| Municipality  | L<br>O<br>C         | Illinois Department of Transportation   | CO            | Name<br>Civiltech Engineering, Inc.   |
|---|---------------------|---|---------------|---|
| Township  | A<br>L              | Of Italisportation  | NSUL          | Address<br>450 East Devon Avenue, Suite 300                                 |
| County<br>Lake County – Division of<br>Transportation                                     | AGEN                | Preliminary Engineering<br>Services Agreement<br>For  | TAN           | City<br>Itasca  |
| Section<br>10-00090-14-RS   | C<br>Y              | Motor Fuel Tax Funds  | T             | State<br>Illinois   |
| improvement of the above SECTION. supervision of the State Department of                  | ER)<br>Mot<br>f Tra | nto this 18 <sup>th</sup> day of <u>February</u><br>and covers certain professional engineer<br>or Fuel Tax Funds, allotted to the LA by t<br>nsportation, hereinafter called the "DEPA<br>cribed under AGREEMENT PROVISION | ing<br>he S   | State of Illinois under the general   |
|   |                     | Section Description   |               |   |
| Name Quentin Road Resurfacing   |                     |   |               |   |
| Route Length _7   | ,850                | Mi. <u>1.49</u> FT  |               | (Structure No)  |
| Termini IL Rte 22 to Old McHenry I  | Road                |   |               |   |
| Description:<br>This project involves resurfacing and                                     | sho                 | ulder reconstruction along Quentin Roa  | d.            | 1   |
|   |                     | Agreement Provisions  |               |   |
| The Engineer Agrees,  |                     |   |               | 1 // 6 ' '  |
| proposed improvements herein be   | fore                |   |               |   |
|   |                     | are necessary for the preparation of deta   |               |   |
| of detailed bridge plans.   |                     | draulic surveys and gather high water da  |               |   |
| analyses thereof as may be  | e req               | n soil surveys or subsurface investigation<br>uired to furnish sufficient data for the des<br>ade in accordance with the current requi  | sign          | of the proposed improvement.  |
| <ul> <li>d.  Make or cause to be made furnish sufficient data for the</li> </ul>          | sucl                | n traffic studies and counts and special ir<br>sign of the proposed improvement.  | iters         | ection studies as may be required to  |
| of Natural Resources-Offic  | e of                | ers Permit, <b>Lake County Stormwater Ma</b><br>Water Resources Permit, Bridge waterwa<br>ailroad Crossing work agreements.   | n <b>ag</b> e | ement Commission Permit, Department<br>ketch, and/or Channel Change sketch, |
| <ul> <li>f.  Prepare Preliminary Bridge<br/>and high water effects on r</li> </ul>        | des<br>oadv         | ign and Hydraulic Report, (including eco<br>vay overflows and bridge approaches.  | nom           | ic analysis of bridge or culvert types)                                     |
| with <b>one (1) copy of each do</b><br>documents, if required, sha<br>reproduction.       | ocum<br>all be      | tailed plans, special provisions, proposal nent in both hardcopy and electronic form furnished to the LA by the ENGINEER a  | nat.<br>It th | e ENGINEER's actual cost for  |
| <ul> <li>h.  Furnish the LA with survey easement and borrow pit a as required.</li> </ul> | and<br>ind c        | drafts in <b>duplicate</b> of all necessary right-<br>hannel change agreements including pri  | of-v<br>nts o | vay dedications, construction of the corresponding plats and staking        |
| :   | ion s               | and interpretation of the contractors' prop   | റടമ           | ls.   |

|    | j. Prepare the necessary environmental documents in accordance with the procedures adopted by the<br>DEPARTMENT's Bureau of Local Roads & Streets.   |
|----|--|
|    | k. Prepare the Project Development Report when required by the DEPARTMENT.   |
|    | I. Services as included and/or defined in the attached Scope of Services.  |
| 2. | That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies of the LA and of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.   |
| 3. | To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.   |
| 4. | In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.  |
| 5. | That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.   |
| 6. | That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.   |
| Th | e LA Agrees,   |
| 1. | To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:  a.   A sum of money equal to percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.  b.   A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:  |
|    | Schedule for Percentages Based on Awarded Contract Cost  |
|    | Awarded Cost Percentage Fees (see note)  Under \$50,000  %  %  %   |
|    | Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.   |
| 2. | percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at the ENGINEER's actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided in section 1 of the ENGINEER AGREES. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus an additional service charge of up to five (5) percent. |
|    | "Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.  |

BLR 05510 (Rev. 11/06)

The Total Not-to-Exceed Contract Amount shall be \$107,148

- 3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:
  - a. Upon completion of detailed plans, special provisions, proposals and estimate of cost being the work required by section 1 of the ENGINEER AGREES to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.
  - b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

By Mutual agreement, partial payments, not to exceed 90 percent of the amount earned, may be made from time to time as the work progresses.

- 4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus 193 percent incurred up to the time the ENGINEER is notified in writing of such abandonment -"actual cost" being defined as in paragraph 2 of the LA AGREES.
- 5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 193 percent to cover profit, overhead and readiness to serve -"actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

#### It is Mutually Agreed,

- 1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
- 2. 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 surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.
- 3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
- 4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

| which shall be considered as an original by their duly author                                   | orized officers.   |        |
|---|--|--------|
| Executed by the LA:   |  |        |
|   | County of Lake   | of the |
|   | (Municipality/Township/County)   | ····-  |
| ATTEST:   | State of Illinois, acting by and through its                                   |        |
| Ву  | County Board   |        |
| Lake County Clerk   | Ву   |        |
| (Seal)  | Title Chairman of the County Board   |        |
|   | RECOMMENDED FOR EXECUTION  |        |
|   | Martin G. Buehler, P.E. Director of Transportation/County Engineer Lake County |        |
| Executed by the ENGINEER:   | Civiltech Engineering, Inc. Engineering Firm                                   |        |
| ATTEST:   | 450 East Devon Avenue, Suite 300 Street Address Itasca, Illinois 60143         |        |
| Ву  | City, State  By  |        |
| Title   | Title John L. Breitsameter, P.E. / President                                   |        |
|   |  |        |
| Approved  |  |        |
|   |  |        |
| Date Department of Transportation   |  |        |
| Regional Engineer   |  |        |
| County Engineer On behalf of IDOT pursuant to Agreement of Understanding dated January 22, 2003 |  |        |

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quintuplicate counterparts, each of

Note: Five (5) Original Executed Contracts — (4) LCDOT; (2) IDOT-District 1, Local Roads; (1) Consultant

# EXHIBIT A.1 PHASE II SCOPE OF ENGINEERING SERVICES

# Quentin Road Lake County Division of Transportation

#### I. PROJECT UNDERSTANDING AND APPROACH

This project involves a maintenance resurfacing and patching, if necessary, of the existing Quentin Road asphalt pavement from a point just north of Illinois Route 22 to south of Old McHenry Road (approximately 7,850 ft or 1.49 mi).

