



City of Lawrence

PUBLIC WORKS

2007 Annual Report

Contents

- A. Stormwater Division
- B. Garage Report
- C. Watershed Map (pdf)
- D. Concrete Award – Kassold / Lake Point (pdf)
- E. Compost Give-away (pdf)
- F. Home Energy Conservation Fair (pdf)
- G. Outfalls Map (pdf)
- H. Burcham Park Stormwater Photos (pdf)
- I. Rain Gardens (pdf)
- J. Maple Stormwater Photos (pdf)
- K. Pavement Maintenance (pdf)
- L. Mill & Overlay photos (pdf)

A. Stormwater Division

Stormwater Infrastructure:

In an effort to analyze the existing condition of the City's stormsewer infrastructure an inventory and inspection program was launched in March of 2007. Each curb inlet, area inlet and junction box will ultimately be photographed and inspected. Field work will include verification of structure dimensions, location and material type. The following tables summarize the progress to date:

4574	curb inlets
384	area inlets
853	junction boxes
5811	TOTAL STRUCTURES
1759	Structures Inspected (approximately 30%)

Watersheds Completed (Refer to the attached map)	
Atchison	Jayhawk
Brook	Meadowbrook
Burroughs	Naismith
Downtown	Riverfront

Stormwater Infrastructure Maintenance:

Routine maintenance of the existing stormwater network includes the cleaning of ditches, stormsewer pipes, inlet throats and catch basins. Dilapidated catch basins and deteriorated stormwater pipe are also reconstructed and replaced when they have reached the end of their design life. The following summarizes the work completed in 2007:

- 7027 ft. ditch cleaned
- 1636 ft. stormsewer pipe installed
- 1193 curb inlet throats cleaned
- 14 curb inlets rebuilt
- 1782 ft. stormsewer pipe rodded/cleaned
- 695 catch basins checked
- 112 catch basins vacuumed out

Stormwater System Enhancements:

The following projects were constructed to improve the flow characteristics of the existing stormwater system or to solve local drainage issues. They are intended to provide a small glimpse of completed projects for 2007.

Campfire Ct. Campfire Drive

Ground water was surfacing on Campfire Court and running approximately 600 feet down Campfire Drive before entering an inlet. The street was deteriorating along the curb line and was on the mill and overlay list for the year. The Stormwater crew installed 600 ft. of under drain and poured concrete over the installation before the overlay project was started.



Channel cleaning east of Monterey Way

Following the completion of a sanitary sewer project that went through the south side of the Monterey Way drainage easement, the Stormwater crew cleaned the channel. They removed willow trees growing in the flow line, excavated excess silt and cleaned trash from the channel.



11th & Illinois

This intersection contained two undersized and deteriorating inlets. The capacity for both inlets was insufficient to handle the stormwater runoff from the west. Three new inlets were constructed following the University of Kansas Commencement to minimize the impact on the public.



7th & Lawrence Avenue

The sidewalk on the west side of Lawrence Avenue at 7th Street was coated with slime and moss creating a pedestrian hazard. Under drain was installed between the existing retaining wall and sidewalk. The under drain was tied directly to a nearby curb inlet to eliminate the excess groundwater.



31st & Kasold Drive

The west side of the box bridge had become overgrown with scrub brush and small timber. The Stormwater crew removed the vegetation along with a large amount of silt that had also been deposited in the channel restricting the flow.



B. Garage Report

This report reflects the number of units in the fleet, repairs made, preventative maintenance performed, and special projects we have under taken this year. It also discusses areas of improvement and concerns still being addressed.

Included are breakdowns of billing, miles driven by departments, and repair/preventative maintenance hours generated by division personnel. We have also included a table showing all the accident and criminal acts that involved city vehicles. Page 11 shows some repairs in progress and the lengths we have to go to in making some repairs. Page 12 is a photo of two baby raccoons that were found asleep on a Solid Waste truck engine in the shop. Page 12 also shows a new back saving tool that helps us utilize the space we have more efficiently. Page 13 is a demonstration of a portable lift system and our ever present space issues.

In September of this year we started moving the Fire/Med vehicle maintenance operations to the Central Maintenance Garage. We completed the move in October so that all repair operations are together. This makes space even more of a premium but it has allowed us to reduce our staff by one technician.

GOALS

Productivity

One of the goals we have set was to work toward a more balanced operation. Ideally our type of operation and diversity of fleet we would like to see 55% preventative maintenance and 45% repair. The objective is to find and diagnose more problems while the unit is in the shop reducing the down time and inconvenience of additional trips.

In 2007 this ratio fell because of the integration of the Fire/Med services and their shortage of reserve units. We were forced to turn around units as soon as possible. Now that we have caught up their backlog of problems and have a few reserves in place we should be able to improve our numbers.

Year	Percent Repair	Percent Preventative Maintenance
2000	69%	31%
2001	62%	38%
2002	53%	47%
2003	51.6%	48.4%
2004	50.3%	49.7%
2005	51.58%	48.42%
2006	52.95%	47.05%
2007	69.25%	30.75%

Service calls

Our second goal was to reduce the number of service calls. Some service calls are out of our control, such as accidents and punctured tires. With the ever expanding fleet and addition of services the number of service calls has increased this year.

Service calls performed

	2003	2004	2005	2006	2007
Tire repair or replace calls	67	53	66	78	73
Breakdown calls	211	214	182	196	260
Total Service Calls	278	267	248	274	333

Training

This year the training emphasis was placed on emergency vehicle repairs and EVT certification testing. To that end we helped form HEAT (Heartland Emergency Apparatus Technicians Association). The intent of the association is to bring affordable training to the area. We held our first training and testing session in October at Sedgwick County Fleet Maintenance. The City of Lawrence had three technicians participate in the training and completed the electrical certification tests for fire apparatus and ambulances.

Another specialized training session held in October, attended by city technicians, was hosted by Pierce Manufacturing. This training covered aerial testing, command zone multiplexing, Onan generator repair, and Oshkosh Fourtrax suspension systems.

Five city technicians participated in the ASA Visions Conference in Overland Park earlier in the year. This is a weekend training session. The technicians donate their personal time to attend this conference every year. Other training sessions held on an individual basis by vendors included Snap-On Modius diagnostic training and Car Quest Evaporative Emissions Training. These are evening classes again the technicians donate their time to attend.

