

CITY OF MADISON
2018 OPERATING BUDGET

Agency Request

Agency: 40 - ENGINEERING

Budget by Service (All Funds)

	2017 Budget	2018 Request	Change
Revenue			
ENGINEERING AND ADMINISTRATION	(120,240)	(130,530)	(10,290)
FACILITIES OPERATIONS & MAINTENANCE	(321,220)	(252,000)	69,220
Total Revenue	(441,460)	(382,530)	58,930
Expense			
ENGINEERING AND ADMINISTRATION	3,183,905	3,159,921	(23,984)
MAPPING AND RECORDS	392,314	456,847	64,533
FACILITIES MANAGEMENT	401,456	632,836	231,380
FACILITIES OPERATIONS & MAINTENANCE	854,194	1,029,905	175,711
Total Expense	4,831,869	5,279,509	447,640
Net GF Budget	\$ 4,390,409	\$ 4,896,979	\$ 506,570

Fund: 1100 - GENERAL

	2017 Budget	2018 Request	Change
Revenue			
CHARGES FOR SERVICES	(321,220)	(252,000)	69,220
MISC REVENUE	(120,240)	(130,530)	(10,290)
Total Revenue	(441,460)	(382,530)	58,930
Expense			
SALARIES	3,360,308	3,750,052	389,744
BENEFITS	1,450,198	1,582,683	132,485
SUPPLIES	322,560	321,480	(1,080)
PURCHASED SERVICES	820,544	815,913	(4,631)
INTER DEPARTMENT CHARGES	411,633	408,135	(3,498)
INTER DEPARTMENT BILLING	(1,533,374)	(1,598,754)	(65,380)
Total Expense	4,831,869	5,279,509	447,640
Net GF Budget	\$ 4,390,409	\$ 4,896,979	\$ 506,570

CITY OF MADISON

2018 OPERATING BUDGET

Agency Request

Agency:

40 - ENGINEERING

Position Summary by FTE

	2017 Budget	2018 Request	Change
CONSTRUCT INSP 1	5.00	5.00	-
CONSTRUCT INSP 2	7.00	7.00	-
ENGR FIELD AIDE	2.00	2.00	-
MAINT MECH 1 - CG15	1.00	1.00	-
STR SEWER MACH OPR 1	8.00	8.00	-
STR SEWER MACH OPR 2	2.00	2.00	-
STR SEWER MACH OPR 3	1.00	1.00	-
CCTV INSPEC TECH	3.00	3.00	-
S/D MAINT TECH 2	2.00	2.00	-
ENGR OPER LDWKR 1	1.00	1.00	-
ENGR OPER LDWKR 2	1.00	1.00	-
CIVIL TECH 2	1.00	1.00	-
CUSTODIAL SERV	1.00	1.00	-
CUSTODIAL WKR 1	0.50	0.50	-
CUSTODIAL WKR 2	11.00	11.00	-
CUSTODIAL WKR 3	1.00	1.00	-
ENGR PROG SPEC 1	2.00	2.00	-
ENGR PROG SPEC 2	1.00	1.00	-
MAINT MECH 1 - CG16	1.00	1.00	-
MAINT MECH 2 - CG16	3.00	3.00	-
PROGRAM ASST 2 - CG17	1.00	1.00	-
ACCOUNTANT 3	1.00	1.00	-
ARCHITECT 3	3.00	3.00	-
ARCHITECT 4	1.00	1.00	-
ASST CITY ENGINEER	2.00	2.00	-
ENGINEER 2	5.00	5.00	-
ENGINEER 3	3.00	3.00	-
ENGINEER 4	10.00	10.00	-
FAC/SUS MGR	1.00	1.00	-
LANDSCAPE ARCHITECT2	1.00	1.00	-
PRINCIPAL ENGR 1	2.00	2.00	-
PRINCIPAL ENGR 2	3.00	3.00	-
SIDEWALK PROG SUPERV	1.00	1.00	-
SURVEYOR 2	2.00	2.00	-
WATER RES SPEC 3	1.00	1.00	-
HYDROGEO 3	0.60	0.60	-
CONSTRUCTION MGR	3.00	3.00	-
IT SPEC 3	1.00	1.00	-
ENGR FINANCIAL MGR	1.00	1.00	-
PW DEV MGR 2	2.00	2.00	-
ACCOUNTANT 2 - PT	0.60	0.60	-
COMP MAP/GIS COORD	1.00	1.00	-
PRINCIPAL ARCHITECT	1.00	1.00	-
ADMIN ASST - CG20	1.00	1.00	-
PROGRAM ASST 1 - CG20	3.00	3.00	-
PROGRAM ASST 3 - CG20	1.00	1.00	-
ENGR CITY	1.00	1.00	-
ELECTRICIAN	2.00	2.00	-
ELECTRICIAN FOREPERS	1.00	1.00	-
PLUMBER	1.00	1.00	-
TOTAL	111.70	111.70	-



Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer

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Assistant City Engineer

Michael R. Dailey, P.E.