The pavement milling and restoration strategy is anticipated to involve milling the pavement down 4.5 inches and replacing it in kind through the curb and gutter sections with a 2 inch surface and 2.5 inch binder. In areas where there is no curb and gutter, restoration will involve milling the pavement down only 2 inches and overlaying with a 4.5 inch pavement section as described above.

Shoulder areas which are non-standard consisting of 2 ft asphalt / 6 ft aggregate will be excavated and widened to match the standard bicycle shoulder consisting of 4 ft asphalt / 4 ft aggregate. Shoulders sections will be a 2 inch surface and 4 inch binder adjacent to 6 inches of aggregate.

Signal loops will be re-installed at the Old McHenry Road intersection and an evaluation of existing mailbox turnout conditions will be performed with necessary warrants for replacement verified.

It is anticipated that existing guardrail will be replaced as part of the project, but an analysis of the guardrail/embankment section has identified areas of stability concerns. It will be necessary to obtain soil boring samples and to perform a structural evaluation of the subject area to provide solutions and to restore roadside stability. Preliminary engineering work will determine what course of action will be taken to restore the stability of this guardrail. The resulting solution may warrant a contract supplement.

The project will utilize Lake County funds. The LCDOT has the authority to approve the project as described, and only LCDOT approvals are anticipated for the resurfacing plan and traffic management relating to the intersections of Illinois Route 22 and Old McHenry Road.

#### II. SCOPE OF SERVICES

#### 1. Data Collection and Early Coordination

**A. Initial Meeting with County** - A meeting with the County and the Phase II staff will be held in order to review the project scope, design criteria and ensure all goals and objectives of the County are met. We will come to the meeting prepared to discuss the project schedule and request any outstanding or updated information from the County such as record data, pavement maintenance information, or other project information that may be useful in design. Our soil consultant will attend and go over where we intend to obtain soil borings

- **B. Obtain and Review Record Data** We will obtain and review available County data including, but not limited to, subdivision plans and plats, existing/proposed record drawings, geotechnical reports, right-of-way data, aerial photography and contour mapping, other existing plans, and utility atlases.
- **C. Preliminary Utility Company Coordination** We will send letters to the utility companies within the project limits requesting copies of their utility atlases. This information will be incorporated into the project base drawing.

#### 2. Survey

**A. Topographic Survey -** Civiltech will obtain supplemental survey of the Quentin Road alignment based upon existing roadway monuments and LCDOT stationing to be used during the development of the contract documents. Available LCDOT alignment data/survey will be field verified and tied with control points. We will notify the County of any additional information that is needed to complete our work.

In the area of the guardrail, a topographic field survey will be performed to assist in a length of need study, and the potential cross section analysis of the guardrail and cross road culvert areas.

**B. Field Survey** – Civiltech will identify patching areas and curb and gutter repairs with a LCDOT representative for the limits along Quentin Road to be included on the base plan sheets for completeness and accuracy, and inventory details of the available topographic features.

Near IL Rte 22 there exists a 100 foot section of new asphalt pavement followed by a 200 foot section of old pavement. We will investigate both the new and old section to determine whether rehabilitation is needed, and also review the limits of the Ensell Road area which has an active access permit project to be gapped.

**C. Soils Survey** – Civiltech will work with our soils engineering consultant's Midland Standard Engineering and Testing to obtain an investigation of the problem soil areas and to determine what will be needed to stabilize the ground.

## 3. Guardrail Investigation

**A. Structural Evaluation** - In the area of the cross culvert there is a deflection in the guardrail, which appears to have been caused by the guardrail, which is a type of retaining wall with long posts, not being able to hold back the roadway embankment. The guardrail has deflected and twisted approximately 9-12 inches. This deflection could have been more but the horizontal bands (there are two) have helped to hold back the movement. The soils in this area were reported as extremely poor to the point that gabian baskets had to be installed under the existing CMP to give it a stable supporting platform during construction. It was also reported that excavation walls caved in during a recent culvert extension project.

We will evaluate soil samples to be obtained problem areas and provide a structural evaluation of the guardrail/embankment. Our analysis will include geotechnical consultation and coordination in regard to possible structural solutions whether that includes constructing a sheet wall, adding more guardrail posts with "H" soil plates, or the incorporation of soil stabilization techniques. Preliminary engineering work will determine what course of action will be taken to restore the stability of this guardrail. The resulting solution may warrant a contract supplement.

#### 4. Preliminary Design

**A. Plan Base Sheet Preparation** - We will plot existing topographic aerial/survey information and develop plan base sheets at a scale of 1" = 20' and 1"=100' for use in the development of contract plans. Any updated existing utility information that has been obtained during the data collection phase and survey phase will also be plotted on the base sheets. Information included on the base sheets will be field verified to confirm aerial/survey completeness and accuracy of topographic features.

**B. Preliminary Plans (65%)** - We will prepare preliminary plans containing the following drawings:

- Cover Sheet and Index of Sheets (1 sheet)
- General Notes and List of State and Local Standards (1 sheet)
- Typical Sections (5 sheets)
- Traffic Control Sheets (4 sheets)
- Pavement Removal and Utility Adjustment Sheets (7 sheets) 1"=20"
- Resurfacing Plan Sheets (7 sheets) 1"=20"
- Butt Joint and Transition Details (1 sheet)

Preliminary Plans will be developed using the findings and recommendations of the preliminary engineering studies, County standards, and the design criteria contained in the Lake County Division of Transportation's plan preparation guidelines. The Preliminary Plan preparation and submittal will serve as a progress submittal for review by the County staff, in an effort to identify and address any significant design issues prior to completing pre-final plans. We will communicate with the County throughout the design process to resolve any current design issues.

As part of the preliminary engineering study, a roadside barrier length of need investigation will be completed to ensure guardrail is extended for a sufficient distance upstream and/or downstream from the hazard to safely protect a run-off-the-road vehicle.

**C. Preliminary Design Review Meeting** - We will coordinate a meeting in order to discuss the status of the project with the County. The meeting will be scheduled such that all parties will have had an opportunity to review the preliminary plans and provide comments. Our soil consultant will attend and go over the soil analysis and discuss the potential roadside stability solutions.