Recycling

We continue to recycle the following: office products, cardboard, copy / computer paper, and magazines. We have now added plastic bottles and cans that we recycle through the bargain center at 12th and Haskell. A break down of oil, antifreeze and battery program is below.

Used oil products

Burned in our waste oil heater - 1361 gallons

Recycled through Midland Clearwater Refinery - 4250 gallons

Oil recycled through Midland is oil collected from the public at our facility.

Antifreeze

We recycled 430 gallons of anti-freeze from fleet vehicles. Besides being the right thing to do for the health of the planet, recycling coolant saves money. The average cost of virgin coolant in 2007 was \$2.00 per quart. Recycling our anti-freeze cost only \$.68 per quart. *A savings of \$567.60 for the 430 gallons recycled.*

Air Filters

The garage started a pilot program of recycling air filters for the larger trucks and equipment in 2005. A vendor from Springfield, Mo. picks up the filters, cleans and pressure tests them, then returns them to the garage. We reused 86 air filters in 2007 at a cost of \$1,530.45 - *a savings of \$1,092.68* over the purchase price of new filters.

Batteries

All automotive type batteries are recycled by Interstate Batteries.

Flash light type batteries are recycled through Household Hazardous Waste.

Motor Pool Operations

Central Maintenance continues to operate six vehicles and one tow behind air compressor for rental to departments when one of their vehicles is in for service or when a department needs to send a group of people to a meeting or training session. These vehicles are older units and include a seven-passenger van, a fifteen passenger bus, Dodge Intrepid, 1 ton plow truck, and two pickups. The motor pool rentals totaled **243** days this year at an income of **\$4,920.00**.

In Sourcing

We have completed our third full year of selling fuel to the Lawrence-Douglas County Housing Authority. Their fuel purchases totaled \$16,493.11.

FLEET

Active Units in the City Fleet as off 12/31/07 **673**

Additions to the fleet in 2007

DIVISION	VEHICLE TYPE	NUMBER
PD	Crown Victoria	4
PD	Undercover vehicles	2
Fire Med	F-250 Super Crew	1
Fire Med	Freightliner Ambulance	1
Parks Forestry	John Deere Gator TX	1
Parks Forestry	JCB Backhoe*	1
Parks Forestry	Club Car Utility ATV	1
Utility Engineering	Compact Pickup	1
Utility Engineering	Chevy Lumina #168 **	1
Utility Engineering	Ford F 150 #740 **	1
Utility Engineering	Taurus #608 **	1
Sanitary Sewer	Chevrolet 3500 #744 **	1
Waste Water	Ford F 150 #255 **	1
Waste Water	Taurus #858 **	1
Waste Water	Ford F 150 #859 **	1
Waste Water	Taurus #609 **	1
Clinton Production	F150 Pickup	1
Solid Waste	IH 7600 Roll Off	1
Parking Control	GEM Electric Car ***	1

* = Temporary addition when unit 552 is no longer cost effective to operate it will not be replaced.

** = These vehicles were transferred to assist Utility Department reorganization and expansion. Their fleet is currently being evaluated and should be right sized in 2008.

*** = This unit is being evaluated for use in this position. When the evaluation period is over if acceptable this unit will replace #142. 142 will be reassigned and older unit eliminated.

Miles Driven by Department

Fire/ Medical	303,962
Miscellaneous(Admin. B. I., Transit, Planning, Etc.)	146,613
Police	1,054,022
Public Works	953,213
Parks and Recreation	286,344
Utility	303,562
Total Miles	3,047,716

Off Road Equipment Usage by Hour Meter

Public works	12,134
Parks	6,442
Utility	3,137
Fire	66
Total Hours	21,779

OPERATIONS

Repair Orders completed	2,987
Preventative Maintenance Orders completed	1,472
Total number of hours billed	18,679

BILLING

Total Labor	\$942,040.23
Total Parts	\$747,578.79
Commercial (Sublet)	\$ 97,778.16
Misc.	\$ 28,608
<i>Total dollars billed for repairs</i>	<i>\$1,816,005.18</i>

BILLING	2005	2006	2007	Increase over 2006
Total labor	\$602,650.85	\$746,300.05	\$942,040.23	\$195,740.18
Total Parts	\$739,620.65	\$837,123.23	\$747,578.79	-\$85,544.44
Commercial (Sublet)	\$144,034.12	\$171,002.77	\$97,778.16	-\$73,224.61
Misc.	\$25,768.00	\$25,440	\$28,608	\$3,168
Total dollars billed for repairs	\$1,512,073.62	\$1,779,866.05	\$1,816,005.18	\$36,139.13

Fuel Usage

Total gallons of unleaded = 211,273.2

Total gallons of diesel = 255,374.8

Total gallons for the year = 466,648.00

Total unleaded gasoline sold	\$550,708.48
Total diesel fuel sold	\$704,209.23
<i>Total fuel sales</i>	<i>\$1,254,917.71</i>

Total Operational Billing 2007

\$3,072,600.05

(See monthly detail on next page)

