

City of Lawrence, Kansas

Engineering Design Services for Bicycle Boulevards

Project Scope:

This scope of services provides details for structuring public engagement sessions and the development of construction plans necessary for the successful implementation of bicycle boulevards on W 21st Street between Iowa Street and Massachusetts Street, and E 13th Street between Massachusetts Street and Haskell Avenue in Lawrence, Kansas. The plans for these corridors may include the following:

- Install a combination of traffic calming features to lower the speed and maintain traffic volumes including such elements as bump outs, mini circles, speed humps or speed tables between curb lines.
- Prepare a striping, signing, and intersection treatments for the two bicycle boulevard segments.
- Provide ADA compliant curb ramps only where curb ramps are impacted by the project, which will be limited, and will be shown in the concept plan for traffic calming.
- Provide landscaping that enhances areas of improvement as space as available.

Task 1: Community Engagement (Additional Design Service)

- A, Inform Residents & Engage Participation:
- Prepare flyers and messaging to distribute to homes on both sides of both streets for the entire length of the corridors
 - E-communications – provide messaging and information to the City to provide education and communications through existing City methods and venues
 - Identify any neighborhood and school activities where we can where we can hand out flyers and provide opportunities for input
 - Alta will coordinate with the City and contact neighborhood organizations, community advocacy leaders, and businesses that will be affected by the project
 - Alta will meet with school officials to discuss plans and how to work best with the school schedule and traffic patterns
- B Host Conceptual Design Meeting for Each Corridor:
- Alta will design and assemble materials for community engagement meetings
 - The meetings could be held at places such as Lawrence High School, Liberty Memorial Central Middle School, or city facilities. Alta will present the concept for resident feedback, and take input on the design.
 - Alta will provide a pop-up demonstration of traffic calming for the bicycle boulevards at a location near the meeting sites. The demonstration will be used to exhibit a bicycle boulevard application along the corridors for communication and discussion to gain feedback from the public on typical applications that will inform preliminary designs. Alta will prepare a list of materials for the City to provide, as well as a crew to assist Alta in set up for each pop-up demonstration.
- C. Communication/Engagement tools: Alta will assist with developing yard signs, E-communications and social media - Targeted e-blasts to residents, neighborhood and community leaders

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- Bicycle Boulevard design elements and benefits, visuals will be presented that will allow neighborhoods and the community to provide input on the plans. An education component will be integral to this presentation on bicycle boulevards.
 - Not everyone will be able to attend the meeting so it will be important to give people outlets for feedback. We can use online engagement tools or some other means, with a clearly defined deadline. We assume the City will provide a page on their website for information and links to presentations, boards, plans and surveys to allow the public access to information and to contribute comments on the project.
- D. Host Second Design Meeting for Each Corridor (If Needed):
- Alta will design and assemble materials for a second round of community engagement meetings.
 - The meetings could be held at places such as Lawrence High School, Liberty Memorial Central Middle School, or city facilities. Alta will present the final concept for resident feedback, and take input on the final design.
 - Prepare documentation of meeting results for inclusion into the final engagement memorandum.

Deliverables:

- Complete Open House 1 and Document Results
- Complete Open House 2 and Document Results
- Pop Up Demonstration Summary
- Public engagement memorandum on activities, and documentation of events and documents used for engagement activities.

Task 2: Surveys (Pre-Design Service)

The city has collected GIS information that can be provided in a CAD format for curb lines and stormwater inlets, therefore this information does not need to be collected by CFS. Based on approved strategies for improvements from the concept plan, topographic will be completed in limited locations for development of the preliminary plans. Survey will be performed only in areas where required to obtain topographic information for pavement modifications or utility relocations, or confirmed areas in need of additional information (right-of-way will not be required). To provide a fee estimate for the project, survey effort will include 2 intersections along 13th Street and 6 intersections along 21st Street as listed in Task 3. (CFS)

Right of way/easement survey, research, and legal descriptions will be accomplished at an addition fee should this be required.

Task 3: Concept/Preliminary Design (Base Design)

The City will provide project information for active projects, existing traffic volume information and data available from previous or current traffic studies that are pertinent to the project. The city will collect bicycle and pedestrian counts in the corridor segment to set a baseline measurement of active transportation usage.

