


Local Agency City of Aurora	L O C A L A G E N C Y	 Illinois Department of Transportation Preliminary Engineering Services Agreement For Federal Participation	C O N S U L T A N T	Consultant HR Green, Inc.
County Kane County				Address 420 N. Front St.
Section 16-00315-00-BR				City McHenry
Project No.				State IL
Job No.				Zip Code 60050
Contact Name/Phone/E-mail Address Mr. Christopher E. Lirot, PE 630-256-3242 clirot@aurora-il.org				Contact Name/Phone/E-mail Address Akram Chaudhry, P.E. 815-759-8310 achaudhry@hrgreen.com

THIS AGREEMENT is made and entered into this _____ day of _____, _____ between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the PROJECT. Federal-aid funds allotted to the LA by the state of Illinois under the general supervision of the Illinois Department of Transportation (STATE) will be used entirely or in part to finance engineering services as described under AGREEMENT PROVISIONS.

Project Description

Name Montgomery Rd. over Waubonsie Creek Route MS 1110 Length 0.20 mi. Structure No. 045-6015 (exist)
Termini Kautz Road to Walcott Road

Description Restore superstructure to design capacity by removing and replacing the precast prestressed concrete deck beams, protecting the existing abutments from scour, repairing existing abutments and modifying the sidewalk and parapets to meet current standards and better match the existing approach roadway cross sections.

Agreement Provisions

I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance, in accordance with STATE approved design standards and policies, of engineering services for the LA for the proposed improvement herein described.
2. To attend any and all meetings and visit the site of the proposed improvement at any reasonable time when requested by representatives of the LA or STATE as listed in Exhibit C.
3. To complete the services herein described within 365 calendar days from the date of the Notice to Proceed from the LA, excluding from consideration periods of delay caused by circumstances beyond the control of the ENGINEER.
4. The classifications of the employees used in the work should be consistent with the employee classifications and estimated man-hours shown in EXHIBIT A. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are indicated in Exhibit A to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
5. That the ENGINEER is qualified technically and is entirely conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated herein.
6. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of work by the STATE will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or for clarification of any ambiguities.
7. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will affix the ENGINEER's professional seal when such seal is required by law. Plans for structures to be built as a part of the improvement will be prepared under the supervision of a registered structural engineer and will affix structural engineer seal when such seal is required by law. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the STATE.
8. That the ENGINEER will comply with applicable federal statutes, state of Illinois statutes, and local laws or ordinances of the LA.

9. The undersigned certifies neither the ENGINEER nor I have:
- employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for me or the above ENGINEER) to solicit or secure this AGREEMENT,
 - agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
 - paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for me or the above ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
 - are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
 - have not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property,
 - are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (e) and
 - have not within a three-year period preceding this AGREEMENT had one or more public transactions (Federal, State or local) terminated for cause or default.
10. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LA.
11. To submit all invoices to the LA within one year of the completion of the work called for in this AGREEMENT or any subsequent Amendment or Supplement.
12. To submit BLR 05613, Engineering Payment Report, to the STATE upon completion of the project (Exhibit B).
13. Scope of Services to be provided by the ENGINEER:
- Make such detailed surveys as are necessary for the planning and design of the PROJECT.
 - Make stream and flood plain hydraulic surveys and gather both existing bridge upstream and downstream high water data and flood flow histories as outlined in Exhibit C.
 - Prepare applications for U.S. Army Corps of Engineers Permit, Illinois Department of Natural Resources Office of Water Resources Permit and Illinois Environmental Protection Agency Section 404 Water Quality Certification as outlined in Exhibit C.
 - Design and/or approve cofferdams and superstructure shop drawings.
 - Prepare Bridge Condition Report and Preliminary Bridge Design and Hydraulic Report, (including economic analysis of bridge or culvert types and high water effects on roadway overflows and bridge approaches).
 - Prepare the necessary environmental and planning documents including the Project Development Report, Environmental Class of Action Determination or Environmental Assessment, State Clearinghouse, Substate Clearinghouse and all necessary environmental clearances.
 - Make such soil surveys or subsurface investigations including borings and soil profiles as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations to be made in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE.
 - Analyze and evaluate the soil surveys and structure borings to determine the roadway structural design and bridge foundation.
 - Prepare preliminary roadway ~~and drainage structure~~ plans and meet with representatives of the LA and STATE at the site of the improvement for review of plans ~~prior to the establishment of final vertical and horizontal alignment, location and size of drainage structures,~~ and compliance with applicable design requirements and policies.
 - Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
 - Complete the general and detailed plans, special provisions and estimate of cost. Contract plans shall be prepared in accordance with the guidelines contained in the Bureau of Local Roads and Streets manual. The special provisions and detailed estimate of cost shall be furnished in quadruplicate.
 - Furnish the LA with survey and drafts in quadruplicate all necessary right-of-way dedications, construction easements and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

II. THE LA AGREES,

1. To furnish the ENGINEER all presently available survey data and information
2. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas:

Cost Plus Fixed Fee CPFF = 14.5%[DL + R(DL) + OH(DL) + IHDC], or
 CPFF = 14.5%[DL + R(DL) + 1.4(DL) + IHDC], or
 CPFF = 14.5%[(2.3 + R)DL + IHDC]

Where: DL = Direct Labor
 IHDC = In House Direct Costs
 OH = Consultant Firm's Actual Overhead Factor
 R = Complexity Factor

Specific Rate (Pay per element)

Lump Sum _____

3. To pay the ENGINEER using one of the following methods as required by 49 CFR part 26 and 605 ILCS 5/5-409:

With Retainage

- a) **For the first 50% of completed work**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to 90% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **After 50% of the work is completed**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments covering work performed shall be due and payable to the ENGINEER, such payments to be equal to 95% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- c) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and the STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

Without Retainage

- a) **For progressive payments** – Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

4. The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31U.S.C. 3801 et seq.).

III. IT IS MUTALLY AGREED,

1. That no work shall be commenced by the ENGINEER prior to issuance by the LA of a written Notice to Proceed.
2. That tracings, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LA and that basic survey notes, sketches, charts and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request, to the LA or to the STATE, without restriction or limitation as to their use.

