

EXHIBIT D

FURTHER DESCRIPTION OF BASIC PROFESSIONAL SERVICE AND RELATED MATTERS

Description of Services

The consultant will provide all design and engineering services necessary for the construction of approximately 1.2 miles of multi-modal streetscape improvements along Euclid Avenue and Avenue of Champions. The current project limits include the contiguous section of Euclid Avenue, Avenue of Champions and Winslow Street from the intersection with High Street to the intersection with South Upper Street.

These services are described in Exhibit A, Exhibit C, and supplemented by this exhibit. The scope of work includes:

Phase 1 – Surveys and Coordination

- a. Research all deeds, plats and other property records to identify property lines, right-of-ways and easements. Research and portray zoning and future land use.
- b. Field surveys - Confirm critical locations and elevations necessary for design including but not limited to existing roadway, sidewalk edges, sanitary and storm sewer features, and other utilities.
- c. Base plan preparation including topographic survey data.
- d. Coordination with involved parties, including but not limited to LFUCG, University of Kentucky, Lextran, Downtown Development Authority and utility companies. Special attention shall be given to the LFUCG RMP Plan, currently identified in RMP planning documents as UK Trunk D and E in the Town Branch watershed.

Deliverables:

- a. Base plan

Phase 2 – Public Engagement

- a. Outreach to stakeholders
- b. Stakeholder meetings (5 meetings)
- c. HOA and business association meetings (4 meetings)
- d. Initial public meeting (1 meeting)
- e. Presentation of proposed multi-modal alternate (1 meeting)
- f. Presentation to Council (1 meeting)

Deliverables:

- a. Presentational materials/handouts and agenda for meetings

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- b. Meeting Minutes

Phase 3 – Multi-Modal Configuration and Utility Relocations

- a. Development of MM alternatives
- b. Initial discussions with utilities regarding relocations
- c. Review meetings with LFUCG
- d. Coordination with utilities related to relocation options and costs, including burying electrical and communication cables
- e. Evaluation of MM and utility relocation alternatives
- f. Development of recommended alternative
- g. Meetings with LFUCG to review and select MM alternative

Deliverables:

- a. Base plan
- b. Ten (10) copies of Summary Technical Memorandum describing methodology and recommendations, including conceptual plans and cost estimates (per Phase 4). The memorandum shall also include a list of all utility conflicts and proposed solutions, a list of impacted properties and property owners, a list of required easements and road right-of-way taking (if applicable) and encroachment, a list of required permits and respective agencies from which the permit(s) will be secured.

Phase 4 – Detailed Cost Estimates

Deliverables:

- a. Conceptual estimate of MM alternatives (based on Phase 3 alternatives).
- b. Preliminary design estimate (based on Phase 6 Plans). Estimate shall match the items listed in the General Summary sheet furnished in the Plans.
- c. Final design estimate (based on Phase 7 Plans). Estimate shall match the items listed in the General Summary sheet furnished in the Plans.

Phase 5 – Right of Way and Easements

- a. Deliverables (If requested by the LFUCG Division of Engineering):Preparation of right of way plats meeting all requirements of the LFUCG Planning Commission, Department of Law and KYTC
- b. Preparation of easement descriptions and exhibits meeting all requirements of the LFUCG Division of Engineering.
- c. Property acquisition negotiations

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Phase 6 – Preliminary Plans

- a. Preliminary plan views
- b. Preliminary profiles and cross sections
- c. Design of pedestrian ways and crossings
- d. Develop bicycle accommodations
- e. Storm sewer modifications
- f. Stormwater BMPs
- g. Sanitary sewer modifications
- h. Bus stops (design details provided by others)
- i. Striping, Marking, and Signage Plans
- j. Details & notes
- k. Hardscape Plan
- l. Landscape Plan
- m. Street Furniture Plan
- n. General Summary Sheet
- o. Utility, UK, Lextran, KYTC coordination
- p. Two (2) review meetings

Deliverables:

- a. Preliminary cost estimate (Per Phase 4)
- b. Five (5) full-size sets of plans
- c. Two (2) reduced-size (11 x 17) sets of plans

Phase 7 – Final Plans

- a. Final plan views
- b. Final profiles and cross sections
- c. Final stormwater management
- d. Stormwater Pollution Prevention Plan (SWPPP)
- e. Final Streetscape Plan Elements (Hardscape, Landscape, and Street Furniture)
- f. Street and Pedestrian Lighting Plans

