

EXHIBIT 1

**MODIFICATION NO. 1 TO AGREEMENT
DATED JULY 16, 2019 (RFQ NO. 543-32272B)
FOR PROFESSIONAL ENGINEERING SERVICES
FOR STORMWATER – SE HACKAMORE DRIVE & SE SECRETARIAT DRIVE**

THIS MODIFICATION TO AGREEMENT made and entered into this ____ day of _____, 20____, by and between the City of Lee's Summit, Missouri (hereinafter "City"), and Intuition & Logic Inc. (hereinafter "Engineer").

WITNESSETH:

WHEREAS, City and Engineer entered into an Agreement dated 07/16/2019 (RFQ No. 543-32272B) for professional engineering services for STORMWATER – SE HACKAMORE DRIVE & SE SECRETARIAT DRIVE (hereinafter "Base Agreement"); and

WHEREAS, City and Engineer desire to amend the provisions of the Base Agreement as provided herein; and

WHEREAS, Engineer has submitted a proposal for the amended engineering services and an estimate of engineering costs to perform said services; and

WHEREAS, the City Manager is authorized and empowered by City to execute contracts providing for professional engineering services.

NOW THEREFORE, in consideration of the mutual covenants and considerations herein contained, **IT IS HEREBY AGREED** by the parties hereto to amend the following Articles contained in the Base Agreement as follows:

**ARTICLE I
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

Article I of the Base Agreement, as amended, is hereby amended as shown in Exhibit A, entitled "Lee's Summit, MO SE Hackamore Drive and SW Secretariat Drive Regional Flood Control Detention Basins Design Phase 2 Scope of Service", attached hereto and incorporated herein by reference.

**ARTICLE IV
PAYMENTS TO THE ENGINEER**

Article IV of the Base Agreement, as amended, is hereby amended to provide additional compensation to Engineer as follows:

- A. The additional compensation to be paid to Engineer for the amended Basic Services described in Article I, of this Modification No.1, above shall not exceed the total sum of One Hundred Seventy Nine Thousand Eight Hundred Sixty Seven Dollars Dollars (\$179,867.00). The maximum not to exceed fees (hourly fees and expenses) by project phase is hereby amended to the amounts set forth in subsection B below. The total fees (hourly fees and expenses) for the Basic Services is hereby amended and shall not exceed the total sum of

Two Hundred Fifty Nine Thousand Six Hundred Forty Four Dollars and Twenty Cents (\$259,644.20).

- B. The amended total not to exceed amount for both the Basic Services and Optional Services is Two Hundred Fifty Nine Thousand Six Hundred Forty Four Dollars and Twenty Cents (\$259,644.20).

**ARTICLE V
COMPLETION TIME**

Article V of the Base Agreement, as amended, is hereby amended as follows:

Project Phase	Begin Date (Mo/Yr)	Completion Date (Mo/Yr)
Surveying	September 2020	October 2020
Design Development Plans and Cost Opinion	September 2020	January 2021
Permitting	October 2020	July 2021
Public Engagement	January 2021	March 2021
Final Plans and Specifications	March 2021	May 2021
Bidding Services	July 2021	July 2021

**ARTICLE VIII
ALL OTHER TERMS REMAIN IN EFFECT**

All other terms of the Base Agreement not amended by this Modification to Agreement shall remain in full force and effect.

This Modification No.1 to Agreement shall be binding on the parties thereto only after it has been duly executed and approved by City and Engineer.

IN WITNESS WHEREOF, the parties have caused this Modification to Agreement to be executed on the ____ day of _____, 20__.

CITY OF LEE'S SUMMIT

Stephen A. Arbo, City Manager

ATTEST:

City Clerk Trisha Fowler Arcuri

APPROVED AS TO FORM:


Nancy K. Yendes,
Chief Counsel of Infrastructure and Planning
Office of City Attorney

ENGINEER:



BY: Mark Meyer
TITLE: President

ATTEST:



Tim Dean

EXHIBIT A

Lee's Summit, MO SE Hackamore Drive and SW Secretariat Drive Regional Flood Control Detention Basins Design Phase 2 Scope of Service

The purpose of the following scope of services is to provide design, permitting, utility coordination, easement and right of way documents, public involvement, final plans and specifications, cost estimates, construction documents and bidding services for three Regional Detention Basins.

1.0 Surveying

I&L will provide surveying sufficient to produce final plans and easement documents.

