

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

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:

	<u>2008 Actual</u>	<u>2009 Actual</u>	<u>2010 Estimated</u>	<u>2011 Projected</u>
Engineering/Administration Staff:				
Accident Records & Analysis	9,478	8,055	9,000	9,200
Fatal Accident Investigation	14	14	13	12
Development & Building Plans Processed	161	119	80	100
Board of Safety Reports	50	63	90	100
Traffic Counts Conducted	36	62	66	70
Traffic Studies Conducted	220	240	250	250
Traffic Investigations (complaints)	375	400	425	425

Signal Division:

New Signals Installed	6	6	6	6
Total Signals In Service	373	381	385	388
Total Flashing Beacons In Service	52	50	48	47
Total Pedestrian Signal Locations In Service	184	193	198	203
Signals Modernized	16	20	22	24
Signal Accident Repairs	34	28	30	35

	<u>2008</u> <u>Actual</u>	<u>2009</u> <u>Actual</u>	<u>2010</u> <u>Estimated</u>	<u>2011</u> <u>Projected</u>
Signal Division (cont'd)				
Signal Bulbs Replaced (Emergency)	29	7	10	10
Signal Bulbs Replaced (Routine)	0	0	0	0
Signal Trouble Calls	1,300	963	1,000	1,350
Controller Maintenance	397	422	425	430
Detector Loop Repairs	28	66	70	70
Signal Work Orders	205	235	250	250
Cable Locates	0	0	0	0

Sign & Marking Division

Signs Installed	901	1,124	1,200	1,200
Signs Relocated	608	680	700	720
Signs Replaced	2,604	3,103	3,200	3,225
Signs Removed	1,437	1,497	1,500	1,525
Signs Manufactured	5,093	5,200	5,300	5,400
Street Lanes Marked-Painted Miles	756	880	900	900
Curb Parking Marked (Yellow Curb)	14,029 ft.	9,555 ft.	10,000 ft.	11,000 ft.
Crosswalks Marked	902	865	900	920
Lane Arrows Marked	1,076	1,006	1,100	1,200
Parking Stalls Marked	1,066	402	500	600

TRAFFIC ENGINEERING
 Dept # 0011 - 0100
 2011 BUDGET COMPARISON

	2009 ACTUAL	2010 ACTUAL THRU 30-Jun-2010	2010 REVISED BUDGET	2011 SUBMITTED	\$ INCREASE (DECREASE) FROM 2010 APPR	% CHANGE FROM 2010 APPR TO 2011
5111 TOTAL WAGES	1,057,406		1,118,713	1,139,069	20,356	1.82%
5131 PERF - EMPLOYERS SHARE	113,560		124,607	138,360	13,753	
5132 FICA	121,103		126,822	128,379	1,557	
5134 LIFE MEDICAL & HEALTH INSURAN	279,000		306,900	316,200	9,300	
5136 UNEMPLOYMENT COMPENSATION	1,652		1,658	1,678	20	
5137 WORKERS COMP INSURANCE	23,664		60,359	63,176	2,817	
513A PERF - EMPLOYEES/PD BY CITY	46,990		48,235	48,834	599	
513R RETIREES HEALTH INSURANCE	54,000		59,400	61,200	1,800	
5161 WAGE SETTLEMENT/SEVERANCE PAY	41,601		-	-	-	
Total 5100	\$1,738,977	\$871,356	\$1,846,694	\$1,896,896	\$50,202	2.72%
5212 STATIONERY & PRINTED FORMS	180		770	550	(220)	
5214 SAFETY ITEMS/SUPPLIES	3,750		7,740	7,740	-	
5219 OTHER OFFICE SUPPLIES	3,728		6,050	6,050	-	
5231 GASOLINE	27,531		36,575	38,509	1,934	
5232 DIESEL FUEL / FUEL OIL	4,530		6,113	6,478	365	
5246 HOUSEHOLD & CLEANING SUPPLIES	1,135		2,700	2,700	-	
5261 BLDG REPAIR & MAINT MATERIALS	916		3,430	1,250	(2,180)	
5263 OTHER EQUIPMENT REPAIR PARTS	-		1,450	1,450	-	
5264 SIGN DIVISION/MATERIAL	50,008		75,360	72,000	(3,360)	
5265 SIGNAL DIVISION/MATERIAL	236,254		217,294	211,500	(5,794)	
5275 PAVEMENT MARKING MATERIALS	98,408		87,345	116,620	29,275	
5299 OTHER MATERIALS & SUPPLIES	250		300	300	-	
Total 5200	\$426,692	\$224,100	\$445,127	\$465,147	\$20,020	4.50%
5317 INSTRUCTIONAL SERVICES	-		600	600	-	
531E RANDOM DRUG TESTS	480		700	700	-	
531K SEMINAR FEES	660		1,000	1,000	-	
531M SECURITY SERVICES	289		280	280	-	
531Q RADIO SHOP SERVICES	1,372		1,150	1,150	-	
5322 POSTAGE	684		400	400	-	
5323 TELEPHONE & TELEGRAPH	14,984		21,900	21,900	-	
5324 TRAVEL EXPENSES	1,509		1,500	1,500	-	
5326 MILEAGE	-		400	400	-	
532C CELL PHONE	5,943		6,400	6,400	-	
532L LONG DISTANCE CHARGES	175		240	240	-	
5331 PRINTING OTHER THAN OFFC SUPPL	20		150	150	-	
5332 PUBLIC OF LEGAL NOTICES/ADVTER	-		400	400	-	
5333 PHOTOGRAPHY & BLUEPRINTING	-		1,800	1,800	-	
5342 LIABILITY INSURANCE	17,991		11,574	12,699	1,125	
5351 ELECTRICITY	97,702		127,000	127,000	-	
5352 NATURAL GAS	19,953		52,981	22,328	(30,653)	
5353 WATER	2,570		1,800	1,800	-	
5356 SOLID WASTE DISPOSAL	-		4,100	1,100	(3,000)	

