

# DRAFT

**AGREEMENT  
BETWEEN THE COUNTY OF LAKE AND  
THE VILLAGE OF BUFFALO GROVE  
FOR THE IMPROVEMENT OF ARLINGTON HEIGHTS ROAD  
FROM THOMPSON BOULEVARD TO LAKE COOK ROAD**

**THIS AGREEMENT** entered into this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 2023, by and between the COUNTY OF LAKE, Illinois, an Illinois body politic and corporate, acting by and through its Chair and County Board, hereinafter referred to as the COUNTY, and the VILLAGE OF BUFFALO GROVE, an Illinois Municipal Corporation, acting by and through its President and Village Board, hereinafter referred to as the VILLAGE. The COUNTY and the VILLAGE may hereinafter be referred to collectively as "parties" and individually as a "party" to THIS AGREEMENT.

**WITNESSETH**

**WHEREAS**, the COUNTY and VILLAGE, in order to facilitate the free flow of traffic and ensure the safety of the traveling public, are desirous to make certain permanent roadway and non-motorized facility improvements to Arlington Heights Road (COUNTY Highway 79) between Thompson Boulevard and Lake Cook Road; including but not limited to road reconstruction, sidewalk, street lighting, and landscaping (hereinafter IMPROVEMENT); as generally depicted in Exhibit A, and referred to as COUNTY Section 17-00193-08-PV and,

**WHEREAS**, the IMPROVEMENT limits are generally depicted on Exhibit A to THIS AGREEMENT, which is attached hereto and is hereby made a part hereof; and,

**WHEREAS**, the IMPROVEMENT shall be constructed in substantial conformance with the design engineering plans and specifications prepared by Peralte-Clark, LLC, which, by reference herein, hereby become a part hereof. As of this writing, the current version of the plans are dated 09/26/22 (Preliminary Version); and,

**WHEREAS**, the COUNTY has jurisdictional authority and maintenance responsibility over Arlington Heights Road (COUNTY Highway 79) from Illinois Route 83 to Lake Cook Road; and,

**WHEREAS**, the VILLAGE has jurisdictional authority and maintenance responsibility over Arlington Heights Road from approximately 500' south of Thompson Boulevard to Illinois Route 83; and,

**WHEREAS**, the VILLAGE is desirous that the COUNTY include the roadway resurfacing of Arlington Heights Road from Illinois Route 83 to 500' south of Thompson Boulevard (hereinafter VILLAGE RESURFACING), as detailed in the PLANS as part of the IMPROVEMENT. The VILLAGE shall reimburse the COUNTY for the VILLAGE RESURFACING as stipulated in Exhibit B to THIS AGREEMENT, which is attached hereto and is hereby made a part hereof; and,

**WHEREAS**, the VILLAGE owns and maintains certain street lighting facilities within project limits in conflict with the proposed IMPROVEMENT, including light poles, luminaires, foundations, controllers, conduit/unit ducts, and other miscellaneous appurtenances (hereinafter STREET LIGHTING) that need to be modified as part of the IMPROVEMENT; and,

**WHEREAS**, the COUNTY is desirous that the VILLAGE confirm its ownership and maintenance responsibility of the existing bike path along the east side of Arlington Heights Road (COUNTY Highway 79) and existing sidewalk along the west side of Arlington Heights Road (COUNTY Highway 79) within Village limits; and,

**WHEREAS**, the VILLAGE is desirous that the COUNTY install a raised median, inclusive of grass (VILLAGE will provide VILALGE's preferred seed mix), which the VILLAGE will continue to own and maintain, and install replacement trees at Jaycee's Bicentennial Park and at the Buffalo Creek Nature Preserve (hereinafter LANDSCAPING) as part of the IMPROVEMENT, without reimbursement from the VILLAGE; and,

**WHEREAS**, the Intergovernmental Cooperation Act, 5 ILCS 220/1 ct seq., and Section 10 of Article VII of the Illinois Constitution, allows and encourages intergovernmental cooperation; and,

**WHEREAS**, said IMPROVEMENT will be of immediate benefit to the residents of the COUNTY and the VILLAGE;

**NOW, THEREFORE**, for and in consideration of the mutual covenants contained herein, made and pursuant to all applicable statutes, local ordinances, and authority, the parties do hereby agree to the following:

## **SECTION I.** **Recitals/Headings**

1. It is mutually agreed by and between the parties hereto that the foregoing preambles are hereby incorporated herein as though fully set forth.
2. It is mutually agreed by and between the parties hereto that the "headings" as contained in THIS AGREEMENT are for reference only, and the actual written provisions, paragraphs and words of THIS AGREEMENT shall control.

**SECTION II**  
**Design, Construction, and Maintenance of the IMPROVEMENT**  
COUNTY Section Number 17-00193-08-PV

1. The COUNTY agrees to prepare, or cause to be prepared, the necessary surveys, design engineering plans and specifications and contract letting documents for the IMPROVEMENT, inclusive of the VILLAGE RESURFACING, STREET LIGHTING and LANDSCAPING, (hereinafter PLANS) in accordance with Lake County Division of Transportation (hereinafter LCDOT) policies and standards, with reimbursement from the VILLAGE as hereinafter stipulated.

As of this writing, the current PLANS are the preliminary set of plans and specifications prepared by Peralte-Clark, LLC, with a submission date of 09/26/2022. Said PLANS, by reference herein, hereby become a part hereof. The VILLAGE shall have the opportunity to review and approve said PLANS with respect to the VILLAGE RESURFACING STREET LIGHTING and LANDSCAPING. Said review and approval of the PLANS by the VILLAGE shall not be unreasonably withheld.

2. The VILLAGE agrees it has previously reviewed and approved the VILLAGE RESURFACING and STREET LIGHTING portion of the COUNTY's design engineering contract, included herein in Exhibits C and D.

The VILLAGE further agrees that it's estimated obligation for design engineering at the time of the writing of THIS AGREEMENT is \$201,470.02 for which the VILLAGE shall reimburse the COUNTY as hereinafter stipulated. It is understood that this cost is based on the original intent to reconstruct the portion of Arlington Heights Road within VILLAGE jurisdiction.

3. It is mutually agreed by and between the parties hereto that the IMPROVEMENT will be processed, let, administered, and awarded by LCDOT. As of this writing, the anticipated letting date for the IMPROVEMENT is September 12, 2023. (The letting date is subject to change, dependent upon project readiness and the availability of project funding.)

It is further mutually agreed by and between the parties hereto that in the event the letting date changes, the VILLAGE may request to remove the VILLAGE RESURFACING from the scope of the IMPROVEMENT through written notification to the COUNTY and at least 60 days in advance of the scheduled letting date.

4. The COUNTY agrees to cause the IMPROVEMENT, inclusive of the VILLAGE RESURFACING, STREET LIGHTING and LANDSCAPING, to be constructed and to perform, or cause to be performed, the Construction Engineering Supervision for the IMPROVEMENT, inclusive of the VILLAGE RESURFACING, STREET LIGHTING and LANDSCAPING, with reimbursement from the VILLAGE as hereinafter stipulated in Exhibit B attached to THIS AGREEMENT.

5. The VILLAGE agrees to reimburse the COUNTY for one hundred percent (100%) costs associated for the VILLAGE RESURFACING and STREET LIGHTING. (i.e. one hundred percent (100%) of the total cost of design engineering, construction, and construction engineering supervision related to the VILLAGE RESURFACING and STREET LIGHTING).
6. The VILLAGE agrees that, in the event it requests that the COUNTY remove the VILLAGE RESURFACING from the scope of the IMPROVEMENT in accordance with Item 3 above, the VILLAGE shall remain responsible for one hundred percent (100%) of the cost of the design engineering for the VILLAGE RESURFACING.
7. The VILLAGE agrees that its estimated total obligation under THIS AGREEMENT for the VILLAGE RESURFACING and STREET LIGHTING constructed as a part of the IMPROVEMENT is \$1,053,876.52 as detailed in Exhibit B attached to THIS AGREEMENT.
8. The VILLAGE further agrees that upon award of the construction contract, the VILLAGE will pay to the COUNTY within thirty (30) days of the receipt of an invoice from the COUNTY, in a lump sum amount based on awarded contract unit prices for the VILLAGE RESURFACING and STREET LIGHTING, an amount equal to fifty percent (50%) of its obligation for the VILLAGE RESURFACING and STREET LIGHTING. At such time, it is estimated that the VILLAGE shall owe to the COUNTY an amount equal to \$526,938.26. The VILLAGE further agrees to pay the remaining fifty percent (50%) of its obligation for the VILLAGE RESURFACING and STREET LIGHTING upon completion of the IMPROVEMENT, in a lump sum amount within thirty (30) days of the receipt of an invoice from the COUNTY. Final obligation shall be based on the final costs and final contract quantities at contract unit prices for actual work performed for the VILLAGE RESURFACING and STREET LIGHTING. At such time, it is estimated that the VILLAGE shall owe to the COUNTY an amount equal to \$526,938.26.
9. It is mutually agreed by and between the parties hereto that, upon completion of the IMPROVEMENT, the COUNTY shall continue to have jurisdictional and maintenance responsibility over Arlington Heights Road (COUNTY Highway 79), from Illinois Route 83 to Lake Cook Road, and the VILLAGE shall continue to have jurisdictional and maintenance responsibility over Arlington Heights Road from Illinois Route 83 to 500' south of Thompson Boulevard.
10. The VILLAGE agrees to grant a RIGHT OF ENTRY permit to the COUNTY, included herein in Exhibit E, at no cost to the COUNTY, for the purpose of installing LANDSCAPING at the Buffalo Creek Nature Preserve and Jaycee's Bicentennial Park.
11. It is mutually agreed by and between the parties hereto that the VILLAGE currently owns and maintains non-motorized facilities within the COUNTY right-of-way, including but not limited to bike path on the east side of Arlington Heights Road (COUNTY Highway 79) (Illinois Route 83 to Lake Cook Road) and sidewalk on the west side of Arlington Heights Road (COUNTY Highway 79), (Illinois Route 83 to 50' north of Carlton Place,

ADA ramps at the Southeast and Northeast corners of the Arlington Heights Road (COUNTY Highway 79) and Checker Road intersection and the ADA ramp at the northeast corner of the Arlington Heights Road (COUNTY Highway 79) and Lake Cook Road intersection), hereinafter NON-MOTORIZED FACILITIES.

12. Upon completion of the IMPROVEMENT, the VILLAGE agrees to assume, or continue to assume, ownership and maintenance responsibilities over the NON-MOTORIZED FACILITIES, STREET LIGHTING, and LANDSCAPING.
13. It is mutually agreed by and between the parties hereto that the VILLAGE shall submit to the COUNTY, for the COUNTY's approval, an executed form, MUNICIPAL UTILITY/FACILITY ACCEPTANCE ON A COUNTY HIGHWAY (hereinafter MUNICIPAL ACCEPTANCE FORM) by September 1, 2023 to confirm its ownership and maintenance responsibilities for the NON-MOTORIZED FACILITIES, STREET LIGHTING, and LANDSCAPING within COUNTY highway right-of-way, the approval of which shall not be unreasonably withheld by the COUNTY.
14. It is mutually agreed by and between the parties hereto that, absent an emergency situation, the VILLAGE agrees that the operation and maintenance of the NON-MOTORIZED FACILITIES and LANDSCAPING within the COUNTY highway right-of-way shall be in accordance with the MUNICIPAL ACCEPTANCE FORM and that the VILLAGE shall perform its maintenance on the NON-MOTORIZED FACILITIES and LANDSCAPING within the COUNTY highway right-of-way during non-peak traffic times, namely on weekdays, between 9:00 am and 3:00 pm, and in accordance with current LCDOT Traffic Control Standards.

### **SECTION III. General Provisions**

1. It is mutually agreed by and between the parties hereto that nothing contained in THIS AGREEMENT is intended or shall be construed as, in any manner or form, creating or establishing a relationship of co-partners between the parties hereto, or as constituting the VILLAGE (including its elected officials, duly appointed officials, employees and agents), the agent, representative or employee of the COUNTY for any purpose or in any manner, whatsoever. The VILLAGE is to be and shall remain independent of the COUNTY with respect to all services performed under THIS AGREEMENT.
2. It is mutually agreed by and between the parties hereto that THIS AGREEMENT shall not be construed, in any manner or form, to limit the power or authority of the COUNTY or the COUNTY's County Engineer to maintain, operate, improve, construct, reconstruct, repair, manage, widen or expand COUNTY Highways as may be best determined, as provided by law.
3. It is mutually agreed by and between the parties hereto that each party warrants and represents to the other party and agrees that: (1) THIS AGREEMENT is executed by duly

authorized agents or officers of such party and that all such agents and officers have executed the same in accordance with the lawful authority vested in them, pursuant to all applicable and substantive requirements; (2) THIS AGREEMENT is binding and valid and will be specifically enforceable against each party; and (3) THIS AGREEMENT does not violate any presently existing provision of law nor any applicable order, writ, injunction or decree of any court or government department, commission, board, bureau, agency or instrumentality applicable to such party.

4. It is mutually agreed by and between the parties hereto that THIS AGREEMENT shall be deemed to take effect on the date that the last authorized agent of the parties hereto affixes his/her signature.
5. It is mutually agreed by and between the parties hereto that THIS AGREEMENT shall be enforceable in any court of competent jurisdiction by each of the parties hereto by any appropriate action at law or in equity, including any action to secure the performance of the representations, promises, covenants, agreements and obligations contained herein.
6. It is mutually agreed by and between the parties hereto that the provisions of THIS AGREEMENT are severable. If any provision, paragraph, section, subdivision, clause, phrase, or word of THIS AGREEMENT is for any reason held to be contrary to law, or contrary to any rule or regulation having the force and effect of law, such decision shall not affect the remaining portions of THIS AGREEMENT.
7. It is mutually agreed by and between the parties hereto that the agreement of the parties hereto is contained herein, and that THIS AGREEMENT supersedes all oral agreements and negotiations between the parties hereto relating to the subject matter hereof.
8. It is mutually agreed by and between the parties hereto that any alterations, amendments, deletions, or waivers of any provision of THIS AGREEMENT shall be valid only when expressed in writing and duly executed by the parties hereto.
9. THIS AGREEMENT shall be binding upon and inure to the benefit of the parties hereto, their successors and assigns. No party hereto may assign, transfer, sell, grant, convey, deed, cede or otherwise give over, in any manner or form, any of its duties, obligations and/or responsibilities as heretofore set forth in THIS AGREEMENT without first obtaining the expressed written consent and permission of the COUNTY, except as provided for in THIS AGREEMENT.
10. THIS AGREEMENT may be executed in multiple identical counterparts, and all of said counterparts shall, individually and taken together, constitute THIS AGREEMENT.
11. It is mutually agreed by and between the parties hereto that any notice required by the provisions of THIS AGREEMENT shall be mailed to:

If to the COUNTY:

Director of Transportation/County Engineer  
Lake County Division of Transportation  
600 West Winchester Road  
Libertyville, IL, 60048-1381

If to the VILLAGE OF BUFFALO GROVE:

Village Administrator  
Village Hall  
50 Raupp Blvd.  
Buffalo Grove, IL 60089

12. THIS AGREEMENT shall be considered null and void in the event that the construction contracts covering the improvements contemplated herein are not awarded by January 1, 2028. This term may be extended only when expressed in writing and duly executed by the parties hereto.

