LOCAL AGENCY			CONSULTANT	
Municipality Hawthorn Woods		Illinois Department of Transportation		Name HDR Engineering, Inc.
Township Fremont				Address 8550 W. Bryn Mawr Ave. STE 900
County Lake County – Division of Transportation		**Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds**		City Chicago
Section 10-00079-16-CH				State IL

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 improvement of the above SECTION. Non-Motor Fuel Tax Funds, allotted to the LA ~~by the State of Illinois~~, under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely ~~or in part~~ to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name Gilmer Road at Midlothian Road

Route 079 Length 4820' Mi. 0.92 FT (Structure No. _____)

Termini Gilmer Road, 1500' N/W and S/E of intersection, and on Midlothian Road, 1500' N/E and S/W of intersection.

Description:

Intersection improvement including bike path on Gilmer Road

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
   - a. ☒ Make such detailed surveys as are necessary for the preparation of detailed roadway plans
   - b. ☐ Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
   - c. ☒ Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
   - d. ☒ 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.
   - e. ☒ Prepare Army Corps of Engineers Permit, **Lake County Stormwater Management Commission Permit**, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
   - f. ☐ Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
   - g. ☒ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with **one (1) copy of each document in both hardcopy and electronic format.** Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at the ENGINEER's actual cost for reproduction.
   - h. ☒ Furnish the LA with survey and drafts in **duplicate** of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.
   - i. ☐ Assist the LA in the tabulation and interpretation of the contractors' proposals

j. ☒ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.

k. ☒ Prepare the Project Development Report when required by the DEPARTMENT.

l. ☒ **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** ~~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.

The 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
Under $50,000	_____ (see note)
	_____ %
	_____ %
	_____ %

Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.

2. To pay for all services rendered in accordance with this AGREEMENT at the actual cost of performing such work plus ___ 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.

The Total Not-to-Exceed Contract Amount shall be $620,194.01

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 174 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 174 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's 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.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in triplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

County of Lake of the
(~~Municipality/Township~~/County)

ATTEST:

By _____

Lake County Clerk

(Seal)

State of Illinois, acting by and through its

County Board

By _____

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:

HDR Engineering, Inc.
Engineering Firm
8550 W. Bryn Mawr Avenue, Suite 900
Street Address
Chicago IL 60631
City, State

ATTEST:

By _____
MARTIN J. JOYCE

Title Senior Vice President

By _____
PATRICK J. PECHNICK

Title Vice President

Note: Three (3) Original Executed Contracts – (2) LCDOT; (1) Consultant

Scope of Work
April 21, 2011

The Gilmer and Midlothian Road Intersection Improvement Study includes the development of Phase I engineering and preparation of preliminary design for improvements to the intersection in the Village of Hawthorn Woods and unincorporated Lake County. Traffic control alternatives to be studied include a conventional signalized intersection and a roundabout intersection. An off road bike path will also be included on the east side of Gilmer Road from Middleton Parkway to Midlothian Road. HDR Engineering has also been selected to provide engineering design services for this project. Final engineering design services will be scoped and budgeted separately when the Phase I study is completed. This study will comply with the IDOT permit requirements and Lake County procedures, as local sales tax funding is anticipated. Our approach to this project integrates the project goals and National Environmental Policy Act (NEPA) guidelines to provide a comprehensive solution.

The HDR Team's Context Sensitive Solutions (CSS) approach develops a Preferred Alternative that addresses the communities' needs. A key element in our CSS approach is the continuous public and agency coordination process. Soliciting input and developing consensus at the end of each major step will help the public and agencies understand why and how decisions are made. The benefit of this approach is that as they go through the process with us they will have an understanding of the issues and the development of the Preferred Alternative and thus will develop ownership and support for the Preferred Alternative.

1.0 Data Collection

The HDR Team will collect data that will be used throughout the study. HDR will coordinate with CMAP who is responsible for future traffic projections. The following items will be collected from the County or other local agencies:

- ***Future 2040 Traffic Volumes (Action/No-Action).*** HDR will obtain CMAP projected 2040 ADT Volumes. Based on the volumes and the existing data collection, future (2040) peak hour traffic volumes, including turning-movements, will be calculated.

- ***Peak Hour Traffic Data.*** HDR will perform turning movement peak hour traffic data collection (7 to 9 am and 4 to 6 pm). Upon determination of the one peak hour, additional turning movement counts will be performed at the adjacent property access drives. Comprehension of the direction of travel to/from the access drives is important in the intersection capacity analysis and potential access modifications.

- ***Crash Data.*** HDR will obtain from Lake County the most recent 5-year crash statistics (2006, 2007, 2008, 2009, and 2010).

- ***Gilmer Road and Midlothian Road Record Plans (as-builts).*** HDR will obtain an electronic and hard copy of the Gilmer Road and Midlothian Road As-Built Plans

from LCDOT and from IDOT. The plans will include existing right-of-way lines and property lines.

- ***GIS Mapping.*** HDR will collect existing GIS shapefiles within the study area. These files will be used in the development of the environmental inventory map. We will obtain the most recent files available from the agencies involved and coordinate with the County to ensure all resources are provided.

- ***Geotechnical Data.*** As part of the HDR Team, McCleary Engineering will provide the following services:
    - Meet with HDR and Lake County to discuss the proposed subsurface investigation prior to obtaining soil borings.
    - Investigation and report will comply with the IDOT Geotechnical Manual.
    - Sixteen (16) 10 ft deep borings at 300 ft spacing. It may be possible to reduce the depth to 6 ft but IDOT District 1 has preferred the 10 ft depth in the past. To be discussed at the first meeting.
    - Ten (10) Atterberg limits tests and grain size analyses tests (with hydrometer).
    - Two (2) Standard proctors. This will be useful if any of the onsite soil is to be used from embankment.
    - Four (4) Pavement cores and base course thickness determination.
    - Write the geotechnical report in compliance with the IDOT Geotechnical Manual to provide affective recommendations and help provide for a speedy review.
    - Meet with HDR and Lake County to discuss the findings of the investigation and subsequent recommendations.

Task 1 Deliverables: Geotechnical Report.