#### 5. Pre-Final Design

- **A. Pre-Final Plans (90%)** The development of Pre-Final Contract Plans and documents will proceed throughout the County's review of the Preliminary Plan Submittal. We will prepare pre-final contract plans based on comments received on the preliminary plans. We anticipate that the contract plans will contain the following drawings:
- Cover Sheet and Index of Sheets (1 sheet)
- General Notes and List of State and Local Standards (1 sheet)
- Summary of Quantities (2 sheets)
- Schedule of Quantities (6 sheets)
- Typical Sections (5 sheets)
- Traffic Control Sheets (4 sheets)
- Pavement Removal and Utility Adjustment Sheets (7 sheets) 1"=20"
- Resurfacing Plan Sheets (7 sheets) 1"=20'
- Butt Joint and Transition Details (1 sheet)
- LCDOT Details (13 sheets)
- IDOT Details (11 sheets)

We estimate that the contract plans will contain a total of **58** sheets.

The pre-final contract documents will be submitted to the County for review.

- **B. Pre-Final Special Provisions and Bid Book** We will prepare special provisions that supplement or amend the special provisions contained in the latest edition of the Standard Specifications for Road and Bridge Construction adopted by the Illinois Department of Transportation. Applicable County special provisions will be utilized to supplement the Standard Specifications. We will also include the necessary bidding documents in accordance with projects utilizing Lake County funds.
- **C. Quantity Calculations** We will perform detailed quantity calculations at the prefinal stage of the plan development. Two sets of calculations will be performed by separate engineers in order to ensure the accuracy of the calculations.
- **D. Estimate of Cost and Time** We will use the quantities of work in order to calculate an Engineer's Estimate of Cost and Time. Unit prices will be established based on bid tab information from projects of similar size and scope of work.
- **E. QA/QC Review** Prior to submission of the pre-final plans for review, we will perform an internal Quality Assurance / Quality Control review of the work completed. The review will be performed by a professional engineer independent of the design team. The review will consider constructability issues as well as identification of missing pay items, quantities of work, and special provisions required.
- **F. Project Review Meeting** A project review meeting will be held with the LCDOT if necessary, to address design issues and plan comments generated from the pre-final contract document review.

## 6. Final Design

- **A. Final Plans (100%)** After completion of all reviews and resolution of any other agency or utility company concerns, the contract plans will be finalized. In order to assist the Resident Engineer (RE) we will furnish the County, as part of our deliverables, detailed information including all design and quantity calculations. We will also prepare a technical memorandum to the RE highlighting any key issues, commitments, or special concerns that arose during the design stage of the project.
- **B. Final Special Provisions and Bid Book** All comments received pertaining to the pre-final special provisions and bid documents will be addressed and a disposition will be included in the final bid documents.
- **C. Final Quantity Calculations, Estimate of Cost and Time, QA/QC** The quantities will be updated based on changes made to the plans after the pre-final stage, and estimates will be updated based on any changes to the final quantities. Prior to the final submittal a second QA/QC review of the plans and special provisions will be performed.

#### 7. Project Administration, Coordination and Permits

- **A. Project Administration** This item includes project setup, monthly invoicing, and preparation of status reports. In addition, this item includes coordination meetings with the County as well as internal project team coordination meetings.
- **B. Project Submittals** As noted above, we will make the necessary document submittals, and follow through with each agency in regards to their review comments or arrange a review meeting to discuss plan changes necessary to resolve conflicts if possible.

This project will utilize Lake County funds for construction and will be let for construction by the LCDOT. The final plans will be plotted on mylar for permanent records held by the County, and we will furnish electronic files of the final contract documents to the County for bidding purposes.

- **C. Utility Company Coordination** As noted above, we will analyze the project for potential impacts to existing utilities, however we do not anticipate that utility relocation work will be necessary to construct the proposed roadway improvements.
- **D. Lake County Stormwater Permitting and Documentation** All work will be in accordance with the Countywide Watershed Development Ordinance. We do not anticipate a Lake County SMC permit submittal, but will provide coordination with the Illinois Department of Conservation in regard to Endangered Species consultation.
- **E. Wetland or Floodplain Permitting** The work is not anticipated to impact wetlands or floodplain.

- **F. NPDES Permitting and Documentation** The NPDES permit, along with a Stormwater Pollution Prevention Plan, will not be prepared for inclusion in the contract documents since there will be less than 1 acre of disturbed land.
- 8. Bidding Assistance and Pre-Construction Meeting Attendance Civiltech will attend any pre-bid meetings held by the County as well as address any questions that arise during the bidding stage of the project. We will attend the pre-construction meeting at the LCDOT to answer any questions regarding the contract documents.

Phase II Engineering Manhour Calculations Professional Engineering Services Proposal

# Quentin Road Resurfacing (IL Rie 22 to Old McHenry Rd) Lake County Division of Transportation

|  |  | 14: · · · · · · · · · · · · · · · · · · · |  |  | Personn               | Personnel & Hours  |  |                |                         |            |  |  |
|--|--|---|--|--|-----------------------|--|--|----------------|-------------------------|------------|--|--|
| Task No.   |  | 00.09\$                                   | PM<br>\$43,00  | \$34.00  | DE<br>\$28.00         | TSE<br>\$38.00   | SE<br>\$49,00  | DT<br>\$35,00  | \$60.00                 | Total Hour | s % of Hours   | Total Hours % of Hours — Labor Cost  |
| Data Collection and Early Coordination                             |  |   | 7 W. W. W.   | Control of the Control of the  | Alexandrian physical  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |  | A STATE OF     | L                       | 1,000      |  |  |
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| Guardrail Investigation  |  |   | A CONTRACTOR OF THE CONTRACTOR |  |                       |  |  |                |                         |            | The second secon |  |
|  |  | 2   | ,,   | 2 6  | 9                     | 9  | 0  | 32             | 12                      | 9          | %6'9 09  | \$ 2,566,00  |
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| Pre-Final Design   | The state of the s |   | A COLUMN TO THE PERSON TO THE  |  | # #66.883#            |  |  |                |                         |            |  | 100 Killing V (100 Ki |
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| Final Design   | PARTY CONTROL OF THE PARTY CON |   | William All Exercises  | The second secon | 2 4 2 4 4 4 5 4 5     |  |  | 10 Company     | ANNAL MANAGEMENT        |            |  | A STATE OF THE PROPERTY OF T   |
|  |  | 1   | ,  | 6 20   | 14                    | *  | 0  | 0 5            | 20                      | 1          | 62 7.2%  | \$ 2,150.00  |
| Project Administration, Coordination and Permits                   | mits   |   |  |  |                       |  |  |                | AND AND AND ASSESSED.   |            |  | The state of the s |
|  |  | 8   | 18   | 18 10  | 10                    |  | 0  | 0              | 9                       | 0          | 52 6.0%  | \$ 2,084.00  |
| Bidding Assistance and Pre-Construction Meeting Attendance         | eting Attendance   |   |  | 200 (200 (200 (200 (200 (200 (200 (200   | The State of States   | And the second s |  |                |                         | ALL CALLS  |  |  |
|  |  | 2   | ,  | 2  | 2 C                   | 0  | 0  | 0              | 0                       | 0          | 8 0.9%   | <b>€</b> 9   |
| Total Cost   |  |   |  |  |                       |  |  |                |                         |            |  | \$ 30.859  |
| Multiplier*  |  | 2,93                                      |  |  |                       |  |  |                |                         |            |  |  |
| Direct Costs and Sub Consultant Expense (See attached calculation) | attached calculation)  |   |  |  |                       |  |  |                |                         |            |  | \$ 16,731  |
|  |  |   |  |  |                       |  |  | Total End      | Total Engineering Cost: | - CAR      | *   %0 OU   - 2  | ALL 107-148  |