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 2011 BUDGET COMPARISON

	2009 ACTUAL	2010 ACTUAL THRU 30-Jun-2010	2010 REVISED BUDGET	2011 SUBMITTED	\$ INCREASE (DECREASE) FROM 2010 APPR	% CHANGE FROM 2010 APPR TO 2011
5358 HAZARDOUS WASTE DISPOSAL	241		1,200	1,200	-	
5361 CONTRACTED BLDG & STRUCT REPAI	954		950	950	-	
5363 CONTRACTED OTHER EQUIPMT REPAI	3,172		10,000	10,000	-	
5365 JANITORIAL & LAUNDRY SERVICE	8,392		6,804	6,290	(514)	
536N GARAGE CONTRACT - NONTARGET	2,594		5,032	4,071	(961)	
536T GARAGE CONTRACT - TARGET	88,339		71,273	74,062	2,789	
5374 OTHER EQUIPMENT RENTAL	937		3,025	3,025	-	
5377 CC BUILDING PARKING	1,200		840	1,200	360	
5391 SUBSCRIPTIONS AND DUES	2,000		1,550	1,550	-	
5392 LICENSES	1,083		1,000	1,000	-	
5399 OTHER SERVICES AND CHARGES	216		600	600	-	
539B MASTER LEASE	59,224		74,140	75,043	903	
Total 5300	\$332,682	\$155,151	\$410,789	\$380,838	(\$29,951)	- 7.29%
5425 PURCHASE OF FIXED EQUIPMENT	8,823		-	-	-	
5443 PURCHASE OF OFFICE EQUIPMENT	-		-	4,000	4,000	
5444 PURCHASE OF OTHER EQUIPMENT	-		-	14,000	14,000	
Total 5400	\$8,823	\$-	\$-	\$18,000	\$18,000	
Total	\$2,507,174	\$1,250,607	\$2,702,610	\$2,760,881	\$58,271	2.16%

