**ATTACHMENT A**

SCOPE OF SERVICES

Objective: The City seeks to [describe the primary goal of the project].

Background: This project consists of [summarize proposed scope]. A rough order of magnitude cost estimate for construction is $[EOPC, if available].

|  |
| --- |
| **EnvisionCR Element/Goal:** (Click here to select) |

All services shall be performed in accordance with the Statewide Urban Design and Specifications (SUDAS) Design Manual and the Cedar Rapids General Supplement as well as the [YEAR] version of the City of Cedar Rapids Project Development and Management Manual.

The Scope of Services to be performed by the Consultant shall include the Services and supplies to complete the following tasks:

**TASK A – PROJECT COMMUNICATIONS**

#### 1.0 Monitoring Project Schedule

The Consultant shall prepare and submit [frequency] progress updates (1-page) via email.

#### 2.0 Monitoring Project Scope

The Consultant shall inform the City of any services required which may not be included in the scope of the design services contract approved by the City for this Project. It will be the responsibility of the Consultant to make the City aware of any potential amendments to the contract before the services are rendered.

#### 3.0 Project Review Meetings

The Consultant shall meet with the City or its designated representative to review progress and to discuss specific elements of the project design. The meetings will also serve to establish schedules, develop project goals, establish design parameters, promote a dialog between the various entities, improve the decision-making process, and expedite design development. The consultant shall keep documentation of all communications. Meeting may include but are not limited to project kickoff, functional design, preliminary design, intermediate design, final design, field review and any other meeting deemed necessary by the City to complete the contract documents for bidding.

#### 4.0 Invoice Processing and Review

The Consultant shall create, process, and review invoices to ensure they meet City standards and all necessary information is included. Coordinate with City staff as necessary and answer any questions. Verify percent work complete on project is in line with percent billed. Includes all other general project administration necessary to complete the project.

**TASK B – SURVEY AND MAPPING**

#### 1.0 Design Surveys

The Consultant shall perform field and office tasks required to collect topographic information deemed necessary to complete the project. The City shall provide aerial photographic and other available mapping, including utilities, of the Project area. The specific survey tasks to be performed include the following:

**1.1 Control Surveys**

The Consultant will establish horizontal and vertical control for the Project area in accordance with Cedar Rapids General Supplement to SUDAS Design Manual – Chapter 1 – Design Survey Standards. Consultant shall provide sufficient control for construction. If it is determined by the City that control is insufficient, the Consultant shall add control points.

**1.2 Topographic Survey**

The Consultant will perform topographic surveys required for the development of the project. Topographic surveys are anticipated to require detailed elevation information for proper construction installation, including, but not limited to:

1. Full width of the Public right-of-way
2. Private properties as determined by the consultant
3. Driveway elevations where rehabilitation presents elevation concerns
4. Gutter and/or roadway profiles as necessary for drainage concerns or ultimate roadway profile condition needs.
5. Sidewalk ramps and landings within the public right-of-way.
6. Fences, signs, buildings, retaining walls, etc.
7. Vegetation 4” diameter and larger
8. Utility appurtenances likely to be impacted by the project
9. Sanitary and storm sewer above ground structures and invert elevations

**1.3 Utility Surveys**

This task consists of field survey indicating the location of utilities within the existing right-of-way for the project. The Consultant shall field locate visible valves and utility access with in the project limits to accurately account for adjustment and/or replacement. Underground utilities will be incorporated into the project through map requests to the utility companies and drawn into the design file. This work will be considered survey quality level “B”, per CI/ASCE 38-02. Utilities include phone, gas, fiber optic, water main, overhead/underground electrical, sanitary sewer, storm sewer, and in-pavement traffic control equipment (including power poles, pedestals, valves and manholes).

**1.4 Subsurface Utility Investigation**

The Consultant shall attempt to locate critical utility locations to quality level “A”, per CI/ASCE 38-02, depending on utility company cooperation. These may include connection points, crossings, or other critical locations. Consultant shall utilize an outside sub-consultant to obtain critical locations using hydro-excavating (potholing). Traffic control and survey will be required to facilitate this task. The Scope shall include potholing all locations necessary to determine level “A” subsurface utility data. This does not allow for any traffic control drawings or dynamic messaging systems during potholing.

**OR**

Subsurface utilities will be located from available maps and field locates at locations where underground facilities (e.g., storm intakes, traffic signal poles, etc.) will be constructed. Approximate subsurface utility elevations shall be based on readily visible information, available data, and general industry standards.

**1.5 Right-of-Way Surveys**

The Consultant shall determine the location of existing Right-of-Way (ROW) and identify property owners adjacent to the project. This task consists of researching record documents at the City and County and locating existing monumentation (including, but not limited to, property pins, government corners, and other monuments) along the corridor. All found monuments shall be shown on the H sheets in contract drawings.