2.0 Aerial and Contour Mapping Coordination

- ***Topographic Survey*** – The HDR Team will perform topographic surveys with cross sections every 50 feet within the project limits of natural, and man made features in order to develop base sheets for project plan and profile drawings. Cross sections will also be done at driveway entrances and drainage structures will be identified. The corridor width to be surveyed will include the area within 150 feet on either side of the existing roadway centerlines (for a total width of 300 feet). In addition, HDR will coordinate with Lake County to obtain data of records indicating locations of

underground utilities. The limits of the topographic survey will be 1,000 feet northwest and 1200 feet southeast of the intersection along Gilmer Road and 1200 feet southwest and 1000 feet northeast of the intersection along Midlothian Road.

- ***Create Base Maps.*** The HDR Team will develop base maps from the ground survey and aerial mapping from Google-Earth. The maps will be used as the base for design plans and exhibits.

- ***Legal and Plats.*** The HDR Team will employ the services of a professional land surveyor to prepare plats of survey, legal descriptions, and title commitments for up to 20 parcels of land to be acquired for right-of-way or temporary construction easements.

Task 2 Deliverables: Topographic Survey, Base Maps, and Legal/Plats.

3.0 Operational/Safety Analyses

A traffic operational analysis and safety analysis will be conducted. The traffic operational analysis will be performed for the Existing (2011), Future No-Action (2040), and Future Action (2040) conditions. The future action conditions will be performed for a conventional Traffic Signal Alternative and Roundabout Alternative. Traffic simulation models will be conducted. The models will be used to assist in the coordination of the future action with the adjacent access points near the intersection, as well as, presenting to agencies and public stakeholders.

- ***HCS Operational Analysis (Existing, No-Action, Traffic Signal Alternative).*** HDR will conduct traffic operational analyses for the Existing, No-Action, and proposed Traffic Signal Alternative. The operational analyses will consist of a.m. peak hour and p.m. peak hour. The Existing, No-Action, and Traffic Signal Alternative operational analysis will follow the Highway Capacity Manual approach.

- ***Roundabout Alternative Operational Analysis (Opening Day, Design Year, Failing Year).*** The HDR Team will conduct operational analyses for the Design Year. Should the Design Year yield a multi-lane roundabout, additional analyses will be performed to determine if and for how long a single lane roundabout would operate. It is assumed that up to three roundabout operational analyses will be performed.. The operational analyses will consist of a.m. peak hour and p.m. peak hour; the operational analysis will follow the FHWA approach, using the SIDRA software.

  A technical report describing the approach and results of the traffic volumes, the HCS and SIDRA analyses will be submitted to Lake County for concurrence.

- ***Safety Analysis.*** HDR will conduct a safety analysis. The analysis includes organizing the crash data and evaluating if a 5% Severe Location exists. A crash spot map will be developed and an analysis of the fatal and severe injury crashes will be made to determine patters and trends. Appropriate countermeasures will be identified and a crash reduction factor applied.

A technical memorandum describing the crash data and analysis will be submitted.

- ***VISSIM Simulation.*** VISSIM is a simulation model that can more accurately present the operational flow. The HDR Team will develop a VISSIM model for the Existing, Future Traffic Signal, and Future Roundabout scenarios. The VISSIM models will be a useful tool to present to the public and agencies.

Task 3 Deliverables: Operational Analysis Technical Report, Safety Analysis Technical Memorandum, and VISSIM Simulation Models.

4.0 Environmental Analyses

The Gilmer Road and Midlothian Road Intersection Improvement Study will be processed through the IDOT Permits Section. Based on this understanding, the IDOT Environmental Survey Request Form (ESRF) would not need to be completed. HDR will conduct the necessary environmental field surveys.

Potential impacts to the resources (for the Preferred Alternative) will be evaluated. The design of the Preferred Alternative will be modified to avoid and minimize impacts. If avoidance is not feasible, mitigation measures will be identified. In evaluating the environmental impacts, Lake County (with HDR support) will coordinate with the jurisdictional agencies and/or organizations directly affected by the Preferred Alternative.

- ***Environmental Field Review/Reconnaissance.*** HDR will conduct the environmental field review to verify that there will not be a significant impact or concerns. The review will be documented in the Project Report. The review will assist in the identification of environmental resources within the area.

- ***Environmental Inventory Map (critical issues map).*** HDR will prepare an environmental inventory map that includes all of the environmental resources within the study area. This map will be developed in GIS.

- ***Air Quality.*** The study area is located in a non attainment area for 1-hour ozone, 8-hour ozone, and for PM2.5 with respect to NAAQS. Since the County is listed as attainment for carbon monoxide, no dispersion modeling is required. Because modeling is not necessary, HDR will summarize the pollutants of concern in a qualitative manner. This includes summarizing air quality measurements near the study area. In addition, potential changes to PM2.5 based on the proposed improvements and projected traffic volumes will be discussed. Measures to minimize dust during construction and the state and local requirements for dust control measures will be listed.

- ***Agricultural.*** The amount of farmland converted to non-agricultural use due to the proposed improvements and any protected agricultural areas/agri-businesses within the study area will be identified. Farmland impacts are not anticipated.

- ***Biological Resources.*** HDR will research available documentation and conduct the environmental field surveys for biological resources including trees. HDR will document the results of the survey and calculate the potential impacts. HDR will conduct a tree survey and impact analysis. The tree survey will include the identification (including survey) of tree species, size, and health along the proposed right-of-way. In addition, the number of trees potentially impacted by the project will be identified.

- ***Cultural Resources.*** HDR will research available documentation and conduct the environmental field surveys for cultural resources. HDR will document the results of the survey and calculate the potential impacts.

- ***Floodplains.*** HDR will identify 100-Year and 500-Year floodplains and floodways within the study area. Potential impacts and encroachments to the 100-year floodplains and floodways will be identified.

- ***Land Use/Zoning.*** HDR will review land use and zoning maps from local agencies. These areas will be identified within the study area. Potential positive/negative impacts will be identified.

- ***Geologic Resources.*** Geology and hydrogeology of the area will be researched to identify the underlying rock strata, occurrence of groundwater, existence of fault lines, underground cavities, unstable slopes, etc. Two meetings will be held with Lake County to discuss the soil boring locations prior to obtaining in the field and to discuss the results of the findings.

