

Engineering / Traffic Operations Center (TOC)

Paul P. Holzen, Director

ENGINEERING

The Engineering Department plans for the future infrastructure needs of the City of Franklin and consists of three divisions. The divisions include Engineering, Traffic Operations and Stormwater. The department works with other City Departments, elected officials, and the public to ensure that our infrastructure is designed and installed properly and that it meets all Local, State and Federal standards and guidelines. Both City-funded and private infrastructure projects are managed and reviewed by the Engineering Department.

The Traffic Operations Division manages the transportation network within the City of Franklin and is responsible for signal timing. A goal of the Traffic Operations Division is to perform timing optimizations for signal systems. Currently there are three major systems in the City - Cool Springs, SR 96 E (Murfreesboro Rd.), and Downtown (Main St, Fifth Ave, Columbia Ave). An optimization is like a tune-up for a car engine. Everyone that uses those optimized systems saves time and fuel over the previous conditions they may have experienced.

The Stormwater Division helps the City maintain compliance with mandates set by the Federal (EPA) and State (TDEC) Governments to minimize stormwater runoff pollution. Under the Clean Water Act of 1972, the Environmental Protection Agency (EPA) requires municipalities like Franklin to manage stormwater. The City has received a Phase II Municipal Separate Storm Sewer System (MS4) Permit from the Tennessee Department of Environment and Conservation (TDEC) to allow Franklin to discharge stormwater into nearby rivers and streams.

TRANSPORTATION OPERATIONS CENTER (TOC)

The Traffic Operations Center (TOC) provides traffic management services to the City of Franklin. The center currently manages 103 traffic signals and 22 Closed Circuit Television (CCTV) cameras. In past years the TOC has worked towards providing better traffic flow throughout the City through the Congestion Management Program. That program requires data collection at each of those intersections every 3 years and optimizing the signal timing in each of the City's main corridors.

That work continues as we work towards providing a communications network that allows us to manage and monitor traffic conditions better. FY 2012-2013 provided a major increase in the infrastructure necessary to provide this service when we increased our CCTV cameras from 12 to 22 and the number of traffic signals we communicate directly with from 52 to 66.

The TOC will be addressing new challenges as we move into the future. First will be the Comprehensive Transportation Network Plan which will study the transportation network with attention to the roadway network, bike and pedestrian facilities and transit. This study will replace the traditional Major Thoroughfare Plan Update and will provide a more complete planning document for use by the city in applying for Federal Highway Administration or Federal Transit Administration funding. The second challenge is to deploy an Adaptive Traffic

Signal Control System in the Cool Springs Area. This action will provide the benefits of constant signal optimization.

Traffic Data Collection Program:

Traffic Counts or Data Collection have been and continue to be the most basic building blocks of any traffic management system. With the rapid growth and development of the City of Franklin in the recent past, traffic volumes have also grown and developed. This program was designed to perform “turning movement counts” for each peak hour at each of our nearly 103 signalized intersections every three years.

1. SR 96 E, Mack Hatcher and Hillsboro Rd Corridors.
2. Cool Springs Blvd, Carothers Parkway and Mallory Lane Corridors.
3. Downtown Franklin, SR 96 W and Franklin Road Corridors.

The data collected is used to develop traffic signal timing plans that will best move traffic with highest degree of safety and minimal delay. By utilizing traffic modeling software, we develop intersection timing plans that best manage those rush hour flows.

Traffic Signal Timing Optimization Program:

Traffic Signal Optimization is the primary activity utilizing the data collected by the Annual Traffic Data Collection Program. A 2005 Institute of Transportation Engineers White Paper on *Benefits of Retiming Traffic Signals* states, “An operating agency with a budget to retime traffic signals every 3 years, especially in developing areas and/or areas with sustained growth, will maintain a high quality of traffic operations.”

The City of Franklin currently has 3 primary signal systems. They are SR 96 E, Downtown and the Cool Springs Galleria area. The chart below indicates some of the benefits achieved through Traffic Signal Optimization. The data presented shows reductions in 3 key areas: Travel Time Delay and reduced Hydrocarbon and Carbon Monoxide emissions.

Improvements	2011 Actual	2012 Actual	2013 Projected	2014 Goal
System	SR 96 E *	West Main/5 th Ave/Hillsboro/ Columbia	Cool Springs	SR 96 E
Delay	10%	17.4%	15%	15%
Hydrocarbon	Avg./Results	16.6%	Avg./Results	Avg. /Results
Carbon Monoxide	Avg./Results	16.6%	Avg./Results	Avg. Results

*The City of Franklin using Data and results provided in 2008 for SR 96E to perform an adjustment to the SR 96 E system in 2011. This adjustment took into consideration changing traffic flow on Carothers Pkwy not previously consider in the 2008 study.

STORMWATER

One of the Stormwater Division's goals is to reduce and eliminate non-stormwater flows (called illicit discharges) from the City of Franklin Municipal Separate Storm Sewer System (MS4) to improve water quality in the Harpeth River Watershed. MS4s discharge directly to rivers and streams without being treated at a treatment plant. This means whatever washes into the city's

storm sewer system ends up in our rivers and streams. By monitoring each outfall point, the City is able to identify and eliminate sources of water pollution. The City will inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste. The public can report suspected illicit discharges via the City website or the Stormwater Pollution Hotline (615-791-3218). Documented illicit discharges will be eliminated as soon as possible.

Performance Measure: Field screen each major outfall in the Franklin City Limits for pollutants. If pollutants are identified follow-up inspections will be made to find and eliminate the source of pollution.

Measure/Goal	FY12 Actual	FY13 Projected	FY14 Goal
Watersheds Screened	Inventory 90% Complete; begin Fieldscreening of Major outfalls	2	2
Number of Outfalls testing positive for pollutants	0	1*	TBD
Number of Illicit Discharges Eliminated from Outfalls	0	1*	TBD

* Outfall screening is still being completed. Currently, one has been positive with pollutants.