**1.6 Unmanned Aerial Vehicle (UAV) Survey**

The Consultant shall fly the project site using UAV technologies in order to accurately display pavement patch locations, scan pavement surface elevation information and pavement markings, and create a current aerial image of the project site with no disruption to traffic.

The Consultant shall complete proper FAA preparation and notifications as necessary to complete UAV survey activities. Due to the distance of the project site to the nearest FAA airspace, no FAA restrictions are expected to complete UAV survey activities.

The Consultant shall process data collected from the flight to create a 2D orthomosaic geo-referenced true color image of the project site, which will be delivered to the City as an electronic file with the Final Plan submittal.

#### 2.0 Outside Services

**2.1 Pavement Cores**

Perform pavement core location surveys to establish location and elevation of proposed geotechnical investigations.. The Consultant shall field locate core locations. Consultant or Consultant’s subconsultant shall perform pavement core drilling and provide the Consultant with field data.

**2.2 Soil Borings**

Consultant’s Subconsultant shall complete soil borings and provide the Consultant with field data and a report. The number and location of soil borings shall be determined by the Consultant and their subconsultant to ensure adequate subsurface investigation within the project limits. Consultant’s Subconsultant shall perform laboratory testing on the samples to evaluate site conditions and develop engineering recommendations for the project.

Based on the results of the geotechnical evaluation, the Consultant or Consultant’s Subconsultant will prepare an engineering report that details the results of the testing performed, provides logs of the borings, and a diagram of the site/boring layout. The report will include the following:

* General alignment and project descriptions
* Boring logs with field and laboratory data
* Stratification based on visual soil classification
* Groundwater levels observed during and after the completion of drilling
* Alignment and boring location plans
* Subsurface exploration procedures
* Description of subsurface conditions
* Estimating CBR of the subgrade
* Subdrainge recommendations
* Subgrade preparation/earthwork recommendations
* Recommended pavement rehabilitation methods and design parameters based on life cycle cost analysis

**2.3 Pavement Design**

Consultant’s Subconsultant shall provide recommendations for pavement type and thicknesses based on life cycle cost analysis.

**2.4 Environmental Study**

Consultant shall perform an environmental study that will include the following:

* Phase 1 Environmental Site Assessment
* Threatened and Endangered Species Review (T & E)
* Cultural Resources Evaluation (CRE)

**TASK C – FUNCTIONAL DESIGN**

**1.1 Concept Development and Evaluation**

The Consultant shall evaluate the following issues:

1. Pavement rehabilitation method recommendation and section information, including anticipated service life
2. ADA sidewalk ramp compliance locations and needs
3. Sidewalk construction on the [side(s] of the corridor
4. Potential surface and parkway drainage concerns
5. Utility structure deficiencies or impacts (manholes, handholes, valves, hydrants and water valves, steam vaults that can be removed, etc.)
6. Analysis of storm water system to ensure the corridor meets the conditions listed in Chapter 2 Storm Water Management of the City of Cedar Rapids Design Standards Manual including, but not limited to intakes, storm pipes and overland relief. Identify any upstream issues affecting the project corridor, and issues this project corridor may cause downstream (City will provide information from existing Storm Water Master Plan)
7. Property owner impacts: access, parkway grading, impacted landscaping, mailboxes, driveway concerns, etc.
8. Constructability
9. Concept layout for a roundabout at [location]
10. Concept layout for traffic signal [location]
11. Estimated number of trees for removal
12. Functional construction staging concept
13. Maintenance requirements
14. Effect on growth and development
15. Benefit/cost ratio
16. Regulatory permit needs, if required (NPDES, DNR water, DNR sewer, etc.)

**1.2 Deliverables**

The Consultant shall prepare the following:

1. [Number] concept drawings
2. Estimated total project costs
3. Tentative project schedule

**TASK D – PLAN DESIGN DEVELOPMENT**

The Consultant will prepare detailed design plans for the construction of the proposed improvements.

***1.0 SUDAS and PDMM***

The proposed improvements shall be designed in accordance with the Statewide Urban Design and Specifications (SUDAS) and the Cedar Rapids General Supplement. The Plans shall be prepared per the SUDAS Design Manual (i.e. plan sheet and pay item numbering). The Project Manual shall be prepared utilizing the City of Cedar Rapids’ Project Development Guide (to be provided to the Consultant). The Consultant shall also follow processes in the City of Cedar Rapids Project Development and Management Manual.

***2.0 QA/QC***

Establish review and checking procedures for project deliverables. Refer to Chapter 3 of the Project Development and Management Manual for information regarding QA/QC.

