Municipality	L			Name	DRAFT
	0 C	Illinois Department of Transportation	C O	Stanley Consultants	
Township	AL		N S U	Address 8501 W. Higgins Road	l, Ste 730
County Lake County – Division of Transportation	A G E N	Preliminary Engineering Services Agreement For	T A N	City Chicago	
Section 14-00095-17-CH	C Y	Non-Motor Fuel Tax Funds	Т	State IL, 60631	

THIS AGREEMENT is made and entered into this \_\_\_\_\_\_ day of \_\_\_\_\_ February \_\_\_\_\_, 2016 \_\_\_\_\_ 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.

							•		
				Sec	tion Description	1			
Name	Hunt Club Road	(CH 29) a	at IL Route 132	2, Inters	section Improven	nents			
Route	CH 29	Length	1.06	Mi.	5600.00	_ FT	(Structure No.	N/A	)
Termini	CH 29: Menar	ds Entran	ce to Westbroo	ok Ln, l	IL 132: Commerc	ial Drive (W	. of Hunt Club Rd)	to Gurnee Mills	Circle

Description:

The project will include intersection channelization improvements to enhance safety.

### **Agreement Provisions**

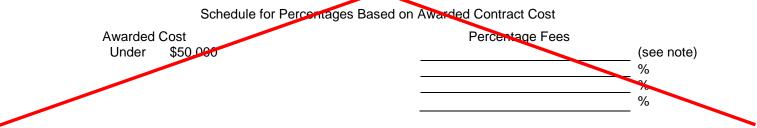
### The Engineer Agrees,

- 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. A 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. Akke 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. I Prepare the Project Development Report when required by the DEPARTMENT.
- I. 🛛 Services as included and/or defined in the attached Scope of Services.
- 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.
- 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:



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 <u>\*</u> 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. **\*See the CECS** 

### The Total Not-to-Exceed Contract Amount shall be \$370173.60

- 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 sempletion 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 <u>190</u> 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 <u>190</u> 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,

- 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 (Municipality/Township/County)	of the
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	
		Paula J. Trigg, P.E. Director of Transportation/County Engineer Lake County	
Executed by the ENGINEER:		Stanley Consultants	
		Engineering Firm 8501 W. Higgins Road, Suite 730	
ATTEST:		Street Address Chicago, IL 60631	
		City, State	
Ву		Ву	
Title Operations Manager \ Vice President		Title Vice President	



### Introduction

The Phase I Study involves the intersection of Hunt Club Road and IL Route 132 and adjacent intersections. The study is located in the Village of Gurnee in Lake County and is led by Lake County Division of Transportation (LCDOT). The purpose of the study is to identify improvements at the intersections to enhance safety. The project includes federal funds for design engineering and construction and will be processed through IDOT Bureau of Local Roads & Streets (BLR&S). The scope of work includes the following:

- Data Collection and Evaluation
- Topographic Survey
- Environmental Studies
- Public Involvement
- Crash and Safety Analysis
- Capacity Analysis and Intersection Design Studies
- Geometric Studies
- Traffic Management Plan
- Drainage Studies
- Cost Estimates
- Project Development Report (Categorical Exclusion)
- Meetings and Coordination
- Administration and Management
- QA/QC

The approximate project study limits are as follows:

- Hunt Club Road: 1,600' north of IL Route 132 to 1,600' south of IL Route 132
   (3,200' total)
- IL Route 132: 1,200' west of Hunt Club Road to 1,200' east of Hunt Club Road

   (2,400' total)

The project will be designed using Microstation Geopak software with Corridor Modeler. The following is a detailed description of work tasks.

### Data Collection and Evaluation

The data collection effort includes the following:

- The CONSULTANT will obtain information from the Village of Gurnee and LCDOT including GIS files, land use maps, zoning maps, soils and geological information, microfilm plans, flooding reports, existing right-of-way, drainage information, and utility plans.
- The CONSULTANT will initiate coordination with JULIE to obtain utility atlases for the project area.
- The CONSULTANT will incorporate survey information from the sub consultant for use in plan and profile studies.
- The CONSULTANT will incorporate ROW information from the sub consultant.
- The CONSULTANT will obtain Property Identification Numbers, and utilize the Lake County website to identify the owners of the adjacent properties in this task.
- Two field trips of the project area will be conducted with the CONSULTANT and LCDOT personnel.

Lake County Division of Transportation Hunt Club Road at IL Route 132 Phase I Study Scope of Services

- This traffic study will entail obtaining classification traffic counts at the following intersections via Miovision (see attached rates for direct cost).
  - Hunt Club Road at IL Route 132
  - IL Route 132 at Commercial Driveway (West of Hunt Club Road)
  - o IL Route 132 at Gurnee Mills Circle
  - Hunt Club Road at Menards Entrance
  - Hunt Club Road at Westbrook Lane
- The data will be collected for the following periods (a total of 120 hours of data will be collected):
  - Weekday: 6:00 AM to 7:00 PM (13 hours)
  - Weekend: 8:00 AM to 7:00 PM (11 hours)
- The CONSULTANT will make field observations during the data collection effort to evaluate queue lengths, lane utilization, and note traffic characteristics.
- LCDOT will provide the traffic study / counts for the development in the NW corner of Hunt Club Road and IL Route 132 to be incorporated into the study.
- The CONSULTANT will coordinate with the geotechnical sub consultant to perform soil borings and pavement cores in accordance with the latest version of the Illinois Department of Transportation's *Geotechnical Manual*. See attached scope by Wang Engineering, Inc.

### Topographic Survey

The CONSULTANT'S surveyor will perform the Topographic Survey in accordance with the Lake County Division of Transportation's *Design Survey Procedures (Revised 10/22/2015)*. See attached scope by American Surveying & Engineering, P.C.

### **Environmental Studies**

The CONSULTANT will obtain aerials for preparation of environmental survey exhibits. The CONSULTANT will prepare and submit an Environmental Survey Request (ESR) form with Attachments and Exhibits to IDOT BLR&S for processing. The CONSULTANT will be responsible for the following related to the ESR:

- Review of the findings
- Responses to inquiries regarding the project impacts on environmental resources
- Modification of the design alternative to adhere to environmental requirements
- Incorporation of the information into the project report

Based on a preliminary environmental screening, the environmental resources associated with the project may involve special waste and wetland impacts. There are LCWI located within the detention ponds in the southwest corner of the IL Route 132 and Hunt Club Road intersection. The CONSULTANT does not anticipate any impacts to the adjacent wetlands. The CONSULTANT will utilize the existing wetland delineations from Lake County GIS. The CONSULTANT will not perform wetland delineations. If the preferred alternative does require wetland impacts, delineations could be performed during the design phase. The CONSULTANT will submit COSIM worksheets to IDOT for analysis. IDOT will complete the PESA / PSI for the entire project.

### Public Involvement

The public involvement scope of work includes the following:

- Stakeholder involvement with the four quadrant property owners and the Village of Gurnee.
  - The CONSULTANT will prepare coordination letters to introduce stakeholders to the project. The letters and exhibits will be provided to LCDOT for review.
  - The CONSULTANT will attend a "dry run" meeting with LCDOT prior to the stakeholder meetings to present the preliminary alternatives.
  - The CONSULTANT will attend five stakeholder meetings (4 property owners and Village of Gurnee) to present the preliminary alternatives.
- Prepare and attend one public meeting.
  - The CONSULTANT will prepare the mailing lists, invitation, postcards, advertising, meeting handout, display exhibits, and audio / visual presentation.
  - The CONSULTANT will identify and secure the location for the public meeting.
  - The CONSULTANT will attend a "dry run" for the public meeting, attend the public meeting and answer questions
- The CONSULTANT will prepare a public meeting disposition of comments, prepare response newsletter and/or draft response letters.
- The CONSULTANT will provide project information / updates and exhibits for use by LCDOT in updating their website. LCDOT will operate, update, and maintain the website.

### Crash and Safety Analysis

LCDOT shall provide crash data for the previous five years at the following locations:

- Hunt Club Road at IL Route 132
- o IL Route 132 at Commercial Driveway (West of Hunt Club Road)
- IL Route 132 at Gurnee Mills Circle
- Hunt Club Road at Menards Entrance
- Hunt Club Road at Westbrook Lane

The CONSULTANT will review the crash data and summarize crashes by year and major type to define trends and roadway deficiencies at each of the above intersections. Areas experiencing significant crash rates will be investigated so that countermeasures can be recommended. The CONSULTANT will utilize collision diagrams provided by LCDOT for each intersection. Crash reports will be requested for crashes involving fatalities, pedestrians and bicyclists.

### Capacity Analysis and Intersection Design Studies

The CONSULTANT will utilize the data collected by Miovision for the capacity analysis. Synchro (Version 9) simulation software will be utilized to prepare traffic models for three geometric alternatives. The CONSULTANT will provide Synchro 8 format files to LCDOT. The existing conditions model will be provided by LCDOT that includes all the area intersections. The CONSULTANT will use the Miovision traffic counts to update the existing model. The CONSULTANT assumes the existing model will include the existing cycle lengths for the five intersections in the study. The computer simulation model will be utilized to verify the corridor capacity sufficiency and will provide the intersection analysis and signal timing/phasing inputs for the detailed signal and intersection design.

Lake County Division of Transportation Hunt Club Road at IL Route 132 Phase I Study Scope of Services

The Synchro model will include the following five signalized intersections:

- Hunt Club Road at IL Route 132
- IL Route 132 at Commercial Driveway (West of Hunt Club Road)
- IL Route 132 at Gurnee Mills Circle
- Hunt Club Road at Menards Entrance
- Hunt Club Road at Westbrook Lane

The CONSULTANT will perform analyses for the following periods:

- Weekday AM Peak Hour
- Weekday Afternoon Peak Hour
- Weekday PM Peak Hour
- Weekend Peak Hour (One peak hour for weekend day)

As part of the preferred alternative, the CONSULTANT will prepare the capacity analysis for the Weekday AM / PM Peak Hour for the following three intersections:

- Hunt Club Road at IL Route 132
- IL Route 132 at Commercial Driveway (West of Hunt Club Road)
- IL Route 132 at Gurnee Mills Circle

The CONSULTANT will use Highway Capacity Software 2010 for use in preparing the Intersection Design Study (IDS) sheets. The CONSULTANT will prepare an IDS for the following intersections:

- Hunt Club Road at IL Route 132
- IL Route 132 at Commercial Driveway (West of Hunt Club Road)
- IL Route 132 at Gurnee Mills Circle

The Intersection Design Study will include intersection geometry, capacity analysis results, traffic signal phasing diagrams, existing traffic volumes, and design exceptions, if needed. Additional Intersection Design Studies may be required at the adjacent intersections on Hunt Club Road. Additional IDS's are not included in the scope of work, but are offered as additional services.

### Geometric Studies

The CONSULTANT will determine facility deficiencies based on information gathered. The CONSULTANT will develop three preliminary geometric alternatives for review and discussion with LCDOT. The CONSULTANT anticipates the three geometric alternatives will consist of the following:

- Hunt Club Road channelization
- Hunt Club Road and IL Route 132 channelization
- Hunt Club Road channelization and IL Route 132 alternate left turn lane concept

The CONSULTANT will complete alignment and geometrics plan studies; profile and cross-section studies; typical cross-sections and details; plot proposed geometrics and right-of-way line; and develop preliminary right-of-way for the preferred improvement. It is anticipated that four (4) total plan and profile sheets at 1"=50' scale will be required for the preferred improvement.

"Top line" cross sections for the preferred alternate typical section will be prepared at full station 50-ft intervals within the proposed ROW. Based on the project limits, 48 cross sections will be required for the mainline section of the project. An additional four (4) cross sections will be needed for intersections.

Therefore, the overall estimated number of cross sections to be required is 52. Four existing and four proposed typical sections will be provided.