RIGHT-OF-WAY

When meeting with property owners to acquire right-of-way and easements we strive to give the property owner all the information about the upcoming project. We also work extremely hard to meet with affected property owners on more than one occasion (even before or after normal working hours). Although it is our goal to get all documents signed without using condemnation, it is not always possible. Some property owners are unwilling to work with the city, others will not respond to certified mail or phone messages. When this situation persists, we have no choice but to enter into condemnation proceedings. This performance measurement is comparing how many properties were to be acquired, how many were successfully acquired without condemnation and how many times the city entered into condemnation. In the future we will also be keeping up with the number of times we made contact or met with property owners. We hope this information will be helpful in the future for budgeting, staffing and scheduling needs.

The Right-of-Way Goal for the Engineering Department is to successfully acquire 80% of the properties through negotiations (without having to go into condemnation proceedings). See the chart below for the most recent property acquisition data:

PROJECT NAME	TOTAL NUMBER OF PROPERTIES	NUMBER OF OFFERS	SIGNED, AGREED OR CLOSED	CONDEMNATIONS

PROJECT NAME	TOTAL NUMBER OF PROPERTIES	NUMBER OF OFFERS	SIGNED, AGREED OR CLOSED	CONDEMNATIONS
Hillsboro Road Improvements Project	63	43	36	7
MTEMC Offsite Easements	67	67	65	2
Century/Beasley Connector	1	0	0	0
Mack Hatcher NW Quad	45	45	41	4
McEwen Drive at Wilson Pike	5	5	3	2
TOTAL	181	160	145	15
			90.6%	9.4%

Sustainable Franklin

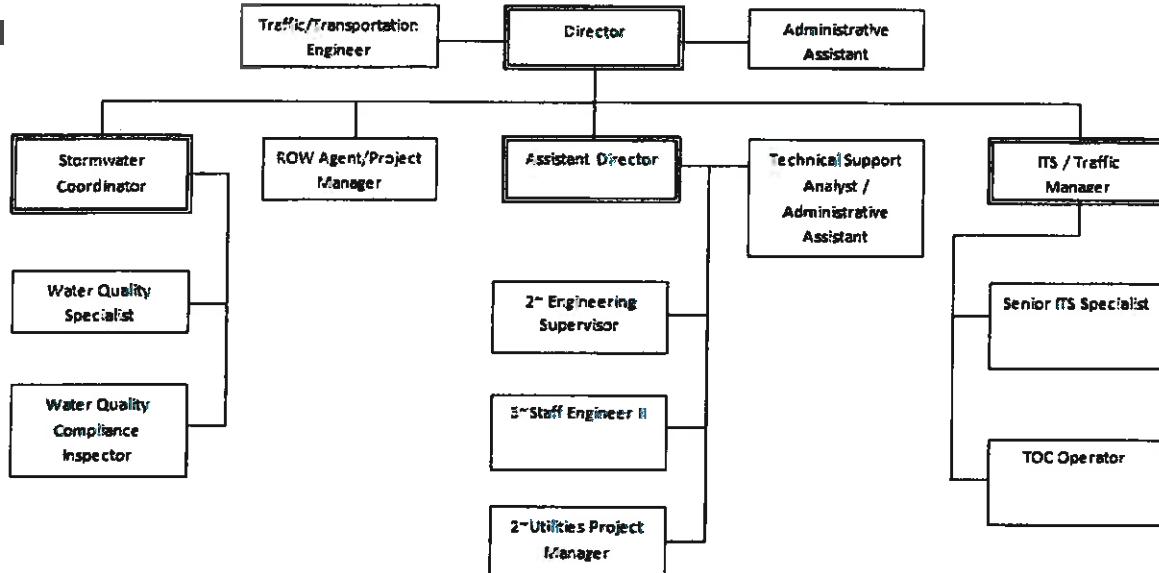


The Engineering Department has continued to be proactive to incorporate sustainable measures into infrastructure projects. Over the past year, staff has implemented a new pilot program that grants water quality and detention credit for Permeable Interlocking Concrete Pavers. This was done to promote infiltration of stormwater to reduce the overall amount of runoff leaving a site. Additionally, staff has promoted widespread integration of low impact development designs, including promoting rain gardens into development project designs. Staff will continue to seek opportunities to incorporate alternative modes of transportation, energy efficient lighting and other sustainable measures into the infrastructure projects planned for the City.

Both Engineering and Planning have worked together to establish the City's first renewable energy public-private partnership. This project consisted of building a 200kW solar array at the City's wastewater treatment plant. Construction is anticipated to be complete by May 2012.

The Engineering Department will continue to move towards implementing "paperless" office strategies by moving all review of plans to electronic files instead of multiple paper copies. This will result in less paper being wasted as well requiring significantly less physical storage space for sets of paper plans. Ongoing initiatives include migrating to a new web-based electronic plan review system and establishing a digital archive of approved construction plans.

Organizational Chart



Note: 2 Utilities Project Manager funded through Water Management Department

Staffing by Position

City of Franklin 2013-2014 Fiscal Year Budget Personnel by Position

Engineering Department

Position	Pay Grade	FY 2013			FY 2014		
		Full-Time	Part-Time	Not Funded	Full-Time	Part-Time	Not Funded
Director of Engineering	25	1	0	0	1	0	0
Assistant Director of Engineering	23	1	0	0	1	0	0
Engineering Supervisor	22	2	0	0	2	0	0
Engineer II	21	3	0	0	3	0	0
Engineer I	20	0	0	0	0	0	0
Right of Way Agent/Project Mgr	18	1	0	0	1	0	0
Technical Support Analyst	15	0	0	0	1	0	0
Administrative Asst.	12	2	0	0	1	0	0
TOTALS		10	0	0	10	0	0

Traffic Operations Center (TOC)

Position	Pay Grade	FY 2013		FY 2014	
		Full-Time	Part-Time	Full-Time	Part-Time
Traffic/Transportation Engineer	23	1	0	1	0
ITS Project Manager	19	1	0	1	0
ITS Specialist	17	1	0	1	0
TOC Operator	14	1	0	1	0
		4	0	4	0

Budget Notes/Objectives Engineering

- The Engineering Department is requesting 1 additional positions to include an additional Utilities Project Manager to assist with infrastructure planning, capital projects and development projects.
- TOC is requesting \$140,000 in Consultant services as part of the operations budget. This funding is part of the Traffic Signal Timing Optimization and Testing Program for the Cool Springs Area.
- TOC is requested \$2,125,000 in Capital. Of this amount \$1,432,000 will be reimbursed to the City through grants.
- Stormwater is requesting \$235,000 in consultant services as part of the operations budget. This funding is for our BMP Manual Update, GIS Impervious Surface Update and Stormwater Management Master Plan.
- Stormwater is requesting \$1,840,000 in Capital for storm water improvement projects.