- ***Special Waste.*** HDR is proposing to conduct a Preliminary Environmental Site Assessment (PESA). Based on known information about existing sites, HDR also proposes to complete an Environmental Site Assessment (ESA) is, in accordance with the American Society for Testing and Materials (ASTM) Practice E 1527-05. The scope of work includes the following:

    - Provide a description of the project area including current land uses.

    - Provide a general description of the topography, soils, geology, and groundwater flow direction.

    - Review reasonably ascertainable and reviewable regulatory information published by federal, state, local, tribal, health, and/or environmental agencies pertaining to the project area.

    - Review historical data sources for the project area, including aerial photographs, topographic maps, fire insurance maps, city directories, and other readily available development data.

    - Conduct an area reconnaissance and an environmental review—including a visual inspection of adjoining properties—with a focus on indications of

hazardous substances, petroleum products, polychlorinated biphenyls (PCBs), wells, storage tanks, solid waste disposal pits and sumps, and utilities.

- Prepare a written report of methods, findings, and conclusions.

Investigative areas not included in the standard ASTM ESA scope include: asbestos, lead-based paint, lead in drinking water, radon, urea formaldehyde, wetland issues, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines. The scope of services for ESA projects also does not include the completion of soil borings for special waste investigation, the installation of groundwater monitoring wells, or the collection of soil or groundwater samples. These items would be considered additional services. The ASTM requirements fulfill the requirements as identified in IDOT's Special Waste Procedures.

- ***Section 4(f) Evaluation.*** HDR will identify Section 4(f) resources within the study area. If Section 4(f) land could be impacted, determine whether they have been funded through the Land and Water Conservation Fund or by OSLAD (Section 6(f)). Impacts to Section 4(f) resources will be avoided if possible. If avoidance is not possible, HDR will identify ways to minimize impacts and determine mitigation measures. HDR will assist Lake County in coordination with jurisdictional agencies if necessary.

- ***Socioeconomic.*** HDR will summarize socioeconomic data from census, determine potential for environmental justice concerns, identify possible displacements, and identify public facilities and services in the project study area and assess impacts. This analysis will also include businesses in the study area.

- ***Traffic Noise.*** HDR will conduct a noise analysis within the project limits. The analysis will include:

  - Identifying critical land uses
  - Measuring existing noise levels
  - Predicting future No-Action noise levels for up to 20 receptors
  - Predicting future Action (Preferred Alternative) noise levels for up to 20 receptors
  - Identifying noise impacts for up to 20 receptors
  - Predicting future Action with noise mitigation noise levels for up to 20 receptors
  - Recommending mitigation measures

The future noise levels will be predicted using the FHWA approved TNM 2.5 model. A Traffic Noise Analysis memo will be completed that presents the analysis, results, and recommendations.

- ***Water Resources.*** *A* water quality evaluation to determine potential impacts will be performed.

- ***Wetlands.*** Existing wetlands will be delineated along the corridor for type, amount and quality. ADID wetland maps will be referenced as part of the delineation, but ADID wetlands are not anticipated to be identified in the area. A wetlands report will be prepared.

Task 4 Deliverables: Tree Survey and Impact Technical Memorandum, Section 4(f) Evaluation, Traffic Noise Analysis memo, and Wetlands Report.

5.0 Alternatives Analysis

The alternatives analysis process includes the identification of evaluation criteria, brainstorming a range of potential alternatives, and screening the alternatives to identify the Preferred Alternative. The evaluation criteria will be developed based on the Purpose and Need of the Project. A conventional Traffic Signal Alternative and a Roundabout Alternative will be thoroughly evaluated. In addition, alignment shift alternatives will be considered to avoid impacts to sensitive environmental areas or existing development.

- ***Evaluation Criteria Identification.*** Evaluation criteria and measurement of effectiveness will be identified. The criteria will be based on the Project's Purpose and Need.

- ***Brainstorm Range of Potential Alternatives.*** A range of potential alternatives that avoids or minimize impacts will be identified. Alternatives may include alignment shifts, retaining walls, slope variances, intersection configurations, etc.

- ***Conduct Comparative Screening Analysis.*** Two alternatives (the Traffic Signal Alternative and the Roundabout Alternative) will be evaluated against each other for feasibility and addressing the Project's Purpose and Need based on the evaluation criteria. A matrix will be developed to easily compare the alternatives.

- ***Identify Preferred Alternative.*** Based on the results of the evaluation process and coordination with LCDOT, the Preferred Alternative will be identified.

  An Alternative Analysis Technical memo will be written that discusses the alternative evaluation process and results.

Task 5 Deliverables: Alternatives Analysis Technical Memo.

6.0 Preliminary Design of Preferred Alternative

Conceptual Design will occur with the Traffic Signal Alternative and the Roundabout Alternative in the Comparative Screening Analysis. The alternatives will be conceptually designed to where the alternatives can be compared to each other. A Comparison Matrix will be prepared for the proposed alternatives. Additional design (Preliminary Design) will be completed for the Preferred Alternative only. The roundabout design will follow the guidelines provided in Roundabouts: An Informational Guide, USDOT, FHWA, Publication No. FHWA-RD-00-067. Design elements will be completed in Microstation V8 and Geopak.

- ***Conceptual Design.*** Up to two build alternatives will be conceptually designed. It may include developing typical sections and conceptually placing on a plan view. The purpose of the task is to make a reasonable comparison between various alternatives.

- ***Plan & Profile (Preferred Alternative).*** Plan and profile sheets will be developed for the Preferred Alternative. The sheets will be submitted (hard copy and electronic – PDF format) at a 1" = 20' scale. It is assumed 6 sheets will be submitted.

- ***Refined Conceptual Design (Secondary Alternative).*** The alternative that is not selected as the preferred alternative will be designated as a secondary alternative and the conceptual design will be refined to include plan and profile information. However, cross sections will not be prepared and right-of-way requirements will not be identified for the secondary alternative.

- ***Cross-Sections (Preferred Alternative).*** Cross sections will be created for the Preferred Alternative. The sections will be cut every 100 feet, with a total of up to 50 cross-sections. The sheets will be submitted (hard copy and electronic – PDF format).