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The City will provide easement and right of way information to be shown on plans. City will perform right of way and property acquisition if any are needed.

- A. Develop a Base Map from aerial data imagery for the conceptual design. (CFS)
- B. Identify Alternative Opportunities (Alta/CFS)
- C. Prepare Conceptual Design for 13th and 21st Street. (Alta with CFS support)
- D. Develop preliminary design for traffic calming, street design, signing, striping and landscape improvements. (Alta with CFS support)
- E. Develop preliminary Intersection design plans for major and minor cross streets:
 - 13th Street – Massachusetts (East side), Connecticut, Haskell (West Side)
 - 21st Street – Massachusetts (East Side), Kentucky, Louisiana, Owens/Alabama, Naismith, Ousdahl, Stewart
- F. Review of utility impacts will be completed by the project team to identify possible conflicts with utilities on the project. If utilities are identified as being impacted by an element of the project, the project team will coordinate with the utility to develop a plan to mitigate or eliminate the conflict. (CFS)

Using the base map, Alta in coordination with the City and community engagement will develop illustrative conceptual plans for each corridor that include design elements based upon engagement with the City and neighborhoods.

Alta will develop typical section sheets will include sections for each unique roadway segment included in the project. Plan sheets will show the location of side streets, alleys, location of bump outs, speed humps or tables, mini circles, intersection improvements and locations of curb ramp improvements (or validation why curb ramps are not being replaced), and crossing markings or pavement markings.

It is not expected that right of way or easements will be needed, since improvements will be focused on bikeways on street, however, if acquisition of easements or right of way is needed for project improvements, CFS will assist in research and provide legal descriptions for easement acquisition by the City at an additional cost.

Design details will be noted on the preliminary plans with details added in the final design. Plan sheets will be on 24" X 36" plan sheets at a scale of 1" = 20', in a CAD format unless background unless mutually agreed to between the City and Alta.

- G. Graphic design staff at Alta will develop a wayfinding option that refine the logo and existing graphics to use in the development of design details and placement plans. **(Additional Design Service)**
- H. Develop Preliminary Cost Estimate - Preliminary plan documents and an estimate will be provided for City review for review and comment.
- I. Once the preliminary design has been updated based on city comments, Alta will present

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the projects to the Transportation Commission and City Commission. Alta will also provide information to the City for posting of the approved preliminary plans, on line and exhibited at City Hall to show the community the design with resident feedback incorporated.

Deliverables:

- a. Conceptual Plan Set
- b. Conceptual Estimate of Cost
- c. Preliminary Engineering Set
- d. Preliminary Estimate of Cost.

Task 3: Final Design Phase (Base Design)

The Project team will prepare 90% design plans and PS&E documents based on approved preliminary plans to detail the proposed bike boulevard improvements. Pavement marking and signing improvements will be prepared over an aerial image of the affected routes with special detail sheets to cover signage and pavement markings through intersections. The final design documents will include feedback from the public open house meetings and the two commission meetings following development of the preliminary plans. No traffic control plan will be prepared for the project, as directed by the City. Specifications will include documentation that the contractor will maintain travel and prepare a traffic control plan to be submitted to the City.

- A. The plans will be signed and sealed by the Chief Engineering Officer for Alta in Kansas (Paul Wojciechowski) and will be prepared on 24"x 36" sheets at a scale of 1" = 20' for the plan sheets. Plans to be included in the final plan set include title sheet, typical sections, itemized material quantities, plan sheets, signing and striping plans, intersection details, special details, standard details, utility relocation plans (if necessary), lighting (if required), erosion control plans and demolition plan. (Alta and CFS)
- B. Traffic Calming Details. (Alta and CFS)
- C. Landscape planting plans will be prepared for all areas and planting plans for trees and other landscape treatments will be prepared along the length of the project. Tree selection will be from the City approved list of trees. (Alta) **(Additional Design Service)**
- D. Wayfinding Plot Plan including signing details (Alta) **(Additional Design Service)**
- E. Prepare signing plans (Alta)
- F. Hold utility meeting and document utility impacts in the special provisions and on plan sheets or provide detailed letters of no conflict and show locations of known utilities on plan sheets. (CFS)
 - a. No permits are expected for this project.
- F. Final plan documents, details, special provisions, specifications, and an estimate will be provided to the City for review and comment. After city comments are received, the documents will be finalized for bidding. (Alta and CFS)

Deliverable:

- 90% and Final Design Plans
- Draft specifications and estimate of cost.

