## **TRAFFIC ENGINEERING**

## **Mission Statement**

The mission of the Traffic Engineering Department is responsibility for all aspects of roadway traffic engineering and operations/maintenance including implementation of programs related thereto. General areas of responsibility include: traffic signals, installation and maintenance of fiber optics, WiFi, electrical maintenance, traffic signs, pavement markings, street signs, bus route signs, truck route signs, impact attenuators, traffic design/review, transportation planning, accident analysis, traffic level-of-service analysis and liaison with other agencies.

## **Goals and Objectives**

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The Traffic Engineering Department endeavors to provide safe and efficient movement of vehicles, people and goods through the community as advocated by the established regulations and the elected administration. Goals and objectives can be categorized into the following areas:

- 1) The department strives to produce and make available the maximum level of service for traffic with the limited resources available for capital improvements and operation.
- 2) The department attempts to develop new engineering techniques for moving persons and goods safely and efficiently.
- 3) The department continues to create and maintain a communication channel between the administration and the public. This is to align department services in accordance with administrative policy making, as well as provide the timely interchange of incoming and outgoing information with the public.

Indicators:	2007 <u>Actual</u>	2008 <u>Actual</u>	2009 <u>Estimated</u>	2010 <u>Projected</u>
Engineering/Administration Staff:	0.000	0.470	0 500	0.750
Accident Records & Analysis	8,883	9,478	9,500	9,750
Fatal Accident Investigation	9	14	10	12
Development & Building Plans Processed	218	161	140	140
Board of Safety Reports	27	50	50	50
Traffic Counts Conducted	40	36	40	50
Traffic Studies Conducted	200	220	240	260
Traffic Investigations (complaints)	350	375	400	425
Signal Division:				
New Signals Installed	11	6	5	6
Total Signals In Service	368	373	378	383
Total Flashing Beacons In Service	51	52	50	52
Total Pedestrian Signal Locations In Service	180	184	188	192
Signals Modernized	18	16	18	18
Signal Accident Repairs	31	34	35	35

	2007	2008	2009	2010
	<u>Actual</u>	<u>Actual</u>	<u>Estimated</u>	<u>Projected</u>
Signal Division (cont'd)				
Signal Bulbs Replaced (Emergency)	9	29	35	40
Signal Bulbs Replaced (Routine)	0	0	0	0
Signal Trouble Calls	1,160	1,300	1,350	1,350
Controller Maintenance	401	397	400	405
Detector Loop Repairs	26	28	35	40
Signal Work Orders	213	205	230	250
Cable Locates	0	0	0	0
Sign & Marking Division				
Signs Installed	980	901	915	950
Signs Relocated	372	608	650	675
Signs Replaced	2,394	2,604	2,650	2,675
Signs Removed	1,185	1,437	1,500	1,525
Signs Manufactured	3,085	5,093	5,000	5,000
Street Lanes Marked-Painted Miles	759	756	760	763
Curb Parking Marked (Yellow Curb)	12,271 ft.	14,029 ft.	15,000 ft.	16,000 ft.
Crosswalks Marked	913	902	910	920
Lane Arrows Marked	950	1,076	1,200	1,250
Parking Stalls Marked	894	1,066	1,100	1,150