The existing ditch on the south side of IL Route 132 west of Hunt Club Road has steep slopes. Due to potential widening, the CONSULTANT will complete a clear zone analysis and determine the length of need for potential barrier in order to meet roadside safety requirements.

The CONSULTANT will determine right-of-way impacts in this task. The CONSULTANT will draft and coordinate the ROW requirements.

A roadway lighting assessment is not required by IDOT for this project and is not included in the scope of work.

### Traffic Management Plan

This effort will summarize traffic staging to accommodate the construction of the improvement. The work includes the preparation of typical sections for each stage of the maintenance of traffic. It is anticipated that there will be a minimum of three stages and that two typical section per stage will be developed for each roadway. The CONSULTANT will perform a queuing analysis; and prepare text of traffic maintenance and exhibits. The Traffic Management Plan (TMP) will incorporate the FHWA Work Safety and Mobility Policy. In addition to LCDOT, the IDOT District One Bureaus of Programming, Design, Traffic, and Maintenance will review the Draft TMP. The Final TMP will be revised based on comments from these Bureaus. Five copies of the Final TMP will be provided.

### **Drainage Studies**

The scope of work for the proposed drainage studies will be based on maintaining the existing storm sewer system, where possible. The project deliverable will be a Location Drainage Study (LDS) Technical Memorandum (Tech Memo) with associated exhibits.

American Survey will complete all drainage survey (see survey scope of work). The CONSULTANT will be responsible for reviewing the storm sewer televising DVD's and providing recommendations based on the televising. The CONSULTANT will prepare exhibits indicating deficiencies and recommendations. The recommendations from the storm sewer televising will be incorporated into the Proposed Drainage Plan.

LCDOT will provide existing drainage information including flooding reports for the CONSULTANT to review. The CONSULTANT will contact IDOT and Gurnee to request additional roadway and private development record drawings within the vicinity of the project. The CONSULTANT will coordinate with LCSMC and IDOT to identify any permits that may be required for the project. We do not anticipate submittals to LCSMC to meet the requirements of the Watershed Development Ordinance. The CONSULTANT will develop an Existing Drainage Plan (EDP) that identifies drainage problems, sewer locations, and major drainage features.

Upon completion of the EDP, the CONSULTANT will utilize StormCAD software to model the existing storm sewer for proposed roadway widening in order to identify undersized pipes. The CONSULTANT will also identify drainage alternatives in the southwest corner of the project to develop a recommended improvement that will limit the impacts to the sensitive project areas. These alternatives may include junction boxes, enclosure of the ditch, modification to the detention pond outlet, etc. The proposed ditch sections will be reviewed from the proposed cross sections. An evaluation of the cross sections will also be conducted to identify easements and/or right-of-way required to construct the proposed

drainage features. Temporary drainage connections or extensions of culverts for stage construction will be identified.

The CONSULTANT will then develop a Proposed Drainage Plan to illustrate recommended improvements. The proposed drainage plan includes proposed storm sewer sizes and slopes, control structures for drainage, tributary areas, and drainage outfalls. A Control Structure Detail sheet will also be included in the submittal.

The LDS Technical Memorandum will be prepared per the IDOT Drainage Manual and contain a qualitative analysis of the drainage systems, including brief narrative of existing and proposed drainage conditions, EDP, PDP, Proposed Cross Sections, Location Drainage Map, FIRM map, Wetland Exhibit, Water Quality BMP, and Erosion and Sediment Control Data References.

The CONSULTANT will submit two paper copies and one PDF copy of the draft LDS Tech Memo to LCDOT for review. The CONSULTANT will revise the Draft LDS Tech Memo per LCDOT comments prior to submitting to IDOT BLR&S. The CONSULTANT will prepare a disposition of comments and make revisions per IDOT BLR&S review. The Final LDS Tech Memo submittal will include two paper copies and one PDF copy to LCDOT for review. Upon LCDOT review, the CONSULTANT will submit the Final LDS Tech Memo to IDOT BLR&S for approval.

### Cost Estimates

The CONSULTANT will prepare preliminary cost estimates for the three geometric design alternatives. An additional cost estimate will be prepared for the preferred alternative to be submitted with the Draft Project Development Report. The final cost estimate will be revised and submitted with the Final Project Development Report.

### Project Development Report

The CONSULTANT will compile exhibits, maps, tables, supplemental documents, and appendices. The CONSULTANT will prepare the Draft Project Development Report (PDR) utilizing form BLR 22211. The CONSULTANT will submit the following documents:

- Two paper copies and one PDF copy of the Draft PDR to LCDOT for review. The CONSULTANT will revise the Draft PDR per LCDOT comments.
- Two paper copies of the revised Draft PDR to IDOT BLR&S.
- One paper copy and one PDF copy of the Final PDR to LCDOT.
- Four paper copies of the Final PDR to IDOT BLR&S.

The cost for developing the PDR will include assembling all required documents, printing, binding, and delivering the reports.

Lake County Division of Transportation Hunt Club Road at IL Route 132 Phase I Study Scope of Services

### Meetings and Coordination

The CONSULTANT anticipates the following meetings for this project:

- One Village of Gurnee Kickoff Meeting
- Two Village of Gurnee meetings (alternatives & preferred)
- Two LCDOT / Geotechnical meetings (pre-bore & post-bore)
- Two LCDOT meetings (alternatives & preferred)
- Two IDOT meetings (alternatives & preferred)
- Two FHWA/BDE meetings
- One PACE meeting
- Three internal coordination meetings

The CONSULTANT will attend all of these meetings, prepare meeting minutes, and perform follow up to the meetings as needed. As part of the design development process, the CONSULTANT will hold internal coordination meetings with all pertinent team members on an as needed basis. These meetings are necessary to ensure the project budget and schedule stay on track. Discussions at the meetings will include the following topics: individual task progress, critical and open issues, coordination between pertinent disciplines, early identification of issues that could negatively affect project schedules and/or budgets, and issues related to deliverable dates.

### Administration and Management

The CONSULTANT will perform project management and administration, including staff and resource scheduling, progress monitoring, monthly invoice and progress reports.

### <u>QA/QC</u>

The CONSULTANT shall implement their QA/QC policy.

### PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME PRIME/SUPPLEMENT	Stanley Consultants		DATE <u>01/21/16</u> PTB NO.	
	CONTRACT TERM START DATE RAISE DATE	3/1/2016	OVERHEAD RATE COMPLEXITY FACTOR % OF RAISE	153.11% 0 3.00%
		ESCALATION PER YEAR		
	3/1/2016 - 4/1/2016	4/2/2016 - 4/1/2017	4/2/2017 - 9/1/2017	
	<u> </u>	<u> </u>	<u> </u>	
	= 5.56% = 1.0369	68.67%	29.47%	
	The total escalation for this	project would be:	3.69%	

# PAYROLL RATES Stanley Consultants DATE

01/21/16

FIRM NAME PRIME/SUPPLEMENT PSB NO.

**ESCALATION FACTOR** 

3.69%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Project Principal	\$70.00	\$70.00
Engineering Grp Manager	\$70.00	\$70.00
Department Manager	\$68.77	\$70.00
Senior Engineer	\$53.26	\$55.23
Engineer	\$37.66	\$39.05
Engineer Intern II	\$33.65	\$34.89
Engineer Intern I	\$29.25	\$30.33
Sr Resident Project Rep	\$61.07	\$63.32
Resident Project Rep	\$44.43	\$46.07
Sr Construction Observer	\$35.94	\$37.27
Construction Observer	\$24.75	\$25.66
CAD/ Graphics Manager	\$50.26	\$52.12
Designer	\$41.40	\$42.93
Associate Designer	\$32.65	\$33.86
Sr Admin Assistant	\$23.79	\$24.67
Admin Assistant	\$22.93	\$23.78
Admin Services Manager	\$32.74	\$33.95

# **Subconsultants**

FIRM NAME Sta PRIME/SUPPLEMENT PSB NO.

Stanley Consultants

DATE 01/21/16

NAME	Direct Labor Total	Contribution to Prime Consultant
American Survey	13,340.43	1,334.04
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
Total	13,340.43	1,334.04

### **COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES**

IN-HOUSE

OVERHEAD

FIRM PSB

DBE

**Stanley Consultants** 

DATE

PRIME/SUPPLEMENT

**OVERHEAD RATE COMPLEXITY FACTOR**  1.5311 0

SERVICES

Outside

01/21/16

% OF

DBE 14.47%

=				OVERHEAD	IN-HOUSE		Outside	SERVICES			% OF
Ρ	ITEM	MANHOURS	PAYROLL	&	DIRECT	FIXED	Direct	BY	DBE	TOTAL	GRAND
K				FRINGE BENF	COSTS	FEE	Costs	OTHERS	TOTAL		TOTAL
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(B-G)	
I	Data Collection and Evaluation	112	4,279.39	6,552.17	134.00	1,583.37	10,800.00	15,072.45	15,072.45	38,421.38	10.38%
-	Topographic Survey			0.00		0.00		38,489.95	38,489.95	38,489.95	10.40%
	Environmental Studies	52	2,231.68	3,416.93		825.72				6,474.34	1.75%
	Public Involvement	410	19,453.02	29,784.52	2,076.00	7,197.62				58,511.16	15.819
(	Crash and Safety Analysis	72	2,996.47	4,587.90		1,108.69				8,693.07	2.359
(	Capacity Analysis and Intersection	264	10,638.42	16,288.48		3,936.21				30,863.11	8.349
(	Geometric Studies	392	16,292.98	24,946.18		6,028.40				47,267.55	12.779
-	Traffic Management Plan	80	3,334.71	5,105.77		1,233.84				9,674.32	2.619
	Drainage Studies	488	19,517.77	29,883.66	200.00	7,221.57				56,823.00	15.359
(	Cost Estimates	60	2,479.80	,		917.53				7,194.14	1.949
	Project Development Report	132	5,788.57	8,862.88	900.00	2,141.77				17,693.23	4.789
	Meetings and Coordination	96	6,010.86	9,203.22	669.00	2,224.02				18,107.10	4.899
	Administration and Management	72	5,040.00	7,716.74		1,864.80				14,621.54	3.95
(	QA / QC	87	5,517.11	8,447.24		2,041.33				16,005.67	4.32
-	Subconsultant DL					1,334.04				1,334.04	0.36
F	TOTALS	2317	103,580.76	158,592.51	3,979.00	-		53,562.40	53,562.40	370,173.60	

### **AVERAGE HOURLY PROJECT RATES**

Stanley Consultants

PSB

FIRM

DATE 01/21/16

PRIME/SUPPLEMENT

SHEET

1 OF 3

PAYROLL	AVG	TOTAL	PROJECT R	ATES	Data Coll	ection and E	valuation	Topogra	aphic Surv	/ey	Environ	mental Stu	dies	Public I	Public Involvement		Crash and	d Safety Ana	llysis
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Project Principal	70.00	0																	
Engineering Grp Manage	70.00	0																	
Department Manager	70.00	344	14.85%	10.39	4	3.57%	2.50	0			4	7.69%	5.38	80	19.51%	13.66	4	5.56%	3.89
Senior Engineer	55.23	304	13.12%	7.25	4	3.57%	1.97				8	15.38%	8.50	80	19.51%	10.78	12	16.67%	9.20
Engineer	39.05	556	24.00%	9.37	36	32.14%	12.55				12	23.08%	9.01	76	18.54%	7.24	24	33.33%	13.02
Engineer Intern II	34.89	878	37.89%	13.22	68	60.71%	21.18				20	38.46%	13.42	134	32.68%	11.40	32	44.44%	15.51
Engineer Intern I	30.33	0																	
Sr Resident Project Rep	63.32	15	0.65%	0.41															
Resident Project Rep	46.07	0																	
Sr Construction Observer	-	0																	
Construction Observer	25.66	0																	
CAD/ Graphics Manager	52.12	60	2.59%	1.35										16	3.90%	2.03			
Designer	42.93	96	4.14%	1.78							8	15.38%	6.60	16	3.90%	1.68			
Associate Designer	33.86	64	2.76%	0.94										8	1.95%	0.66			
Sr Admin Assistant	24.67	0																	
Admin Assistant	23.78	0																	
Admin Services Manager	33.95	0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		2317	100%	\$44.70	112	100.00%	\$38.21	0	0%	\$0.00	52	100%	\$42.92	410	100%	\$47.45	72	100%	\$41.62