**VILLAGE OF BUFFALO GROVE**

ATTEST:

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Janet Sirabian  
Village Clerk

By: \_\_\_\_\_  
Beverly Sussman  
President

Date: \_\_\_\_\_

**RECOMMENDED FOR EXECUTION**

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Shane E. Schneider, P.E.  
Director of Transportation /County Engineer  
Lake County

ATTEST:

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Anthony Vega  
Clerk  
Lake County

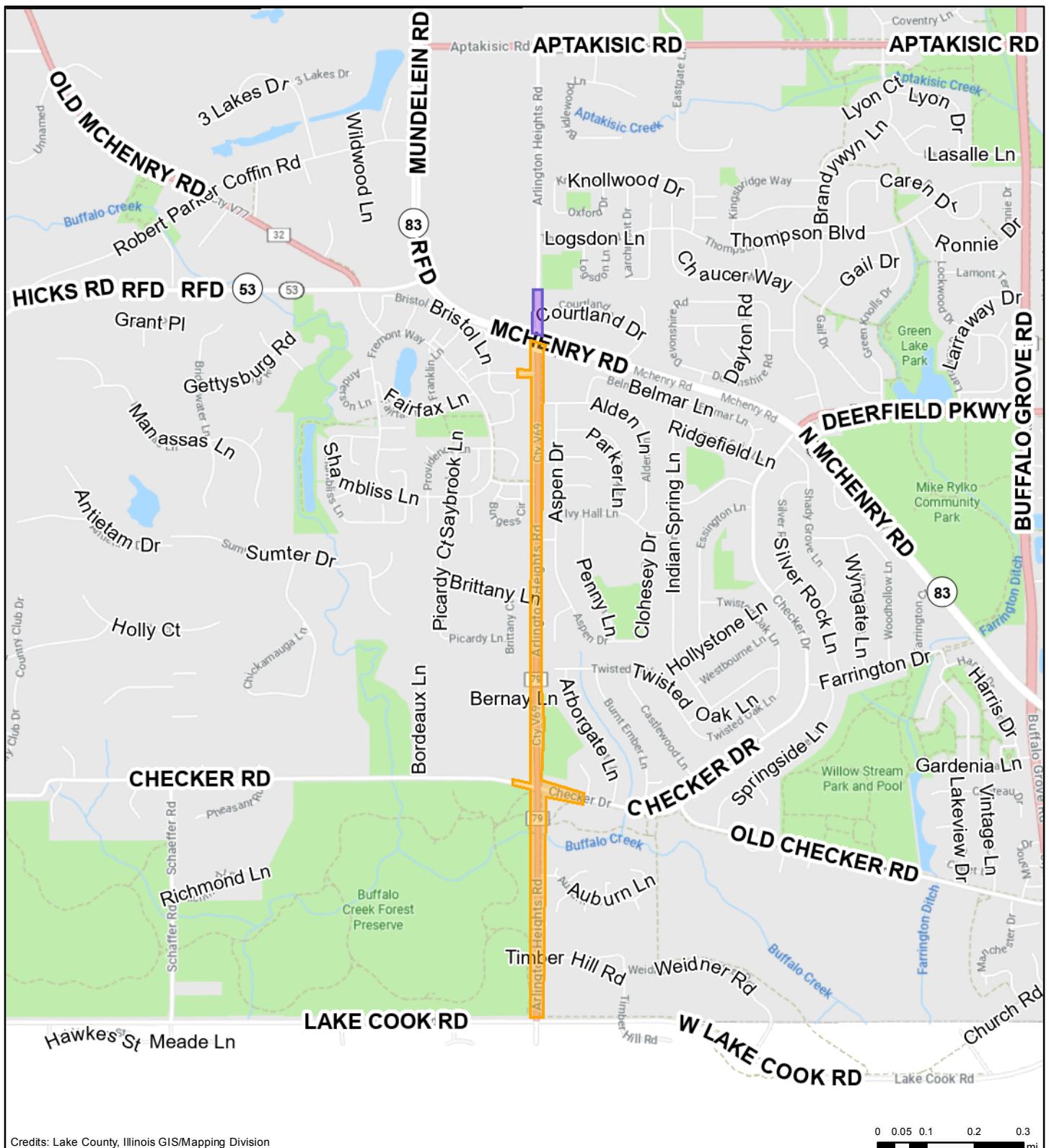
**COUNTY OF LAKE**

By: \_\_\_\_\_  
Sandra Hart  
Chair, Lake County Board

Date: \_\_\_\_\_

Exhibit A

# Arlington Heights Rd Reconstruction - Project Limits



- LCDOT Funded Construction

- Village of Buffalo Grove Funded Construction (Resurfacing)

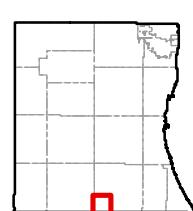
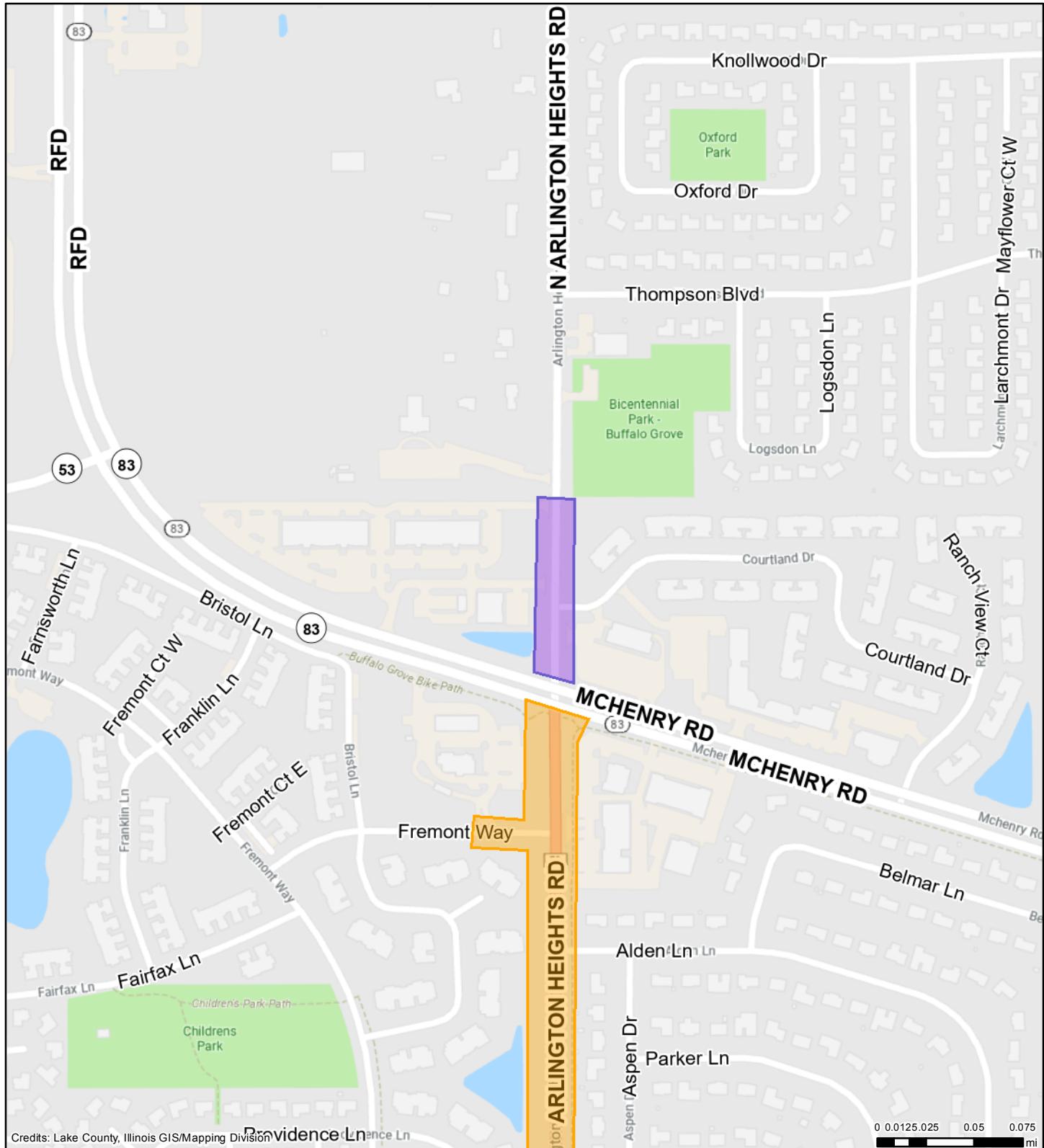


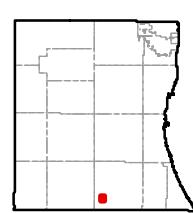
Exhibit A

# Arlington Heights Rd Reconstruction - Buffalo Grove Limits



Orange - LCDOT Funded Construction

Purple - Village of Buffalo Grove Funded Construction (Resurfacing)



LCDOT GIS  
8/18/2022

**EXHIBIT B**  
**VILLAGE's Estimated Cost Participation**  
**Arlington Heights Road RESURFACING**  
***County Section 17-00193-08-PV***

<b>Improvement</b>	<b>Design Engineering*</b>	<b>Construction Engineering**</b>	<b>Construction Cost***</b>	<b>Total Cost</b>
VILLAGE RESURFACING (Arlington Heights Road from IL Route 83 to ~500' south of Thompson Blvd)	\$159,632.02	\$6,516.50	\$65,165.00	<b>\$231,313.52</b>
STREET LIGHTING (at intersections south of IL Route 83 and approach lighting at IL Route 83)	\$41,838.00	\$70,975.00	\$709,750.00	<b>\$822,563.00</b>
<b>Overall Total Cost</b>				<b>\$1,053,876.52</b>

\*Design Engineering estimated costs are from contracts provided by Peralte-Clark, LLC (RESURFACING) and Singh & Associates, Inc. (Lighting). It should be noted that Design Engineering costs (RESURFACING) are based on the original intent to reconstruct this portion of the project.

\*\*Construction Engineering is calculated at 10% of construction costs

\*\*\*Construction Cost utilizes preliminary cost estimates from Peralte-Clark, LLC (RESURFACING) and Singh & Associates, Inc. (Lighting)

## Exhibit C



**Arlington Heights Road  
Illinois Route 83 to Approximately  
500' South of Thompson Blvd.**

**Lake County, Illinois  
Section 17-00193-08-PV**

**Phase I and II Engineering Scope of Work  
Roadway Reconstruction  
January 2020**



171 West Wing Street, Suite 204B  
Arlington Heights, Illinois 60005  
Phone: 847-485-8069  
[www.peralte-clark.com](http://www.peralte-clark.com)

# Exhibit C

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## *Project Understanding*

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This project includes elements of Phase I Engineering and full Phase II plan preparation for the roadway reconstruction of Arlington Heights Road from the north right-of-way line of Illinois Route 83 to a point approximately 500 feet south of Thompson Blvd. This project is located within the municipal boundaries of the Village of Buffalo Grove. Design work is anticipated to include full roadway reconstruction of the mainline pavement within the project limits. In general, the pavement has reached the end of its life and will be designed to be replaced in kind. Minor geometric changes may be introduced to the roadway pavement to better channelize traffic through the intersection and align with proposed improvements on the south leg of the intersection.

This project will be funded with local funds from the Village of Buffalo Grove. The Lake County Division of Transportation (LCDOT) will be the lead agency for the design, bidding, letting and construction stages. The preparation of a formal Phase I study is not anticipated for this project; however, elements of a Phase I study are included in this project. Details of the proposed Phase I scope are outlined below. Phase II design will adhere to the current LCDOT plan preparation guidelines and will be subject to IDOT Bureau of Local Roads and Streets (IDOT-BLRS) reviews and approvals. Roadway improvements to Lake Cook Road and Illinois Route 83 are not anticipated as part of this project.

Phase I and Phase II Engineering portions of this project, project study and plan preparation work will be coordinated through IDOT-BLRS in accordance with BLRS Chapter 10 requirements. Because federal dollars are not anticipated to be involved in this project, the schedule of these two phases can overlap.

The project is currently programmed and targeted for construction in 2024. The following scope of work is based on scoping discussions with LCDOT staff on February 5th, 2019 and October 11<sup>th</sup>, 2019.

# Exhibit C

## *Scope of Services – Phase I*

The following is our proposed scope of services for Phase I Engineering on this project:

### **1. Data Collection, Compilation, Review and Evaluation**

This task includes obtaining all pertinent data required to complete both Phase I and Phase II work. Coordination will occur with LCDOT, IDOT, the Lake County Stormwater Management Commission (LCSMC), Village of Buffalo Grove, Vernon Township and all other agencies necessary to obtain base data for the project area, including but not necessarily limited to the following information:

- Record roadway and drainage plans, including previous studies/reports, and engineering and as-built plans for past Arlington Heights Road.
- Recorded centerline and right-of-way plans for Arlington Heights Road (V69) and Illinois Route 83.
- Available traffic data.
- Available crash data.
- Available survey data and control data for tying to the Lake County LiDAR mapping.
- Existing and proposed land use and zoning maps, including School Districts, Park Districts, Forest Preserve Districts, Sanitary/Drainage Districts, and Bike/Pedestrian plans as pertinent/available.
- Soils and geological information.
- Public and private utility plans (Peralte-Clark will work with the LCDOT utility coordinator to obtain this information).
- USGS maps and Flood Insurance Rate Maps.
- Public Service routes including Bus, Mail, and Emergency Services.

Peralte-Clark will coordinate with the Lake County GIS Department to obtain available GIS data for the study area, including aerial photography, LiDAR contour mapping, environmental resources, property lines, roadway names, etc.

Peralte-Clark will determine facility deficiencies based on information gathered and prepare exhibits of the data collected as appropriate for use as part of other project tasks. This task will include a plan-in-hand field review of the project area, and contact with key stakeholders within the project area, including the Village of Buffalo Grove, Vernon Township, LCFPD, and LCSMC to retrieve appropriate base project data.

Specific work items under this task will include:

- Initial project field review(s)
- Complete a detailed photo log of the site including a detailed inventory of topographic features which may impact or be impacted by the proposed design
- Project data collection including contact and coordination with key project stakeholders.
- Coordination to obtain base project mapping data (LiDAR) and Lake County GIS data.
- Review, analyze, and catalog project data.
- Determine facility deficiencies.

## Exhibit C

### 2. *Field Survey Work*

The survey work for this project will be prepared by **HR Green, Inc. (HR Green)**, as a subconsultant. Surveying will be performed according to the Lake County Division of Transportation (LCDOT), Design Survey Procedures (Revised 10/19/18).

Peralte-Clark, LLC will coordinate with LCDOT to prepare a survey right-of-entry letter for survey work on private property. HR Green will contact property owners, to the extent possible, in advance of surveying on private property.

On this basis, HR Green will perform the following survey tasks in accordance with applicable Lake County Survey Procedures:

*Horizontal Control:* Utilizing state plane coordinates, HR Green will set recoverable primary control utilizing GPS and robotic total station equipment. It is assumed that the control for the one-foot contour Lake County LiDAR mapping is Illinois State Plane East, NAD83 (2011).

*Vertical Control:* It is assumed that either LCDOT has benchmarks available in the vicinity of the project or that HR Green will be allowed to establish vertical control (NAVD88) utilizing GPS and the nearest NGS vertical monuments. A level circuit within the above identified survey limits will be run to establish benchmarks and assign elevations to the horizontal control points.

*Topographic Survey:* A total of 600 feet will be surveyed along North Arlington Heights Road from the north line of Illinois 83 intersection and extending to 450 feet south of Thompson Boulevard. The survey will extend 25 feet beyond the existing right-of-way line, beyond which the Lake County LiDAR mapping (1-foot contours) will be used. Survey will include existing visible features and improvements. Existing utilities and wetlands delineated by Huff and Huff will be surveyed from visible markings or flags by others. Storm, sanitary sewer and watermain structures will be surveyed, including rim elevation, invert pipe size, direction and elevation as observed at unlocked manholes. HR Green will field locate all pavements, driveways, curb and gutters, pavement markings, signs, drainage structures, driveway culverts, crossroad culverts, and other planimetric features within the above noted survey limits.