	2008 ACTUAL	2009 ACTUAL THRU 30-Jun-2009	2009 REVISED BUDGET	2010 SUBMITTED	\$ INCREASE (DECREASE) FROM 2009 APPR	% CHANGE FROM 2009 APPR TO 2010
5111 TOTAL WAGES	1,029,222		1,113,382	1,126,627	13,245	1.19%
5131 PERF - EMPLOYERS SHARE	109,505		115,801	125,201	9,400	
5132 FICA	116,228		126,414	127,427	1,013	
5134 LIFE MEDICAL & HEALTH INSURAN	279,000		279,000	306,900	27,900	
5136 UNEMPLOYMENT COMPENSATION	1,630		1,652	1,666	14	
5137 WORKERS COMP INSURANCE	21,221		23,664	60,359	36,695	
513A PERF - EMPLOYEES/PD BY CITY	46,931		47,918	48,464	546	
513R RETIREES HEALTH INSURANCE	45,000		54,000	59,400	5,400	
5161 WAGE SETTLEMENT/SEVERANCE PAY	4		-	-	-	
 Total 5100	\$1,648,740	\$841,837	\$1,761,831	\$1,856,044	\$94,213	5.35%
5212 STATIONERY & PRINTED FORMS	227		550	550	-	
5214 SAFETY ITEMS/SUPPLIES	5,842		7,740	7,740	-	
5219 OTHER OFFICE SUPPLIES	3,690		6,050	6,050	-	
5231 GASOLINE	36,430		52,000	36,575	(15,425)	
5232 DIESEL FUEL / FUEL OIL	10,526		12,750	6,113	(6,637)	
5246 HOUSEHOLD & CLEANING SUPPLIES	1,582		2,700	2,700	-	
5261 BLDG REPAIR & MAINT MATERIALS	-		2,750	1,250	(1,500)	
5263 OTHER EQUIPMENT REPAIR PARTS	-		1,450	1,450	-	
5264 SIGN DIVISION/MATERIAL	65,982		75,360	72,000	(3,360)	
5265 SIGNAL DIVISION/MATERIAL	209,490		235,368	211,500	(23,868)	
5275 PAVEMENT MARKING MATERIALS	92,753		87,345	86,620	(725)	
5299 OTHER MATERIALS & SUPPLIES	194		300	300	-	
 Total 5200	\$426,717	\$177,440	\$484,363	\$432,848	(\$51,515)	- 10.64%
5317 INSTRUCTIONAL SERVICES	185		600	600	-	
531E RANDOM DRUG TESTS	520		700	700	-	
531K SEMINAR FEES	310		1,000	1,000	-	
531M SECURITY SERVICES	279		280	280	-	
531Q RADIO SHOP SERVICES	2,217		1,150	1,150	-	
5322 POSTAGE	739		400	400	-	
5323 TELEPHONE & TELEGRAPH	16,461		21,300	21,900	600	
5324 TRAVEL EXPENSES	1,058		3,000	3,500	500	
5326 MILEAGE	25		400	400	-	
532C CELL PHONE	6,281		6,400	6,400	-	
532L LONG DISTANCE CHARGES	139		240	240	-	
5331 PRINTING OTHER THAN OFFC SUPPL	21		150	150	-	
			400	400	-	
5332 PUBLIC OF LEGAL NOTICES/ADVTER	-			4 000	1,800	
5332 PUBLIC OF LEGAL NOTICES/ADVTER 5333 PHOTOGRAPHY & BLUEPRINTING	-		-	1,800	1,800	
5333 PHOTOGRAPHY & BLUEPRINTING	- - 11,072		- 17,991	1,800	(6,417)	
	- - 11,072 97,554		- 17,991 100,000			
5333 PHOTOGRAPHY & BLUEPRINTING 5342 LIABILITY INSURANCE				11,574	(6,417)	
5333 PHOTOGRAPHY & BLUEPRINTING 5342 LIABILITY INSURANCE 5351 ELECTRICITY	97,554		100,000	11,574 127,000	(6,417)	

	2008 ACTUAL	2009 ACTUAL THRU 30Jun-2009	2009 REVISED BUDGET	2010 SUBMITTED	\$ INCREASE (DECREASE) FROM 2009 APPR	% CHANGE FROM 2009 APPR TO 2010
5358 HAZARDOUS WASTE DISPOSAL	-		1,200	1,200	-	
5361 CONTRACTED BLDG & STRUCT REPAI	95		950	950	-	
5363 CONTRACTED OTHER EQUIPMT REPAI	1,553		10,000	10,000	-	
5365 JANITORIAL & LAUNDRY SERVICE	7,977		6,804	6,290	(514)	
536N GARAGE CONTRACT - NONTARGET	7,248		3,000	5,032	2,032	
536T GARAGE CONTRACT - TARGET	85,980		88,339	71,273	(17,066)	
5374 OTHER EQUIPMENT RENTAL	1,448		3,025	3,025	-	
5377 CC BUILDING PARKING	1,215		840	840	-	
5391 SUBSCRIPTIONS AND DUES	1,747		1,550	1,550	-	
5392 LICENSES	256		1,000	1,000	-	
5399 OTHER SERVICES AND CHARGES	280		600	600	-	
539B MASTER LEASE	44,854		63,745	74,140	10,395	
Total 5300	\$313,117	\$162,606	\$392,945	\$409,275	\$16,330	4.16%
5425 PURCHASE OF FIXED EQUIPMENT	7,163		9,000	-	(9,000)	
5431 CONSTRUCTION FEES - GROUND & S	4,650		-	-	-	
5443 PURCHASE OF OFFICE EQUIPMENT	1,247		4,000	-	(4,000)	
5445 PURCHASE OF COMPUTER EQUIP	4,458		-	-	-	
Total 5400	\$17,518	\$8,823	\$13,000	\$-	(\$13,000)	-100.00%
Total	\$2,406,091	\$1,190,707	\$2,652,139	\$2,698,167	\$46,028	1.74%

