

**ILLINOIS DEPARTMENT OF TRANSPORTATION**

**Request for Approval  
of Change in Consultant Contract**

Date: 10/20/2023 Local Agency: LAKE COUNTY  
 Request: No. 1 Name: Deep Lake Road Improvements  
 IL 173 to Wisconsin State Line  
 To: Department of Transportation Section: 19-00132-05-CH  
 LCDOT / SCHAUMBURG  
 Consultant: HR Green, Inc.

I recommend that an addition be made to the above consultant contract.

The estimated work is listed below

|   |                |
|---|----------------|
| Original contract amount<br>for services described: | \$1,094,522.95 |
|---|----------------|

|  |        |
|--|--------|
| Sum of all previous contract<br>change orders: | \$0.00 |
|--|--------|

| Item #            | Description                          | Additions    | Deductions |
|-------------------|--------------------------------------|--------------|------------|
| 2.1               | Land Surveying, Plats & Legals       | \$19,786.00  |            |
| 2.3               | Geotechnical Investigation           | \$46,930.00  |            |
| 2.5               | Wetlands Investigation               | \$5,012.00   |            |
| 2.6               | Environmental Review                 | \$3,525.00   |            |
| 2.10A             | 40% Plan Preparation                 | \$0.00       |            |
| 2.18              | Project Coordination Meetings        | \$18,197.00  |            |
| 2.19              | Public Outreach                      | \$0.00       |            |
| 2.21              | Addition of CLIENT Resurfacing Plans | \$9,682.00   |            |
| 2.22              | Multiple Bid Packages                | \$46,455.00  |            |
| 2.23              | Multi-Use Path Extension             | \$51,206.00  |            |
| 2.24              | North Avenue Intersection Re-Design  | \$73,335.00  |            |
| 2.25              | Structural Engineering               | \$38,372.00  |            |
| 2.26              | Supplemental Roadway Design          | \$5,411.00   |            |
| <b>TOTALS</b>     |                                      | \$317,911.00 | \$0.00     |
| <b>NET CHANGE</b> |                                      | \$317,911.00 | \$0.00     |

Net ADDITION change to date \$317,911.00 which is 29.05 % of the original contract amount for services described

State fully the nature and reason for change:

Please see attached.

|  |                |
|--|----------------|
| Revised contract amount<br>for services described: | \$1,412,433.95 |
|--|----------------|

When the net increase or decrease in the cost of the contract is \$10,000 or more, or the time of completion is increased or decreased by 30 days or more, one of the following statements shall be checked.

  X   The undersigned determined that the circumstances which necessitated this change were not reasonably foreseeable at the time the contract was signed.

       The undersigned has determined that the change is germane to the original contract as signed.

       The undersigned determined that this change is in the best interest of the local agency and is authorized by law.

Project Manager/Engineer \_\_\_\_\_ Date \_\_\_\_\_

Department Head \_\_\_\_\_ Date \_\_\_\_\_

Chief Accounting Specialist \_\_\_\_\_ Date \_\_\_\_\_

Approval  
Recommended \_\_\_\_\_ Date \_\_\_\_\_  
County Engineer

APPROVED

DEPARTMENT OF TRANSPORTATION

Approved \_\_\_\_\_

\_\_\_\_\_  
Regional Engineer

County Engineer  
On behalf of IDOT pursuant to Agreement  
of Understanding dated May 3, 2018

**EXHIBIT A  
SCOPE OF SERVICES  
Lake County Division of Transportation  
Deep Lake Road Improvements  
Section: 19-00132-05-CH**

This amendment, upon concurrence from CLIENT, hereby amends the original Professional Services Agreement dated as follows:

**The following shall be added to Section 2.1 of the Professional Services Agreement as follows;**

2.1 Land Surveying, Plats and Legal Descriptions

A. Supplemental Survey

Survey will include approximately 610 feet along the north side of Hillcrest Elementary School parcel for a proposed bike path connection. The survey will include existing visible surface features and improvements within 25 feet on each side of the proposed bike path.

The existing survey base file and terrain model will be updated to include this area.

B. Plat of Highways Update

COMPANY will update the plat of highways between the first and second bid packages. COMPANY will prepare a disposition of comments for each plat of highways submittal.

C. Easement Staking

COMPANY has included miscellaneous staking of easements and ROW during land acquisition negotiations. COMPANY has allotted for forty (40) hours of easement staking, or five (5) days, during land acquisition negotiations upon approval of the CLIENT. Easement staking can be an effective tool to provide visual representation of the requested easement areas for acquisition.

**Section 2.1 shall be included at an additional fee of \$19,786.00.**

**The following shall be added to Section 2.3 of the Professional Services Agreement as follows;**

2.3 Geotechnical Investigation

As a subconsultant to the COMPANY, Rubino Engineering (Rubino) will conduct additional soil borings for retaining wall evaluation and design.

**Section 2.3 shall be included at an additional fee of \$46,930.00.**

**The following shall be added to Section 2.5 of the Professional Services Agreement as follows;**

2.5 Wetlands Investigation

Per the Watershed Development Ordinance (WDO), the wetland report is acceptable within 3 years of permit submittal (existing report is dated July 2020) and Preliminary Jurisdictional Determination (PJD) letter (10/23/2020) states only good for 3 years, as well.

COMPANY will update the 2020 wetland delineation using methods described in the 2010 Wetlands Delineation Manual: Midwest Region. The update will verify previous delineation and record wetland boundaries and floristic quality assessments for individual wetlands. Wetland boundaries will be marked with pink pin flags and surveyed.

The update includes delineation of new or expanded areas not included in the 2020 wetland delineation; consisting of the planned new multi-use path connection south of the fire department between Deep Lake Road and Hillcrest Elementary School. The results of the update will be included in a wetland delineation report.

**Section 2.5 shall be included at an additional fee of \$5,012.00.**

**Section 2.6 of the Professional Services Agreement shall be amended as follows;**

2.6 Environmental Review

~~COMPANY will conduct the environmental review and obtain the environmental reviews from the appropriate agencies as detailed below.~~

~~A. Illinois Department of Natural Resources~~

~~COMPANY will also utilize the Illinois Department of Natural Resources (IDNR) online EcoCAT (Ecological Compliance Assessment Tool) to obtain a consultation regarding the potential impacts from the proposed activity on Illinois endangered and threatened species and sites listed on the Illinois Natural Areas Inventory. It is assumed that the consultation will be obtained without additional studies and/or field archeological or cultural resource surveys.~~

~~B. Threatened and Endangered Species Evaluation~~

~~COMPANY will conduct the Threatened and Endangered Species Evaluation upon availability of results from the IDNR EcoCat and Wetland Delineation activity. The Section 7 review will be completed through the United States Fish and Wildlife Service (USFWS).~~

~~C. Illinois Historic Preservation Agency~~

~~COMPANY will prepare and submit an environmental submittal to the Illinois Historic Preservation Agency for review of construction impacts to cultural resources.~~

- 1) COMPANY will initiate an Environmental Survey Request (ESR) with IDOT for the review of cultural and biological resources.
  - A. Colored Aerial Plans  
COMPANY will prepare an ESR submittal consisting of colored aerial plans of the improvement limits. The aerial plans will identify the existing ROW, proposed ROW, proposed easements, and the ESR study limits. GIS shapefiles will accompany the aerial exhibits.
  - B. Mapping  
COMPANY will prepare the USGS project location map with the improvement limits identified. COMPANY will also prepare the project location map.
  - C. Photolog  
COMPANY will visit the project site and take photographs along the corridor including the front faces of adjacent buildings. The photos will be included within a photolog.
  - D. ESR Form  
COMPANY will complete the applicable fields of IDOT ESR online form. The ESR form will be submitted to IDOT for review along with the aforementioned colored aerial plans, GIS shapefiles, project mapping, and photolog.
  - E. Wetland Impact Evaluation (WIE)  
COMPANY will prepare the WIE for IDOT review. Colored aerial plan exhibits will be prepared for the entire project corridor. The plan exhibits will identify wetland areas, construction limits, and permanent wetland impacts.

COMPANY will prepare the IDOT WIE online form. The WIE form will be submitted to IDOT for review along with the aforementioned colored aerial plan exhibits and the wetland delineation report.