\*Muthplier 1(Direct Labor)+OH + 0.145\*(1+OH) IDOT Approved OH Rate = 155.73%

Note:
DDS (Director of Design Services), PM (Project Manager), PE (Project Engineer), DE (Design Engineer), TSE (Traffic Signal Engineer), DT (Design Technician), QA/QC (Quality Assurance/Quality Control)

#### Phase II Engineering Manhour Calculations Professional Engineering Services Proposal

#### Quentin Road Resurfacing (IL Rte 22 to Old McHenry Rd) Lake County Division of Transportation

|  |                       |  |                                      | Personn              | el & Hours   |                                       | # HX 600 1000 1000                    | Parket Company (Company) |                       |                    |
|--|-----------------------|--|--------------------------------------|----------------------|--|---------------------------------------|---------------------------------------|--------------------------|-----------------------|--------------------|
|  |                       | si pili seb                            | 1000                                 |                      | ib allumba   | 1000                                  |                                       | entrini e                |                       | % of               |
| Data Collection and Early Coordination   | DDS                   | PM                                     | PE                                   | DE                   | TSE  | SE                                    | DT                                    | QA/QC                    | Total                 | Hours              |
| a. Initial Meeting with County   | 2                     | 2                                      |                                      |                      |  |                                       |                                       |                          | 4                     | 11.8%              |
| b. Obtain/Update and Review Record Data  |                       | 2                                      | 4                                    | 6<br>6               |  |                                       | 8                                     |                          | 20<br>10              | 58.8%<br>29.4%     |
| c. Preliminary Utility Company Coordination  | Harrista House        |  | 2<br>2006                            |                      | 0  | 0.00                                  | 1 91111                               | 0                        |                       | 100.09             |
| 2 Survey   |                       |  |                                      |                      | 24 343   | Majori,                               | *****                                 | alfablik e               | April 18              | · · · · · ·        |
| a. Topographic Survey (Coordination Only)  | 1                     | 1                                      | _                                    |                      |  |                                       | 2                                     |                          | 4<br>32               | 10.0%<br>80.0%     |
| b. Field Survey c. Soils Survey (Coordination Only)  | 1                     | 8                                      | 8                                    | 8                    |  | 1                                     | 8                                     |                          | 32<br>4               | 10.0%              |
| TENTHUMBURAN METALLICATION OF THE TENTHUMBURAN SUB-Total Item 2  | (135) ( <b>2</b> 466) | <b>等规划10</b> 增级                        | 福州 多山山                               | Ministra             | mark O sales   | SCHOOL                                | iii 10                                | 0                        |                       | 90.09              |
| 3 Guardrail Investigation  |                       |  |                                      |                      |  |                                       | 10000000                              | 0                        | 60                    | 100.0              |
| a, Structural Evaluation   | 2                     | 2                                      | 6                                    | 6                    | 0  | 32                                    | 12<br>12                              |                          |                       | 100.09             |
| 4 Preliminary Design   | THE PROPERTY OF       | 200 SEC                                | C. P. C. V. 19-19-                   | er et est en moderne |  | 1993101-0-11                          | S.                                    | Maria Da                 | and the               | and the same       |
| a. Plan Base Sheet Preparation   |                       | 1                                      | 1                                    | 5                    |  |                                       | 32                                    |                          | 36                    |                    |
| Preliminary Plans (65%)     Cover Sheet and Index of Sheets (1 sheet)                                      |                       | 4                                      | 1                                    | 2                    |  |                                       | 4                                     |                          | 8                     | 0.0%<br>2.7%       |
| General Notes and List of State and Local Standards (1 sheet)  |                       | i                                      | ż                                    | 4                    |  |                                       | 1                                     |                          | 8                     | 2.7%               |
| Typical Sections (5 sheets) -includes a roadside barrier length of need investigation                      | n-                    | 2                                      | 8                                    | 24                   |  |                                       | 36                                    |                          | 70                    | 23.39              |
| Traffic Control Sheets (4 sheets)  |                       | 2                                      | 2<br>8                               | 8                    |  |                                       | 12<br>24                              |                          | 24<br>52              | 8,0%<br>17.3%      |
| Pavement Removat and Utility Adjustment Sheets (7 sheets) 1"=20' Resurfacing Plan Sheets (7 sheets) 1"=20' | 1                     | 4                                      | 8<br>8                               | 12<br>12             | 4<br>12  |                                       | 24<br>32                              |                          | 69                    | 17.37              |
| Butt Joint and Transition Details (1 sheet)  | i                     | 1                                      | 4                                    | 6                    |  |                                       | 12                                    |                          | 24                    |                    |
| c. Preliminary Design Review Meeting   | 3                     | 3                                      |                                      |                      | 10 8 0 (Fw ===================================   | 3                                     |                                       | winter the same to       | 9                     | 3.0%               |
| Sub-total Item 4<br>5 Pre-Final Design   | . 6                   | 34 4 <b>18</b> 24 4                    | 34                                   | 70                   | 16 m16   | 39.59ri <b>3</b> 3(), re              | 153                                   | 330 (Out 22)             | 300                   | 57.09              |
| a. Pre-Final Plans (90%)   |                       |  |                                      |                      | •  |                                       |                                       | ·                        | 0                     |                    |
| Cover Sheet and Index of Sheets (1 sheet)  |                       |  | 1                                    | 1                    |  |                                       | 2                                     |                          | 4                     | 1.3%               |
| General Notes and List of State and Local Standards (1 sheet)  |                       | 2                                      | 1                                    | 1                    |  |                                       | 2<br>6                                |                          | 4<br>24               | 1.3%<br>7.7%       |