*Base Mapping:* HR Green will compile all the above information into one base map MicroStation drawing suitable for plotting at 1'=20' scale that is representative of existing conditions for use in all Phase I and Phase II engineering work in developing the detailed plan, profile and cross sections for the preferred alternative. Survey base map drawing will be generated in MicroStation V8i SS4.

*Cross Sections:* HR Green will survey cross sections at 50' intervals within the survey limits, at driveways, roadway culverts, and at all other grade controlling features. The cross sections will extend 25 feet beyond the existing right-of-way line.

*Existing Right of Way Survey:* The existing dedicated or conveyed ROW will be surveyed per provided plats and documents from LCDOT and IDOT along with research performed at the Lake County Recorder for adjoining subdivision plats. Survey will be based on documents and field survey/recovery of existing monuments.

# Exhibit C

Specific work items under this task will include:

- Completion of topographic survey.
- Coordination with LCDOT Utilities Coordinator.
- Obtaining existing utility information from utility agencies and incorporation of data obtained into the topographic survey base map.

Scope Omissions:

- Coordination with LCDOT for survey right-of-entry letter will be handled by Peralte-Clark.
- The preparation of ROW and/or easement acquisition documents for Buffalo Grove.

## 3. *Alternate Geometric Studies*

No Alternate Geometric Studies will be prepared as part of the project. Proposed roadway geometry will be designed to match existing roadway geometry.

## 4. *Roadway Drainage*

The drainage design and permitting work for this project will be prepared by **HR Green, Inc. (HR Green)**, as a subconsultant.

Preliminary Drainage Design: Design criteria for the project will be developed and coordinated with Buffalo Grove to verify how the project will be designed. HR Green will identify drainage problems by researching LCDOT and Buffalo Grove flooding and maintenance records, coordinating with local agencies and conducting site investigations. The project scoping report indicated there has been no reported pavement flooding within the corridor. No drainage investigations are assumed for the Buffalo Grove section.

Existing Drainage Plan: The existing drainage system will be analyzed to determine the suitability for continued use. This will involve the preparation of an Existing Drainage Plan (EDP). The EDP includes an evaluation of existing drainage conditions through a review of record drawings of the roadway plans, maps, reports and field review. Data collection as part of this task includes obtaining pertinent record drawings, storm sewer atlases, USGS maps, soils maps, topographic maps and other pertinent data. Determine whether to maintain or replace existing storm sewer systems, based on visual evaluation of sewer inspection videos to be provided by LCDOT and hydraulic need. Off-site and on-site drainage areas and existing drainage systems will be delineated on the base project mapping.

Agency Coordination: HRG will coordinate with the Village of Buffalo Grove, LCDOT, and LCSMC regarding drainage patterns and concerns, and sensitive drainage areas and/or outfalls. Based on a review of project area mapping there do not appear to be any sensitive outlets that will require water quality BMPs or detention within the Buffalo Grove section.

Specific work tasks associated with development of the EDP includes the following:

- Identify the tributary drainage area to inlets and outfalls.
- Identify existing drainage outfalls.

# Exhibit C

- Evaluate outfall sensitivity and suitability for continued use.
- Preparation of the EDP.
- Coordination meetings for the EDP with LCDOT, LCSMC, and the Village of Buffalo Grove.

## 5. *Retaining Wall Design*

No retaining wall design is assumed to be needed for the Buffalo Grove section.

## 6. *Traffic Maintenance Analysis*

No traffic maintenance analysis is assumed to be needed for the Buffalo Grove section.

## 7. *Utility Coordination*

Utility coordination and utility locating (Subsurface Utility Engineering, or SUE) for this project will be completed by **HBK Engineering, Inc. (HBK)**, as a subconsultant.

### Initial Coordination/Data Collection:

The proposed improvements will require coordination with public and private utilities that have facilities within the project corridor. HBK will coordinate with any utility companies found to have facilities located within the vicinity of the project limits through a JULIE Design Stage/Planning Information Request. A request will be made for these utilities to provide any available maps of existing facilities. It has been estimated that there will be up to eight public and private utilities to coordinate with.

### Utility Locating

HBK will perform SUE Level D and B locating of any utility facilities located within the project limits. Level D information will be obtained from utility atlases, JULIE requests, and other reliable sources. Qualified HBK staff will perform Level B locates of underground utilities within the project limits and mark them with appropriately colored paint or flags. HBK staff will coordinate with HR Green's survey crew so that utility markings can be incorporated into their work (picked up by their survey crew) in a timely manner.

SUE Level D and B locating shall include underground traffic control facilities at signalized intersections to the extent allowed by MOT limitations, worker safety, and the ability of the facilities to transmit a locating tone.

Level A locating (potholing or otherwise exposing buried utilities) is not included in this scope of work. If needed, Level A locating can be added to the scope at a later date.

### Utility Data Base Mapping

HBK will coordinate with HR Green so that utilities can be depicted accurately in the survey data and utility base maps. This shall include time allotted for utility base map QA/QC.

### Preliminary Design Coordination Meetings

HBK will coordinate with utility companies during Phase I Engineering. HBK will send preliminary plans to utility companies to verify the locations of their facilities and review preliminary design to determine if

# Exhibit C

there are any significant conflicts that need to be reviewed. HBK will also coordinate with the roadway design team to develop understanding the presence of utilities, their type, and possible issues with protecting and/or relocating those utilities.

## **8. *Intersection Design Studies***

It is assumed that no Intersection Design Studies will be needed for the Buffalo Grove section.

## **9. *Environmental Surveys, Analysis and Coordination***

The environmental work for this project will be prepared by **Huff and Huff, Inc. (H&H)**, as a subconsultant.

This project includes roadway reconstruction of Arlington Heights Road from Illinois Route 83 to a point approximately 500 feet south of Thompson Blvd. This project is located within the municipal boundaries of the Village of Buffalo Grove and Village of Long Grove.

The following scope of environmental services will be completed for the Arlington Heights Road project by H&H. These include:

- Preliminary Environmental Site Assessment (PESA)
- Wetland/Surface Waters Delineation
- Wetland Report
- ESR Submittal

*Preliminary Environmental Site Assessment (PESA):* H&H will prepare separate Preliminary Environmental Site Assessment for the Project Corridor. The process will follow general protocols associated with ASTM E1527-13, which is a standard environmental site assessment methodology and IDOT procedures. These protocols are consistent with the "Preliminary Site Assessment (PESA)" procedures outlined by the Illinois Department of Transportation (IDOT) in BDE #66-10A and the "Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Projects." No soil sampling is included in this task. Soil management and CCDD issues will be investigated during Phase 2 and is not included in this Phase I scope of services.

### **A. Historical Research**

The project corridors historical land use/ownership records will be developed from standard historical sources. Historical aerial photographs or historical maps, such as Sanborn Fire Insurance Maps, will be reviewed, as available. The review will identify land use over time and potential areas of environmental concern, such as areas of surface disturbance and outside storage.

### **B. Site Evaluation**

Current environmental features and conditions of sites adjacent to the right-of-way/project areas will be evaluated. A site walkover of potential right-of-way/project areas designated for excavation and/or acquisition will be conducted for first-hand evaluation of current environmental conditions within the project limits. All the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties also will be evaluated in accordance with ASTM protocols.

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### C. Records Review

A records review will be conducted to determine potential environmental concerns within the study areas. The reviews will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. The searches are based on the outline of the study areas.

Specifically, H&H will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the Illinois Environmental Protection Agency (IEPA) to obtain additional data pertaining to identified sites.

### D. Report Preparation

A PESA report summarizing the results of the evaluation will be prepared for the project corridor. The following information will be included in these reports:

- a) The project location and description
- b) Historical uses of corridor.
- c) The area geology and hydrology.
- d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, and hazardous waste, wastewater, and PCBs.
- e) An analysis of the site inspection.
- f) A summary of the findings regarding environmental concerns. This will include IDOT's BDE Manual Chapter 27-3, Special Waste Procedures, and identification of Potentially Impacted Properties (PIPs) per Subpart F, Section 1100, 35 IAC, related to Clean Construction or Demolition Debris management.

Wetland/Surface Waters Delineation: H&H will conduct a wetland and surface water delineation using current methods and guidance from the U.S. Army Corps of Engineers (USACE), which is outlined in the 2010 "USACE Midwest Region Manual." Based on a cursory review of available mapping and current aerial photography, no wetlands are apparent. H&H will conduct a delineation of this section of the project. If no wetlands are present, only a summary letter will be prepared documenting that no wetlands are present. If a wetland is identified within the project, the findings will be summarized in the overall wetland report being prepared for the project.

#### A. On-Site Investigation (Field Inventory)

The on-site investigation will be conducted by H&H staff experienced in Federal methods for conducting wetland delineations. H&H will classify and define hydric soils, hydrophytic vegetation, and evidence of hydrology to determine if wetlands are present. The wetland perimeters will be surveyed in the field by H&H.

Wetland and surface water delineations will be conducted that will meet the requirements of Executive Order 11990, "Protection of Wetlands" Section 404 of the Federal Water Pollution Control Act as amended by the Clean Water Act (Corps of Engineers, Section 404 Permit) and the Illinois Environmental Protection Agency (IEPA Section 401 Guidelines) regulations. These regulations pertain to the placement of fill or alterations of drainage within wetlands of any type and apply to private as well as publicly owned wetlands. The investigation will meet the

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requirements of these regulations by identifying the type, functions, and approximate boundaries of all wetlands and surface waters.

Wetlands and surface waters found will be classified according to type using the “Classification of Wetlands and Deep Water Habitats of the U.S.” by Cowardin. Wetland boundaries will be defined using the *Midwest Region Manual* (USACE, 2010). Each potential wetland area will be evaluated for the presence of wetland indicators comprised of hydrophytic vegetation, hydric soils, and wetland hydrology. Functions of wetlands will be evaluated from field observations.

This task includes time for a boundary verification and preparation and submittal of preliminary jurisdictional determination to the Lake County Stormwater Management Commission (SMC). The boundary verification will be conducted in conjunction with the overall project verification.

The wetland delineation will be scheduled according to the designated Lake County SMC and USACE growing season for Lake County, which begins on May 15<sup>th</sup> and ends October 1st.

**Wetland Report:** A wetland and surface waters delineation report will not be prepared. If no wetlands are identified in this section, a summary letter will be prepared in lieu of a full report. If wetlands are present, then the findings will be included in the overall wetland report for the project.

As the resource agencies will review this entire project as one effort, separate reports and permitting will not be included in this scope.

Wetland permitting will be conducted in Phase 2 in conjunction with the overall project permitting as the resource agencies will most likely review the entire project as a whole to avoid piecemealing.

**Tree Survey and Tree Survey Report:** **No tree survey will be prepared for this project.**

**ESR Submittal:** The environmental evaluation will be initiated through the submittal of the Environmental Survey Request Form (ESRF). The ESR limits will be wide enough to incorporate reasonable alternatives and areas potentially affected, such as the drainage areas, detention areas, and compensatory storage sites. Environmental resource areas covered by the ESRF include wetlands, special waste, cultural (historical and archaeological) and state listed threatened and endangered (T&E) species. Special waste and wetlands will be conducted as part of this contract.

Huff & Huff will prepare the ESRF package and send it to the Environmental Studies Unit at IDOT District 1 for review.

### **10. Geotechnical Investigation**

This task includes obtaining roadway and structural soil borings along Arlington Heights Road between a point approximately 500' south of Thompson Drive located and Illinois Route 83 for design purposes as part of subsequent Phase II engineering. Peralte-Clark, LLC will utilize **Interra, Inc. (INTERRA)** for this work.

#### **Village of Buffalo Grove**

The scope of work includes locating and drilling three (3) roadway soil borings. The roadway borings will

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be drilled to a depth of 6.0 to 10.0 feet each from the existing ground/pavement surface, based on the existing ground elevation and proposed design grades. The roadway borings will be spaced 200 feet to 300 feet apart and staggered, in general accordance with the IDOT Geotechnical Manual guidelines. The borings will be primarily drilled within the existing roadway and in the shoulder areas of Arlington Heights road.

The location of the borings will be finalized upon consultation with the client. The location of the borings will be adjusted based on field conditions, accessibility and utility conflicts. We anticipate closing of lanes during drilling two roadway borings. Additionally, we anticipate the need for flaggers. Traffic control signage and flaggers will be utilized as needed during drilling to ensure safety of drilling crew and traffic.

The borings will be drilled with a truck-mounted drill rig. Soil sampling in the borings will be performed in general accordance with American Society for Testing and Materials (ASTM) standards, D 1586 "Penetration Test and Split Barrel Sampling of Soils". Observation for groundwater will be made during and immediately after the completion of the drilling. After the completion of the drilling, the boreholes will be backfilled with the soil auger cuttings from the same borehole. Where required, the surface will be patched with cement or asphalt to match surrounding elevations.

All field sampling and laboratory testing will be performed in general accordance with IDOT specifications. Laboratory testing includes moisture content tests, unconfined compressive strength tests using a RIMAC tester on all recovered soil samples. Standard Proctor tests, Illinois Bearing Ratio tests will be performed on bulk samples recovered from the proposed roadway areas. The final geotechnical report will be in general accordance with the IDOT Geotechnical Manual guidelines.

Environmental Screening: Interra will coordinate field activities with the environmental sub-consultant to facilitate soil sample screening with a Photoionization Detector (PID) and soil sample collection for analytical testing.

Specific work tasks will include:

- Pre-field work coordination with LCDOT on the boring plan, including traffic maintenance prior to field work.
- Post-field work meeting at LCDOT to discuss results and report preparation.
- Coordinate with environmental sub-consultant to allow soil sample screening and sampling for potential contamination.
- Prepare geotechnical report in general accordance with the IDOT Geotechnical Manual guidelines.

### **11. Preliminary Roadway Lighting Design**

The preliminary roadway lighting design for this project will be prepared by **Singh & Associates, Inc. (Singh)**, as a subconsultant.

Singh shall be responsible for providing lighting assessments for the existing lighting system and for the existing system retrofitted with LED fixtures.

Specific work tasks will include:

- Site visits and review of existing lighting conditions including photo log
- Photometric study of existing lighting system

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- Lighting exhibits showing layout of existing lighting system
- Photometric study of existing lighting retrofit with LED for preferred roadway alternative
- White paper outlining findings of the two studies
- Coordination with local and state agencies for preferences, participation, and special requirements.

### ***12. Project Design Coordination Meetings***

Project design coordination meetings with the Village are included as part of the scope of services for the LCDOT jurisdiction section, south of IL Route 83. No hours are included as part of this scope for this effort.

### ***13. Project Administration and Quality Assurance/Quality Control***

This task includes overall project administration and management, as well as Quality Assurance/Quality Control (QA/QC) reviews associated with major project deliverables.

Project administration includes managing the day to day work effort on the project to ensure an efficient project development process including work force allocations, budget oversight, monthly progress reviews to ensure project milestones are being met to the extent possible.

QA/QC reviews will occur as part of major project deliverables in accordance with Peralte-Clark's established QA/QC procedures.

Specific work tasks will include:

- General project management/administration including staff resource allocation, task/schedule oversight, quality reviews, etc.
- Prepare monthly progress reports including a copy of the overall project schedule.

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## *Scope of Services – Phase II*

The following is our proposed scope of services for Phase II Engineering on this project:

### ***1. Supplemental Field Survey and Plat of Highways Preparation***

None Anticipated.