Account	Label		Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
Personnel									
= B1110	REGULAR PAY		390,519	519,516	578,829	558,570	585,768	603,341	621,441
= B1120	OVERTIME PAY		127	232	100	150	150	150	150
= B1199	VACANCY ADJUSTMENT				(20,259)		(20,502)	(21,117)	(21,750)
= XWAGE	TOTAL WAGES		390,646	519,748	558,670	558,720	565,416	582,374	598,841
= B1410	FICA (EMPLOYER'S SHARE)		28,976	37,849	44,280	44,260	44,811	46,155	47,540
= B1420	MEDICAL PREMIUMS		87,957	101,575	106,882	106,882	106,892	110,100	113,402
= B1430	GROUP INSURANCE PREMIUMS		7,352	9,581	10,172	10,172	10,183	10,488	10,803
= B1440	EMPLOYEE INSURANCE CONTRIBUTIONS		(16,949)	(21,152)	(20,859)	(20,808)	(20,808)	(21,432)	(22,075)
= B1450	RETIREMENT CONTRIBUTIONS		61,598	56,685	64,900	64,900	65,678	67,648	69,678
= B1455	DEFERRED COMP MATCH			83	1,450	1,450	1,450	1,494	1,538
= B1470	WORKERS COMPENSATION PREMIUMS		(4)	60	541	541	541	557	574
= B1475	WORKERS COMPENSATION CLAIMS								
= B1482	CAR ALLOWANCE				2,215	4,800	4,430	4,560	4,687
= XBEN	TOTAL BENEFITS		168,631	186,876	212,227	211,857	213,308	219,707	226,297
= XPER	TOTAL PERSONNEL		559,277	706,624	770,897	770,577	778,724	802,081	826,138
Operations									
82110	MAILING & OUTBOUND SHIPPING SERVICES		986	812	1,000	1,110	1,500	1,500	1,500
82120	FREIGHT FOR INBOUND PURCHASED ITEMS								
82130	VEHICLE LICENSES & TITLES		50	20					
= XTRC	TOTAL TRANSPORTATION CHARGES		1,035	832	1,000	1,110	1,500	1,500	1,500
+ B2210	PRINTING & COPYING SERVICES, OUTSOURCED		142	520	5,410	5,262	5,270	5,275	5,280
1	Business Cards				120	120	120	120	120
2	Envelopes				200	142	150	155	160
3	Various		142	355					
4	4CCAD - Repographics - Scan Plans in the Garage/Prints				5,000	5,000	5,000	5,000	5,000
+	Amount missing from detail!				165				
B2230	ARCHIVING/RECORDS MANAGEMENT SERVICES					150	150	150	150
82250	TESTING & PHYSICALS		309	650	730	730	730	730	730
= XOPSV	TOTAL OPERATING SERVICES		451	1,170	6,140	6,142	6,150	6,155	6,160
82310	LEGAL NOTICES		1,424	4,174	1,500	1,500	1,500	1,500	1,500
+ 82350	DUES FOR MEMBERSHIPS		1,259	1,337	2,880	614	1,802	1,887	2,287
1	Various		1,259	610					
10	Patricia Proctor (\$182/APWA & \$245/ASCE)					427		432	400
11	Kate Rubush (\$50 LEED AP BD+C)							50	432
12	Engineer I						300	301	300
2	Paul Holzen - (\$160/APWA & \$40 ASHE) (\$25/ASCE)						25	30	30
3	Dan Allen - (\$160 APWA) (\$285/LA)						200		
4	Tom Ingram - (\$210/ASCE) (\$165 APWA) (notifs 13:14)						425		
5	Mickey Dobson - (\$150 APWA) (\$285/UL) (no longer employed)						375		
							425		