#### 3.0 Preliminary Plans

**3.1 Preliminary Plan Preparation**

The Consultant shall develop Preliminary Design Plans for the project letting. The criteria to be addressed in the submittal are shown in the Project Development Guide – Preliminary Plan Checklist.

The items to be included in the submittal are shown in the Project Development Guide – Preliminary Plan Checklist. The submittal of Preliminary Plans shall be completed on or before the schedule as outlined in Attachment B.

**3.2 Field Exam**

A Field Exam will be held with the Project Development Team to discuss key issues and design concepts, with the main emphasis focused on access control and traffic control/stage construction. The review will determine the completion of the plan design, identify needed adjustments to minimize potential property impact and confirm the proposed staging plans. Revisions will be noted for preparation of the intermediate design.

#### 4.0 Intermediate Plans

**4.1 Intermediate Plan Preparation**

After written authorization of approval from the City of the Preliminary Plans developed under Task D.3.0, the Consultant shall proceed with the development of Intermediate Plans. The Consultant will respond to comments resulting from City’s preliminary plan review. Recommended modifications will be incorporated into the plan set.

It is assumed that no geometric revisions to the roadway design will occur after the start of the development of the Intermediate Plans.

The criteria to be addressed in the submittal are shown in the Project Development Guide – Intermediate Plan Checklist.

The items to be included in the submittal are shown in the Project Development Guide – Intermediate Plan Checklist. The submittal of Intermediate Plans shall be completed on or before the schedule as outlined in Attachment B.

**4.2 Field Exam**

A field exam will be held with the Project Development Team to discuss key issues and design concepts, with the main emphasis focused on access control and traffic control/stage construction. The review will determine the completion of the plan design, identify needed adjustments to minimize potential property impact and confirm the proposed staging plans. Revisions will be noted for presentation of the final design.

#### 5.0 Final Plans

**5.1 Final Plan Preparation**

After written authorization of approval from the City of the Intermediate Plans developed under Task D.4.0, the Consultant shall proceed with the development of Final Plans. The Consultant will respond to comments resulting from City’s intermediate plan review. Recommended modifications will be incorporated into the plan set.

The criteria to be addressed in the submittal are shown in the Project Development Guide – Final Plan Checklist.

The items to be included in the submittal are shown in the Project Development Guide – Final Plan Checklist. The submittal of Final Plans shall be completed on or before the schedule as outlined in Attachment B.

#### 6.0 Bid Documents

Refer to Chapter 3 of the Project Development and Management Manual for information regarding the process to submit print documents to Public Works prior to bid letting.

**TASK E – UTILITY COORDINATION**

The Consultant will develop plans for the purpose of coordinating with existing utility owners in the corridor. Consultant will coordinate with the City and utility companies to discuss location of facilities and potential impacts as a result of the project, review utility relocation plans prepared by the utility company; and help facilitate a schedule with the City and utility companies to perform relocations prior to the project construction.

The Consultant shall provide the following services:

1. Submittal of Utility Coordination Plans to all private and public utilities in proximity to the project limits following the Preliminary Plan and Final Plan submittals. The first plan submittal will be to introduce the project to utility companies. The second will include review and coordination of potential conflicts identified by the final design plans to initiate potential utility relocations to be completed prior to letting.
2. Preparation and distribution of the Joint Utility Cover Sheet
3. Meetings with individual utility companies, as needed.
4. Staking of the existing/proposed right-of-way, as requested by utility companies for their relocations.

**TASK F – PERMITS**

The following permits are anticipated for the project:

1. NPDES General Permit
2. Water Main Construction Permit
3. Sanitary Sewer Construction Permit
4. Section 404/Section 401 Joint Permit (Protecting Iowa Waters)
5. Linn County Permit to Perform Work With County Right-of-Way
6. Iowa Department of Transportation
   1. Application to Perform Work Within State Highway Right-of-Way
   2. Utility Application Permit
   3. Approval of a Traffic Control Device
7. Railroad Permit

The Consultant shall prepare documents necessary obtain these permits, in accordance with Chapter 3 of the Project Development and Management Manual.

**TASK G – PUBLIC RELATIONS**

The Consultant will follow and participate in the City’s Communication Plan. The Communication Plan will include public notices and web-based available project information.

***1.0 Property Owner Coordination – Public Notices***

The following Public Notices are anticipated as part of this project:

1. Open House Invitation letter
2. Post Open House letter
3. Project Information letter

The City will provide templates for all letters to the Consultant and will mail all letters. Property Owners will be encouraged to respond directly to the City with comments and concerns. The Consultant shall assist in tracking public comments and incorporate suggestions into the project, as appropriate.

