

EXHIBIT 'B'
PROFESSIONAL ENGINEERING SERVICES FEE ESTIMATE
IOWA STREET, HARVARD ROAD TO IRVING HILL ROAD
BARTLETT & WEST PROJECT NO. 17230.001
DATE: JANUARY 13, 2011

1.0 DIRECT LABOR

PRELIMINARY DESIGN PHASE (FIELD CHECK)

- 1 Meet with city staff to determine project specific needs and general project desires. Also review and receive available information and plans. Project budget will be provided by City staff.
 - 1.1 Prepare agenda & attend kickoff meeting.
 - 1.2 Prepare meeting minutes from kickoff meeting.
 - 1.3 City to provide existing plans & project budget.
 - 1.4 The City shall provide a letter stating design criteria, including but not limited to lane widths (through movements, auxiliary lanes, and receiving lanes), length of auxiliary lanes, receiving lane width and lengths, taper lengths, curb & gutter sections, pavement thickness, base treatments, longitudinal edge drain/transverse underdrain needs, earthwork compaction requirements, and sidewalk width.
- 2 Conduct one public meeting to discuss the proposed improvements and to receive input and hear concerns from the neighborhood.
 - 2.1 Based on City Staff direction, there will not be a Public Information Meeting until after field check.
 - 2.1 This scope of services does not include any individual (one-on-one) meetings with landowners.
- 3 Perform design survey as required to prepare plan and profile sheets. All surveys of the project must tie to two different section corners. The survey must have a linear closure of 1:15,000 as determined by the American Congress on Surveying and Mapping. All survey data must be provided to the city in digital format.
 - 3.1 Provide topographical survey on Iowa Street south of Bob Billings Parkway and along Bob Billings Parkway and 15th Street within the existing R/W limits. Limits of survey will be the north curb return of Iowa Street, 100 feet south of the Irving Hill Road bridge, 700 feet west of Iowa Street on Bob Billings Parkway, and 600 feet east of Iowa Street on 15th Street.
 - 3.2 Provide top of manhole and flowline information for all sanitary sewer and storm sewers located within the survey boundaries described in Task 3.1.
 - 3.3 Locate property pins as needed to define the right-of-way along Iowa Street, Bob Billings Parkway, and 15th Street within the survey boundaries described in Task 3.1.
 - 3.4 Tie the survey to two different section corners.
 - 3.5 Draft base map, including contours, existing infrastructure, property lines, right-of-way, easements, and utilities.
 - 3.6 Provide all survey data to the city in digital format in an AutoCAD dwg file.
 - 3.7 This task does not include potholing any utilities. In addition, any surveying outside the limits described above will be considered an additional service.
- 4 Obtain information from utility companies who have facilities within the project limits. Utility companies shall be required to locate their facilities within the project limits. Include utility locations in survey data. Provide preliminary utility coordination. Line & depth are required for all underground utilities.
 - 4.1 Via email, send & collect information by using the Utility Location Report form to utility companies located within the project limits described in Task 3.1.
 - 4.2 Locate all utilities within the boundaries described in Task 3.1 - depth will be based on assumptions provided by the utility company.
 - 4.3 City to request utility maps from utility companies and provide to Bartlett & West.
 - 4.4 Send field check plans (50% complete) to utility companies for review and comment (6 companies maximum).
 - 4.5 Send final plans to utility companies for their use in relocating their existing facilities (6 companies maximum).
 - 4.6 City Staff will conduct meetings with utility companies to discuss project issues and relocation plans if necessary.
- 5 Obtain O&E certificates on the properties that abut the project site. Copies of all ownership maps and recorded plats will be obtained from the Douglas County courthouse.
 - 5.1 The city will provide the O&E reports and supporting documentation required to complete this task.
