

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.

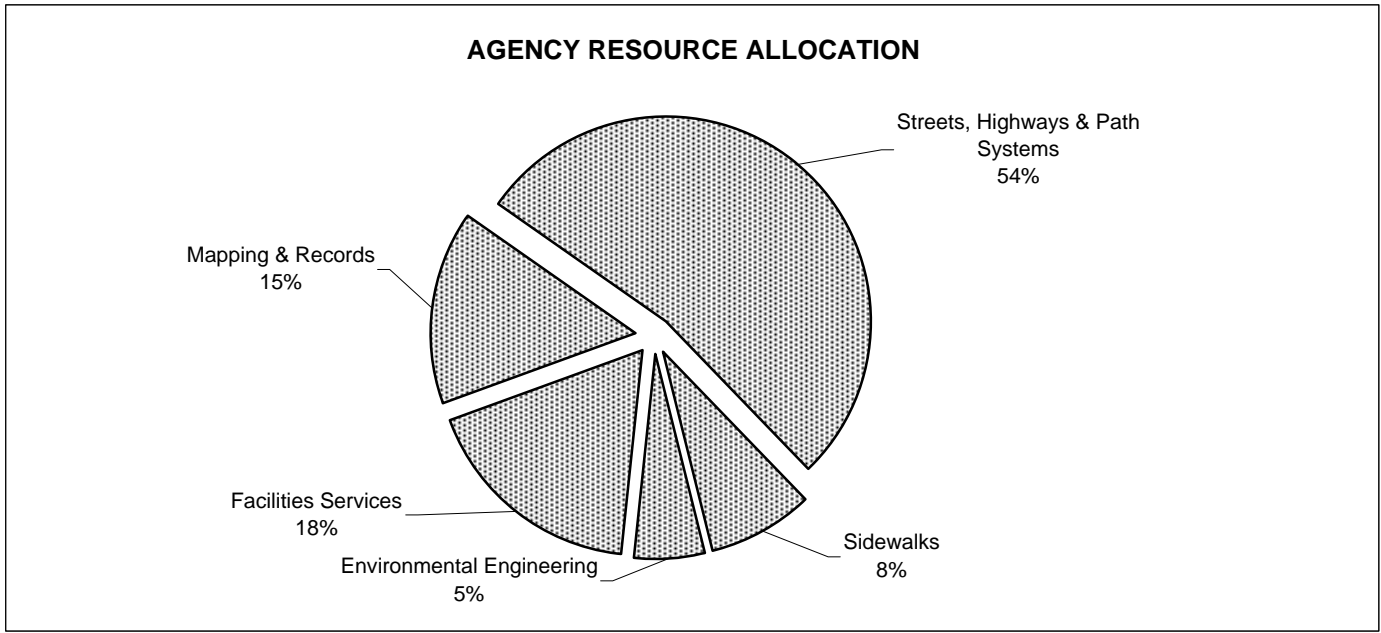
<u>Major Service</u>	<u>2006 Actual</u>	<u>2007 Budget</u>	<u>2007 Projected</u>	<u>2008 Request</u>	<u>2008 Executive</u>	<u>2008 Adopted</u>
Sanitary Sewers	\$ 0	\$ 82,264	\$ 82,264	\$ 0	\$ 0	\$ 0
Storm Water Management	0	42,432	42,432	0	0	0
Mapping & Records	529,266	449,638	449,638	532,626	532,626	0
Streets, Highways & Path Systems	1,749,025	1,788,278	1,788,278	1,871,119	1,846,119	0
Sidewalks	208,905	351,768	351,768	289,931	289,931	0
Environmental Engineering	303,505	366,991	366,991	187,166	187,166	0
Facilities Services	7,184	437,573	437,573	514,983	622,318	0
Agency Total	<u>\$ 2,797,886</u>	<u>\$ 3,518,944</u>	<u>\$ 3,518,944</u>	<u>\$ 3,395,825</u>	<u>\$ 3,478,160</u>	<u>\$ 0</u>

Executive Budget Highlights

The Budget includes:

1. Addition of one Street and Sewer Machine Operator 1 to perform work related to the cleaning, maintenance, repair, and construction of the City's storm and sanitary sewer systems. Costs of \$48,390 will be supported by the Sewer and Stormwater Utilities.
2. Addition of \$24,489 of overtime and related benefits to allow for the completion of some larger or more complex Facilities Services tasks, such as floor waxing, boiler maintenance, and carpet replacement.
3. Provision of \$2,500 for membership in the International Council for Local Environmental Initiatives (ICLEI). This organization provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development at the local level.
4. Additional permanent salary and benefit funding to support the annual compensation of four new Civil Engineer positions created in 2007.
5. An increase of \$81,566 in the landscaping budget to reflect cost increases and the addition of native plantings on John Nolen Drive and East Washington Avenue.
6. Note: As part of the Adopted Budget Process, a budget neutral adjustment will be made balancing revenues of the Engineering Facilities Services service with the charges budgeted by various user agencies.

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 755 miles of sewer main managed by the Sewer Utility. In recent years, an emphasis has been given to the replacement of old, substandard sewer facilities and elimination of sources of infiltration and inflow, and reducing the number of sewer main backups. The Sewer Utility is aggressively pursuing new technology for extending the life of existing sewers, in the most cost efficient manner.