- ***Intersection Design Study (Preferred Alternative).*** An Intersection Design Study will be conducted for the Gilmer Road and Midlothian Road Intersection.

- ***Pedestrian/Bicycle Improvements.*** The Preferred Alternative will accommodate the future off road pedestrian/bicycle path that is being considered along Gilmer Road. Field work and alignment planning will be done to determine the most appropriate location for the path.

- ***Landscaping/Aesthetic Enhancements Plan (Preferred Alternative).*** A Landscaping/Aesthetic Enhancement Plan will be developed for the Preferred Alternative for elements within Lake County right-of-way. The plan will include general concepts used as guidance for the design phase. The plan will be developed through coordination with local agencies and stakeholders. The plan may recommend conceptual features such as types of seeding, trees, detention basins, etc.

- ***Cost Estimate.*** A planning-level cost estimate will be completed for the Preferred Alternative. The cost estimate will be in a unit price format approved by Lake County. Unit prices will be obtained through previous bid information. The estimate will include

elements such as construction, utility adjustments, land acquisition, and engineering costs. The cost estimate will be prepared in Excel format.

- ***Maintenance-of-Traffic (Preferred Alternative).*** Maintenance-of-traffic (MOT) general plan will be developed for the Preferred Alternative, specific plans will be included during the Phase II plan development. The MOT Plan will include an efficient strategy to construct the Preferred Alternative while minimizing operational impacts, business impacts, and pedestrian conflicts.

- ***Right-of-Way Acquisition Calculations (Preferred Alternative).*** Required right-of-way acquisitions will be calculated for the Preferred Alternative. A matrix will be developed that presents the property owner, PIN, type (easement versus full take), the future owner (Lake County or IDOT) and the amount of right-of-way needed.

Task 6 Deliverables: Conceptual Design Plans, Plan and Profile, Cross-Sections, IDS, Landscaping/Aesthetics Plan, Cost Estimate, MOT Plan and ROW Matrix.

7.0 Drainage Analysis

A detailed drainage analysis will be completed for the Preferred Alternative.

One Drainage Study will be prepared. The report will outline the existing and proposed drainage system for the IDOT right of way following policies set forth in the IDOT Drainage Manual. Additionally, the existing and proposed drainage system for the Lake County right of way will follow polices set forth by the Lake County Stormwater Management Agency.

Task 7 Deliverables: Location Drainage Study.

8.0 Design/Environmental Documentation

It is assumed that the Gilmer Road and Midlothian Road Intersection Improvement Study will be processed through the IDOT Permit Section. A Project Report will be prepared to use as a decision document. Coordination with IDOT will be conducted for concurrence with this approach. HDR will also follow Lake County requirements for planning level studies.

- ***Draft/Final Project Report.*** HDR will develop the draft and final Project Report for the study. It includes reviewing the study limits to ensure they meet the principals of logical termini. A scoping process will be conducted to ensure all needs are identified for this project prior to the evaluation of the alternatives. The report will generally follow the IDOT Bureau of Local Roads guidelines for Project Development Reports, but may not be as detailed.

Task 8 Deliverables: Draft/Final Project Report.

9.0 Public Involvement

A continuous public/agency involvement program will be integrated throughout the study. The program will provide forums for various stakeholders with different needs to express their concerns and be involved in the process.

- ***Mailing List.*** A Project Mailing List will be developed. The mailing list will include all of the property owners located adjacent to the Gilmer Road and Midlothian Road Study area. In addition, local agency/municipality representatives and various stakeholders (Fire District, Police District, business owners, etc.) will be included. The mailing list will be updated as necessary. Other interested people will be added as necessary.

- ***Project Website.*** HDR will establish a public project website for the Gilmer Road and Midlothian Road Study to serve as the central source of project information with the following details:

  - The website will be located on a separate internet domain acquired by HDR and linked to via Lake County's website. Site address will be a project-specific domain name related to the project name, and incorporate graphics and marketing messages developed for the project.

  - Website content will be developed and maintained throughout the Phase I process/contract by HDR's project staff, and approved by Lake County prior to posting.

  - The website will include, but is not limited to, the following functions:

    - Collect information from stakeholders; name, address, email address
    - Notify subscribers of public meetings
    - Allow submittal of public comments
    - Provide access to displays, documents, renderings, schedules etc. which have been prepared for public information purposes
    - Address frequently asked questions

  - At the conclusion of the Phase I process, the website and domain ownership will be assumed by the Lake County Division of Transportation unless otherwise specified. Web pages are to be provided in .asp, .html or SharePoint format and include all related images, documentation, and files.

- ***Public Meeting #1: Scoping (exhibits).*** The first public meeting will be a scoping meeting. The purpose of the meeting is to let the public know that a study is underway and to solicit input on the need of the project and potential alternatives. In addition to introducing the project to the public, an area will be set aside to educate

the public on roundabouts. The roundabout display will include benefits of roundabouts and a description of how to use them. The format of the meeting will be an open house. HDR will create up to 6 exhibits (24" by 36") and a PowerPoint Presentation for the meeting. Up to three people from HDR will attend the meeting.

- ***Public Meeting #2: Alternatives Evaluation (exhibits, presentation).*** The second public meeting will focus on the alternatives evaluation process. The purpose of the meeting is to let the public know and understand the various alternatives that were evaluated and the results of the evaluation process. It is anticipated that the meeting would take place after the Comparative Screening Analysis; so the Preferred Alternative will be identified and introduced at this meeting. The public will have the opportunity to comment on the process and Preferred Alternative. An educational display will also be set-up at the meeting. The display will include benefits of roundabouts and a description of how to use them. The format of the meeting will be an open house. HDR will create up to 10 exhibits (24" by 36") and a PowerPoint Presentation for the meeting. Up to three people from the HDR Team will attend the meeting.

- ***Public Hearing: Preferred Alternative (exhibits, presentation).*** The public hearing will provide the stakeholders with an opportunity to review the detailed geometry and right-of-way requirements for the Preferred Alternative. The format of the meeting will be an open house. HDR will create up to 6 exhibits (24" by 36") and a PowerPoint Presentation for the meeting. Up to three people from HDR will attend the meeting.

