

# **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.

## **2012 Accomplishments** →

- Applied for and received an additional \$4 million from FEMA and DCEO for flood mitigation.
- Continued inspections and database entry of the City's storm sewer system and other infrastructure.
- Improved flood affidavit reporting system within GIS.
- Developed water inspection work order map within SharePoint and GIS.
- Developed storm inspection application with GIS.
- Developed Rockford utility map (online based) within GIS.
- Completed the creation of an online parking map.
- Completed lighting upgrades to the Water Street Parking Deck.
- Completed demolition and restoration for Tapco Building site.
- Continued scanning as-built drawings of City infrastructure and load into SharePoint to provide better accessibility to records.
- Completed the integration of GIS water services with the water accounts.
- Completed several standard operating procedures and how-to documents.
- Completed Auto-Cad design of water construction projects.
- Completed floor plan Auto-Cad drawings for 100% of the well houses.
- Coordinated the installation of a new 400 ac solar panel field and a power purchase agreement.
- Created a monthly reporting program for construction site inspections.
- Finalized and implemented the Emergency Operations Plan, Public Works Annex and Debris Management Plan.
- Updated Chapter 26 and Chapter 109 of the Code of Ordinances regarding high risk runoff and illicit discharge.
- Created and implemented illicit discharge and high risk runoff site inspections.
- Approved and Implemented the Outdoor Dining Design Guidelines.
- Completed School Crossing Guard Warrant Study.
- Applied for and received two Highway Safety Improvement Program grants.
- Completed Division wide training and certification on IDOT documentation certification.
- Awarded two Safe Routes to School Grants now in planning stages.

## **Engineering Division**

- Working with USACE and Illinois State Water Survey on the Hydrology and Hydraulic Study of the Rock River.
- Working with RMAP, HUD, and FEMA on the HUD Sustainability Initiative and Pilot Study for a Regional Storm Water Master Plan.

### **2013 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.
- Finish layer in GIS for private well systems.
- Complete the City's Storm Water Master Plan.
- 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.
- Update the County Wide Multi-Hazard Mitigation Plan.
- Continue entering all asset inventory into GIS from the arterial and collector streets videos.
- Continue working with USACE and Illinois State Water Survey on the Hydrology and Hydraulic Study of the Rock River.
- Continue working with RMAP, HUD, and FEMA on the HUD Sustainability Initiative and Pilot Study for a Regional Storm Water Master Plan.
- Design and build Keith Creek Greenway throughout Churchill Park, dependent upon grant funding.
- Continue inspections for industrial illicit discharge of pollutants into our storm sewer.
- Update the Engineering Design Criteria Manual.

# Engineering Division

## Budget Summary

ENGINEERING DIVISION BUDGET SUMMARY					
APPROPRIATION	2010 ACTUAL	2011 ACTUAL	2012 BUDGET	2013 BUDGET	INCREASE (DECREASE)
PERSONNEL	\$572,523	\$577,302	\$775,203	\$781,230	\$6,027
CONTRACTUAL	302,103	176,275	181,715	183,795	2,080
SUPPLIES	5,788	2,183	6,750	30,750	24,000
CAPITAL	0	0	0	23,900	23,900
TOTAL	<u>\$880,414</u>	<u>\$755,760</u>	<u>\$963,668</u>	<u>\$1,019,675</u>	<u>\$56,007</u>

  

STAFFING REVIEW	2010	2011	2012	2013	INCREASE (DECREASE)
ENGINEERING	7.45	5.50	10.00	9.50	(0.50)
CAPITAL PROJECTS	17.05	18.50	17.00	16.50	(0.50)
TOTAL	24.50	24.00	27.00	26.00	(1.00)

  