3. That all reports, plans, estimates and special provisions furnished by the ENGINEER shall be in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE, it being understood that all such furnished documents shall be approved by the LA and the STATE before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.
4. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without written consent of the LA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall not be construed to relieve the ENGINEER of any responsibility for the fulfillment of this agreement.
5. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General and the STATE; and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the STATE for the recovery of any funds paid by the STATE under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.
6. The payment by the LA in accordance with numbered paragraph 3 of Section II will be considered payment in full for all services rendered in accordance with this AGREEMENT whether or not they be actually enumerated in this AGREEMENT.
7. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LA, the STATE, and their officers, agents and employees from all suits, claims, actions or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.
8. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such material becomes the property of the LA. The LA will be responsible for reimbursement of all eligible expenses to date of the written notice of termination.
9. This certification is required by the Drug Free Workplace Act (30ILCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the State unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to, suspension of contract or grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the State for at least one (1) year but no more than five (5) years.

For the purpose of this certification, "grantee" or "contractor" means a corporation, partnership or other entity with twenty-five (25) or more employees at the time of issuing the grant, or a department, division or other unit thereof, directly responsible for the specific performance under a contract or grant of \$5,000 or more from the State, as defined in the Act.

The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

- a. Publishing a statement:
 - (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
 - (2) Specifying the actions that will be taken against employees for violations of such prohibition.
 - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
 - (a) abide by the terms of the statement; and
 - (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- b. Establishing a drug free awareness program to inform employees about:
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's or contractor's policy of maintaining a drug free workplace;
 - (3) Any available drug counseling, rehabilitation and employee assistance program; and
 - (4) The penalties that may be imposed upon an employee for drug violations.
- c. Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- d. Notifying the contracting or granting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee or otherwise receiving actual notice of such conviction.
- e. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by,
- f. Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- g. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

10. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of DOT assisted contracts. Failure by the ENGINEER to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LA deems appropriate.

Agreement Summary

Prime Consultant:	TIN Number	Agreement Amount
HR Green, Inc.	42-0927178	\$75,403.72
Sub-Consultants:	TIN Number	Agreement Amount
Applied Ecological Services, Inc.	39-1611274	8,200.00
Chicago Testing Laboratories	36-4199051	6,425.00
	Sub-Consultant Total:	\$14,625.00
	Prime Consultant Total:	\$75,403.72
	Total for all Work:	\$90,028.72

Executed by the LA:

City of Aurora

(Municipality/Township/County)

ATTEST:

By: _____
 _____ Clerk

By: _____
 Title: _____

(SEAL)

Executed by the ENGINEER:

HR Green, Inc.

ATTEST:



By: Robert G. Davies, SE, PE
 Title: Senior Structural Engineer

By: Akram Chaudhry, PE
 Title: Vice-President

Exhibit A - Preliminary Engineering

*Firm's approved rates on file with IDOT'S Bureau of Accounting and Auditing:
 Overhead Rate (OH) 166.65 %
 Complexity Factor (R) 0.00
 Calendar Days 365

Route: Montgomery Road
 Local Agency: City of Aurora
 (Municipality/Township/County)
 Section: 16-00315-00-BR
 Project: _____
 Job No.: _____

Method of Compensation:
 14.5%[DL + R(DL) + OH(DL) + IHDC]
 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
 14.5%[(2.3 + R)DL + IHDC]

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Ave. Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Topographic Survey	See Exhibit D	56	\$33.14	1,855.62	3,092.40			686.58	5,634.60
Hyd. Memo & HEC 18		38	\$46.08	1,750.89	2,917.85		27.00	647.83	5,343.57
BCR & BLR 10210		108	\$42.50	4,590.28	7,649.70		51.84	1,698.40	13,990.23
TS&L		72	\$37.15	2,674.99	4,457.88			989.75	8,122.62
Env. Coord. (ESR & Coord. w/ CMAP & PDR Text, exhibits, coord. Meetings		24	\$41.28	990.80	1,651.17			366.60	3,008.57
		22	\$48.04	1,056.85	1,761.24			391.04	3,209.13
		148	\$42.75	6,326.60	10,543.28		51.84	2,340.84	17,033.70
		28	\$63.57	1,779.84	2,966.10		133.92	658.54	5,538.39
Coord. Subconsultants		14	\$57.13	799.84	1,332.93	14,625.00		295.94	14,869.70
Project Administration		20	\$60.99	1,219.84	2,032.86			451.34	3,704.03
QA/QC		24	\$70.00	1,680.00	2,799.72		60.00	621.60	5,161.32
Totals		554		24,725.55	41,205.12	14,625.00	324.60	9,148.45	90,028.72

Exhibit C
SCOPE OF SERVICES
CITY OF AURORA
MONTGOMERY ROAD OVER WAUBONSIE CREEK
PHASE I

Project Understanding

The City of Aurora intends to undertake a Phase I Study to restore structural capacity to the existing bridge carrying Montgomery Road over Waubonsie Creek. The existing single span precast prestress concrete deck beam spans 38 feet. The structure number is 045-6015. The existing deck beams are structurally deficient but the bridge inventory indicates the abutments may be reusable; they are, however, supported on footings founded on clay. The existing bridge roadway clear width is 58 feet but approach roadways are two lanes wide (but expand to 3 lanes for intersections east and west of the bridge). Waubonsie Creek includes trails (Fox Valley park District) both north and south of the creek crossing Montgomery immediately east and west of the bridge. Project limits will extend to just short of the intersection of Montgomery and Kautz and Montgomery and Walcott. Current posted speed limit is 35 MPH. The segment of Montgomery that includes the bridge is classified as a minor collector.