### AVERAGE HOURLY PROJECT RATES

Stanley Consultants

PSB

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DATE 01/21/16

PRIME/SUPPLEMENT

SHEET 2 OF 3

PAYROLL	AVG	Capacity A	Analysis and	Intersection	Geomet	ric Studie	S	Traffic Ma	anagement	Plan	Drainag	e Studies		Cost Es	timates		Project De	evelopmen	t Report
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Project Principal	70.00																		
Engineering Grp Manage	70.00																		
Department Manager	70.00	8	3.03%	2.12	24	6.12%	4.29	8	10.00%	7.00	32	6.56%	4.59	4	6.67%	4.67	16	12.12%	8.48
Senior Engineer	55.23	40	15.15%	8.37	40	10.20%	5.64	8	10.00%	5.52				8	13.33%	7.36	24	18.18%	10.04
Engineer	39.05	80	30.30%	11.83	92	23.47%	9.16	24	30.00%	11.72	160	32.79%	12.80	20	33.33%	13.02	32	24.24%	9.47
Engineer Intern II	34.89	136	51.52%	17.97	160	40.82%	14.24	40	50.00%	17.45	200	40.98%	14.30	28	46.67%	16.28	60	45.45%	15.86
Engineer Intern I	30.33																		
Sr Resident Project Rep	63.32																		
Resident Project Rep	46.07																		
Sr Construction Observer	-																		
Construction Observer	25.66																		
CAD/ Graphics Manager	52.12				20	5.10%	2.66				24	4.92%	2.56						
Designer	42.93				32	8.16%	3.50				40	8.20%	3.52						
Associate Designer	33.86				24	6.12%	2.07				32	6.56%	2.22						
Sr Admin Assistant	24.67																		
Admin Assistant	23.78																		
Admin Services Manager	33.95																		
TOTALS		264	100%	\$40.30	392	100%	\$41.56	80	100%	\$41.68	488	100%	\$40.00	60	100%	\$41.33	132	100%	\$43.85

### AVERAGE HOURLY PROJECT RATES

Stanley Consultants

PSB

FIRM

DATE 01/21/16

PRIME/SUPPLEMENT

SHEET <u>3</u> OF <u>3</u>

PAYROLL	AVG	Meetings	and Coordi	nation	Administr	ation and M	anageme	QA/QC											
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Project Principal	70.00																		
Engineering Grp Manage	70.00																		
Department Manager	70.00	48	50.00%	35.00	72	100.00%	70.00	40	45.98%	32.18									
Senior Engineer	55.23	48	50.00%	27.61				32	36.78%	20.31									
Engineer	39.05																		
Engineer Intern II	34.89																		
Engineer Intern I	30.33																		
Sr Resident Project Rep	63.32							15	17.24%	10.92									
Resident Project Rep	46.07																		
Sr Construction Observer	37.27																		
Construction Observer	25.66																		
CAD/ Graphics Manager	52.12																		
Designer	42.93																		
Associate Designer	33.86																		
Sr Admin Assistant	24.67																		
Admin Assistant	23.78																		
Admin Services Manager	33.95																		
																			1
																			1
										1									1
																			1
																			1
TOTALS		96	100%	\$62.61	72	100%	\$70.00	87	100%	\$63.42	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00

TASK & DESCRIPTION	WORK HOURS	DIRECT COST
1 Data Collection and Evaluation		
Data Collection		
Lake County GIS, Land Use, Zoning, School, Park, Fire and Sanitary Districts, etc.	8	
Review and Analyze Data from the County		
Microfilm, Traffic Counts, Existing R.O.W., Bicycle and other information from CMAP and locals, etc.	10	
Determine Property Information for adjacent properties	<u> </u>	
Field trips to area (includes taking photos & topo check)	0	
$_2$ trips x _6_ hours/trip x _2_ persons	24	\$134.00
Traffic Counts and Field Observations	27	
Traffic Turning Counts Coordination (Miovision) (\$90/hr video processing)	4	\$10,800.00
LCDOT provided Traffic Data Review and Formatting	8	<i><i><i>ϕ</i> 10,000.00</i></i>
Field Observation (2 people x 4 hrs x 2 visits (weekday/weekend))	16	
JULIE and Local Utility Coordination	16	
Geotechnical Coordination	4	
Topographic Survey Coordination & Review	8	
SUBTOTALS =	112	\$10,934.00
2 Topographic Survey		
Provided by American Survey (See Attached CECS)		
SUBTOTALS =	0	\$0.00
3 Environmental Studies		
Environmental Survey Request	32	
4 sheets @ 8 hrs / sheet		
COSIM worksheets for traffic signals _5_ Traffic signals x _4_ hours per signal	20	
Waters of the US impact evaluation	20 N/A	
Determination of potential Section 4(f) issues	IN/A	
Check for public lands affected by proposed ROW	N/A	
	IN/A	
SUBTOTALS =	52	0
		-
4 Public Involvement		
Draft initiation letters to property owners & Village w/ exhibits		
4 property owners + Village of Gurnee @ 2 hrs /each	10	
Attendance at dry run for stakeholder meeting		¢60.00
2 people x 4 hours	8	\$62.00
Meetings with Stakeholders to present preliminary alternatives		
5 meetings x 2 people x 4 hours / meeting	40	\$310.00
Compile mailing list (including all adjacent property owners)	12	
Preparation of Public Meeting materials		
Postcards / Advertising	40	\$1,000.00
Meeting Handout	40	
Display exhibits (Introduction, Location Map, ADT, Crash Summary, Typical		\$75.00
Sections, Preferred Plan, Schedule, etc.)	80	÷. 0.00
Audio/visual presentation	40	



TASK & DESCRIPTION	WORK HOURS	DIRECT COST
Field check and secure location for public meeting	8	\$500.00
Court Reporter	N/A	
Attendance at "Dry Run" for Public Meeting		\$62.00
2 people x 4 hours	8	Ψ02.00
Attendance at Public Meeting		\$67.00
4 people x 8 hours	32	φ07.00
Compile comments and write summary of Public Meeting	8	
Preparation of newsletter and/or draft response letters	60	
Website Content and Updates	24	
SUBTOTALS =	410	\$2,076.00
5 Crash and Safety Analysis		
Review crash data and summarize (For 5 years of data)	40	
8 hrs / intersection		
Safety analysis and counter measures	32	
SUBTOTALS =	72	0
6 Capacity Analysis and Intersection Design Studies		
Synchro Analysis		
8 hrs/model x 4 peak periods x 3 models (3 Alternatives)	96	
Weekday AM / Noon / PM Peak, Weekend Peak Hour	30	
HCS Capacity Analysis	24	
4 hours x 2 peak periods x 3 intersections	27	
Intersection Design Studies	144	
3 intersection x 48 hrs / intersection		
SUBTOTALS =	264	0
7 Geometric Studies		
Develop Design Criteria	4	
Determine Facility Deficiencies	8	
Develop preliminary alternatives - includes plan view, storage, and tapers	120	
Three alternatives @ 40 hrs each		
Plan & Profile: Project length = 5,600 feet. One 1" = 50' sheet = 1500'. 5600'/1500' =		
4 sheets. 4 Sheets x 40 WH/sheet	160	
Cross-section Studies		
Includes test cross-sections in critical areas and final cross-sections at every 50'	52	
plus cross streets and driveways	02	
52 cross sections at 1 hours/ cross section		
Clear zone analysis and barrier warrant length of need		
1 location x 8 hrs (SW ditch)	8	
Typical Cross-sections	-	
8 typical cross-sections x 4 WH/section	32	
Plot Proposed R.O.W. Line (including stations and offsets for all break points)	8	
SUBTOTALS =	392	0



TASK & DESCRIPTION	WORK HOURS	DIRECT COST
8 Traffic Management Plan		
Determination of traffic maintenance (stages)	24	
Determination of Work Zone Safety and Mobility Goals		
Perform queuing analysis using Synchro	16	
Traffic Management Plan report		
Write text and draft exhibits for TMP report	32	
Process exception to Work Zone Safety and Mobility Rule (if applicable)	8	
SUBTOTALS =	80	\$0.00
9 Drainage Studies		
Storm Sewer Televising		
Review DVD and prepare recommendations w/ exhibits (8 hrs / approach)	32	
Existing Drainage System		
General Location Drainage Map	16	
Existing Drainage Plan (4 sheets @ 24 hrs/sheet)	96	
Identified Drainage Problems	8	
Major Drainage Features	8	
Proposed Drainage System		
Design Criteria	4	
Outlet Evaluation	4	
Storm Sewer Capacity (HGL)	40	
Stormwater Detention Analysis (8 hrs / quadrant)	32	
Drainage Alternatives (SW Corner)	16	
Cross Section Review (48 X-Sec @ 1 hr / X-Sec)	48	
Proposed Drainage Plan (4 sheets @ 24 hrs/sheet)	96	
Temporary Drainage Connections (Identify)	8	
Control Structure Exhibit	8	
Draft LDS Technical Memorandum		
Narrative	12	
Water Quality BMP White Paper	4	
Erosion and Sediment Control Data References	8	
Tabulate Calculations	4	
Wetland / FIRM Exhibits	4	
Study Assembly	8	\$100.00
Final LDS Technical Memorandum		
Revisions / Disposition	24	<b>A</b> 465.55
Study Assembly	8	\$100.00
SUBTOTALS =	488	\$200.00
10 Cost Estimates		
Prepare preliminary cost estimates for 3 alternatives	48	
3 alternatives @ 16 hrs / alternative		
Update cost estimate for preferred alternative	8	
Prepare final cost estimate for PDR	4	
SUBTOTALS =	60	0.00
SUBTOTALS =	60	\$0.00



TASK & DESCRIPTION	WORK HOURS	DIRECT COST
11 Project Development Report		
Prepare Draft Project Development Report		
Compile exhibits, correspondence/documentation, and supplements	8	
Write report, proofread, and edit	60	
Combine Draft PDR into Portable Document Format (PDF)	4	
Print, bind, and deliver four copies of the Draft PDR	8	\$400.00
Prepare Final Project Development Report		
Incorporate Public Hearing information	16	
Address comments from draft report and revise exhibits	24	
Revise PDF of Project Report, recognize text and provide bookmarks	4	
Printing, binding and delivery		\$500.00
Assume 5 hard copies and 5 CDs of Project Report	8	
SUBTOTALS =	132	\$900.00
12 Meetings and Coordination		
Village of Gurnee Meetings		
5		<b>•</b> • • • • • •
Kickoff Meeting (2 people x 4 hours) Present Alternatives (2 people x 4 hours)		\$186.00
	24	
Present Preffered Geometry (2 people x 4 hours)	24	
LCDOT Meetings		
Pre-boring geotech meeting (1 person x 4 hours)		<b>A</b> O 40 00
Post-boring geotech meeting (1 person x 4 hours)		\$248.00
Present Alternatives (2 people x 4 hours)		
Present Preffered Geometry (2 people x 4 hours)	24	
IDOT Meetings		<b>.</b>
Present Alternatives (2 people x 4 hours)		\$96.00
Present Preffered Geometry (2 people x 4 hours)	16	
BDE/FHWA meeting		\$96.00
2 meetings x 2 people x 4 hours	16	<b>\$00.00</b>
PACE Meeting		\$43.00
_1_ people x 4_ hours	4	φ+0.00
Internal Coordination Meetings		
_4_ people x _1_ hour x 3 meetings	12	
SUBTOTALS =	06	00.002
	96	\$669.00
13 Administration and Management		
Administration (4 hrs/month x 18 months)	72	
	•=	
SUBTOTALS =	72	\$0.00
	. –	<b>****</b>
14 QA/QC		
Review of milestone submittals (4% of total)	87	
SUBTOTALS =	87	\$0.00
TOTAL =	0017	<b>A</b> 44 <b></b>
TOTAL =	2317	\$14,779.00





January 20, 2016

Subject: PRELIMINARY ENGINEERING Consultant Unit Prequalification File

Bruce Worthington STANLEY CONSULTANTS, INC. 8501 W. Higgins Road Suite 730 Chicago, IL 60631

Dear Bruce Worthington,

We have completed our review of your "Statement of Experience and Financial Condition" (SEFC) which you submitted for the fiscal year ending Mar 31, 2015. Your firm's total annual transportation fee capacity will be \$40,000,000.