### ***2. Environmental Surveys, Analysis and Coordination***

The environmental work for this project will be prepared by **Huff and Huff, Inc. (H&H)**, as a subconsultant.

The following scope of environmental services will be completed for the Arlington Heights Road project by H&H. These include:

- USACE Section 404 Permitting
- Lake County Stormwater Management Commission Permitting
- Preliminary Site Investigation (PSI) and CCDD

**USACE Section 404 Permitting:** Because the regulatory agencies will most likely consider the entire Arlington Heights Improvement as one project, a separate permit package for the Buffalo Grove section will not be prepared and submitted. If wetlands are present with the Buffalo Grove section, permitting and mitigation will be considered for the entire project as a whole.

**Lake County Stormwater Management Commission Permitting:** If local permitting is required, the Buffalo Grove section of Arlington Heights Road will be included in the overall permit submittal for the entire Arlington Heights Road project. It is anticipated that the regulatory agencies will review the project as a whole and not piecemeal the permitting and mitigation for the project.

**Biological Clearances:** The biological clearances will be obtained through the ESR process.

**Archeological Review:** The cultural clearances will be obtained through the ESR process.

**Preliminary Site Investigation (PSI) and CCDD:** The final scope of the PSI will be determined based on findings of the PESA proposed for completion during Phase I. The following preliminary scope is based on our understanding of the project corridor. However, additional potentially impacted properties (PIPs) or sites with recognized environmental conditions (RECs) may be identified during the PESA that have not been considered in this preliminary scope. Therefore, the PSI scope should be re-evaluated after completion of the PESA.

#### **A. Soil Borings and Soil Sampling**

H&H will collect split samples in conjunction with the proposed geotechnical borings to be completed by others. It will be important to coordinate with the project team to review the proposed geotechnical boring locations and adjust or add to their scope, as/if necessary, to provide coverage for environmental purposes. Even if borings need to be added to the geotechnical firms' scope, in our experience, it would still be more cost effective to have a single driller instead of mobilizing separately for geotechnical and

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environmental purposes. Therefore, direct costs for drilling and traffic control services have NOT been included with this scope. Also, we assume that the geotechnical drilling firm will be responsible for the utility locating process, including marking the borings in the field.

It is anticipated that one day of field effort will be required with up to six (6) borings completed, preferentially located in close proximity to any identified sites and the also staggered for coverage of both sides of the roadway. This would provide full corridor coverage for any PIPs/RECs that may be identified and also to account for CCDD assessment in non-PIP/REC areas. The final location of the borings will be determined using the findings of the PESA and proposed project plans. H&H will also determine depths of planned borings prior to mobilization consistent with project plans as provided by Client, in conjunction with PESA findings. Currently it is estimated that borings will be advanced to depths of approximately 4 to 12 feet below ground surface.

### B. Analytical

Laboratory analysis of soil samples is proposed to be consistent with constituents of concern (COCs) as determined from the PESA as presented below. Boring locations where petroleum products or other volatile organic compounds represent the primary concern, samples will be field screened with a photoionization detector (PID). The sample with the highest PID reading in each boring will be analyzed for:

- **Volatile Organic Compounds** (up to 1 sample) – VOCs are volatile compounds found in gasoline and related to various solvents;
- **Benzene, toluene, ethylbenzene, and xylenes** (up to 2 samples) – BTEX is a subset of VOC compounds and typically analyzed for petroleum-only sites that do not also include potential for chlorinated compounds.
- **Semi-Volatile Organic Compounds (SVOCs) or Polynuclear Aromatic Hydrocarbons (PNAs)** (up to 2 samples each) – SVOCs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs are a subset of SVOCs and can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil.

Other field screening factors such as visual, or proximity to potential sources of known contamination to determine which samples will be analyzed to identify the presence of:

**RCRA Metals, total and SPLP/TCLP methods** (up to 3 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. Samples will be analyzed for select RCRA Metals, some of which may require further SPLP or TCLP analysis to determine compliance with the CCDD maximum allowable concentrations (MACs) (up to 2 samples).

In addition, soil samples will be analyzed for soil pH from each boring location, analyzed with a field meter consistent with CCDD sampling requirements with select pH samples submitted for laboratory analysis (up to 6).

### C. PSI Report Preparation

A report summarizing the results of the soil sample collection activities and analytical results will be

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prepared. This document will present information pertinent for the bidding documents regarding conditions of soils tested, handling and final disposition considerations.

### D. CCDD (LPC-Form) Documentation

The soil sample results will be compared to the Maximum Allowable Concentrations (MACs) associated with CCDD facility acceptance, including the soil pH range of 6.25 to 9.0. If results achieve the MAC values, H&H will prepare the LPC-663 document that will be signed/stamped by H&H. This proposal assumes the potential for requiring a separate form for each area to account for this currently unknown situation.

Any locations that do not achieve the MACs (including soil pH range) will be identified as exclusion zones, not acceptable for CCDD facility disposal.

### **3. Roadway Plans**

The preferred alternative will be detail designed in preparation for construction plans. It is anticipated that the plans will be included as part of the overall LCDOT Arlington Heights Road roadway reconstruction contract documents and will not be prepared as a separate contract package. The project team will follow the LCDOT Plan Preparation Guidelines. It is anticipated that each submittal will be made electronically in PDF format as well as three sets of 11" x 17" sized drawings for the Preliminary and Pre-Final submittals. One (1) set of 11" x 17" plans will be provided for the Final submittal. CAD files used in the production of the plan set will also be submitted after the 100% submittal. Assembly of the construction plans will be completed under this task.

LCDOT and External Submittals and Reviews: During Phase II, the following submittals are anticipated:

- Preliminary (60%)
- Pre-Final (90%)
- Final (100%)

The Preliminary Plans will be submitted to LCDOT, local municipalities and IDOT BLRS for review. The Pre-Final contract documents will be submitted to LCDOT, LCSMC, CCDOTH, local municipalities and IDOT BLRS for review and permitting. We will also submit the contract plans to known utility companies within the project limits. This submittal will sufficiently define the conflicts so that the utility companies can, at a minimum, perform the necessary engineering for any required utility relocation work. This task shall include any meetings with reviewing parties to discuss the review.

An anticipated sheet list has been included in Attachment A and detailed out in the sections below:

General Plan Set Components: General Notes, Summary of Quantities, Schedule of Quantities, Alignment & Ties, and Typical Sections will be prepared according to LCDOT Plan Preparation Guidelines.

Removal Plan & Profile: It is anticipated that due to plan sheet clarification, separate existing/removal plan and profile sheets will be prepared.

Roadway Plan & Profile: 1" = 20' plan and profile sheets, including proposed drainage (as practical).

Traffic Control Plans: 1" = 50' Maintenance of Traffic double plan sheets by stage, including typical sections and specific maintenance of traffic notes.

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Erosion Control Plans: See Erosion Control Plans and SWPPP Plan Preparation section.

Pavement Marking & Landscaping Plans: It is anticipated due to plan sheet clarification, separate pavement marking and landscaping plans will be prepared.

Sidewalk & ADA Ramp Sheets: Separate ADA sidewalk detail sheets will be created and inserted into the plans. Details will be provided for intersection quadrants and driveway locations.

Cross Sections: The cross sections will be prepared at 50-foot intervals and will include full sections at intersections of streets, high and low points along the roadway profile, beginning of project, and end of project limits. Construction details with half width cross sections will be prepared at driveways and access points. This work will be in accordance with Lake County Division of Transportation Plan Preparation Guidelines.

Detail Sheets: Provide applicable Village of Buffalo Grove, IDOT and project specific details.

Municipal Utility Relocation Sheets: Peralte-Clark will coordinate with local municipalities to include plans (by others) in the LCDOT bid package set for the relocation of municipal-owned utilities (such as street lighting, sanitary & water utilities, etc.) as part of the LCDOT bid document package. Each participating municipality will be responsible for providing bid quantities, plans, specifications and estimates for this work in accordance with the design team's milestone deliverable dates established in the Phase II design schedule.

### 4. *Roadway Drainage Plans and Permitting*

Proposed Drainage Plan: The LDTM will utilize the contract drainage plan deliverable for the Proposed Drainage Plan (PDP), there will not be a separate PDP developed for the LDTM. The PDP being used as final contract plans includes an evaluation of proposed drainage conditions for the identified preferred alternative. A closed drainage system is anticipated to be provided within the limits of the proposed improvement. The purpose of completing an EDP and PDP will be to determine changes in drainage areas to the outfalls within the project limits and define the change in impervious area at the outfalls.

The proposed drainage system will be designed using the latest Bulletin #70 rainfall data (tentatively effective in 2020). Arlington Heights Road within this section of Buffalo Grove will consist of curb and gutter sections with storm sewer for drainage. The storm sewer sizing, inlet spacing, and the sizing of the related lateral storm sewers will be performed as part of the Phase II design. No minor culverts or driveway culverts are anticipated to be designed in this section.

Subsequent to the approval of final geometry, the PDP/Contract Plans will be prepared to reflect pertinent review comments from Buffalo Grove, LCDOT and LCSMC.

Specific work tasks associated with development of the PDP/Contract Plans for the project will include the following:

- Delineate off-site and on-site drainage areas and perform hydraulic and hydrologic analyses using XP-SWMM.
- Ensure reinstatement of existing drainage patterns.

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- Identify and account for any diversions.
- Evaluate the needs for additional rights-of-way and drainage easements for drainage purposes.
- Evaluate the stormwater detention requirements in accordance with the Lake County Watershed Development Ordinance (WDO). Runoff volume reduction (RVR) techniques will be reviewed and incorporated in the proposed drainage plan as determined appropriate.
- Evaluate the need for stormwater quality BMP enhancements in accordance with LCSMC and/or Army Corps of Engineers guidelines.
- Coordination meetings for the PDP with LCDOT, LCSMC, IDOT, the Village of Buffalo Grove and Huff and Huff relating to USACE.

### Proposed Drainage Design

- Outlet Evaluation – Evaluate existing outlets to determine their suitability for continued use and sensitivity to an increase in rate and volume of stormwater runoff. One (1) outlet is anticipated within the project limits that will need to be analyzed.
- HR Green will use XP-SWMM to create a storm sewer model for the proposed drainage system that will include the mainline storm sewer, laterals and inlets. A 10-year frequency storm will be used for design and the system will be checked for the 100-year storm event.
- Stormwater Detention Evaluation – There is no anticipated need for stormwater detention as part of this project.
- Water quality basins are not anticipated to be necessary as part of this project.
- Local & Other Agency Coordination - Coordinate drainage related issues with IDOT, LCDOT, LCSMC, and the Village of Buffalo Grove and other agencies as appropriate.
- Proposed Drainage Plan – Prepare a Proposed Drainage Plan to fully describe the proposed drainage plan and reflect drainage calculations for drainage system size, type and location.
- Floodplain Evaluation – there is no floodplain as part of this project.
- Prepare Exhibits – Complete all drainage tasks, sort out all data and exhibits and add these to the LDTM being prepared for the LCDOT in compliance with requirements listed in ACEC-Illinois / IDOT 2014 Drainage Seminar handouts.
- A site visit is intended to clarify field conditions related to the design of the drainage facilities. Allocated two personnel for one (1) site visit for this project.

Permitting: HR Green will coordinate with and prepare Permits for LCSMC based on the WDO. Based on the anticipated impervious area detention will not be required due to a change in impervious area but may be required for sensitive outlets. Erosion and sediment control permitting will be completed by others and wetland and riparian permitting will be completed by others. The LCSMC permitting for Buffalo Grove will not be separate and will be combined with the permitting completed for the LCDOT portion of Arlington Heights Road.

Technical Drainage Memorandum: This task includes inclusion of the Buffalo Grove portion of the project in the Location Drainage Technical Memorandum (LDTM) being prepared for LCDOT for this project. It is anticipated that the LDTM will follow the 2014 ACEC Drainage Seminar format for improvements associated with this project, except that the final drainage plan and profile sheets will be used as a PDP in the LDTM. The LDTM for Buffalo Grove will not be separate and will be combined with the LDTM completed for the LCDOT portion of Arlington Heights Road.

### Deliverables:

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- a) The following will be provided at the Preliminary Plan (60%) submittal stage:
  - i. The submittals will include the following:
    - (1) Contract Plans
      - (a) Drainage and Utility Plan and Profile Plans (20 scale);
      - (b) Drainage Schedules; and
    - (2) Opinion of Probable Construction Cost for drainage related items.
  
- b) The deliverables for the contract include the following at a Pre-Final plan (90%) and Final Plan (100%) submittal stages:
  - ii. The submittals will include the following:
    - (1) Contract Plans
      - (a) Drainage and Utility Plan and Profile Plans (20 scale);
      - (b) Drainage Schedules;
    - (2) Special Provisions for any non-standard drainage related items; and
    - (3) Opinion of Probable Construction Cost for drainage related items.
  
  - iii. The submittal will include:
    - (1) A .pdf copy of the listed plan sheets;
    - (2) An electronic copy of any special provisions required;
    - (3) An electronic copy of the opinion of probable construction cost for drainage related items;

### 5. *Retaining Wall Design*

No retaining wall is assumed to be required in the Buffalo Grove section.

### 6. *Erosion Control Plans and SWPPP Plan Preparation*

A Storm Water Pollution Prevention Plan (SWPPP) and required special provision, will be prepared for inclusion in the contract documents. All erosion control design will be in accordance with the latest IEPA, IDOT, and County requirements.

Staged Erosion Control Sheets will be prepared and included in the plans.

### 7. *Utility Coordination*

The utility coordination for this project will be completed by **HBK Engineering, Inc. (HBK)**, as a subconsultant.

#### Coordination

HBK will continue to coordinate with utility companies during the Phase II Engineering phase. HBK will draft and send Notices of Interference and/or other required correspondence to notify utilities of the project and to begin their protection and relocation processes. Preliminary (60%) plans and electronic files will be sent to utility companies to review the proposed improvements and identify impacts/conflicts to their facilities. Pre-final plans will be sent to utility companies for their use in preparing any relocation plans.

HBK will continue to coordinate with utility companies throughout Phase II until utility protection or

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relocation plans are submitted by the utility companies or until verification of clearance is confirmed. Additionally, HBK will review utility relocation plans and permit submittals.

HBK will also coordinate with the roadway design team to integrate utility protection and relocation plans and timelines into the contract documents.

### Utility Coordination Meetings

HBK will plan, attend, and lead up to two (2) joint utility coordination meetings, and all impacted utilities will be invited so that their relocations, if any, can be mutually coordinated.

### **8. *Specifications and Estimates***

We will prepare Final contract plans based on comments received on the Pre-Final Plan submittal from LCDOT and permitting agencies. The Final Plans Submittal will be prepared based on the anticipated drawings as outlined in Attachment A.

Final Plans - After completion of all agency reviews and resolution of any other agency or utility company concerns, the contract plans will be finalized. In order to assist the Resident Engineer (RE) we will furnish the County, as part of our deliverables, detailed information including all design, quantity calculations, and MicroStation files in their format. We will also prepare a technical memorandum to the RE highlighting any key issues, commitments, or special concerns that arose during the design stage of the project. LCDOT will be responsible for letting the project. Peralte-Clark we will provide the County with pdfs of the plans and bid documents as assembled by LCDOT for the bidding. We will also submit the contract plans to the various utility companies for their permitting of any necessary relocations.

Special Provisions - We will prepare special provisions that supplement or amend the special provisions contained in the latest edition of the Standard Specifications for Road and Bridge Construction adopted by the Illinois Department of Transportation and the latest edition of the Standard Specifications for Sewer and Watermain Construction in Illinois. Applicable County special provisions will be utilized to supplement the Standard Specifications. In addition, we will include the latest IDOT Recurring Special Provisions Check Sheet. The most recent set of IDOT's Bureau of Design and Environment Special Provisions and District 1 Special Provisions will be reviewed and included in the special provisions where applicable. This package will be created for the Pre-Final and Final Submittals.

