

# Engineering -- City projects, 1999 to current

City projects requiring engineering services

PROJECT NO.	PROJECT NAME	TYPE OF PROJECT	ENGINEER	DESIGN FEE
<b>2003 PROJECT LIST</b>				
39-ST7-703(C)	North Lawrence	Drainage Study	HNTB	\$ 282,333.00
<b>2002 PROJECT LIST</b>				
15-SS4-202(C)	Anna Hope Area	Sanitary Sewer Study	Bartlett&West	\$ 24,686.00
34-SS9-502(BD)	Riverside Business Park	Sanitary Sewer	Bartlett&West	\$ 77,815.33
54-A11-802(C)	Airport T-Hangar Improvements	T-Hangar	Landplan	\$ 48,000.00
62-ST8-1002(C)	27th Street to Saratoga Place	Storm Sewer	Delich, Roth	\$ 27,534.00
<b>2001 PROJECT LIST</b>				
12-SS3-201(C)	Lot 1, Firehouse Station No. 2	Sanitary Sewer		
19-ST3-301(C)	13th and Oregon	Stormwater Improvements	TerraTech	\$ 264,235.80
20-ST4-301(C)	15th and Lawrence Avenue	Stormwater Improvements	TerraTech	
21-ST5-301(C)	21st, Kentucky to Barker Court	Storm Sewer	Bartlett&West	\$ 196,748.00
21-ST5-301(C)	21st, Kentucky to Barker Court (box culverts)	Storm Sewer	Bartlett&West	\$ 196,748.00
22-ST6-301(C)	21st, Stewart Avenue to Naismith Drive	Storm Sewer	Landplan	\$ 126,750.00
26-SI1-301(C)	6th and Lawrence Avenue	Traffic Signal	PEC	\$ 16,300.00
27-SI2-301(C)	Clinton Parkway and Lawrence Avenue	Traffic Signal	PEC	\$ 13,100.00
29-ST8-301(C)	Downtown 2000, New Hampshire	Storm Sewer	Landplan	
30-CP6-301(C)	Downtown 2000, New Hampshire	Street	Landplan	
38-SW1-501(C)	12th and Mississippi	Stairs	Structural/geotechnical expertise	EBH \$ 15,730.75
38-SW1-501(C)	12th and Mississippi	Stairs	Structural/geotechnical expertise	Bartlett&West \$ 12,500.22
50-SS19-901(C)	Est Hills Business Park	Sanitary Sewer	Landplan	\$ 14,850.00
56-CP12-901(C)	Barker Ave, 16th to 22nd; 17th & New Hamp	Roundabout, Ped Islands	Roundabout experience required	TranSystems \$ 80,605.00
63-SS20-1101(C)	Baldwin Creek No. 1	Sanitary Sewer		
64-PW2-1101(C)	Household Hazardous Facility	Waterline Improvements		
<b>2000 PROJECT LIST</b>				
28-SS5-400(C)	Lots 6 and 7, Block 3, Ashbury Addition	Sanitary Sewer Improvements		
29-SS6-400(C)	Habitat Neighborhood Addition No. 4	Sanitary Sewer Improvements	Landplan	
	15000 Habitat Neighborhood Addition No. 4	engineers, design techs, one for survey crew, \$2500 each	Landplan	
43-SW1-700(C)	Neighborhood (Haskell, 23rd, 19th, Harper, etc)	Sidewalk Improvements	EBH	
63-PW1-1000(C)	Public works Facility on Wakarusa Dirve	Site Development	Bartlett, West	\$ 12,100.00
74-SW4-1100(C)	Louisiana, 18th to Broken Arrow Park	Sidewalk Improvements	EBH	\$ 25,381.25
78-ST18-1100(C)	Yankee Tank East Tributary (Atchison Avenue)	Hydraulic Study		
83-ST19-1200(C)	8th Street, New York to New Jersey	Storm Sewer Improvements	Landplan	\$ 9,500.00
<b>1999 PROJECT LIST</b>				
	15000 Louisiana, 19th to 31st	Traffic Study	modeling/ simulation programming needed	Wilson & Co. \$ 73,472.00
4-SI1-199(C)	Traffic Signal Master Plan	6th, Iowa, 23rd	TranSystems	\$ 60,108.00
7-ST1-299(BD)	6th and Maine (Lawrence Medical Plaza)	Storm Sewer	Landplan	\$ 27,000.00
28-SS7-499(C)	Free State High School Aquatic Center	Sanitary Sewer	Landplan	