COMPANY understands CLIENT has acquired wetland credits intended for the mitigation needs of future projects; hence assistance is not required to identify appropriate wetland banks and coordinate the purchase of wetland credits.

The cultural resources clearance received on 1/12/2023 does not expire.

The biological resources clearance received on 12/8/2022 is valid for 2 years.

Section 2.6.1 above has been completed by the COMPANY at no additional cost to the contract.

- 2) CLIENT intends to extend the project limits for the potential construction of a new multi-use path connection from Deep Lake Road to Hillcrest Elementary School. The multi-use path extension will connect with the proposed Deep Lake Road multi-use path, along the west side of Deep Lake Road and south of the Antioch Fire Department Station No. 2. The multi-use path extension will then head westerly towards the existing sidewalk along the north end of the School District's existing parking lot. The entire multi-use path extension will reside on School District property.

COMPANY will initiate an Addendum Environmental Survey Request (AESR) with IDOT for the review of cultural and biological resources.

When received from IDOT, the cultural resources clearance does not expire and will replace the current certification.

When received from IDOT, the biological resources clearance is valid for 2 years, and will replace the current certification. Approaching the expiration date(s), COMPANY will initiate renewal of the biological clearance with IDOT Local Roads.

A. Colored Aerial Plans

COMPANY will update the original-colored aerial plans to depict the updated improvement limits. The aerial plans will identify the existing ROW, proposed ROW, proposed easements, and the ESR study limits. GIS shapefiles will accompany the aerial exhibits.

B. Mapping

COMPANY will update the original USGS project location map with the new improvement limits identified. COMPANY will also update the project location map.

C. Photolog

COMPANY will complete a field visit to take site photographs of the area to be included in the AESR. The photographs will be assembled into a photolog for submittal to IDOT as part of the AESR submittal package.

D. AESR Form

COMPANY will complete the applicable fields of IDOT AESR online form. The AESR form will be submitted to IDOT for review along with the aforementioned colored aerial plans, GIS shapefiles, project mapping, and photolog.

E. Wetland Impact Evaluation (WIE)

Based upon available mapping, COMPANY does not anticipate additional wetland impacts associated with the proposed multi-use path extension between Deep Lake Road and Hillcrest Elementary School.

**Section 2.6 shall be revised accordingly at an additional fee of \$3,525.00.**

**Section 2.10A shall be added to the Professional Services Agreement as follows;**

2.10A 40% Plan Preparation

Upon completion of the initial design studies, COMPANY will proceed with preliminary design and prepare preliminary design plans. At the completion of the preliminary design phase, COMPANY will provide CLIENT preliminary 40% plan set for review of plan sheet setup and adherence to CLIENT plan preparation guidelines. The work to be performed by the COMPANY under 40% Plan Preparation shall consist of the following tasks:

A. Cover Sheet and General Information Sheets

Preliminary cover and general information sheets. The preliminary sheets will include the following: Index of Sheets, Index of Highway Standards, and Index of CLIENT Standards, Location Map, Project Number, Traffic Data and Design Designation.

B. Typical Section Sheets

Existing and proposed typical sections to be used for the proposed improvements as well as a preliminary determination of the limits that each typical section will apply. The typical sections will include typical sections for the proposed grading and paving improvements for mainline and side streets.

C. Detour Plan Sheets

Preliminary detour route with applicable sign schedule.

D. Removal Plan Sheets

Develop existing condition and removal plan sheets at a scale of 1"=20'. These drawings will show existing features as identified during the topographic survey, private and municipal utility atlas information, and contract removal items for construction of the improvements.

E. Roadway and Utility Plan and Profile Sheets

Prepare preliminary plan and profile drawings at a scale of 1"=20' horizontal and 1"=5' vertical. These drawings will show base mapping, existing public and private utility locations, proposed bike path and proposed roadway alignments. Plans will also include existing and proposed ROW, easements, and side street profiles. Intersecting angles and station equation between mainline and side road reference line will also be shown. Profiles will show existing and proposed pavement elevations, ditch profiles, ditch elevations, vertical curve length and "K" value, elevations for PVC, PVI, and PVT.

F. Cross Sections

Generate preliminary cross sections at 1"=10' horizontal and 1"=5' vertical scale at key locations for each project segment. Mainline and side road cross sections will generally be developed at culvert locations, driveway entrances, and at fifty foot (50') intervals depicting finished grade line elevation. Cross sections will show the existing ground elevations as well as the proposed grading, including foreslope and backslope information, ditches, existing and proposed ROW, PE and TE and other elements according to the CLIENT's plan preparation guidelines.

**Section 2.10A has been completed by COMPANY at no additional cost to the contract.**

**The following shall be added to Section 2.18 of the Professional Services Agreement as follows;**

2.18 Project Coordination Meetings

Fifteen (15) total meetings were originally anticipated by the CLIENT and COMPANY. To date, COMPANY has attended thirty-one (31) meetings.

F. Additional Meetings Attended / Completed

- CLIENT Selection Committee Meeting (1);
- LCSMC Coordination Meeting (1);
- Phase II Design Coordination Meetings (5);
- Village of Antioch (1);
- Antioch Fire Protection District (1);
- Assist CLIENT with layout of preferred path alignment between Depot Street and the Antioch Fire Station #2 (1);
- Resident meeting at the Antioch VFW (1); and
- Resident on-site meetings (11).

The proposed addendum accounts for the following future meetings to bring the project(s) to completion:

G. Additional Upcoming Meetings (13)

- Land Acquisition Kickoff Meeting (1);
- Joint Utility Coordination Meeting (2);
- On-site Utility Coordination Meetings (2);
- IDOT Detour Committee Meeting (1);
- LCSMC Coordination Meeting (1);
- LCSMC Wetlands Site Review Meeting (1);
- School District Meeting (1); and
- Phase II Design Coordination Meetings at CLIENT (4).

COMPANY meeting attendance also includes meeting preparation, meeting minutes, and travel to and from the meeting location.

**Section 2.18 shall be revised accordingly at an additional fee of \$18,197.00.**

**Section 2.19 of the Professional Services Agreement shall be revised as follows;**

2.19 Public Outreach

~~The stakeholder involvement process will include two (2) Public Information Meetings (PIM). The first PIM will introduce the project to stakeholders, inform them of general alternatives available that have been analyzed, introduce land acquisition potential, and solicit attendees input. The second PIM will be held at the completion of pre-final design engineering to solicit any remaining input from the stakeholders as well as define the letting and construction schedule.~~

~~A. Public Information Meetings~~



~~Conduct two (2) public informational meetings (PIM) that will be attended by four (4) members of the COMPANY. The purpose of the meetings will be to provide a brief overview of the proposed improvements to the stakeholders and interested members of the community, a discussion of the design analysis and improvement plans, as well as gather information on the concerns, priorities and specific issues of the adjacent property owners and other affected parties. This task includes preparation of display materials and hand out information. The CLIENT will be responsible for reserving an appropriate meeting facility. COMPANY will maintain the list of attendees, documentation of written comments, and provide a written summary of each public information meeting.~~

~~Below is a more detailed list of anticipated tasks to be completed for each PIM:~~

- ~~• Selection and coordination with meeting venue, preferably close to the project.~~
- ~~• Preparation of invitation letters to stakeholders (mailing list developed by CLIENT).~~
- ~~• Preparation of PIM newspaper display advertisement.~~
- ~~• Preparation of PIM brochure.~~
- ~~• Mailing of PIM notification letters or postcards to area residents and businesses.~~
- ~~• Preparation of PIM exhibit boards.~~
- ~~• Typical Section and Concept Intersection renderings of the proposed conditions.~~
- ~~• 'Dry Run' with the CLIENT prior to PIM.~~
- ~~• Attendance at PIM meeting.~~
- ~~• Preparation of PIM summary and disposition of comments.~~
- ~~• Provide text and exhibits for CLIENT and appropriate municipal website(s).~~

~~In lieu of one (1) PIM, and at the direction of the CLIENT, COMPANY will conduct a project mailing campaign aimed at soliciting public feedback regarding potential project elements, schedule, and possibility other concerns that the area residents and corridor users may have. COMPANY will prepare, distribute and summarize responses as part of the mailing campaign. It is assumed the same mailing list for the PIM invite will be used for the mailing list.~~

The stakeholder involvement process will include one (1) Virtual Public Forum and one (1) Virtual Public Information Meeting (PIM). The virtual public forum will introduce the project to stakeholders, inform them of general alternatives available, introduce land acquisition potential, and solicit attendees input.