Task 9 Deliverables: Public Meeting/Hearing Exhibits/Presentations.

10.0 Agency Coordination

State (IDOT) and Local agencies (Hawthorn Woods) will be coordinated with throughout the project. It is assumed that four meetings with the IDOT Permit Section, four meetings with Hawthorn Woods, and six meetings with the local stakeholders will be conducted. HDR will develop handouts and presentation material for the meetings, as necessary. One person from HDR will attend the meetings.

In addition to meetings, HDR will write up to ten coordination letters.

Task 10 Deliverables: Meeting Handouts, Meeting Notes/Agendas, and Coordination Letters.

11.0 Project Coordination

Continuous coordination with the Project Team through face-to-face meetings and/or teleconference calls is essential for the success of this project.

- ***Coordination Meetings with Lake County.*** Coordination meetings will be held between HDR and Lake County to establish direction for progressive stages throughout the project. The HDR Team will keep the County informed of milestones, obstacles, and progress as the project develops. It is assumed that there will be bi-monthly meetings (7 total) between HDR and the Lake County Division of Transportation. Two people from HDR shall attend the meetings.

- ***Coordination with Subconsultants.*** HDR will coordinate with the subconsultants on a monthly basis. Coordination may include phone calls and meetings.

- ***Internal Project Team Meetings.*** The Gilmer Road and Midlothian Road Intersection Improvement Study involves various technical elements including traffic, environmental, design, etc. HDR will ensure that the HDR Team is united through various Project Team meetings and email correspondence.

Task 11 Deliverables: Meeting Handouts, Meeting Notes/Agendas.

12.0 Project Management/Administration

Successful project control starts with the professionalism of our team and is integrated into the project from the very beginning. HDR starts this process with our underlying culture of client-focused service and continues with our processes for project control, quality assurance/quality controls, and schedule control.

- ***Staffing and Budget Control.*** HDR Management will review staffing assignments and monitor project budget. This includes preparing a Project Work Plan and Project Guide, performing status reviews and completing Quarterly Reports for Lake County.

- ***Internal Project Team Meetings.*** The Gilmer Road and Midlothian Road Intersection Improvement Study involves various technical expertise's, including traffic, environmental, design, etc. HDR will ensure that the Team is united through various Project Team meetings.

- ***Maintain Project Schedule.*** The Gilmer Road and Midlothian Road Intersection Improvement Study is on an aggressive 14 month schedule. To ensure the project meets this schedule, an overall schedule will be developed using Microsoft Project. This will show the various connections between elements, as well as, the critical path. This schedule will be maintained throughout the duration of the project.

- ***Monthly Invoicing.*** HDR will verify progress reported by our subconsultant and insure that the scope, budget, and schedule established for the project is maintained. Any technical conflicts or discrepancies will be addressed in a timely manner by HDR.

  HDR will prepare and submit monthly invoices/ progress reports so that the various parties concerned will be fully informed in regard to the status of the project, schedule, tasks completed, key issues, and areas of concern.

QA/QC Review. The HDR Team takes pride in their work and is committed to ensure that all deliverables meet the standards for quality. Assumptions, calculations, memorandums, reports, and plans will be thoroughly reviewed for accuracy and consistency before submittal to Lake County.

Task 12 Deliverables: Project Schedule, and Monthly Invoices.

HDR Engineering

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I
Section:
County: Lake County

Cost Estimate of Consultant Services
Consultant: HDR Engineering, Inc.
COMPLEXITY FACTOR:
Payroll Burden Fringe Rate:
Overhead and Expense Rate: 152.32%
Date: 4/20/2011

Item	Number of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Outside Direct Costs (E)	Estimated Cost in Dollars: Subtotal (F)	Profit (G)	Services By Others (H)	Total (I)	% of Grand Total (J)
1.0 Data Collection	110	$ 4,169.14	$ 6,350.44	$0.00	$0.00	$ 10,519.58	$1,525.34	$12,727.52	$24,772.44	3.99%
2.0 Aerial and Contour Mapping Coordination	32	$ 1,132.46	$ 1,724.96	$0.00	$0.00	$ 2,857.41	$414.32	$104,204.21	$107,475.95	17.33%
3.0 Operational/Safety Analyses	190	$ 7,107.66	$ 10,826.39	$0.00	$0.00	$ 17,934.06	$2,600.44	$11,065.17	$31,599.66	5.10%
4.0 Environmental Analyses	314	$ 13,372.48	$ 20,368.97	$0.00	$0.00	$ 33,741.45	$4,892.51	$0.00	$38,633.96	6.23%
5.0 Alternatives Analysis	324	$ 13,507.92	$ 20,575.26	$0.00	$0.00	$ 34,083.18	$4,942.06	$0.00	$39,025.24	6.29%
6.0 Preliminary Design of Preferred Alternative	496	$ 21,806.56	$ 33,215.76	$0.00	$0.00	$ 55,022.32	$7,978.24	$13,008.00	$76,008.56	12.26%
7.0 Drainage Analysis	474	$ 19,899.60	$ 30,311.07	$0.00	$0.00	$ 50,210.68	$7,280.55	$0.00	$57,491.22	9.27%
8.0 Design/Environmental Documentation	240	$ 11,068.20	$ 16,859.08	$0.00	$0.00	$ 27,927.27	$4,049.45	$0.00	$31,976.72	5.16%
9.0 Public Involvement	688	$ 28,562.90	$ 43,507.01	$0.00	$0.00	$ 72,069.91	$10,450.14	$3,058.18	$85,578.23	13.80%
10.0 Agency Coordination	292	$ 15,487.66	$ 23,590.80	$0.00	$0.00	$ 39,078.47	$5,666.38	$0.00	$44,744.84	7.21%
11.0 Project Coordination	140	$ 7,496.40	$ 11,418.51	$0.00	$0.00	$ 18,914.91	$2,742.66	$0.00	$21,657.57	3.49%
12.0 Project Management/Administration	198	$ 12,560.88	$ 19,132.73	$0.00	$ 24,940.44	$ 56,634.05	$4,595.57	$0.00	$61,229.62	9.87%
TOTALS	3498	$ 156,171.86	$ 237,880.97	$0.00	$24,940.44	$ 418,993.27	$57,137.66	$144,063.08	$620,194.01	100.00%

	Fee	%
HDR Engineering, Inc	$476,130.93	76.77%
Ourston	$27,131.35	4.37%
Trotter	$104,204.21	16.80%
McCleary	$12,727.52	2.05%
Total	**$620,194.01**	**100.00%**

AVERAGE HOURLY PROJECT RATES

Date: 4/20/2011

FIRM: HDR Engineering, Inc.

