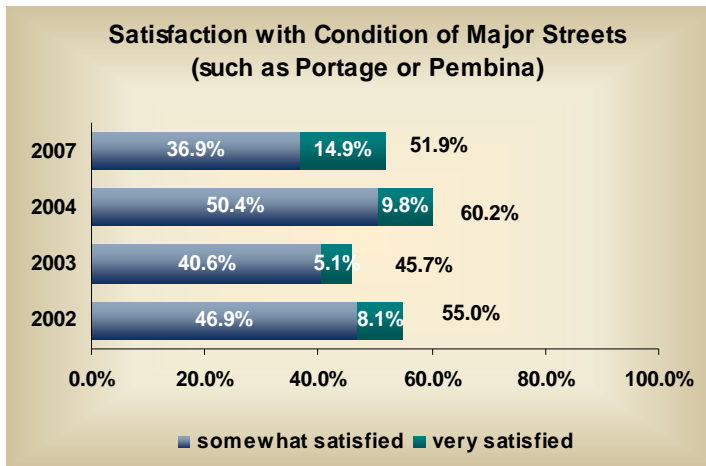
- Coordinate long and medium-term construction activities for different asset types to minimize the effect of utility activity on pavement condition.
- Coordinate construction within Rights of Way to maximize traffic flow through work zones (minimize local congestion).
- Coordinate construction within the Regional Street system to maximize network traffic (minimize area congestion).
- Share asset information databases with departments.
- Develop a land drainage management strategy in cooperation with the Water and Waste Department.

6. Implement active transportation components in all regional street projects where feasible

- Work with stakeholders to identify a long-term strategy/ implementation plan for a fully integrated city-wide recreational network.
- Ensure all capital projects are properly scoped for active transportation opportunities.
- Encourage dedicated long-term funding for active transportation initiatives.

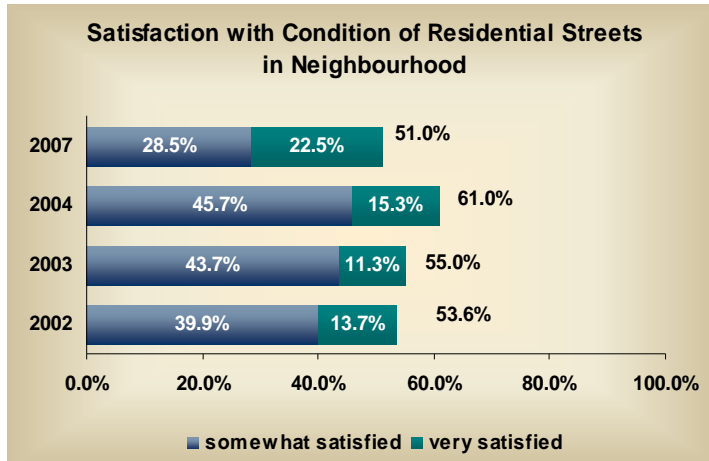
Performance Information

CITIZEN SATISFACTION



Satisfaction with the condition of major streets has decreased in 2007 from 2004. Additional funding was allocated to street repair in 2007.

Source: City of Winnipeg, CAO Secretariat August 2007 Survey (+/- 4.2%, 19 times out of 20)



Citizen satisfaction with residential streets has also seen a decline, however, additional funding was targeting for street repair in the 2007 budget and efforts are continuing.

Source: City of Winnipeg, CAO Secretariat August 2007 Survey (+/- 4.2%, 19 times out of 20)

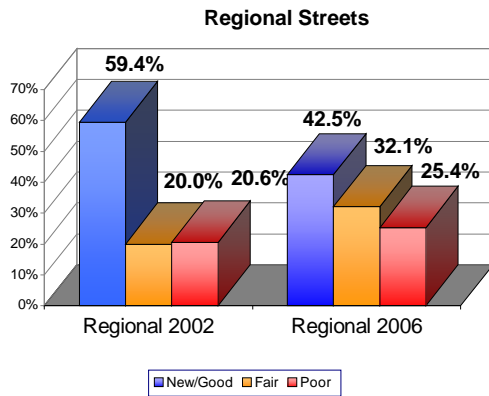
The table on the left was taken from the report on the 2006 Public Works Citizen Satisfaction Survey conducted annually every fall.

