CITY OF COFFEYVILLE
BOARD OF COMMISSIONERS AGENDA ITEM

MEETING DATE	February 25, 2014	
RESOLUTION OR ORDINANCE NUMBER	R-14-13	
AGENDA TITLE	**Agreement for Professional Engineering Services to Perform a Downtown Traffic Study.**	
REQUESTING DEPARTMENT	Administration/Public Works	
PRESENTER	Chuck Shively	
FISCAL INFORMATION	Cost as recommended:	Not to exceed $30,000
	Budget Line Item:	520-5-000-478
	Balance Available	N/A
	New Appropriation Required:	[X] Yes [ ] No
PURPOSE	To provide a traffic study of the downtown area and recommendations for traffic control.	
BACKGROUND	City staff issued a Request for Qualifications for performance of a traffic study in the downtown area. The proposed study will consist of conducting traffic counts including total traffic counts, turning movement counts, and pedestrian counts. The traffic counts and all other available data such as crash reports will be analyzed using traffic modeling software to analyze various scenarios. From that analysis professional recommendations regarding one-way vs. two-way traffic and stop lights vs. stop signs will be made, including ballpark cost estimates for implementation of each recommendation. Statements of Qualifications were received from eight engineering firms. The selection committee rated the submitted qualifications and then conducted interviews with the top five firms. From those firms the committee selected their top rated firm.	

SPECIAL NOTES	
ANALYSIS	Staff reviewed the proposal submitted by the selected firm, HDR Engineering, Inc., and negotiated the final scope of services and fees to make a recommendation to the City Commission.
PUBLIC INFORMATION PROCESS	N/A
BOARD OR COMMISSION RECOMMENDATION	N/A
STAFF RECOMMENDATION	Approve a Resolution authorizing execution of an engineering services agreement with HDR Engineering, Inc., in the total amount not to exceed $30,000.
REFERENCE DOCUMENTS ATTACHED	HDR Traffic Study proposed scope of services and fees.

RESOLUTION NO. R-14-13

A RESOLUTION AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE AN ENGINEERING SERVICES AGREEMENT WITH HDR ENGINEERING, INC, IN AN AMOUNT NOT TO EXCEED $30,000 TO PERFORM A DOWNTOWN TRAFFIC ANALYSIS STUDY.

BE IT RESOLVED by the Board of Commissioners of the City of Coffeyville, Kansas that the Mayor and City Clerk are hereby authorized to execute an engineering services agreement with HDR Engineering, Inc. in the amount of not to exceed $30,000 to perform a Downtown Traffic Analysis Study.

Adopted this 25th day of February 2014.

_____
David George, Mayor

ATTEST:

_____
Cindy Price, City Clerk

APPROVED AS TO FORM AND LEGALITY:

_____
Paul Kritz, City Attorney

Coffeyville Downtown Traffic Study
DRAFT Scope of Services | HDR Engineering, Inc. | 19.Feb.2014

1. Project Management/Meetings

Management. HDR will conduct project management activities, including invoices, cost control, and scheduling.

Trips. HDR staff will conduct up to three day trips to the City of Coffeyville for this project. These trips will be used for field observations, stakeholder meetings, and progress meetings. The third trip will include a presentation of findings to the City Commission.

2. Data Collection

Traffic. HDR will collect a.m. and p.m. peak-hour intersection turning movement counts at the following study intersections:

1. 7th Street/Elm Street
2. 7th Street/Maple Street
3. 7th Street/Walnut Street
4. 7th Street/Patterson Boulevard*
5. 8th Street/Elm Street
6. 8th Street/Maple Street
7. 8th Street/Walnut Street
8. 8th Street/Patterson Boulevard
9. 9th Street/Elm Street
10. 9th Street/Maple Street
11. 9th Street/Walnut Street
12. 9th Street/Patterson Boulevard*

* = unsignalized intersection

GIS/Aerials. The City will provide complete GIS layers including utilities, roadway planimetrics, curb radii, sidewalks, building footprints, and right-of-way. The City will also provide available aerial photography in digital format.

As-builts. The City will provide electronic versions of as-built plans for the entire study area.

Crashes. The City will summarize data for crashes in the study area for the most recent five-year period. The City will provide either a marked-up map of crash locations, GIS point data for each crash, or a table summarizing crashes per block and intersection. HDR will not examine crash reports in detail.

Other issues. The City will relay anecdotal experience of issues that may affect the analysis, such as crash patterns, truck issues, businessowner feedback, project history, operational concerns, etc.

Field/photo spot-checks. HDR will conduct field and aerial-photo observations to verify the data collected above, and to note other issues that may be relevant to the analysis.

3. Existing Conditions

Operations. HDR will analyze existing operations at the study intersections, using the Synchro software package, for both the a.m. and p.m. peak hours.

Parking. HDR will inventory on-street parking on 8th and 9th Streets between Elm Street and Patterson Boulevard, including the number of parking spaces by block, time-of-day restrictions, and handicap restrictions. This inventory will not include parking demand analysis, nor will it include off-street parking areas/lots.

Crashes. HDR will analyze the crash data provided by the City to identify crash clusters, if any. This information will be used in subsequent tasks to indicate potential safety benefits of changes to the roadways.