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- g. Signal and Signage Plans, as needed
- h. Final bus stops, striping/markings and signage
- i. Maintenance of traffic plans
- j. Utility coordination
- k. Technical specifications
- l. Final R/W and Easements (R/W Summary Sheet)
- m. Cover and layout sheets
- n. Details, notes, typical sections, etc.
- o. Permits (KYTC)
- p. General Summary Sheet and final cost estimate
- q. 90% and Final Review meetings
- r. Compile final deliverables, including digital copies of all data, drawings, and specifications

Deliverables:

- a. Final cost estimate (Per Phase 4)
- b. Five (5) full-size sets of plans
- c. Two (2) reduced-size (11 x 17) sets of plans
- d. CD or flash drive with:
 - Bid-Set Plans in AutoCAD (.dwg) format
 - Bid-Set Plans and Contract Documents / Specifications (stamped and signed) in Acrobat (.pdf) format

Phase 6 and 7 - General Notes

All plans shall be created in conformance with applicable federal, state and local standards and requirements, including but not limited to:

- AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities
- Manual on Uniform Traffic Control Devices
- Public Rights-of-Way Accessibility Guidelines
- ADA Best Practices
- All LFUCG Engineering Manuals and standard drawings

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- All LFUCG Zoning regulations and the Code of Ordinances provisions.

All quantities measured, calculated, and specified shall be in English units (e.g., feet, pounds). All drawings and sheets shall conform to the follow scales:

a. Plan Sheets 1" = 20'

b. Profile sheets 1" = 20' horizontal
1" = 2' vertical

Entrance profiles shall be provided where they are to be constructed or reconstructed.

c. Cross sections sheets 1" = 5' horizontal
1" = 5' vertical

Assume a total of 64 cross sections will be furnished at critical locations where needed to address the impact of grade changes or conflicts with buried utilities/structures.

Final design plans, construction drawings, specifications, and total estimates shall be prepared by a Professional Engineer licensed to practice in the Commonwealth of Kentucky. All plans are subject to review by the LFUCG Division of Engineering and applicable KYTC divisions.

LFUCG shall furnish technical specifications from their standard set. If a LFUCG technical specification is unavailable, the Consultant shall prepare it.

LFUCG shall furnish front-end contract documents.

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Scoping Addendum

The following elements were discussed on 11/19/2015 and 12/17/2015 and are included here to clarify the scope of work:

- The scope of work assumes that improvements will be done within the boundaries of the existing right-of-way.
- Environmental investigations are excluded from this scope – may be required at a later date
- Geotechnical investigations are excluded from this scope – none anticipated to be required
- Structural design services are excluded from this scope – none anticipated to be required
- Bidding and construction administration services are excluded from this scope
- Jonathan Hollinger is working with Bloomberg Philanthropies in developing an online questionnaire for residents near the project corridor as an initial public engagement effort. Results will be provided to the design team.
- Jonathan Hollinger will provide a hard copy of the recent commercial corridor study. He stated that two project objectives are bicycle safety and promoting commercial growth.
- Available GIS information will be transmitted through a data portal, and 2013 orthophotos will be provided. Storm and sanitary data is not included in the information that will be in the data portal, and will be provided separately. John Steinmetz mentioned that the recent Sanitary Sewer Assessments and Remedial Measures Plans have produced data for the trunk sewers, and possibly some of the collector sewers in the area.
- The RMP improvements are currently slated for 2019, and will likely have to be incorporated into the overall design in some fashion. Current scope includes identification of potential corridors for the new trunk sewer; potential additional services would include profiles and connection details.
- The University of Kentucky will provide their recent and current construction plans after the design team is under contract.

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- Euclid Avenue is a state route, and coordination with KYTC District 7 will be required. The UCG is considering acquiring it to be added to their system and will address this subject with District 7. For the purpose of this project the corridor will be considered an east-west route, and stationed from west to east.
- A steering committee that guides the decision-making on the project will include this meeting's attendees along with a representative from the University of Kentucky. In addition, an advisory committee will be formed that will include the steering committee members along with Brandi Berryman, the two affected councilmembers (Bill Farmer and Jake Gibbs), and a representative from the Downtown Development Authority. Lextran will also be invited to participate, as well as District 7 (as long as the corridor remains a state route). The advisory committee will provide input and feedback to assist the steering committee.
- Unit prices will be provided for exposing underground utilities at selected locations.
- In the past, Lextran has stated that they do not prefer pull-offs; they prefer to stop in the travel lane to avoid having to merge back into traffic.
- A relatively detailed technical memorandum will be prepared at the end of Phase 3 – Multi-Modal Configuration and Utility Relocations to document the work conducted up to that point and recommendations for improvements to be designed in the preliminary and final design phases.
- The conceptual cost estimate in the technical memorandum should be +/- 20 percent (AACE Class 3).
- Limited cross sections should be included in the scope; assume half the project or 64 cross sections. It is anticipated that cross sections will be furnished at critical locations where needed to address the impact of grade changes or conflicts with buried utilities/structures.
- Entrance profiles shall be provided where they are to be constructed or reconstructed.
- Water quality BMPs shall be provided where practical and cost-effective. Jonathan Hollinger will confirm that water quality inlets will not be required, as none of the existing storm sewers discharge directly to open channels.