Account	Label	Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
6	William Banks - (\$210 ASCE) (Noticing [3:14])			210				
7	Jonathan Marston - (\$160 APWA & \$265 U.I.) (\$200 APWA)			425	179	200	220	220
8	Ben Worley (\$160 APWA & \$250 RWA) (\$200 APWA, \$250 RWA, \$400 AM)			110	410	850	855	855
9	Director of Engineer - (\$210 ASCF) (\$160 APWA) (\$10 ASHE)			410				255
*	Amount missing from detail			727				
82360	PUBLIC RELATIONS & EDUCATION (CITY SPONSORED)	1						
82380	PUBLICATIONS, NON-TRAINING	158	406	300	300	500	500	500
= XNSP	TOTAL NOTICES, SUBSCRIPTIONS, PUBLICITY	2,842	5,917	4,680	2,414	3,802	3,887	4,287
82435	SOLID WASTE SERVICE							
82450	TELEPHONE SERVICE	750	846	900	850	850	900	900
82451	800 MHZ ACCESS LINE SERVICE	46	47	50	50	50	50	50
+ 82455	CELLULAR TELEPHONE SERVICE	1,403	2,075	3,000	3,160	3,300	3,300	3,300
1	Various							
2	Director of Engineering (Service)	1,403	1,084					
3	Paul Holzen (Service)			750				
4	Dan Allen (Service)			750				
5	Ben Woney (Service)			750				
6	Cell phone service for (Paul, Dan & Ben)			750				
*	Amount missing from detail			1,011				
82470	INTERNET & RELATED SERVICES	504	554	530	550	550	550	550
= XUTIL	TOTAL UTILITIES	2,703	3,522	4,480	4,771	4,950	5,000	5,000
82510	COMPUTER SERVICES							
82520	LEGAL SERVICES	825						
+ 82560	CONSULTANT SERVICES	330	10,000	3,500	25,000	25,000	25,000	25,000
1	Various Consultant Services			7,500				
2	Misc. Surveying Services			2,500				
4	Various	330		3,500				
*	Amount missing from detail			10,000				
= XCTS	TOTAL CONTRACTUAL SERVICES	1,155		3,500				
82610	VEHICLE REPAIR & MAINTENANCE SERVICES	808	1,488	1,000	1,000	1,000	1,200	1,200
+ 82620	EQUIPMENT REPAIR & MAINTENANCE SERVICES	982	1,786	1,600	1,200	1,200	1,200	1,200
1	Various			400				
2	NovaCopy			1,200				
*	Amount missing from detail			1,786				
82660	BUILDING REPAIR & MAINTENANCE SERVICES	630						
= XRMSV	TOTAL REPAIR & MAINTENANCE SERVICES	1,770	3,904	2,600	2,200	2,200	2,400	2,400
82750	EMPLOYEE RECOGNITION/RECEPTIONS	150	109	400	400	500	500	500
+ 82780	TRAINING, OUTSIDE	(183)	768	425		3,860	2,000	2,000
1	Tom Ingram (Certified Floodplain Manager)			425				
2	Various	(183)						
3	PMP Certification (Dan & William)							2,000
4	RWA Certification (Ben)							1,300
5	Appraisal Institute Certification (Ben)							1,600
*	Amount missing from detail			769				900
= XEDG	TOTAL EMPLOYEE PROGRAMS	(33)	878	825	400	4,360	2,500	2,500

2014 Budget - 11041600 ENGINEERING
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Account	Label		Actual 2011	Budget 2012	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
+ 82810	REGISTRATIONS		1,742	2,445	4,525	5,835	5,000	5,000
1 Various			1,742	817	1,525	5,835	5,000	5,000
3 Continuing Education								
* Amount missing from detail!								
+ 82820	GROUND TRANSPORTATION (OUTSIDE WILLIAMSON COUNTY)							
1 Various			352	849	800	900	1,000	1,000
3 Continuing Education								
* Amount missing from detail!								
+ 82830	AIR TRAVEL							
1 Various			842	1,122	4,310	3,000	3,000	3,000
2 Continuing Education								
* Amount missing from detail!								
+ 82840	LODGING							
1 Various			2,832	4,112	7,540	7,540	6,000	6,000
2 Continuing Education								
* Amount missing from detail!								
+ 82850	MEALS (OUTSIDE WILLIAMSON COUNTY)							
1 Various			590	1,169	4,310	4,310	3,500	3,500
2 Continuing Education								
* Amount missing from detail!								
= XPDT	TOTAL PROFESSIONAL DEVELOPMENT/TRAVEL		6,358	10,529	22,335	21,685	19,000	19,000
+ 83110	OFFICE SUPPLIES							
1 Black leather portfolios with C.O.F logo embossed (20 @ \$530 each)			1,524	1,894	2,500	2,500	3,100	2,600
2 Various								
* Amount missing from detail!								
+ 83130	EMPLOYEE BENEVOLENCE ITEMS							
1 MEALS & FOOD (INSIDE WILLIAMSON COUNTY)			110	150	150	150	150	150
= XOFS	TOTAL OFFICE SUPPLIES		786	1,273	1,300	1,300	1,300	1,300
+ 83250	SAFETY SUPPLIES							
1 Various			6	589	1,500	1,500	500	500
2 High Visibility Construction Jackets			6	500	500	500	500	500
* Amount missing from detail!				1,000	1,000	1,000		
+ 83260	UNIFORMS PURCHASED							
1 Boots			163	562	815	815	900	955
2 Uniforms								
3 Various								
4								
* Amount missing from detail!								
+ 83299	OTHER OPERATING SUPPLIES							
= XOPS	TOTAL OPERATING SUPPLIES		17	200	200	200	220	220
+ 83310	GASOLINE & DIESEL FOR FLEET (INSIDE WILLIAMSON COUNTY)		186	1,151	2,515	1,600	1,675	1,680
			2,893	1,990	3,250	2,500	3,000	3,500
								4,000

2014 Budget - 1104-1600 ENGINEERING
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Account	Label	Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
	Amount missing from detail							
= XPLC	TOTAL PROPERTY & LIABILITY COSTS	2,849	3,091	3,631	3,837	3,945	3,945	3,945
+ 85320	STATE FEES	1,625	2,005	3,250	2,820	2,805	3,085	2,945
1 Various		1,825	405					
2 State Privilege Tax (\$400)			2,000	2,400	2,400	2,400	2,400	2,400
3 Engineering License (\$140)			660	420	290	420	280	280
4 State Distribution License BW (no longer using)			25					
5 PE Exam			285				265	265
6 Appraisal Trainer Application Fee (Item)							125	125
* Amount missing from detail		1,600						
85340 RECORDING & FILING FEES								
= XPERM TOTAL PERMITS		1,625	2,102	3,350	2,920	2,905	3,185	3,045
85990 MISCELLANEOUS		200						
= XOBIE TOTAL OTHER BUSINESS EXPENSES		200						
= XOP TOTAL OPERATIONS		29,283	55,214	91,706	76,844	105,662	88,747	89,467
	Capital							
= XTOT TOTAL EXPENDITURES		588,560	761,838	862,603	847,421	884,386	890,828	915,605

