

Public Works–Engineering Division

Mission Statement

Primary Functions → The primary function of the Engineering Division is to provide design services and construction management for all capital construction projects. This Division is also charged with the review and approval of plans for single site and subdivision development, permitting work within the public right-of-way, and record keeping of the City's infrastructure.

Traffic engineering analyses related to the safe and efficient movement of people and goods within the City, accident crash analysis for signaled and un-signalized intersections safety analysis for schools, geometric design of existing and planned roadways and intersections including support of the land development process, and street lighting analysis for all citizen requests.

2010 Accomplishments →

- Wrote City Sustainability Policy for City Operation and Procurement.
- Completed the pavement assessment of the arterial and collector streets.
- Wrote the Outdoor Dining Design Guidelines and provided guidance to Ordinance amendments for Sidewalk Cafés and the Downtown Mall.
- Completed a hydropower assessment of the Rock River.
- Applied for and received \$4 million from FEMA and DCEO for flood mitigation.
- Applied for and received a \$25 million grant from the Department of Energy for energy efficiency retrofits of buildings within the region.
- Completed two intersection safety studies with the Police Department.
- Started working with IT and Traffic to create an online parking map.
- Completed 10 hour OSHA Training.
- Completed energy audits on all City-owned buildings and developed a strategy to lessen their energy demand.
- Hosted the 4th Annual International Bio Energy Days.
- Revised City bid documents for Clean Water Act compliance.
- Completed several standard operating procedures and how-to documents.
- Completed Auto-Cad design of water construction projects.

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- Completed floor plan Auto-Cad drawings for 50% of the well houses.
- Implemented enforcement of the commercial property snow removal ordinance.
- Completed inspection on all 2009 ROW permits and 90% of 2010 ROW permits, which has reduced complaints on poor workmanship.
- Wrote draft of EOP Public Works Annex and Debris Management Plan.
- Successfully coordinated numerous special events through a complete change in the permitting process implemented in 2010.
- Successfully completed two road diets.
- Applied for and received two Highway Safety Improvement Program grants.
- Prepared City-wide 10-year bike plan as amendment to the 20 year plan.
- Signed a new signal maintenance agreement with Winnebago County.

2011 Goals and Objectives →

- Continue scanning as-built drawings of City infrastructure and load into SharePoint to provide better accessibility to records.
- Continue inspections and database entry of the City's storm sewer system and other infrastructure.
- Complete the traffic sign inventory and replacement program.
- Complete the traffic signal systems inventory and data entry into GIS.
- Create/update a layer in GIS for private well systems.
- Complete the integration of GIS water services with the water accounts.
- Create and update layer in GIS for vault locations and water main easements.
- Complete a minimum of two intersection traffic safety studies.
- Complete all standard operating procedures and how-to documents for Division.
- Complete the online parking map.

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- Complete Division wide training on Chapter 26, the Subdivision Ordinance, and the Water IEPA permit process.
- Update the Multi-Hazard Mitigation Plan.
- Complete the scanning of all road construction plans and traffic IDS plans and parking structure plans.
- Enter all asset inventory into GIS from the arterial and collector streets videos.
- Complete the transfer of Engineering files and drawings over to City Yards.
- Complete large wind and small wind power assessments.
- Design and build Keith Creek Greenway throughout Churchill Park.
- Institute new pilot program for industrial illicit discharge of pollutants into our storm sewer.
- Coordinate the installation of a new 400 ac solar panel field and a power of purchase agreement.
- Complete design and construction on a hydropower unit on the Rock River.
- Create a monthly reporting program for construction site inspections.
- Update Chapter 26 of the Code of Ordinances.
- Update the Engineering Design Criteria Manual.
- Completion of School Crossing Guard Warrant Study.

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Budget Summary

PUBLIC WORKS ENGINEERING DIVISION BUDGET SUMMARY					
APPROPRIATION	2009 <u>ACTUAL</u>	2010 <u>BUDGET</u>	2010 <u>ACTUAL</u>	2011 <u>BUDGET</u>	INCREASE (DECREASE)
PERSONNEL	\$815,762	\$583,535	\$572,523	\$422,844	(\$160,691)
CONTRACTUAL	138,406	426,775	302,103	191,600	(235,175)
SUPPLIES	9,017	6,750	5,788	6,750	0
CAPITAL	0	0	0	0	0
TOTAL	<u>\$963,185</u>	<u>\$1,017,060</u>	<u>\$880,414</u>	<u>\$621,194</u>	<u>(\$395,866)</u>