- 6 Provide traffic engineering analysis, if needed to determine design traffic volumes, vehicle classifications, accident experience, speed data, and recommended signal timing and phasing. Determine and lay out the lane configurations and geometrics that would be required to serve the design traffic volumes along the route.
 - 6.1 In addition to two through lanes in each direction, dual left turn lanes and right turn only lanes will be included on Iowa Street at the intersection with Bob Billings Parkway/15th Street.
 - 6.1a All widening will occur on the west side of the existing roadway section.
 - 6.1b Create one horizontal alignment for the Iowa Street corridor that uses the existing east curb line as the east boundary for the new roadway.
 - 6.2 In addition to two through lanes in each direction, one left turn lane and right turn only lanes will be included on Bob Billings Parkway/15th Street at the intersection with Iowa Street.
 - 6.2a All widening will occur on the south side of the existing roadway section.
 - 6.3 Provide typical roadway sections including through lane widths as well as center turning lane widths. There will be no raised medians as part of this project.
 - 6.3a The proposed typical section on Iowa Street will have a painted two-way center turning lane from Harvard Road (north limits of project) to 250 feet south of Terrace Road.
 - 6.3b The proposed typical section on Iowa Street will be four lanes south of Bob Billings Parkway/15th Street to the Irving Hill Road bridge (south limits of project).
 - 6.3c The proposed typical section on Iowa Street will have 11 foot through lanes & right turn only lanes, 12 foot center/left turn lanes, and 1'-6" curb and gutter sections.
 - 6.3d The proposed typical section on Bob Billings Parkway/15th Street will have 11 foot through lanes & right turn only lanes and a 12 foot left turn lane. The medians will not be raised.
 - 6.3e The proposed typical section on Bob Billings Parkway/15th Street will extend 400 feet and 600 feet east and west of Iowa Street, respectively, which are the project limits.
 - 6.3f A 6 foot sidewalk will be included on Iowa Street & Bob Billings Parkway/15th Street (except on the east side of Iowa Street between University Drive and 15th Street and on the north side of 15th Street east of Iowa Street).
 - 6.3g The proposed typical section for all sideroads (except Bob Billings Parkway/15th Street) will be a two-lane section that ties into the existing profile as quickly as reasonably possible.
 - 6.3h The proposed pavement cross slope on all typical sections will be 2.0 percent.
 - 6.4 The improvements for the Bob Billings Parkway/15th Street portion of the project will require a new centerline alignment.
 - 6.4a Use the north curb line as the north limit of the improvements.
 - 6.4b Design new horizontal curves for the Bob Billings Parkway/15th Street alignments to make sure they meet applicable design criteria.
 - 6.4c Provide preliminary traffic signal layout for the Iowa Street & Bob Billings Parkway/15th Street intersection so conduit and traffic signal pole locations can be determined.
 - 6.5 This task does not include any traffic studies or modeling efforts.
 - 6.6 This task does not include any improvements to the existing intersection of Harvard Road intersection or traffic signals.
 - 6.7 This task does not include providing traffic counts or traffic counting equipment.
- 7 Provide services of a soil consultant to determine the adequacy of subgrade and pavement conditions. Complete a pavement evaluation and a determination of pavement improvement needs. Make recommendations, in writing, on pavement cross-section for the project.
 - 7.1 Bartlett & West will not provide geotechnical services as a part of this agreement. However, the City will contract separately with a geotechnical firm and provide the requested information to Bartlett & West. This information shall be provided in an AutoCAD format by March 15, 2011.
 - 7.2 Bartlett & West suggests the City have a geotechnical subconsultant provide borings (300' maximum intervals) to determine depth of rock and presence of groundwater. Depth of borings should be no less than 10 feet or auger refusal.