**CITY OF LAWRENCE / CENTRAL MAINTENANCE
SUMMARY INFORMATION FOR INCOME STATEMENT**

Date Mm/yy	*----- Fuel and Fluids -----*							*----- Repairs -----*					Month Totals
	*----- Gallons	Unleaded Avg.	Cost	*----- Gallons	Diesel Avg.	Cost	Fluids Cost	Parts	Labor	Commercial	Misc.	Repair Totals	
01/07	17,672.2	\$2.061	\$36,415.48	23,491.8	\$2.370	\$55,680.74	\$0.00	\$69,867.69	\$61,084.50	\$9,524.26	\$2,616	\$143,092.45	\$235,188.67
02/07	15,880.0	\$2.033	\$32,286.12	19,197.4	\$2.347	\$45,059.33	\$336.75	\$67,971.44	\$48,111.00	\$2,878.95	\$2,352	\$121,313.39	\$198,995.59
03/07	16,316.9	\$2.228	\$36,360.99	19,361.0	\$2.474	\$47,896.76	\$284.83	\$76,812.49	\$67,672.50	\$16,182.96	\$2,440	\$163,107.95	\$247,650.53
04/07	18,455.1	\$2.486	\$45,887.62	21,362.8	\$2.591	\$55,344.87	\$153.63	\$96,755.45	\$74,189.50	\$5,620.21	\$2,312	\$178,877.16	\$280,263.28
05/07	18,643.5	\$2.789	\$51,991.71	20,633.8	\$2.861	\$59,032.84	\$35.36	\$76,445.32	\$52,442.50	\$12,560.81	\$2,640	\$144,088.63	\$255,148.54
06/07	17,413.0	\$2.952	\$51,408.35	20,089.8	\$2.697	\$54,188.00	\$96.96	\$74,229.86	\$51,317.78	\$13,979.42	\$2,328	\$141,855.06	\$247,548.37
07/07	20,283.8	\$2.780	\$56,379.85	21,445.9	\$2.701	\$57,923.41	\$66.98	\$90,767.92	\$60,597.97	\$10,842.70	\$2,360	\$164,568.59	\$278,938.83
08/07	21,086.4	\$2.694	\$56,809.63	23,196.9	\$2.749	\$63,762.68	\$37.94	\$95,612.09	\$95,510.51	\$6,170.10	\$2,704	\$199,996.70	\$320,606.95
09/07	16,334.6	\$2.798	\$45,708.39	19,305.8	\$2.912	\$56,217.21	\$101.59	\$81,375.63	\$54,690.50	\$5,011.76	\$2,184	\$143,261.89	\$245,289.08
10/07	17,132.5	\$2.731	\$46,781.13	21,438.8	\$2.976	\$63,810.98	\$75.18	\$74,836.07	\$57,053.03	\$3,402.50	\$2,232	\$137,523.60	\$248,190.89
11/07	16,347.1	\$2.847	\$46,545.59	20,307.4	\$3.114	\$63,246.79	\$225.03	\$60,926.56	\$56,134.00	\$9,810.09	\$2,056	\$128,926.65	\$238,944.06
12/07	15,708.1	\$2.810	\$44,133.62	25,543.4	\$3.212	\$82,045.62	\$262.91	\$76,439.71	\$68,775.00	\$1,794.40	\$2,384	\$149,393.11	\$275,835.26
Total:	211,273.2	\$2.607	\$550,708.48	255,374.8	\$2.758	\$704,209.23	\$1,677.16	\$942,040.23	\$747,578.79	\$97,778.16	\$28,608	\$1,816,005.18	\$3,072,600.05

REPORT DATE:1/8/2008

CITY OF LAWRENCE, KS - CENTRAL MAINTENANCE GARAGE
ORGANIZATION BILLING SUMMARY REPORT

BILLREP2 YEAR

BILLING YEAR: 2007

ORGANIZATION NAME	FUND	VEHICLES 25-32	UNLEADED 41-01	DIESEL 41-02	FLUIDS 41-03	TOTAL BILLED
CITY MANAGERS OFFICE	001-1020-512	20.00	0.00	0.00	0.00	20.00
PLANNING	001-1030-531	269.42	338.19	0.00	0.00	607.61
HUMAN RESOURCES	001-1040-541	184.29	51.92	0.00	0.00	236.21
RISK MANAGEMENT	001-1054-544	424.42	48.27	0.00	0.00	472.69
INFORMATION SYSTEMS	001-1070-557	1,588.31	718.45	0.00	0.00	2,306.76
POLICE - CHEIF	001-2110-561	8,836.57	6,006.80	0.00	0.00	14,843.37
POLICE - PATROL CARS	001-2120-561	155,098.59	211,889.49	0.00	0.00	366,988.08
POLICE - ADMINISTRATION	001-2130-561	16,555.42	16,678.93	0.00	0.00	33,234.35
POLICE - ADMINISTRATION	001-2141-561	4,130.34	4,972.12	0.00	0.00	9,102.46
ANIMAL CONTROL	001-2142-561	6,452.65	9,847.89	0.00	29.55	16,330.09
POLICE - ADMINISTRATION	001-2150-561	110.22	116.82	0.00	0.00	227.04
POLICE - TRAFFIC PATROL CARS	001-2160-561	15,292.38	14,359.12	502.60	0.00	30,154.10
FIRE & MEDICAL	001-2200-562	244,732.54	27,929.61	87,765.04	17.42	360,444.61
HEALTH FACILITIES	001-2500-565	1,536.27	485.15	0.00	0.00	2,021.42
STREET	001-3000-570	232,245.77	10,145.22	125,006.57	800.33	368,197.89
ENGINEERING	001-3100-571	11,505.51	9,245.84	0.00	7.12	20,758.47
TRAFFIC ENGINEERING	001-3200-572	21,063.72	14,291.68	67.38	0.00	35,422.78
AIR PORT	001-3300-573	1,481.52	0.00	290.59	0.00	1,772.11
PROPERTY MAINTENANCE	001-3400-574	5,131.82	3,583.50	0.00	0.00	8,715.32
LEVEE MAINTENANCE	001-3700-577	39,621.45	1,102.88	15,119.76	9.16	55,853.25
PARKS \ RECREATION \ FORESTRY	001-4510-591	160,939.99	56,602.91	34,400.86	109.20	252,052.96
CEMETERY - MEMORIAL PARK	001-4560-596	110.25	0.00	0.00	0.00	110.25
BUILDING INSPECTION	001-6300-503	2,863.10	1,498.79	0.00	0.00	4,361.89
CODES ENFORCEMENT	001-6310-501	4,895.89	2,424.47	0.00	0.00	7,320.36
BUILDING SAFETY	001-6330-503	4,848.58	5,635.39	0.00	0.00	10,483.97
PUBLIC TRANSIT	210-1014-514	284.26	519.20	0.00	0.00	803.46
RECREATION	211-4000-590	3,747.21	1,897.70	0.00	0.00	5,644.91
RECREATION - EAST LAW. CENTER	211-4005-590	1,142.25	492.68	0.00	0.00	1,634.93
RECREATION CLASSES	211-4010-590	0.00	205.12	0.00	0.00	205.12
RECREATION- SPECIAL	211-4040-590	4,826.31	0.00	1,029.04	0.00	5,855.35
RECREATION - SPECIAL EVENTS	211-4050-590	821.31	922.16	0.00	0.00	1,743.47
RECREATION - NATURE CENTER	211-4070-590	1,458.31	617.83	0.00	1.40	2,077.54
RECREATION - AQUATIC CENTER	211-4080-590	695.71	2,121.81	0.00	0.00	2,817.52
POLICE - SCHOOL CARS	213-2400-564	6,328.77	4,028.34	0.00	0.00	10,357.11
WATER COLLECTIONS	501-1069-559	13,436.02	18,598.70	0.00	0.00	32,034.72
WATER ADMINISTRATION	501-7100-580	924.38	205.68	0.00	0.00	1,130.06
WATER UTILITY ENGINEERING	501-7110-580	8,126.00	5,565.48	0.00	0.00	13,691.48
CLINTON PRODUCTION	501-7210-581	3,756.17	3,471.80	0.00	0.00	7,227.97
KAW PRODUCTION	501-7220-582	8,638.44	4,393.67	223.56	0.00	13,255.67
WASTEWATER TREATMENT	501-7310-583	23,121.14	7,892.27	1,537.32	8.76	32,559.49
SANITARY SEWER	501-7410-584	67,436.33	13,958.86	22,142.34	53.48	103,591.01
LABORATORY SERVICES	501-7510-585	2,509.14	2,207.46	0.00	0.00	4,716.60
DISTRIBUTION SYSTEMS	501-7610-586	71,400.43	23,491.31	24,029.05	30.22	118,951.01
RESIDENTIAL SANITATION	502-3510-571	260,087.38	12,894.41	194,553.54	159.29	467,694.62
COMMERCIAL SANITATION	502-3520-572	305,700.44	9,637.38	181,861.28	425.86	497,624.96
SOLID WASTE REDUCTION	502-3530-573	41,544.58	4,142.61	1,221.22	0.00	46,908.41
PARKING CONTROL	503-2300-563	5,791.68	4,066.57	0.00	0.00	9,858.25
CENTRAL GARAGE	504-3200-579	3,599.81	4,970.25	294.68	0.00	8,864.74
STORM WATER	505-3900-579	36,434.12	6,901.17	14,164.40	25.37	57,525.06
GOLF COURSE	506-4910-599	1,832.83	1,510.57	0.00	0.00	3,343.40
PUBLIC TRANSIT	611-1014-514	284.26	0.00	0.00	0.00	284.26
HOUSING\NEIGHBORHOOD DEV	631-6406-502	1,450.59	803.87	0.00	0.00	2,254.46
HOUSING\NEIGHBORHOOD DEV	631-6407-502	688.29	725.03	0.00	0.00	1,413.32
LAW-DOUGLAS HOUSING AUTHORITY	LDCHA93700	0.00	16,493.11	0.00	0.00	16,493.11
Total for Report:		1,816,005.18	550,708.48	704,209.23	1,677.16	3,072,600.05