| Summary of Quantities (2 sheets) Schedule of Quantities (6 sheets)   |                       | 2                                      | 4                                    | 12<br>12             |  |                                       | 6                                     |                          | 24                    | 7.7%               |
| Typical Sections (5 sheets)  |                       | 2                                      | 4                                    | 6                    |  |                                       | 12                                    |                          | 24                    | 7.7%               |
| Traffic Control Sheets (4 sheets)  |                       | 1                                      | 2                                    | 4                    | _  |                                       | 8                                     |                          | 15                    | 4,8%               |
| Pavement Removal and Utility Adjustment Sheets (7 sheets) 1"=20' Resurfacing Plan Sheets (7 sheets) 1"=20' |                       | 2                                      | 8<br>6                               | 8<br>8               | 2<br>2   |                                       | 24<br>24                              |                          | 44<br>42              | 14.19<br>13.59     |
| Butt Joint and Transition Details (1 sheet)  |                       | 1                                      | . 1                                  | 2                    | 2  |                                       | 2                                     |                          | 6                     | 1.9%               |
| LCDOT Details (13 sheets)  |                       | 1                                      | 1                                    | 2                    |  |                                       | 4                                     |                          | 8                     |                    |
| IDOT Details (11 sheets)   | •                     | 1                                      | 1                                    | 2                    |  |                                       | 4 2                                   |                          | 8<br>24               |                    |
| Pre-Final Special Provisions and Bid Book     Pre-Final Quantity Calculations                              |                       | Δ                                      | 4<br>16                              | 16<br>16             |  |                                       | 24                                    |                          | 60                    |                    |
| I. Pre-Final Estimates of Cost and Construction Time   |                       | 2                                      | 4                                    | 2                    |  |                                       |                                       |                          | 8                     |                    |
| pre-Final QC/QA Review   | 4                     | 4 .                                    |                                      |                      |  |                                       |                                       | 4                        | 12                    |                    |
| Pre-Final Project Review Meeting  Sub-total Item 5   | 2                     | 2                                      | 57                                   | estaros ana          | encerate A version   | e sansii                              | 120                                   |                          | 4                     | 60.19              |
| Final Design   |                       | ······································ | h-imu2(1220/ <b>-&gt;1</b> 293195533 | icises di 🖛 (Sesses) | essegae den p# 1994 in 1966  | · · · · · · · · · · · · · · · · · · · | ereyarene e 🛎 🕶 utikili               |                          |                       |                    |
| . Final Plans (100%)   |                       | 2                                      | 4                                    | 4                    |  |                                       | 8                                     |                          | 18                    | 29,0%              |
| Final Special Provisions and Bid Book Final Quantity Calculations, Estimates of Cost and Time, QA/QC       |                       | 2                                      | 8<br>8                               | 2<br>8               |  |                                       | 12                                    | 4                        | 12<br>32              |                    |
| Sub-total item 6   | #3550 <b>1</b> 45588  | - 2<br>- 6 % ::                        |                                      |                      | 0  | 0000                                  | <del></del>                           | 4                        |                       | 29.09              |
| Project Administration, Coordination and Permits   |                       | 201000                                 | (A)51/4 (15)   <b>44</b> (-1115) (2) | 1,1215.44            | account and account  |                                       | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                          |                       |                    |
| . Project Administration   | 4                     | 8                                      | 2                                    | 2                    |  |                                       |                                       |                          | 16                    | 30.89              |
| . Project Submittals . Utility Company Coordination  | 2                     | 4<br>6                                 | 6<br>2                               | 6<br>2               |  |                                       | 6                                     |                          | 24<br>12              | 46.29<br>23.19     |
| Lake County Stormwater Permitting and Documentation (Not Required)   | 2                     | J                                      | -                                    | -                    |  |                                       |                                       |                          | o o                   | 0.0%               |
| . Wetland or Floodplain Permitting (Not Required)  |                       |  |                                      |                      |  |                                       |                                       |                          | 0                     | 0.0%               |
| NPDES Permitting and Documentation (Not required)  | sames to a repair and | 3545477 <b>4 4</b> 477***              | Salata (Sala Assistana               | ization and a second | nestrijs o <b>m</b> erijakovski  | ric SHAP <b>a</b> SHA                 | and the second                        |                          | 0                     | 0.0%               |
| Bidding Assistance and Pre-Construction Meeting Attendance   | R(114) (11) (11)      | 18                                     | entendon s                           | 10 × 10              | AND THE PARTY OF T | rentier <b>u</b> Siliii               | manen <b>o</b> dere                   | on neutralities          | entre <b>Da</b> stine | (5) (1 <b>00.0</b> |
|  | 2                     | 4                                      | 2                                    |                      |  |                                       |                                       |                          | 8                     | 100.0              |
| Sub-iotal/Item 8   |                       |  | 2                                    |                      |  |                                       |                                       |                          | 8                     | 100.0              |
| Total Hours: % of Hours:   |                       | 91<br>10,5%                            | 144<br>16.6%                         | 212<br>24,5%         | 20   | 36<br>4.2%                            | 330<br>38,1%                          | 5<br>0.6%                | 867<br>100,0%         |                    |
| ** Of Mours:   | J.J/6                 | 10.5%                                  | 10,0%                                | 24,576               | 2.378  | 4.6.70                                | 30,176                                | 0,070                    | 100.076               |                    |

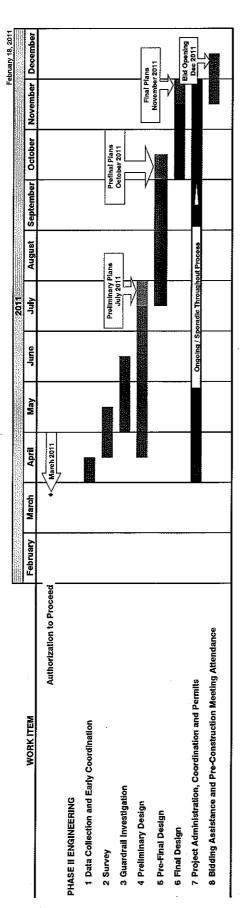
## Phase II Engineering Manhour Calculations Professional Engineering Services Proposal