1.1 Topographic Survey

Provide normal and customary topographic surveying sufficient to produce 1' contours.

Topographic survey limits are indicated by solid red line in the survey exhibit. Combine Phase 1 and Phase 2 survey data into one AutoCAD drawing. If geotechnical field sampling is complete, the topographic survey will include locating the boring holes.

1.2 Channel and Floodplain Sections

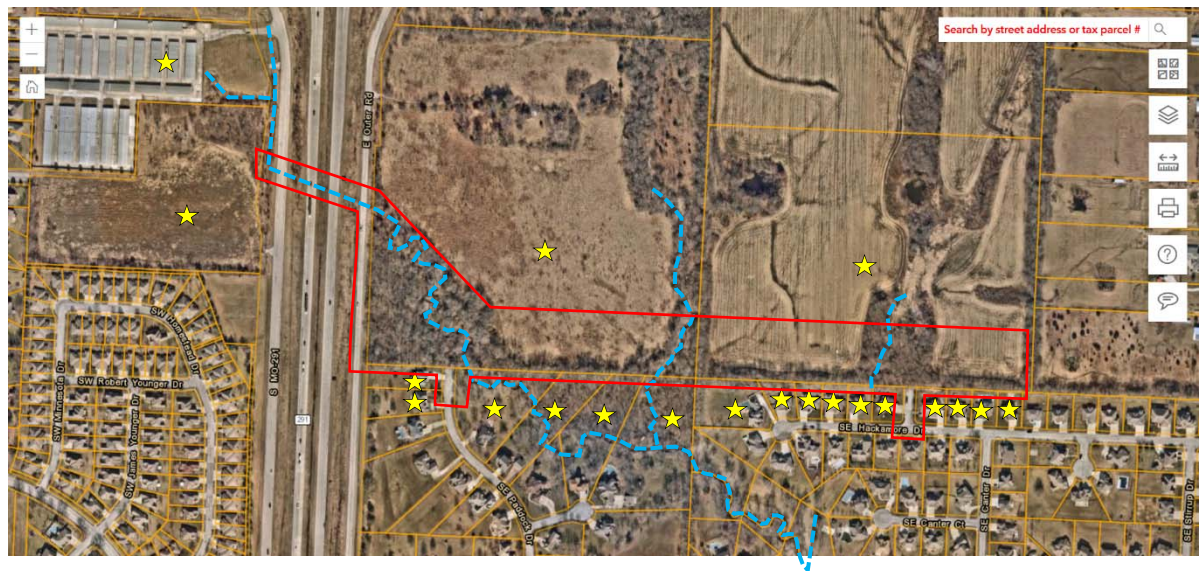
Provide up to 20 channel cross section located along Tributary G between Mo-291 and Mandan Lane. Final cross section locations and limits to be provided. The cross section lengths will vary, however, the lengths will not exceed an average of 400ft per section.

1.3 Profile Survey

Provide profile survey of channel thalweg for the channel indicated by blue dashed line in the survey exhibit.

1.4 Horizontal and Vertical Control

Establish survey control using existing available reference control monuments and place site control points and benchmarks with reference ties for use during construction.



Survey Exhibit

1.5 Parcel and Boundary Information

Provide parcel and boundary information based on CITY and County records. This is not a boundary survey. Locate enough property corners to approximate boundary lines on the survey. Include

parcel information (owner, deed book and page, etc.) and meets and bounds data for parcels indicated by yellow stars in the survey exhibit.

2.0 Regional Detention Basin Design

Regional detention basin design will focus on refining the preliminary basin sizing, overflow structure sizing, flow reduction benefit and impoundment risk assessment.

2.1 Geometric Design

I&L will determine final dam height, basin geometry and outlet structure geometry for all three dams.

2.2 H&H Analysis

I&L will update the Alternatives Analysis H&H models with survey and final geometry, verify no adverse impact upstream, and evaluate flood effect downstream.

2.3 Calculation Report

I&L will summarize the hydraulic, hydrologic, and geometric design for each dam for use in the FEMA CLOMR submittal.

3.0 Dam Breach Analysis

I&L will prepare a dam breach analysis in HEC RAS to illustrate potential downstream inundation of a theoretical catastrophic breach.

3.1 Dam Breach Analysis

3.2 Risk Inundation Maps

3.3 Analysis Documentation

I&L will summarize the dam breach analysis approach and results in a design memorandum.