Principal Engineer 2

Gregory T. Fries, P.E.
Christopher J. Petykowski, P.E.

Principal Engineer 1

Christina M. Bachmann, P.E.
Eric L. Dundee, P.E.
John S. Fahrney, P.E.

Facilities & Sustainability

Jeanne E. Hoffman, Manager

Operations Manager

Kathleen M. Cryan

Mapping Section Manager

Eric T. Pederson, P.S.

Financial Manager

Steven B. Danner-Rivers

July 12, 2017

To: Dave Schmiedicke, Finance Director

From: Robert F. Phillips, City Engineer

Subject: Engineering Division's 2018 General Fund Budget

The Engineering Division is pleased to submit our 2018 operating budget for the General Fund portion of our City Engineering budget.

The General Fund portion of the budget covers the transportation programming and design functions within the Engineering Division, the City's Facilities and Design agency services, the Mapping services, and the Environmental services not related to landfills.

The Transportation Section within the Engineering Division works to build and maintain a well balanced and equitable transportation system consisting of roadways, bridges, sidewalks, and bike paths. The goals are to meet the condition standards for streets that have been established, to maintain the entire network of city sidewalks over a ten-year time frame, build high quality projects through good design and public involvement, and position Madison as a leader in bicycle and pedestrian friendly travel.

The Facilities staff works to provide a high quality work environment and preserve the City's investments in public buildings. Project management and architectural / design services are provided to agencies to insure buildings are constructed to City standards with energy efficient equipment and renewable energy where applicable. Maintenance and custodial staff help to assure that buildings operate at peak efficiency as they were intended. Specific initiatives include our *GreenPower* Program which hires individuals as Solar Installer Trainees to earn while they learn to install Photovoltaic (PV) systems at City sites. Recruitment is targeted to neighborhoods where City Neighborhood Resource Teams are working. The Solar Training Program was started in 2016 and plays a major role in helping the City work towards its goal of generating 1 Megawatt of renewable energy by 2020. A green cleaning program has also been adopted for custodial services.

The Mapping Section maintains comprehensive mapping, data and records including the Official Map, Assessor Parcel / Ownership Maps, Fire Department Run Maps, Police Sector Maps, public land survey system monuments and various utility maps. The Mapping Section protects the land interests of the City as they currently exist and as will be needed in the future. Specific initiatives include working toward completion of address validation, an effort to eliminate invalid addresses and confirm valid addresses.

July 14, 2017
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If you have any questions, please feel free to contact Steve Danner-Rivers or myself.

Sincerely,

Robert F. Phillips, P.E.
City Engineer

RFP:

cc: Travis Martin

2018 Operating Budget: Service Proposals

SERVICE IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Engineering

SELECT YOUR AGENCY'S SERVICE:

Engineering and Administration

SERVICE DESCRIPTION:

This service is responsible for management, contract administration, and administrative support to the Engineering Division's transportation and pedestrian infrastructure projects. This service oversees projects pertaining to: 1) Streets and Bridges, 2) Sidewalks, 3) Bike Paths, and 4) Environmental improvements for remediating soil and groundwater contamination.

SERVICE GOALS

What community need does the service address?

- Provide a safe and efficient transportation network for motorists, bicyclists and pedestrians.

Who are the recipients of the service?

- Residents
- Businesses and their employees and customers
- Visitors to our City

What outcomes will be produced at the proposed funding level?

- Comply with regulatory requirements.
- Design, construct and inspect infrastructure to meet our City's transportation needs.
- Build high quality projects through good design and public involvement.
- Meet established condition standards for streets.
- Maintain the entire network of city sidewalks.
- Position Madison as a leader in bicycle and pedestrian friendly travel.
- Protect municipal investment by increasing the useful life and capacities of the system and parts.
- Use operating funds efficiently.
- Perform all activities safely and avoid injury.

What strategies are planned for 2018 to advance the stated outcomes?