Quantity Calculations and Estimate of Cost – We will perform detailed quantity calculations at each milestone submittal stage of the plan development. We will use the quantities of work in order to calculate an Engineer's Estimate of Cost based on recent bid tab information for projects of similar scope and magnitude.

Estimate of Construction Time - This estimate will be provided based on the tabulated quantities using IDOT BDE Form 220A. The Estimate of Construction Time will be provided at the Pre-Final and Final milestone submittals.

Final 3D Model Files – A final top of surface grading plan will be provided for contractor use on this project in land .xml format. This information will be provided for reference only and will include a disclaimer for the contractor to use at their own risk.

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### **9. Project Design Coordination Meetings**

Project design coordination meetings with the Village are included as part of the scope of services for the LCDOT jurisdiction section, south of IL Route 83. No hours are included as part of this scope for this effort.

### **10. Project Administration and Quality Assurance/Quality Control**

This task includes overall project administration and management, as well as Quality Assurance/Quality Control (QA/QC) reviews associated with major project deliverables.

Project administration includes managing the day to day work effort on the project to ensure an efficient project development process including work force allocations, budget oversight, monthly progress reviews to ensure project milestones are being met to the extent possible.

QA/QC reviews under this task will occur as part of major project deliverables in accordance with Peralte-Clark's established QA/QC procedures. Peralte-Clark's QA/QC Plan also requires progress reviews during the design development. Effort associated with these reviews is included with the specific discipline task outlined in this scope.

Specific work tasks will include:

- General project management/administration including staff resource allocation, task/schedule oversight, quality reviews, etc.
- Prepare monthly progress reports including a copy of the overall project schedule.

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### *Fee for Engineering Services*

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Based on the Scope of Services, the fee for engineering services will be billed on a cost plus fixed fee basis with a not-to-exceed upper limit of one hundred fifty-nine thousand six hundred thirty-two dollars and two cents (\$159,632.02).

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Peralte-Clark, LLC

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Phase I									
CECS Item	Total	Percentage	Peralte-Clark	HR Green	HBK	Huff & Huff	Interra	Singh	
P1 - Data Collection	14	5%	12	0	0	0	0	2	
P1 - Survey	96	35%	2	94	0	0	0	0	
P1 - Roadway Drainage	32	12%	8	24	0	0	0	0	
P1 - Alternate Geometric Studies	0	0%	0	0	0	0	0	0	
P1 - Utility Coordination	24	9%	4	0	20	0	0	0	
P1 - Intersection Design Studies & ADA	0	0%	0	0	0	0	0	0	
P1 - Environmental	58	21%	4	0	0	54	0	0	
P1 - Geotechnical Investigation	26	10%	2	0	0	0	24	0	
P1 - Lighting	8	3%	4	0	0	0	0	4	
P1 - Project Meetings	0	0%	0	0	0	0	0	0	
P1 - Project Admin & QAQC	14	5%	4	6	0	4	0	0	
<b>Totals</b>	<b>272</b>	<b>100%</b>	<b>40</b>	<b>124</b>	<b>20</b>	<b>58</b>	<b>24</b>	<b>6</b>	

Phase II									
CECS Item	Total	Percentage	Peralte-Clark	HR Green	HBK	Huff & Huff	Interra	Singh	
P2 - Survey	0	0%	0	0	0	0	0	0	
P2 - Environmental	65	10%	8	0	0	57	0	0	
P2 - Roadway Plans	350	52%	350	0	0	0	0	0	
P2 - Drainage Plans	81	12%	12	69	0	0	0	0	
P2 - Retaining Wall Plans	0	0%	0	0	0	0	0	0	
P2 - NPDES Permitting & SWPPP	36	5%	36	0	0	0	0	0	
P2 - Utility Coordination	28	4%	4	0	24	0	0	0	
P2 - Specifications and Estimates	53	8%	44	9	0	0	0	0	
P2 - Project Meetings	0	0%	0	0	0	0	0	0	
P2 - Project Admin & QAQC	54	8%	42	4	0	8	0	0	
P2 - Construction Involvement	0	0%	0	0	0	0	0	0	
<b>Totals</b>	<b>667</b>	<b>100%</b>	<b>496</b>	<b>82</b>	<b>24</b>	<b>65</b>	<b>0</b>	<b>0</b>	

Grand Totals									
CECS Item	Total	Percentage	Peralte-Clark	HR Green	HBK	Huff & Huff	Interra	Singh	
<b>Phase I Total</b>	<b>272</b>	<b>29%</b>	<b>40</b>	<b>124</b>	<b>20</b>	<b>58</b>	<b>24</b>	<b>6</b>	
<b>Phase II Total</b>	<b>667</b>	<b>71%</b>	<b>496</b>	<b>82</b>	<b>24</b>	<b>65</b>	<b>0</b>	<b>0</b>	
<b>Total</b>	<b>939</b>	<b>100%</b>	<b>536</b>	<b>206</b>	<b>44</b>	<b>123</b>	<b>24</b>	<b>6</b>	

## Exhibit C

Peralte-Clark, LLC

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
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### Phase 1

<b>1</b>	<b><i>Data Collection, Compilation, Review and Evaluation</i></b>		<b>12</b>				
	Initial Field Review with photo log	P1 - Data Collection	2	2	people	1	
	Data Collection Coordination with Stakeholders	P1 - Data Collection	4	2	stakeholders	2	
	Review facility deficiencies	P1 - Data Collection	6	1	Lump Sum	6	
<b>2</b>	<b><i>Field Survey Work</i></b>		<b>2</b>				
	Subconsultant Coordination	P1 - Survey	2	1	Lump Sum	2	
<b>3</b>	<b><i>Alternate Geometric Studies</i></b>		<b>0</b>				
	Alternate Geometric Studies	P1 - Alternate Geometric Studies	0			0	
<b>4</b>	<b><i>Roadway Drainage</i></b>		<b>8</b>				
	Provide Design Input and Coordination	P1 - Roadway Drainage	8	1	Lump Sum	8	
<b>5</b>	<b><i>Retaining Wall Design</i></b>		<b>0</b>				
	Provide Design Input and Coordination	P1 - Retaining Wall	0	1	Lump Sum	0	
<b>6</b>	<b><i>Traffic Maintenance Analysis</i></b>		<b>0</b>				
	Provide Design Input and Coordination	P1 - Traffic Maintenance Analysis	0	1	Lump Sum	0	
<b>7</b>	<b><i>Utility Coordination</i></b>		<b>4</b>				
	Utility Coordination	P1 - Utility Coordination	4	1	Lump Sum	4	1 Peralte-Clark Attendee
<b>8</b>	<b><i>Intersection Design Studies &amp; ADA Design</i></b>		<b>0</b>				
	IDS (IDOT Format)	P1 - Intersection Design Studies & ADA	0	1	intersections	0	Included in LCDOT Scope
	ADA Ramp Sheets (IL 83 Intersection)	P1 - Intersection Design Studies & ADA	0	2	Locations	0	Included in LCDOT Scope
<b>9</b>	<b><i>Environmental Surveys, Analysis and Coordination</i></b>		<b>4</b>				
	Provide Design Input and Coordination	P1 - Environmental	4	1	Lump Sum	4	
<b>10</b>	<b><i>Geotechnical Investigation</i></b>		<b>2</b>				
	Provide Design Input and Coordination	P1 - Geotechnical Investigation	2	1	Lump Sum	2	
<b>11</b>	<b><i>Preliminary Roadway Lighting</i></b>		<b>4</b>				
	Provide Design Input and Coordination	P1 - Lighting	4	1	Lump Sum	4	
<b>12</b>	<b><i>Project Meetings</i></b>		<b>0</b>				
	Meetings with Buffalo Grove	P1 - Project Meetings	0	0	Meetings	0	Included in LCDOT Scope
<b>13</b>	<b><i>Project Administration and QA/QC</i></b>		<b>4</b>				
	Project Management and Administration	P1 - Project Admin & QAQC	2	0.05	Percentage	36	approximately 5% of total hours
	QA/QC	P1 - Project Admin & QAQC	2	0.04	Percentage	36	

## Exhibit C

Peralte-Clark, LLC

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
<b>Phase 2</b>							
<b>1</b>	<b>Supplemental Field Survey and Plat of Highways Preparation</b>		<b>0</b>				
	Subconsultant Coordination	P2 - Survey	0	1	Lump Sum	0	
<b>2</b>	<b>Environmental Surveys, Analysis and Coordination</b>		<b>8</b>				
	Provide Permitting Input and Coordination	P2 - Environmental	8	1	Lump Sum	8	
<b>3</b>	<b>Roadway Plans</b>		<b>350</b>				
	General Notes/Index/Standards Sheets	P2 - Roadway Plans	4	1	Sheets	4	
	Summary of Quantities	P2 - Roadway Plans	4	2	Sheets	2	
	Schedule of Quantities	P2 - Roadway Plans	16	2	Sheets	8	
	Typical Sections	P2 - Roadway Plans	16	1	Sheets	16	
	Removal Plan & Profile	P2 - Roadway Plans	32	2	Sheets	16	
	Proposed Roadway Plan & Profile	P2 - Roadway Plans	48	2	Sheets	24	
	Traffic Control Plans	P2 - Roadway Plans	56	2	Sheets	28	
	Pavement Marking & Landscaping Plans	P2 - Roadway Plans	48	2	Sheets	24	
	Sidewalk & ADA Ramp Sheets	P2 - Roadway Plans	12	1	Sheets	12	Assumes two (2) ADA ramp design locations per sheet, 6 hrs. per location
	Cross Sections	P2 - Roadway Plans	90	12	Cross Sections	7.5	
	Detail Sheets	P2 - Roadway Plans	18	3	Sheets	6	
	Municipal Utility Relocation Sheets Coordination	P2 - Roadway Plans	6	3	Sheets	2	
<b>4</b>	<b>Roadway Drainage Plans and Permitting</b>		<b>12</b>				
	Provide Design Input and Coordination	P2 - Drainage Plans	12	1	Lump Sum	12	
<b>5</b>	<b>Retaining Wall Design</b>		<b>0</b>				
	Provide Design Input and Coordination	P2 - Retaining Wall Plans	0	1	Lump Sum	0	
<b>6</b>	<b>Erosion Control Plans and SWPPP Plan Preparation</b>		<b>36</b>				
	Prepare Staged Erosion Control Sheets (2 Stages)	P2 - NPDES Permitting & SWPPP	30	5	Sheets	6	
	SWPPP Calculations (Pre, Post Runoff, etc.)	P2 - NPDES Permitting & SWPPP	6	1	Lump Sum	6	
<b>7</b>	<b>Utility Coordination</b>		<b>4</b>				
	Utility Specific Meetings	P2 - Utility Coordination	4	1	Meetings	4	1 Peralte-Clark attendee, including travel time
<b>8</b>	<b>Specifications and Estimates</b>		<b>44</b>				
	Special Provisions	P2 - Specifications and Estimates	16	1	Volume	16	
	Quantity Calculations/Cost Estimate	P2 - Specifications and Estimates	24	16	Pay Items	1.5	
	Estimate of Construction Time	P2 - Specifications and Estimates	4	1	BDE 220A Form Submissions	4	
<b>9</b>	<b>Project Meetings</b>		<b>0</b>				
	Meetings with Buffalo Grove	P2 - Project Meetings	0	0	Meetings	0	Included in LCDOT Scope
<b>10</b>	<b>Project Administration &amp; QA/QC</b>		<b>42</b>				
	Project Management and Administration	P2 - Project Admin & QAQC	23	0.05	Percentage	454	percentage of Phase II subtotal
	QA/QC	P2 - Project Admin & QAQC	19	0.04	Percentage	454	Milestone Submittal for Overall QA/QC
<b>11</b>	<b>Construction Involvement</b>		<b>0</b>				

## Exhibit C

Peralte-Clark, LLC

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
	Construction Shop Drawing Reviews	P2 - Construction Involvement	0	0	Shop Drawing Reviews	0	
	Construction RFI's	P2 - Construction Involvement	0	0	RFI Responses	0	
	Construction Meetings Including Punch List Meeting	P2 - Construction Involvement	0	0	Meetings	0	

## Exhibit C

HR Green, Inc.

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
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### Phase 1

<b>2</b>	<b>Field Survey Work</b>		<b>94</b>				
	Topographic Survey	P1 - Survey	62	1	Lump Sum	62	
	Base Mapping	P1 - Survey	32	1	Lump Sum	32	
<b>4</b>	<b>Roadway Drainage</b>		<b>24</b>				
	Preliminary Drainage Evaluation	P1 - Roadway Drainage	8	1	Lump Sum	8	
	Existing Drainage Plan	P1 - Roadway Drainage	12	2	sheets	6	
	Discipline Specific QA/QC	P1 - Roadway Drainage	4	1	Lump Sum	4	
<b>12</b>	<b>Project Design Coordination Meetings</b>		<b>0</b>				
	Meetings with Buffalo Grove	P1 - Project Meetings	0	0	Meetings	0	Included in LCDOT scope
<b>13</b>	<b>Project Administration &amp; QA/QC</b>		<b>6</b>				
	General Project Administration	P1 - Project Admin & QAQC	6	0.05	Percentage	118	
	QA/QC of Milestone Submittals - Peralte-Clark only	P1 - Project Admin & QAQC	0		Submittals		

### Phase 2

<b>4</b>	<b>Roadway Drainage Plans and Permitting</b>		<b>69</b>				
	outlet evaluation	P2 - Drainage Plans	4	1	each	4	
	storm sewer design and inlet spacing	P2 - Drainage Plans	8	1	Lump Sum	8	
	Drainage Related General Notes	P2 - Drainage Plans	2	1	sheets	2	
	Schedule of Quantities - drainage removal items only	P2 - Drainage Plans	4	1	sheets	4	
	Drainage Removal Plans - no sheets - cross hatching in base	P2 - Drainage Plans	4	1	sheets	4	
	Drainage Plan and Profiles (1" = 20') - 11 hrs/sheet	P2 - Drainage Plans	22	2	sheets	11	
	Design of Rain Garden	P2 - Drainage Plans	0	1	each	0	
	Miscellaneous Drainage Details - 10 hrs/sheet	P2 - Drainage Plans	4	1	sheets	4	
	Cross-Sections - Coordinate and provide alignments and profiles of storm sewer	P2 - Drainage Plans	4	1	Lump Sum	4	
	Existing Storm Sewer Quantities - 2 hrs per PnP Sheet	P2 - Drainage Plans	2	1	sheets	2	
	Storm Sewer Quantities - 2 hrs per PnP Sheet	P2 - Drainage Plans	4	2	sheets	2	
	Lake County SMC Permit Submittal	P2 - Drainage Plans	4	1	Lump Sum	4	No separate submittal. Included with LCDOT SMC permitting.
	LDTM	P2 - Drainage Plans	4	1	Lump Sum	4	No separate submittal. Included with LCDOT SMC permitting.
	Discipline Specific QA/QC	P2 - Drainage Plans	3	0.04	Percentage	66	
<b>8</b>	<b>Specifications and Estimates</b>		<b>9</b>				
	Special Provisions - Drainage	P2 - Specifications and Estimates	4	1	Volume	4	
	Quantity Calculations/Cost Estimate	P2 - Specifications and Estimates	4	1	Pay Items	4	
	Estimate of Construction Time	P2 - Specifications and Estimates	0				
	Discipline Specific QA/QC	P2 - Specifications and Estimates	1	0.04	Percentage	8	
<b>9</b>	<b>Project Design Coordination Meetings</b>		<b>0</b>				
	Meetings with Buffalo Grove	P2 - Project Meetings	0	3	Meetings	0	Included in LCDOT scope

## Exhibit C

HR Green, Inc.