The preferred alternative will be replacement of the superstructure. However, the cost of superstructure will be compared to the cost of complete replacement considering scour mitigation (if needed) and hydraulic adequacy (to be verified).

The City also intends to improve the short, two lane with aggregate section of Montgomery south of the bridge and north of Walcott to a three lane curb and gutter section to match the section north of the bridge and the Walcott intersection. This may require drainage structures and will require a change to the sidewalk width on the bridge.

The City will be applying for STP-BR federal funding so the project will be processed through IDOT Bureau of Local Roads and requires a Phase I Project Development Report (PDR) to be prepared.

The following are assumptions the scope of work is based upon:

1. The existing bridge configuration is hydraulically adequate. (This appears reasonable based on a cursory review of the Flood Insurance Study).
2. The abutments can be reused either as is, or with rip rap scour protection which can be installed when the superstructure is off. (This must be verified with an analysis).
3. Staged construction will be used; possibly with substandard tapers and temporary pavement requiring a reduced construction zone speed limit.
4. Review of, and improvements to, the adjacent intersections is not included.

Scope of Work

COMPANY will prepare a Bridge Condition Report and Preliminary Bridge Hydraulic Report for submittal to IDOT prior to completion of the Project Development Report. The COMPANY will also use available modelling and Flood Insurance Study information for this section of Waubonsie Creek to verify hydraulic adequacy of the existing bridge opening and to investigate the scour potential around and under the existing abutment footings. HEC 18 modelling will be performed to determine the correct size and extent of scour mitigation if determined necessary. The Phase I Study and Report will be prepared to Federal Standards. It has been assumed that this project will be processed as a Categorical Exclusion Group II.

A. Early Coordination

1. Coordinate and schedule a kick-off meeting with CITY, and IDOT Bureau of Local Roads and Streets.
2. Submit an Environmental Survey Request per IDOT's latest requirements (Project limits and geometry must be shown on an aerial).
3. Coordinate with CMAP to obtain future traffic projections.

B. Data Collection and Review

1. Coordinate with utility companies to obtain maps of utilities within the project limits and place this information on a CADD base map.
2. Request existing roadway and utility plans from the CITY (where available).
3. Accident data from the last five complete years will be requested from the City for the improvement limits.
4. Analysis will determine if it is a High Accident Locations (HAL) or wet cluster site. Collision diagrams will be provided. A summary of the accident analysis will be provided including corrective measures and recommendations to address safety related conditions.
5. Obtain soil borings, in order to classify grain size in the streambed to be used for the scour analysis. The soils report will be prepared in accordance with IDOT standards for soil boring placement, analysis, and report format. This work will be performed by a geotechnical subconsultant CTL. This work does NOT include bridge borings needed to complete contract documents for a new bridge structure.
6. Obtain soil samples in order to screen for special waste. This will be limited to areas where excavation is anticipated for placement of rip rap; excavation for drainage structures and storm sewer; and excavation for curb and gutter. Subconsultant CTL will take the samples and have them tested.

7. Obtain two (2) cores from the existing wearing surface and membrane on the bridge and approach slabs and have them tested for the presence of asbestos. Subconsultant CTL will take the samples and have them tested. BDE Procedure Memorandum 26-02 will be followed for the sampling and testing procedures.
8. Delineate wetlands within the right of way adjacent to the bridge. AEC Consultants will delineate the wetlands, coordinate with ACOE and prepare a Wetlands Impact Report.

C. Survey Services

Right of Way Survey

COMPANY will recover existing right of way evidence for approximately 1,000 feet along Montgomery Road over Waubonsie Creek and 100 feet each direction on Walcott Road and Kautz Road. COMPANY will calculate the existing right of way as shown on the provided right of way documents and adjacent recorded subdivision plats to include on the base map.

Roadway / Bridge Survey

Roadway Survey will include the area lying within the existing right-of-way for approximately 1,000 feet of Montgomery Road approximately 500 feet southeast and northwest of the bridge. Survey will include 100 feet each direction of Walcott Road and 100 feet on Kautz Road. Survey cross sections will be surveyed at approximate 50 foot intervals. Survey will include existing visible features and improvements, bridge deck, headwalls, wingwalls, low chord and parapet wall or railings/guardrail. Existing utilities will be surveyed from visible flags or markings. Storm, sanitary sewer and watermain structures will be surveyed, including rim elevation, invert pipe size, direction and elevation as observed at unlocked manholes. Creek cross section survey at the upstream and downstream face, between the wingwalls and 60 feet upstream and downstream. Survey will reference existing NGS control stations, Illinois State Plane Coordinate System East Zone NAD83(2011). Elevations will be based upon NAVD88 or local benchmarks.

Tree Survey

COMPANY will locate existing trees greater than six (6) inches in diameter within the project limits. Tree size and type (coniferous or deciduous) will be referenced within the topographic base map.