Your firm's payroll burden and fringe expense rate and general and administrative expense rate totaling 153.11% are approved on a provisional basis. The rate used in agreement negotiations may be verified by our Office of Quality Compliance and Review in a pre-award audit.

Your firm is required to submit an amended SEFC through the Engineering Prequalification & Agreement System (EPAS) to this office to show any additions or deletions of your licensed professional staff or any other key personnel that would affect your firm's prequalification in a particular category. Changes must be submitted within 15 calendar days of the change and be submitted through the Engineering Prequalification and Agreement System (EPAS).

Your firm is prequalified until March 31, 2016. You will be given an additional six months from this date to submit the applicable portions of the "Statement of Experience and Financial Condition" (SEFC) to remain prequalified.

Sincerely, Maureen M. Addis Acting Bureau Chief Bureau of Design & Environment

# SEFC PREQUALIFICATIONS FOR STANLEY CONSULTANTS, INC.

CATEGORY	STATUS
Location Design Studies - Reconstruction/Major Rehabilitation	Х
Hydraulic Reports - Waterways: Typical	Х
Structures - Highway: Complex	Х
Special Studies - Location Drainage	Х
Airports - Design	Х
Special Studies - Feasibility	Х
Special Services - Mechanical	Х
Special Services - Landscape Architecture	Х
Structures - Highway: Advanced Typical	Х
Environmental Reports - Environmental Assessment	Х
Special Studies - Traffic Signals	Х
Hydraulic Reports - Pump Stations	Х
Special Studies - Lighting: Typical	A
Special Studies - Lighting: Complex	A
Location Design Studies - Rehabilitation	Х
Special Studies - Pump Stations	Х
Geotechnical Services - General Geotechnical Services	Х
Special Services - Sanitary	Х
Special Services - Construction Inspection	Х
Highways - Freeways	Х
Special Studies - Safety	Х
Airports - Planning & Special Services	Х
Special Studies - Traffic Studies	Х
Hydraulic Reports - Waterways: Complex	Х
Structures - Highway: Simple	Х
Structures - Railroad	Х
Structures - Highway: Typical	Х
Location Design Studies - New Construction/Major Reconstruction	Х
Highways - Roads and Streets	Х
Special Services - Electrical Engineering	Х
Structures - Moveable	A
Structures: Major River Bridges	A

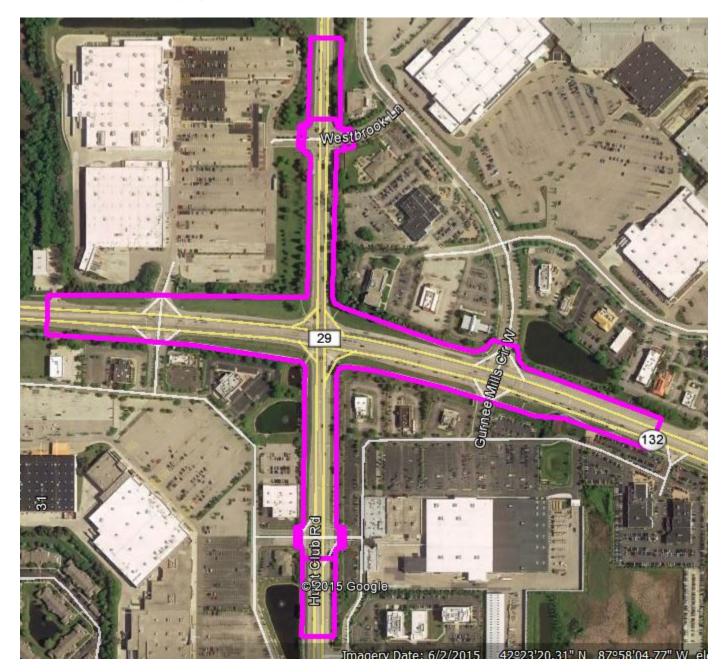
Х	PREQUALIFIED
А	NOT PREQUALIFIED, REVIEW THE COMMENTS UNDER CATEGORY VIEW FOR DETAILS IN EPAS.
S	PREQUALIFIED, BUT WILL NOT ACCEPT STATEMENTS OF INTEREST

Project: Location: Job Number	Predesign & ROW Verification Hunt Club Road at IL Route 132	Agent: Client: Date:	Stanley Consultants Lake County DOT December 29, 2015 <b>Revised 1/21/16</b>
	ASE Project N	<b>Vo.:</b> 215201	
	SCOPE O	F WORK	

### **PROJECT SUMMARY:**

**Project Description:** The project requires Professional Survey Services to perform a predesign survey and verify Right of Way for the improvement of the intersection of Hunt Club Road and IL Route 132.

As shown below are the project limits:



 Project:
 Predesign & ROW Verification
 Agent:
 Stanley Consultants

 Location:
 Hunt Club Road at IL Route 132
 Client:
 Lake County DOT

 Job Number
 Date:
 Date:
 December 29, 2015 Revised 1/21/16

 SCOPE OF WORK
 Content in the standard in

Surveyors + Engineers + Geodesists + Mapping Scientists

# General Scope Information:

- All horizontal measurements will be performed in NAD 83 Illinois State Plane Grid Coordinates, East Zone. Horizontal measurements will be done to 3<sup>rd</sup> Order Accuracy.
- 2) All vertical measurements will be performed in NAVD 88. Vertical measurements will be done to 3<sup>rd</sup> Order Accuracy. Vertical control will be transferred to project site by GPS.
- **3)** This proposal assumes that all previous horizontal and vertical survey control survey information, base topographic sheets, right-of-way plans, construction plans, plats of highway, and section corner data will be furnished to ASE, at no cost, prior to commencement of the work.
- 4) This proposal assumes that ASE will establish the alignment. (Note: As expressed in Design Survey Procedures as issued by Lake County DOT and Revised 10-22-15, the CONSULTANT shall contact LCDOT's Land Surveyor to obtain R.O.W. plats and field notes before establishing the horizontal alignment and stationing. The CONSULTANT shall notify LCDOT's Surveyor immediately if the alignment cannot be reproduced or if in the CONSULTANT'S opinion the existing alignment information is in error.
- 5) ASE has not included any IDOT style Hydraulic creek or stream surveys as part of this proposal.
- 6) ASE has not included any bridge structure survey and details as part of this proposal.
- 7) ASE estimates total project length to 5,600 feet.
- 8) If weather prohibits or reduces the ability to perform field operations, ASE will identify, estimate the additional cost to continue, and request direction from Agent.

# THE FOLLOWING TASKS WILL BE PERFORMED BY ASE AS PART OF THIS CONTRACT:

# 1. ADMINISTRATION

- 1.1. Meetings with client. In-house meetings. Progress reports, scheduling, invoicing, etc.
- 1.2. Technical direction of staff.
- 1.3. Project management, coordination.

# 2. DATA COMPILATION

- 2.1. County records and other research for survey data, as required.
- 2.2. Review existing / furnished survey information.
- 2.3. Catalog and summarize data and transfer to working drawings.

# 3. HORIZONTAL CONTROL

- 3.1. In coordination with LCDOT's Land Surveyor, ASE will identify and locate existing horizontal control monuments and densify secondary control where necessary.
- 3.2. GPS/Traverse through found monuments and secondary control points, as required.
- 3.3. Office calculations, adjustment, tabulations of coordinates, and working drawings.

# 4. VERTICAL CONTROL

- 4.1. In coordination with LCDOT's Land Surveyor, ASE will identify and locate existing vertical control monuments and densify secondary vertical control where necessary.
- 4.2. Differential level through found monuments and secondary control as required.
- 4.3. Office calculations and adjustment of vertical data.

### Page 2 of 4

 Surveyors • Engineers • Geodesists • Mapping Scientists

 Project:
 Predesign & ROW Verification
 Agent:
 Stanley Consultants

 Location:
 Hunt Club Road at IL Route 132
 Client:
 Lake County DOT

 Job Number
 Date:
 December 29, 2015 Revised 1/21/16

 SCOPE OF WORK
 Scope OF WORK

# 5. VERIFY HORIZONTAL ALIGNMENT

- 5.1. Perform survey measurements necessary to determine horizontal alignment.
- 5.2. Office calculations to establish horizontal alignment.

5.3. Stake POTs, PCs, PTs.

# 6. ROW VERIFICATION Note: This will not result in a boundary survey as required to determine property rights.

- 6.1. Locate existing ROW monuments, markers, fences and occupation.
- 6.2. Calculate Record Right of Way from plats, legals, and plans.
- 6.3. Estimate Record Right of Way based on monuments and occupation found.

# 7. TOPOGRAPHIC SURVEY

- 7.1. Locate visible topographic features:
  - Including the locations of pavements, curbs, medians, manholes, catch basins, inlets, culverts, valve vaults and their associated inverts or pipe elevations. Also including trees six inches in diameter at breast height. Also, including fire hydrants, utility poles, signs, traffic signals, light poles, fences and walls.
- 7.2. Office calculations for horizontal and vertical data, download, editing and reports
- 7.3. Perform electronic drafting of topographic features in MicroStation.

# 8. CROSS SECTIONS

- 8.1. Perform 3D elevation survey of contours equivalent of cross sections at 50 foot intervals.
- 8.2. Office calculations for horizontal and vertical data.
- 8.3. Perform electronic drafting of contours.
- 9. DRAINAGE SURVEY Note: Manholes or other confined spaces (as defined by OSHA) will not be entered or cleaned. Invert elevation, pipe size/type will be obtained from surface level and should be used as a check on plan information only. For design purposes field verification by below grade examination should be performed.

# (Note: ASE assumes 70 hydraulic facilities will be detailed).

- 9.1. Survey accessible features of the closed hydraulic system.
- 9.2. Survey open system on west leg of the project.
- 9.3. Provide detail sketches of all accessible hydraulic structures.

# **10. FIELD CHECK BASE DRAWINGS**

- 10.1. Field check base drawings.
- 10.2. Prepare final electronic submittal for client.

# 11. QA/QC

- 11.1. Review contract documents and develop QA/QC plan.
- 11.2. Perform QA/QC reviews.
- 11.3. Prepare QA/QC report.

 Project:
 Predesign & ROW Verification
 Agent:
 Stanley Consultants

 Location:
 Hunt Club Road at IL Route 132
 Client:
 Lake County DOT

 Job Number
 Date:
 Date:
 December 29, 2015 Revised 1/21/16

 Scope of WORK
 Scope of WORK

# ASE WILL DELIVER TO CLIENT THE FOLLOWING ITEMS AS PART OF THIS WORK:

- A. Electronic CAD file in MicroStation.
- B. Drainage Structure Detail Sheets.

# ITEMS TO BE SUPPLIED BY OTHERS:

- **A.** Previous horizontal survey control survey information, topographic base sheets, right-of-way plans, centerline alignment, construction plans, and plats of highway will be furnished to ASE, at no cost to ASE, prior to commencement of operations.
- **B.** Proposed right-of-way, access control, and easement data.