Accidents, Criminal Acts and Vandalism

Accidents, criminal acts and vandalism involving City vehicles are broken out in the following table. We evaluate damages and send units to local body shops for estimates. The estimates are evaluated for completeness of repair and awarded to the lowest bidder. After the vehicles are repaired we check to make sure all repairs were completed in a satisfactory manor.

059	01/12/07	408.20	02-07-70045	Jim Clark
141	01/12/07	1522.23	RO26761	Pearson
412	01/19/07	355.00	RO26777	In house
428	02/01/07	1521.76	RO26896	In house
176	02/07/07	433.58	02-07-70066	Jim Clark
067	02/13/07	2,795.38	RO27027	Bryant
054	02/14/07	501.80	RO27057	Bryant
761	02/16/07	105.00	RO27068	In house
065	02/16/07	5712.39	02-07-70477	Dale Wiley
049	02/19/07	1004.55	02-07-70536	In house
064	02/20/07	181.86	RO27079	In house
320	02/21/07	771.35	RO27190	Bryant
195	03/02/07	496.40	02-07-70588	Bryant
563	03/28/07	488.00	RO27799	Bryant
662	04/03/07	658.05	FM2007-277	Bryant
330	04/06/07	485.36	RO27550	In house
171	04/16/07	669.70	RO27798	Pearson
460	04/16/07	4318.99	RO27628	Pearson
058	04/22/07	1707.20	02-07-71100	Allied
687	04/23/07	1651.75	FM2007-307	Luminous Neon

144	04/24/07	816.70	RO28514	Pearson
054	04/30/07	1876.57	02-07-7117	Bryant
055	05/07/07	2777.29	02-07-71344	Dale Wiley
404	05/14/07	563.61	02-07-71313	Allied
724	05/14/07	254.41	RO28320	In house
088	05/21/07	788.80	02-07-5746	Pearson
525	05/22/07	2441.84	02-07-71382	Pearson
057	05/29/07	1066.82	RO28041	Auto Glass/In house
534	06/07/07	676.20	RO28169	Dale Wiley
830	06/14/07	1115.00	RO28379	Allied
053	06/29/07	2104.38	RO28524	Bryant
264	07/13/07	1244.40	RO28616	Dale Wiley
756	07/18/07	1342.99	RO28530	Pearson
068	08/03/07	623.87	02-07-71849	Pearson
524	08/03/07	495.12	RO28866	Pearson
156	08/22/07	494.95	RO28926	Dale Wiley
580	08/22/07	350.00	RO28593	Pearson
539	08/27/07	676.03	RO29023	Pearson
053	09/04/07	491.80	RO29124	Pearson
307	09/11/07	950.88	02-07-12561	In house
176	09/13/07	75.89	RO29129	In house
177	09/13/07	91.07	RO29130	In house
722	09/13/07	70.77	RO29135	In house
232	09/24/07	768.62	RO29252	In house

691	09/25/07	60.00	FM476	In house
158	09/25/07	936.00	02-07-4176	Bryant
049	11/02/07	65.00	RO29611	In house
345	12/06/07	4350.50	RO29937	In house
744	12/17/07	265.28	RO30041	In house

Things we have to do just to get to the area that needs repair.