Site Topography Survey Base Map

COMPANY will generate a MicroStation drawing of the existing features collected along the roadway according to IDOT standards. One (1) foot contours will be generated with the elevations referenced to NAVD88 (U.S. Survey Feet). COMPANY will provide a MicroStation drawing with existing features and improvements within the project limits to be shown. Topographic Survey base map will show tags to existing visible utilities and features. A topographic survey plat is not required due to this surveying service being performed for our internal

engineering group.

D. Preliminary Design Studies:

Bridge Condition Report (BCR) and Type Size and Location (TS&L) Drawing

1. Perform the field work needed for and prepare the Bridge Condition Report including mapping of deterioration in the abutments, probing for scour adjacent to the abutments and approximate stream cross sections at each face of the bridge. Determine (visually) the condition of the existing approach slabs. BCR will also include a discussion of staged construction alternatives.
2. Develop alternatives to confirm or disprove the assumption that the removal and replacement of the superstructure is the most cost effective way to extend the service life of this bridge. IDOT Bridge Condition Report Procedures and Practices will be followed.
3. Submit Bridge Condition report to IDOT Bureau of Local Roads for review and acceptance before completing the PDR. Include a completed BLR 10210 and 10220 as required for BCR submittals to IDOT. Include the Drainage Technical Memorandum and the plan and profile sheets.
4. Investigate the feasibility of inclusion of a separate multi-use path or dedicated on street bike lanes in accordance with the latest AASHTO Guide for Development of Bicycle Facilities as an alternative to the existing sidewalks. Verify sidewalks (as proposed) meet current ADA requirements.
5. Investigation of preferred alternative based upon impacts to the surrounding area (existing residents, buildings, environment, etc.), construction cost, capacity of traffic flow, etc.
6. Develop templated cross-sections every 100' and at driveways and crossing trails throughout the project corridor. Cross-sections to include information regarding cross slopes, existing/ proposed centerline elevations, existing right-of-way, and any existing easements.
7. Prepare the existing/proposed plan and profile sheets for Montgomery Rd. (1" = 50' base maps). Limits Kautz Road to Walcott Drive.
8. Determine need for guardrail and, if needed, determine the appropriate length. Identify conflicts with existing Waubonsie Creek trail crosswalks.
9. Prepare and submit a Type Size and Location drawing or General Plan and Elevation Drawing to go with permit correspondence. We have assumed the existing 21" thick deck beams will be replaced in kind or that the 21" thick deck beams will be replaced with 17" deck beams with a 5" concrete wearing surface.

E. Abbreviated Drainage Technical Memorandum

1. The drainage related work will be completed to ensure conformance to the latest City and Kane County Stormwater Ordinances.

2. Complete an Abbreviated Drainage Technical Memorandum in accordance with requirements outlined in the 1998 IDOT/CECI Drainage Seminar Manual. An existing Drainage Plan and a proposed drainage plan will be completed. A technical memorandum will be the deliverable for this portion of the project.
3. The Technical Memorandum will address hydraulic adequacy based upon available Flood Insurance Studies. It will also summarize the size and extent of scour protection required or, if not required, will summarize the HEC 18 analysis demonstrating the protection is not needed.

F. Environmental Studies

1. Prepare and submit an Environmental Survey Request (ESR) to IDOT. This submittal will be for biological, cultural, historical preservation and hazardous waste screening.
2. There are wetlands along Waubonsie Creek. The wetland delineation and report will be prepared in accordance with IDOT standards. This work will be performed by our environmental subconsultant, AEC.
3. There will be impacts to adjacent Fox Valley Park District trail facilities. Minor impacts to existing trails are anticipated within City Right of Way during construction only. It has been assumed that a Section 4(f) will not be needed.
4. Air Quality - It has been assumed that since no additional lanes will be proposed, IDOT will not require analysis.
5. Noise - It has been assumed that since there are no new roadway alignments that a Noise analysis will not be required.
6. Natural Resources - No tree survey will be performed.

G. Special Waste – Initial screening for special waste will be completed in order to obtain design approval from IDOT. Minimal excavation is anticipated within the roadway for the assumed scope of work. However, 150 to 200 cubic yards of streambed excavation to properly bed and place rip rap scour protection is anticipated.

H. Public Involvement

For this project, the public involvement/meetings will be minimal. No public meetings are included.

I. Project Development Report

1. Prepare draft Project Development Report (BLR 22110) and report exhibits.
2. Preliminary Opinions of Probable Costs will be developed for two alternates.

3. Provide two (2) draft reports for City review.
4. Meet with City to review draft report.
5. Address preliminary report comments from City and prepare final draft Project Development Report for transmittal to IDOT.
6. Provide IDOT four (4) draft reports for review and comment.
7. Address IDOT's preliminary report and prepare final Project Development Report.
8. Provide six (6) final Project Development Reports, four (4) to IDOT and two (2) to City

J. Meetings

1. This project will require meetings with City staff, IDOT, FHWA and Utility companies to obtain support and approval of the Phase I engineering. The following meetings be included:
 - a. Phase I Kick-off at IDOT (1 meeting)
 - b. Progress Review with City Staff (2 meetings);
 - c. Utility Coordination Review (1 meeting);
 - d. Meeting Specifications:
 - COMPANY will have two (2) representatives at all meetings;
 - A maximum of four (4) hours per meeting have been allotted, including travel time; and,
 - Meeting minutes, if required, will be provided.