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I

County: Lake County

Sheet 1 of

PAYROLL CLASSIFICATION	AVG. HOURLY RATES	1.0 Data Collection			2.0 Aerial and Contour Mapping Coordination			3.0 Operational/Safety Analyses			4.0 Environmental Analyses		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
Project Principal	$ 70.00		0.00%	$ -		0.00%	$ -		0.00%	$ -		0.00%	$ -
Project Manager	$ 69.70	8	7.27%	$ 5.07		0.00%	$ -	8	4.21%	$ 2.93	22	7.01%	$ 4.88
Senior Civil Engineer V	$ 67.71		0.00%	$ -		0.00%	$ -		0.00%	$ -	20	6.37%	$ 4.31
Senior Civil Engineer IV	$ 53.30	10	9.09%	$ 4.85		0.00%	$ -	32	16.84%	$ 8.98	80	25.48%	$ 13.58
Civil Engineer III	$ 34.26	50	45.45%	$ 15.57	16	50.00%	$ 17.13	88	46.32%	$ 15.87	124	39.49%	$ 13.53
Civil Engineer II	$ 29.50	24	21.82%	$ 6.44		0.00%	$ -	62	32.63%	$ 9.63	58	18.47%	$ 5.45
CAD Technician IV	$ 36.51	18	16.36%	$ 5.97	16	50.00%	$ 18.26		0.00%	$ -		0.00%	$ -
Clerical III	$ 26.11		0.00%	$ -		0.00%	$ -		0.00%	$ -	10	3.18%	$ 0.83
TOTALS		110	100.00%	$ 37.90	32	100.00%	$ 35.39	190	100.00%	$ 37.41	314	100.00%	$ 42.59

AVERAGE HOURLY PROJECT RATES

Date: 4/20/2011

FIRM: HDR Engineering, Inc.

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I

County: Lake County

Sheet 2 of

PAYROLL CLASSIFICATION	AVG. HOURLY RATES	5.0 Alternatives Analysis			6.0 Preliminary Design of Preferred Alternative			7.0 Drainage Analysis			8.0 Design/Environmental Documentation		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
Project Principal	$ 70.00	8	2.47%	$ 1.73	12	2.42%	$ 1.69		0.00%	$ -		0.00%	$ -
Project Manager	$ 69.70	32	9.88%	$ 6.88	40	8.06%	$ 5.62	24	5.06%	$ 3.53	40	16.67%	$ 11.62
Senior Civil Engineer V	$ 67.71		0.00%	$ -	40	8.06%	$ 5.46	96	20.25%	$ 13.71		0.00%	$ -
Senior Civil Engineer IV	$ 53.30	64	19.75%	$ 10.53	110	22.18%	$ 11.82		0.00%	$ -	80	33.33%	$ 17.77
Civil Engineer III	$ 34.26	136	41.98%	$ 14.38	150	30.24%	$ 10.36	234	49.37%	$ 16.92	100	41.67%	$ 14.28
Civil Engineer II	$ 29.50	60	18.52%	$ 5.46	86	17.34%	$ 5.12	96	20.25%	$ 5.98	20	8.33%	$ 2.46
CAD Technician IV	$ 36.51	24	7.41%	$ 2.70	40	8.06%	$ 2.94	24	5.06%	$ 1.85		0.00%	$ -
Clerical/Accounting	$ 26.11		0.00%	$ -	18	3.63%	$ 0.95		0.00%	$ -		0.00%	$ -
TOTALS		324	100.00%	$ 41.69	496	100.00%	$ 43.96	474	100.00%	$ 41.98	240	100.00%	$ 46.12

AVERAGE HOURLY PROJECT RATES

Date: 4/20/2011

FIRM: HDR Engineering, Inc.

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I

County: Lake County

Sheet 3 of

PAYROLL CLASSIFICATION	AVG. HOURLY RATES	9.0 Public Involvement			10.0 Agency Coordination			11.0 Project Coordination			12.0 Project Management/Administration		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
Project Principal	$ 70.00	20	2.91%	$ 2.03	48	16.44%	$ 11.51	8	5.71%	$ 4.00	24	12.12%	$ 8.48
Project Manager	$ 69.70	40	5.81%	$ 4.05	80	27.40%	$ 19.10	52	37.14%	$ 25.89	40	20.20%	$ 14.08
Senior Civil Engineer V	$ 67.71		0.00%	$ -		0.00%	$ -		0.00%	$ -	66	33.33%	$ 22.57
Senior Civil Engineer IV	$ 53.30	180	26.16%	$ 13.94	60	20.55%	$ 10.95	30	21.43%	$ 11.42	68	34.34%	$ 18.30
Civil Engineer III	$ 34.26	140	20.35%	$ 6.97	60	20.55%	$ 7.04	50	35.71%	$ 12.24		0.00%	$ -
Civil Engineer II	$ 29.50	180	26.16%	$ 7.72	44	15.07%	$ 4.45		0.00%	$ -		0.00%	$ -
CAD Technician IV	$ 36.51	128	18.60%	$ 6.79		0.00%	$ -		0.00%	$ -		0.00%	$ -
Clerical/Accounting	$ 26.11		0.00%	$ -		0.00%	$ -		0.00%	$ -		0.00%	$ -
TOTALS		688	100.00%	$ 41.52	292	100.00%	$ 53.04	140	100.00%	$ 53.55	198	100.00%	$ 63.44

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I
Firm: HDR Engineering, Inc.
County: Lake County