# DIRECT COSTS

A. Traffic control, assume two days at \$1,000 a day for underground utility details in the roadway.



#### PROJECT: Predesign Survey

UNYEYING & ENGINEERING, P.C. LOCATION: Hunt Club Rd at IL 132 in Gurnee Lake C PROPOSAL No.:

**CLIENT: Stanley Consultants** 

215201 1/21/2016

TASK	1.0 Administration											Man	Hours										
ITEM	Description	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
1.1	Meetings, reports, scheduling, etc.		2	2																			4
1.2	Technical Direction of Staff			3																			3
1.3	Project management & coord.		1	2																			3
1.4																							0
1.5																							0
1.6																							0
1.7																							0
1.8																							0
1.9																							0
			_	_		_	_			_	_					_	_						0
	TOTAL HOURS	0	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10

DATE:

TASK	2.0 Data Compilation											Man	Hours										
ITEM	Description	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
2.1	County Records, other research			2																			2
2.2	Review existing/furnished			2																			2
2.3	Catalog and transfer to drawings			2																			2
2.4																							0
2.5																							0
2.6																							0
2.7																							0
2.8																							0
2.9																							0
																							0
	TOTAL HOURS	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

TASK	3.0 Horizontal Control											Man	Hours										
ITEM	Description	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
3.1	Recon. & locate existing mon's.			1						1	1												3
3.2	Traverse/GPS			1						8	8												17
3.3	Office Calc's.		1	1		4																	6
3.4																							0
3.5																							0
3.6																							0
3.7																							0
3.8																							0
3.9																							0
																							0
	TOTAL HOURS	0	1	3	0	4	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	26

TASK	4.0 Vertical Control											Man	Hours										
ITEM	Description	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
4.1	Recon & locate existing mon's			1						1	1												3
4.2	Differential level/secondary control			1						7	7												15
4.3	Office Calc's		1	1		4																	6
4.4																							0
4.5																							0
4.6																							0
4.7																							0
4.8																							0
4.9																							0
																							0
	TOTAL HOURS	0	1	3	0	4	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	24

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PROJECT: Predesign Survey LOCATION: Hunt Club Rd at IL 132 in Gurnee Lake (PROPOSAL No.

215201

**CLIENT: Stanley Consultants** 

1/21/2016

TASK	5.0 Horizontal Alignment											Man	Hours										
	Description	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
	Measure for alignments	110	1 101	10/24	10/20	10/22	10/21	UADD	014	10	10		11011 4	11011 0	NOW 2	Row I	001 0	0012	002 1	oonna.	ROS	7402	20
5.2	Office Calc's			2		6																	8
5.3	Stake POTs, PCs, PT			0		0		0		0	0												0
5.4																							0
5.5																							0
5.6																							0
5.7																							0
5.8																							0
5.9		_																					0
	TOTAL HOURS	0	0	2	0	6	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0 28
p	·																						
	6.0 ROW Verification												Hours										
	Description	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2		ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
	Locate existing ROW mon's	_								6	6												12
	Calculate Record ROW			2		4																	6
	Estimate Record ROW	_	1	2		8		8												-			19
6.4 6.5						<u> </u>														<u> </u>	<u> </u>		0
6.5 6.6	1	1						1															0
6.7																							0
6.8																-							0
6.9																							0
																							0
	TOTAL HOURS	0	1	4	0	12	0	8	0	6	6	0	0	0	0	0	0	0	0	0	0	0	37
TACK	7.0 Topographic Survey											Man	Hours										
	Description					P S/E 2		CADD				ST1			ROW 2								
	Scan/Locate Topo	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3 12	ST2 12		ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL 25
7.1	Office Calc's of data		-	2		4		18		12	12					-							25
7.2	Electronic drafting of features		1	2		4		28															31
7.4	Liectionic diating of leatures		- '	2				20															0
7.5																							0
7.6																							0
7.7																							
7.8																							0
																							0
7.9																							0 0 0
7.9																							0 0 0
7.9	TOTAL HOURS	0	1	5	0	4	0	46	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0 0 0
	TOTAL HOURS 8.0 Cross Sections	0	1	5	0	4	0	46	0	12	12		0 Hours	0	0	0	0	0	0	0	0	0	0 0 0
TASK	•	0 PIC	1 PM			4			0 ST4	12 ST3	12 ST2	Man	Hours	0 ROW 3	0 ROW 2		0 SUE 3	0 SUE 2	0 SUE 1			0 A/C 2	0 0 0
TASK ITEM	8.0 Cross Sections Description											Man	Hours										0 0 0 0 80
TASK ITEM 8.1	8.0 Cross Sections			P S/E 4			P S/E 1			ST3		Man	Hours										0 0 0 80 TOTAL 21 8
TASK ITEM 8.1	8.0 Cross Sections Description 3D elevation survey of contours			P S/E 4		P S/E 2	P S/E 1			ST3		Man	Hours										0 0 0 80 TOTAL 21
TASK ITEM 8.1 8.2	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2		P S/E 2	P S/E 1	CADD		ST3		Man	Hours										0 0 0 80 TOTAL 21 8
<b>TASK</b> ITEM 8.1 8.2 8.3 8.4 8.5	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2		P S/E 2	P S/E 1	CADD		ST3		Man	Hours										0 0 0 80 TOTAL 21 8 222 0 0 0 0
TASK           ITEM           8.1           8.2           8.3           8.4           8.5           8.6	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2		P S/E 2	P S/E 1	CADD		ST3		Man	Hours										0 0 0 80 107AL 21 8 8 222 0 0 0 0 0
TASK           ITEM           8.1           8.2           8.3           8.4           8.5           8.6           8.7	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2		P S/E 2	P S/E 1	CADD		ST3		Man	Hours										0 0 0 80 10TAL 21 8 222 0 0 0 0 0 0 0
TASK           ITEM           8.1           8.2           8.3           8.4           8.5           8.6           8.7           8.8	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2		P S/E 2	P S/E 1	CADD		ST3		Man	Hours										0 0 0 80 10 10 10 10 10 0 0 0 0 0 0 0 0
TASK           ITEM           8.1           8.2           8.3           8.4           8.5           8.6           8.7	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2		P S/E 2	P S/E 1	CADD		ST3		Man	Hours										0 0 0 80 10 10 10 10 10 10 10 10 10 10 10 10 10
TASK           ITEM           8.1           8.2           8.3           8.4           8.5           8.6           8.7           8.8	8.0 Cross Sections Description 3D elevation survey of contours Office Calc's		PM	P S/E 4 1 2	P S/E 3	P S/E 2	P S/E 1	20	ST4	ST3 20		Man ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	0 0 0 80 107AL 21 8 222 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

DATE:

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RUNTING & LINGINEERING, CC RUNTING & LINGINEERING, CC LOCATION: Hunt Club Rd at IL 132 in Gurnee Lake CPROPOSAL No.:

DATE:

215201

CLIENT: Stanley Consultants

1/21/2016

INON	9.0 Drainage Survey											Man	Hours										
ITEM	Description	PIC	PM	PS/E4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
9.1	Features of closed system			1	Î	2				4	4		Ī	1									11
9.2	Open system on west side			1		2				4	4												11
9.3	Sketches of structures			1		2		4		12	12												31
9.4																							0
9.5																							0
9.6																							0
9.7																							0
9.8																							0
9.9																							0
		0	0	-		6	0	4	0	20	20	0	0	0	0	0	0			0	0	0	50
J	TOTAL HOURS	0	0	3	0	6	0	4	0	20	20	0	0	0	0	0	0	0	0	0	0	0	53
TASK	10.0 Field Check Base Drawings											Man	Hours										
	Description	PIC	PM	D S/E /	P S/E 3	D C/E 2	D C/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	POW 2	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
10.1	Field check base drawings	FIL	r'ivi	r 3/⊏ 4	F 3/E 3	r J/E Z	r J/⊑ T	GRUU	014	10			1.011 4	1.000 3	NOW 2	NOW 1	50E 3	30E 2	JUE 1	SONTK.	NU 3	N/0 2	20
10.1	Prepare electronic submittal			1	<u> </u>	2		4		10	.0			<u> </u>					1				7
10.2				<u> </u>	l								1	l					1				0
10.4																							0
10.5					l									l				1	1				0
10.6																							0
10.7																							0
10.8																							0
10.9																							0
																							0
	TOTAL HOURS	0	0	1	0	2	0	4	0	10	10	0	0	0	0	0	0	0	0	0	0	0	27
												Man	11										
ITASK	11 QA/QC																						
	11 QA/QC	210		D.0/F.4	D 0/F 0	D. 0/F. 0	D. 0/F 4	0100	074	070	070		Hours	DOWA	DOW	<b>DOM</b> 4	0.15.0	0.15.0		001/70			TOTAL
ITEM	Description	PIC	PM		P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1		ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
ITEM 11.1	Description Review documents, develop plan	PIC	РМ 0.5	2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
ITEM 11.1 11.2	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5	2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	2.5 2
ITEM 11.1 11.2 11.3	Description Review documents, develop plan	PIC		2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	
ITEM 11.1 11.2 11.3 11.4	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5	2		P S/E 2	PS/E1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	2.5 2
ITEM 11.1 11.2 11.3 11.4 11.5	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5	2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	2.5 2
ITEM 11.1 11.2 11.3 11.4	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5	2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	2.5 2
ITEM 11.1 11.2 11.3 11.4 11.5 11.6	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5	2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	2.5 2 2.5 0 0
ITEM 11.1 11.2 11.3 11.4 11.5 11.6 11.7	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5	2		P S/E 2	P S/E 1	CADD	ST4	ST3	ST2			ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	2.5 2 2.5 0 0
ITEM 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report		0.5									ST1	ROW 4									A/C 2	2.5 2 2.5 0 0 0 0 0
ITEM 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8	Description Review documents, develop plan Perform QA/QC reviews	PIC	0.5									ST1	ROW 4										2.5 2 2.5 0 0 0 0 0 0 0
ITEM 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report		0.5									ST1	ROW 4										2.5 2 2.5 0 0 0 0 0 0 0 0 0 0
ITEM 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9 <b>TASK</b>	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7
ITEM 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9 <b>TASK</b> ITEM	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report		0.5		0	0		0				ST1	ROW 4	0	0					0			2.5 2 2.5 0 0 0 0 0 0 0 0 0 0
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           TASK           ITEM           12.1           12.2	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 7 7 7 7 7
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           ITEM           ITEM           12.1           12.2           12.3	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           TASK           ITEM           12.1           12.2           12.3           12.4	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7 7 7 7 7 7 7 0 0 0 0
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           TASK           ITEM           12.1           12.3           12.4           12.5	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 7 7 7 7 7
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           ITEM           ITEM           12.1           12.2           12.3           12.4           12.5           12.6	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7 7 7 7 7 7 7 0 0 0 0
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           ITEM           ITEM           12.1           12.2           12.3           12.4           12.5           12.6           12.7	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7 7 7 7 7 7 7 0 0 0 0
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           TASK           ITEM           12.2           12.3           12.4           12.5           12.6           12.7           12.8	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7 7 7 7 7 7 7 0 0 0 0
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           ITEM           ITEM           12.1           12.2           12.3           12.4           12.5           12.6           12.7	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2222	0	0	0	0	0	0	0	ST1	ROW 4	0	0	0	0			0	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7 7 7 7 7 7 7 0 0 0 0
ITEM           11.1           11.2           11.3           11.4           11.5           11.6           11.7           11.8           11.9           TASK           ITEM           12.2           12.3           12.4           12.5           12.4           12.5           12.6           12.7           12.8	Description Review documents, develop plan Perform QA/QC reviews Prepare QA/QC report TOTAL HOURS	0	0.5	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 P S/E 3	0 P S/E 2	0 P S/E 1	CADD	0 ST4	0	0 ST2	0 0 Man ST1	ROW 4	0	0 ROW 2	0	SUE 3	SUE 2	SUE 1	CONTR.	0	0	2.5 2 2.5 0 0 0 0 0 0 0 0 7 7 7 7 7 7 7 0 0 0 0