- Perform scheduled preventive maintenance activities (crack sealing and chip sealing) to extend the useful life of pavement.
- Assess and rate pavement conditions every two years; resurface based on condition ratings.
- Upgrade facilities as needed to meet capacity demands and support economic development.
- Incorporate bicycle facilities into new and reconstruction projects.
- Inspect, assess condition and replace sidewalks on a district basis on a 10-year cycle.
- Inspect bridges every 2 years; perform maintenance and repairs to extend the useful life of these assets.

2018 Operating Budget: Service Proposals

SERVICE IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Engineering

SELECT YOUR AGENCY'S SERVICE:

Facilities Management

SERVICE DESCRIPTION:

This service is responsible for the design, project management, and construction supervision of remodeling and construction projects for City-owned facilities. The goal of this service is to implement projects that decrease energy use, conserve water, use renewable sources of energy, and provide high quality facilities.

SERVICE GOALS

What community need does the service address?

Facilities Management provides project management for the pre-design, design and construction of a number of building projects from new construction to remodeling. This service includes the process of hiring an Architect/Engineering team to design the building, managing all aspects of design, bidding and construction. Facilities Management overall objectives are to create new and remodeled buildings that are high quality public spaces and work environments that increase productivity. Facilities Management also looks to build and remodel buildings with a goal of achieving significant energy savings through energy conservation and the incorporation of renewable energy systems. Facilities Management projects are tracked for energy performance throughout the design, construction and once the building is occupied. Finally throughout the design phases, Facilities Management is managing the project as it relates to the overall budget – this includes not only the construction estimates, but design fees, furniture, lease payments (if needed.) etc.

Who are the recipients of the service?

Facilities Management works with a number of city agencies to provide – Libraries, Parking Ramps, Office Buildings, Police and Fire Stations, Community Centers and Employment Centers, Parks Facilities and other Public Works Facilities.

What outcomes will be produced at the proposed funding level?

design and construction of city facilities that are high quality, energy efficient and meet the needs of the client

What strategies are planned for 2018 to advance the stated outcomes?

During design all projects have an energy model implemented – then after construction is complete – the actual energy usage and the energy model are compared and adjustments are made to achieve the energy efficiency goals.

During design cost estimates are provided at each phase of design which allows Facilities Management to keep the project within budget.

During design Facilities Management has an extensive process of working with all stakeholders – including city agencies, the public, policymakers to make sure their goals are achieved through the design and construction of the building

2018 Operating Budget: Service Proposals

SERVICE IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Engineering

SELECT YOUR AGENCY'S SERVICE:

Facilities Operations and Maintenance (FOM)

SERVICE DESCRIPTION:

This service is responsible for the maintenance and operational oversight of City-owned facilities including: the Fairchild Building, 4 district police stations, the police training center, 13 fire stations, 7 Public Works facilities, the Madison Senior Center, 6 parking ramps, 5 leased facilities, and various storage buildings. In late 2018 the service will resume responsibility for the renovated MMB. The goal of this service is to improve the operational efficiency of the facilities by implementing energy savings components to the scheduled facility improvements.

SERVICE GOALS

What community need does the service address?

Provide safe and healthy work environments to facilitate the efficient and cost-effective provision of City services.

Who are the recipients of the service?

- City agencies and their employees occupying the facilities
- Residents
- Businesses and their employees and customers
- Visitors to our City

What outcomes will be produced at the proposed funding level?

- Comply with regulatory requirements.
- Reduce use of fossil fuels and associated carbon footprint.
- Minimize building system outages/down time.
- Reduce inconvenience and damage by responsibly handling service interruptions.
- Protect municipal investment by increasing the useful life and capacities of the system and parts.
- Use operating funds efficiently.
- Perform all activities safely and avoid injury.

What strategies are planned for 2018 to advance the stated outcomes?

- Continue preventive maintenance program for existing equipment and systems; expand to incorporate new facilities.
- Expand GreenPower Program to achieve goal of 1 Megawatt of self-generated renewable energy by 2020.
- Continue in-house design and installation of mechanical, electrical and plumbing systems replacements and upgrades.
- Enhance functionality and reporting capability of CMMS.