Expenses	Unit	Cost Per Unit	Cost	Total Per Task
ROW				
a. Title commitments	20	$ 500.00	$ 10,000.00	
Subtotal				**$ 10,000.00**
Production				
a. 8.5x11 Photocopies (black and white)	2000	$ 0.05	$ 100.00	
b. 8.5x11 Color Prints	400	$ 0.16	$ 64.00	
c. Plots 11x17 (black and white)	600	$ 0.10	$ 60.00	
d. Color Plots 11x17	100	$ 0.32	$ 32.00	
e. Plots full size (black and white)	20	SF - $0.135	$ 16.20	
f. Color Plots full size	20	SF - $0.90	$ 108.00	
g. Exhibits		$ -	$ -	
h. Tech Fee	3498	$ 3.70	$ 12,942.60	
Subtotal				**$ 13,322.80**
Travel Reimbursement				
a. Per Diem Meals and Lodging		$ 200.00	$ -	
b. Vehicle Expense (mileage)	1064	$ 0.51	$ 542.64	
c. Daily Tolls	30	$ 2.50	$ 75.00	
Subtotal				**$ 617.64**
Miscellaneous Supplies				
a. Messenger Services		$ 80.00	$ -	
b. UPS	10	$ 15.00	$ 150.00	
c. EDR Database	1	$350.00	$ 350.00	
d. Website domain costs	1	$500.00	$ 500.00	
Subtotal				**$ 1,000.00**
			Total Expenses	**$ 24,940.44**

Trotter

Route Gilmer @ Midlothian
Project Intersection Study - PHASE I
Section
County Lake County

Cost Estimate of Consultant Services
Consultant: Trotter and Associates, Inc.
COMPLEXITY FACTOR:
Payroll Burden Fringe Rate:
Overhead and Expense Rate: 167.00%
Date: 4/20/2011

Item	Number of Man Hours (A)	Estimated Cost in Dollars								
		Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Outside Direct Costs (E)	Subtotal (F)	Profit (G)	Services By Others (H)	Total (I)	% of Grand Total (J)
1.0 Topographic Survey	396	$ 13,418.00	$ 22,408.06	$0.00	$0.00	$ 35,826.06	$4,909.16	$0.00	$40,735.22	39.09%
2.0 Plats, Legal Description & ROW Staking	600	$ 20,906.40	$ 34,913.69	$0.00	$0.00	$ 55,820.09	$7,648.90	$0.00	$63,468.99	60.91%
TOTALS	996	$ 34,324.40	$ 57,321.75	$0.00	$0.00	$ 91,646.15	$12,558.06	$0.00	$104,204.21	100.00%

AVERAGE HOURLY PROJECT RATES

Date: 4/20/2011

FIRM: Trotter and Associates, Inc.

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I

County: Lake County

Sheet 1 of

PAYROLL CLASSIFICATION	AVG. HOURLY RATES	1.0 Topographic Survey & Basefile Preparation			2.0 Plats, Legal Descriptions & ROW staking						0		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
Project Principal	$ 57.46	0	0.00%	$ -	0	0.00%	$ -						
Prfessional Land Surveyor	$ 42.50	36	9.09%	$ 3.86	120	20.00%	$ 8.50						
Technician Level IV	$ 32.10	160	40.40%	$ 12.97	240	40.00%	$ 12.84						
Survey Crew	$ 33.76	200	50.51%	$ 17.05	240	40.00%	$ 13.50						
TOTALS		396	100.00%	$ 33.88	600	100.00%	$ 34.84	0	0.00%	$ -	0	0.00%	$ -

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I
Firm: Trotter and Associates, Inc.
County: Lake County

Expenses	Unit	Cost Per Unit	Cost	Total Per Task
HDR Field Work				
a. Railroad Protective Liability Insurance			$ -	
Subtotal				$ -
Production				
a. 8.5x11 Photocopies (black and white)			$ -	
b. 8.5x11 Color Prints			$ -	
c. Plots 11x17 (black and white)			$ -	
d. Color Plots 11x17			$ -	
e. Plots full size (black and white)			$ -	
f. Color Plots full size			$ -	
g. Exhibits			$ -	
h. Tech Fee			$ -	
Subtotal				$ -
Travel Reimbursement				
a. Per Diem Meals and Lodging			$ -	
b. Vehicle Expense - Survey	55	$ 45.00	$ 2,475.00	
c. Daily Tolls			$ -	
Subtotal				**$ 2,475.00**
Miscellaneous Supplies				
a. Messenger Services			$ -	
b. UPS			$ -	
c. Postage			$ -	
Subtotal				$ -
			Total Expenses	**$ 2,475.00**

Ourston

Route Gilmer @ Midlothian
Project Intersection Improvement Study - PHASE I
Section
County Lake County

Cost Estimate of Consultant Services
Consultant: Ourston Roundabout Engineering, Inc.
COMPLEXITY FACTOR:
Payroll Burden Fringe Rate:
Overhead and Expense Rate: 150.00%
Date: 4/20/2011

Item	Number of Man Hours (A)	Estimated Cost in Dollars								
		Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Outside Direct Costs (E)	Subtotal (F)	Profit (G)	Services By Others (H)	Total (I)	% of Grand Total (J)
Operational/Safety Analyses	112	$ 3,865.56	$ 5,798.34	$0.00	$0.00	$ 9,663.90	$1,401.27	$0.00	$11,065.17	40.78%
Preliminary Design of Preferred Alternative	116	$ 4,544.28	$ 6,816.42	$0.00	$0.00	$ 11,360.70	$1,647.30	$0.00	$13,008.00	47.94%
Public Involvement	20	$ 929.60	$ 1,394.40	$0.00	$ 397.20	$ 2,721.20	$336.98	$0.00	$3,058.18	11.27%
TOTALS	248	$ 9,339.44	$ 14,009.16	$0.00	$397.20	$ 23,745.80	$3,385.55	$0.00	$27,131.35	100.00%

AVERAGE HOURLY PROJECT RATES

Date: 4/20/2011

FIRM: Ourston Roundabout Engineering, Inc.