K. Work Not included

1. The following items are not included in this contract. Several of these items can be completed under a separate contract at an additional cost:
 - a. Lighting design
 - b. Bike Path Grade Separation Review
 - c. Sanitary Sewer Design
 - d. Watermain Design
 - e. Tree Survey
 - f. ROW and Easement Documents (No right of way acquisition is anticipated at this time.)

EXHIBIT D-2
AVERAGE HOURLY PROJECT RATES

FIRM HR Green
 PTB Aurora Montgomery Rd
 PRIME/SUPPLEMENT

DATE 04/19/16

SHEET 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Coord. w/ CMAP & FVPD			PDR Text, exhibits, coord.			Meetings			Coord. Subconsultants			Project Administration			QA/QC		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Admin. Assistant II	24.96	4	18.18%	4.54	4	2.70%	0.67	4	14.29%	3.57	4	28.57%	7.13	4	20.00%	4.99			
Lead Engineer	54.63																		
Operations Manager	67.11																		
Project Engineer II	44.75	12	54.55%	24.41	84	56.76%	25.40												
Land Surveyor I	37.86																		
Sen. Design Technic	33.86				40	27.03%	9.15												
Senior Engineer	70.00				8	5.41%	3.78												
Senior Project Mana	70.00	4	18.18%	12.73				12	42.86%	30.00	8	57.14%	40.00	12	60.00%	42.00	12	50.00%	35.00
Staff Engineer II	34.15				8	5.41%	1.85												11.67
Staff Land Surveyor	24.40																		
Strategic Client Man	70.00	2	9.09%	6.36	4	2.70%	1.89	12	42.86%	30.00							8	33.33%	23.33
Project Engineer I	41.94																		
TOTALS					22	100%	\$48.04	148	100%	\$42.75	28	100%	\$57.13	20	100%	\$60.99	24	100%	\$70.00

Bureau of Design and Environment (Rev. 04/03/15)

PREPARED BY THE CONSULTANT

Printed 4/19/2016

EXHIBIT E TO BLR 05610
DIRECT COSTS
SECTION

Survey

In-House Direct Costs

Mileage

2	trip(s) x	25	miles x	\$0.540	per mile =	<u>\$27.00</u>
			In-House		Sub-Total	\$27.00

Structural Engineering

In-House Direct Costs

Field Check

1	trip(s) x	96	miles x	\$0.540	per mile =	<u>\$51.84</u>
			In-House		Sub-Total	\$51.84

Roadway Engineering

In-House Direct Costs

Field Checks

1	trip(s) x	96	miles x	\$0.540	per mile =	<u>\$51.84</u>
			In-House		Sub-Total	\$51.84

Outside Direct Costs

AES Wetlands delineation and ACOE coord.

\$ 8,200.00

CTL Geotechnical and material testing

\$6,425.00

	Outside					\$14,625.00
		Sub-Total				

Meetings and Coordination

In-House Direct Costs

IDOT meetings

1	trip(s) x	56	miles x	\$0.540	per mile =	\$30.24
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City of Aurora

2	trip(s) x	96	miles x	\$0.540	per mile =	<u>\$103.68</u>
			In-House		Sub-Total	\$133.92

Plan Submittals

Outside Direct Costs

Postage - UPS

4	Package(s) x	\$15.00	per package =			<u>\$60.00</u>
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	In-House					\$60.00
		Sub-Total				



Consulting Proposal and Agreement

Project Information

Project Name: Montgomery Rd. Bridge Wetland Delineation & Corps Permitting
AES Project Number: 16-0307
Branch: West Dundee, IL

March 28, 2016

Robert Davies, SE PE
HR Green, Inc.
420 N. Front St.
McHenry, IL 60050

Re: Agreement and Authorization for Wetland Delineation and Permitting Services by Applied Ecological Services, Inc. (AES) for HR Green.

Dear Robert,

Thank you for the opportunity to provide this proposal for wetland delineation services at Curran Road site in McHenry, IL. For your review, we have enclosed our scope of work based on our understanding of your request for services.

We are confident you will find that AES provides exceptional expertise, service, and value. We look forward to working with you on this project. Please call with any questions regarding this proposal.

Once reviewed and signed, please return this Agreement according to the instructions on the signature page.

Sincerely,

A handwritten signature in black ink that reads "William W. Stoll".

William W. Stoll
120 West Main St.
West Dundee, IL 60118
Office: 847-844-9385
Cell: 773-507-0983
bill@appliedeco.com

I. SCOPE OF WORK

Task 1. Wetland Delineation, Report, and JD Request

Applied Ecological Services, Inc (AES) Ecologists will conduct a wetland delineation along Waubensee Creek approximately 100 feet upstream and downstream of the Montgomery Rd. bridge centerline. AES will inspect the entire project area for the presence of wetlands and then conduct a wetland delineation in accordance with the U.S. Army Corps of Engineers (Corps) 1987 Wetland Delineation and the Midwest Regional Supplement for Wetland Delineations. Numbered pink pin flags will be used to delineate the on-site wetland boundaries. AES understands that H.R. Green will then survey the flag locations. As required by the Corps, the delineation shall include an on-site investigation of vegetation, soils, and hydrology. In addition, the floristic quality index (FQI) will be calculated for each wetland encountered. Digital photographs of data points will be taken to assist in documenting existing site conditions. Adjacent off-site wetlands will also be identified and inspected, if possible, but not flagged. Note: the Corps and Kane County require that field data be collected during the growing season (last Monday of March thru third Friday in November). AES can complete the wetland delineation outside the growing season if requested but may be required to return during the growing season to collect additional information. Time required to revisit the site and collect additional data will be billed on a time and materials basis.