# Quentin Road Resurfacing (IL Rte 22 to Old McHenry Rd) Lake County Division of Transportation

#### DIRECT COSTS

| Item No.        | Description   |  | Cost                    |
|-----------------|---|--|-------------------------|
| Item 1          | Printing  |  |                         |
|                 | Preliminary Plans   |  |                         |
|                 | County 2 sets X 26 sheets/set X \$0.60/sheet (22"x34")                      | \$                                     | 31.20                   |
|                 | County 2 sets X 26 sheets/set X \$0.80/sheet (11"x17")                      | \$                                     | 41.60                   |
|                 | Pre-Final Plans   |  |                         |
|                 | County 2 sets X 58 sheets/set X \$0.60/sheet (22"x34")                      | \$                                     | 69.60                   |
|                 | County 2 sets X 58 sheets/set X \$0.80/sheet (11"x17")                      | \$                                     | 92.80                   |
|                 | Utility Co. 8 sets X 58 sheets/set X \$0.60/sheet (22"x34")                 | \$                                     | 278.40                  |
|                 | Pre-Final Specification Books   |  |                         |
|                 | 4 books X \$40/book   | \$                                     | 160.00                  |
|                 | Final Plans   |  |                         |
|                 | County 2 sets X 58 sheets/set X \$0.60/sheet (22"x34")                      | \$                                     | 69.60                   |
|                 | County 2 sets X 58 sheets/set X \$0.80/sheet (11"x17")                      | \$                                     | 92.80                   |
|                 | Utility Co. 8 sets X 58 sheets/set X \$0.60/sheet (22"x34")                 | \$                                     | 278.40                  |
|                 | Mylar Plots sets X 58 sheets/set X \$7.50/sheet                             | \$                                     | 435.00                  |
|                 | Final Specification Books   |  |                         |
|                 | 4 books X \$40/book   | <b>\$</b><br>2020157 <b>:2</b> 3333333 | 160.00                  |
|                 |   |  | 1,709.40                |
| name and Street |   |  | Grand Charles           |
| Item 2          | Shipping  | र्वतस्य व्याप्त                        | The second section is   |
|                 | 10 overnight shipping items X \$20/each                                     | 346004039                              |                         |
|                 | Total Item  | 2 9                                    | 200.00                  |
| liam 2          |   |  |                         |
| Item 3          | Vehicle Expense Mileage (3 Meetings and 2 Site Visits)                      |  | A 14 CAR                |
|                 | wileage (5 Meetings and 2 Site Visits)  Total Item                          | 2 è                                    | 120.00                  |
|                 | I DIGITIES I  | J                                      | 120.00                  |
| Item 4          | Survey - (By Subconsultants Working Directly For Civiltech)                 | Y Granis                               | State Control St. Asian |
| nem 4           | Quentin Road Alignment and Ties - Jorgensen & Associates, Inc.              | \$                                     | 10,766.11               |
|                 | Total item  |  | 10,766.11               |
|                 |   |  | 10,100.11               |
| Item 5          | Soils - (By Subconsultant Working Directly For Civiltech)                   |  |                         |
| Mente           | Quentin Road Guardrail Area - Midland Standrard Engineering & Testing, Inc. | \$                                     | 3,935.00                |
|                 | Total Item  |  | 3,935.00                |
|                 |   |  |                         |
|                 | TOTAL DIRECT EXPENSE:   | S: S                                   | 16.730.51               |
|                 |   |  |                         |

Professional Engineering Services Schedule Quentin Road Resurfacing (IL Rte 22 to Old McHenry Rd) Lake County Division of Transportation



Indicates Project Milestone

Indicates Consultant Work Time

Indicates Agency Controlled Item

Advertisement and Bidding Phase

February 14, 2011

Mr. Reid T. Magner, P.E. Civiltech Engineering, Inc. 450 East Devon Avenue Suite 300 Itasca, Illinois 60143

Re:

Quentin Road Alignment and Ties - Illinois Route 22 to Old McHenry Road

Survey Proposal

Dear Mr. Magner:

Enclosed, please find our proposal to survey the alignment of Quentin Road from Illinois Route 22 to Old McHenry Road and prepare alignment and ties sheets for the referenced project.

I would like to thank you for considering Jorgensen & Associates for this project. We look forward to continuing our working relationship with your firm. Should you have any questions, comments or require any further information concerning our proposal, please feel free to call me at (847)356-3371.

Respectfully submitted, Jorgensen & Associates, Inc.

Christian H. Jorgensen, P.L.S.

President

CHJ/pt

Enclosures

E\Civilted\LakeZurichQuentinRdLTR

Section:

Quentin Road Illinois Route 22 to Old McHenry Road

County: Job No.:

Lake

# Exhibit "A"

# <u>Hourly Rate Range - Consultant's Regular Staff</u>

| Classification  | <u>From</u> | <u>To</u> |
|---|-------------|-----------|
| Principal, Manager, P.L.S.  | 39.00       | 41.00     |
| Supervisor, Project Surveyor  | 38.00       | 40.00     |
| Cadd Supervisor, Survey Party<br>Chief  | 21.00       | 26.00     |
| Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor | 14.00       | 19.00     |

Section:

Quentin Road Illinois Route 22 to Old McHenry Road

Lake

County: Job No.:

# Exhibit "B"

# Payroll Burden & Fringe Costs

|   | % of Direct<br>Productive<br><u>Payroll</u> |
|---|---|
| Federal Insurance Contributions Act                 | 10.90%                                      |
| State Unemployment Compensation                     | 0.24%                                       |
| Federal Unemployment Compensation                   | 0.20%                                       |
| Workmen's Compensation Insurance                    | 0.94%                                       |
| Paid Holidays, Vacation, Sick Leave, Personal Leave | 9.24%                                       |
| Bonus   | 3.58%                                       |
| Pension   | 0.54%                                       |
| Group Insurance                                     | 24.68%                                      |
| Total Payroll Burden & Fringe Costs                 | 50.32%                                      |

Section:

Quentin Road Illinois Route 22 to Old McHenry Road

County:
Job No.:

Lake

# Exhibit "C"

# Overhead and Indirect Costs

| O TOTTION WITH THE TOTAL OF THE |   |
|--|---|
|  | % of Direct<br>Productive<br><u>Payroll</u> |
| Business Insurance   | 4.19%                                       |
| Depreciation   | 8.09%                                       |
| Indirect wages and salaries  |   |
| Reproductive and printing costs  | 0.06%                                       |
| Office Supplies  | •   |
| Computer Costs   |   |
| Professional Fees  | 1.01%                                       |
| Telephone  | 1.27%                                       |
| Fees, license & dues   | 1.14%                                       |
| Repairs and maintenance  |   |
| Business space rent  |   |
| Facilities - capital   |   |
| Recruiting   |   |
| Survey Supplies  |   |
| Automobile/travel expense  |   |
| Equipment Rental   | 0.67%                                       |
| Miscellaneous Expense  |   |
| State Income Tax   |   |
| Postage  |   |
| Total Overhead   | 58.99%                                      |