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
<b>10</b>	<b>Project Administration &amp; QA/QC</b>		<b>4</b>				
	General Project Administration	P2 - Project Admin & QAQC	4	0.05	Percentage	78	Percentage of Phase II subtotal
	QA/QC of Milestone Submittals - Peralte-Clark only	P2 - Project Admin & QAQC	0	0	Percentage	78	Milestone Submittal for Overall QA/QC
<b>11</b>	<b>Construction Involvement</b>		<b>0</b>				
	Construction Shop Drawing Reviews	P2 - Construction Involvement	0	0	Shop Drawing Reviews	0	
	Construction RFI's	P2 - Construction Involvement	0	0	RFI Responses	0	

Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
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*Phase 1*

<b>10</b>	<b>Utility Coordination</b>		<b>20</b>				
	Initial Coordination / Data Collection	P1 - Utility Coordination	4				
	Utility Locating (SUE D and B)	P1 - Utility Coordination	6				
	Utility Data Base Mapping	P1 - Utility Coordination	6				
	Preliminary Design Coordination	P1 - Utility Coordination	4				

*Phase 2*

<b>9</b>	<b>Utility Coordination</b>		<b>24</b>				
	Final Design Coordination	P2 - Utility Coordination	24				

## Exhibit C

Huff Huff, Inc.

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
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### Phase 1

13	<b><i>Environmental Surveys, Analysis and Coordination</i></b>		<b>58</b>				
	Preliminary Environmental Site Assessment	P1 - Environmental	36	1	Lump Sum	36	
	Wetland/Surface Waters Delineation	P1 - Environmental	4	1	Lump Sum	4	
	Wetland Report	P1 - Environmental	4	1	Lump Sum	4	
	Environmental Due Diligence	P1 - Environmental	6	1	Lump Sum	6	
	ESR Submittal	P1 - Environmental	4	1	Lump Sum	4	
		P1 - Environmental	0	1	Lump Sum		
		P1 - Environmental	0	1	Lump Sum		
	Discipline Specific QA/QC	P1 - Project Admin & QAQC	4	1	Included	4	

### Phase 2

3	<b><i>Environmental Surveys, Analysis and Coordination</i></b>		<b>61</b>				
	USACE Section 404 Permitting	P2 - Environmental	2	1	Lump Sum	2	
	Lake County SMC Permitting	P2 - Environmental	4	1	Lump Sum	4	
	Biological Clearances	P2 - Environmental	0		Lump Sum		
	Archeological Review	P2 - Environmental	0		Lump Sum		
	PSI and CCDD	P2 - Environmental	51	1	Lump Sum	51	
	Discipline Specific QA/QC	P2 - Project Admin & QAQC	4	1	Lump Sum	4	
13	<b><i>Project Administration &amp; QA/QC</i></b>		<b>4</b>				
	General Project Administration	P2 - Project Admin & QAQC	4	1	Lump Sum	4	
	QA/QC of Milestone Submittals - Peralte-Clark only	P2 - Project Admin & QAQC	0				

## Exhibit C

Interra, Inc.

Section No. 17-00193-08-PV: Arlington Heights Road  
from IL 83 to Lake Cook Road  
Buffalo Grove Share of Project Cost



Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
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### Phase 1

<b>14 Geotechnical Investigation</b>			<b>24</b>				
Field Work	P1 - Geotechnical Investigation		10	1	Lump Sum	10	
Geotech Report	P1 - Geotechnical Investigation		14	1	Lump Sum	14	

# Exhibit C

Singh + Associates, Inc.

Section No. 17-00193-08-PV: Arlington Heights Road

from IL 83 to Lake Cook Road

Buffalo Grove Share of Project Cost

**SINGH**

Scope #	Scope Item	CECS Item	Total Hours	Assumed Quantity	Assumed Unit	Assumed Hours Per Unit	Comments
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## Phase 1

1	<i>Data Collection, Compilation, Review and Evaluation</i>		2				
	Initial Field Review with photo log	P1 - Data Collection	2	2	people	1	Site Visit for verification and photo log
15	<i>Preliminary Roadway Lighting</i>		4				
	Photometric Study of Existing Lighting System	P1 - Lighting	1	1	Lump Sum	1	
	Photometric Study of LED Retrofit	P1 - Lighting	1	1	Lump Sum	1	
	White Paper outlining findings	P1 - Lighting	2	1	Lump Sum	2	

**Exhibit C**  
**EXHIBIT A - DESIGN ENGINEERING**  
**Peralte-Clark, LLC**

Route:  
 Local  
 Section:  
 Project:  
 Job No:

Arlington Heights Road (V69)  
 Lake County Division of Transportation  
 (Municipality/Township/County)  
 IL Route 83 to 500' South of Thompson Blvd.  
 Buffalo Grove Jurisdiction Work  
 TBD

\*Firm's **approved rates** on file with  
 Bureau of Accounting and Auditing:

Overhead Rate (OH)	200.00%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Plus Fixed Fee Methods of Compensation:**

Fixed Fee 1  
 Fixed Fee 2  
 Specific Rate  
 Lump Sum

14.5%[DL + R(DL) + OH(DL) + IHDC]  
 14.5%[(2.3 + R)DL + IHDC]  
 10%(DL + (OH\*DL))

Cost Estimate of Consultant's Services in Dollars										
Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
Phase I				\$ -	\$ -				\$ -	\$ -
Task 1 - Data Collection, Compilation, Review and Evaluation	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	1	\$ 70.00	\$ 70.00	\$ 140.00				\$ 30.45	\$ 240.45
	Project Engineer	3	\$ 57.85	\$ 173.55	\$ 347.10				\$ 75.49	\$ 596.14
	Design Engineer	4	\$ 46.35	\$ 185.40	\$ 370.80				\$ 80.65	\$ 636.85
	Engineering Tech.	4	\$ 36.07	\$ 144.28	\$ 288.56				\$ 62.76	\$ 495.60
Task 2 - Field Survey Work	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	1	\$ 70.00	\$ 70.00	\$ 140.00				\$ 30.45	\$ 240.45
	Project Engineer	1	\$ 57.85	\$ 57.85	\$ 115.70				\$ 25.16	\$ 198.71
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 3 - Alternate Geometric Studies	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 4 - Roadway Drainage	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	1	\$ 70.00	\$ 70.00	\$ 140.00				\$ 30.45	\$ 240.45
	Project Engineer	3	\$ 57.85	\$ 173.55	\$ 347.10				\$ 75.49	\$ 596.14
	Design Engineer	2	\$ 46.35	\$ 92.70	\$ 185.40				\$ 40.32	\$ 318.42
	Engineering Tech.	2	\$ 36.07	\$ 72.14	\$ 144.28				\$ 31.38	\$ 247.80
Task 5 - Retaining Wall Design	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 6 - Traffic Maintenance Analysis	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 7 - Utility Coordination	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -

**Exhibit C**  
**EXHIBIT A - DESIGN ENGINEERING**  
**Peralte-Clark, LLC**

Route:  
 Local  
 Section:  
 Project:  
 Job No:

Arlington Heights Road (V69)  
 Lake County Division of Transportation  
 (Municipality/Township/County)  
 IL Route 83 to 500' South of Thompson Blvd.  
 Buffalo Grove Jurisdiction Work  
 TBD

\*Firm's **approved rates** on file with  
 Bureau of Accounting and Auditing:

Overhead Rate (OH)	200.00%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Plus Fixed Fee Methods of Compensation:**

14.5%[DL + R(DL) + OH(DL) + IHDC]  
 14.5%[(2.3 + R)DL + IHDC]  
 10%(DL + (OH\*DL))  
 Lump Sum

Cost Estimate of Consultant's Services in Dollars										
Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
	Project Manager	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	2	\$ 46.35	\$ 92.70	\$ 185.40				\$ 40.32	\$ 318.42
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 8 - Intersection Design Studies & ADA Design	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 9 - Environmental Surveys, Analysis and Coordination	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90
	Project Engineer	2	\$ 57.85	\$ 115.70	\$ 231.40				\$ 50.33	\$ 397.43
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 10 - Geotechnical Investigation	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	1	\$ 70.00	\$ 70.00	\$ 140.00				\$ 30.45	\$ 240.45
	Project Engineer	1	\$ 57.85	\$ 57.85	\$ 115.70				\$ 25.16	\$ 198.71
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 11 - Preliminary Roadway Lighting	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90
	Project Engineer	2	\$ 57.85	\$ 115.70	\$ 231.40				\$ 50.33	\$ 397.43
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 12 - Project Meetings	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 13 - Project Administration and QA/QC	Principal	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90
	Project Manager	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -

**Exhibit C**  
EXHIBIT A - DESIGN ENGINEERING  
Peralte-Clark, LLC

Route:  
Local

Section:  
Project:  
Job No:  
Arlington Heights Road (V69)  
Lake County Division of Transportation  
(Municipality/Township/County)  
IL Route 83 to 500' South of Thompson Blvd.  
Buffalo Grove Jurisdiction Work  
TBD

**Cost Plus Fixed Fee Methods of Compensation:**

14.5%[DL + R(DL) + OH(DL) + IHDC]  
 14.5%[(2.3 + R)DL + IHDC]  
 10%(DL + (OH\*DL))  
 Lump Sum

\*Firm's **approved rates** on file with  
Bureau of Accounting and Auditing:

Overhead Rate (OH)	200.00%
Complexity Factor (R)	0.00
Calendar Days	

Cost Estimate of Consultant's Services in Dollars										
Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
<b>Phase II</b>				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
Task 1 - Supplemental Field Survey and Plat of Highways Prep.	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 2 - Environmental Surveys, Analysis and Coordination	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	4	\$ 70.00	\$ 280.00	\$ 560.00				\$ 121.80	\$ 961.80
	Project Engineer	4	\$ 57.85	\$ 231.40	\$ 462.80				\$ 100.66	\$ 794.86
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 3 - Roadway Plans	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	36	\$ 70.00	\$ 2,520.00	\$ 5,040.00				\$ 1,096.20	\$ 8,656.20
	Project Engineer	90	\$ 57.85	\$ 5,206.50	\$ 10,413.00				\$ 2,264.83	\$ 17,884.33
	Design Engineer	100	\$ 46.35	\$ 4,635.00	\$ 9,270.00				\$ 2,016.23	\$ 15,921.23
	Engineering Tech.	124	\$ 36.07	\$ 4,472.68	\$ 8,945.36				\$ 1,945.62	\$ 15,363.66
Task 4 - Roadway Drainage Plans and Permitting	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	3	\$ 70.00	\$ 210.00	\$ 420.00				\$ 91.35	\$ 721.35
	Project Engineer	3	\$ 57.85	\$ 173.55	\$ 347.10				\$ 75.49	\$ 596.14
	Design Engineer	6	\$ 46.35	\$ 278.10	\$ 556.20				\$ 120.97	\$ 955.27
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 5 - Retaining Wall Design	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 6 - Erosion Control Plans and SWPPP Plan Preparation	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90
	Project Engineer	6	\$ 57.85	\$ 347.10	\$ 694.20				\$ 150.99	\$ 1,192.29
	Design Engineer	10	\$ 46.35	\$ 463.50	\$ 927.00				\$ 201.62	\$ 1,592.12
	Engineering Tech.	18	\$ 36.07	\$ 649.26	\$ 1,298.52				\$ 282.43	\$ 2,230.21
Task 7 - Utility Coordination	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	2	\$ 70.00	\$ 140.00	\$ 280.00				\$ 60.90	\$ 480.90

**Exhibit C**  
EXHIBIT A - DESIGN ENGINEERING  
Peralte-Clark, LLC

Route:  
Local  
  
Section:  
Project:  
Job No:

Arlington Heights Road (V69)  
Lake County Division of Transportation  
(Municipality/Township/County)  
IL Route 83 to 500' South of Thompson Blvd.  
Buffalo Grove Jurisdiction Work  
TBD

\*Firm's **approved rates** on file with  
Bureau of Accounting and Auditing:

Overhead Rate (OH)	200.00%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Plus Fixed Fee Methods of Compensation:**

14.5%[DL + R(DL) + OH(DL) + IHDC]  
 14.5%[(2.3 + R)DL + IHDC]  
 10%(DL + (OH\*DL))

Lump Sum

Cost Estimate of Consultant's Services in Dollars										
Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
	Project Engineer	2	\$ 57.85	\$ 115.70	\$ 231.40				\$ 50.33	\$ 397.43
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 8 - Specifications and Estimates	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	4	\$ 70.00	\$ 280.00	\$ 560.00				\$ 121.80	\$ 961.80
	Project Engineer	18	\$ 57.85	\$ 1,041.30	\$ 2,082.60				\$ 452.97	\$ 3,576.87
	Design Engineer	10	\$ 46.35	\$ 463.50	\$ 927.00				\$ 201.62	\$ 1,592.12
	Engineering Tech.	12	\$ 36.07	\$ 432.84	\$ 865.68				\$ 188.29	\$ 1,486.81
Task 9 - Project Meetings	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 10 - Project Administration and QA/QC	Principal	21	\$ 70.00	\$ 1,470.00	\$ 2,940.00				\$ 639.45	\$ 5,049.45
	Project Manager	21	\$ 70.00	\$ 1,470.00	\$ 2,940.00				\$ 639.45	\$ 5,049.45
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
Task 11 - Construction Involvement	Principal	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Engineer	0	\$ 57.85	\$ -	\$ -				\$ -	\$ -
	Design Engineer	0	\$ 46.35	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 36.07	\$ -	\$ -				\$ -	\$ -
<b>Direct Costs</b>							\$ 1,110.00	\$ 290.00	\$ 42.05	\$ 1,442.05
<b>Subconsultants</b>										
HR Green						\$ 30,507.44			\$ -	\$ 30,507.44
HBK Engineering						\$ 5,796.57			\$ -	\$ 5,796.57
Huff & Huff						\$ 16,184.44			\$ -	\$ 16,184.44
Interra						\$ 11,045.23			\$ -	\$ 11,045.23
Singh & Associates						\$ 943.14			\$ -	\$ 943.14
<b>Totals</b>		536		\$ 27,281.85	\$ 54,563.70	\$ 64,476.82	\$ 1,110.00	\$ 290.00	\$ 11,909.65	\$ 159,632.02



**COMPANY NAME:** Peralte-Clark, LLC

PTB NUMBER: **Arlington Heights Road - Buffalo Grove Jursidiction**

TODAY'S DATE: **1/5/2020**

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

## LEGEND

W.O. = Work Order

**Exhibit C**  
**EXHIBIT A - DESIGN ENGINEERING**  
**HR Green, Inc.**

**Route:** Arlington Heights Road (V69)  
**Local**

**Section:** Lake County Division of Transportation  
**Project:** (Municipality/Township/County)  
**Job No:** IL Route 83 to 500' South of Thompson Blvd.