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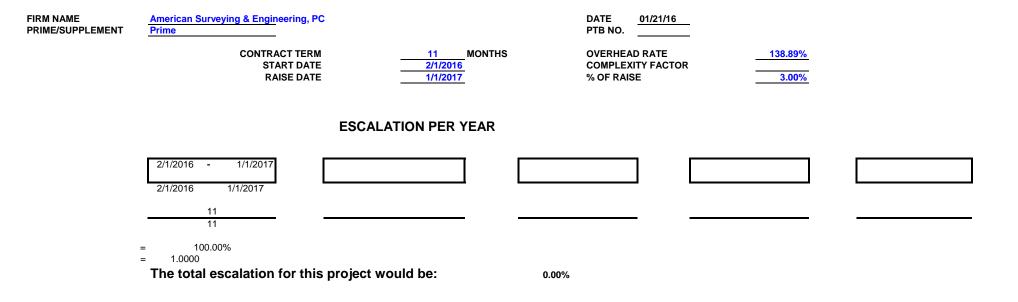


#### PROJECT: Predesign Survey

LOCATION: Hunt Club Rd at IL 132 in Gurnee Lake County CLIENT: Stanley Consultants PROPOSAL No. : 215201 DATE: 1/21/2016

SUMMARY OF TASKS													MANH	OURS								
TASK	PIC	PM	P S/E 4	P S/E 3	P S/E 2	P S/E 1	CADD	ST4	ST3	ST2	ST1	ROW 4	ROW 3	ROW 2	ROW 1	SUE 3	SUE 2	SUE 1	CONTR.	A/C 3	A/C 2	TOTAL
1.0 Administration	0	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
2.0 Data Compilation	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
3.0 Horizontal Control	0	1	3	0	4	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	26
4.0 Vertical Control	0	1	3	0	4	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	24
5.0 Horizontal Alignment	0	0	2	0	6	0	0	0	10	-	0	0	0	0	0	0	0	0	0	0	0	28
6.0 ROW Verification	0		4	0	12	0			6		0	v	0		0	0	0		0	0	0	37
7.0 Topographic Survey	0		5	0	4	0	46		12	12	0	0	v		0	0	0	v	0	0	0	80
8.0 Cross Sections	0		4	0			20	0	20	0	0	v	v	0	0	0		v	-	0	•	51
9.0 Drainage Survey	0	v	3	0	6	0	4	0	20	20	0	0	-	0	0	0	0	•	-	0	0	53
10.0 Field Check Base Drawing	0	0	1	0	2	0	4	0	10	10	0	0	0	0	0	0	0	0	0	0	0	27
11 QA/QC	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	0	0
0	0	v	0	0	0	0	0		0	0	0	0	v	0	0	0	0	v		0	0	0
0	0	v	0	0	0	0	0		0	0	0	-		0	0	0	0	-	-	0		-
0	0	-	0	0		÷	-	-	0	0	0	0	-	0	0	0	÷	Ū	-	0	-	-
Total Hours	0	9	44	0	44	0	82	0	95	75	0	0	0	0	0	0	0	0	0	0	0	349

### PAYROLL ESCALATION TABLE FIXED RAISES



# PAYROLL RATES

American Surveying & Engineering, Prime DATE

01/21/16

FIRM NAME PRIME/SUPPLEMENT PTB NO.

**ESCALATION FACTOR** 

0.00%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal-in Charge	\$70.00	\$70.00
Project Manager	\$67.71	\$67.71
Project Surveyor/Engineer_4	\$66.71	\$66.71
Project Surveyor/Engineer_3	\$53.62	\$53.62
Project Surveyor/Engineer_2	\$36.50	\$36.50
Project Surveyor/Engineer_1	\$36.00	\$36.00
CADD Technicians	\$34.10	\$34.10
Engr. / Survey Tech. 4	\$51.26	\$51.26
Engr. / Survey Tech. 3	\$36.13	\$36.13
Engr. / Survey Tech. 2	\$26.15	\$26.15
Engr. / Survey Tech. 1	\$18.29	\$18.29
ROW Specialist_4	\$51.26	\$51.26
ROW Specialist_3	\$38.00	\$38.00
ROW Specialist_2	\$31.00	\$31.00
ROW Specialist_1	\$17.00	\$17.00
S.U.E. Tech. Grade 3	\$36.44	\$36.44
S.U.E. Tech. Grade 2	\$23.25	\$23.25
S.U.E. Tech. Grade 1	\$18.64	\$18.64
Deputy Controller/Admin Manager	\$21.50	\$21.50
Administrative/Clerical 3	\$19.50	\$19.50
Administrative/Clerical 2	\$16.00	\$16.00

# **Subconsultants**

American Surveying & Engineering, PC FIRM NAME PRIME/SUPPLEMENT Prime PTB NO.

NAME **Contribution to Prime Consultant Direct Labor Total** 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Total

DATE

01/21/16

0.00

# COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

DF-824-039 REV 12/04

FIRM	American Surveying & Eng	ineering, PC		DATE
PTB		OVERHEAD RATE	1.3889	
PRIME/SUPPLEMENT	Prime	COMPLEXITY FACTOR	0	

DBE				OVERHEAD	IN-HOUSE		Outside	SERVICES		
DROP	ITEM	MANHOURS	PAYROLL	&	DIRECT	FIXED	Direct	BY	DBE	TOTAL
BOX				FRINGE BENF	COSTS	FEE	Costs	OTHERS	TOTAL	
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(B-G)
DBE	1.0 Administration	10	670.10	930.70		232.12			1,832.92	1,832.92
DBE	2.0 Data Compilation	6	400.26	555.92		138.65			1,094.83	1,094.83
DBE	3.0 Horizontal Control	26	974.36	1,353.29		337.51			2,665.16	2,665.16
DBE	4.0 Vertical Control	24	912.08	1,266.79		315.94			2,494.80	2,494.80
DBE	5.0 Horizontal Alignment	28	975.22	1,354.48		337.81			2,667.51	2,667.51
DBE	6.0 ROW Verification	37	1,419.03	1,970.89		491.54			3,881.46	3,881.46
DBE	7.0 Topographic Survey	80	2,863.22	3,976.73		991.79			7,831.74	7,831.74
DBE	8.0 Cross Sections	51	1,958.15	2,719.67		678.28			5,356.11	5,356.11
DBE	9.0 Drainage Survey	53	1,801.13	2,501.59		623.89			4,926.61	4,926.61
DBE	10.0 Field Check Base D	27	898.91	1,248.50		311.37			2,458.78	2,458.78
DBE	11 QA/QC	7	467.97	649.96		162.10			1,280.03	1,280.03
DBE	0								0.00	
DBE	0								0.00	
DBE	Direct Costs	0	0.00	0.00		0.00			0.00	0.00
DBE	Traffic Control		0.00	0.00		0.00	2,000.00		2,000.00	2,000.00
DBE	0								0.00	
DBE	0								0.00	
DBE	0								0.00	
DBE	0								0.00	
DBE	0								0.00	
	Subconsultant DL					0.00				0.00
	TOTALS	349	13,340.43	18,528.52	0.00	4,621.00	2,000.00	0.00	38,489.95	38,489.95

# PREPARED BY THE AGREEMENTS UNIT

DF-824-039 REV 12/04

# **AVERAGE HOURLY PROJECT RATES**

FIRM American Surveying & Engineering, PC

Prime

PTB

DATE 01/21/16

PRIME/SUPPLEMENT

SHEET

1 OF 1

PAYROLL	AVG	TOTAL PROJECT RATES			1.0 Adr	ministratio	า	2.0 Dat	a Compil	ation	3.0 Hor	izontal Co	ntrol	4.0 Ver	tical Conti	ol	5.0 Hor	izontal Al	lignment
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Principal-in Charge	70.00	0			0			0			0			0			0		
Project Manager	67.71	9	2.58%	1.75	3	30.00%	20.31	0			1	3.85%	2.60	1	4.17%	2.82	0		
Project Surveyor/Engineer_4	66.71	44	12.61%	8.41	7	70.00%	46.70	6	#######	66.71	3	11.54%	7.70	3	12.50%	8.34	2	7.14%	4.77
Project Surveyor/Engineer_3	53.62	0			0			0			0			0			0		
Project Surveyor/Engineer_2	36.50	44	12.61%	4.60	0			0			4	15.38%	5.62	4	16.67%	6.08	6	21.43%	7.82
Project Surveyor/Engineer_1	36.00	0			0			0			0			0			0		
CADD Technicians	34.10	82	23.50%	8.01	0			0			0			0			0		
Engr. / Survey Tech. 4	51.26	0			0			0			0			0			0		
Engr. / Survey Tech. 3	36.13	95	27.22%	9.83	0			0			9	34.62%	12.51	8	33.33%	12.04	10	35.71%	12.90
Engr. / Survey Tech. 2	26.15	75	21.49%	5.62	0			0			9	34.62%	9.05	8	33.33%	8.72	10	35.71%	9.34
Engr. / Survey Tech. 1	18.29	0			0			0			0			0			0		
ROW Specialist_4	51.26	0			0			0			0			0			0		
ROW Specialist_3	38.00	0			0			0			0			0			0		
ROW Specialist_2	31.00	0			0			0			0			0			0		
ROW Specialist_1	17.00	0			0			0			0			0			0		
S.U.E. Tech. Grade 3	36.44	0			0			0			0			0			0		
S.U.E. Tech. Grade 2	23.25	0			0			0			0			0			0		
S.U.E. Tech. Grade 1	18.64	0			0			0			0			0			0		
Deputy Controller/Admin Mana	21.50	0			0			0			0			0			0		
Administrative/Clerical 3	19.50	0			0			0			0			0			0		
Administrative/Clerical 2	16.00	0			0			0			0			0			0		
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		349	100%	\$38.22	10	100.00%	\$67.01	6	100%	\$66.71	26	100%	\$37.48	24	100%	\$38.00	28	100%	\$34.83

DF-824-039 REV 12/04

# AVERAGE HOURLY PROJECT RATES

American Surveying & Engineering, PC

Prime

PTB

FIRM

PRIME/SUPPLEMENT

DATE 01/21/16

SHEET

2 OF 1

PAYROLL	AVG	6.0 ROW	Verification	ı	7.0 Topo	ographic Su	rvey	8.0 Cros	s Sections		9.0 Drai	nage Survey	/	10.0 Fie	ld Check Ba	ise Drawin	11 QA/Q	C	·
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Principal-in Charge	70.00	0			0			0			0			0			0		
Project Manager	67.71	1	2.70%	1.83	1	1.25%	0.85	1	1.96%	1.33	0			0			1	14.29%	9.67
Project Surveyor/Engineer_4	66.71	4	10.81%	7.21	5	6.25%	4.17	4	7.84%	5.23	3	5.66%	3.78	1	3.70%	2.47	6	85.71%	57.18
Project Surveyor/Engineer_3	53.62	0			0			0			0			0			0		
Project Surveyor/Engineer_2	36.50	12	32.43%	11.84	4	5.00%	1.83	6	11.76%	4.29	6	11.32%	4.13	2	7.41%	2.70	0		
Project Surveyor/Engineer_1	36.00	0			0			0			0			0			0		
CADD Technicians	34.10	8	21.62%	7.37	46	57.50%	19.61	20	39.22%	13.37	4	7.55%	2.57	4	14.81%	5.05	0		
Engr. / Survey Tech. 4	51.26	0			0			0			0			0			0		
Engr. / Survey Tech. 3	36.13	6	16.22%	5.86	12	15.00%	5.42	20	39.22%	14.17	20	37.74%	13.63	10	37.04%	13.38	0		
Engr. / Survey Tech. 2	26.15	6	16.22%	4.24	12	15.00%	3.92	0			20	37.74%	9.87	10	37.04%	9.69	0		
Engr. / Survey Tech. 1	18.29	0			0			0			0			0			0		
ROW Specialist_4	51.26	0			0			0			0			0			0		
ROW Specialist_3	38.00	0			0			0			0			0			0		
ROW Specialist_2	31.00	0			0			0			0			0			0		
ROW Specialist_1	17.00	0			0			0			0			0			0		
S.U.E. Tech. Grade 3	36.44	0			0			0			0			0			0		
S.U.E. Tech. Grade 2	23.25	0			0			0			0			0			0		
S.U.E. Tech. Grade 1	18.64	0			0			0			0			0			0		
Deputy Controller/Admin Manager	21.50	0			0			0			0			0			0		
Administrative/Clerical 3	19.50	0			0			0			0			0			0		
Administrative/Clerical 2	16.00	0			0			0			0			0			0		
																			T
TOTALS		37	100%	\$38.35	80	100%	\$35.79	51	100%	\$38.40	53	100%	\$33.98	27	100%	\$33.29	7	100%	\$66.85