Case / IH tractor transmission repair



Chevrolet S 10 heater core replacement



Two baby raccoons asleep on an engine in the shop



Tim Merchant demonstrating new tire lift

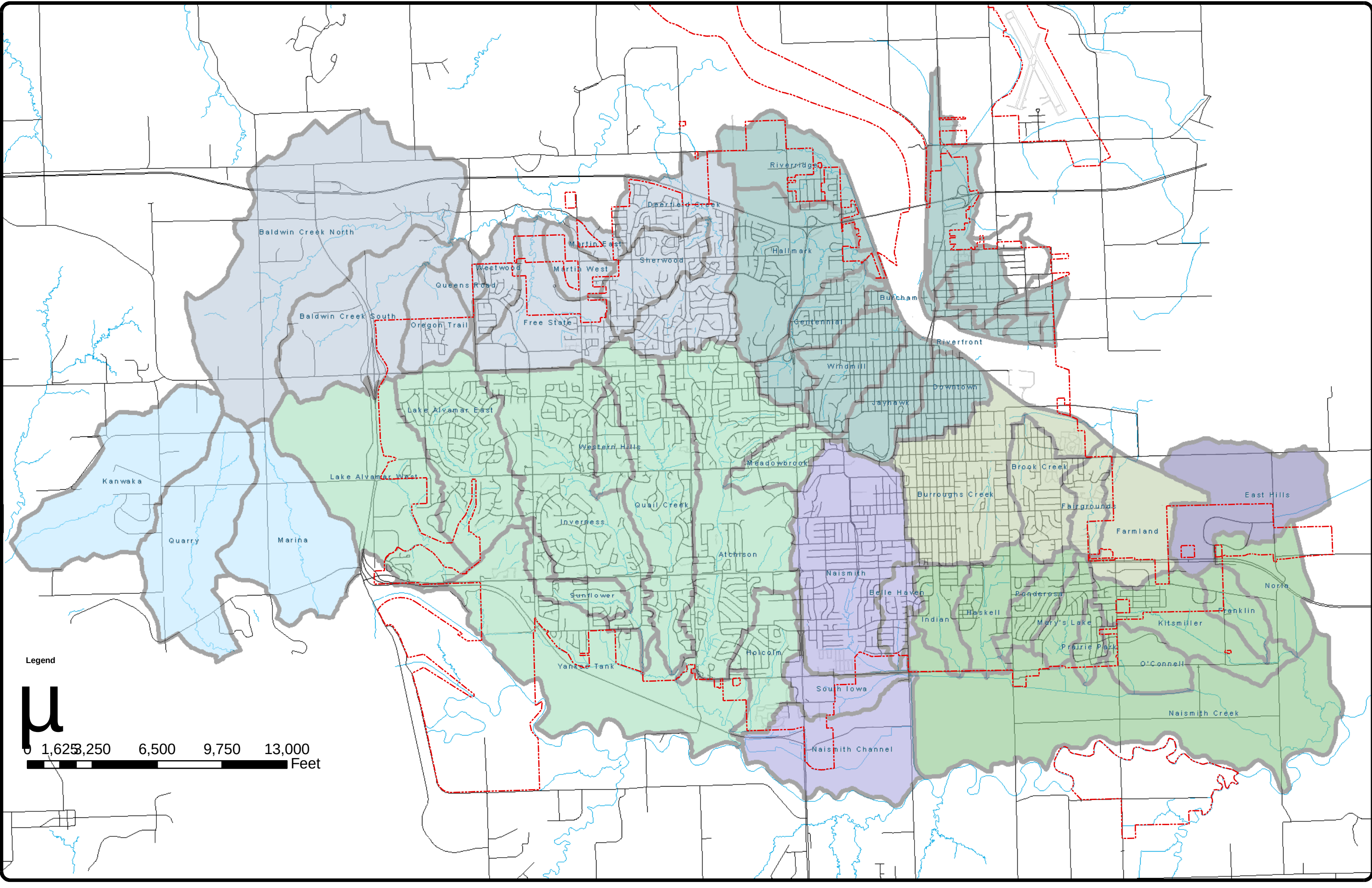


Gray Portable Lift System Demonstration



Winter Space Issues





Baldwin Creek North

Baldwin Creek South

Kanwaka

Quarry

Marina

Lake Alvarado West

Lake Alvarado East

Oregon Trail

Queens Road

Free State

Westwood

Martin West

Martin East

Deerfield Creek

Sherwood

Riverridge

Hallmark

Burham

Centennial

Riverfront

Windmill

Jayhawk

Downtown

Meadowbrook

Quail Creek

Inverness

Sunflower

Yankee Tank

Atchison

Naismith

Belle Haven

Indian

Haskell

Ponderosa

Mary's Lake

Prairie Park

Franklin

Kitson

O'Connell

Naismith Creek

East Hills

Farmland

Brook Creek

Burroughs Creek

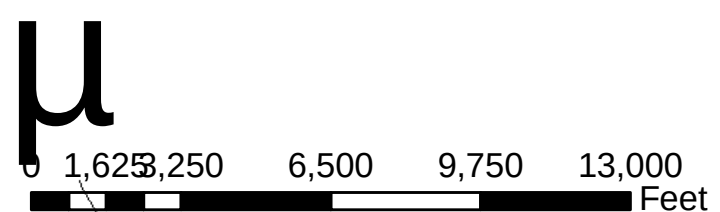
South Iowa

Naismith Channel

Holcolm

Noria

Legend

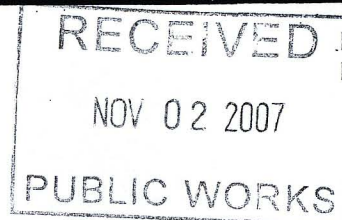


KRMCA

Kansas Ready Mixed
Concrete Association

KAPA

Kansas Aggregate
Producers' Association



October 30, 2007

Mr. Ed McNeive
City of Lawrence

Dear Ed:

Thank you for your entry into the 2007 KRMCA Municipal Concrete Awards Program. Awards for the quality entries will be presented to the recipient cities, Friday, January 18, at the Awards Luncheon for the Kansas Ready Mixed Concrete Annual Convention. Awards presentation and lunch is scheduled for 12:00 pm at the Marriott Hotel in Overland Park, 10800 Metcalf. Please RSVP to Wendy Harms at 785/235-1188 if you are able to attend the awards banquet.

The following cities will receive award plaques:

City of Hays- 8th Street Improvements

City of Lawrence- Lake Pointe Drive Roundabout

City of Lindsborg- Välkommen Hike & Bike Trail

Shawnee County Parks & Recreation- Lake Shawnee Trail

City of Wichita- Kellogg Ave. & Woodlawn Interchange

City of Beloit- Mill Street Improvements

City of Junction City- I-70 & Washington Street Roundabout

City of Clay Center- US 24 Geometric Improvements

City of Lawrence- Kasold Drive Reconstruction

These entries will be automatically entered into the American Concrete Institute Concrete Construction Awards Program.