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- 7.3 The City or their geotechnical subconsultant should locate the borings, including horizontal and vertical datum, based on control information provided by Bartlett & West.
- 7.4 City will provide direction on pavement type, thickness, as well as subgrade treatment to be used. This direction should include other base materials, i.e. AB-3 rock base. This information needs to be provided by January 31, 2011. Any changes to the typical section following this date will be considered additional services.
- 8 Review alternative design concepts with the city prior to progressing to the detail aspects of the project. Alternative concepts shall be discussed to determine the best horizontal and vertical alignments for the project. City's concurrence in the selection of an alternate or preliminary concept will be contingent on the accuracy and completeness of the background information provided by the Consultant.
- 8.1 Provide horizontal alignments for the improvements along Iowa Street & Bob Billings Parkway/15th Street.
- 8.1a This is being completed as part of Task 6.
- 8.2 Develop one vertical alignment for the improvements along Iowa Street. The vertical alignment will be designed to meet a 40 mph design speed.
- 8.2a Develop up to 2 vertical alignment iterations to address fitting the proposed improvements over the Ravine between Terrace Road and Bob Billings Parkway/15th Street. The objective is to provide enough space for the proposed improvements to be constructed without reconstructing the existing steep foreslopes at the ravine.
- 8.2b The profile through the intersection of Iowa Street & Bob Billings Parkway/15th Street will need to be studied to determine impacts to Bob Billings Parkway/15th Street profile.
- 8.3 Develop one vertical alignment for the improvements along Bob Billings Parkway/15th Street. The vertical alignment will be designed to meet a 40 mph design speed.
- 8.3a Develop up to 2 vertical alignment iterations to remove the existing vertical discrepancy between the westbound and eastbound lanes just west of Iowa Street.
- 8.3b Share vertical alignment with KDOT to get their approval of this profile. It is anticipated generally accepted 'K' values immediately adjacent to Iowa Street will be difficult to achieve. Any revisions in the alignment that go beyond the stated project limits in this scope will be considered additional services.
- 8.4 Evaluate new typical section impacts in the ravine area. Identify clear zone requirements.
- 8.5 Make one set of revisions to conceptual plans prior to moving into preliminary plan production.
- 9 Storm drainage will be designed in accordance with the current city storm water management criteria. Prepare a hydrologic and hydraulic analysis to establish recommendations concerning storm drainage design criteria. Include pipe/box sizes, alignments, grades, drainage easements, and associated project design items. Perform watershed analysis and computer flow modeling using either HEC-1, TR-20, SWMM, HEC-2, or HY-7. Provide a written report of the results of this analysis and copies of the computer digital data.
- 9.1 Develop a drainage area map based on the horizontal and vertical alignments developed as a part of Task 8.
- 9.2 Calculate time of concentrations, identify runoff coefficients, and calculate peak storm water flows for the 2-year, 10-year, 50-year, and 100-year storm event for each drainage area. The rational method will be used to calculate these peak flows.
- 9.3 Locate curb inlets based on width of spread criteria. Allowable width of spread will be based on design criteria memorandum. Includes adding inlets and pipes to base design file (plan view).
- 9.4 Determine pipe sizes for new storm sewer system based on use of the Manning's equation and full flow capacity.
- 9.5 Prepare storm sewer pipe profile sheets providing top of structure elevations, flowlines for proposed & existing pipes, and utility crossing locations.
- 9.6 This task assumes the existing RCB at the ravine will not be modified, lengthened, or replaced. The City will inspect the existing RCB structure to ensure it is suitable for continued use.
- 9.7 This task does not include any hydrologic and/or hydraulic analysis for the RCB at the ravine.
- 9.8 This task does not include any modeling or HGL calculations.
- 9.9 This task assumes the curb inlet on the east side of Iowa north of 15th with the pipe coming into the top of structure will maintain its current configuration. Analyzing additional options, if deemed necessary, will be negotiated as an additional service at a later date.
- 10 Prepare a map showing the limits of the drainage basin for all sanitary sewer design. All sanitary sewer extensions shall conform to the wastewater collection system master plan. Include a complete analysis of all pump stations, including a map showing the property sewered by this pump station. Provide a written report detailing conformance with the master plan, assumptions that were made, and the flows from each property to the pump station.
- 10.1 This task does not apply to the project, and no sanitary sewer modifications are expected other than the adjustment of the top of manhole elevations within the road R/W.
- 11 Prepare preliminary estimate of probable construction cost for the project.
- 11.1 Determine the unit quantities for the project.
- 11.2 Prepare a cost estimate based on the unit quantities in Task 11.1 and recent bid tabs provided by the city. A 15% contingency will be included in the preliminary cost estimate.
- 12 Prepare three sets of preliminary plan and profile sheets in sufficient detail for the city to review. Allow two weeks for city to review preliminary plans. These documents shall include preliminary right-of-way, necessary easement acquisitions, drainage area map, and drainage design data. If project is over budget, a determination of alternatives is required. Contract may be terminated if additional funds are not available or project modifications cannot be made.
- 12.1 Prepare cover sheet.
- 12.2 Prepare general notes sheet.
- 12.3 Prepare survey control/alignment data sheet.
- 12.4 Prepare separate plan and profile sheets at 1" = 20' scale - 16 sheets (8 for Plan & 8 for Profile) for Iowa Street & Bob Billings Parkway/15th Street, 3 Combined Plan & Profile Sheets for sideroads (2 per sheet). Storm sewer profile information will be included on the profile sheets.
- 12.4a Show sidewalk reconstruction locations, storm sewer modifications, street construction limits, etc.
- 12.4b Show utility conflicts.
- 12.4c Provide pertinent plan and profile notes.
- 12.4d Show existing and proposed right-of-way and easements.
- 12.5 Provide intersection plan layout sheet for proposed improvement at Iowa Street & Bob Billings Parkway/15th Street.
- 12.5a Show traffic signal modification requirements.
- 12.6 Prepare one plan and profile sheet for a new 6" waterline for the church at the northwest corner of Iowa Street & Bob Billings Parkway/15th Street. The new service will come off the main along Bob Billings Parkway.
- 12.7 Include Lawrence standard detail sheets & KDOT standard detail sheets. Standards will be modified to fill in blanks but not verified for correctness of drawings.
- 12.8 Provide drainage map.
- 12.9 Cross sections at 25 feet intervals.
- 12.10 Provide preliminary construction sequencing and phasing plans to carry traffic through the construction area.
- 12.11 Submit electronic plans to the City's ftp site. The electronic submittal will follow the requirements of Task 12.14.
- 12.12 Preliminary plans do not include r/w strip map, retaining wall design, intersection details, erosion control plans, miscellaneous details, pavement marking & signing plans, or structural details.