	2002	2003	2004	2005	2006
local street	63.6%	65.0%	56.0%	53.7%	50.7%
back lane	57.7%	50.6%	32.0%	37.4%	39.1%
sidewalk	68.9%	65.1%	63.6%	54.1%	57.7%
regional streets	37.7%	42.2%	38.3%	19.0%	30.9%
bridges	no data	no data	66.3%	62.8%	62.9%
pothole patching program	22.3%	21.3%	11.9%	12.7%	19.9%
timeliness of repairs	18.5%	22.9%	9.8%	12.0%	23.0%

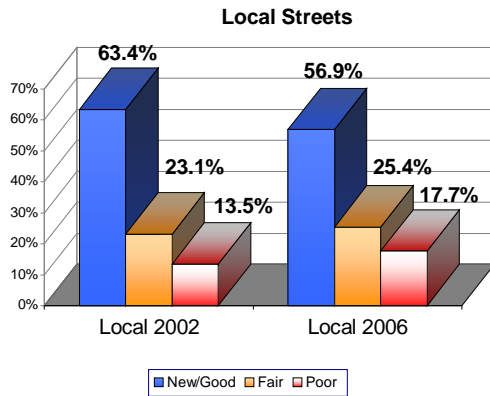
Since 2000, there has been a steady decline in citizen satisfaction with the condition of local streets, back lanes and sidewalks. Survey results from 2006 remain relatively unchanged from 2005. Citizen satisfaction with regional streets and bridges improved slightly in 2006 to approximately 31% from a historical low of 19% in 2005. For 2006, citizen satisfaction for pot hole patching continues to remain low.

EFFECTIVENESS DATA

Asset Condition - Average condition rating by roadway

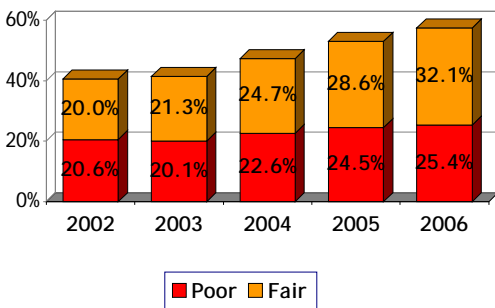


In 2006, the total preservation requirements for the paved road system (including bridges & structures and the traffic signals systems) total \$124 million. The budgeted amounts for capital and operating paved roadway preservation total \$63 million, leaving \$61 million in unfunded – or deferred – preservation needs. The effectiveness of these funding levels can be seen in the condition charts to the left, particularly on the Regional Street system, where there has been a drop of approximately 17% in streets rated new/good.



Condition comparison, year to year

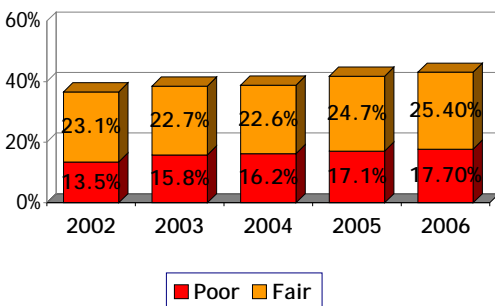
2002-2006 - REGIONAL Streets Condition



Starting in 2007, the following additional effectiveness measures will be tracked:

- Change in infrastructure deficit – asset management – provided every year
- Deferred maintenance
- Deficit for the roadway asset types (roads, bridges, signals)

2002-2006 - LOCAL Streets' Condition



EFFICIENCY DATA

Starting in 2007, the following efficiency measures will be tracked:

- Unit cost per km for roadway system maintenance
- Average time for full restoration of cuts to streets/ boulevards
- Unit cost/m² for sidewalk renewal