2014 Budget - 11041610 TRAFFIC OPERATIONS CENTER (TOC)
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Account	Label	Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
Personnel								
= B1110	REGULAR PAY	169,987	177,154	207,403	200,144	214,897	221,344	227,984
= B1120	OVERTIME PAY	80	105	200	200	200	200	200
= B1199	VACANCYADJUSTMENT			(7,259)		(7,521)	(7,747)	(7,978)
= XWAGE	TOTAL WAGES	170,047	177,259	200,344	200,344	207,576	213,797	220,205
= B1410	FICA (EMPLOYER'S SHARE)	12,463	13,072	15,866	15,866	16,440	16,933	17,441
= B1420	MEDICAL PREMIUMS	27,870	27,870	34,362	34,362	42,757	44,040	45,361
= B1430	GROUP INSURANCE PREMIUMS	2,162	2,275	3,192	3,192	3,771	3,884	4,001
= B1440	EMPLOYEE INSURANCE CONTRIBUTIONS	(4,448)	(4,873)	(5,613)	(5,613)	(8,106)	(8,349)	(8,850)
= B1450	RETIREMENT CONTRIBUTIONS	23,098	18,876	19,470	19,470	20,174	20,779	21,402
= B1470	WORKERS COMPENSATION PREMIUMS	(1)	30	271	271	271	278	287
= B1475	WORKERS COMPENSATION CLAIMS							
= XBEN	TOTAL BENEFITS	61,134	57,450	67,548	67,548	75,306	77,566	79,852
= XPER	TOTAL PERSONNEL	231,181	234,709	267,892	267,892	282,883	291,363	300,097
Operations								
= 82110	MAILING & OUTBOUND SHIPPING SERVICES		41	200	95	150	160	170
= 82120	FREIGHT FOR INBOUND PURCHASED ITEMS		52					
= XTRC	TOTAL TRANSPORTATION CHARGES		93	200	95	150	160	170
= 82210	PRINTING & COPYING SERVICES, OUTSOURCED		174		150		160	150
= 82245	FINGERPRINTING FEES				670	700	200	200
+ 82250	TESTING & PHYSICALS		46					
1	New Employees				501	500		
2	Random Drug Screening				170	200	200	200
3	Various		46					
	Amount missing from detail							
= 82250	OTHER OPERATING SERVICES							
= XOPSV	TOTAL OPERATING SERVICES		220		820	700	350	350
= 82310	LEGAL NOTICES			723	286	600	400	800
+ 82350	DUES FOR MEMBERSHIPS			1,801	1,903	2,365	1,940	1,970
1	Various			1,801	906			
10	Kevin - (APA \$920) (ITE \$260)				580			
11	Chris - (MSA \$860)				60			
12	New Employee (MSA \$60)				60			
2	MSA - (Chris & TOCO)					140	140	150
3	ITE - (Carl & Kevin)					570	580	590
4	APA - (Kevin)					230	230	240
6	Work Zone Audit Level 1 - New Employee (moved to 82810)				365			
7	ITSA - City Membership				1,000	100	100	110
9	Carl - (ITE \$260) (ASIE \$40)				300			
	Amount missing from detail				1057			
+ 82390	PUBLICATIONS, NON-TRAINING		250	246	500	106	300	300
1	Traffic Engineering Handbook 5th Ed Edn					115		
3	Various				500		300	300
= XNSP	TOTAL NOTICES, SUBSCRIPTIONS, PUBLICITY		2,774	2,407	3,665	1,546	1,740	2,200

2014 Budget - 11041610 TRAFFIC OPERATIONS CENTER (TOC)
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Account	Label		Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
82450	TELEPHONE SERVICE		1,894	1,847	1,000	600	800	610	620
	800 MHZ ACCESS LINE SERVICE		34	50	50	50	55	55	65
82451	CELLULAR TELEPHONE SERVICE		635	800	600	600	610	610	620
+ 82455	Kevin Call Phone		170	600	600	600	610	610	620
	Amount missing from detail		465						
82470	INTERNET & RELATED SERVICES		504	550	550	600	610	610	620
= XUTIL	TOTAL UTILITIES		2,472	2,876	2,400	1,800	1,850	1,885	1,925
+ 82510	COMPUTER SERVICES		995	1,450		1,200	1,200	1,200	1,200
1	Various		995	1,200		1,200	1,200	1,200	1,200
2	Cabinet Corporation (TransCAD Support)								
+	Amount missing from detail		260						
82540	ENGINEERING SERVICES		54,600	36,853	152,000	116,003	280,000	190,000	245,000
+ 82560	CONSULTANT SERVICES		54,600	30,395					
1	Various		54,600	30,395					
10	Comprehensive Transportation Network Study						200,000		
2	ROW and Easement Survey and Descriptions				6,000	3,000			
3	Traffic Data Collection - Annual Program				6,000	6,003	30,000		
4	Traffic Signal Timing Optimization and Testing - Cool Springs Area				140,000	10,000			
5	Downtown Circulation Study								40,000
6	Traffic Signal Timing Optimization and Testing - Downtown								75,000
7	Traffic Signal Timing Optimization and Testing - 98E east								190,000
8	Traffic Signal Timing Optimization and Testing - Columbia								60,000
9	Traffic Signal Timing Optimization and Testing - Hillsboro Road								100,000
+	Amount missing from detail		6,568						
82599	OTHER CONTRACTUAL SERVICES			59					
= XCITS	TOTAL CONTRACTUAL SERVICES		55,595	38,372	152,000	117,203	291,200	131,200	246,200
82610	VEHICLE REPAIR & MAINTENANCE SERVICES								
+ 82620	EQUIPMENT REPAIR & MAINTENANCE SERVICES		203	950	1,000	1,011	500	500	500
1	NoteCopy		520	4,905	150	500	500	500	500
3	Various		520	2,775	150	500	500	500	500
+	Amount missing from detail			2,26					
= XRMSV	TOTAL REPAIR & MAINTENANCE SERVICES		732	5,855	1,150	1,511	1,000	1,000	1,000
82750	EMPLOYEE RECOGNITION/RECEPTIONS								
82780	TRAINING, OUTSIDE		46		100	100	150	150	150
= XEPG	TOTAL EMPLOYEE PROGRAMS		46		100	100	150	150	150
+ 82810	REGISTRATIONS			1,568	1,050	1,400	2,150	2,650	2,650
1	Various			1,568	555				
2	ASCE (Car)						50	50	50
3	ASHE (Car)						50	50	50
7	IIASA Conference (Kevin & Carl)					100	800	800	800
8	PE - Registrations					700	600	600	600
9	Non PE - Registrations					700	550	550	550
+	Amount missing from detail		1,396						
+ 82820	GROUND TRANSPORTATION (OUTSIDE WILLIAMSON COUNTY)		57	308	1,150	1,150	1,150	1,150	1,150
1	Various		57	306	1,150	1,150			
3	PE - Ground Transportation						750	750	750
4	Non PE - Ground Transportation						400	400	400
+	Amount missing from detail								
+ 82830	AIR TRAVEL		440		1,400	1,400	900	900	900