***2.0 Property Owner Coordination – Open House / Public Meeting***

The Consultant will attend [number] public informational meetings. The purpose of the meeting(s) will be to provide a brief overview of the proposed improvements to the surrounding property owners/businesses, and stakeholders, and a discussion of the improvement plan, as well as gather information on the concerns, priorities and specific issues of the adjacent property owners and other affected parties. The Consultant shall provide the following services:

1. Participation in one (1) pre-planning meeting approximately one week prior to the public meeting.
2. Preparation of a Power Point presentation for the public meeting (template provided by the City).
3. Preparation of 4-8 strip maps showing the proposed improvements.
4. Preparation of a Project Fact Sheet (template provided by the City).
5. Attendance at and participation in presentation at meeting.

***3.0 One-on-One Meetings***

Consultant recognizes that certain stakeholders will be involved in this project. Consultant will reach out to these stakeholders to identify and address their concerns, as well as encourage participation Project Information Letter response. Due to the nature of the project, which includes, but is not limited to, impacts to trees, shrubs, and landscaping elements, on both private and public land; it is likely there will be a need to meet one-on-one with some of the affected parties outside of the public open houses. On-Site meetings, phone, email, or a combination of the above will be conducted.

The Consultant shall contact and meet stakeholders along the corridor that may be affected by the project. We anticipate this list of stakeholders to include, but not be limited to: [list of stakeholders] For budgeting purposes, one 1-hr meeting with [number] property owners is included.

**TASK H – RIGHT OF WAY ACQUISITION**

The Consultant will prepare documents necessary to acquire right-of-way from private property owners for the construction of the project. Refer to Chapter 4 of the Project Development and Management Manual for information regarding determining land ownership, preparing and submitting plats and exhibits, and participating in a field review.

The following lists the estimated number of acquisition documents:

1. Right-of-way (fee title; plat signed by an LS) – #
2. Temporary easement (exhibit; no signature required) – #

Staking of proposed right-of-way and/or easements shall be provided for all said locations during the acquisition phase of the project.

In the event the plats, exhibits and/or PIDs are found to be in error, these shall be rectified by the Consultant without expense to the City. The consultant shall give immediate attention to any changes so there will be a minimum of delay.

**TASK I – SPECIAL ASSESSMENTS**

The City will assess the cost of construction of the following public improvements with this project:

1. Upgrade of pavement surface
2. Adding curb and gutter
3. Adding an turn lane
4. Replacing private sanitary sewer service lines
5. Installing a traffic signal
6. Constructing sidewalk
7. Storm water drainage improvements

The Consultant will follow the process and prepare the necessary special assessment documents, in accordance with Chapter 4 of the Project Development and Management Manual.

**TASK J – BID PHASE**

The work tasks to be performed or coordinated by the Consultant during the Bid Period Services are based on the bid lettings for one project and shall include the following:

***1.0 Plan Clarification and Addenda***

The bid lettings shall be administered by the City of Cedar Rapids. The Consultant shall assist the City during the bid periods in answering questions regarding the design intent. The Consultant shall address questions presented by the City and prepare addendum for distribution by the Consultant.

***2.0 Recommendation of Award***

The Consultant shall review the bids for each project following the public openings and provide the City with recommendations of award regarding the construction contracts. This task includes preparation of the Breakdown by Funding Source and Recommendation to Award in Excel format.

**TASK K – Construction Phase**

***1.0 Pre-Construction Meeting***

The Consultant shall attend a pre-construction meeting scheduled and held by the City.

***2.0 Plan Interpretation during Construction***

The Consultant will be available to discuss the project design with the City’s project manager and the Contractor during the construction phase, at the City’s request. Inquiries during the construction period relating to design Standard of Care items will be addressed by the Consultant under this contract. It is understood the City will provide on-going construction observation and administration services during the construction period and will inquire with the Consultant on an as-needed basis. Inquiries concerning items outside this scope (i.e. unforeseen underground conditions/facilities, constructability, etc.) will invoke a contract amendment for Consultant services. The design Standard of Care items are defined as services performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same professional discipline currently practicing under similar circumstances at the same time and in the same or similar locality.

***3.0 Site Visits***

The Consultant shall perform site visits to address contractor questions, and review construction progress and general conformance to the plans and specifications. Site visits shall be initiated by the City for specific construction related items. The Consultant shall be available for site visits as needed, during the course of construction.

***4.0 Reestablishment of Monuments***

After completion of construction, the Consultant shall perform field survey as required to verify which monuments found during the original survey and identified on the H sheets, if any, were disturbed or removed during construction. All disturbed or missing monuments shall be reset at their original location and a Monumentation Preservation Certificate in accordance with Iowa Code Section 355.6A shall be prepared and filed with the Linn County Recorder.