

Engineering

Agency Number: **53**
Budget Function: **Public Works and Transportation**

The Engineering Division is responsible for the design, supervision and inspection of all street, highway, sidewalk and bike path construction; all City surveying and mapping operations including maintenance of the City's Official Map, street and utility records; management of the Madison Storm Water and Sanitary Sewer Utilities including the design, operation and maintenance of sanitary sewer facilities and storm sewer systems; the review of land use changes for public works feasibility; the research and development services supporting the solid waste management program; and the preparation of various studies relating to Public Works. The City Engineer also serves as Team Leader of the Department of Public Works and Transportation.

<u>Major Service</u>	<u>2002 Actual</u>	<u>2003 Budget</u>	<u>2003 Projected</u>	<u>2004 Request</u>	<u>2004 Executive</u>	<u>2004 Adopted</u>
Sanitary Sewers	\$ (1,557)	\$ 44,259	\$ 44,259	\$ 0	\$ 0	\$ 38,664
Storm Water Management	904,169	22,266	22,266	0	0	19,482
Mapping & Records	398,996	408,947	408,947	428,381	428,381	432,913
Streets, Highways & Path Systems	1,026,260	1,401,707	1,402,407	1,346,241	1,346,241	1,381,496
Sidewalks	232,359	199,426	199,426	217,576	217,576	221,347
Environmental Engineering	231,352	302,539	301,839	339,363	339,363	347,262
Agency Total	<u>\$ 2,791,579</u>	<u>\$ 2,379,144</u>	<u>\$ 2,379,144</u>	<u>\$ 2,331,561</u>	<u>\$ 2,331,561</u>	<u>\$ 2,441,164</u>

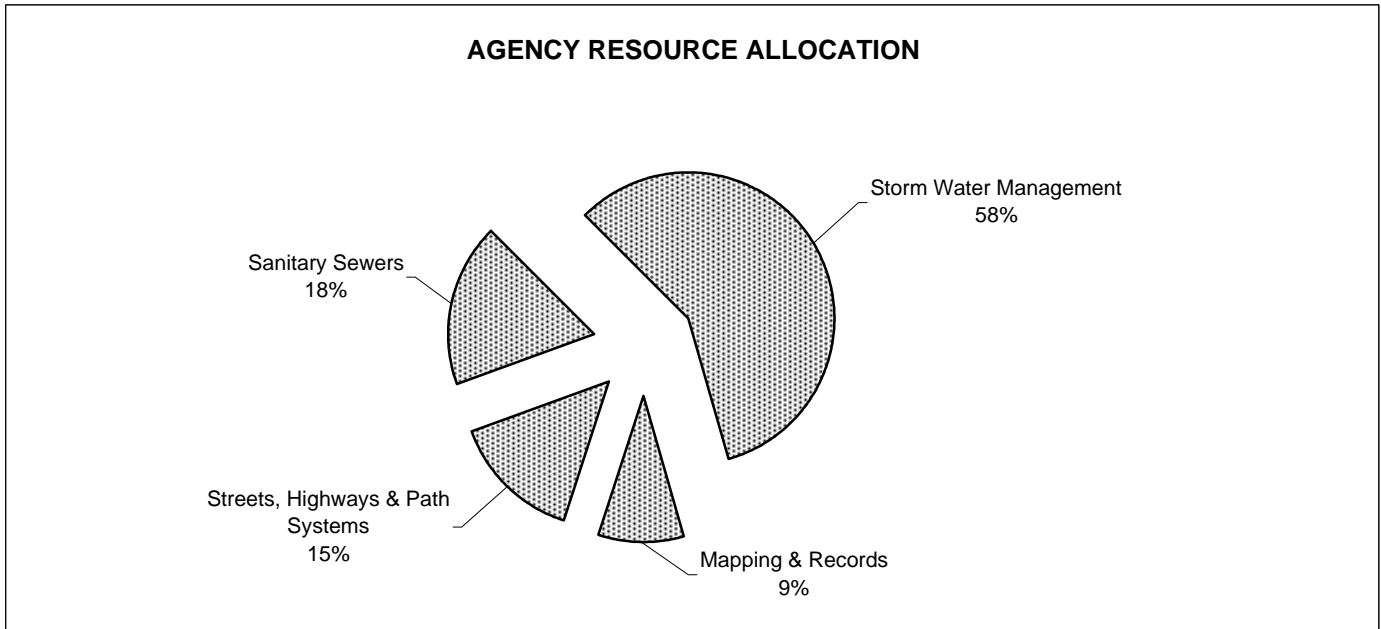
Adopted Budget Highlights

The Budget includes:

1. An increase in landscaping funding to allow for maintenance of the American Family Park and Ride Site, and Highway PD.
2. During 2004, the Engineering Division, with the assistance and cooperation of the Traffic Engineer, City Attorney and Comptroller, shall review issues associated with the creation of a "Street Utility" and report findings regarding potential expenses, revenues, rate structures, cost recovery alternatives and customer impacts.