A. Virtual Public Forum

CLIENT will host an online virtual public forum to introduce the project to interested parties, outline the existing conditions, and inform them of the general alternatives being considered. COMPANY will prepare several exhibits including a project location map, rendered path typical sections, environmental resources map, average daily traffic map, crash diagrams, and a project timeline.

COMPANY will prepare a newspaper advertisement for the virtual public forum. COMPANY will prepare a postcard invitation and subsequently complete distribution to adjacent property owners, politicians, and other stakeholders via US Mail.

COMPANY will summarize the comments received during the virtual public forum and develop recommended responses for each comment.

B. Virtual PIM

Conduct one (1) virtual PIM that will be attended by four (4) members of the COMPANY. The purpose of the meetings will be to provide a brief overview of the proposed improvements to the stakeholders and interested members of the community, a discussion of the design analysis and improvement plans, as well as gather information on the concerns, priorities and specific issues of the adjacent property owners and other affected parties. This task includes preparation of display materials and a PowerPoint presentation. COMPANY will host the PIM event on a virtual platform. COMPANY will maintain the list of attendees, documentation of written comments, and provide a written summary of each public information meeting.

COMPANY will prepare a newspaper advertisement for the Virtual Public Forum. COMPANY will prepare a postcard invitation and subsequently complete distribution to adjacent property owners, politicians, and other stakeholders via US Mail.

COMPANY will also prepare a formal invitation letter intended for adjacent property owners, politicians, and other identified stakeholders. The invitation letter will be distributed by the COMPANY via certified mail.

COMPANY will conduct a 'Dry Run' with the CLIENT prior to the Virtual PIM.

**As previously agreed upon between the CLIENT and the COMPANY, Section 2.19 has been completed by COMPANY at no additional cost to the contract.**

**Upon written direction from the CLIENT, Section 2.21 of the Professional Services Agreement will be added as follows;**

2.21 Addition of CLIENT resurfacing plans

The CLIENT will prepare roadway resurfacing plans from Illinois Route 173 (IL 173) to south of Depot Street. Per meeting between COMPANY and CLIENT on 8/27/2021, the agreed upon transition point between the CLIENT resurfacing plans and COMPANY widening and resurfacing plans will become approximately STA 231+50, adding approximately 200-feet of widening and resurfacing to the COMPANY's plans. The following reflects decisions made at the aforementioned 8/27/2021 meeting.

A. Guardrail

Replacement of guardrail from the transition point to the north, will be performed by the COMPANY. COMPANY shall prepare guardrail length of need calculations for the guardrail location between STA 231+50 and the north project limits on both sides

of Deep Lake Road.

Guardrail south of the project transition point will be replaced by the CLIENT, including the existing guardrail north of Hidden Creek Drive.

*Postscript to the 8/27/2021 meeting, storm sewer design significantly impacts the guardrail north of Hidden Creek Drive. COMPANY will prepare length of need calculations and assume replacement of the guardrail within the COMPANY's design plans.*

B. Driveways

Driveway entrance culverts within the CLIENT's resurfacing section and along both sides of Deep Lake Road will be included as part of the COMPANY's design plans. Land acquisition for driveway improvements on the east side of Deep Lake Road within the resurfacing segment are not anticipated at this time.

Mailbox turnouts within the CLIENT's resurfacing section and along both sides of Deep Lake Road will be included as part of the COMPANY's design plans.

There is a total of six (6) driveway and mailbox turnout grading plans that will be added to the COMPANY's design plans.

C. Incorporation of CLIENT's Plans, Specifications & Estimates (PS&E)

CLIENT PS&E documents will be available 2 weeks in advance of the 90% and 100% submittals for COMPANY activity and QA.

CLIENT will provide PDF plan sheets for the typical sections, ATB sheet, removal plans, roadway plans, striping plans, drainage plans, erosion control plans, etc. for straightforward addition to the COMPANY plan set.

CLIENT will provide list of State and/or County standard details needed for the CLIENT project. COMPANY will collect all details needed for both projects and create organized set of detail sheets.

It is assumed stationing between the 2 projects will not match. A station equation will be used to transition the projects on the plan sheets.

CLIENT will provide any needed specifications that are not already in the COMPANY project in Word format for simple cut and paste action.

CLIENT will provide pay item quantity schedules in Excel format for the CLIENT project. COMPANY will compile like pay items into single schedules and paste them into the plan sheets. COMPANY will perform the totaling of pay items and produce cost estimates and project SOQ sheets.

Data from CLIENT pay item schedules will be transferred/linked to overall project summary of quantities for total and breakdown columns.

**Section 2.21 may be added to the agreement by the CLIENT for a fee of \$9,682.00.**

**Upon written direction from the CLIENT, Section 2.22 of the Professional Services Agreement will be added as follows;**

2.22 Multiple Bid Packages

COMPANY understands CLIENT is contemplating separating the project into two (2) bid packages to be let separately. Generally, one (1) bid package will include the Depot Street intersection and the other bid package will include the North Avenue intersection, resurfacing of Deep Lake Road, and the multi-use path from IL 173 to North Avenue. COMPANY can accommodate the separation of various work elements into the appropriate bid package, as directed by the CLIENT, as long as the total number of bid packages remains at two (2).

A. Plans

The following plan sheets will require adjustment to reflect updated project limits, and quantities of work.

- Cover Sheet
- Index of Sheets / List of Highway Standards
- General Notes
- Summary of Quantities
- Schedules of Quantities
- Typical Sections (Existing & Proposed)
- Alignment, Ties and Benchmarks
- Detour Plans
- Maintenance of Traffic Plans
- Removal Plans (1 sheet)
- Plan & Profiles (1 sheet)
- Erosion Control Plans (1 sheet)
- Pavement Marking Plans (1 sheet)

COMPANY will produce a total of two (2) plan sets. It is assumed the two (2) plan sets will be prepared for two (2) milestone review submittals at the pre-final (90%) and final (100%) stage. COMPANY will prepare a disposition of comments for each plan submittal.

This task consists of separation of plan quantities including updating each schedule of quantities to match each bid package. Earthwork volumes and updating the plan sheets are also included.

This task consists of final calculations and checks of earthwork volumes and updating the plan sheets and earthwork quantities.

B. Specifications

COMPANY shall prepare one (1) additional compilation of project specifications for a total of two (2) specification packages.

The document will include standard CLIENT Contract Specifications, as well as IDOT Supplemental, Recurring, BDE, District 1, and project specific special provisions. The project specific special provisions will be written to cover any items not covered by the CLIENT Contract Specification or IDOT Standard Specifications for Road and Bridge Construction.

This task includes preparation of one (1) additional Storm Water Pollution Prevention Plan (SWPPP).

Two (2) project specification submittals to the CLIENT are anticipated at the pre-final (90%) and final (100%) stages.

C. Estimates

COMPANY shall prepare one (1) additional estimates package for the additional bid package.

Opinions of probable construction cost will be developed and refined during the design process so that the CLIENT has the most current cost estimate. These costs will be determined using pay items and the latest historical unit prices available for the area.

Cost estimate submittals to the CLIENT are anticipated at the pre-final and final stages.

D. Quality Control Plan

Design peer reviews and constructability reviews will be performed by the COMPANY prior to all milestone submittals to the CLIENT.

E. Letting / Bidding Assistance

COMPANY will assist the CLIENT in preparing the second set of bid documents and awarding a second construction contract. The following tasks will be performed by the COMPANY as part of the letting / bidding assistance on this project:

- COMPANY will assist the CLIENT with the public bidding of the project in accordance with State statutes and CLIENT policies and procedures, including preparation of the Notice to Bidders, Computer Bid Form and delivery of the electronic plans and project specifications. The project will be made available to contractors electronically via the CLIENT Roadwork Bids web pages.
- COMPANY shall be available to answer questions from the CLIENT prior to the letting and shall provide addenda to the CLIENT as appropriate to interpret, clarify or expand the bidding documents. CLIENT will distribute any necessary bid addenda.