**Job No:** Buffalo Grove Jurisdiction Work  
**TBD**

**Cost Plus Fixed Fee Methods of Compensation:**

**Fixed Fee 1** 14.5%[DL + R(DL) + OH(DL) + IHDC]

**Fixed Fee 2** 14.5%[(2.3 + R)DL + IHDC]

**Specific Rate** 10%(DL + (OH\*DL))

**Lump Sum**

\*Firm's approved rates on file with  
Bureau of Accounting and Auditing:

Overhead Rate (OH)	167.79%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Estimate of Consultant's Services in Dollars**

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
1.2 Field Survey	Oper Mgr Survey	2	\$ 70.00	\$ 140.00	\$ 234.91		\$ 100.00	\$ 174.00	\$ 79.59	\$ 728.50
	Project LS 2	15	\$ 55.40	\$ 831.00	\$ 1,394.33				\$ 322.67	\$ 2,548.01
	Project LS 1	47	\$ 44.30	\$ 2,082.10	\$ 3,493.56				\$ 808.47	\$ 6,384.13
	Staff LS 2	30	\$ 34.80	\$ 1,044.00	\$ 1,751.73				\$ 405.38	\$ 3,201.11
1.4 Roadway Drainage	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Senior Engineer	4	\$ 70.00	\$ 280.00	\$ 469.81				\$ 108.72	\$ 858.53
	Project Manager	0	\$ 57.20	\$ -	\$ -				\$ -	\$ -
	Lead Engineer	4	\$ 62.70	\$ 250.80	\$ 420.82				\$ 97.38	\$ 769.00
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	12	\$ 37.66	\$ 451.92	\$ 758.28				\$ 175.48	\$ 1,385.68
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	4	\$ 38.90	\$ 155.60	\$ 261.08				\$ 60.42	\$ 477.10
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
1.12 Design Coordination Meetings	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -			\$ 58.00	\$ 8.41	\$ 66.41
	Senior Engineer	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 57.20	\$ -	\$ -				\$ -	\$ -
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	0	\$ 37.66	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 38.90	\$ -	\$ -				\$ -	\$ -
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
1.13 Project Administration and QA/QC	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Senior Engineer	6	\$ 70.00	\$ 420.00	\$ 704.72				\$ 163.08	\$ 1,287.80
	Project Manager	0	\$ 57.20	\$ -	\$ -				\$ -	\$ -

# Exhibit C

## EXHIBIT A - DESIGN ENGINEERING

HR Green, Inc.

Route: Arlington Heights Road (V69)  
 Local  
 Lake County Division of Transportation  
 (Municipality/Township/County)  
 IL Route 83 to 500' South of Thompson Blvd.  
 Project: Buffalo Grove Jurisdiction Work  
 Job No: TBD

### Cost Plus Fixed Fee Methods of Compensation:

Fixed Fee 1  14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Fixed Fee 2  14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate  10%(DL + (OH\*DL))  
 Lump Sum

\*Firm's approved rates on file with  
 Bureau of Accounting and Auditing:

Overhead Rate (OH)	167.79%
Complexity Factor (R)	0.00
Calendar Days	

### Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	0	\$ 37.66	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 38.90	\$ -	\$ -				\$ -	\$ -
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
2.4 Roadway Drainage	Senior Proj Mgr	4	\$ 70.00	\$ 280.00	\$ 469.81			\$ 29.00	\$ 112.93	\$ 891.74
	Senior Engineer	10	\$ 70.00	\$ 700.00	\$ 1,174.53				\$ 271.81	\$ 2,146.34
	Project Manager	20	\$ 57.20	\$ 1,144.00	\$ 1,919.52				\$ 444.21	\$ 3,507.73
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	21	\$ 37.66	\$ 790.86	\$ 1,326.98				\$ 307.09	\$ 2,424.93
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	10	\$ 38.90	\$ 389.00	\$ 652.70				\$ 151.05	\$ 1,192.75
	Project Coordinator	4	\$ 27.78	\$ 111.12	\$ 186.45				\$ 43.15	\$ 340.72
2.8 Specifications and Estimates	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Senior Engineer	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	5	\$ 57.20	\$ 286.00	\$ 479.88				\$ 111.05	\$ 876.93
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	4	\$ 37.66	\$ 150.64	\$ 252.76				\$ 58.49	\$ 461.89
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 38.90	\$ -	\$ -				\$ -	\$ -
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
2.9 Project Design and Coordination Mtg	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -			\$ 87.00	\$ 12.62	\$ 99.62

# Exhibit C

## EXHIBIT A - DESIGN ENGINEERING

HR Green, Inc.

**Route:** Arlington Heights Road (V69)  
**Local**

**Section:** Lake County Division of Transportation  
**Project:** (Municipality/Township/County)  
**Job No:** IL Route 83 to 500' South of Thompson Blvd.

**Project:** Buffalo Grove Jurisdiction Work  
**Job No:** TBD

**Cost Plus Fixed Fee Methods of Compensation:**

**Fixed Fee 1**  14.5%[DL + R(DL) + OH(DL) + IHDC]  
**Fixed Fee 2**  14.5%[(2.3 + R)DL + IHDC]  
**Specific Rate**  10%(DL + (OH\*DL))  
**Lump Sum**

\*Firm's approved rates on file with  
 Bureau of Accounting and Auditing:

Overhead Rate (OH)	167.79%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Estimate of Consultant's Services in Dollars**

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
	Senior Engineer	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 57.20	\$ -	\$ -				\$ -	\$ -
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	0	\$ 37.66	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 38.90	\$ -	\$ -				\$ -	\$ -
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
2.10 Project Administration and QA/QC	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Senior Engineer	4	\$ 70.00	\$ 280.00	\$ 469.81				\$ 108.72	\$ 858.53
	Project Manager	0	\$ 57.20	\$ -	\$ -				\$ -	\$ -
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	0	\$ 37.66	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 38.90	\$ -	\$ -				\$ -	\$ -
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
2.11 Construction Involvement	Senior Proj Mgr	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Senior Engineer	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	Project Manager	0	\$ 57.20	\$ -	\$ -				\$ -	\$ -
	Lead Engineer	0	\$ 62.70	\$ -	\$ -				\$ -	\$ -
	Project Engineer 2	0	\$ 45.92	\$ -	\$ -				\$ -	\$ -
	Project Engineer 1	0	\$ 37.66	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 2	0	\$ 33.29	\$ -	\$ -				\$ -	\$ -
	Staff Engineer 1	0	\$ 29.84	\$ -	\$ -				\$ -	\$ -
	Engineering Tech.	0	\$ 38.90	\$ -	\$ -				\$ -	\$ -

# Exhibit C

## EXHIBIT A - DESIGN ENGINEERING

HR Green, Inc.

Route: Arlington Heights Road (V69)  
 Local  
 Section: Lake County Division of Transportation  
 (Municipality/Township/County)  
 Project: IL Route 83 to 500' South of Thompson Blvd.  
 Job No: Buffalo Grove Jurisdiction Work  
 TBD

### Cost Plus Fixed Fee Methods of Compensation:

Fixed Fee 1  14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Fixed Fee 2  14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate  10%(DL + (OH\*DL))  
 Lump Sum

\*Firm's approved rates on file with  
 Bureau of Accounting and Auditing:

Overhead Rate (OH)	167.79%
Complexity Factor (R)	0.00
Calendar Days	

### Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Costs	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
	Project Coordinator	0	\$ 27.78	\$ -	\$ -				\$ -	\$ -
<b>Totals</b>		206		\$ 9,787.04	\$ 16,421.67	\$ -	\$ 100.00	\$ 348.00	\$ 3,850.72	\$ 30,507.44



**COMPANY NAME: HR Green, Inc.**

PTB NUMBER: **Arlington Heights Road - Buffalo Grove Jurisdiction**

TODAY'S DATE: **1/5/2020**

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

## LEGEND

W.O. = Work Order

# Exhibit C

## EXHIBIT A - DESIGN ENGINEERING

HBK Engineering, LLC

**Route:** Arlington Heights Road (V69)  
**Local** Lake County Division of Transportation  
**(Municipality/Township/County)**  
**Section:** IL Route 83 to 500' South of Thompson Blvd.  
**Project:** Buffalo Grove Jurisdiction Work  
**Job No:** TBD

\*Firm's **approved rates** on file with  
Bureau of Accounting and Auditing:

Overhead Rate (OH)	126.79%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Plus Fixed Fee Methods of Compensation:**

**Fixed Fee 1**   $14.5\%[DL + R(DL) + OH(DL) + IHDC]$   
**Fixed Fee 2**   $14.5\%[DL + R(DL) + 1.4(DL) + IHDC]$   
**Fixed Fee 3**   $14.5\%[(2.3 + R)DL + IHDC]$   
**Specific Rate**   $10\%(DL + (OH*DL))$   
**Lump Sum**

**Cost Estimate of Consultant's Services in Dollars**

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direc Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
Ph. 1 Util Coord	PRIN	1	\$ 70.00	\$ 70.00	\$ 88.75		\$ 105.80		\$ 23.02	\$ 287.57
Ph. 1 Util Coord	SENIOR PM	1	\$ 63.30	\$ 63.30	\$ 80.26				\$ 20.82	\$ 164.37
Ph. 1 Util Coord	PM	1	\$ 58.00	\$ 58.00	\$ 73.54				\$ 19.07	\$ 150.61
Ph. 1 Util Coord	PROJ ENG	4	\$ 45.00	\$ 180.00	\$ 228.22				\$ 59.19	\$ 467.41
Ph. 1 Util Coord	LOCATOR 3	4	\$ 37.00	\$ 148.00	\$ 187.65				\$ 48.67	\$ 384.32
Ph. 1 Util Coord	LOCATOR 2	4	\$ 33.00	\$ 132.00	\$ 167.36				\$ 43.41	\$ 342.77
Ph. 1 Util Coord	PERMIT COORD.	0	\$ 33.00	\$ -	\$ -				\$ -	\$ -
Ph. 1 Util Coord	ANALYST	1	\$ 29.00	\$ 29.00	\$ 36.77				\$ 9.54	\$ 75.31
Ph. 2 Util Coord	PRIN	4	\$ 70.00	\$ 280.00	\$ 355.01				\$ 92.08	\$ 727.09
Ph. 2 Util Coord	SENIOR PM	4	\$ 63.30	\$ 253.20	\$ 321.03				\$ 83.26	\$ 657.50
Ph. 2 Util Coord	PM	6	\$ 58.00	\$ 348.00	\$ 441.23				\$ 114.44	\$ 903.67
Ph. 2 Util Coord	PROJ ENG	14	\$ 45.00	\$ 630.00	\$ 798.78				\$ 207.17	\$ 1,635.95
Ph. 2 Util Coord	LOCATOR 3	0	\$ 37.00	\$ -	\$ -				\$ -	\$ -
Ph. 2 Util Coord	LOCATOR 2	0	\$ 33.00	\$ -	\$ -				\$ -	\$ -
Ph. 2 Util Coord	PERMIT COORD.	0	\$ 33.00	\$ -	\$ -				\$ -	\$ -
Ph. 2 Util Coord	ANALYST	0	\$ 29.00	\$ -	\$ -				\$ -	\$ -
<b>Totals</b>		44		\$ 2,191.50	\$ 2,778.60	\$ -	\$ 105.80	\$ -	\$ 720.66	\$ 5,796.57



COMPANY NAME: HBK Engineering, LLC

PTB NUMBER: **Arlington Heights Road - Buffalo Grove Jurisdiction**

TODAY'S DATE: **1/5/2020**

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

## LEGEND

W.O. = Work Order

# Exhibit C



FIRM NAME Huff & Huff, Inc.  
PRIME/SUPPLEMENT Peralte and Clark

CONTRACT TERM  
START DATE  
RAISE DATE

12 MONTHS  
1/1/2020  
3/1/2020

## Payroll Escalation Table Fixed Raises

DATE 1/6/2020  
PTB NO.   

OVERHEAD RATE 174.01%  
COMPLEXITY FACTOR 0  
% OF RAISE 3.00%

## ESCALATION PER YEAR

1/1/2020 - 3/1/2020  
2  
12

3/2/2020 - 1/1/2021  
10  
12

= 16.67%  
= 1.0250

85.83%

**The total escalation for this project would be:**

**2.50%**

# Exhibit C



## Payroll Rates

FIRM NAME  
Huff & Huff, Inc.  
PRIME/SUPPLEMENT  
Peralte and Clark  
PTB NO.  
\_\_\_\_\_

DATE 1/6/2020

ESCALATION FACTOR 2.50%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Senior Principal	\$70.00	\$70.00
Principal	\$70.00	\$70.00
Associate Principal II	\$70.00	\$70.00
Associate Principal I	\$60.26	\$61.77
Senior Consultant	\$67.18	\$68.86
Senior Geotechnical Consultant	\$62.87	\$64.44
Senior Project Manager III	\$60.00	\$61.50
Senior Project Manager II	\$45.56	\$46.70
Senior Project Manager I	\$44.00	\$45.10
Senior Landscape Architect	\$52.11	\$53.41
Senior Planning PM	\$49.90	\$51.15
Senior Geologist PM	\$43.33	\$44.41
Senior Technical Specialist	\$44.64	\$45.76
Senior Scientist PM II	\$46.14	\$47.29
Senior Scientist PM I	\$42.00	\$43.05
Senior Technical Scientist	\$39.50	\$40.49
Senior CADD Specialist	\$33.75	\$34.59
Scientist PM II	\$42.25	\$43.31
Scientist PM I	\$31.00	\$31.78
Engineer PM I	\$36.18	\$37.08
Planning PM	\$35.15	\$36.03
Architect PM	\$37.54	\$38.48
Assistant PM Engineer II	\$39.02	\$40.00
Assistant PM Engineer I	\$34.74	\$35.61
Engineer I	\$34.13	\$34.98
Scientist EI	\$26.98	\$27.65
Scientist E2	\$23.17	\$23.75
Administrative Managers	\$40.57	\$41.58
Senior Administrative Assistant	\$27.89	\$28.59
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00

## Exhibit C



### Cost Estimate of Consultant Services (CPFF)

Firm Huff & Huff, Inc.  
 Route N. Arlington Heights Road  
 Section N of IL83 to Thompson Ph I & II  
 County Lake  
 Job No.  
 PTB & Item

Date 1/6/2020

Overhead Rate 174.01%

Complexity Factor 0

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
PESA	36	1,177.35	2,048.71	49.60	474.97	250.00	0.00	4,000.63	24.72%
Environmental Due Diligence	6	219.08	381.23	0.00	87.05	0.00	0.00	687.36	4.25%
ESR Submittal	4	189.44	329.65	0.00	75.27	0.00	0.00	594.35	3.67%
Wetland delineation	4	161.95	281.81	0.00	64.35	0.00	0.00	508.10	3.14%
Wetland Report	4	161.95	281.81	0.00	64.35	0.00	0.00	508.10	3.14%
QA/QC	4	247.07	429.92	0.00	98.16	0.00	0.00	775.15	4.79%
PSI and CCDD	51	1,660.99	2,890.29	46.40	666.66	1,505.00	0.00	6,769.35	41.83%
Project QA/QC	4	213.73	371.92	0.00	84.92	0.00	0.00	670.57	4.14%
USACE Permitting	2	80.98	140.90	0.00	32.17	0.00	0.00	254.05	1.57%
Lake County SMC	4	204.51	355.86	0.00	81.25	0.00	0.00	641.63	3.96%
Project Admin	4	247.07	429.92	0.00	98.16	0.00	0.00	775.15	4.79%
<b>TOTALS</b>	123	4,564.11	7,942.02	96.00	1,827.31	1,755.00	0.00	16,184.44	100.00%

Method of Compensation:

Cost Plus Fixed Fee 1  
 Cost Plus Fixed Fee 2  
 Cost Plus Fixed Fee 3  
 Specific Rate  
 Lump Sum

14.5%[DL + R(DL) + OH(DL) + IHDC]  
 14.5%[DL + R(DL) + 1.4(DL) + IHDC]  
 14.5%[(2.3 + R)DL + IHDC]



## Exhibit C

Route N. Arlington Heights Road  
 Section N of IL83 to Thompson Ph I & II  
 County Lake  
 Job No.  
 PTB/Item

Consultant Huff & Huff, Inc.