2014 Budget - 11041610 TRAFFIC OPERATIONS CENTER (TOC)
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2014 Budget - 11041610 TRAFFIC OPERATIONS CENTER (TOC)
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Account	Label	Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
= XMEU	TOTAL MACHINERY & EQUIPMENT (<\$25,000)	32,869	68,067	27,700	30,448	29,900	5,800	8,820
83620	EQUIPMENT PARTS & SUPPLIES	100	951	200	200	200	200	200
+ 83641	TRAFFIC SIGNAL PARTS & SUPPLIES			1200	1,200	1,000	1,000	1,000
1 6-8' Lenses				100	100			
2 Pop-Up Utility Tent				1,100	1,100			
3 Vehicles						1,300	1,000	1,000
	Amount missing from detail							
= XRMS	TOTAL REPAIR & MAINTENANCE SUPPLIES	100	951	1,400	1,200	1,200	1,200	1,200
84310	TRAFFIC OPERATIONS CENTER		3,106					
84956	FRANKLINITS ARRA #5	768,851	281,798					
= XOPU	TOTAL OPERATIONAL UNITS	768,851	294,894					
85110	PROPERTY INSURANCE	1,122	1,195	399	275	275	275	275
85111	FRAUD INSURANCE				10	10	10	10
85112	INLAND MARINE INSURANCE				125	125	125	125
85113	AUTO PHYSICAL DAMAGE				50	50	50	50
85115	LIABILITY INSURANCE			988	250	250	250	250
85116	E&O LIABILITY INSURANCE				200	200	200	200
85117	VEHICLE LIABILITY INSURANCE				300	300	300	300
85118	LAW ENFORCEMENT LIABILITY INSURANCE				250	250	250	250
85119	UMBRELLA LIABILITY				100	100	100	100
= XPLC	TOTAL PROPERTY & LIABILITY COSTS	1,122	1,195	1,387	1,560	1,560	1,560	1,560
85310	PERMITS		1,250	400				
85320	STATE FEES	400	540	140	140	140		
85340	RECORDING & FILING FEES							
= XPERM	TOTAL PERMITS	400	1,790	540	140	140		
86600	LEASE/LOAN PRINCIPAL			10,000				
86700	LEASE/LOAN INTEREST			339	339			
= XDSV	TOTAL DEBT SERVICE			10,339	10,339			
= XOP	TOTAL OPERATIONS	868,923	420,571	211,571	166,313	339,960	156,740	275,115
	Capital							
+ 89530	MACHINERY & EQUIPMENT (>\$25,000)	304,701	(4,307)	1,415,000	1,137,000	2,615,000	550,000	500,000
1 Ph 3 TOC, Eng & Technical Sys.,(Siemens)								
10 Traffic Operations Center Remodel								
11 SR 96 & Southwicks Intersection				35,000	57,000			
12 ITS - ARRA (Adaptive Signals 8/7/2013 March)					200,000	1,000,000		
13 Galloway Blvd						200,000		
14 Mallory Station Road @ Mallory Lane and South Springs						210,000		
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2014 Budget - 11041610 TRAFFIC OPERATIONS CENTER (TOC)
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Account	Label	Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
16	Various	304,701	155,620					
16	Cardholders & SFR96 Turn Lane Extension							
2	2h 3 TOC Infra & Upgrades (LEO QM)							
20	Columbia @ Southeast Hwy/Shadow Green Dr (\$195,000 from "Development")							
4	Rh 2 TOC, Fiber Optic Comm Duct (Stansell)							
5	CATV (RPM)							
7	Traffic Signal Upgrade Program							
8	Franklin ITS Extension (86/20 Major)							
9	School Flashing Beacon Upgrades							
	Amount missing from detail							
89531	MACHINERY & EQUIPMENT (>25,000) NON-GRANT	(156,927)	185,926					
89532	MACHINERY & EQUIPMENT (>25,000) GRANT	105,633						
= XMEQ	TOTAL MACHINERY & EQUIPMENT (>\$25,000)	304,701	287,262	1,415,000	1,137,000	2,615,000	550,000	500,000
= XCAP	TOTAL CAPITAL	304,701	287,262	1,415,000	1,137,000	2,615,000	550,000	500,000
= XTOT	TOTAL EXPENDITURES	1,404,805	942,542	1,894,463	1,571,205	3,237,843	998,103	1,075,212