2018 Operating Budget: Service Proposals

SERVICE IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Engineering

SELECT YOUR AGENCY'S SERVICE:

Mapping and Records

SERVICE DESCRIPTION:

This 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 reviews and/or prepares legal descriptions, provides mapping and surveying services necessary for land acquisitions, land disposals, street rights-of-way issues, street vacations and other requested land record services required to support City of Madison Engineering and other City Agencies involved in the maintenance, acquisition or disposal of City of Madison real estate . The Mapping Section also maintains the City's Official Map, Assessors' Parcel Maps, Fire Department Run Maps, Police Sector Maps, storm sewer records, storm water utility records and billings, sanitary sewer records, public land survey monument records and assigns street names and addresses. The Section completes bi-annual aerial imagery projects providing digital imagery and electronic mapping to both internal City agencies as well as external customers/clients/citizens in various GIS/CAD formats. This service also provides hardware and software support for the Mapping/GIS system network.

SERVICE GOALS

What community need does the service address?

The Engineering Mapping Section maintains the City Official Map, Assessor Parcel Maps, Fire Department Run Maps, Police Sector Maps, public and private storm sewer infrastructure and records, storm water utility records and billings, public and private sanitary sewer infrastructure and records, public land survey monument records and reviews/approves/assigns/manages all City street names and addresses.

The Mapping Section completes bi-annual aerial imagery projects providing digital imagery and electronic mapping for use by all 40 internal City agencies as well as external customers/clients/citizens. This service is maintained in a singular format internal to the City needs, yet converted and distributed to customers in various GIS/CAD formats as necessary to meet the needs of the requestor. The mapping Section also provides hardware and software support to all Public Works agencies for our citywide Mapping/GIS system network.

Mapping Section staff provide a comprehensive and reliable review and coordination of land records. This effort is required in order to properly plan, develop and construct both public and private development projects that provide economic benefit to the citizens of the City of Madison and the surrounding area. These efforts also protect the land interests of the City of Madison as they currently exist as well as future needs to provide provisions for efficient water, sewerage, storm water management and other required public services and the proper right of ingress and egress to install and maintain those public facilities. These efforts are for the health and welfare of the citizens of the City of Madison.

Engineering Mapping also review and/or prepare legal descriptions, provides mapping and surveying services necessary for land acquisitions, land disposals, street rights-of-way issues, street vacations and other requested land record services required to support City of Madison Engineering and other City Agencies involved in the maintenance, acquisition or disposal of City of Madison Real Estate .

Who are the recipients of the service?

The recipients/users of Engineering Mapping services are each and every one of the 40 total City agencies. The primary City agency users are Assessor, Building Inspection, Engineering, Fire, Information Technology, Police, Planning, Real Estate, Transportation, Water and Zoning.

In addition to all of the City agency users, Engineering Mapping services are necessary references for local Attorneys, Civil Engineering and Architectural Consultants, Contractors, Developers, Utility Companies, public citizens and many more interested parties whom become engaged at any level for a given project. ALL projects, regardless of scope, require planning, coordination and connectivity to Public Works infrastructure.

What outcomes will be produced at the proposed funding level?

Continued maintenance of all services listed above. Continue to provide access to accurate Official Map land base, Assessor Parcel Ownership Parcels and all Public Works infrastructure and utility records for use by all customers.

Continued plan review and development guidance assures that all projects (public and private) are in conformance by either meeting or exceeding all minimum State, County and City statutory and ordinance requirements. Engineering plan review and property maintenance protects all public lands (street right-of-ways, bike paths, greenways, detention ponds, landfills, etc) from encroachments by adjacent private property owners.

What strategies are planned for 2018 to advance the stated outcomes?

Promote proactive upgrades to computer hardware and design/mapping software by Engineering for all Public Works agencies to ensure that we all sustain current technology for the design and maintenance of our systems in the most cost effective and efficient processes available. It is extremely important that we stay current with technology and provide our staff with the most efficient tools that are critical in securing optimum personnel performance to efficiently complete all related work. To be successful, Engineering and all other Public Works agencies must be committed to investing both the time and money to provide staff with critical and necessary training for necessary conversions and/or implementation of new software systems.

Engineering Mapping takes full advantage of GPS technology to complete efficient field surveying of all Public Works infrastructure. We use this field survey data to complete spatial accuracy adjustments to all Engineering maintained records on a daily basis. These proactive efforts by Engineering Mapping results in a much more accurate land base and ownership parcel framework. Development of this more precise base allows all other City agencies to add their independently managed datasets more efficiently and accurately. The reward for these collaborative efforts is a much greater detail and accuracy to our records

Proactive infrastructure and records retrieval from the various Towns so that the City is prepared and able to provide services immediately upon annexation/attachment to the City. The annexation/attachment dates listed below are defined by our existing Boundary Agreement / Cooperative Plan:

Madison (2022), Blooming Grove (2027), Burke (2036) and Middleton (2042)