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- Final specifications and engineers estimate of cost.

Task 4: Bidding and Construction

- The project team will assist in answering questions during the bidding phase of these projects, issuing addenda as necessary. The team will be present and available to answer questions regarding plans, and specifications, as well as to provide clarification on plan documents. (Alta with CFS support)
- No attendance at the bid opening is included in the scope.

Deliverables:

- Prepare memos of data requests.

Task 5: Project Management (Base Design)

Scope elements of this project are intended to provide high-quality work products that meet City's mission, financial, and engagement requirements for implementing the project. This requires an understanding of the needs of the City and community and a clear understanding of the project elements. To manage a project effectively requires communication skills so that each team member has a common expectation of the project outcome.

The project team will manage activities with the City to provide a continual flow of information and coordination of activities and other active projects. The design team will achieve this through meetings with the City every two weeks throughout the duration of the project. These meetings will be in person for local project team members and in person or conference calls for out of town team members.

Since the Principal on the project will be sealing the design plans, he will oversee and supervise all plan development and design. This is consistent with the standard Alta quality review process used on all plans and project plans. In addition CFS will provide a review of finished plans for quality control and conformity to local and City construction standards and details. This review process provides the benefits and synergy of the project team. For all submittals to the City, Alta will provide a three-tier quality control system for written and graphic material that includes a peer review, an independent review, and a local project team review of materials prior to submittal.

Deliverables:

- Hold Meetings for Coordination and Prepare meeting Minutes
- Prepare for and Hold bi-weekly client and team meetings

Task 6: Project Administration

Alta will consolidate the invoices of the project team into one invoice that will be submitted monthly to the City. Alta will prepare and submit invoices as outlined in the contract language provided by City. The project team will provide task level project updates of work completed and percent of tasks completed.

Deliverables:

- Invoicing

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Assumptions

The above approach we will take to the scope of work is based on the following:

- Project Limits: W 21st Street between Iowa Street and Massachusetts Street and E 13th Street between Massachusetts Street and Haskell Avenue
 - Community Engagement: One meeting for each corridor is required. The City Commission and Transportation Commission meetings that are part of the scope will provide additional opportunity for public participation. The City wants to engage the adjacent property owners, neighborhoods, schools, affected businesses, and advocacy groups in a streamlined fashion. The City wants to incorporate the needs and suggestions of the public in the design to garner public support. A second neighborhood meeting for each corridor may be held if needed.
 - Survey: Limited survey is expected to be necessary, and will be defined as design elements are confirmed. Survey will be performed only in areas where required to obtain topographic information for pavement modifications or utility relocations. To provide a fee estimate for the project, survey effort is only included at 2 intersections along 13th Street and 6 intersections along 21st Street as listed in Task 2.
 - Signals: No new traffic signals are anticipated as part of this project, however, major and minor street crossings such as Connecticut, Naismith and Louisiana may require signalization to provide for low stress crossings.
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FINANCIAL SUMMARY

Pre-Design Services:

Surveys	\$ 6,152
Develop Base Map	\$ 1,310
	\$ 7,462

Base Services:

Conceptual and Preliminary Design	\$ 35,563
Final Design	\$ 24,594
Project Management and Administration	\$ 14,616
	\$ 68,611

Additional Design and Supporting Services:

Community Engagement	\$ 23,638
Wayfinding Options	\$ 3,760
Landscape Plans	\$ 3,651
Wayfinding Plans	\$ 1,791
Attend Commission Meetings	\$ 3,320
	\$ 37,872

EXPENSES: **\$ 5,650**

TOTAL DESIGN SERVICES: **\$119,595**

Schedule of Rates for all Personnel:

- Principal in Charge/PM/Sr. Advisor - \$205**
- Sr. Associate - \$129**
- Sr. Designer - \$137**
- Designer - \$98**
- Engineer - \$98**
- Planner - \$98**

Reimbursable Expenses: Reimbursable expenses are included in the total maximum fee. Reimbursable expenses include expenses in connection with the project to include: travel, printing and reproduction, postage, and other materials as approved by the City. The amount reimbursed will be the net cost of the item, receipts will be provided.