STAFFING REVIEW	2008	2009	2010	2011	INCREASE (DECREASE)
ENGINEERING	4.50	10.00	7.45	5.50	(1.95)
CAPITAL PROJECTS	<u>15.80</u>	<u>16.30</u>	<u>17.05</u>	<u>18.50</u>	<u>1.45</u>
TOTAL	20.30	26.30	24.50	24.00	(0.50)

FUNDING SOURCE	2010 <u>AMOUNT</u>	2010 <u>PERCENTAGE</u>	2011 <u>AMOUNT</u>	2011 <u>PERCENTAGE</u>
PROPERTY TAXES				
FRINGE BENEFIT REIMBURSEMENTS	\$83,278	9.0	\$61,266	9.9
FEES	27,700	3.1	26,100	4.2
OTHER GOVERNMENT	24,000	2.7	24,000	3.9
INTERDIVISIONAL PURCHASE OF SERVICES	180,550	20.1	246,690	39.7
GENERAL REVENUES	<u>465,032</u>	<u>65.1</u>	<u>263,138</u>	<u>42.3</u>
TOTAL	<u>\$780,560</u>	<u>100.0</u>	<u>\$621,194</u>	<u>100.0</u>

Budget Analysis

The 2011 budget of \$621,194 is a decrease of \$395,866 (38.9%) from 2010. Adjusting for one-time grant expenditures added in the 2010 supplemental appropriation, the decrease is \$159,366 or 20.4%. Personnel costs decrease \$160,691 from the previous year, as a result of a 1.95 reduction in staffing in the division. Decreases occurred in all personnel accounts except unemployment, which increased \$520 due to a rate adjustment.

Contractual services decrease \$235,175 from the prior year. Adjusted for the 2010 SAO, the contractual budget is an increase of \$1,300. Increases in building rental (\$7,900) and fuel (\$2,700) are offset by decreases in vehicle repairs (\$7,000) and IT charges (\$2,600). The supplies group remains unchanged.

In 2010, the Engineering Division spent \$880,414 or 86.6% of its budgeted allocation. In the past several years, 67% to 96% of the budget has been spent.

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Personnel Review

PUBLIC WORKS ENGINEERING DIVISION				
BENEFITS AND SALARIES	2010	2011	INCREASE/ (DECREASE)	
SALARY	<u>BUDGET</u>	<u>BUDGET</u>		
PERMANENT	\$393,760	\$282,276	(\$111,484)	
TEMPORARY	0	0	0	
OVERTIME	0	0	0	
MERIT PAY	0	0	0	
SALARY ADJUSTMENT	0	0	0	
TOTAL SALARIES	<u>\$393,760</u>	<u>\$282,276</u>	<u>(\$111,484)</u>	
BENEFITS				
IMRF RETIREMENT	\$79,460	\$57,754	(\$21,706)	
UNEMPLOYMENT TAX	469	990	521	
WORKMEN'S COMPENSATION	3,349	2,522	(827)	
HEALTH INSURANCE	102,339	76,232	(26,107)	
LIFE INSURANCE	582	430	(152)	
PARKING BENEFITS	3,576	2,640	(936)	
TOTAL BENEFITS	<u>\$189,775</u>	<u>\$140,568</u>	<u>(\$49,207)</u>	
TOTAL COMPENSATION	<u>\$583,535</u>	<u>\$422,844</u>	<u>(\$160,691)</u>	
POSITION TITLE	POSTION	2010	2011	INCREASE/ (DECREASE)
	<u>RANGE</u>	<u>EMPLOYEES</u>	<u>EMPLOYEES</u>	
CITY ENGINEER	E-12	0.70	0.50	(0.20)
ENGINEERING OPERATIONS MANAGER	E-10	0.75	0.50	(0.25)
STORM WATER PROJECT MANAGER	E-8	0.50	0.50	0.00
ENVIRONMENTAL PROJECT COORDINATOR	E-7	0.50	0.50	0.00
TRAFFIC SENIOR ENGINEER	E-6	1.00	0.00	(1.00)
SENIOR ENGINEERING TECHNICIAN	E-6	1.00	0.50	(0.50)
ENGINEERING TECHNICIAN	E-5	3.00	3.00	0.00
TOTAL PERSONNEL		<u>7.45</u>	<u>5.50</u>	<u>(1.95)</u>

Performance Measurements

	2008 Actual	2009 Actual	2010 Actual	2011 Projected
Number of ROW/utility permits issued	1,152	1,383	1,512	1,400
Number of engineering plans reviewed	113	94	70	75
Number of right-of-way/other permits issued	432	240	239	225