Congratulations!

John E. Pendry
KRMCA Promotion and Marketing Chairman

Community Compost Giveaway: Fall 2007 RESULTS

The City's Fall Compost Giveaway was held on Thursday and Friday, October 25th and 26th from 8:00 a.m. to 3:00 p.m. and on Saturday, October 27th from 8:00 a.m. to 4:00 p.m. Thursday was sunny and 60 degrees, Friday was overcast and drizzling, and Saturday was sunny again and about 65 degrees. The compost given away was a mix of this year's April and May composted yard trimmings. Additional compost was on site (June/July), but was not intended for distribution because it had yet to be screened.

A total of 725 vehicles entered our facility over the three-day period (Table 1). The Compost Giveaway started with approximately 1,260 cubic yards of compost from April and May yard trimmings that was screened, tested, and ready for distribution. At the end of the day on Saturday, there was approximately 70 cubic yards of the compost left. This translates to about 1,550 tons of compost distributed to the community over the three-day period.

Table 1: Number of new and repeat customers each day and the total over the three-day period.

	Thursday, Oct. 25th	Friday, Oct. 26th	Saturday, Oct. 27th	Total (all three days)
New Customers	148	96	137	381
Repeat Customers	83	129	132	344
Total (each day)	231	225	269	725

Well organized traffic queuing ensured safe access, egress, and loading for a variety of vehicle types. There were no accidents at this giveaway.

A smaller pile of compost on the north side of the pad was created to accommodate self-loaders.



The majority of vehicles through our facility were trucks, which were loaded with either of two front end loaders.



HOM ENERGY CONSERVATION FAIR 2007

On October 13th, 2007 the City's Waste Reduction and Recycling Division hosted the **7th Annual Home Energy Conservation Fair and Sustainable Homes Tour**. Attendees learned about ways to reduce energy consumption within their homes. Our Division's goal was to help citizens lower their utility expenses, with the added benefit of lending a healing hand to Lawrence's natural environment. Our list of over forty exhibitors with professional expertise included local builders, architects, engineers, insulation contractors, and home energy efficiency specialists. Businesses offering residential wind and solar energy systems were also present. A variety of alternative fueled vehicles were on display at Free State High School, accompanied by individuals prepared to answer questions about the vehicles' operating systems and fuel needs. In addition to these exhibitors a line-up of guest speakers gave presentations throughout the day as an additional service to the community. Perhaps the greatest highlight of the Fair was this year's Sustainable Homes Tour, which gave the opportunity to see many exhibitors' systems in action.

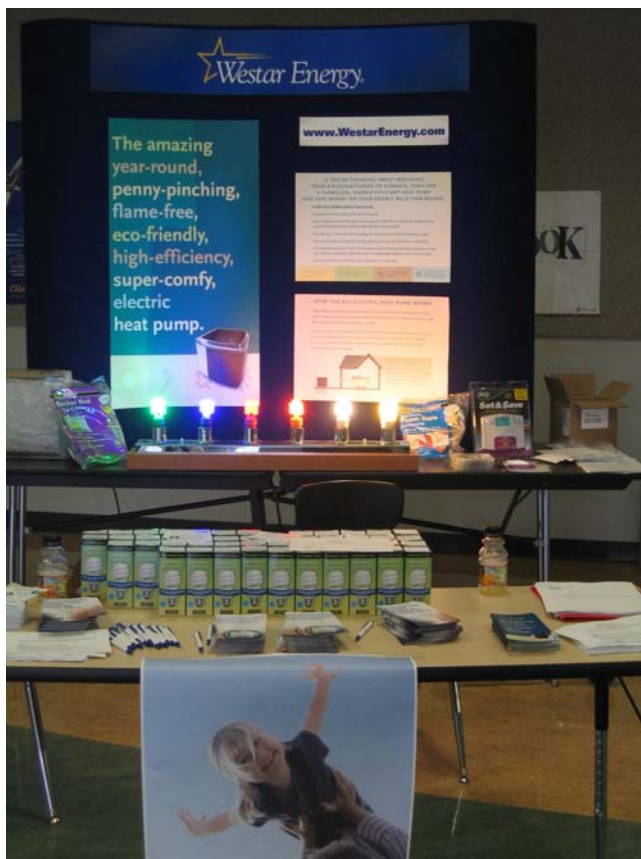




Early in the day, the City's Waste Reduction and Recycling Division was represented by the cheery face of Tammy Parris.

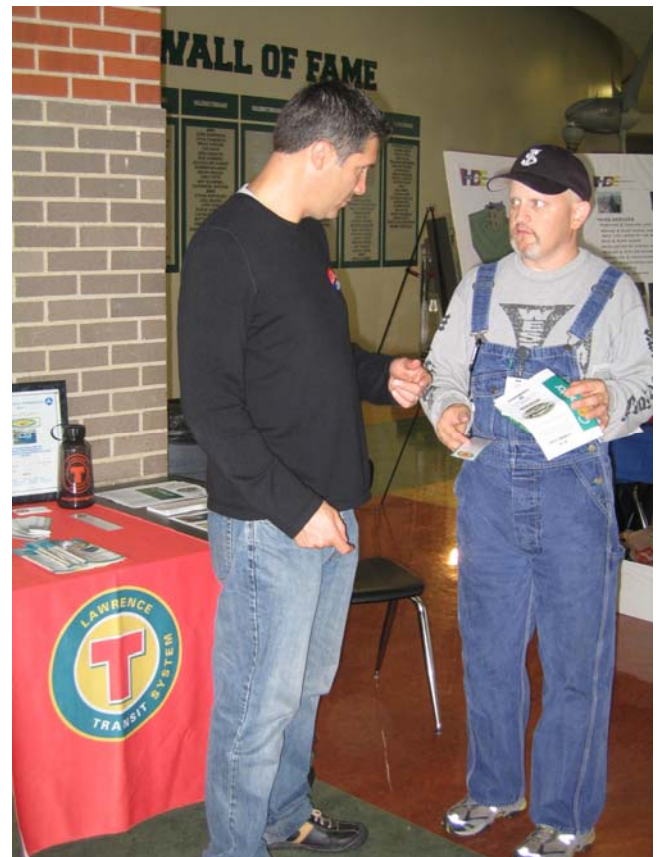


Steve Hughes of Hughes Consulting Engineering P.A., also a Premier Sponsor, was on hand to explain the tremendous financial and environmental benefits of energy alternatives.