42-CP8-699(C)	Fuel Station Road	Street, Storm Sewer		Landplan	?
59-CP17-899(C)	East 8th Street (Wastewater Plant)	Street, Storm Sewer	inc w/ WW plant imp	B&V	?
71-PG1-1099(C)	Parking Garage	Repairs		Walker	
75-TS2-1199(C)	23rd Street, Iowa to Noria Road	Access Management Study		TranSystems	\$ 187,500.00
77-SS23-1199(C)	East Hills Business Park. Lot 3, Block 2	Sanitary Sewer		Landplan	\$ -
80-TS3-1199(C)	Barker Nighborhood	Traffic Study		TranSystems	\$ 15,800.00
84-SI2-1299(C)	23rd and Alabama	Traffic Signal Improvements		PEC	\$ 24,900.00
85-SI3-1299(C)	Harvard and Iowa	Traffic Signal Improvements		PEC	\$ 9,880.00

**Total Design Fees: 1999 to 2004 ytd**

**\$ 1,843,577.35**

# Engineering -- Benefit District projects, 1999 to current

## Benefit District projects requiring engineering services

PROJECT NO.	PROJECT NAME	TYPE OF PROJECT	ENGINEER	DESIGN FEE
<b>2003 PROJECT LIST</b>				
4-CP1-103(BD)	Crossgate Drive, north of Clinton Parkway	Retaining Wall, Street	BG Consult.	\$ 19,897.68
32-CP6-603(BD)	Monterey Way, Peterson Road to Grand Vista Dr	Street, Storm Sewer, Waterline	due to grade/util tied to Monterey S / Peterson	Landplan \$ 168,920.00
33-CP7-603(BD)	Peterson Road, Kasold Drive to Monterey Way	Street, Storm Sewer, Waterline	due to grade/util tied to Monterey N /S	Landplan \$ 211,750.00
34-CP8-603(BD)	Kasold Drive, Peterson Road to Grand Vista Dr	Street, Storm Sewer, Waterline	5 yr plan	
35-GI2-603(BD)	Kasold Drive, and Peterson Road	Geometric Improvements	Landplan	\$ 24,000.00
45-CP10-903(BD)	Harvard Road, GWW east 500 feet	Street, Storm Sewer, Waterline	Tied to GWW	Bartlett&West \$ 47,433.75
47-SS15-903(C)	Western Hills, Lot 38	Sanitary Sewer	City	\$ -
<b>2002 PROJECT LIST</b>				
3-CP1-102(BD)	Monterey Way, Stetson Dr to Peterson Road	Street, Storm Sewer, Waterline	due to grade/util tied to Monterey N /Peterson	Landplan \$ 110,075.00
23-CP6-402(BD)	Overalnd Drive, Wakarusa to Queens	Street, Storm Sewer, Waterline	Tied to Congressional and development	Peridian \$ 105,800.00
24-CP7-402(BD)	Congressional Drive, 6th to Overland	Street, Storm Sewer, Waterline	Tied to Overland and development	Peridian \$ 54,997.00
34-SS9-502(BD)	Riverside Business Park	Sanitary Sewer	Bartlett&West	\$ 77,815.33
35-TS3-502(BD)	31st and Neider Road	Traffic Signal	Extensive geometrics/ signal coordination	HNTB \$ 88,300.00
56-GI3-802(BD)	6th and Comet Lane	Geometric	BG Consult.	\$ 27,517.86
57-CP13-802(BD)	George Williams Way	Street, Storm Sewer, Waterline	project too large	Bartlett&West \$ 185,908.50
66-SS20-1002(BD)	Oread Center (16th and Wakarusa)	Sanitary Sewer	Landplan	\$ 10,086.00
67-CP16-1002(BD)	Oread Center (16th Street)	Street, Storm Sewer, Waterline	Landplan	\$ 18,561.00
72-CP18-1002(BD)	Oread Center (Research Park Drive)	Street, Storm Sewer, Waterline	alignment dependent on Plat	Landplan \$ 18,336.00
73-CP19-1102(BD)	Folks Road, 6th to Harvard	Street, Storm Sewer, Waterline	Peridian	\$ 67,305.00
76-SS24-1102(BD)	The Malls, 23rd and La., Dunkin Donuts	Sanitary Sewer	Bartlett&West	\$ 4,850.00
78-CP20-1202(BD)	East 11th, Haskell east to RR tracks	Street, Storm Sewer	BG Consult.	\$ 37,432.00
<b>2001 PROJECT LIST</b>				
15-SS6-201(BD)	Westwood Hills	Sanitary Sewer	Landplan	\$ 210,368.75
55-CP11-901(BD)	Wakarusa Drive, Overland to Dole	Street, Storm Sewer, Waterline	Landplan	\$ 184,000.00
62-CP13-1101(BD)	George Williams Way, south of 15th	Street, Storm Sewer	Landplan	\$ 32,000.00
<b>2000 PROJECT LIST</b>				
	15000 Comet Lane, 6th Street south 850 feet	engineers, design techs, one for survey crew, \$2500 each	Landplan	\$ 29,000.00
3-CP2-100(BD)	7th Street, Comet Lane to Monterey Way	Street, Storm Sewer	Landplan	\$ 23,000.00
4-CP3-100(BD)	24th Street, Crossgate Drive to Inverness Drive	Street, Storm Sewer	Peridian	\$ 75,300.00
5-CP4-100(BD)	Inverness Drive, Clinton Parkway to 24th Street	Street, Storm Sewer	Peridian	\$ 23,650.00
6-ST1-100(BD)	Inverness Park	Drainage Channel Improvements	Peridian	\$ 104,500.00
7-SI1-100(BD)	Clinton Parkway and Crossgate Drive	Geometric, Traffic Signal	Peridian	\$ 44,000.00
8-SS1-100(BD)	Inverness Park	Sanitary Sewer Main Relocation	Peridian	\$ 12,100.00
	15000 Crossgate Drive, Clinton Parkway to 24th Street	Street, Storm Sewer	Peridian	\$ 24,750.00
62-GI1-1000(BD)	22nd and Kasold	Geometric Improvements	Landplan	\$ 29,100.00
64-SI2-1000(BD)	Clinton Parkway and Hartford/Hawthorne Drive	Geometric, Traffic Signal	Landplan	\$ 32,700.00
85-SS21-1200(BC)	Westwood (15th and Engel)	Sanitary Sewer Improvements	BG	\$ 22,049.83