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12.13 Preliminary plans do not include waterline design, except as shown in Task 12.6.

12.14 Submit electronic plans to KDOT in accordance with their E-Plan requirements for their review. Allow two weeks for KDOT review of the preliminary plans.

13 The following will be needed to develop the preliminary design - See city standard agreement for 6 items listed for this task.

13.1 The information provided in this task in the base scope of services is included in other tasks.

14 Upon approval of the preliminary plans, the Consultant shall arrange a field check with the City to discuss design features in the project area.

14.1 Arrange and attend field check meeting & prepare meeting minutes. This will include KDOT staff.

15 The Consultant shall be responsible for verification, furnishing, and recording of any legal land corners necessary for legal descriptions used in deed writing. The Consultant's personnel shall tie the approved corner into the center line.

15.1 Tie approved corners into the center line

16 Attend two progress meetings during the Preliminary Design Phase (Field Check).

16.1 Prepare agenda and information for meetings.

16.2 Attend 2 meetings to discuss design issues.

16.3 Prepare meeting minutes and distribute action item list to attendees.

FINAL DESIGN PHASE (OFFICE CHECK)

1 Meet with city staff to review comments on preliminary design phase.

1.1 Meet with the City staff to review field check plan review comments.

1.2 Provide written meeting minutes from review meeting.

2 Conduct one public meeting to discuss the proposed improvements and their impacts on the adjacent properties with the neighborhood.

2.1 Prepare exhibits for meeting.

2.2 Send two Bartlett & West staff members to the meeting.

2.3 City will send out meeting invitations.

2.4 Conduct meeting after field check plans are reviewed.

2.5 The public information meeting will be an open house style meeting with no formal presentation and no formal meeting minutes.

2.5 This scope of services does not include any individual (one-on-one) meetings with landowners.

2A Attend a presentation for the City Commissioners to discuss final direction of the project. This meeting will likely occur mid-way through final design.