4.0 Geotechnical Services

Geotechnical services are necessary for channel, dam foundations and embankment, retaining walls and other situations where soil stability may affect design.

4.1 Geotechnical Exploration

4.1.1 The CITY will obtain permission for the Geotechnical Firm to access the boring locations.

4.1.2 The boring locations are generally in heavily vegetated areas. The Geotechnical Engineer will engage a hi-lift or bulldozer to clear vegetation, brush and smaller trees to permit drill rig access. Clearing is anticipated to take one day.

4.1.3 The Geotechnical Engineer will notify Missouri One-Call prior to mobilization

4.1.4 The Geotechnical Engineer will mobilize a lower ground pressure, all-terrain drill rig to reduce ground disturbance.

4.1.5 Restoration of ruts or cleared areas and/or restitution of crop damage cause by the drill rig and/or support truck is not included in this scope of services.

4.1.6 The Geotechnical Engineer will drill a total of 15 borings; i.e. five (5) borings for each dam. At each site, three of these borings will be drilled along the dam alignment (each dam has an overall length of approximately 500 to 600 feet and a height of up to 10 feet is anticipated) and two borings will be drilled in the reservoir area. The dam borings will be sampled to depths of 15 to 20 feet (which approximates to 1 to 1.5 times the dam height). The reservoir borings will be sampled to a depth of 10 feet. If auger refusal occurs before the planned depth the boring will be terminated. Rock coring is not included in this scope of services.

- 4.1.7 A representative of The Geotechnical Engineering Firm will locate the borings using a commercial grade GPS system.
- 4.1.8 Soil sampling will be performed using split-spoon and Shelby tube sampling techniques at 2.5-foot intervals to 10 feet followed by 5-foot intervals thereafter. Bulk samples of the auger cuttings of the reservoir borings will also be collected.
- 4.1.9 Each borehole will be left open until the end of the field work for a delayed groundwater measurement.
- 4.1.10 Each boring will be backfilled with bentonite chips. Auger cuttings will be spread at the ground surface.
- 4.1.11 A field geologist/engineer will log the borings, collect soil samples and transport the samples to our laboratory for geotechnical laboratory testing.
- 4.2 Laboratory Testing and Report
 - 4.2.1 Laboratory testing will include the following: consolidated-undrained triaxial shear strength or direct shear; permeability; unconfined compressive strength; Atterberg limits; moisture content; dry unit weight; grain size analyses, and standard Proctor. Consolidation testing is recommended if the embankment height is 10 feet or more (and has been included in the budget referenced above).
 - 4.2.2 The report will be prepared by a professional engineer registered in the State of Missouri. The report will include recommendations for site grading and embankment construction, including reuse of the material from the reservoir areas. Global stability, seepage and settlement analyses of the final embankment design will be included in the report.
- 4.3 Regional Detention Foundation and Embankment Analysis and Design

The geotechnical engineer will evaluate the soil suitability for foundation of the regional detention dam and for dam embankment material. The geotechnical engineer will make recommendations regarding the suitability of onsite borrow areas. The calculations and geotechnical engineer's recommendations will be summarized in a geotechnical report.
- 4.4 Seepage Analysis

The geotechnical engineer will provide a seepage analysis for each dam.
- 4.5 Global Stability Analysis

The geotechnical engineer will provide a global stability analysis of the final embankment design material.
- 5.0 Design Development Plans and Cost Opinion
 - 5.1 Field Data Collection

I&L will walk the project area and collect observations and data to support design and permitting. I&L will collect basin channel data sufficient to assess the health of existing channels and inform restoration or protection measures for the final design.
 - 5.2 Kickoff Meeting

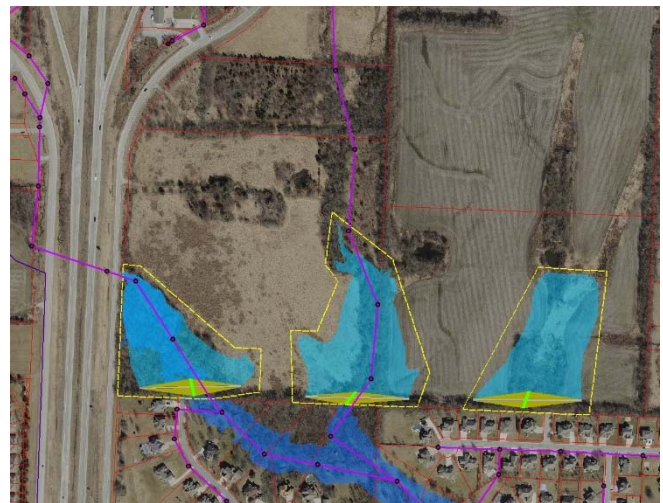
I&L will coordinate a design kickoff meeting with the CITY to discuss the major design components, governing criteria, proposed workplan and schedule. Conversation will include discussion of previous dam design and construction and lessons learned for application in this design. The Kickoff meeting will be coordinated with initial field work.
 - 5.3 Design Development