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Projects Phases and Fees

Summary of project phases and fees, excluding direct costs such as travel and reproductions.

Phase No	Phase Name	Cost
1	Surveys and Coordination	\$41,700
2	Public Engagement	Hourly rates – see below
3	Multi-Modal Configuration and Utility Relocations	\$58,200
4	Detailed Cost Estimates	\$17,700
5	Right of Way and Easements	Unit prices – see below
6	Preliminary Plans	\$86,400
7	Final Plans	\$113,000
	Total	\$317,000

Detailed project phases, tasks, and fees.

Phase No	Phase Name	Task	Units	Unit Type	Price	Total
1	Surveys and Coordination	Research	1	Lump Sum	\$3,600	\$3,600
1	Surveys and Coordination	Field surveys	1	Lump Sum	\$17,800	\$17,800
1	Surveys and Coordination	Base plan preparation	1	Lump Sum	\$10,600	\$10,600
1	Surveys and Coordination	Coordination with involved parties	1	Lump Sum	\$9,700	\$9,700
2	Public Engagement	Outreach to stakeholders	0	Hourly	See below	\$0
2	Public Engagement	Stakeholder meetings	0	Hourly	See below	\$0
2	Public Engagement	HOA and business association meetings	0	Hourly	See below	\$0
2	Public Engagement	Initial public meeting	0	Hourly	See below	\$0
2	Public Engagement	Presentation of proposed multi-modal alternate	0	Hourly	See below	\$0

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2	Public Engagement	Presentation to Council	0	Hourly	See below	\$0
3	Multi-Modal Configuration and Utility Relocations	Development of MM alternatives	1	Lump Sum	\$15,500	\$15,500
3	Multi-Modal Configuration and Utility Relocations	Initial discussions with utilities regarding relocations	1	Lump Sum	\$900	\$900
3	Multi-Modal Configuration and Utility Relocations	Review meetings with LFUCG	1	Lump Sum	\$4,800	\$4,800
3	Multi-Modal Configuration and Utility Relocations	Coordination with utilities related to relocation options and costs	1	Lump Sum	\$3,000	\$3,000
3	Multi-Modal Configuration and Utility Relocations	Evaluation of MM and utility relocation alternatives	1	Lump Sum	\$11,400	\$11,400
3	Multi-Modal Configuration and Utility Relocations	Development of recommended alternative	1	Lump Sum	\$7,700	\$7,700
3	Multi-Modal Configuration and Utility Relocations	Meetings with LFUCG to review and select MM alternative	1	Lump Sum	\$5,400	\$5,400
3	Multi-Modal Configuration and Utility Relocations	Summary technical memorandum describing methodology and recommendations	1	Lump Sum	\$9,500	\$9,500
4	Detailed Cost Estimates	Conceptual estimate of MM alternatives	1	Lump Sum	\$4,200	\$4,200
4	Detailed Cost Estimates	Preliminary design estimate	1	Lump Sum	\$6,700	\$6,700
4	Detailed Cost Estimates	Final design estimate	1	Lump Sum	\$6,800	\$6,800
5	Right of Way and Easements	Preparation of right of way plats	0	Unit Price	\$1,000	\$0
5	Right of Way and Easements	Preparation of easement descriptions and exhibits	0	Unit Price	\$500	\$0
5	Right of Way and Easements	Property acquisition negotiations	0	Hourly	\$125	\$0
6	Preliminary Plans	Design of pedestrianways and crossings	1	Lump Sum	\$8,300	\$8,300
6	Preliminary Plans	Develop bicycle accommodations	1	Lump Sum	\$8,100	\$8,100
6	Preliminary Plans	Storm sewer modifications	1	Lump Sum	\$3,500	\$3,500
6	Preliminary Plans	Stormwater BMPs	1	Lump Sum	\$5,100	\$5,100
6	Preliminary Plans	Sanitary sewer modifications	1	Lump Sum	\$2,700	\$2,700