2A.1 Prepare exhibits for meeting.

2A.2 Prepare minutes from the direction provided by the City Commission.

2A.3 City staff will prepare and make presentation. One Bartlett & West staff member will attend the meeting to assist in answering questions.

3 Prepare a right-of-way strip map and furnish the city with the original and one print of the strip map. Also, furnish the city with 8 1/2" x 11" plats and legal descriptions of each property required for right-of-way or easement acquisition. The Consultant agrees to complete these right-of-way or easement descriptions and drawings by September 30, 2011. The Consultant shall be responsible for making revisions to the right-of-way and construction plans resulting from negotiations with the property owners.

3.1 Legal descriptions and exhibits will be prepared based on the right-of-way/easement strip map submitted with preliminary plans. There are approximately 45 tracts adjacent to the project limits.

3.2 Prepare legal description exhibits (Up to 20 tracts).

3.3 Write legal descriptions (Up to 20 tracts).

3.4 Review of legal descriptions and exhibits by surveyor.

3.5 Make revisions to legal descriptions and exhibits based on City review.

3.6 Print 2 copies of legal descriptions and exhibits and provide pdf's on CD.

3.7 Any revisions based on property owner negotiations will be considered additional services and will be negotiated at a later date.

4 Prepare all applications, exhibits, drawings, and specifications necessary to obtain all required permits. Applications should be prepared for the City's execution and submittal. Assist the City in obtaining permit approvals by furnishing additional information about the project design. Provide, in the specifications, a list of the permits which must be obtained by the construction contractor.

4.1 The only permits anticipated for this project are listed under the Final Design Phase, Task 5. Therefore, there is no work to be completed under this task.

5 The Consultant shall be responsible for preparing the applications for the National Pollution Discharge Elimination System (NPDES) permit for Construction Activities, U.S. Army Corps of Engineers 404 Permit, and the Kansas Department of Water Resources permits.

5.1 Drawings and specifications for permit applications will be completed under different tasks.

5.2 Complete Notice of Intent, aka NPDES, permit application, and plot the necessary drawings.

5.3 This scope of services does not include State of Kansas Division of Water Structures and/or U.S. Army Corps of Engineers permit.

5.4 Application fees and signatures for permits will be supplied by the City of Lawrence.

6 Prepare final construction documents for improvements, incorporating all comments from the city staff. Submit final plans to the City for final review. Allow two weeks for City Review.

6.1 Address field check comments for the plans developed under the Preliminary Design Phase.

6.2 Prepare special technical specifications and provide to KDOT. KDOT will develop and prepare the project manual.

7 The design plans shall include a detailed traffic control plan with an outline for construction staging conforming to the requirements of the Manual on Uniform Traffic Control Devices and the Policy, Procedure and Design Manual. The traffic control plan requires submittal to the City for review and approval prior to inclusion in the final design plans.

7.1 Prepare a traffic control plan to provide traffic through construction for the entire length of the project (one lane in each direction). The traffic control plans shall include:

7.1a Show general lane configurations with appropriate delineators for each main construction phase.

7.1b Show temporary pavement markings and temporary signing on separate sheets.

7.1c Show typical sections in various locations to show construction sequencing options.

7.2 Use Kansas Department of Transportation standard details for traffic control.

7.3 Prepare quantities for the Kansas Department of Transportation Recapitulation of Quantities standard drawing for traffic control.