Traffic Engineering 2011-2015 Capital Improvement Program

FUNDING SOURCE CODE: CC-Cumulative Capital Fund CDBG-Community Development Block Grant CEDIT-Co. Economic Development Income Tax CO-County Source FED-Federal Source GOB-General Obligation Bond GRA-Grant Approved	GRP-Grant Pending LE-Lease InfraBd-Infrastructure Bond LRS-Local Roads & Streets MISC-Miscellaneous MVH-Motor Vehicle Highway PCBF-Park Cumulative Bldg. Fund PS-Private Source	PT-Property Tax RB-Revenue Bond ST-State Source SU-Sewer Utility SWU-Stormwater Utility TIF-Tax Increment Financing UF-User Fee WU-Water Utility
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Item #	Project Title & Description	Funding Source	Expenditure				
			2011	2012	2013	2014	2015
1	Vehicles Service Truck to replace Unit #21836 2001 Ford Van Sign Truck - Signal Service Truck - Arrow Truck Signal Trouble Truck Challenger Lift Signal Bucket Truck	LE-Lease	30,000	75,000	75,000	100,000	100,000
			30,000	75,000	75,000	100,000	100,000
2	Equipment Locator - Concrete Saw - Portable Generator Paint Machine for Arrow Truck - Portable Welder Arrow Board Backhoe/Trencher Walk Behind Paint/Concrete Saw	LRS	14,000	18,000	28,000	35,000	35,000
			14,000	18,000	28,000	35,000	35,000
3*	Actra Fiber Optic Cable Update	LRS	10,000	10,000	10,000	10,000	10,000
4*	Traffic Signal Modernization Program - 4 intersections/year	LRS	90,000	80,000	80,000	80,000	80,000
	a. Ardmore & Sandpoint (north junction) b. Hawk Signal Trail Crossing c. Hawk Signal Trail Crossing d. St Joe Ctr & Wheelock ----- e. Covington & Smith f. Lindenwood & State g. Hoagland & Pontiac h. Hawk Signal Trail Crossing i. Airport Expressway & Fairfield j. Getz & Illinois k. Harmar & Washington l. Hawk Signal Trail Crossing ----- m. Covington & Freeman (flasher) n. Fairfield & Lwr Huntington (flasher) o. New Haven & Phelps Dodge p. Hawk Signal Trail Crossing ----- q. Adams Ctr & Tillman r. Minnich & Tillman s. Hawk Signal Trail Crossing		90,000	80,000	80,000	80,000	80,000
5*	Traffic Signal Controller Replacement Program - 6 units complete 1. Aboite Center Rd & Coventry Lane 2. Crescent & Hobson 3. Goshen & Independence 4. Hobson & Lake 5. Lake & Randallia 6. Reed Rd & State	LRS	45,000	45,000	45,000	45,000	45,000
6*	Traffic Signal Head Replacement - 10 intersections/year 2011 Replacements 1. Apple Glen & W Jefferson 2. Broadway & GE 3. Calhoun & Creighton 4. Calhoun & Jefferson 5. Calhoun & Washington 6. Coldwater & Coldwater Crossing 7. Ewing & Washington 8. Fairfield & Lwr Huntington 9. Harrison & Jefferson 10. Lake & Reed	LRS	15,000	15,000	15,000	15,000	15,000
7*	Expand/Upgrade ATMS Computerized Signal System	LRS	50,000	50,000	50,000	50,000	50,000
8	Office Equipment Replacement	LRS	4,000	4,000	4,000	4,000	4,000
TOTAL			258,000	297,000	307,000	339,000	339,000

* 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 Engineering 2011-2015 Capital Improvement Program

FUNDING SOURCE CODE:

CC-Cumulative Capital Fund

CDBG-Community Development Block Grant

CEDIT-Co. Economic Development Income Tax

CO-County Source

FED-Federal Source

GOB-General Obligation Bond

GRA-Grant Approved

GRP-Grant Pending

LE-Lease

InfraBd-Infrastructure Bond

LRS-Local Roads & Streets

MISC-Miscellaneous

MVH-Motor Vehicle Highway

PCBF-Park Cumulative Bldg. Fund

PS-Private Source

PT-Property Tax

RB-Revenue Bond

ST-State Source

SU-Sewer Utility

SWU-Stormwater Utility

TIF-Tax Increment Financing

UF-User Fee

WU-Water Utility

Item #	Project Title & Description	Funding Source	Expenditure				
			2011	2012	2013	2014	2015

traffic design and review, transportation 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 optic cable for interconnection 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 years.
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 maintenance and safety
9. Traffic Signal Activation Program. This program will convert fixed time signalized intersections to fully activated to improve the flow of traffic. (2 locations/year.)
7. In 2000 and 2001 our Eagle Contract 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 conjunction with the new advanced Traffic Management Computer System and replacing worn furniture.