Westar Energy attended to promote the "ENERGY STAR Change a Light Pledge", and gave away free compact fluorescent bulbs all day to attendees.





The Lawrence Transit System had a booth at the Fair and also supported fuel conservation by contributing the option to “Ride the T for Free!” all day on Oct. 13th. Auto exhibitors also ‘generated’ interest in energy efficient fuel and transportation alternatives.

Lawrence, Kansas Outfalls

 Outfall Locations

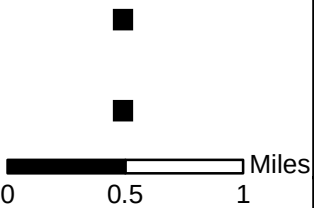
 Storm Pipe

 Stream

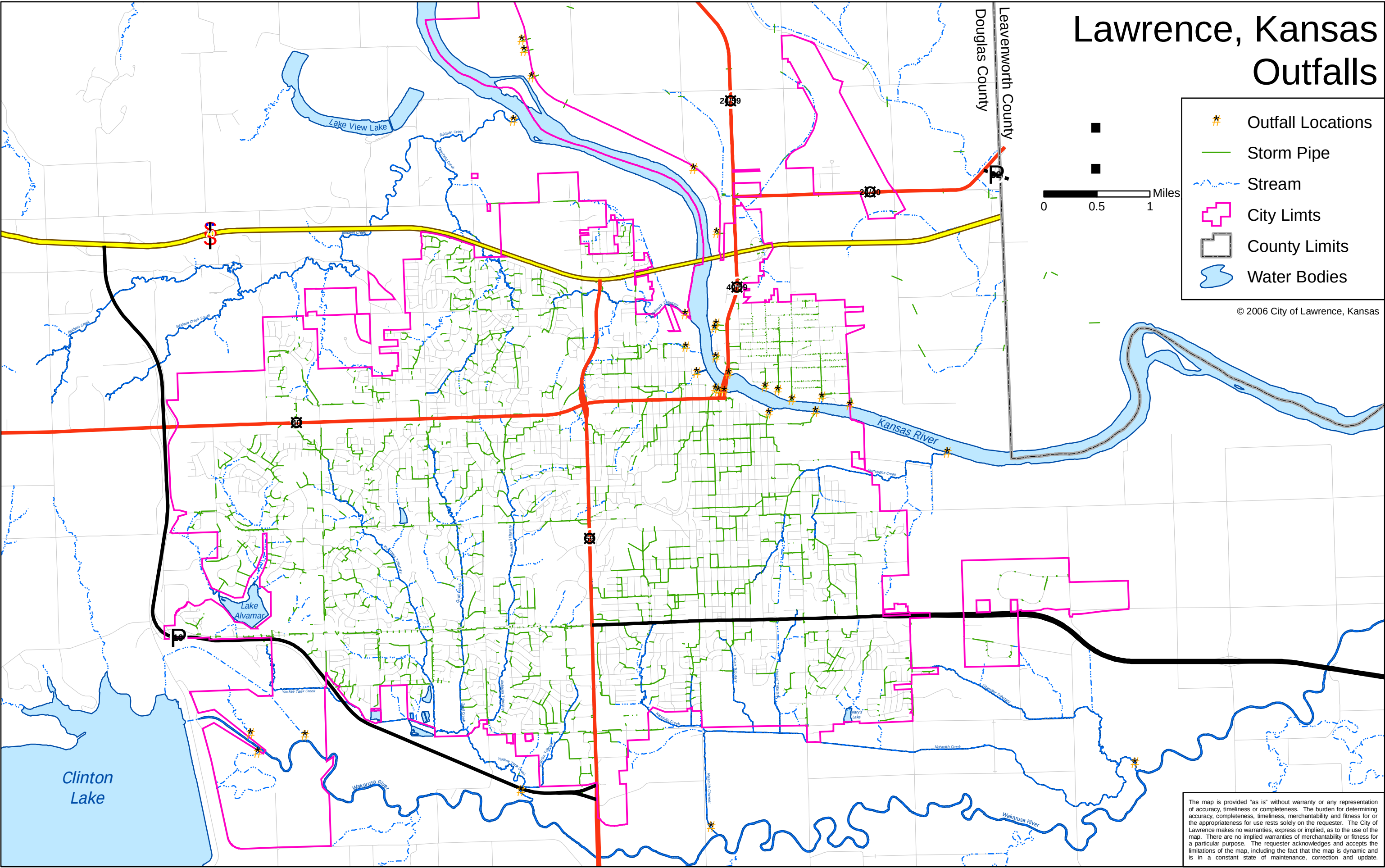
 City Limts

 County Limits

 Water Bodies



© 2006 City of Lawrence, Kansas



Burcham Park Stormwater Improvements





Stormwater Projects on Maple Street in North Lawrence





Memorandum
City of Lawrence
Public Works Department

TO: Dave Corliss, City Manager
FROM: Dena Mezger, Assistant Public Works Director
CC: Cynthia Boeker, Asst. City Manager; Diane Stoddard, Asst. City Manager; Charles Soules, Public Works Director; Steve Lashley, Project Engineer – Infrastructure Management
Date: December 5, 2007
RE: 2007 Pavement Maintenance Program Summary Report

The 2007 Pavement Maintenance Program consisted of four contracts: Cracksealing, Microsurfacing, Phase 1 Mill & Overlay, and Phase 2 Mill & Overlay. Work is now complete on all projects. Final accounting and paperwork is underway for the Phase 2 Mill & Overlay project. Budget amounts and final contract amounts are indicated below. Bid prices were better than expected so all of the budgeted funds were not expended. Additional funding allocated to pavement maintenance was not budgeted for the contracted work in order to allow for construction contingencies and minimize use of the city's reserve fund accounts.

In addition to these contracts, funds from the pavement maintenance program were used to reconstruct 4th Street between Maine and Michigan in association with the LMH expansion project, surface seal the taxiway at the airport in cooperation with work by KU near its hangar, and pay for materials utilized by Street Division crews in repairing sections of concrete pavement not addressed in the contracted maintenance program. Other savings for this year's program were realized due to delays in development projects involving city participation such as the Miracon Plaza project at Clinton Pkwy. and Wakarusa. Funding for those projects will be needed in 2008, however, assuming the development projects move ahead.