F. Post Design Services

After the contract has been awarded, COMPANY will attend a preconstruction meeting, respond to requests for information (RFI's) during construction, attend

construction and/or utility meetings, review structural shop drawings when applicable, and conduct site visits when requested by the CLIENT.

G. Reimbursables

In addition to the electronic submittals, COMPANY will print and deliver one (1) set of the PS&E submittal to the CLIENT at the pre-final and final milestones.

**Section 2.22 may be added to the agreement by the CLIENT for a fee of \$46,455.00.**

**Upon written direction from the CLIENT, Section 2.23 of the Professional Services Agreement will be added as follows;**

2.23 Multi-Use Path Extension

COMPANY understands CLIENT is planning a new extension of the multi-use path from Deep Lake Road to Hillcrest Elementary School (Antioch School District 34). The multi-use path extension will connect with the proposed Deep Lake Road multi-use path, along the west side of Deep Lake Road and south of the Antioch Fire Department Station No. 2. The multi-use path extension will then head westerly towards the existing sidewalk along the north end of the School District's existing parking lot. The entire multi-use path extension will reside on School District property.

Section 2.23 will also include the path realignment on the west side of Deep Lake Road along the St. Ignatius Church property. The current alignment was provided per CLIENT's direction. An updated alignment will seek to reduce land acquisition needs and property impacts.

Section 2.23 will also include the path realignment on the west side of Deep Lake Road north of Depot Street along the School District #34 property and the Antioch Fire Station #2 property. The current alignment was provided per CLIENT's direction. An updated alignment will seek to reduce land acquisition needs and property impacts.

A. Plans

The following plan sheets will require adjustment to reflect the multi-use path updates, and associated quantities of work.

- Summary of Quantities
- Schedules of Quantities
- Typical Sections
- Alignment, Ties and Benchmarks
- Removal Plans (3 sheets)
- Plan & Profiles (3 sheets)
- Erosion Control Plans (3 sheets)
- Sidewalk Detailed Grading Plan (ADA connection to existing sidewalk)
- Driveway Detailed Grading Plan (1 entrance)
- Cross Sections (20 cross sections)

This task consists of updating the plan quantities including updating each schedule of quantities.

Calculation of earthwork volumes has been included. Development of ditch profiles to show on the profile plan view is also included.

B. Quality Control Plan

Design peer reviews and constructability reviews will be performed by the COMPANY prior to all milestone submittals to the CLIENT.

**Section 2.23 may be added to the agreement by the CLIENT for a fee of \$51,206.00.**

**Upon written direction from the CLIENT, Section 2.24 of the Professional Services Agreement will be added as follows;**

2.24 North Avenue Intersection Re-Design

COMPANY received design direction from the CLIENT on 9/5/2023 to update the design of Deep Lake Road at North Avenue roundabout. The updated roundabout will include a smaller center roundabout circle, which in turn will reduce the footprint size of the new roundabout intersection. The current design includes a larger center circle which has the ability to convert the roundabout into a multi-lane intersection in the future when traffic volumes dictate. The curvilinear approaches at each leg of the roundabout will remain as-is. The re-design efforts for the smaller roundabout included in this addendum will include adjusted alignments, profiles, cross sections, storm sewers, lighting (by Ames), drainage ditches, and intersection grading.

A. Plans

The following plan sheets will require adjustment for a new roundabout design, and associated quantities of work.

- Summary of Quantities
- Schedules of Quantities
- Typical Sections
- Alignment, Ties and Benchmarks
- Removal Plans (4 sheets)
- Plan & Profiles (9 sheets)
- Erosion Control Plans (2 sheets)
- Intersection Grading Plans / Splitter Island Profiles & Details (6 sheets)
- ADA Details (4 sheets)
- Driveway Details (5 entrances)
- Landscaping, Pavement Marking & Signing Plans (2 sheets)
- Detour Plan (1 sheet)
- Lighting Plans including updated calculations (1 intersection) (by Ames)
- Cross Sections (42 cross sections)

This task consists of updating the plan quantities including updating each schedule of quantities.

Each cross section will require revisions to update the intersection. Recalculation of

earthwork volumes are included. Intersection storm sewer re-design is also included.

B. Quality Control Plan

Design peer reviews and constructability reviews will be performed by the COMPANY prior to all milestone submittals to the CLIENT.

**Section 2.24 may be added to the agreement by the CLIENT for a fee of \$73,335.00.**

**Upon written direction from the CLIENT, Section 2.25 of the Professional Services Agreement will be added as follows;**

2.25 Structural Engineering

A. Retaining Wall Type Evaluation

COMPANY has identified the following locations where retaining walls are warranted:

- Location 1: Sta. 1218+20 to Sta. 1225+10; 690'
- Location 2: Sta. 1231+40 to Sta. 1236+30; 490'

Location 3 along the Miller Boyz, LLC property is not included at this time. It is assumed 1:3 slopes along the property will reduce the amount of temporary easement required.

COMPANY will evaluate retaining wall sections including the type, size and location.

COMPANY will prepare Engineer's Opinion of Probable Cost (EOPC) for the retaining wall alternatives.

COMPANY will prepare and submit a Technical Memorandum comparing and contrasting the retaining wall types taking into consideration the cost, impacts and constructability; thus, recommending a preferred alternative for the CLIENT to consider.

B. Retaining Wall Plans, Specifications & Estimates

Plans: The two (2) locations will be treated separately and will require a General Plan & Elevation, Details and Boring Logs to accurately depict the wall.

- Location 1: Assume 5 sheets
- Location 2: Assume 4 sheets

Specifications: Project specifications will be generated and included in the bid documents.

Estimates: Pre-final and final construction cost estimates will be provided.

**Section 2.25 may be added to the agreement by the CLIENT for a fee of \$38,372.00.**



**Section 2.26 shall be added to the Professional Services Agreement as follows;**

2.26 Supplemental Roadway Design

A. Roadway Design Beyond Assigned Limits

During design development, CLIENT has requested roadway design between IL 173 and south of Depot Street at STA 231+50. It was originally anticipated by the CLIENT and COMPANY that all roadway design in this section be performed by the CLIENT. COMPANY has completed roadway design between the following station ranges per CLIENT's direction.

- a. STA 1190+43 RT to STA 1195+39 RT (496 feet along east side of Deep Lake Road, vertical and horizontal geometry)
- b. STA 1192+20 RT to STA 1195+85 RT (395 feet along west side of Deep Lake Road, vertical and horizontal geometry, and AutoTurn simulation)

Section 2.26.a and 2.26.b above have been completed by the COMPANY at no additional cost to the contract.

- c. STA 229+86 to STA 231+50 RT (164 feet of additional Deep Lake Road reconstruction, vertical and horizontal geometry)