1145 North Main Street Lombard, Illinois 60148 Phone (630) 953-9928 www.wangeng.com

January 21, 2016

Mr. Paul Schneider Stanley Consultants, Inc. 8501 West Higgins Road, Suite 730 Chicago, IL 60631

Re: Proposal - Geotechnical Engineering Services Hunt Club Road and IL 132 Intersection Improvements Project Lake County Division of Transportation Gurnee, Illinois Wang No. P160101

Dear Mr. Schneider:

Wang Engineering, Inc. (Wang) is pleased to present our proposal to provide geotechnical drilling, field and laboratory testing, engineering analyses, and recommendations for the proposed Hunt Club Road and IL Route 132 intersection improvements in the Village of Gurnee, Illinois.

The following describes our proposed scope of work, cost estimate, and assumptions made in developing the cost estimate.

### **SCOPE OF WORK**

Wang understands Lake County Division of Transportation (LCDOT) is requesting a geotechnical investigation to be performed to support intersection improvements including adding turning lanes, improving intersection geometry, and milling and resurfacing of the existing pavement. Soil borings and pavement cores will be taken to characterize the pavement composition and thickness and investigate the subsurface soil and groundwater conditions. Soil borings and pavement cores will be completed according to the exhibit provided by Stanley on December 29<sup>th</sup>, 2015. Please note that based on available geologic data, soft soils (peat) are known to be present approximately ½ mile southwest of the project area. Additional costs associated with delineating soft soils are not included in the scope of work and cost estimate.

**Geotechnical Drilling, In-situ Testing, and Soil Sampling**: Wang will provide equipment, labor, and associated materials to drill and sample eight soil borings. Borings will be sampled continuously to 10 feet below ground surface (bgs). The boreholes will be advanced with hollow stem augers. Soil samples will be collected with split barrel samplers according to AASHTO T 206, "Penetration Test and Split-Barrel Sampling of Soils."



**Pavement Coring Services** — Wang will provide equipment, labor, and associated materials to obtain four full-depth pavement cores along the investigated streets described above. The cores will be obtained using a 4-inch diameter, diamond-impregnated core barrel. The cores will be measured for thickness and photographed and will be delivered to our laboratory for further analyses.

**Pre-Boring Meeting/Permitting:** Prior to the field investigation, Stanley and Wang will provide a boring location plan to LCDOT. The boring location plan and project schedule will be discussed at a pre-bore meeting held with LCDOT. We understand IDOT permitting will be necessary prior to the start of the investigation. Please note the IDOT application will consist of submitting the BSE-725, OPER 1045, OPER 1046, phone flow sheet, and purchasing a bond to be carried for 5 years. The IDOT permitting process typically takes 2 weeks to complete.

**Field Supervision:** Before starting the investigation, a Wang representative will mark the boring locations in the field, obtain any necessary permits, and clear utilities through JULIE. A field engineer will monitor drilling activities, maintain daily field notes, soil boring logs, as well as receive, classify, and prepare soil samples for laboratory analyses. The field engineer will perform unconfined compressive strength tests on cohesive soil samples and will monitor the as-drilled groundwater level in boreholes.

**Laboratory Testing:** After the completion of the drilling phase, all soil samples will be transported to our in-house IDOT- and AMRL-certified laboratory. The soil testing program will include natural moisture content (AASHTO T265, Atterberg Limits (AASHTO T89 and T90), and particle size analyses (AASHTO T88).

**Engineering Analysis and Recommendations:** A geotechnical report will be prepared in accordance with IDOT requirements. The report will include a site location map, a description of the subsurface investigation methods, a boring and coring location plan, gINT boring logs, soil profiles, laboratory test results, and an assessment of the site soil and groundwater conditions. The report will also provide recommendations of subgrade soils geotechnical parameters for pavement design and as needed subgrade soil treatment. After submitting a draft report to LCDOT, Stanley and Wang will attend a post-boring meeting at LCDOT to discuss the findings of the geotechnical report. One hard copy and a PDF of the final report will be provided to LCDOT.

## SCHEDULING

Wang will start the project expediently upon prior authorization to proceed. We anticipate that, after utility clearance, two working days will be necessary to complete coring and drilling phase of the project. The laboratory testing program will be completed within two weeks after the field activity completion. The geotechnical report will be finalized three weeks after the completion of the testing program.

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## ESTIMATED COST AND ASSUMPTIONS

Wang proposes to provide the above tasks on time and expense basis according to the attached cost estimate. Wang would not exceed the estimated upper limit without the Client approval. In preparing the cost estimate we have assumed the following conditions:

- Traffic control will be necessary and has been included in the cost estimate;
- Boring locations are accessible to a truck mounted drilling rig;
- Permitting with the LCDOT is not required,
- Permitting with IDOT will be required and is included in the cost estimate, and
- Additional insurance beyond our standard coverage is not included in our cost estimate and will be considered as reimbursement item.

Wang Engineering, Inc. appreciates the opportunity to present this proposal. If you have questions, or if you require additional information, please contact us at (630) 953-9928.

Sincerely,

WANG ENGINEERING, INC.

Corin T. Far

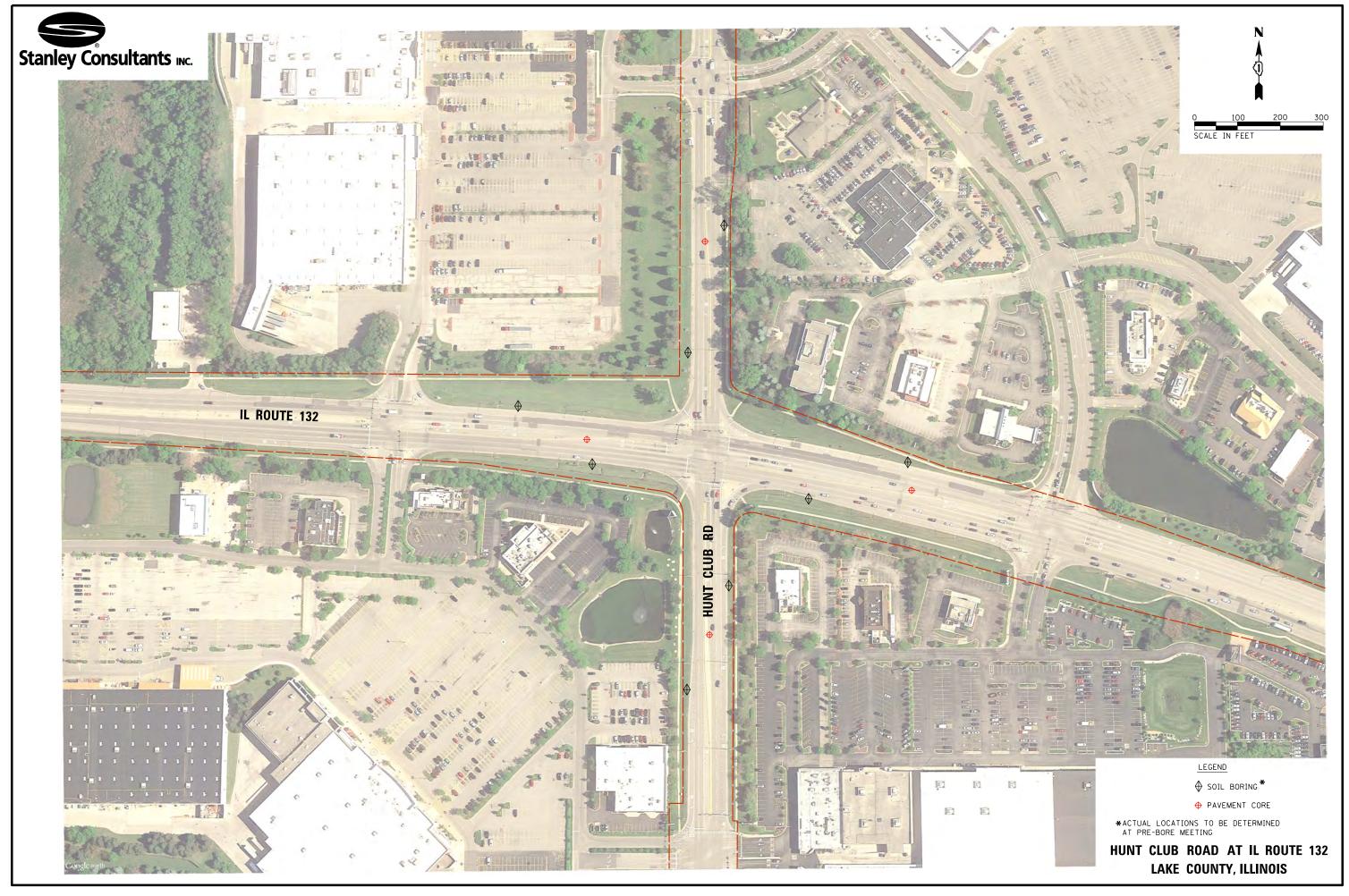
Corina T. Farez, P.E., P.G. Vice President

Nathon Davi

Nathan Davis Engineering Geologist

Attachments: Cost Estimate

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#### GEOTECHNICAL SERVICES UNIT PRICES 2015



Name: Hunt Club Road at IL 132 Intersection Improvement Project Scope: 8 Soil Borings to 10 feet bgs, and 4 full depth pavement cores