AES will prepare a wetland delineation report in accordance with the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual and Midwest Regional Supplement. The report will include the following: a wetland delineation exhibit that shows all wetlands and data collection points within the project area, photos of representative data points locations, wetland and soils maps, Corps data forms, and an evaluation of the quality of on-site wetlands based upon the Floristic Quality Index (FQI). The report will also include all additional Kane County wetland delineation requirements, such as location of adjacent off-site wetlands, calculation of buffer width and including buffers (if necessary) on the wetland exhibit, and wildlife evaluation forms for each wetland. AES will send a copy of the report along with a completed JD request form to the Corps requesting a Jurisdictional Determination (JD) and concurrence of delineated wetland boundaries.

Product: Two (2) hard copies and one (1) electronic copy of the Wetland Delineation Report and submittal of JD.
Lump Sum Fee: \$3,200

Task 2. Corps Permit Application

AES will also meet and communicate with the Corps to finalize jurisdiction and boundary concurrence and discuss permitting options. AES recommends an on-site meeting with the Corps prior to completing the Corps permit application. Additional meetings, if required by regulatory agencies, will be billed on a time and materials basis.

AES will prepare an application package for a wetland permit for submittal to the appropriate regulatory agencies (i.e. U.S. Army Corps of Engineers and Illinois EPA). AES anticipates that the Corps will classify the proposed project as a "Transportation Project" under RPP3. Specific tasks needed to complete an RPP3 permit application include: 1) cover letter, 2) completed Joint Application, 3) wetland delineation report, 4) street map/Lat. Long. 5) preliminary engineering drawings (prepared by H.R. Green), 6) soil and erosion control plan (prepared by H.R. Green), 7) federal T&E documentation, 8) state T&E documentation (note: \$512 application process fee by IDNR), 9) historic property assessment, 10) watershed plan documentation, 11) measures taken to avoid impacts, 12) compensatory mitigation plan (if required and completed by H.R. Green), 13) narrative addressing RPP3 requirements, and 14) management and monitoring plan. AES understands that H.R. Green will complete the engineering plan set and needed calculations (i.e. hydrologic, hydraulic, cut/fill, etc.), sediment and erosion control plans for inclusion in the permit application,

compensatory mitigation plan (if required). Note: AES will renegotiate fees with H.R. Green if the Corp requires an Individual Permit. AES understands that H.R. Green will complete the Kane County SWCD permit application for soil erosion and sedimentation control and will coordinate requests for additional information and/or revisions to the plan.

Product: Completed RPP3 application, Kane County SWCD application, and site meeting with Corps
Lump Sum Fee: \$5,000 (includes IDNR application fee (\$512)).

Billing Information:

Total amount of contract: **\$8,200**

Payment:

- Estimated Fees
- Estimated Fees, Not-to-Exceed (per fee schedule, with not-to-exceed amount)
- Lump Sum (% complete, by project total)
- Lump Sum by Task (% complete by task, no hourly detail)
- Time and Materials

Special Billing Instructions: Not Applicable

Reimbursable Expenses:

- Reimbursable expenses are included in the fee.
- Reimbursable expenses are not included in the fee and will be billed per the fee schedule.

Receipts Required: Yes No
Meals Charged: Yes No
Per Diems Charged: Yes No

Enclosure(s)

- Standard Terms and Conditions
- Exhibit A: AES Rate Schedule

Signature Page on Next Page

Acceptance

In signing below, each party agrees to abide by all terms and conditions presented in this Agreement and the defined contents. Work will begin upon receipt of the applicable deposit and this signed authorization.

****PLEASE SIGN AND RETURN to Applied Ecological Services, Inc. An executed contract containing both signatures will be returned to you. This Agreement is not binding upon AES until executed by an officer of AES.**

Applied Ecological Services, Inc.

Signature:		Date:	
Name:			
Title:			
P.O. Box 256, 17921 Smith Rd.			
Brodhead, WI 53520			
Phone: 608-897-8641		Fax: 608-897-8486	
Email:			

Client:

Signature:		Date:	
Name:			
Title:			
Company:			
Address:			
City, State, Zip:			
Phone:		Fax:	
Email:			

Billing Address:

<input type="checkbox"/> Mark if same as above.			
Company:			
Name:			
Title:			
Address:			
City, State, Zip:			
Phone:		Fax:	
Email:			

Notes:

1. This Agreement summarizes the information contained in the proposal and is necessary for acceptance of the contract. Along with the attached documents, including the Standard Terms and Conditions, this summary and signature page will define and govern the contract.
2. This Agreement may be executed in one or more counterparts (transmitted by facsimile or PDF electronic transmission), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