**Section 2.26 may be added to the agreement by the CLIENT for a fee of \$5,411.00.**



**Local Public Agency**

**County**

**Section Number**

Lake County Division of Transportation

Lake

19-00132-05-CH

**AVERAGE HOURLY PROJECT RATES**

Exhibit E Cost Estimate of Consultants Services Worksheet Fixed Raise

SHEET 1 OF 3

| PAYROLL CLASSIFICATION      | AVG HOURLY RATES | TOTAL PROJ. RATES |         |          | Geotechnical Investigation |         |          | Wetlands Investigation |         |          | Environmental Review |         |          | 40% Plan Preparation |         |          | Project Coordination Meetings |         |          |
|-----------------------------|------------------|-------------------|---------|----------|----------------------------|---------|----------|------------------------|---------|----------|----------------------|---------|----------|----------------------|---------|----------|-------------------------------|---------|----------|
|                             |                  | Hours             | % Part. | Wgtd Avg | Hours                      | % Part. | Wgtd Avg | Hours                  | % Part. | Wgtd Avg | Hours                | % Part. | Wgtd Avg | Hours                | % Part. | Wgtd Avg | Hours                         | % Part. | Wgtd Avg |
| Senior Project Manager      | 75.16            | 266.0             | 16.22%  | 12.19    |                            |         |          |                        |         |          | 10                   | 50.00%  | 37.58    |                      |         |          | 50                            | 53.19%  | 39.98    |
| Project Manager             | 55.20            | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Project Engineer II         | 49.38            | 83.0              | 5.06%   | 2.50     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Project Engineer I          | 41.99            | 259.0             | 15.79%  | 6.63     |                            |         |          |                        |         |          | 10                   | 50.00%  | 21.00    |                      |         |          | 11                            | 11.70%  | 4.91     |
| Staff Engineer II           | 38.57            | 36.0              | 2.20%   | 0.85     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Lead Design Engineer        | 56.09            | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Lead Engineer               | 60.96            | 84.0              | 5.12%   | 3.12     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Construction Engineer II    | 38.57            | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Administration Assistant II | 31.49            | 13.0              | 0.79%   | 0.25     |                            |         |          |                        |         |          |                      |         |          |                      |         |          | 13                            | 13.83%  | 4.35     |
| Senior Design Technician    | 48.82            | 661.0             | 40.30%  | 19.68    |                            |         |          |                        |         |          |                      |         |          |                      |         |          | 6                             | 6.38%   | 3.12     |
| Staff Land Surveyor III     | 63.25            | 36.0              | 2.20%   | 1.39     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Project Land Surveyor I     | 52.90            | 54.0              | 3.29%   | 1.74     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Group Leader                | 69.61            | 6.0               | 0.37%   | 0.25     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Principal                   | 78.00            | 26.0              | 1.59%   | 1.24     |                            |         |          |                        |         |          |                      |         |          |                      |         |          | 10                            | 10.64%  | 8.30     |
| Senior Engineer             | 78.00            | 42.0              | 2.56%   | 2.00     |                            |         |          |                        |         |          |                      |         |          |                      |         |          | 2                             | 2.13%   | 1.66     |
| Staff Land Surveyor I       | 29.89            | 32.0              | 1.95%   | 0.58     |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Graphics Designer           | 25.38            | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| Wetlands Scientist          | 28.12            | 24.0              | 1.46%   | 0.41     |                            |         |          | 24                     | 60.00%  | 16.87    |                      |         |          |                      |         |          |                               |         |          |
| Lead Environmental Planner  | 60.90            | 18.0              | 1.10%   | 0.67     |                            |         |          | 16                     | 40.00%  | 24.36    |                      |         |          |                      |         |          | 2                             | 2.13%   | 1.30     |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
|                             |                  | 0.0               |         |          |                            |         |          |                        |         |          |                      |         |          |                      |         |          |                               |         |          |
| <b>TOTALS</b>               |                  | 1640.0            | 100%    | \$53.50  | 0.0                        | 0.00%   | \$0.00   | 40.0                   | 100%    | \$41.23  | 20.0                 | 100%    | \$58.58  | 0.0                  | 0%      | \$0.00   | 94.0                          | 100%    | \$63.62  |

**Local Public Agency**

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**Section Number**

Lake County Division of Transportation

Lake

19-00132-05-CH

**AVERAGE HOURLY PROJECT RATES**

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

SHEET 2 OF 3

| PAYROLL<br>CLASSIFICATION   | AVG<br>HOURLY<br>RATES | Public Outreach |            |              | Addition of CLIENT<br>Resurfacing Plan |            |              | Multiple Bid Packages |            |              | Multi-Use Path Extension |            |              | North Ave Roundabout Re<br>Design |            |              | Structural Engineering |            |              |
|-----------------------------|------------------------|-----------------|------------|--------------|--|------------|--------------|-----------------------|------------|--------------|--------------------------|------------|--------------|-----------------------------------|------------|--------------|------------------------|------------|--------------|
|                             |                        | Hours           | %<br>Part. | Wgt'd<br>Avg | Hours                                  | %<br>Part. | Wgt'd<br>Avg | Hours                 | %<br>Part. | Wgt'd<br>Avg | Hours                    | %<br>Part. | Wgt'd<br>Avg | Hours                             | %<br>Part. | Wgt'd<br>Avg | Hours                  | %<br>Part. | Wgt'd<br>Avg |
| Senior Project Manager      | 75.16                  |                 |            |              | 12                                     | 18.46%     | 13.88        | 112                   | 44.98%     | 33.81        | 34                       | 10.03%     | 7.54         | 46                                | 10.82%     | 8.14         |                        |            |              |
| Project Manager             | 55.20                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Project Engineer II         | 49.38                  |                 |            |              | 5                                      | 7.69%      | 3.80         |                       |            |              |                          |            |              | 78                                | 18.35%     | 9.06         |                        |            |              |
| Project Engineer I          | 41.99                  |                 |            |              | 40                                     | 61.54%     | 25.84        | 36                    | 14.46%     | 6.07         | 96                       | 28.32%     | 11.89        | 50                                | 11.76%     | 4.94         |                        |            |              |
| Staff Engineer II           | 38.57                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              | 36                     | 14.88%     | 5.74         |
| Lead Design Engineer        | 56.09                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Lead Engineer               | 60.96                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              | 84                     | 34.71%     | 21.16        |
| Construction Engineer II    | 38.57                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Administration Assistant II | 31.49                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Senior Design Technician    | 48.82                  |                 |            |              | 8                                      | 12.31%     | 6.01         | 81                    | 32.53%     | 15.88        | 201                      | 59.29%     | 28.95        | 233                               | 54.82%     | 26.77        | 112                    | 46.28%     | 22.60        |
| Staff Land Surveyor III     | 63.25                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Project Land Surveyor I     | 52.90                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Group Leader                | 69.61                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Principal                   | 78.00                  |                 |            |              |  |            |              | 8                     | 3.21%      | 2.51         | 4                        | 1.18%      | 0.92         | 4                                 | 0.94%      | 0.73         |                        |            |              |
| Senior Engineer             | 78.00                  |                 |            |              |  |            |              | 12                    | 4.82%      | 3.76         | 4                        | 1.18%      | 0.92         | 14                                | 3.29%      | 2.57         | 10                     | 4.13%      | 3.22         |
| Staff Land Surveyor I       | 29.89                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Graphics Designer           | 25.38                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Wetlands Scientist          | 28.12                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| Lead Environmental Planner  | 60.90                  |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
|                             |                        |                 |            |              |  |            |              |                       |            |              |                          |            |              |                                   |            |              |                        |            |              |
| <b>TOTALS</b>               |                        | 0.0             | 0%         | \$0.00       | 65.0                                   | 100%       | \$49.52      | 249.0                 | 100%       | \$62.02      | 339.0                    | 100%       | \$50.22      | 425.0                             | 100%       | \$52.21      | 242.0                  | 100%       | \$52.72      |