87-CP24-1200(BD) Inverness Drive, 24th Place to 27th Street	Street, Storm Sewer, Waterline	Peridian	\$	80,000.00
88-CP25-1200(BD) Crossgate Drive, 24th Place to 27th Street	Street, Storm Sewer, Waterline	Peridian	\$	83,500.00
89-ST21-1200(BD) 27th and Crossgate Drive	Box Culvert Improvements	Peridian	\$	85,000.00
91-ST22-1200(BD) College Park Apartments (Phase 3)	Storm Sewer Improvements			

**1999 PROJECT LIST**

7-ST1-299(BD) 6th and Maine (Lawrence Medical Plaza)	Storm Sewer	Landplan	\$	27,000.00
44-CP10-799(BD) 27th Street, Bluestem to Scottsdale	Street, Storm Sewer, Waterline	Landplan	\$	20,000.00
45-CP11-799(BD) Scottsdale, 26th to 27th	Street, Storm Sewer, Waterline	Landplan	\$	11,000.00
50-CP13-899(BD) George Williams Way. 15th to Harvard	Street, Storm Sewer, Waterline	Landplan	\$	70,300.00
58-CP16-899(BD) Parkside Addition No. 2	Street, Storm Sewer, Waterline	Landplan	\$	27,000.00
81-CP24-1299(BD) 27th and Wakarusa (on the curve)	Street, Storm Sewer	Landplan	\$	7,000.00
86-SS26-1299(BD) West 15th Street Elementary	Sanitary Sewer	Landplan	\$	8,000.00

**Total Design Fees: 1999 to 2004 ytd**

**\$ 2,544,303.70**

## ATTACHMENT 3

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### Engineering In-House limited Intersection Geometrics, traffic calming Estimate for startup, capitalization, operations