EXHIBIT A
RATE SCHEDULE

PROFESSIONAL TITLE	RATE
Principal Ecologist	\$ 190.00 - 250.00/hour
Principal Ecotoxicologist	\$ 130.00 - 185.00/hour
Principal Environmental Engineer	\$ 130.00 - 180.00/hour
Senior Communications Consultant	\$ 170.00/hour
Senior Ecologist	\$ 110.00 - 160.00/hour
Senior Engineer	\$ 110.00 - 160.00/hours
Senior Geologist	\$ 180.00 - 200.00/hour
Senior Hydrologist	\$ 100.00 - 150.00/hour
Senior Landscape Architect/Planner	\$ 100.00 - 180.00/hour
Landscape Architect	\$ 90.00 - 120.00/hour
Staff Cartographer/GIS analyst	\$ 80.00 - 120.00/hour
Staff Ecologist	\$ 80.00 - 120.00/hour
Staff Engineer	\$ 100.00 - 150.00/hour
Staff Biologist	\$ 80.00 - 120.00/hour
Staff Ecological/Landscape Designer	\$ 80.00 - 120.00/hour
Associate Ecologist	\$ 85.00/hour
Associate Ecological/Landscape Designer	\$ 75.00/hour
CADD/GIS Draftsperson	\$ 70.00 - 95.00/hour
Technical Assistant	\$ 60.00/hour
Clerical	\$ 60.00/hour
OTHER SERVICES	
Construction Oversight	\$ 80.00-120.00/hour
Technical Writing	\$ 100.00/hour
Automated Data Compliance/Processing	\$ 35.00/hour
EXPENSES	
Transportation mileage	\$ 0.60/mile
Per Diem	\$ 50.00/person/day
Computer Plotting - Black and White	\$ 1.50/square foot
Computer Plotting - Color	\$ 3.00/square foot
Black and White Copies and Prints	\$ 0.10/page
Color Copies and Prints	\$ 0.25/page
11 x 17 prints - color	\$ 2.00/sheet
CD burning	\$ 1.00 each
DVD burning	\$ 5.00 each
Scanning - small document	\$ 0.10/page
Scanning - large document	\$ 3.50/square foot
GPS Equipment	\$ 200.00/day
Computer Processing	\$ 35.00/hour
Corporate Plane Air Fare	\$ 2.85/mile
Any additional services	Cost plus 15%

*Time spent providing testimony for legal proceedings will be billed at double normal hourly rate. Effective Jan 1, 2013



Founded 1912

Chicago Testing Laboratory, Inc.

30W114 Butterfield Road, Warrenville, IL 60555 p 630.393.CTL1 f 630.393.CTL7
18000 South Williams Street, Thornton, IL 60476 p 708.877.1801 f 708.877.6926
1348 Ridge Avenue, Elk Grove Village, IL 60007 p 847.228.1079 f 847.228.0633
P. O. Box 3395, Joliet, IL 60434 p 630.560.4464 f 630.560.4464

Testing • Inspection • Training • Consulting • Research • Geotechnical

Exhibit E-2: Page 1

www.chicagotestinglab.com
info@chicagotestinglab.com

April 18, 2016

Mr. Robert Davies, SE PE
HR Green, Inc.
420 N. Front Street
McHenry, IL 60050

Re: Soil & Bridge Deck Sampling & Testing CTL Proposal # EG16073R1
Montgomery Road Bridge over Waubonsie Creek
Aurora, Illinois

Dear Mr. Davies,

Chicago Testing Laboratory, Inc. (CTL) is pleased to present this revised estimate for the performance of soil and bridge deck sampling at the Montgomery Road bridge over Waubonsie Creek in Aurora, Illinois. Previously, the planned construction project involved primarily just bridge replacement. The current plan now also includes curb and gutter installation with drainage structures and storm sewer excavations on each side of the roadway for about 300 feet running south from the bridge. Based on this expanded design plan, additional sampling and testing is necessary.

Scope of Work – Soil and Bridge Deck Sampling

CTL understands that the objective of the soil sampling would be to provide subsurface soil information to be used by the Design Engineers for analysis of scour on the abutments. Sampling of the bridge deck materials would be to provide information about the bridge materials found and to determine if asbestos materials are found within the pavement and waterproofing membrane which may require special safety procedures for demolition and disposal of the materials. Additional soil sampling along the roadway from the bridge to approximately 300 ft. south has now been added to the scope for this revised proposal. Accordingly, the revised scope of work for the investigation is as follows:

1. Hand auger borings performed near the existing structure abutments and along both sides of the roadway south of the bridge. Sampling of the soil at or near the existing abutment foundation elevation and shallow depths along the south roadway is planned. Laboratory testing for soil classification including grain size analysis and plasticity. The hand auger holes would be attempted at accessible locations identified by the client and extended to depth of 6 feet depth below the existing surface. A total of 2 hand auger borings have been requested for the abutments. A total of 4 hand auger borings are suggested along the south roadway.
2. Cores of the existing bridge deck pavement would be obtained using a conventional coring machine equipped with a 3 or 4 inch diameter diamond

cutting barrel. The cored sections would be labelled and returned to CTL facilities for measurement and documentation of pavement type, condition and thickness. Testing to determine the presence of asbestos in the core samples would be performed by an approved NVLAP laboratory according to IDOT requirements. A total of 2 cores have been requested.

3. Bulk samples of the soils encountered in the hand auger borings will be collected from shallow depths at each of the locations for testing to determine disposal options for the material(s) which may need to be removed during construction.

Traffic closures are not believed to be required for the work since the existing bridge is very wide (approx. 60 ft. wide) and only 2 traffic lanes are being used in the center of the structure. The existing shoulders (on the bridge) appear to be more than 20 feet wide and therefore sufficient room is available for equipment and personnel without traffic lane restrictions. Likewise, sampling along the south roadway should not require lane restrictions.

Advanced traffic information display (arrow boards, message boards etc....), detours, public notification of planned work have not been anticipated and have not been included in this estimate. If necessary, these services can be provided at additional cost.

Costs for obtaining permits for the work were not anticipated and have not been included in this estimate.

Scope of Work – Lab Testing (CTL)

Lab testing of soil samples for classification and scour parameters will include the items listed in the attached "Schedule of Services and Fees".