The agency submitted no supplemental requests.

Engineering



Budget Service Descriptions:

Sanitary Sewers

Sanitary Sewer service manages, operates, constructs and maintains the Madison Sewer Utility. The Sewer Utility directs the planning, design, construction and repair of public sanitary sewer facilities. All proposed land use changes are reviewed for sanitary sewer impact prior to approval. Extensions to the public sewerage system are financed by the owners of lands directly benefiting from the improvements, or through construction by private developers. Developers construct sewers at their own expense in accordance with City design standards and specifications. The Sewer Utility assumes ownership and responsibility for maintenance and operation of these sewers upon acceptance of the improvements by the Common Council. Maintenance efforts include the repair, cleaning, televising and removal of blockages in over 720 miles of sewer main managed by the Sewer Utility. In recent years, an emphasis has been given to the replacement of old, sub-standard sewer facilities and elimination of sources of infiltration and inflow, and reducing the number of sewer main backups.

Service Summary			
	2002 Actual	2003 Budget	2004 Adopted
Total Expenditures	\$ 3,273,866	\$ 3,565,505	\$ 3,567,934
Less Inter-Agency Billings	<u>3,275,423</u>	<u>3,521,246</u>	<u>3,529,270</u>
Net Total	<u>\$ (1,557)</u>	<u>\$ 44,259</u>	<u>\$ 38,664</u>

Storm Water Management

The Storm Water Management function provides services for design, review, construction and maintenance of a storm water management system consisting of about 360 miles of pipe and over 1100 acres of greenways and ponds for flood control and runoff water quality improvement. The City's WPDES discharge permit requires the system to reduce non-point source pollution to area lakes and streams. This is done using an expanding system of more than 50 wet ponds and other best management practices. Maintenance of this system is an increasingly important and costly component of this service as the average age of the system increases and rehabilitation of parts of the system becomes necessary. This function also provides City residents access to professional review of drainage problems which occur on or adjacent to their property. Engineering staff review the existing conditions, act as a mediator for multiple party problems, and provide possible solutions. In recent years, storm water runoff has become increasingly regulated, which shall lead to increasing costs to the City. Engineering staff administer and enforce erosion control and stormwater management requirements for all development in the City.

Service Summary			
	2002	2003	2004
	Actual	Budget	Adopted
Total Expenditures	\$ 1,704,169	\$ 1,611,315	\$ 1,854,458
Less Inter-Agency Billings	<u>800,000</u>	<u>1,589,049</u>	<u>1,834,976</u>
Net Total	<u>\$ 904,169</u>	<u>\$ 22,266</u>	<u>\$ 19,482</u>

Mapping & Records

Mapping and Records service reviews new subdivisions, land divisions, conditional use permits, parking lot plans, applications for building permits and applications for new public land in general. This service also prepares legal descriptions for acquisition, street rights-of-way and street vacations. It also maintains the City's Official Maps, Assessors' Parcel Maps, Fire Department Run Maps, Police Sector Maps, storm sewer records, sanitary sewer records, and assigns street names and addresses. The map records are in digital form and are available from the Mapping/GIS system. This service also provides all hardware and software support for the Mapping/GIS system network. The next phase of GIS is to develop a data base to maintain City buildings. This service provides geospatial analysis, using "intelligent" maps for the Engineering Division and various other City agencies.

Service Summary			
	2002	2003	2004
	Actual	Budget	Adopted
Total Expenditures	\$ 450,410	\$ 460,947	\$ 510,913
Less Inter-Agency Billings	<u>51,414</u>	<u>52,000</u>	<u>78,000</u>
Net Total	<u>\$ 398,996</u>	<u>\$ 408,947</u>	<u>\$ 432,913</u>

Streets, Highways & Path Systems

Streets, Highways and Path Systems service provides for the review and design of streets, bridges, and bikeways and the review of design work by consultants. Citizen involvement in projects undertaken is a high priority as is quality design of Streets, Highways and Path Systems. Maintaining the safety of the City's bridges through biannual inspections, routine maintenance and scheduled rehabilitation and replacement is part of this program. This program involves local streets, collector streets, arterial streets, bikeways, and other path systems. Other services provided include review of Plats and Certified Survey Maps, conditional use applications, and planned unit developments to ensure that they are compatible with future transportation needs. The City now maintains approximately 709 miles of streets and 45 bridges greater than 20 feet in length.