Route: Gilmer @ Midlothian
Project: Intersection Improvement Study - PHASE I

County: Lake County

Sheet 1 of

PAYROLL CLASSIFICATION	AVG. HOURLY RATES	Operational/Safety Analyses			Preliminary Design of Preferred Alternative			Public Involvement			0		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
Project Principal	$ 59.78	12	10.71%	$ 6.41	16	13.79%	$ 8.25	12	60.00%	$ 35.87			
Project Manager	$ 45.48	16	14.29%	$ 6.50	24	20.69%	$ 9.41		0.00%	$ -			
Senior Civil Engineer V	$ -		0.00%	$ -		0.00%	$ -		0.00%	$ -			
Senior Civil Engineer IV	$ -		0.00%	$ -		0.00%	$ -		0.00%	$ -			
Civil Engineer III	$ 34.53	24	21.43%	$ 7.40	60	51.72%	$ 17.86		0.00%	$ -			
Civil Engineer II	$ 26.53	60	53.57%	$ 14.21	16	13.79%	$ 3.66	8	40.00%	$ 10.61			
CAD Technician IV	$ -		0.00%	$ -		0.00%	$ -		0.00%	$ -			
Clerial III	$ -		0.00%	$ -		0.00%	$ -		0.00%	$ -			
TOTALS		112	100.00%	$ 34.51	116	100.00%	$ 39.17	20	100.00%	$ 46.48	0	0.00%	$ -

Route: Gilmer @ Midlothian
Project: Intersection Improvement Study - PHASE I
Firm: Ourston Roundabout Engineering, Inc.
County: Lake County

Expenses	Unit	Cost Per Unit	Cost	Total Per Task
HDR Field Work				
a. Railroad Protective Liability Insurance		$ 5,000.00	$ -	
Subtotal				$ -
Production				
a. 8.5x11 Photocopies (black and white)		$ 0.05	$ -	
b. 8.5x11 Color Prints		$ 0.16	$ -	
c. Plots 11x17 (black and white)		$ 0.10	$ -	
d. Color Plots 11x17		$ 0.32	$ -	
e. Plots full size (black and white)		SF - $0.135	$ -	
f. Color Plots full size		SF - $0.90	$ -	
g. Exhibits		$ -	$ -	
h. Tech Fee		$ 3.70	$ -	
Subtotal				$ -
Travel Reimbursement				
a. Per Diem Meals and Lodging		$ 200.00	$ -	
b. Vehicle Expense	720	$ 0.51	$ 367.20	
c. Daily Tolls		$ 2.50	$ -	
Subtotal				**$ 367.20**
Miscellaneous Supplies				
a. Messenger Services		$ 80.00	$ -	
b. UPS	2	$ 15.00	$ 30.00	
c. Postage		$ 0.44	$ -	
Subtotal				**$ 30.00**
			Total Expenses	**$ 397.20**

McCleary

Route Gilmer @ Midlothian
Project Intersection Study - PHASE I
Seetion
County Lake County

Cost Estimate of Consultant Services
McCleary Engineering
COMPLEXITY FACTOR:
Payroll Burden Fringe Rate:
Overhead and Expense Rate: 110.00%
Date: 4/20/2011

Item	Number of Man Hours (A)	Estimated Cost in Dollars								
		Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Outside Direct Costs (E)	Subtotal (F)	Profit (G)	Services By Others (H)	Total (I)	% of Grand Total (J)
1.0 Data Collection	45	$ 1,906.74	$ 2,097.41	$0.00	$ 8,140.00	$ 12,144.15	$583.37	$0.00	$12,727.52	100.00%
2.0 Aerial and Contour Mapping Coordination	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
3.0 Operational/Safety Analyses	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
4.0 Environmental Analyses	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
5.0 Alternatives Analysis	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
6.0 Preliminary Design of Preferred Alternatives	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
7.0 Drainage Analysis	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
8.0 Environmental Documentation	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
9.0 Public Involvement	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
10.0 Agency Coordination	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
11.0 Project Coordination	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
12.0 QA/QC	0	$ -	$ -	$0.00	$0.00	$ -	$0.00	$0.00	$0.00	0.00%
13.0 Project Management	0	$ -	$ -	$ -	$ -	$ -	$0.00	$0.00	$0.00	0.00%
TOTALS	45	$ 1,906.74	$ 2,097.41	$0.00	$8,140.00	$ 12,144.15	$583.37	$0.00	$12,727.52	100.00%

AVERAGE HOURLY PROJECT RATES

Date: 4/20/2011

FIRM: McCleary Engineering

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I

County: Lake County

Sheet 1 of

PAYROLL CLASSIFICATION	AVG. HOURLY RATES	1.0 Data Collection			2.0 Aerial and Contour Mapping Coordination			3.0 Operational/Safety Analyses			4.0 Environmental Analyses		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
Project Principal	$ 65.87	2	4.44%	$ 2.93									
Geotechnical Engineer	$ 52.00	30	66.67%	$ 34.67									
Geologist	$ 17.00	10	22.22%	$ 3.78									
Clerical	$ 15.00	3	6.67%	$ 1.00									
			0.00%	$ -									
			0.00%	$ -									
			0.00%	$ -									
			0.00%	$ -									
TOTALS		45	100.00%	$ 42.37	0	0.00%	$ -	0	0.00%	$ -	0	0.00%	$ -

Route: Gilmer @ Midlothian
Project: Intersection Study - PHASE I
Firm: McCleary Engineering
County: Lake County

Expenses	Unit	Cost Per Unit	Cost	Total Per Task
GEOCON Field & Laboratory Work				
a. Drilling	1	$ 3,510.00	$ 3,510.00	
b. Laboratory Soil Testing	1	$ 2,630.00	$ 2,630.00	
c. Traffic Control	1	$ 2,000.00	$ 2,000.00	
Subtotal				**$ 8,140.00**
Production				
a. 8.5x11 Photocopies (black and white)			$ -	
b. 8.5x11 Color Prints			$ -	
c. Plots 11x17 (black and white)			$ -	
d. Color Plots 11x17			$ -	
e. Plots full size (black and white)			$ -	
f. Color Plots full size			$ -	
g. Exhibits			$ -	
			$ -	
Subtotal				**$ -**
Travel Reimbursement				
a. Per Diem Meals and Lodging			$ -	
b. Vehicle Expense			$ -	
c. Daily Tolls			$ -	
Subtotal				**$ -**
Miscellaneous Supplies				
a. Messenger Services			$ -	
b. UPS			$ -	
c. Postage			$ -	
Subtotal				**$ -**
			Total Expenses	**$ 8,140.00**