**Local Public Agency**

**County**

**Section Number**

Lake County Division of Transportation

Lake

19-00132-05-CH

**AVERAGE HOURLY PROJECT RATES**

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

SHEET 3 OF 3

| PAYROLL<br>CLASSIFICATION   | AVG<br>HOURLY<br>RATES | Supplemental Roadway<br>Design |            |              | Land Surveying, Plats &<br>Legals |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|-----------------------------|------------------------|--------------------------------|------------|--------------|-----------------------------------|------------|--------------|-------|------------|--------------|-------|------------|--------------|-------|------------|--------------|-----|----|--------|
|                             |                        | Hours                          | %<br>Part. | Wgt'd<br>Avg | Hours                             | %<br>Part. | Wgt'd<br>Avg | Hours | %<br>Part. | Wgt'd<br>Avg | Hours | %<br>Part. | Wgt'd<br>Avg | Hours | %<br>Part. | Wgt'd<br>Avg |     |    |        |
| Senior Project Manager      | 75.16                  | 2                              | 5.26%      | 3.96         |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Project Manager             | 55.20                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Project Engineer II         | 49.38                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Project Engineer I          | 41.99                  | 16                             | 42.11%     | 17.68        |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Staff Engineer II           | 38.57                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Lead Design Engineer        | 56.09                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Lead Engineer               | 60.96                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Construction Engineer II    | 38.57                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Administration Assistant II | 31.49                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Senior Design Technician    | 48.82                  | 20                             | 52.63%     | 25.70        |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Staff Land Surveyor III     | 63.25                  |                                |            |              | 36                                | 28.13%     | 17.79        |       |            |              |       |            |              |       |            |              |     |    |        |
| Project Land Surveyor I     | 52.90                  |                                |            |              | 54                                | 42.19%     | 22.32        |       |            |              |       |            |              |       |            |              |     |    |        |
| Group Leader                | 69.61                  |                                |            |              | 6                                 | 4.69%      | 3.26         |       |            |              |       |            |              |       |            |              |     |    |        |
| Principal                   | 78.00                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Senior Engineer             | 78.00                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Staff Land Surveyor I       | 29.89                  |                                |            |              | 32                                | 25.00%     | 7.47         |       |            |              |       |            |              |       |            |              |     |    |        |
| Graphics Designer           | 25.38                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Wetlands Scientist          | 28.12                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| Lead Environmental Planner  | 60.90                  |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
|                             |                        |                                |            |              |                                   |            |              |       |            |              |       |            |              |       |            |              |     |    |        |
| <b>TOTALS</b>               |                        | 38.0                           | 100%       | \$47.33      | 128.0                             | 100%       | \$50.84      | 0.0   | 0%         | \$0.00       | 0.0   | 0%         | \$0.00       | 0.0   | 0%         | \$0.00       | 0.0 | 0% | \$0.00 |

EXHIBIT D

**DIRECT COST WORKSHEET**

Deep Lake Road  
Phase I and II  
Lake County Division of Transportation  
HR Green Project Number: 191481

DATE: 10/20/23

**Land Surveying, Plats & Legals**

|                               |          |            |          |
|-------------------------------|----------|------------|----------|
| Mileage Rate:                 | \$0.655  |            |          |
|                               |          | Mileage    | Number   |
| Destination                   |          | Round-Trip | of Trips |
| HRG (McHenry) to Project Site |          | 40         | 8        |
| Subtotal:                     | \$209.60 |            |          |

|                                 |    |        |
|---------------------------------|----|--------|
| In House Direct Costs Subtotal: | \$ | 209.60 |
| Outside Direct Costs Subtotal:  | \$ | -      |

**Total Land Surveying, Plats & Legals \$209.60**

**Geotechnical Investigation**

|   |    |            |
|---|----|------------|
| Geotechnical (Rubino)                         | \$ | 53,141.39  |
| Deduct for Unused Fee under current agreement | \$ | (6,211.61) |

**Total Geotechnical Investigation \$46,929.78**

**Wetlands Investigation**

|                               |         |            |          |
|-------------------------------|---------|------------|----------|
| Mileage Rate:                 | \$0.655 |            |          |
|                               |         | Mileage    | Number   |
| Destination                   |         | Round-Trip | of Trips |
| HRG (McHenry) to Project Site |         | 40         | 2        |
| Subtotal:                     | \$52.40 |            |          |

**Total Wetlands Investigation \$52.40**

**Project Coordination Meetings**

|                               |         |            |          |  |
|-------------------------------|---------|------------|----------|--|
| Mileage Rate:                 | \$0.655 |            |          |  |
|                               |         | Mileage    | Number   |  |
| Destination                   |         | Round-Trip | of Trips |  |
| HRG (McHenry) to LCDOT        |         | 40         | 4        |  |
| HRG (McHenry) to IDOT D1      |         | 50         | 0        |  |
| HRG (McHenry) to Project Site |         | 40         | 3        |  |
| HRG (McHenry) to Antioch      |         | 40         | 1        | Assumes Project Site to be Average Mileage |

**Total Project Coordination Meetings \$209.60**

**North Ave Roundabout Re-Design**

|                        |    |          |
|------------------------|----|----------|
| Lighting Design (Ames) | \$ | 6,596.00 |
|------------------------|----|----------|

**Total North Ave Roundabout Re-Design \$6,596.00**

|                     |                    |
|---------------------|--------------------|
| <b>GRAND TOTAL:</b> | <b>\$53,997.38</b> |
|---------------------|--------------------|



## CHANGE ORDER

September 21, 2023

To: Jeffrey Strzalka, PE  
Project Manager – Transportation  
HR Green, Inc.  
420 N. Front Street  
McHenry, IL 60050-5528

Re: **Change Order – Geotechnical  
Exploration**  
Deep Lake Road  
Retaining Walls  
Antioch, Illinois

Project No. G20.076 Change Order 01

Via email: [jstrzalka@hrgreen.com](mailto:jstrzalka@hrgreen.com)

Dear Mr. Strzalka,

Rubino Engineering, Inc. (Rubino) is pleased to submit the following change order proposal to provide additional CCDD Testing along Indian Trail in Aurora, Illinois. This change order provides for additional services in accordance with scope definition, terms, and general conditions of the Rubino Proposal Number Q19.507g\_REV2 dated April 22, 2020.

### Project Correspondence:

- Rubino submitted G20.076 RGR on September 3, 2021
- Email from Jeffrey Strzalka of HR Green September 16, 2023 requesting additional soil borings for retaining walls
- “map-091623-AddntlBorings” prepared by HR Green, received on September 16, 2023.
- “191481-str-Ret-Wall-01-04282022-2” prepared by HR Green, received on September 18, 2023.
- Anticipated lengths and heights of the retaining walls was provided by Jeffrey Strzalka of HR Green via emails on September 18 and September 19, 2023.

### Additional Boring Depths

| NUMBER OF ADDITIONAL BORINGS | DEPTH (FEET BEG*) | BORING NUMBERS      | ANTICIPATED EXPOSED WALL HEIGHT  | LOCATION / ESTIMATED WALL LENGTH |
|------------------------------|-------------------|---------------------|----------------------------------|----------------------------------|
| 10                           | 30                | RWB-01 thru RWB-10  | 15 feet                          | South Wall +/- 700 feet          |
| 4                            | 20                | RWB-11 thru RWB-14  | 10 feet                          | North Wall +/- 250 feet          |
| 2                            | 10 – 30           | Shelby Tube Borings | Blind Drill to push Shelby Tubes |                                  |

**14 Total SPT / 2 Shelby Tube Borings  
Borings**

**380 Total Lineal  
Feet**



*Exhibit 1) Proposed boring locations in SB shoulder of Deep Lake Road for south wall*



*Exhibit 2) Proposed boring locations in SB shoulder of Deep Lake Road for north wall*

Geotechnical Laboratory Testing

The soil samples obtained during the field exploration program will be transported to the laboratory for classification and a limited number of laboratory tests. The nature and extent of the laboratory testing program is at the discretion of Rubino Engineering, Inc. and will depend upon the subsurface conditions encountered during drilling.

Laboratory testing will be performed in accordance with ASTM procedures and may include examination of selected samples to evaluate the soils’ index properties and relative strength characteristics.

Based on the proposed quantity of soil borings, anticipated depths, and project type, a list of the anticipated laboratory tests is summarized below.

| LABORATORY TEST                      | ESTIMATED QUANTITY | SAMPLE TYPE                       |
|--------------------------------------|--------------------|-----------------------------------|
| Atterberg Limits                     | 5                  | Split spoon, bulk, or Shelby Tube |
| Hydrometer                           | 2                  | Split spoon, bulk, or Shelby Tube |
| Natural Moisture Content             | 152                | Cohesive Samples                  |
| Triaxial Envelope Testing (3 points) | 2                  | Shelby Tubes                      |
| Organic Content                      | 8                  | Split spoon, bulk, or Shelby Tube |



**Supplemental Structure Geotechnical Report (SGR)**

- Cover Sheet and Table of Contents
- Project Description and Scope
- Field Exploration
- Geotechnical Evaluations and Recommendations
  - Settlement
  - Global Stability using Stabl
  - Seismic Considerations
- Foundation Recommendations
- Construction Considerations
- Appendices (Supporting Documentation): location map, boring plan and soil profile, boring logs, laboratory test results, SSR Charts, photographs

**FEES**

Rubino proposes to charge the fee for performance of the outlined scope of services on an estimated basis using the IDOT BDE 3606 and BDE 436 forms, which are attached. Based on the scope of services outlined above, the CECS forms total **\$53,141**

Rubino Engineering, Inc. proposes to provide experienced, technical personnel to perform the requested testing in general accordance with the client-provided project specifications. If any of the above information is incorrect, please notify us as soon as possible in writing.