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- 8 Prepare detailed temporary erosion control plans for review and approval before inclusion in the final design plans.
 - 8.1 Prepare erosion control plan sheets showing location of Erosion Control Blankets, Inlet Sediment Barriers, Slope Barriers, Ditch Checks, Temporary Seeding, etc.
 - 8.2 Use Kansas Department of Transportation standard details for temporary erosion control and final seeding.
 - 8.3 Prepare quantities and complete the tables on the Kansas Department of Transportation standard details for temporary erosion control and seeding.
- 9 The Consultant shall prepare computations for all design plan quantities.
 - 9.1 Determine the unit quantities for the project
 - 9.2 Prepare summary of quantity bid item tables for each bid item not covered by a Kansas Department of Transportation standard detail. These tables will include quantities for curb & gutter, sidewalk, sidewalk ramp, removal of existing structures, fence removals, fence construction, edge drain pipe, slope protection, fly ash treated subgrade, RCB, concrete, earthwork, mailbox installation, monument box, and right-of-way survey monumentation.
 - 9.3 Kansas Department of Transportation standard drawings for quantity summaries will be used for pavement markings, signing, surfacing, seeding, temporary erosion control, traffic control, storm sewers, and inlets.
 - 9.4 Prepare a master "Recapitulation of Quantities" table to summarize the quantities.
- 10 As a minimum, the final plans shall include the following:
 - 10.1 Title Sheet
 - 10.2 Typical Sections
 - 10.3 Plan Sheets
 - 10.4 Profile Sheets
 - 10.4a Profiles for the storm sewer will be shown on the profile sheets.
 - 10.5 Intersection Detail Sheets, including curb return quarter points and slopes.
 - 10.5a Intersection Details will be provided for Iowa Street & Bob Billings Parkway/ 15th Street (All 4 Quadrants), Two to KU Visitor Center (15th Street), Terrace Road, University Drive, Stratford Drive, Green Road, Oxford Drive, Orchard Lane, and Reece & Nichols Real Estate Entrance
 - 10.5b Intersection details will include a plan view at 1" =10' with horizontal curve data for the radius returns, quarter point elevations, proposed contours, and intersection angles.
 - 10.5c Curb return profiles will be developed for design purposes but will not be included in the construction document sets.
 - 10.5A Driveway Detail Sheets.
 - 10.5A.1 Twenty driveways along Iowa Street & Bob Billings Parkway/ 15th Street that will require details (Assume 3 Plan Views with Spot Grades Per Sheet)(7 Total Sheets)
 - 10.5A.2 Driveway details will include a plan view at 1" =10' with spot elevations for the pavement.
 - 10.6 Traffic Control Plan Sheets
 - 10.6a As defined under Final Design Phase, Task 7.
 - 10.7 Temporary Erosion Control Plan Sheets
 - 10.7a As defined under Final Design Phase, Task 8.
 - 10.8 Permanent Signing Quantity Sheets
 - 10.8a Prepare plan sheets that show both permanent signing and pavement markings on separate sheets.
 - 10.8b Use Kansas Department of Transportation standard details for pavement markings and permanent signing.
 - 10.8c Prepare quantities and complete the tables on the Kansas Department of Transportation standard details for pavement markings and permanent signing.
 - 10.9 Culvert Sections
 - 10.9a No special sections are anticipated.
 - 10.10 Earthwork Quantities, Cross Sections, including entrance sections with existing and proposed grades
 - 10.10a Cross sections at 25' intervals will be included in the final plans.
 - 10.10b Additional cross sections will be shown at sideroad locations, driveways, and at locations where crossing information is critical.
 - 10.11 Miscellaneous Detail Sheets
 - 10.11a Miscellaneous detail sheets will include standard detail sheets from the City of Lawrence and the Kansas Department of Transportation.
 - 10.11b Bartlett & West will provide details for any items not covered by City of Lawrence or Kansas Department of Transportation standard details.
 - 10.12 Summary of Quantities Sheets
 - 10.12a This task is covered under other tasks shown in the Final Design Phase.
 - 10.13 Additional plans and information may be required to complete the Final Plans.
 - 10.13a Prepare a plan sheet detailing horizontal and vertical control for the project.
 - 10.13b Prepare a jointing plan for the extents of the project.
 - 10.13c Prepare plans for the traffic signal modifications at Iowa Street & Bob Billings Parkway/ 15th Street intersection. Standard KDOT sheets and bid items will be used. The City will provide signal timing plan.
 - 10.13d Prepare concrete safety barrier drawings. Standard KDOT sheets and bid items will be used.
 - 10.13e This scope of services does not include modifications to the existing RCB at the ravine.
 - 10.13f This scope of services does not include roundabout plans, profiles, details, etc. for any intersection.
 - 10.13g This scope of services does not include waterline reconstruction, except as detailed in Preliminary Phase Task 12.6.
 - 10.13h This scope of services does not include retaining wall design.
 - 10.14 Submit electronic plans to the City's ftp site. The electronic submittal will follow the requirements of Task 10.15.
 - 10.15 Submit electronic plans to KDOT in accordance with their E-Plan requirements for their review. Allow two weeks for KDOT review of the office check plans.
- 11 Provide all utility companies a set of final plans for their use. Meet with each utility company to discuss the relocation of their facilities and the time schedule.
 - 11.1 Plot and mail plan sets for up to 6 utility companies. (Covered under Preliminary Design Phase Task 4.6)
 - 11.2 This task does not include Bartlett & West attending a utility relocation meeting conducted by City Staff for all utility companies to attend.
 - 11.3 Provide 1 follow up phone call to each utility company (6 max.).
- 12 Provide estimate of probable construction cost based upon the final plans.