	Traffic Engineering 2010-20	14 Capita	l Improve	ement Pro	ogram		
	FUNDING SOURCE CODE:	GRP-Grant	Pending		PT-Property Ta		
	CC-Cumulative Capital Fund	LE-Lease	-	F	RB-Revenue B	ond	
	CDBG-Community Development Block Grant	InfraBd-Infra	astructure	S	ST-State Source	e	
	CEDIT-Co. Economic Development Income Tax	LRS-Local F	Roads & Stree	ts S	SU-Sewer Utili	ty	
	CO-County Source	MISC-Misce			SWU-Stormwa		
	FED-Federal Source	MVH-Motor	Vehicle Highv		TIF-Tax Increm		
	GOB-General Obligation Bond	PCBF-Park	Cumulative B		JF-User Fee		
	GRA-Grant Approved	PS-Private	Source	1	NU-Water Utili	tv	
ltem #		Funding		E	xpenditure	1	
	<b>,</b> ,		2010	2011	2012	2013	2014
1	Vehicles	LE	65,000	75,000	85,000	100,000	65,000
	Loop Truck - Pickup		65,000	-	-	-	-
	Sign Truck - Signal Service Truck - Arrow Truck		-	75,000	-	-	-
	Signal Bucket Truck		-	-	85,000	-	-
	Challenger Lift		-	-	-	100,000	-
	Pick-up & Staff Car		-	-	-	-	65,000
2	Equipment	LRS	-	14,000	18,000	28,000	35,000
	Locator - Concrete Saw - Portable Generator		-	14,000	-	-	-
	Paint Machine for Arrow Truck - Portable Welder		-	-	18,000	-	-
	Arrow Board		-	-	-	28,000	-
	Backhoe/Trencher		-	-	-		35,000
	Actra Fiber Optic Cable Update	LRS	-	10,000	10,000	10,000	10,000
	Traffic Signal Modernization Program - 4 intersections/year	LRS	90.000	90,000	80,000	80,000	80,000
	d. St Joe Ctr & Wheelock		90,000	-	-	-	
	h. Hoagland & Pontiac		-	90,000	-	-	-
	I. St Joe Ctr. & Wheelock		_	-	80,000	-	-
	p. Fairfield & Lwr Huntington (flasher)		_	-	-	80,000	-
	t. Minnich & Tillman		-	-	-	-	80,000
	Traffic Signal Controller Replacement Program - 7 units complete	LRS	45,000	45,000	45,000	45,000	45,000
, i i i i i i i i i i i i i i i i i i i	W. Jefferson & Old Canal, Liberty Mills & Fall Creek		,	,	,	,	,
	Covington & Homestead, Parnell & St. Joe River						
	Covington & Romesteau, Parnell & St. Joe River						
6*	Landin & Maysville Traffic Signal Head Replacement - 10 intersections/year	LRS	15,000	15,000	15,000	15,000	15,000
0	2010 Replacements	LKO	15,000	15,000	15,000	15,000	15,000
	Lake & Randallia, State & Tyler, Engle & Indian Hills						
	Dupont & Woodland, Coldwater & Dupont, Cook & Schools						
	Hessen Cassel & Paulding, Ardmore & Engle, Illinois & Meijer						
	Illinois & W. Jefferson, Hanna & Washington						
7*	Expand/Upgrade ATMS Computerized Signal System	LRS	50,000	50,000	50,000	50,000	50,000
8	Office Equipment Replacement	LRS	50,000	4,000	4,000	4,000	4,000
0 TOTAL		LNJ		4,000 <b>303,000</b>	<u>4,000</u> <b>307,000</b>	332,000	<u> </u>
ITUTAL				202,000	207,000	332,000	304,000

\* Although capital improvements, actual expenditures will be made from the 5200 budget line series.

The Traffic Engineering / Traffic Operations Department is responsible for all aspects of roadway Traffic Engineering operations and maintenance. Areas of responsibility include: the design, installation, timing and maintenance of traffic signals, pavement markings, sign installation, maintenance, traffic design and review, transporation planning, traffic calming devices, accident record compiling and analysis. Signal service personnel are on duty 24 hours a day, seven days a week. Sign personnel respond to knockdowns of stop and yield signs and are on an call basis during non-working hours.

Revenue for departmental funding comes from Local Roads and Streets (LRS), contracts with INDOT, Allen County, New Haven, and claims reimbursements, as well as subsidy from the property tax. Improvements to high volume traffic routes such as signalization, intersection interconnects, signal modernization's, separate turn lanes, and additional "thru" lanes have depended upon CEDIT, federal and private sources for funding.

1. - 2. Vehicles and equipment are replaced on a rotating basis based on 1) maintenance costs 2) mileage 3) age.

3. Actra fiber optic conversion. This item will include replacing electronic equipment to utilize fiber optice cable for intercopnnection of traffic signals.

4. Traffic Signal Modernization - This program updates a signalized intersection to aluminum mast arm poles, 12" traffic signal indications and new wiring. Intersections with steel poles and 8" signal indications that were last modernized in the 60's are

5. Traffic Signal Controller Replacement - This program replaces obsolete and discontinued traffic signal control units that have been in service for at least ten

6. Traffic Signal Head Replacement-This program replaces traffic signal indications which were installed in the 70's The program is designed as a preventative

7. In 2000 and 2001 our Eagle Comtract Traffic Signal Control System was replaced with an Eagle Actra Advanced Traffic Management System. The new system allows expansion of our computerized traffic signal network.

8. Furniture replacement will consist of replacing standard office chairs with ergonomic chairs, providing additional workstation space in conjuction with the new advanced Traffic Management Computer System and replacing worn furniture.