**CLOSING**

Rubino appreciates the opportunity to offer the additional services for this project and we look forward to working with your company. Please sign below as notice to proceed and return one copy of this proposal intact to our office. We will proceed with the work upon receipt of signed authorization. Please contact me with questions pertaining to this change order.

Respectfully submitted,  
**RUBINO ENGINEERING, INC.**



Michelle A. Lipinski, PE  
President  
[michelle.lipinski@rubinoeng.com](mailto:michelle.lipinski@rubinoeng.com)

**FEE NOTE:**  
CECS FORMS SHOW THE TOTAL EFFORT REQUIRED FOR THE ADDITIONAL GEOTECHNICAL INVESTIGATIONS. RUBINO HAS \$6,211.61 REMAINING OF UNUSED FEE UNDER THE ORIGINAL CONTRACT.  
\$53,141-\$6,211=\$46,930

**AGREED TO, THIS** \_\_\_\_\_ **DAY OF** \_\_\_\_\_, 20\_\_.

**BY (please print):** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**COMPANY:** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_

**COMPANY NAME: Q19.507g\_REV2**

 PTB NUMBER: **Rubino proposal # G20.076 Change Order1 Deep Lake Rd**

 TODAY'S DATE: **9/21/2023**

| ITEM  | ALLOWABLE   | UTILIZE<br>W.O. ONLY | QUANTITY<br>J.S. ONLY | CONTRACT<br>RATE | TOTAL              |
|---|---|----------------------|-----------------------|------------------|--------------------|
| Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)        | Up to state rate maximum  |                      |                       | \$0.00           | \$0.00             |
| Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)         | Actual cost (Up to state rate maximum)  |                      |                       | \$0.00           | \$0.00             |
| Air Fare  | Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval |                      |                       | \$0.00           | \$0.00             |
| Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD) | Up to state rate maximum  |                      |                       | \$0.00           | \$0.00             |
| Vehicle Owned or Leased                               | \$32.50/half day (4 hours or less) or \$65/full day                                   |                      | 11                    | \$65.00          | \$715.00           |
| Vehicle Rental  | Actual cost (Up to \$55/day)  |                      |                       | \$0.00           | \$0.00             |
| Tolls   | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Parking   | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Overtime  | Premium portion (Submit supporting documentation)                                     |                      | 20                    | \$30.63          | \$612.50           |
| Shift Differential                                    | Actual cost (Based on firm's policy)  |                      |                       | \$0.00           | \$0.00             |
| Overnight Delivery/Postage/Courier Service            | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Copies of Deliverables/Mylars (In-house)              | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Copies of Deliverables/Mylars (Outside)               | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Project Specific Insurance                            | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Monuments (Permanent)                                 | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Photo Processing                                      | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| 2-Way Radio (Survey or Phase III Only)                | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Telephone Usage (Traffic System Monitoring Only)      | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| CADD  | Actual cost (Max \$15/hour)   |                      |                       | \$0.00           | \$0.00             |
| Web Site  | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Advertisements  | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Public Meeting Facility Rental                        | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Public Meeting Exhibits/Renderings & Equipment        | Actual cost (Submit supporting documentation)   |                      |                       | \$0.00           | \$0.00             |
| Recording Fees  | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Transcriptions (specific to project)                  | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Courthouse Fees                                       | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Storm Sewer Cleaning and Televising                   | Actual cost (Requires 2-3 quotes with IDOT approval)                                  |                      |                       | \$0.00           | \$0.00             |
| Traffic Control and Protection                        | Actual cost (Requires 2-3 quotes with IDOT approval)                                  |                      | 4                     | \$ 2,800.00      | \$11,200.00        |
| Aerial Photography and Mapping                        | Actual cost (Requires 2-3 quotes with IDOT approval)                                  |                      |                       | \$0.00           | \$0.00             |
| Utility Exploratory Trenching                         | Actual cost (Requires 2-3 quotes with IDOT approval)                                  |                      |                       | \$0.00           | \$0.00             |
| Testing of Soil Samples*                              | Actual cost   |                      |                       | \$0.00           | \$0.00             |
| Lab Services*   | Actual cost (Provide breakdown of each cost)  |                      |                       | \$0.00           | \$0.00             |
| Equipment and/or Specialized Equipment Rental*        | Actual cost (Requires 2-3 quotes with IDOT approval)                                  |                      |                       | \$0.00           | \$0.00             |
| Atterberg Limits                                      | In house direct cost  |                      | 5                     | \$ 70.00         | \$350.00           |
| Hydrometer  | In house direct cost  |                      | 2                     | \$ 140.00        | \$280.00           |
| Natural Moisture Content                              | In house direct cost  |                      | 152                   | \$ 7.00          | \$1,064.00         |
| Organic Content                                       | In house direct cost  |                      | 8                     | \$ 23.33         | \$186.64           |
| Drill Rig Mobilization                                | In house direct cost  |                      | 4                     | \$ 700.00        | \$2,800.00         |
| Shelby Tubes  | Outside Direct Cost   |                      | 2                     | \$21.25          | \$42.50            |
| Triaxial Evelope Testing                              | In house direct cost  |                      | 2                     | \$ 1,800.00      | \$3,600.00         |
|   |   |                      |                       |                  | \$0.00             |
|   |   |                      |                       |                  | \$0.00             |
|   |   |                      |                       |                  | \$0.00             |
| <b>TOTAL DIRECT COST</b>                              |   |                      |                       |                  | <b>\$20,850.64</b> |

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

**LEGEND**

W.O. = Work Order

J.S. = Job Specific



Payroll Escalation Table  
Fixed Raises  
DLM 2.80

FIRM NAME Rubino Engineering, Inc.  
PRIME/SUPPLEMENT Supplement

DATE 09/21/23  
PTB NO. 1

CONTRACT TERM 12 MONTHS  
START DATE 9/30/2023  
RAISE DATE 9/24/2024

OVERHEAD RATE 169.03%  
COMPLEXITY FACTOR 0  
% OF RAISE 3.00%

ESCALATION PER YEAR

9/30/2023 - 9/29/2024

12  
12

= 100.00%  
= 1.0000

The total escalation for this project would be:

0.00%









Project: Deep Lake Road  
 Lake County Division of Transportation  
 AEI Ref. # 2019-12

September 7, 2023

Ames Engineering, Inc. (AEI) will be the sub-consultant to HR Green to provide lighting PS&E and to provide CADD services for the above project.

### **Scope of Work – Lighting**

Ames Engineering, Inc. (AEI) additional scope of services consists of providing updated photometric calculations based on the revised geometry and preparing intersection lighting plans for the proposed construction of a roundabout at Deep Lake Road and North Avenue.

The additional work will consist of the following items:

1. Revised lighting plan at the roundabout Deep Lake Rd at North Ave. and along each approach.
2. Wiring Diagram/Load table
3. Photometric Calculations
4. Update Voltage Drop Calculations
5. Revised Cost Estimate/SOQ
6. QA/QC
7. Project management and administration

### **Items not included in scope:**

1. Any items outside the scope of work and project limits as shown above.
2. Additional hours will be required if changes to geometry are made after the final plan submittal.

### **Items to be furnished to AEI:**

1. Base sheets in dgn format.
2. All underground utilities (dgn format).
3. Lake County Details/Standards in electronic format
4. Electronic files (dgn format) of proposed roadway geometry, alignment shall be provided by the Prime.