FUNDING SOURCE	2010 ACTUAL	2011 ACTUAL	2012 BUDGET	2013 BUDGET	INCREASE (DECREASE)
PROPERTY TAXES					
FRINGE BENEFIT REIMBURSEME	\$86,127	\$85,012	\$113,142	\$113,136	(\$6)
FEES	13,517	15,821	15,000	13,000	(2,000)
OTHER GOVERNMENTS	0	0	24,000	0	(24,000)
WATER PURCHASE OF SERVICES	0	0	458,820	439,280	(19,540)
GENERAL REVENUES	780,770	654,927	362,726	454,259	91,533
TOTAL	<u>\$880,414</u>	<u>\$755,760</u>	<u>\$973,688</u>	<u>\$1,019,675</u>	<u>\$45,987</u>

## Budget Analysis

- Personnel expenses adjust slightly as wage increases, a budgeted 2% salary adjustment, and fringe benefit increases are offset by the reduction of staff by 0.5 FTE. The position, previously shared between Engineering and CIP, was moved to the Finance Department with the creation of the Customer Service Center.
- The balance of changes in the budget include small adjustments in purchase of services charges.
- Capital expenses of \$23,900 will cover estimated lease payments for vehicles acquired in 2012.

## Capital Equipment

Planned capital replacements under the City-wide leasing program for 2013 include:

Vehicle	Quantity	Budget Each	Total Budget
Sedan	2	15,000	30,000
SUV	<u>2</u>	26,600	<u>53,200</u>
Total	4		\$83,200

# Engineering Division

## Personnel Review

<b>ENGINEERING DIVISION</b>				
<b>BENEFITS AND SALARIES</b>	<b>2012</b>	<b>2013</b>	<b>INCREASE/ (DECREASE)</b>	
<b>SALARY</b>	<b><u>BUDGET</u></b>	<b><u>BUDGET</u></b>		
PERMANENT	\$504,359	\$495,239	(\$9,120)	
TEMPORARY	0	0	0	
OVERTIME	0	0	0	
MERIT PAY	0	0	0	
SALARY ADJUSTMENT	0	9,905	9,905	
<b>TOTAL SALARIES</b>	<b><u>\$504,359</u></b>	<b><u>\$505,144</u></b>	<b><u>\$785</u></b>	
<b>BENEFITS</b>				
IMRF RETIREMENT	\$105,058	\$107,697	\$2,639	
UNEMPLOYMENT TAX	1,800	1,710	(90)	
WORKMEN'S COMPENSATION	6,284	3,729	(2,555)	
HEALTH INSURANCE	151,762	157,079	5,317	
LIFE INSURANCE	780	741	(39)	
PARKING BENEFITS	5,160	5,130	(30)	
<b>TOTAL BENEFITS</b>	<b><u>\$270,844</u></b>	<b><u>\$276,086</u></b>	<b><u>\$5,242</u></b>	
<b>TOTAL COMPENSATION</b>	<b><u>\$775,203</u></b>	<b><u>\$781,230</u></b>	<b><u>\$6,027</u></b>	
<b>POSITION TITLE</b>	<b>POSTION</b>	<b>2012</b>	<b>2013</b>	<b>INCREASE/ (DECREASE)</b>
	<b><u>RANGE</u></b>	<b><u>EMPLOYEES</u></b>	<b><u>EMPLOYEES</u></b>	
CITY ENGINEER	E-12	0.50	0.50	0.00
WATER ENGINEER	E-11	1.00	1.00	0.00
ENGINEERING OPERATIONS MANAGER	E-10	0.50	0.50	0.00
STORM WATER PROJECT MANAGER	E-8	0.50	0.50	0.00
PROJECT MANAGER	E-8	0.50	0.50	0.00
ASST OPERATIONS MANAGER	E-8	1.00	1.00	0.00
SENIOR ENGINEERING TECHNICIAN	E-6	3.50	3.50	0.00
ENGINEERING TECHNICIAN	E-5	1.00	0.00	(1.00)
CUSTOMER RELATIONS TECH	E-4	0.00	1.00	1.00
SR OFFICE ASSISTANT	E-4	1.00	1.00	0.00
SENIOR CLERK	A-19	0.50	0.00	(0.50)
<b>TOTAL PERSONNEL</b>		<b><u>10.00</u></b>	<b><u>9.50</u></b>	<b><u>(0.50)</u></b>