2014 Budget - 13543120 STORMWATER
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Account	Label	Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Estd 2014	Budget 2015	Estd 2015	Forecast 2016
Personnel										
= 81110	REGULAR PAY	443,588	507,471	633,175	611,014	657,449	677,172	667,498	677,172	653,358
= 81120	OVERTIME PAY	8,806	9,536	6,400	10,500	10,815	11,135	11,460	11,135	11,460
= 81199	VACANCY ADJUSTMENT			(22,161)		(23,011)		(23,701)		(24,412)
= XWAGE	TOTAL WAGES	450,174	577,007	617,414	621,514	645,253	664,606	684,536	664,606	684,536
= 81410	FICA (EMPLOYER'S SHARE)	32,022	41,168	48,438	48,438	50,295	51,804	51,804	51,804	53,358
= 81420	MEDICAL PREMIUMS	123,681	191,911	198,114	198,114	201,371	207,412	213,634	207,412	213,634
= 81430	GROUP INSURANCE PREMIUMS	9,665	14,248	16,401	15,401	16,568	17,065	17,577	17,065	17,577
= 81440	EMPLOYEE INSURANCE CONTRIBUTIONS	(24,191)	(38,557)	(41,014)	(41,014)	(41,074)	(41,882)	(42,138)	(41,882)	(44,453)
= 81450	RETIREMENT CONTRIBUTIONS	84,698	100,868	103,730	103,730	107,707	110,938	114,286	110,938	114,286
= 81455	DEFERRED COMP MATCH		1,494	134	1,340	134	138			142
= 81460	UNEMPLOYMENT CLAIMS									
= 81470	WORKERS COMPENSATION PREMIUMS									
= 81475	WORKERS COMPENSATION CLAIMS									
= XBEN	TOTAL BENEFITS	226,216	311,164	327,448	328,654	336,898	347,005	357,414	347,005	357,414
= XPER	TOTAL PERSONNEL	676,390	888,171	944,862	950,168	982,151	1,011,611	1,041,950	1,011,611	1,041,950
Operations										
+ 82110	MAILING & OUTBOUND SHIPPING SERVICES	26	104	200	142	200	200	200	200	200
1 Streets										
2 Engineering										
3 Various										
* Amount missing from detail										
1 82120	FREIGHT FOR INBOUND PURCHASED ITEMS	26	104	100	50	100	100	100	100	100
82130	VEHICLE LICENSES & TITLES									
82140	VEHICLE TOW-IN SERVICES									
= XTRC	TOTAL TRANSPORTATION CHARGES	44	104	250	200	250	250	257	257	264
+ 82210	PRINTING & COPYING SERVICES, OUTSOURCED									
1 Engineering										
* Amount missing from detail										
+ 82250	TESTING & PHYSICALS	1,384	398	500	100	500	300	300	300	300
1 Various										
2 Engineering										
* Amount missing from detail										
82260	UNIFORM RENTAL & SERVICES	2,680	2,816	1,500	100	280	257	264	264	264
82270	LANDFILL & BIOSOLIDS MANAGEMENT SERVICES									
= XOPSV	TOTAL OPERATING SERVICES	4,044	3,273	520	1	500	514	528	528	528
+ 82310	LEGAL NOTICES	432	779	520	2,000	2,000	2,000	2,000	2,000	2,000
1 Engineering										
* Amount missing from detail										
+ 82350	DUES FOR MEMBERSHIPS	597	777	1,015	1,253	1,271	1,277	1,284	1,277	1,284
1 Streets										
2 Engineering - Civil/CIVIL CRSS Certification Renewal										
3 Engineering - Southeastern Stormwater Association (SESWA)										
4 Engineering - American Water Resource Association (AWRA)										
5 Engineering - Tennessee Stormwater Association (TNSA)										
6 Various										
* Amount missing from detail										

2014 Budget - 13543120 STORMWATER
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Account	Label		Actual 2011	Budget 2012	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
= XRH:SV	TOTAL REPAIR & MAINTENANCE SERVICES		21,617	52,283	24,500	17,614	49,810	50,370	50,370	50,890
+ 82750	EMPLOYEE RECOGNITION/RECEPTIONS		50	300	2,100	1,700	2,150	2,200	2,250	2,250
1 Streets					2,000	1,600	2,000	2,000	2,000	2,000
2 Engineering					100	100	150	200	200	250
3 Various										
* Amount missing from detail										
+ 82780	TRAINING, OUTSIDE		300		1,000	1,000	1,050	1,100	1,150	1,150
1 Streets (hazardous materials training certification)			400		1,000	1,000	1,050	1,100	1,150	1,150
* Amount missing from detail										
+ 82790	TRAINING, IN-HOUSE		825							
1 Streets traffic control / work zone safety training					1,500	1,500	1,545	1,590	1,640	1,640
* Amount missing from detail										
= XEPG	TOTAL EMPLOYEE PROGRAMS		450	1,125	4,600	4,200	4,745	4,890	5,040	5,040
+ 82810	REGISTRATIONS		2,016	844	4,475	4,160	4,375	3,980	3,780	3,780
1 Streets Stormwater (2) Inspectors, 1(1) supervisor Stormcon Carb					2,460	2,300	2,100	2,200	2,300	2,300
10 Engineering - Non Water Quality Monitoring Conf (JW)							900	950	950	950
11 Engineering - StormCon Annual Meeting (GP)							920	950	950	950
2 Engineering - Stormwater Coordinator							1,675	1,675	1,675	1,675
3 Engineering - AWRA (CP, JW & ECS)								375	380	380
6 Engineering - TNPSCE (2) (ECS)								400	400	400
7 Various							485	485	485	485
8 Engineering - TNSA Annual Conf (CP, JW & ECS)								300	300	300
9 Engineering - TNEPSC (1) (ECS)								200	200	200
* Amount missing from detail										
+ 82820	GROUND TRANSPORTATION (OUTSIDE WILLIAMSON COUNTY)		456	1,318	1,325	1,125	2,565	2,565	2,625	2,625
1 Streets Stormwater (2) (esp & 1) supervisor Stormcon					600	400	500	530	560	560
2 Engineering - Stormwater Coordinator							475	1,030	1,030	1,030
3 Engineering - Water Quality Specialist							250	695	695	695
4 Engineering - Erosion Control Specialist								340	340	340
5 Various								725	725	725
* Amount missing from detail										
+ 82830	AIR TRAVEL		606	240	2,026	1,500	2,800	2,845	2,890	2,890
1 Streets Stormwater (2) (esp & 1) supervisor Stormcon					1,500	1,500	1,500	1,545	1,580	1,580
2 Engineering - Stormwater Coordinator							525	700	700	700
3 Engineering - Water Quality Specialist								600	600	600
4 Various										
5 Line Item 5										
6 Line Item 6										
* Amount missing from detail										
+ 82840	LODGING		880	1,894	4,500	4,200	3,694	4,368	4,420	4,420
1 Streets Stormwater (2) (esp & 1) supervisor Stormcon					2,100	1,800	1,800	1,854	1,906	1,906
2 Engineering - Stormwater Coordinator							1,300	1,020	1,200	1,200
3 Engineering - Water Quality Specialist							1,100	610	1,100	1,100
4 Engineering - Erosion Control Specialist								160	160	160
5 Various										
* Amount missing from detail										
+ 82850	MEALS (OUTSIDE WILLIAMSON COUNTY)		241	435	1,885	1,285	1,710	1,885	1,910	1,910
1 Streets					1,200	900	800	925	950	950
2 Engineering - Stormwater Coordinator							385	390	390	390
4 Engineering - Water Quality Specialist							100	420	420	420
5 Engineering - Erosion Control Specialist								140	140	140
6 Various										
* Amount missing from detail										
82880	OTHER TRAVEL EXPENSES		435	435	6	6				