Service Summary			
	2002	2003	2004
	Actual	Budget	Adopted
Total Expenditures	\$ 1,460,223	\$ 1,744,451	\$ 1,706,707
Less Inter-Agency Billings	<u>433,963</u>	<u>342,744</u>	<u>325,211</u>
Net Total	<u>\$ 1,026,260</u>	<u>\$ 1,401,707</u>	<u>\$ 1,381,496</u>

Sidewalks

The responsibility of this service is to maintain sidewalks through the general sidewalk repair and rehabilitation program; construct accessible ramps in the designated repair areas or in specific locations as requested; inspect sidewalk and drive apron construction by private contractors who must be licensed by the City and must obtain permits before doing the work; inform the public and other governmental agencies about sidewalks damaged by private contractors, illegal street encroachments, underground vaults in the streets, injury claims resulting from unsafe sidewalks, and legislation for accessible facilities on construction projects; administer a rebate program where the City will reimburse a property owner \$2.00/ sq. ft. of sidewalk repaired; and repair sidewalk, curb and gutter as requested by property owners. The work is prioritized using a 10 year sidewalk replacement plan.

Service Summary			
	2002	2003	2004
	Actual	Budget	Adopted
Total Expenditures	\$ 290,660	\$ 304,426	\$ 326,347
Less Inter-Agency Billings	<u>58,301</u>	<u>105,000</u>	<u>105,000</u>
Net Total	<u>\$ 232,359</u>	<u>\$ 199,426</u>	<u>\$ 221,347</u>

Environmental Engineering

This service provides all of the environmental engineering, research, legislative analysis and planning for the City. Responsibilities include management of closed landfills and fuel tanks, environmental audits, siting of new landfills and long range waste management plans. Most work is required by State law. Operation and maintenance of large landfill gas and leachate collection systems are significant tasks and require engineers to be available 24 hours per day. Starting in 2000, this section provides for the planning and implementation of the City's climate protection and green fleet plans. This section will also help draft and implement the City's energy plan in 2003-2004.

	<u>2002 Actual</u>	<u>2003 Budget</u>	<u>2004 Adopted</u>
Total Expenditures	\$ 623,709	\$ 652,539	\$ 697,262
Less Inter-Agency Billings	<u>392,356</u>	<u>350,000</u>	<u>350,000</u>
Net Total	<u>\$ 231,352</u>	<u>\$ 302,539</u>	<u>\$ 347,262</u>

Engineering Summary by Major Object of Expenditure

	<u>2002 Actual</u>	<u>2003 Budget</u>	<u>2003 Projected</u>	<u>2004 Request</u>	<u>2004 Executive</u>	<u>2004 Adopted</u>
Permanent Salaries	\$ 4,623,426	\$ 5,018,154	\$ 5,018,154	\$ 5,023,572	\$ 5,023,572	\$ 5,073,815
Hourly Employee Pay	261,235	183,599	183,599	261,241	261,241	263,853
Overtime Pay	243,721	132,599	132,599	243,730	243,730	246,167
Fringe Benefits	1,540,176	1,761,611	1,761,611	1,792,515	1,792,515	1,829,755
Purchased Services	372,950	417,700	417,700	466,410	466,410	483,481
Supplies	218,863	236,090	236,090	220,890	220,890	220,890
Inter-Departmental Charges	499,519	570,430	570,430	513,680	513,680	513,680
Debt/Other Financing Uses	0	0	0	0	0	0
Capital Assets	<u>43,146</u>	<u>19,000</u>	<u>19,000</u>	<u>31,980</u>	<u>31,980</u>	<u>31,980</u>
Total Expenditures	\$ 7,803,037	\$ 8,339,183	\$ 8,339,183	\$ 8,554,018	\$ 8,554,018	\$ 8,663,621
Inter-Agency Billings	<u>5,011,458</u>	<u>5,960,039</u>	<u>5,960,039</u>	<u>6,222,457</u>	<u>6,222,457</u>	<u>6,222,457</u>
Net Budget	<u>\$ 2,791,579</u>	<u>\$ 2,379,144</u>	<u>\$ 2,379,144</u>	<u>\$ 2,331,561</u>	<u>\$ 2,331,561</u>	<u>\$ 2,441,164</u>