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- 12.1 Prepare a cost estimate based on the unit quantities in Task 9 and recent bid tabs provided by the city
- 13 Provide mylars and two sets of the final, approved plans to the city. Also, provide a digital copy of the plans as detailed in Exhibit D.
- 13.1 Address office check plan comments.
- 13.2 Submit electronic plans to the City's fip site. The electronic submittal will follow the requirements of Task 13.4.
- 13.3 Provide a CD with DWF images of the final drawings.
- 13.4 Submit electronic plans to KDOT in accordance with their E-Plan requirements.
- 14 Attend two progress meetings during the Final Design Phase.
- 14.1 Prepare agenda and information for meetings.
- 14.2 Attend 2 meetings to discuss design issues.
- 14.3 Prepare meeting minutes and distribute action item list to attendees.

Note: No hard copy drawings will be submitted to the City or KDOT for their use. All drawing submittals to the City and KDOT will be in electronic format.

BIDDING PHASE

- 1 Answer all questions from contractors regarding the final plans.
- 2 Conduct a prebid conference, if required by city staff.

Note: The City will provide all bidding phase services for this project.

CONSTRUCTION PHASE

- 1 Attend a preconstruction conference with the city and the contractor, once the project has been awarded.
- 2 Answer all questions from the contractor regarding the design and interpretation of the plans.
- 3 Review and comment, or approve, contractor's shop drawings and samples and the results of tests and inspections and other data which each contractor is required to submit for the purposes of checking for compliance with the design concept and conformance with the requirements of the contract documents.
- 4 Provide the city a complete set of as-built drawings for the project. The as-built drawings shall be provided as a digital copy, as detailed in Exhibit D, and one set of mylars.
- 5 On a sanitary sewer project, all manholes shall be located by GPS methods, and this coordinate location shall be provided to the city with the as-built plans.

Note: City will provide all construction phase services for this project.

GENERAL

- 1 Provide schedule for completion of preliminary plans, right-of-way plans, final plans, and bid date.
- 2 Provide written monthly progress reports as detailed in Exhibit C.
- 3 If bids exceed the estimated cost, the City may discuss, with the Consultant and the lowest bidder, ways to reduce the cost. This discussion will be accomplished at no additional cost.
- 4 Consultant must notify the city of additional costs for service requested prior to performing the service. For example, if Consultant is asked to attend a meeting not included in the scope of service, the cost must be determined before attending.
- 5 Written notes from any meetings with state, federal, or other agencies will be provided to the city by the Consultant. These need not be "formal minutes" but notes on discussion topics and requirements imposed.
- 6 All documents must be provided in the current version of WordPerfect, or Microsoft Word, as designated by the city at the time of execution of this contract.
- 7 All drawings must be prepared on standard 22" X 34" bond sheets. Also final plans, field notes, and other pertinent project mapping records are to be provided to the city on digital format, as detailed in Exhibit D.