#### Date: 01/21/2016 Wang No.: P160101

		Task Description	Units	Unit Price	Extended Cost
		DRILLING, SAMPLING & INSITU			
		Drilling & Sampling - Hourly - two-man crew-including pavement co			
		Two-Man Crew - normal working hrs	16.0 Hours	\$363.00 /Hour	\$5,808.0
		Two-Man Crew - overtime (2 hrs per day)	0.0 Hours	\$452.00 /Hour	\$0.0
		State/County/Municipal Fees		I G	¢100.0
		Insurance and Bonding, (\$10,000 Bond or set by IDOT)		Lump Su	
		IDOT Permitting Requires contractor to carry Bond for 5 Years			\$ 5,908.0
		LABORATORY TESTING			
Soil Index T	ests				
T265	D2216	Water Content	40 Tests	\$9.80 /Test	\$392.0
Particle Size	Distributio	<u>on</u>			
T88	D422	Combined Sieve and Hydrometer	3 Tests	\$122.00 /Test	\$366.0
Atterberg Li	mits_				
T89, T90	D4318	Liquid and Plastic Limits	3 Tests	\$77.00 /Test	\$231.0
					\$989.0
		TRAFFIC CONTROL			
		Traffic Control			
		Lane Closure, Multiple Setups- Arterial			
		Daytime (pavement cores)	1.0 Days	\$1,500.00 /Days	\$1,500.0
		Sign and Cones (Off pavement soil borings)	1.0 Days	\$500.00 /Days	\$500.0
					\$2,000.0
		FIFT D VEHICLES & MILEA	CE		
		FIELD VEHICLES & MILEA	GE		
		Field Vehicle Daily (<100 Miles per Day)	3 Days	\$65.00 /Day	\$195.0
			e	+•••••,	\$ 195.0
		ENGINEERING, REPORTING & MAN	IAGEMENT		
		Desk Study, Site Access & Permitting			
		Senior Engineer			
		e	0.0 Hours	\$146.05 /Hour	\$0.0
		Project Engineer/Project Geologist	0.0 Hours 2.0 Hours	\$146.05 /Hour \$89.25 /Hour	\$0.0 \$178.5
		-			
		Project Engineer/Project Geologist	2.0 Hours	\$89.25 /Hour	\$178.5
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist	2.0 Hours	\$89.25 /Hour	\$178.5 \$498.3
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities	2.0 Hours 8.0 Hours	\$89.25 /Hour \$62.29 /Hour	\$178.5 \$498.3 \$0.0
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist	<ul><li>2.0 Hours</li><li>8.0 Hours</li><li>0.0 Hours</li></ul>	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour	\$178.5
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist	<ul><li>2.0 Hours</li><li>8.0 Hours</li><li>0.0 Hours</li></ul>	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour	\$178.5 \$498.3 \$0.0
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing	<ul><li>2.0 Hours</li><li>8.0 Hours</li><li>0.0 Hours</li><li>16.0 Hours</li></ul>	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour	\$178.5 \$498.3 \$0.0 \$996.6
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0 \$0.0
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 0.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0 \$0.0 \$292.1
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 2.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour	\$178.5 \$498.2 \$0.0 \$996.0 \$0.0 \$292.1 \$535.5
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 0.0 Hours 2.0 Hours 6.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$89.25 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0 \$0.0 \$292.1 \$535.5
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 0.0 Hours 2.0 Hours 6.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$89.25 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0 \$292.1 \$535.5 \$498.3
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 0.0 Hours 2.0 Hours 8.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$89.25 /Hour \$62.29 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0 \$292.1 \$535.5 \$498.3 \$584.2
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation Senior Engineer	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 2.0 Hours 6.0 Hours 8.0 Hours 4.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$62.29 /Hour \$62.29 /Hour	\$178.5 \$498.2 \$0.0 \$996.0 \$0.0 \$292.1 \$535.5 \$498.3 \$584.2 \$714.0
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation Senior Engineer Project Engineer/Project Geologist	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 2.0 Hours 8.0 Hours 4.0 Hours 8.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$62.29 /Hour \$62.29 /Hour \$146.05 /Hour \$89.25 /Hour	\$178.: \$498.: \$0.( \$996.; \$0.( \$292.: \$535.: \$498.: \$584.2 \$714.( \$373.7
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 2.0 Hours 6.0 Hours 8.0 Hours 8.0 Hours 8.0 Hours 6.0 Hours 6.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$62.29 /Hour \$146.05 /Hour \$146.05 /Hour \$89.25 /Hour \$62.29 /Hour	\$178.5 \$498.2 \$0.0 \$996.0 \$0.0 \$292.1 \$535.5 \$498.3 \$584.2 \$714.0 \$373.7
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer Project Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Project Engineer/Assistant Geologist Assistant Engineer/Project Geologist	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 2.0 Hours 6.0 Hours 8.0 Hours 8.0 Hours 8.0 Hours 6.0 Hours 6.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$62.29 /Hour \$146.05 /Hour \$146.05 /Hour \$89.25 /Hour \$62.29 /Hour	\$178.5 \$498.3 \$0.0 \$996.0 \$0.0 \$292.1 \$535.5 \$498.3 \$584.2 \$714.0 \$373.7 \$140.7
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist	<ul> <li>2.0 Hours</li> <li>8.0 Hours</li> <li>0.0 Hours</li> <li>16.0 Hours</li> <li>0.0 Hours</li> <li>0.0 Hours</li> <li>2.0 Hours</li> <li>2.0 Hours</li> <li>8.0 Hours</li> <li>4.0 Hours</li> <li>8.0 Hours</li> <li>6.0 Hours</li> <li>1.0 Hours</li> </ul>	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$89.25 /Hour \$62.29 /Hour \$146.05 /Hour \$89.25 /Hour \$62.29 /Hour \$140.73 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0 \$292.1 \$535.5 \$498.3 \$584.2 \$714.0 \$373.7 \$140.7 \$0.0
		Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Field Activities Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Laboratory Testing Project Engineer/Project Geologist Laboratory Technician Data Analyses & Engineering Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Assistant Geologist Report Preparation Senior Engineer Project Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer/Project Geologist Assistant Engineer Project Engineer/Project Geologist Assistant Engineer/Project Geologist Project Engineer/Project Geologist Assistant Engineer/Project Geologist Project Engineer/Project Geologist Assistant Engineer/Project Geologist Project Engineer/Project Geologist Assistant Engineer/Project Geologist Project Management Principal in Charge	2.0 Hours 8.0 Hours 0.0 Hours 16.0 Hours 0.0 Hours 2.0 Hours 6.0 Hours 8.0 Hours 8.0 Hours 8.0 Hours 1.0 Hours 1.0 Hours	\$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$62.29 /Hour \$89.25 /Hour \$55.06 /Hour \$146.05 /Hour \$89.25 /Hour \$62.29 /Hour \$146.05 /Hour \$89.25 /Hour \$140.73 /Hour \$140.73 /Hour	\$178.5 \$498.3 \$0.0 \$996.6 \$0.0



#### GEOTECHNICAL SERVICES UNIT PRICES 2015



Name: Hunt Club Road at IL 132 Intersection Improvement Project Scope: 8 Soil Borings to 10 feet bgs, and 4 full depth pavement cores Date: 01/21/2016 Wang No.: P160101

Task Description	Units	Unit Price	Extended Cost
SUMMARY			
DBH I INC. CAMBI INC. 9 INCITH TECTING			\$5,008,00
DRILLING, SAMPLING & INSITU TESTING			\$5,908.00
LABORATORY TESTING			\$989.00
TRAFFIC CONTROL			\$2,000.00
FIELD VEHICLES & MILEAGE			\$195.00
OUT-OF-TOWN EXPENSES			\$0.00
REPORT REPRODUCTION			\$0.00
			\$ 9,092.00
ENGINEERING, REPORTING & MANAGEMENT			
Principal in Charge	0.0 Hours	\$177.53 /Hour	\$0.00
Project Manager	8.0 Hours	\$146.05 /Hour	\$1,168.40
Senior Engineer	6.0 Hours	\$146.05 /Hour	\$876.30
Project Engineer/Project Geologist	16.0 Hours	\$89.25 /Hour	\$1,428.00
Assistant Engineer/Assistant Geologist	38.0 Hours	\$62.29 /Hour	\$2,367.02
Laboratory Technician	0.0 Hours	\$55.06 /Hour	\$0.00
Administrative Assistant	0.0 Hours	\$67.61 /Hour	\$0.00
QC/QA Reviewer	1.0 Hours	\$140.73 /Hour	\$140.73
	69.0		\$ 5,980.45
		TOTAL	\$ 15,072.45

### **Traffic Counts Scope**

Number of Intersections – 5

Count Type

- Full Classification: SU, MU, Peds and Bikes

### **Count Period**

- Weekday: 6:00 am to 7:00 pm (Tue or Wed or Thu)
- Weekend: 8:00 am to 7:00 pm (Sat)

Hours / Intersection

- Weekday = 13 hours
- Saturday = 11 hours
- Total = 24 hours

Cost / Hour = \$90.00 / hr

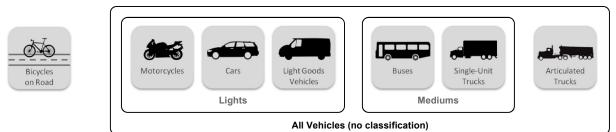
Total hours = 24 hrs / intersection \*5 intersections = 120 hrs @ \$90 / hr

### Total Cost = \$10,800

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### Miovision Rate Card - Traffic Data On Demand

Traffic Data Types	Standard Rate	Premium Rate	Add Crosswalk
	Includes any Standard Classification	Includes any Premium Classification	Pedestrian and Bicycle Data
Intersection Count	\$90.00 / hr	\$90.00 / hr	
Small Roundabout Counts (less than 150')	\$115.00 / hr	\$115.00 / hr	Included
Large Roundabout Counts (more than 150')	\$235.75 / hr	\$235.75 / hr	
Road Volume Count	\$12.00 / lane / hr	\$15.00 / lane / hr	N/A
Other Fees			
One Year Video Storage	Included		
√ideo Storage Per Year After First Year	+ \$5.75 / study		
Intersection Right Turn on Red	Included		
Custom Data Processing and Report Configuration	n Please inquire		
Expedited Turnaround	N/A		
Standard Classification Options		Premium Classification Option	IS
All Vehicles (no classification)		Lights / Buses / Single-Unit Truc	ks / Articulated Trucks
Lights / Other Vehicles			/ Buses / Single-Unit Trucks / Articulate
Motorcycles / Other Vehicles		Trucks	
Lights / Mediums / Articulated Trucks		Add Bicycles on Road	
_ights / Buses / Trucks			
Motorcycles / Cars & Light Goods / Other Vehicles	3		



# **PROJECT MILESTONE SCHEDULE**

Local Agency: Lake County Division of Transpo	ortation				Conta	ct Information	
Project: Hunt Club Road at IL Route 132				County	Darrell Kuntz		
Scope of Work: Intersection Improvements				Council/Liaison			
TIP #:				Consultant	Stanley Consultant	ts	
TIP Years (Ph II / Const):			IDOT	Alex Househ			
Section #: 14-00095-17-CH							
Last Constr & E3 Cost (date ): \$				Data Dranan da	1/21/2016	Data Darriar di	
Current Constr & E3 Cost (date: ): \$		Projected I	Dates	Date Prepared:	1/21/2010	Date Revised:	
	Initial Est.	Kick-Off	Revised/Actual				
1. Project Scoping	NA		110 (11) 0 0 1 1 0 0 0 0			Notes	
2. Phase I Kick-off Meeting	3/1/2016					Notes	
C							
3. 1st State/Federal Coordination Meeting	9/6/2016						
4. Categorical Exclusion Concurrence	9/6/2016						
5. Design Variance Concurrence	4/11/2017						
6. Submit Draft Phase I Report (PDR) to IDOT (a)	4/28/2017						
7. Public Hearing/Meeting (or N/A)	5/17/2017						
8. Right-of-Way Kick-off Meeting (or N/A)	6/12/2017						
9. Submit Final Phase I Report (PDR) to IDOT (b)	7/31/2017						
10. Submit Phase II Engr. Agreem't to IDOT (or N/A)	N/A						
11. Phase I Design Approval	9/15/2017						
12. ROW Aquistion Initiation (or N/A) ( c )	11/15/2017						
13. Phase II Engr. Agreement Approval (or N/A)	N/A						
14. Submit Pre-Final Plans and Estimates (d)	8/17/2018						
15. Submit Phase III Engr. Agreement to IDOT	8/20/2018						
16. Submit Final Plans, Specs & Estimates (PS&E) (e)	10/19/2018						
17. ROW Acquisition Complete	11/23/2018						
18. Construction Letting	1/1/2019						

#### Notes:

- (a) 3 to 6 month review required per complexity and submittal quality
- (b) 1 to 3 month review
- (c) Minimum 9 to 18 months required from plats to acquisition
- (d) 1 to 4 month review
- (e) 7 to 10 days before Springfield BLR due date

## See IDOT Local Roads' Mechanics of Project Management

"Federal Aid Project Initiation to Completion" Flow Chart for sequence of events and estimated review times.