Quentin Road

Section:

Illinois Route 22 to Old McHenry Road

County:

Lake

Job No.:

# Exhibit "D"

# Classification Types & Rates

## Sheet 1 of 2

- A. Principal/Officer
- B. Supervisor, P.L.S.
- C. Survey Party Chief
- D. Instrument Operator
- E. Cadd Supervisor

## Classification Rates used for Calculation of Fee

| \$<br>40.00 |
|-------------|
| \$<br>39.00 |
| \$<br>21.50 |
| 18.25       |
| \$<br>25.50 |
| \$<br>\$    |

Quentin Road

Section:

Illinois Route 22 to Old McHenry Road

County: Job No.:

Lake

# Exhibit "D"

# Average Hourly Rate Calculation

## Sheet 2 of 2

| Principal/Officer   | 2 hours   | @ \$40.00/hour | = | \$        | 80.00    |
|---------------------|-----------|----------------|---|-----------|----------|
| Supervisor, P.L.S.  | 12 hours  | @ \$39.00/hour | = | \$        | 468.00   |
| Survey Party Chief  | 67 hours  | @ \$21.50/hour | = | \$        | 1,440.50 |
| Instrument Operator | 67 hours  | @ \$18.25/hour | = | \$        | 1,222.75 |
| Cadd Supervisor     | 12 hours  | @ \$25.50/hour | = | <u>\$</u> | 306.00   |
|                     | 160 hours |                |   | \$        | 3,517.25 |

Average Hourly Rate = \$3,517.25 = \$21.98/hour 160

COST ESTIMATE OF CONSULTANT'S SERVICES Quentin Road Illinois Route 22 to Old McHenry Road Route: Section: Project: County: Job No.:

Lake

Consultant: Jorgensen & Associates, Inc.
Date: February 14, 2011
Description: Supplemental Survey
Cost Plus Fixed Fee = 14.5%[(2.3 + R)DL + IHDC]

| Item                                       | Number<br>of<br>Man Hours<br>(A) | Payroll<br>(B) | Overhead<br>& Fringe<br>Benefits<br>(C) | In-House<br>Direct<br>Costs<br>(D) | Sub-Total<br>(E)      | Profit<br>(F) | Services<br>By<br>Others | Total      | Percent<br>of Grand<br>Total |
|--|----------------------------------|----------------|---|------------------------------------|-----------------------|---------------|--------------------------|------------|------------------------------|
| 1) Field - Supplemental Survey             | 134                              | \$2,663.25     | \$2,911.20                              | \$160.00                           | \$5,734.45            | \$911.39      | N/A                      | \$6,645.84 | 75.88%                       |
| 2) Office - Compile Field Data             | 14                               | \$492.00       | \$537.81                                | \$0.00                             | \$1,029.81            | \$164.08      | N/A                      | \$1,193.89 | 13.63%                       |
| 3) Office - Create Alignment & Ties Sheets | 10                               | \$282.00       | \$308.25                                | \$0.00                             | \$590.25              | \$94.05       | N/A                      | \$684.30   | 7.81%                        |
| 4) Coordination Meetings                   | 2                                | \$80.00        | \$87.45                                 | \$35.00                            | \$202.45              | \$31.76       | N/A                      | \$234.20   | 2.67%                        |
| TOTALS                                     | 160                              | \$3,517.25     | \$3,844.71                              | \$195.00                           | \$7,556.96 \$1,201.28 | \$1,201.28    | \$0.00                   | \$8,758.23 | 100.00%                      |

Quentin Road

Section:

Illinois Route 22 to Old McHenry Road

County:

Lake

Job No.:

# Manhour Breakdown Topographic Survey Estimate

Quentin Road

+ 7.849' = 1.487 miles

Total Length

 $\pm$  7,849' = 1.487 miles

## 1. Field – Supplemental Survey

a. Measure traverse & G.P.S. survey 20 hours x 2 men =

40 MH

b. Locate existing center line monuments 9 hours x 2 men =

18 MH

c. Monument & tie existing center line

38 hours x 2 men =

76 MH

Sub-total Item #1 134 MH

# 2. Office - Compile Field Data

a. Compute traverse & G.P.S. survey

4 hours x 1 man =

4 MH

b. Compute existing center line alignment

8 hours x 1 man =

8 MH

c. Compute stake out data

2 hours x 1 man =

\_ 2 MH

Sub-total Item #2

14 MH

# 3. Office - Create Alignment & Ties Sheets

a. Layout and drafting 8 hours x 1 man =

8 MH

b. Check alignment & ties sheets 2 hours x 1 man =

<u> 2 MH</u>

Sub-total Item #3

10 MH

4. Coordination Meetings 1 meeting @ 2 hours =

2 MH

Total All Items 160 MH

Quentin Road

Section:

Illinois Route 22 to Old McHenry Road

County:

Lake

Job No.:

# Manhour Breakdown By Item

| <u>Item</u>                                | Classification                            | <u>Manhours</u> |  |
|--|---|-----------------|--|
| Field – Supplemental     Survey            | Survey Party Chief<br>Instrument Operator | 67<br>67        |  |
| 2. Office - Compile<br>Field Data          | Supervisor, P.L.S.<br>Cadd Supervisor     | 10<br>4         |  |
| 3. Office – Create Alignment & Ties Sheets | Supervisor, P.L.S.<br>Cadd Supervisor     | 2<br>8          |  |
| 4. Coordination Meetings                   | Principal/Officer                         | 2               |  |

#### <u>Fees</u>

We propose to provide this work at the unit rates quoted on the attached Schedule of Services and Fees, Attachments 1.1 through 1.2. These estimated quantities and unit rates are based on information as outlined in this proposal and experience on past projects. On the basis of the above information, we estimate that these services can be provided for a fee of: \$3,935.00. We will not exceed this amount with out your permission.

#### **General**

If you have any question regarding this proposal of costs, do not hesitate to call. We are looking forward to working with you on this potion of the project.

Respectfully Submitted,

MIDLAND STANDARD ENGINEERING & TESTING, INC.

William J. Wyzgala, P.E.