Service Summary			
	2006 Actual	2007 Budget	2008 Executive
Total Expenditures	\$ 4,058,406	\$ 3,846,725	\$ 3,890,320
Less Inter-Agency Billings	4,058,406	3,764,461	3,890,320
Net Total	\$ 0	\$ 82,264	\$ 0

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 384 miles of pipe and over 1,279 acres of greenways and ponds for flood control and runoff water quality improvement. The City's Wisconsin Pollutant Discharge Elimination System 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, including street sweeping, erosion control, illicit discharge investigation and control, and catch basin cleaning. 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. Additionally, Engineering staff report annually to the Common Council on the status of our receiving waters, current efforts to improve water quality, and possible future activities. The report is titled "Clean Lakes Water Quality Plan."

Service Summary			
	2006	2007	2008
	Actual	Budget	Executive
Total Expenditures	\$ 2,336,859	\$ 2,103,117	\$ 2,368,294
Less Inter-Agency Billings	<u>2,336,859</u>	<u>2,060,685</u>	<u>2,368,294</u>
Net Total	<u>\$ 0</u>	<u>\$ 42,432</u>	<u>\$ 0</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			
	2006	2007	2008
	Actual	Budget	Executive
Total Expenditures	\$ 608,274	\$ 538,190	\$ 611,319
Less Inter-Agency Billings	<u>79,008</u>	<u>88,552</u>	<u>78,693</u>
Net Total	<u>\$ 529,266</u>	<u>\$ 449,638</u>	<u>\$ 532,626</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 758 miles of streets and 54 bridges greater than 20 feet in length.

Service Summary			
	2006 Actual	2007 Budget	2008 Executive
Total Expenditures	\$ 2,066,989	\$ 2,195,648	\$ 2,316,885
Less Inter-Agency Billings	<u>317,963</u>	<u>407,370</u>	<u>470,766</u>
Net Total	<u>\$ 1,749,025</u>	<u>\$ 1,788,278</u>	<u>\$ 1,846,119</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 \$2.50/ 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			
	2006 Actual	2007 Budget	2008 Executive
Total Expenditures	\$ 358,221	\$ 552,406	\$ 375,904
Less Inter-Agency Billings	<u>149,316</u>	<u>200,638</u>	<u>85,973</u>
Net Total	<u>\$ 208,905</u>	<u>\$ 351,768</u>	<u>\$ 289,931</u>

Environmental Engineering

This service provides all of the environmental engineering 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.

Service Summary			
	2006 Actual	2007 Budget	2008 Executive
Total Expenditures	\$ 632,249	\$ 692,784	\$ 487,068
Less Inter-Agency Billings	328,744	325,793	299,902
Net Total	<u>\$ 303,505</u>	<u>\$ 366,991</u>	<u>\$ 187,166</u>

Facilities Services

This section is responsible for development and maintenance of a large portion of the City's physical plant. Staff perform architectural services and supervise construction projects, including building retrofits to meet energy and accessibility standards and goals. Several City agency facilities (Fire, Police district stations, Fairchild Building, South Madison Health and Family Center, First Street Garage and the Engineering Services Building) are maintained by this section. The Madison Municipal Building is also managed and funded by this section. Staff also coordinate State boiler inspections in cooperation with insurance underwriters and supervise contracted maintenance work. (This service was transferred to the Engineering Division from Planning and Development.)

Service Summary			
	2006 Actual	2007 Budget	2008 Executive
Total Expenditures	\$ 7,184	\$ 1,839,610	\$ 2,078,344
Less Inter-Agency Billings	0	1,402,037	1,456,026
Net Total	<u>\$ 7,184</u>	<u>\$ 437,573</u>	<u>\$ 622,318</u>

Engineering
Summary by Major Object of Expenditure

	<u>2006 Actual</u>	<u>2007 Budget</u>	<u>2007 Projected</u>	<u>2008 Request</u>	<u>2008 Executive</u>	<u>2008 Adopted</u>
Permanent Salaries	\$ 5,452,299	\$ 6,750,064	\$ 6,750,064	\$ 6,847,183	\$ 6,882,555	\$ 0
Hourly Employee Pay	392,096	359,359	359,359	350,000	327,558	0
Overtime Pay	366,254	333,591	333,591	370,400	391,118	0
Fringe Benefits	2,241,941	2,585,703	2,585,703	2,627,077	2,641,307	0
Purchased Services	578,321	975,019	975,019	975,766	978,266	0
Supplies	315,881	338,659	338,659	266,258	266,258	0
Inter-Departmental Charges	714,766	389,415	389,415	629,072	629,072	0
Debt/Other Financing Uses	0	0	0	0	0	0
Capital Assets	6,624	36,670	36,670	12,000	12,000	0
Total Expenditures	\$ 10,068,182	\$ 11,768,480	\$ 11,768,480	\$ 12,077,756	\$ 12,128,134	\$ 0
Inter-Agency Billings	7,270,296	8,249,536	8,249,536	8,681,931	8,649,974	0
Net Budget	\$ 2,797,886	\$ 3,518,944	\$ 3,518,944	\$ 3,395,825	\$ 3,478,160	\$ 0