### **Manhour Estimate - Lighting**

| <b>Item</b>  | <b>Task</b>   | <b>Hours</b> |
|--------------|---|--------------|
| 1.           | Proposed Lighting Plans (1 sheet at North Ave @ 16 hrs/sheet) | 16           |
| 2.           | Wiring Diagram/Load Table (1 sheets)                          | 12           |
| 3.           | Photometric Calculations (roundabout intersection)            | 6            |
| 4.           | Update Voltage Drop Calculations                              | 4            |
| 5.           | Revised Cost Estimate/SOQ                                     | 2            |
| 6.           | QA/QC   | 2            |
| 7.           | Project management and administration                         | 2            |
| <b>Total</b> |   | <b>44</b>    |

### **Direct Cost Estimate – Lighting**

#### **In-House Miscellaneous:**

16 CADD Hrs: x \$10/hr= \$160 \$ 160.00

**TOTAL** **\$ 160.00**

**PAYROLL ESCALATION TABLE  
FIXED RAISES**

FIRM NAME AMES Engineering, Inc.  
PRIME/SUPPLEMENT Supplement 1  
Prepared By Joan Somer

DATE 09/11/23  
PTB-ITEM# 193

CONTRACT TERM 12 MONTHS  
START DATE 12/31/2023  
RAISE DATE 1/1/2024  
END DATE 12/30/2024

OVERHEAD RATE 131.08%  
COMPLEXITY FACTOR 0  
% OF RAISE 2%

**ESCALATION PER YEAR**

| year | First date | Last date | Months | % of Contract |
|------|------------|-----------|--------|---------------|
| 0    | 12/31/2023 | 1/1/2024  | 0      | 0.00%         |
| 1    | 1/2/2024   | 1/1/2025  | 12     | 102.00%       |

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The total escalation = 2.00%



**PAYROLL RATES**

FIRM NAME AMES Engineering, Inc. DATE 09/11/23  
 PRIME/SUPPLEMENT Supplement 1  
 PTB-ITEM # 193

ESCALATION FACTOR 2.00%

*Note: Rates should be capped on the AVG 1 tab as necessary*

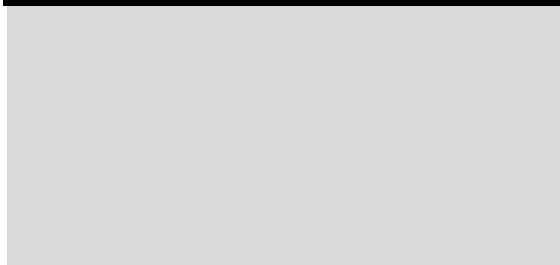
| CLASSIFICATION   | IDOT<br>PAYROLL RATES<br>ON FILE | CALCULATED RATE |
|------------------|----------------------------------|-----------------|
| Senior Engineer  | \$63.14                          | \$64.40         |
| Project Engineer | \$58.63                          | \$59.80         |
| CADD Technician  | \$39.76                          | \$40.56         |

### Subconsultants

FIRM NAME AMES Engineering, Inc.  
PRIME/SUPPLEMENT Supplement 1  
PTB-ITEM # 193

DATE 09/11/23

| NAME | Direct Labor Total | Contribution to Prime Consultant |
|------|--------------------|----------------------------------|
|------|--------------------|----------------------------------|



**Total** **0.00** **0.00**







Direct Cost

E-mail

Reset Form

|   |            |                     |
|---|------------|---------------------|
| Prime Consultant Name   | PTB Number | State Job Number(s) |
| HR Green, Inc.  |            |                     |
| <input type="checkbox"/> Prime <input checked="" type="checkbox"/> Supplement # <u>1</u> Date <u>09/11/23</u> |            |                     |

Consultant  
 AMES Engineering, Inc.

| Item  | Allowable   | Utilize<br>W.O. Only     | Quantity<br>J.S. Only | Contract Rate | Total  |
|---|---|--------------------------|-----------------------|---------------|--------|
| Per Diem<br>(per GOVERNOR'S TRAVEL CONTROL BOARD)               | Up to state rate maximum  | <input type="checkbox"/> |                       |               | \$0.00 |
| Lodging<br>(per GOVERNOR'S TRAVEL CONTROL BOARD)                | Actual cost (Up to state rate maximum)  | <input type="checkbox"/> |                       |               | \$0.00 |
| Lodging Taxes and Fees<br>(per GOVERNOR'S TRAVEL CONTROL BOARD) | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |
| Air Fare  | Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval | <input type="checkbox"/> |                       |               | \$0.00 |
| Vehicle Mileage<br>(per GOVERNOR'S TRAVEL CONTROL BOARD)        | Up to state rate maximum  | <input type="checkbox"/> |                       |               | \$0.00 |
| Vehicle Owned or Leased   | \$32.50/half day (4 hours or less) or \$65/full day                                   | <input type="checkbox"/> |                       |               | \$0.00 |
| Vehicle Rental  | Actual cost (Up to \$55/day)  | <input type="checkbox"/> |                       |               | \$0.00 |
| Rental Vehicle Fuel   | Actual cost (Submit supporting documentation)   | <input type="checkbox"/> |                       |               | \$0.00 |
| Tolls   | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |
| Parking   | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |
| Overtime  | Premium portion (Submit supporting documentation)                                     | <input type="checkbox"/> |                       |               | \$0.00 |
| Shift Differential  | Actual cost (Based on firm's policy)  | <input type="checkbox"/> |                       |               | \$0.00 |
| Overnight Delivery/Postage/Courier Service                      | Actual cost (Submit supporting documentation)   | <input type="checkbox"/> |                       |               | \$0.00 |
| Copies of Deliverables/Mylars (In-house)                        | Actual cost (Submit supporting documentation)   | <input type="checkbox"/> |                       |               | \$0.00 |
| Copies of Deliverables/Mylars (Outside)                         | Actual cost (Submit supporting documentation)   | <input type="checkbox"/> |                       |               | \$0.00 |
| Project Specific Insurance                                      | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |
| Monuments (Permanent)   | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |
| Photo Processing  | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |
| 2-Way Radio (Survey or Phase III Only)                          | Actual cost   | <input type="checkbox"/> |                       |               | \$0.00 |

| Item   | Allowable  | Utilize<br>W.O. Only                | Quantity<br>J.S. Only | Contract Rate | Total           |
|--|--|-------------------------------------|-----------------------|---------------|-----------------|
| Telephone Usage (Traffic System Monitoring Only) | Actual cost  | <input type="checkbox"/>            |                       |               | \$0.00          |
| CADD   | Actual cost (Max \$15/hour)  | <input checked="" type="checkbox"/> | 16                    | \$10.00       | \$160.00        |
| Website  | Actual cost (Submit supporting documentation)  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Advertisements                                   | Actual cost (Submit supporting documentation)  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Public Meeting Facility Rental                   | Actual cost (Submit supporting documentation)  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Public Meeting Exhibits/Renderings & Equipment   | Actual cost (Submit supporting documentation)  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Recording Fees                                   | Actual cost  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Transcriptions (specific to project)             | Actual cost  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Courthouse Fees                                  | Actual cost  | <input type="checkbox"/>            |                       |               | \$0.00          |
| Storm Sewer Cleaning and Televising              | Actual cost (Requires 2-3 quotes with IDOT approval)   | <input type="checkbox"/>            |                       |               | \$0.00          |
| Traffic Control and Protection                   | Actual cost (Requires 2-3 quotes with IDOT approval)   | <input type="checkbox"/>            |                       |               | \$0.00          |
| Aerial Photography and Mapping                   | Actual cost (Requires 2-3 quotes with IDOT approval)   | <input type="checkbox"/>            |                       |               | \$0.00          |
| Utility Exploratory Trenching                    | Actual cost (Requires 2-3 quotes with IDOT approval)   | <input type="checkbox"/>            |                       |               | \$0.00          |
| Testing of Soil Samples*                         | Actual cost (Provide breakdown of costs to the Department for approval)                          | <input type="checkbox"/>            |                       |               | \$0.00          |
| Lab Services*                                    | Actual cost (Provide breakdown of cost for each lab service to the Department's PM for approval) | <input type="checkbox"/>            |                       |               | \$0.00          |
| Equipment and/or Specialized Equipment Rental*   | Actual cost (Rental - 2-3 quotes needed / Owned - provide depreciated value for IDOT approval)   | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
|  |  | <input type="checkbox"/>            |                       |               | \$0.00          |
| <b>Total Direct Cost</b>                         |  |                                     |                       |               | <b>\$160.00</b> |

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

**LEGEND**

W.O. = Work Order

J.S. = Job Specific