I&L will develop the design of the three dams in accordance with accepted design standards (CITY, County, State, Federal and others). I&L will coordinate with the CITY to determine the appropriate

design standards based on dam heights and potential downstream impacts. Design development includes:

- 5.3.1 Demolition – Limits of clearing & grubbing, removal, replacement and/or relocation of existing facilities and amenities
- 5.3.2 Dams Design – Material, compaction, structure layout, emergency spillway, outlet energy dissipation
- 5.3.3 SE Paddock Drive access to SW Old 291
- 5.3.4 Maintenance access to dams
- 5.3.5 Grading – Proposed Grades and contours of new facilities
- 5.3.6 Structures – Pipes, manholes, risers, culverts, headwalls, retaining walls, weirs
- 5.3.7 Utilities Data – Location, Demolition, identify relocation of facilities
- 5.3.8 Channel protection, Bio- stabilization designs
- 5.3.9 Pavement, curb, guardrail, fencing as needed
- 5.3.10 Construction access and limits of disturbance
- 5.3.11 Parcel Data – Review Owner, Deed Book & Page, Existing Easements and Right of Way. Develop proposed easement needs.

5.4 Sanitary Sewer Modifications
I&L will develop relocation options for the sanitary sewer and manholes located within the ponding limits of the proposed regional detention basins. Realignment options will be reviewed with the City. I&L will develop supporting hydraulic calculations for the relocated lines. City will provide design flow information.



Sanitary Sewer Exhibit

5.5 Design Development Plans
Design Development plans will be produced in AutoCAD to illustrate the design and for use as a base for the preliminary cost opinion, permitting and public involvement. The plans will include the following: Cover, Notes and Quantities, Overall Location Plan, Access and Easement Information, Demolition and Utility Relocation, Grading Plans, Dam outlet structures plan and details, Roadway plan and profile, Roadway typical section and details, Sanitary plan and profiles, sanitary details, channel plan and profiles, channel details, structure details.

5.6 Utility Coordination
I&L will verify “No Conflict” or develop and approved plan of action if a utility conflict is present. The utility coordination will be based on the preliminary design plans as follows:

- 5.6.1 Utility Coordination
I&L will submit preliminary plans to the utility companies for their review and identification of utility locations as appropriate. The utility submittals will illustrate the concept plan and known utility locations. I&L will verify the location of utilities and areas of definite or potential utility disturbance, impact, crossing and/or relocation. Once these areas are identified I&L will begin communications regarding approach and requirements for each utility disturbance, impact, crossing and/or relocations. I&L will follow up with each utility

until I&L have either 1) determined that there is no conflict or 2) I&L have developed a mutually agreeable plan to address those utility conflicts identified.

5.6.2 Utility Documentation

I&L will PDF letters, notes and correspondence confirming and documenting discussions and the findings of "no conflict" or the agreed upon resolution. I&L will submit these documents to the CITY as appropriate.

5.7 Quantities and costs

I&L will develop quantities based on the design and prepare an opinion of construction costs based on the quantities and unit cost information. Unit cost data will be estimated using bid tabs for similar projects and local available bid tab databases as appropriate.

5.8 Quality Control Check

A Senior Design Engineer will review the design plans, calculations and cost opinion to check for practicality and that I&L's design protocols were followed in developing and documenting the design.

5.9 Plan Submittal



I&L will submit plans and cost opinion to the CITY electronically in PDF format. The submittal includes Plans formatted to print to scale on 11"x17" sheets and 22"x34" sheets, Cost Opinion on 8½"x11" and electronic files as requested by the CITY.

5.10 Plan Review Meeting

I&L will schedule and attend a meeting with the CITY to review the design, plans and cost analysis as follows:

5.10.1 Meeting Coordination

I&L will coordinate meeting date, time and location with the CITY. I&L will prepare a meeting agenda and material and submit to CITY for review, comment and use during the meeting.