Historic. The City will provide a list of any historic structures along 8th Street and 9th Street between Elm Street and Patterson Boulevard.

4. Recommendations

Traffic Forecasts. HDR will make assumptions about the redistribution of traffic, assuming 8th Street and 9th Street are converted to two-way traffic. These assumptions will be shared with City staff.

Operational Concept. Based on the existing conditions analysis, and the basic assumption that 8th Street and 9th Street will be converted to two-way operation, HDR will perform Synchro analysis of the study intersections to verify that they will function acceptably with the removal of signals and the two-way conversion. If there is a need for turn lanes at any of the intersections, HDR will incorporate those into the initial operational concept. The operational concept will also include the recommended intersection control at the newly unsignalized intersections (i.e., which legs will be stop-controlled). HDR will discuss this operational concept with the City before moving forward.

Warrants. HDR will check forecasted intersection volumes against the peak-hour traffic-signal warrants contained in the *Manual of Uniform Traffic Control Devices* (MUTCD).

Roadway Concept. HDR will develop a roadway concept based on the operational concept described above. The concept will be developed via line drawings on aerial photos using MicroStation, and will show proposed curbs, pavement striping, parking revisions (if any), and changes to sidewalks.

The concept will consider the position of below-ground utilities as indicated on the City-provided GIS files, as well as above-ground utility-related appurtenances to include fire hydrants, curb inlets, traffic signal equipment, utility/light poles, and manholes. The purpose of the utility overview will not be to develop relocation concepts, but rather to understand the order-of-magnitude of potential utility costs associated with the roadway concept.

Sight Distance. Based on the roadway concept, HDR will examine up to 12 sight triangles at critical corners against AASHTO Green Book sight distance criteria. The City will assist HDR with this field review – HDR and the City will divide into two teams of two, in order to more quickly perform these reviews. Time for these reviews is included in Task 1.

Costs. HDR will develop initial order-of-magnitude cost estimates based on rough quantities extracted from the line drawings. Contingencies appropriate for high-level estimates will be included.

5. Reports/Presentations

Reports. HDR will prepare a draft report summarizing the study and its recommendations. The report will be fairly brief, including graphics and tables sufficient to demonstrate the process and results. The report will also include high-level recommendations for next steps on the project – steps needed if the project is to carry forward into design.

HDR will submit the draft report to City staff for review. Based on comments received from the City, HDR will incorporate mutually agreeable revisions into a final report.

Presentation. HDR will make one (1) presentation to the City Commission summarizing the study findings and recommendations. Task 5 includes presentation development; Task 1 includes travel and presentation time.

Coffeyville Downtown Traffic Study

2/19/2014

Preliminary Hour and Fee Estimate - HDR Engineering, Inc.

Hours

			Proj Mgr	Deputy PM	Sr. Transp	Transp EIT	QC	Transp Intern	Civil Eng	Sr. Planner	Admin	CADD				Total Hrs
1	Project Management/ Meetings	Management	2								4					6
		Trips	20			10										30
		Subtotal	22	0	0	10	0	0	0	0	4	0	0	0	0	36
2	Data Collection	Traffic		1				2								3
		GIS								2						2
		As-Builts							2							2
		Crashes								1						1
		Other Issues	1													1
		Spot checks				1		1		1						3
		Subtotal	1	1	0	1	0	3	2	4	0	0	0	0	0	12
3	Existing Conditions	Operations	2	2		4		6								14
		Parking				1		1								2
		Crashes		1				1		1						3
		Historic							1							1
		Subtotal	2	3	0	5	0	8	1	1	0	0	0	0	0	20
4	Recommendations	Traffic Forecasts		1				2		2						5
		Operational Concept	2	4		4		6								16
		Warrants		1		1		2								4
		Roadway Concept	2	2		32			10			4				50
		Sight Distance		1		4			2							7
		Costs	1	1		2			10			0				14
		Subtotal	5	10	0	43	0	10	22	2	0	4	0	0	0	96
5	Reports/ Presentations	Draft Report	2				1	4		8						15
		Final Report	1							2						3
		Presentation	2							1						3
		Subtotal	5	0	0	0	1	4	0	11	0	0	0	0	0	21
GRAND TOTAL			35	14	0	59	1	25	25	18	4	4	0	0	0	185

Labor Costs

	Hours	Hourly Rate	Dollars
Proj Mgr	35	69.65	2,438
Deputy PM	14	58.18	815
Sr. Transp	-	43.12	-
Transp EIT	59	25.74	1,519
QC	1	60.00	60
Transp Intern	25	15.61	390
Civil Eng	25	45.00	1,125
Sr. Planner	18	33.27	599
Admin	4	30.00	120
CADD	4	30.00	120
Total	185		7,185

Subconsultants

Miovision	3,000
Total Subconsultants	3,000

Estimated Direct Costs

Computers	
Reproduction services	10
Telephone/Fax	
Postage	
Travel	350
Total Direct Costs	360

Estimated Costs plus Fixed Fee

Labor Total	7,185
Overhead (157.88%)	11,344
Labor and Overhead	18,529
Dir Design Expenses (Dir Costs)	360
Fixed Fee (15%)	2,779
Total	21,668

Fee Estimate

Labor Fee Plus Expenses	21,668
Subconsultants	3,000
Total	24,668