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6	Preliminary Plans	Bus stops (design details provided by others)	1	Lump Sum	\$3,200	\$3,200
6	Preliminary Plans	Preliminary profiles and cross sections	1	Lump Sum	\$14,800	\$14,800
6	Preliminary Plans	Striping, Marking, and Signage Plans	1	Lump Sum	\$10,100	\$10,100
6	Preliminary Plans	Details & notes	1	Lump Sum	\$4,300	\$4,300
6	Preliminary Plans	Hardscape Plan	1	Lump Sum	\$6,000	\$6,000
6	Preliminary Plans	Landscape Plan	1	Lump Sum	\$3,400	\$3,400
6	Preliminary Plans	Street Furniture Plan	1	Lump Sum	\$3,700	\$3,700
6	Preliminary Plans	Utility, UK, Lextran, KYTC coordination	1	Lump Sum	\$5,100	\$5,100
6	Preliminary Plans	Review meetings – 2	1	Lump Sum	\$8,100	\$8,100
7	Final Plans	Final plan views	1	Lump Sum	\$21,100	\$21,100
7	Final Plans	Final stormwater management	1	Lump Sum	\$10,300	\$10,300
7	Final Plans	Stormwater Pollution Prevention Plan (SWPPP)	1	Lump Sum	\$4,800	\$4,800
7	Final Plans	Final profiles and cross sections	1	Lump Sum	\$14,200	\$14,200
7	Final Plans	Final Streetscape Plan Elements (Hardscape, Landscape, and Street Furniture)	1	Lump Sum	\$6,900	\$6,900
7	Final Plans	Final bus stops, striping/markings and signage	1	Lump Sum	\$9,400	\$9,400
7	Final Plans	Maintenance of traffic plans	1	Lump Sum	\$6,200	\$6,200
7	Final Plans	Utility coordination	1	Lump Sum	\$4,100	\$4,100
7	Final Plans	Street and Pedestrian Lighting Plans	1	Hourly	See below	\$0
7	Final Plans	Traffic Signalization Plans, as needed	1	Hourly	See below	\$0
7	Final Plans	Technical specifications and contract documents	1	Lump Sum	\$12,600	\$12,600
7	Final Plans	Final R/W and Easements	1	Unit Prices	\$0	\$0
7	Final Plans	Cover and layout sheets	1	Lump Sum	\$1,600	\$1,600

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7	Final Plans	Details, notes, etc.	1	Lump Sum	\$9,100	\$9,100
7	Final Plans	Permits (KYTC)	1	Lump Sum	\$4,200	\$4,200
7	Final Plans	90% and Final Review meetings	1	Lump Sum	\$7,500	\$7,500
7	Final Plans	Compile final deliverables, including digital copies of all data, drawings, and specifications	1	Lump Sum	\$1,000	\$1,000

Unit Prices

Unit prices for anticipated and extra work as required. Prior approval of LFUCG required.

Phase Name	Work	Price	Unit
Right of Ways Plans	Develop ROW plats	\$1000	Each
Right of Ways Plans	Develop Easement Descriptions	\$500	Each
Surveys and Coordination	Underground Utility Potholing	\$250	Each

Hourly Rates

Hourly rates for hourly or extra work as required by position. Prior approval of LFUCG required. LFUCG billed actual cost on ¼ hour basis.

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Category	Banks Engineering	Sprinkle Consulting	Rundell Ernstberger	Palmer Engineering	Integrated Engineering
Project Manager / Chief Engineer	\$155	\$184	n/a	n/a	n/a
Senior Engineer / LA	\$145	\$169	\$195	\$175	\$150
Project Engineer / LA	\$110	\$135	\$140	\$150	\$125
CADD / Planner	\$90	\$95	\$100	\$90	\$95
Survey Crew / Environmental Scientist	\$140	n/a	n/a	\$120	n/a

Project Schedule

Schedule is based on a notice to proceed provided to the consultant(s) by LFUCG for each phase.

Phase No	Phase Name	Days
1	Surveys and Coordination	60
2	Public Engagement	90
3	Multi-Modal Configuration and Utility Relocations	90
4	Detailed Cost Estimates	30
5	Right of Way and Easements	60
6	Preliminary Plans	90
7	Final Plans	90
	Total	510