### Average Hourly Project Rates

Date 1/6/2020

Sheet 1 OF 2

Payroll Classification	Avg Hourly Rates	Total Project Rates			PESA			Environmental Due Diligence			ESR Submittal			Wetland delineation			Wetland Report		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Principal	70.00	0																	
Principal	70.00	0																	
Associate Principal II	70.00	0																	
Associate Principal I	61.77	15.5	12.60%	7.78	0.5	1.39%	0.86	1	16.67%	10.29	1	25.00%	15.44						
Senior Consultant	68.86	0																	
Senior Geotechnical Consultant	64.44	0																	
Senior Project Manager III	61.50	0																	
Senior Project Manager II	46.70	2	1.63%	0.76				1	16.67%	7.78	1	25.00%	11.67						
Senior Project Manager I	45.10	2	1.63%	0.73															
Senior Landscape Architect	53.41	0																	
Senior Planning PM	51.15	0																	
Senior Geologist PM	44.41	4	3.25%	1.44	2	5.56%	2.47												
Senior Technical Specialist	45.76	0																	
Senior Scientist PM II	47.29	0																	
Senior Scientist PM I	43.05	0																	
Senior Technical Scientist	40.49	14	11.38%	4.61							2	50.00%	20.24	4	100.00%	40.49	4	100.00%	40.49
Senior CADD Specialist	34.59	6	4.88%	1.69	3	8.33%	2.88												
Scientist PM II	43.31	0																	
Scientist PM I	31.78	0																	
Engineer PM I	37.08	0																	
Planning PM	36.03	0																	
Architect PM	38.48	0																	
Assistant PM Engineer II	40.00	0																	
Assistant PM Engineer I	35.61	0																	
Engineer I	34.98	37	30.08%	10.52	15	41.67%	14.58												
Scientist EI	27.65	41	33.33%	9.22	15	41.67%	11.52	4	66.67%	18.44									
Scientist E2	23.75	0																	
Administrative Managers	41.58	0																	
Senior Administrative Assistant	28.59	1.5	1.22%	0.35	0.5	1.39%	0.40												
		0																	
<b>TOTALS</b>		123	100%	\$37.11	36	100%	\$32.70	6	100%	\$36.51	4	100%	\$47.36	4	100%	\$40.49	4	100%	\$40.49



## Exhibit C

Route N. Arlington Heights Road  
 Section N of IL83 to Thompson Ph I & II  
 County Lake  
 Job No.  
 PTB/Item

Consultant Huff & Huff, Inc.

### Average Hourly Project Rates

Date 1/6/2020

Sheet 2 OF 2

Payroll Classification	Avg Hourly Rates	QA/QC			PSI and CCDD			Project QA/QC			USACE Permitting			Lake County SMC			Project Admin		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Principal	70.00																		
Principal	70.00																		
Associate Principal II	70.00																		
Associate Principal I	61.77	4	100.00%	61.77	1	1.96%	1.21	2	50.00%	30.88				2	50.00%	30.88	4	100.00%	61.77
Senior Consultant	68.86																		
Senior Geotechnical Consultant	64.44																		
Senior Project Manager III	61.50																		
Senior Project Manager II	46.70																		
Senior Project Manager I	45.10							2	50.00%	22.55									
Senior Landscape Architect	53.41																		
Senior Planning PM	51.15																		
Senior Geologist PM	44.41				2	3.92%	1.74												
Senior Technical Specialist	45.76																		
Senior Scientist PM II	47.29																		
Senior Scientist PM I	43.05																		
Senior Technical Scientist	40.49										2	100.00%	40.49	2	50.00%	20.24			
Senior CADD Specialist	34.59				3	5.88%	2.03												
Scientist PM II	43.31																		
Scientist PM I	31.78																		
Engineer PM I	37.08																		
Planning PM	36.03																		
Architect PM	38.48																		
Assistant PM Engineer II	40.00																		
Assistant PM Engineer I	35.61																		
Engineer I	34.98				22	43.14%	15.09												
Scientist EI	27.65				22	43.14%	11.93												
Scientist E2	23.75																		
Administrative Managers	41.58																		
Senior Administrative Assistant	28.59				1	1.96%	0.56												
<b>TOTALS</b>		4	100%	\$61.77	51	100%	\$32.57	4	100%	\$53.43	2	100%	\$40.49	4	100%	\$51.13	4	100%	\$61.77

# Exhibit C

**EXHIBIT A - DESIGN ENGINEERING**  
**Interra, Inc.**

**Route:** Arlington Heights Road (V69)  
**Local** Lake County Division of Transportation  
 (Municipality/Township/County)  
**Section:** IL Route 83 to 500' South of Thompson Blvd.  
**Project:** Buffalo Grove Jurisdiction Work  
**Job No:** TBD

\*Firm's **approved** rates on file with  
 Bureau of Accounting and Auditing:

Overhead Rate (OH)	169.82%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Plus Fixed Fee Methods of Compensation:**

**Fixed Fee 1**   $14.5\%[DL + R(DL) + OH(DL) + IHDC]$   
**Fixed Fee 2**   $14.5\%[DL + R(DL) + 1.4(DL) + IHDC]$   
**Fixed Fee 3**   $14.5\%[(2.3 + R)DL + IHDC]$   
**Specific Rate**   $10\%(DL + (OH*DL))$   
**Lump Sum**

Cost Estimate of Consultant's Services in Dollars										
Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direc Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
Geotechnical	Staff Engineer	12	\$ 29.72	\$ 356.64	\$ 605.65		\$ 5,675.00	\$ 1,742.00	\$ 392.12	\$ 8,771.41
Geotechnical	Sr. Proj. Engineer	4	\$ 50.50	\$ 202.00	\$ 343.04		\$ -	\$ -	\$ 79.03	\$ 624.07
Geotechnical	Proj. Manager	4	\$ 63.50	\$ 254.00	\$ 431.34		\$ -	\$ -	\$ 99.37	\$ 784.72
Geotechnical	Principal Engineer	4	\$ 70.00	\$ 280.00	\$ 475.50		\$ -	\$ -	\$ 109.55	\$ 865.04
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
				\$ -	\$ -			\$ -	\$ -	\$ -
<b>Totals</b>		24.00		\$ 1,092.64	\$ 1,855.52	\$ -	\$ 5,675.00	\$ 1,742.00	\$ 680.07	\$ 11,045.23

## Exhibit C



Illinois Department  
of Transportation

## Direct Costs Check Sheet

**COMPANY NAME: INTERRA, Inc.**

PTB NUMBER: **Arlington Heights Road - Buffalo Grove Jurisdiction**

TODAY'S DATE: **1/5/2020**

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

## LEGEND

W.O. = Work Order

J.S. = Job Specific

# Exhibit C

**EXHIBIT A - DESIGN ENGINEERING**  
**SINGH & Associates, Inc.**

**Route:** Arlington Heights Road (V69)  
**Local** Lake County Division of Transportation  
**(Municipality/Township/County)**  
**Section:** IL Route 83 to 500' South of Thompson Blvd.  
**Project:** Buffalo Grove Jurisdiction Work  
**Job No:** TBD

\*Firm's **approved rates** on file with  
 Bureau of Accounting and Auditing:  
  
 Overhead Rate (OH) 147.91%  
 Complexity Factor (R) 0.00  
 Calendar Days

**Cost Plus Fixed Fee Methods of Compensation:**

Fixed Fee 1  14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Fixed Fee 2  14.5%[DL + R(DL) + 1.4(DL) + IHDC]  
 Fixed Fee 3  14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate  10%(DL + (OH\*DL))  
 Lump Sum

Cost Estimate of Consultant's Services in Dollars										
Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
Lighting Assesment	Engineer IV	2	\$ 59.25	\$ 118.50	\$ 175.27				\$ 42.60	\$ 336.37
Lighting Assesment	Engineer III	4	\$ 53.44	\$ 213.76	\$ 316.17				\$ 76.84	\$ 606.77
				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
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				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
				\$ -	\$ -				\$ -	\$ -
<b>Totals</b>		6.00		\$ 332.26	\$ 491.45	\$ -	\$ -	\$ -	\$ 119.44	\$ 943.14



### SCOPE OF SERVICES

**PROJECT NAME:** Roadway Reconstruction of Arlington Heights Road

**CLIENT:** Lake County Division of Transportation

**LOCATION:** Arlington Heights Road from Lake Cook Road to North of IL Route 83

**Job No.:**

**SINGH P.N.:** 18171

Singh & Associates, Inc. (SINGH) is pleased to provide this proposal for Phase II plan preparation for the Village of Buffalo Grove roadway lighting improvements for the reconstruction of Arlington Heights Road from Lake Cook Road to north of IL Route 83 (approximately 500 feet south of Thompson Blvd.) This project is located within the municipal boundaries of the Village of Buffalo Grove, Village of Long Grove, Village of Arlington Heights and unincorporated Lake County, IL. Work is anticipated to include the removal of Village of Buffalo Grove owned and maintained roadway lighting poles and the design of new roadway lighting at the intersections noted below and at the intersection of IL Route 83 and Arlington Heights Road. This project will be funded with local funds from the Village of Buffalo Grove. The Lake County Division of Transportation (LCDOT) will be the lead agency for the design, bidding, letting and construction stages. The project is currently programmed and targeted for construction in the fall of 2023. SINGH will provide plans, specifications and estimates for roadway lighting improvements within the project limits in accordance with Village of Buffalo Grove, LCDOT and IDOT District One guidelines.

The lighting design divided in the two tasks:

Task1:

The lighting design will be provided at following intersection:

1. North Leg of Arlington Heights Road and Lake Cook Road
2. Arlington Heights and Timber Hill Road
3. Arlington Heights and Auburn Road
4. Arlington Heights and Checker Drive
5. Arlington Heights and Bernay Lane
6. Arlington Heights and Brittany Lane
7. Arlington Heights and Carlton place
8. Arlington Heights and Heritage Place
9. Arlington Heights and Alden Lane

## Exhibit D

North Michigan Avenue – Phase II  
Chicago River to Oak Street

10. Arlington Heights and Fremont Way
11. Arlington Heights and Courtland Drive

Task2:

Design new roadway lighting improvements within the Arlington Heights Road and IL Route 83 intersection limits. Improvements to roadway lighting at this location will require coordination with IDOT. Limits are defined along Arlington Heights Road, north of Fremont Way and south of Courtland Drive. It is assumed that all existing light poles along Arlington Heights Road within this area of the project will be replaced with new light poles and fixtures. The design of new lighting along IL Route 83 is not anticipated.

**Scope for both Task 1 and Task 2 includes:**

- Photometric computations, and initial concept submittal, Existing lighting removal and proposed lighting design.
- Preliminary, pre-final and final PS&E
- Project meetings and Coordination with ComEd (2 project meetings, 2 meeting with ComEd and 2 meeting with IDOT )

All other services are considered out-of-scope. SINGH shall not be obligated to provide nor entitled to compensation for any out-of-scope services, unless agreed to via supplemental agreements.



**Local Public Agency**

Lake County Division of Transportation

**County**

Lake

**Section Number**

17-00193-08-PV

**Prime Consultant (Firm) Name**

Peralte-Clark, LLC

**Prepared By**

Rashesh Patel

**Date**

7/29/2022

**Consultant / Subconsultant Name**

SINGH & Associates, Inc.

**Job Number**

Note: This is name of the consultant the CECS is being completed for. This name appears at the top of each tab.

**Remarks**

**PAYROLL ESCALATION TABLE**

CONTRACT TERM 

18	MONTHS
----	--------

  
START DATE 

8/1/2022
----------

  
RAISE DATE 

1/1/2023
----------

  
END DATE 

1/31/2024
-----------

OVERHEAD RATE 

156.83%
---------

  
COMPLEXITY FACTOR 

0
---

  
% OF RAISE 

2.00%
-------

**ESCALATION PER YEAR**

Year	First Date	Last Date	Months	% of Contract
0	8/1/2022	1/1/2023	5	27.78%
1	1/2/2023	1/1/2024	12	68.00%
2	1/2/2024	2/1/2024	1	5.78%

The total escalation = 1.56%

BLR 05514 (Rev. 05/27/22)  
ESCALATION

## Exhibit D

Local Public Agency	County	Section Number
Lake County Division of Transportation	Lake	17-00193-08-PV
Consultant / Subconsultant Name		Job Number
SINGH & Associates, Inc.		

## **PAYROLL RATES**

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET FIXED RAISE

MAXIMUM PAYROLL RATE	78.00
ESCALATION FACTOR	1.56%

**Local Public Agency**  
Lake County Division of Transportation  
**Consultant / Subconsultant Name**  
SINGH & Associates, Inc.

**County** **Exhibit D**  
Lake

**Section Number**  
17-00193-08-PV

**Job Number**

## **DIRECT COSTS WORKSHEET**

**EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET**

## **TOTAL DIRECT COSTS:**

BLR 05514 (Rev. 05/27/22)  
**\$87.50**  
DIRECT COSTS

## Exhibit D

## Local Public Agency

Lake County Division of Transportation

## County

Lake

## Section Number

17-00193-08-PV

**Job Number**

## COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

**OVERHEAD RATE** 156.83%

**COMPLEXITY FACTOR**

36,996

BLR 05514 (Rev. 05/27/22)

## COST EST

## Exhibit D

## Local Public Agency

## Lake County Division of Transportation

**Consultant / Subconsultant Name**

SINGH & Associates, Inc.

## County

Lake

## Section Number

17-00193-08-PV

## **AVERAGE HOURLY PROJECT RATES**

### **EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET**

SHEET 1 OF 1

Exhibit E

RIGHT-OF-ENTRY PERMIT

Arlington Heights Road  
Road Name

CH 79  
County Highway Number

Buffalo Creek Nature Preserve,  
Buffalo Grove  
Location

193  
Section Number

It is to the mutual benefit of the Lake County Division of Transportation and the undersigned that the Lake County Division of Transportation be given the right to enter upon the property of the undersigned.

Now, therefore, the undersigned, being one of the fee or beneficial owners of certain real estate located at, or identified in the County tax record as PIN number 15-32-309-001 to the Lake County Division of Transportation, State of Illinois, for its use and use of others designated by it, the right and privilege to enter upon said real estate for the purpose of installing trees at the Village of Buffalo Grove's Buffalo Creek Nature Preserve.

The said work is to be done in a good and workmanlike manner, and the expense thereof to be assumed by the said Division.

It is also agreed that the premises will be left in a neat and presentable condition.

This permit shall expire upon completion of the highway work.

Dated this \_\_\_\_\_ of \_\_\_\_\_, 2023.

---

Beverly Sussman  
Village President

Exhibit E

RIGHT-OF-ENTRY PERMIT

Arlington Heights Road  
Road Name

CH 79  
County Highway Number

Jaycee's Bicentennial Park,  
Buffalo Grove  
Location

193  
Section Number

It is to the mutual benefit of the Lake County Division of Transportation and the undersigned that the Lake County Division of Transportation be given the right to enter upon the property of the undersigned.

Now, therefore, the undersigned, being one of the fee or beneficial owners of certain real estate located at, or identified in the County tax record as PIN number 15-29-107-005 to the Lake County Division of Transportation, State of Illinois, for its use and use of others designated by it, the right and privilege to enter upon said real estate for the purpose of installing trees at the Village of Buffalo Grove's Jaycee's Bicentennial Park.

The said work is to be done in a good and workmanlike manner, and the expense thereof to be assumed by the said Division.

It is also agreed that the premises will be left in a neat and presentable condition.

This permit shall expire upon completion of the highway work.

Dated this \_\_\_\_\_ of \_\_\_\_\_, 2023.

---

Ryan Risinger  
Executive Director