<b>Staff</b>			notes
Design engineer	\$	56,000	mid-range, 2003/2004 salary
Design technician	\$	35,000	mid-range, 2003/2004 salary
Registered land surveyor	\$	42,000	estimate \$35,000 each
Benefit funding	\$	49,582	37.28 benefit factor on salaries (per most recent FEMA calculation)

<b>Operational costs</b>			
Training, Prof. develop.	\$	2,000	annually
Vehicle maintenance	\$	2,000	annually
Office supplies	\$	500	annually
Printers and supplies	\$	1,000	annually -- would use existing equipment
Software maintenance	\$	3,200	annually
Survey supplies	\$	1,000	annually
Fuel	\$	2,000	annually
Professional services	\$	10,000	Geo-technical contract work as needed
Office space	\$	-	Could accommodate with existing space

<b>Estimated annual</b>	<b>\$</b>	<b>204,282</b>	Best guess annual costs, without office space
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<b>Initial capitalization</b>			
Vehicle - engineer	\$	22,000	Pick up
Vehicle - surveyor	\$	22,000	Pick up
Server	\$	-	use existing
Computers	\$	7,500	engineer, design tech, surveyor - \$2500 each
Plotter	\$	-	would use existing, but would need to be replaced sooner
Printer	\$	-	would use existing, but would need to be replaced sooner
Software	\$	21,000	AutoCAD (7000/license)
	\$	7,100	ArcInfo - 1 license
	\$	4,500	ArcEditor - 1 license
	\$	1,220	ArcView - 3 licenses
	\$	15,000	Survey software
Survey equipment	\$	20,000	
Office furniture	\$	5,000	recycle some existing furniture

<b>Initial capitalization</b>	<b>\$</b>	<b>125,320</b>	best guess
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<b>Estimated first year</b>	<b>\$</b>	<b>329,602</b>	does not include estimate for office space
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## ATTACHMENT 4

### Engineering In-House

Provide for a variety of in-house, non-specialized engineering

Estimate for startup, capitalization, operations

<b>Staff</b>		notes
Design engineer	\$ 56,000	mid-range, 2003/2004 salary
Design engineer	\$ 56,000	mid-range, 2003/2004 salary
Design technician	\$ 35,000	mid-range, 2003/2004 salary
Design technician	\$ 35,000	mid-range, 2003/2004 salary
Design technician	\$ 35,000	mid-range, 2003/2004 salary
3 member survey crew	\$ 105,000	estimate \$35,000 each
Benefit funding	\$ 120,042	37.28 benefit factor on salaries (per most recent FEMA calculation)

#### Operational costs

Training, Prof. develop.	\$ 3,500	annually
Vehicle maintenance	\$ 3,500	annually
Office supplies	\$ 1,000	annually
Printers and supplies	\$ 2,500	annually
Software maintenance	\$ 6,000	annually
Survey supplies	\$ 1,000	annually
Fuel	\$ 3,500	annually
Professional services	\$ 35,000	Geo-technical contract work as needed
Office space	?????????	Rent and building maintenance

<b>Estimated annual</b>	<b>\$ 498,042</b>	Best guess annual costs, without office space
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#### Initial capitalization

Vehicle - engineer	\$ 22,000	Pick up
Vehicle - engineer	\$ 22,000	Pick up
Vehicle - survey crew	\$ 25,000	Crew cab 4WD
Server	\$ 8,000	for off-site access to City Hall
Computers	\$ 15,000	engineers, design techs, one for survey crew, \$2500 each
Plotter	\$ 25,000	large format plotter with limited scan capabilities
Printer	\$ 7,500	industrial, oversize (ledger) capabilities, color laser
Software	\$ 35,000	AutoCAD (7000/license)
	\$ 7,100	ArcInfo - 1 license
	\$ 4,500	ArcEditor - 1 license
	\$ 3,660	ArcView - 3 licenses
	\$ 15,000	Survey software
Survey equipment	\$ 20,000	
Office furniture	\$ 30,000	5 engineers or technicians + minimal for survey crew
Phone system	\$ 15,000	

<b>Initial capitalization</b>	<b>\$ 254,760</b>	best guess
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<b>Estimated first year</b>	<b>\$ 752,802</b>	does not include estimate for office space
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