Contract	Contractor	Budget Amount (\$)	Actual Amount (\$)
Cracksealing	Mo. Pavt. Maint.	\$ 300,000	\$ 279,216
Microsurfacing	Vance Bros.	\$ 600,000	\$ 534,804
KLINK (Iowa)	LRM	\$ 650,000	\$ 457,383
Phase 1 Mill & Overlay	Ks. Heavy Const	\$1,000,000	\$ 882,251
Phase 2 Mill & Overlay	LRM	\$1,250,000	\$ 1,193,955
	TOTAL	\$3,800,000	\$ 3,347,609

Work performed through the 2007 contracted maintenance program included:

Crackseal material installed	269,000 lbs. over approx. 104 miles
Lane miles of microsurface streets	25.8
Lane miles of mill & overlay streets	15.8
Miles of curb & gutter replaced	6.6

By utilizing microsurfacing as another maintenance technique the total length of resurfaced streets was increased while staying within the desired budget. In 2006, using

only mill and overlay for resurfacing, approximately 25.6 total lanes miles were completed. In 2007 a total of 41.6 lane miles were resurfaced by using a combination of microsurfacing and mill and overlay.

Project Status

The work is essentially complete but there are still portions of the project areas that require some correction. Although materials were acceptable, workmanship in several areas was not satisfactory and some of the new curb and gutter was damaged by the contractor's equipment. Some of the problems are aesthetic in nature and, although not the highest quality, do not affect the life of the facility or improvement. However, most of the unacceptable workmanship identified by staff has the potential to negatively impact the life of the new pavement or curb and gutter and result in maintenance by the city much earlier than should be expected. Staff does not believe it is in the best interest of the city to accept and pay for unsatisfactory workmanship that can affect the long-term performance of the improvements.

Photographs of some of the problems areas are attached along with photos of properly installed materials. The corrective work will have to be completed next spring when temperatures are more conducive to asphalt paving. Until then, staff will retain funds adequate to cover the cost of the corrections until all work that could affect the life of the improvements is satisfactorily completed.

Impact of Pavement Maintenance Program

In order to assess the success of the contract maintenance program, the Pavement Condition Index (PCI) was evaluated for an area where a considerable amount of maintenance has been completed. The southeast portion of the city, generally south of 23rd Street and east of Iowa, has had maintenance performed on a number of streets. The majority of streets in the area are asphalt pavements that are candidates for the preventative maintenance measures provided by the contract maintenance program. This allows a relatively accurate picture of the impact of the preventative maintenance program when applied appropriately. The average PCIs for the area are shown below at various milestones in the maintenance program.

Milestone	Program Year(s)	Primary Maintenance Performed	Maint Cost	Avg. PCI
Rating Cycle 1				67.97
	2005-2006	Cracksealing; some M&O	\$ 801,468	
Rating Cycle 2				67.57
	2007	Microsurface; M&O	\$1,359,979	
End of 2007				82.67

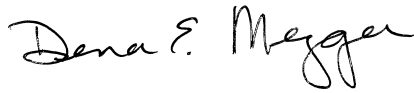
Based on citywide averages, without preventive maintenance, PCIs for residential streets generally decline at a rate of 3.2/year, collectors at a rate of 6.3/yr, and arterials at a rate of 5.6/yr. The very small decline in average PCI between Cycle 1 and Cycle 2 appears to indicate the maintenance activities helped slow the deterioration rate of the streets in this area. The 22% increase in average PCI from Cycle 2 to 2007 indicates the value of microsurfacing and mill and overlay in improving and maintaining the condition of the streets.

2008 Program Planning

Staff is currently developing the plan for the 2008 contract maintenance program. Considerations in developing the list include coordination with other projects underway in the city. In conjunction with the 19th & Louisiana project, sections of 19th Street between Massachusetts and Naismith will be included, along with Louisiana between 17th & 19th for mill and overlay. Also anticipated for 2008 mill and overlay are Massachusetts - 6th to 11th, and 14th to 23rd; 7th Street from Vermont to New York; and the residential area southeast of 23rd and Louisiana. Cracksealing efforts will generally be focused in the northern parts of the city (including north Lawrence). Microsurfacing will continue primarily south of 23rd St. and west of Iowa with limited areas farther east.

Staff members will be glad to answer any questions about this information.

Respectfully Submitted,

A handwritten signature in black ink that reads "Dena E. Mezger". The signature is written in a cursive, flowing style.

Dena E. Mezger, P.E.
Assistant Public Works Director

Attachment – Photos of project areas

Examples of Acceptable Workmanship



Properly finished pavement edges should abut tightly against the gutter and be level with the top of the concrete. No ragged edges or loose material should be left along the joint.



Pavement surface should be relatively “tight” without areas of large aggregate on the surface or very porous appearance.



Surface should appear smooth. Seams and roller marks should be generally unnoticeable.

Examples of Unacceptable Workmanship



Edges that are raised above the adjacent gutter, and have ragged edges with loose material exposed are vulnerable to raveling and damage resulting in potholes and loss of pavement along the edges of the roadway.





Noticeable roller marks and joints with loose material and porous surface.



Gaps between the edge of the asphalt and the gutter allow water to infiltrate into the subgrade creating a greater potential for future base failures which require major patching. (This joint was sealed but that is not considered the best long-term solution.)



Very porous surface can result in the large aggregate pieces popping out. The holes can fill with water and freeze-thaw cycles can result in larger potholes.

Inadequate rolling and compaction, loose aggregate and porous surface result in rough surface areas like this which will deteriorate faster and can be easily damaged by snow plows.



Edge of new curb & gutter damaged by milling machine is vulnerable to more rapid deterioration.



Area marked in pink is excess concrete ("slobbers") that prevent adequate depth of overlay at the edge of the pavement.



Back of curb and front edge of gutter do not align on each side of joint.



Concrete slab around manhole has imprints of creases in plastic sheeting used for protection from weather. (Example of aesthetic rather than functional issue.)



City of Lawrence
**Rain Garden
Construction**

Location: SWAN,
320 NE Industrial Ln,
Lawrence, KS

May 2007