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Account	Label	Actual 2011	Budget 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
2	Engineering (4WD pickup truck)							
+ 83530	Amount missing from detail							
+ 83530	MACHINERY & EQUIPMENT (<\$25,000)	10,214	9,984	25,225	36,225	14,000	6,400	6,700
1	Inspectors Laser Level							
10	Engineering - Liquid Discharge Detection (Detergent Wt Refills)							
11	Engineering - Nut discharge detection (Ammmons)							
12	Engineering - Nut discharge Detection (Chlorine Klr Refills)							
13	Engineering - TMDL Sampling Equip. (Nalgene Bottles)							
14	Engineering - TMDL Sampling Equip. (Nalgene Microscope)							
15	Engineering - TMDL Sampling Equip. (Magnifying Glass)							
16	Engineering - Various							
17	Line Item 17							
18	Engineering - Multi-Parameter Rugged Water Quality Meter							
19	Engineering - Heavyware Tools for Transsects (Hammer, Stakes, Tape)							
2	Street - Tracked Excavator Grapple Attachment							
20	Engineering - Water Quality Station Stream Gauges							
21	Engineering - Folding Table							
22	Inspectors Consumable tools							
3	Streets - Chain Saw							
4	Streets - Jumbo Jack trench compactor							
5	Streets - Tracked Skid Steer loader Attachment							
6	Streets - Weigh / load loc for rubber tired loader							
7	Streets - Walk behind tracked excavator							
8	Engineering - Spectrophotometer							
9	Engineering - Nut discharge Detection (Phosphate K4 Refills)							
.	Amount missing from detail							
+ 83540	COMPUTER HARDWARE (<\$25,000)	958	4,852	2,500	2,500	8,000	4,000	2,500
1	Six sets Inspectors Laptops							
2	Engineering - Computers							
3	Various							
4	Engineering - Field Appropriate Notebook/Tablet (2)							
.	Amount missing from detail							
+ 83550	COMPUTER SOFTWARE (<\$25,000)							
1	Engineering - Full Version of Adobe Acrobat							
.	Amount missing from detail							
= XMEU	TOTAL MACHINERY & EQUIPMENT (<\$25,000)	11,173	14,836	29,425	39,075	70,350	11,100	10,100
- 83610	VEHICLE PARTS & SUPPLIES							
83620	EQUIPMENT PARTS & SUPPLIES							
83640	PAVING & REPAIR SUPPLIES							
83845	STORMWATER MAINTENANCE SUPPLIES							
83852	LANDSCAPING SUPPLIES							
83653	IRRIGATION SUPPLIES							
83660	BUILDING MAINTENANCE SUPPLIES							
1+	OTHER REPAIR & MAINTENANCE PARTS & SUPPLIES							
1	Streets - Misc Drainage Projects throughout City							
2	Engineering - TMDL Sampling Equipment (Calibration Solution)							
3	Engineering DO Sensor Replacement Cap							
4	Engineering - Tool Cable Extendor							
5	Engineering - Tool Carrying Case							
6	Engineering - Bubble Housing for DO sensor calibration							
7	Engineering - pH sensor maintenance station							
6	Engineering - other repairs							
.	Amount missing from detail							
= XRMS	TOTAL REPAIR & MAINTENANCE SUPPLIES							
		142,459	121,961	183,900	108,901	- 186,500	185,700	

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Account	Label		Actual 2011	Actual 2012	Budget 2013	Estd 2013	Budget 2014	Forecast 2015	Forecast 2016
89420	STREETS				10,000	10,000			
89430	CURB & GUTTER REPLACEMENT				10,000	14,500			
89460	SIDEWALKS				10,000	5,431			
= XINFR	TOTAL INFRASTRUCTURE		258,172	1,084,170	1,870,000	921,595	1,946,000	2,201,000	1,636,000
+= 88520	VEHICLES (>\$25,000)		44,284						
1	1 Streets								
2	2 Streets								
	Amount missing from detail								
+ 89530	MANUFACTURED EQUIPMENT (>\$25,000)		65,300	145,000		84,000	45,000		
1	1 Mulch / Compost Blower								
2	2 Tracked Shovel								
3	3 Tracked Mini Excavator								
	Amount missing from detail								
+ 89550	COMPUTER SOFTWARE (>\$25,000)		34,169			55,340	145,000		
= XMEO	TOTAL MACHINERY & EQUIPMENT (>\$25,000)		78,433	56,300	145,000		84,000	45,000	
= XCAP	TOTAL CAPITAL		336,605	1,149,470	2,015,000	921,599	2,030,000	2,246,000	1,636,000
= XTOT	TOTAL EXPENDITURES		1,582,822	2,551,030	3,808,470	2,586,656	4,077,114	4,208,928	3,639,802