Scope of Work – Lab Testing (by *Qualified Environmental Consultant & Analytical Testing Lab (as required)*)

The services of an environmental consulting firm will be utilized to complete the necessary testing and certification according to the current Uncontaminated Soil Fill, Clean Construction or Demolition Debris (CCDD) requirements. Analytical testing will be performed as necessary, however since the required tests are highly dependent on many different factors it is very difficult to provide a firm estimate for analytical testing. The estimate provided is not a lump sum estimate, CTL will invoice only for the actual analytical tests performed and will not exceed the estimate without prior approval from the client.

Scope of Work – Lab Testing (NVLAP accredited lab)

The services of an NVLAP accredited lab will be utilized to complete the required testing of the bridge deck pavement cores for asbestos.

Scope of Work – Summary Report

The results of field work and lab testing together with measurements, descriptions and observations made during the investigation will be compiled and presented on boring logs and Pavement Core Measurement Log for each hand auger boring and pavement core completed.

A summary report including general recommendations for construction will be prepared as well.

Utilities

Location of existing public utilities will be requested using the Illinois One-Call system (aka J.U.L.I.E.). J.U.L.I.E. member companies will locate existing utilities in the vicinity of the work areas identified. If any private utilities are present, we request that the client, or his representative, mark them prior to our arrival on site. We will not be responsible for damage to any unidentified or improperly marked utilities.

Fee Determination

It is proposed that our fees be determined based on the unit rates and quantities indicated in the 'Schedule of Services and Fees' (estimate) given below. It is prepared in accordance with our understanding of the proposed work. We will do our best to stay within the estimated budget. This is not a lump sum estimate, CTL will invoice only for the actual items performed.

The estimate is based on full time daytime work scheduled on consecutive weekdays. If unforeseen conditions and restrictions, other than those mentioned herein, affect the reasonably regular scheduling of technical staff, this estimate may be withdrawn without notice. Consultations or additional work, beyond the scope indicated, may require additional budget(s) which will be negotiated at that time, if necessary.

Schedule

We are prepared to start planning and mobilization of staff and equipment soon after receipt of "Notice to Proceed" (NTP) instructions. We anticipate a minimum of 1-2 days to complete the field work. The field-testing will likely be completed within 2-3 weeks after receiving the NTP. The final summary report will be delivered within approximately 2 weeks following completion of the field investigations. Please advise us if a specific deadline is to be met.



Closure

We appreciate the opportunity to work with you as your Geotechnical Engineering consultant. Please contact me if you require additional information. If this proposal is satisfactory, please execute the agreement and return one copy, for our files. By endorsing the proposal, it is agreed that *CTL* will be paid for services rendered.

Very truly yours,
CHICAGO TESTING LABORATORY, INC

A handwritten signature in blue ink, appearing to read 'Donald K. Sisson', is written over a light blue horizontal line.

Donald K. Sisson
Project Geologist

Suggested Budget: \$6,425.00

(See CTL Schedule of Services and Fees)

Accepted This _____ Day of _____, 2016

Signature of Authorized Representative: _____

Printed Name: _____

Company: _____

Title: _____

Attachments: General Conditions (1p.)

**CTL Schedule of Services and Fees –
Montgomery Road Bridge over Waubonsie Creek, Aurora, Illinois**

Task 1 - Field Exploration

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Permit fee(s), each	Cost	Cost	Cost
Field Engineer, per hour (Boring and core layout)	2.0	\$98.00	\$196.00
Equipment Fee, each (Hand Auger, Core Machine, Generator, Core Rental and Misc. supplies)	1.0	\$450.00	\$450.00
Engineering Technician, per hour (Hand Auger Sampling)	10.0	\$98.00	\$980.00
Engineering Technician, per hour (Pavement Core Sampling)	6.0	\$98.00	\$588.00
Mortar/Grout, per bag	1.0	\$17.00	\$17.00

Task 1 - Field Exploration - Budget Amount \$2,231.00**
(**excludes cost of permits (if necessary))

Task 2 – Laboratory Testing (CTL)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Soil Classification, each (IL Modified/AASHTO M 145)	4.0	\$25.00	\$100.00
Particle Size Analysis with Hydrometer, each (IL Modified AASHTO T 88)	4.0	\$150.00	\$600.00
Liquid Limit / Plasticity, each (IL Modified AASHTO T 89 / 90)	4.0	\$100.00	\$400.00

Task 2 -Laboratory Testing (CTL) - Budget Amount \$1,100.00

Task 3 – Environmental Consulting Services (by qualified consultant)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
pH testing, per sample	4.0	\$55.00	\$220.00
Onsite sampling/ sample preservation, lump sum	2.0	\$250.00	\$500.00



Consulting, lump sum (Determines analytical tests / provides certification & forms as required for CCDD disposal)	1.0	\$500.00	\$500.00
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Task 3 – Environmental Consulting Services - Budget Amount \$1,220.00

Task 4 – Analytical Testing (by qualified testing firm)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Analytical testing, lump sum	4.0	\$245.00	\$980.00

Task 4 – Analytical Testing - Budget Amount \$980.00

Task 5 – Asbestos Testing (by NVLAP accredited lab)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Asbestos Testing (PLM), each (Bituminous Pavement)	2.0	\$110.00	\$220.00
Asbestos Testing, each (Waterproofing Membrane)	2.0	\$27.00	\$54.00

Task 5 – Asbestos Testing - Budget Amount \$274.00

Task 5 – Report

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Project Manager, per hour (Boring logs and reporting)	5.0	\$98.00	\$490.00
Principal Engineer, per hour (Report review)	1.0	\$130.00	\$130.00

Task 5 - Report - Budget Amount \$620.00

Estimated Total **\$6,425.00**