Site Visit to field check the preliminary design plans.

5.10.2 Meeting Summary

I&L will prepare meeting summary notes in PDF format and submit them to the CITY via email. I&L will incorporate any comments received from the CITY into the meeting notes.

5.11 Plans, Cost Review and Approval

The CITY will review the plans submittal and provide comments and conditional approval. I&L will incorporate the review comments into the final design plan.

6.0 Permitting

I&L will complete and submit permit applications, coordinate with permitting agencies, obtain required information to support permit applications and obtain approvals for the following permits:

- US Army Corps of Engineers 404 Individual Permit
- DNR 401
- MDNR Land Disturbance Permit
- Lee's Summit Land Disturbance
- Lee's Summit Floodplain Development Permit
- Lee's Summit Right of Way Permit
- Lee's Summit Temporary Traffic Control Permit
- SE Paddock Drive Connection to E Outer Road

6.1 Permitting Kickoff Meeting

I&L will coordinate and host an onsite meeting with the USACE, Missouri Department of Natural Resources, Missouri Department of Conservation, Fish and Wildlife and CITY to review the project and begin the permitting discussions and process. I&L will prepare and Submit US Army Corps of Engineers 404 Permit and Missouri Department of Natural Resources 401 permit prior to the permitting kickoff meeting.

6.1.1 Permitting Exhibit

I&L will prepare a permitting exhibit in GIS illustrating the project limits of disturbance and potential environmental impacts. The impacts will include known channels, wetlands, and forest. I&L will use the exhibit to communicate impacts to permitting and reviewing agencies.

6.1.2 Meeting Summary

I&L will prepare meeting summary notes in PDF format and submit them to the CITY and attending agencies via email. I&L will incorporate any comments received from the CITY and attending agencies into the meeting notes.

6.2 Permitting Coordination

I&L will coordinate with permitting agencies throughout design development to respond to questions, supply information and communicate impacts. The assumed approach for mitigation is the CITY will purchase credits from a mitigation bank to satisfy permit requirements. Permit submittal fees will be paid directly to the permitting agency by the CITY.

6.2.1 Public Review and Comment

I&L will review and respond to comments received from USACE posted public comment period.

6.2.2 Wetlands

The type and limits of Wetland Delineation, if any, will be determined during permit review and coordination. If wetland delineation is required, I&L will delineate wetland areas as requested to support permitting.

6.2.3 Cultural and Archeological Resources

The type and limits of cultural and archeological resource investigation, if any, will be determined during permit review and coordination. Cultural and Archeological Resource Investigation is not anticipated and not included in this scope of services. If these services are needed, they will be included as additional services based on a mutually agreed upon scope and fee.

7.0 FEMA CLOMR

I&L will provide the revised floodplain mapping of Tributary G upstream of Mandan Lane with revised floodplain delineation, flood elevations, and a delineated floodway. I&L will prepare the CLOMR application, submit the application to FEMA and respond to FEMA comments. CLOMR submittal fees will be paid directly to the FEMA by the CITY.

7.1 Prepare CLOMR Application

7.2 Submit to CITY

7.3 Respond to CITY comments

7.4 Submit to FEMA

7.5 Respond to FEMA comments

8.0 Public Engagement

I&L will continue to coordinate with residents and corporate landowners to communicate project progress and design as follows:

8.1 Open House

I&L will coordinate one public open house to satisfy the 404 and CLOMR requirements and inform residents of the project.

8.1.1 Open House Coordination

I&L will coordinate the open house date, time, location and advertising with the CITY and prepare a draft letter for the CITY's use in notifying residents adjacent to the project. The resident notification letter will be the basis for public notification and comment as required for the 404 permit and CLOMR.

8.1.2 Open House Presentation

I&L will prepare a brief presentation in Microsoft Power Point for use in presenting the project and setting expectations. I&L will email a PDF of the presentation to the CITY for review and comment and incorporate the CITY comments into the final documents prior to the meeting. The presentation is intended to run on a loop (no presenter) near the welcome desk.

8.1.3 Open House Exhibits and Forms

I&L will prepare meeting exhibits, sign in sheets, comment sheets and other meeting material as necessary. I&L will email a PDF of the exhibits, Agenda and Forms to the CITY for review and comment and incorporate the CITY comments into the final documents prior to the meeting.

8.1.4 Open House Refreshments

I&L will supply water, healthy snacks and coffee for attendees.