## Performance Measurements

	2010 Actual	2011 Actual	2012 Estimated	2013 Projected
Number of ROW/utility permits issued	1,512	1,235	1,300	1,375
Number of engineering plans reviewed	70	185	75	80
Number of right-of-way/other permits issued	239	246	200	210

**PUBLIC WORKS-ENGINEERING DIVISION  
NEXT YEAR/CURRENT YEAR BUDGET ANALYSIS**

<b>Account</b>	<b>Description</b>	<b>2011 ACTUAL</b>	<b>2012 BUDGET</b>	<b>7 MONTH ACTUAL</b>	<b>2013 BUDGET</b>	<b>CHANGE 13-12</b>
71112	Salaries Permanent	380,780	504,359	279,093	495,239	(9,120)
71122	Salaries Overtime Perm	122	-	13	-	-
71129	Salary Adjustment	-	-	-	9,905	
71251	IMRF	76,349	105,057	55,073	107,697	2,640
71253	Unemployment	2,575	1,800	1,148	1,710	(90)
71262	Workmen's Compensation	6,088	6,285	3,742	3,729	(2,556)
71263	Health Insurance	100,252	151,762	77,186	157,079	5,317
71264	Life Insurance	493	780	363	741	(39)
71265	Retiree Insurance	8,003	-	-	-	-
71271	Parking Benefits	2,640	5,160	3,010	5,130	(30)
<b>TOTAL PERSONNEL</b>		<b>577,302</b>	<b>775,203</b>	<b>419,628</b>	<b>781,230</b>	<b>(3,878)</b>
72203	Wireless	-	2,800	1,162	2,800	-
72211	Printing & Publication	1,021	400	337	400	-
72212	Postage	230	-	35	-	-
72213	Telephone	8,619	5,380	2,215	5,380	-
72214	Travel	429	-	122	-	-
72215	Dues	357	900	-	900	-
72216	Subscriptions	-	300	-	300	-
72218	Service Contracts	62,283	64,280	454,635	64,280	-
72252	Maint-Equipment	-	1,400	-	1,400	-
72255	Maint-Office & Furniture	-	4,000	-	4,000	-
72263	Microcomputer	47,460	50,860	29,668	53,050	2,190
72264	Vehicle Repairs	8,116	9,500	3,713	9,000	(500)
72265	Fuel	3,201	8,570	1,648	7,380	(1,190)
72267	Risk Management	23,670	8,060	4,702	7,990	(70)
72271	Rental Equipment	2,281	2,000	1,575	2,000	-
72272	Rental Building	18,210	22,910	13,364	24,560	1,650
72281	Prof Fee Legal	-	-	4,867	-	-
72290	Education And Training	398	355	1,145	355	-
<b>TOTAL CONTRACTUAL</b>		<b>176,275</b>	<b>181,715</b>	<b>519,188</b>	<b>183,795</b>	<b>2,080</b>
75501	Public Works	252	-	-	-	-
75509	Books	154	300	210	300	-
75520	Small Equipment And Tools	518	1,500	586	1,500	-
75523	Drafting & Engineering	-	500	-	500	-
75560	Office General Supplies	263	1,900	158	1,900	-
75570	Computer Noncapital	996	2,550	-	26,550	24,000
<b>TOTAL SUPPLIES</b>		<b>2,183</b>	<b>6,750</b>	<b>954</b>	<b>30,750</b>	<b>24,000</b>
79921	Lease Payments	-	-	-	23,900	23,900
<b>TOTAL CAPITAL</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>23,900</b>	<b>23,900</b>
<b>TOTAL ENGINEERING DIVISION</b>		<b>755,760</b>	<b>963,668</b>	<b>939,770</b>	<b>1,019,675</b>	<b>46,102</b>