Principal Engineer

WJW

Enclosure: Attachments 1.1, 1.2, and General Conditions

#### ATTACHMENT 1.1 SCHEDULE OF SERVICES AND FEES

# QUENTIN ROAD, ROUTE 22 TO OLD MCHENRY ROAD - GUARDRAIL INVESTIGATION LAKE COUNTY, ILLINOIS

| <u>Item</u>   | Estimated Quar | tity Unit Cost                 | Extention _ |
|---|----------------|--------------------------------|-------------|
| Field Services  |                |                                |             |
| Mobilization of Drilling equipment, lump sum  | 1              | \$400.00                       | \$400.00    |
| Soil boring with soil sampling,/l.f.  | 50             | \$22.00                        | \$1,100.00  |
| Field Engineer/Geologist for Sample<br>Logging & Supervision during<br>Drilling, per hour | 6              | \$85.00                        | \$510.00    |
| Traffic Control, signs, flagmen, per day  | 1              | \$660.00                       | \$660.00    |
| Laboratory Services   |                | Field Services Total:          | \$2,670.00  |
| Moisture Content Determinations, ea   | 20             | \$6.00                         | \$120.00    |
|   | L              | -<br>aboratory Services Total: | \$120.00    |

#### Engineering Services for Structure Geotechnical Report Including:

Layout Coordination
Utility Clearance and Permits
Preparation of Soil Boring Logs
Analysis and Recommendations
Global Stability Analysis for Wall
Settlement Analysis for Emb. Widening
Ground Water Discussion
Report Preparation and Consultation

| Estimated Cost (@ Unit Rates Listed on Attachment 1.2) | \$1,145.00 |
|--|------------|
| , •  |            |
| ΤΩΤΑΙ.   | \$3,935,00 |

# ATTACHMENT 1.2 ENGINEERING SERVICES

# QUENTIN ROAD, ROUTE 22 TO OLD MCHENRY ROAD - GUARDRAIL INVESTIGATION LAKE COUNTY, ILLINOIS

Our fees for Engineering Services will be based on the actual number of hours required to complete the work, and will be determined on a Unit Rate Basis at these rates for each of classification personnel:

|                                    | <b>Estimated Quantity</b> | Rate/Hour | Extentsion |
|------------------------------------|---------------------------|-----------|------------|
| Principal Engineer, per hr.        | 0                         | \$155.00  |            |
| Project Engineer, per hr.          | 3                         | \$125.00  | \$375.00   |
| Staff Engineer, per hr.            | 6                         | \$90.00   | \$540.00   |
| Field Engineer, per hr.            | 2                         | \$85.00   | \$170.00   |
| Technician, per hour               |                           | \$80.00   |            |
| Draftsman/Word Processing, per hr. | 1                         | \$60.00   | \$60.00    |
|                                    |                           |           | \$1 145 00 |

\$1,145.00

## MIDLAND STANDARD ENGINEERING & TESTING, INC.

FEE AND RATE SCHEDULE GENERAL CONDITIONS

#### ENGINEERING AND ASSOCIATED SERVICES

Fees for our services will be based upon the time worked on the project at the following rates:

Rate Per Hour

See attached

for rates

proposal

Project Engineer

Project Mgr./Sr. Engineer, P.E.

Project Engineer, P.E.

Sr. Staff/Field Engineer

Field Engineer Eng. Technician

Eng. Technician Sr. Technician

Sr. Technician Technician

CAD Draftsman Draftsman

Word Processing

OVERTIME RATES: Applicable to all classifications below Staff Eng. - O.T. Rates are 1.40 times straight time

#### REIMBURSABLE EXPENSES

The following items are reimbursable to the extent of actual expenses:

- Transportation, lodging and subsistence for out of town travel
- 2. Long distance telephone, telegraph and cable charges.
- 3. Special mailings and shipping charges.
- 4. Special materials and equipment unique to the project.
- 5. Automobile travel on projects.
- 6. Computer charges.

#### TEST BORINGS AND FIELD INVESTIGATIONS

On projects requiring test borings, test pits, or other explorations, we may obtain the services of reputable subcontractors to perform such work.

#### SPECIAL RATES

Per Diem or other special rates can be established for specific projects when conditions indicate the desirability of such rates.

#### INCREASES

Fee schedule increases made by our firm on an over-all client basis will be applied to work on all projects as they become effective. At least 30 days advance notice of such increases will be given.

#### ACCESS TO SITES

Unless otherwise agreed, the Client will furnish us with right-of-access to the site in order to conduct the planned exploration. We will take responsible precautions to minimize damage to the site due to our operations, but have not included in the fee the cost of restoration of any damage resulting from the operations. If the Client desires, we will restore any damage to the site and add the cost of restoration to the fee.

WE RESERVE THE RIGHT TO SUSPEND OR TERMINATE WORK UNDER ORAL AGREEMENT UPON FAILURE OF THE CLIENT TO PAY INVOICES AS DUE.

#### INSURANCE

We maintain Workman's Compensation Insurance and Employer's Liability Insurance in conformance with state law. In addition, we maintain Comprehensive General Liability Insurance and Automobile Liability Insurance with bodily injury (limit \$1,000,000 each occurrence, \$1,000,000 aggregate) and property damage (limit \$1,000,000 each occurrence, \$1,000,000 aggregate).

Within the limits of said insurance, we agree to hold the client harmless from and against loss, damage, injury or liability arising directly from the negligent acts or omissions of ourselves, our employees, agents, subcontractors and their employees and agents. If the client placed greater responsibilities upon us or requires further insurance coverage, we if specifically so directed will take out additional insurance (if procurable) to protect us, at the clients' expense. But we shall not be responsible for property damage from any cause, including fire and explosion, beyond the amounts and coverage of our insurance.

#### LIMITATION OF PROFESSIONAL LIABILITY

The Client recognizes the inherent risks connected with construction. In performing our professional services, we will use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of our profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the proposal for consulting service or by furnishing oral or written reports of the findings made. It is agreed that the Client will limit any and all liability, claim for damages, cost of defense or expenses to be levied against us on account of any design defect, error, omission, or professional negligence to a sum not to exceed \$50,000, or the amount of our fees, which ever is greater.

#### INVOICES

Progress invoices will be submitted to the client monthly and a final bill will be submitted upon completion of the services. Invoices will show charges for different personnel and expense classifications. A more detailed separation of charges and data will be provided at clients request, but each invoice is due on presentation and is past due thirty (30) days from invoice date. Client agrees to pay a finance charge of 1 1/2% per month, or the maximum rate allowed by law on past due accounts.

The client's obligation to pay for the work contracted is in no way dependent upon the clients ability to obtain financing, zoning, approval of governmental or regulatory agents, or upon the client's successful completion of the project.