8.1.5 Open House Summary

I&L will prepare meeting summary notes in PDF format and submit them to the CITY via email. I&L will incorporate any comments received from the CITY into the meeting notes.

8.2 Coordination with 291 Investors and Gadino Industries

I&L will coordinate with 291 Investors and Gadino Industries during final design and permitting. Coordination includes providing illustrations and CAD data indicating the limits of each regional detention basin and coordinating the basin geometry with the development geometry. This includes one site visit to walk the property with the developers to review the detention basin plan.

9.0 Easements and Right-of-Way (ROW) Plats and Scripts

I&L will prepare plats illustrating easement and ROW boundary information and scripts providing meets and bounds description of the easement and ROW to support easements and Right of Way acquisition. The CITY will provide Title Reports and information for use in developing easement documents. All documents will be prepared in the CITY standard format. I&L will submit Easement and ROW Documents to the CITY via email in PDF format for the CITY's use. Easement documents will be formatted for printing



Easement Exhibit

on 8½"X11" media. Easements are anticipated on the parcels indicated with a yellow star in the Easement Exhibit.

10.0 Final Plans, Specifications, Bid Tab and Costs

I&L will begin preparing final plans, specifications and bid documents upon receipt of permits, easements and approval to proceed from the CITY.

10.1 Final Design

I&L will coordinate and prepare final design including channel and basin restoration planting plan, Storm Water Pollution Prevention Plan, traffic control, striping and signage, and structural as needed for final design.

10.2 Final Plans

Final plans will be produced in AutoCAD to illustrate the design and for use as a base for the final cost opinion.

10.3 Specifications

The Project Standard Construction Specifications will be the CITY's approved specifications and may include, but are not limited to CITY, County, State and Federal design specifications. Special provisions will be prepared for all items not specifically covered in the project standard specifications.

10.4 Bid Tab

I&L will develop final quantities based on the final design. The final quantities will be in the final bid tab format using the bid tab item descriptions and units.

10.5 Cost Opinion

I&L will prepare the final opinion of construction costs based on the bid tab final quantities and unit cost information appropriate for this region.

10.6 Quality Control Check

A Senior Design Engineer will review the design plans, calculations and cost opinion to check for practicality and that I&L's design protocols were followed in developing and documenting the design.

10.7 Final Plans Review Meeting

I&L will schedule and attend a meeting with the CITY to review the final plans, specifications, construction documents, and cost opinion as follows:

10.7.1 Meeting Coordination

I&L will coordinate meeting date, time and location with the CITY. I&L will prepare a meeting agenda and material and submit to CITY for review, comments and use during the meeting

10.7.2 Meeting Summary

I&L will prepare meeting summary notes in PDF format and submit them to the CITY via email. I&L will incorporate any comments received from the CITY into the meeting notes.

11.0 Approved Documents

Upon approval of the Final Submittal documents, I&L will prepare and submit the approved documents.

The submittal will include:

- Plans – One (1) bound set on 22"X34" bond
- Specifications – One (1) bound set of project specifications on 8½"X11" bond
- Bid Tab – One (1) bid tab on 8½"X11" bond
- Cost Opinion – One (1) cost opinion on 8½"x11" bond

- Electronic Bid Documents – Submit electronic copy of Plans, Specifications and Construction Documents in PDF format for use in electronic plan rooms and project bidding. Submittal shall be via email, DVD or other media as requested by CITY.
- Electronic Files – I&L will prepare one (1) CD or DVD containing all of the approved documents in their original electronic format (MS Word, MS Excel, MS PowerPoint, AutoCAD, Microstation, HEC-RAS, others) and in PDF format.

12.0 Bidding Services

12.1 Pre-Bid Meeting

I&L will attend a pre-bid meeting to review the plans and answer questions.



12.2 Requests for Information

I&L will respond to written requests for information during the bidding process and make the resulting information available to the other potential bidders via email notifications.

12.3 Addendum

I&L will prepare contract addendum in a timely fashion during the bidding period and make the addendum available to the other potential bidders via email notification.

12.4 Bid Tab Review and Recommendation

I&L will review the responses and prepare a table in MS Excel summarizing the bid tabs from respondents. Review shall include checking references from respondents to verify each respondent possesses the required construction experience. I&L shall prepare a memorandum summarizing the review findings and recommending a respondent to the County. The memorandum will be in PDF format and will contain the bid tabs.

