

**Winnetka Village Council**  
**STUDY SESSION**  
**Village Hall**  
510 Green Bay Road  
Tuesday, January 14, 2014  
7:00 PM

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**AGENDA**

- 1) Call to Order
- 2) Willow Road Stormwater Tunnel Engineering – Request for Proposals .....2
- 3) Progress Report: Urban Land Institute Recommendations.....140
- 4) Public Comment
- 5) Executive Session
- 6) Adjournment

**NOTICE**

All agenda materials are available at [villageofwinnetka.org](http://villageofwinnetka.org) (Government > Council Information > Agenda Packets & Minutes); the Reference Desk at the Winnetka Library; or in the Manager’s Office at Village Hall (2<sup>nd</sup> floor).

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## Agenda Item Executive Summary

**Title:** Willow Road Stormwater Tunnel Engineering – Request for Proposals

**Presenter:** Steven M. Saunders, Director of Public Works/Village Engineer

**Agenda Date:** 01/14/2014

**Consent:**  YES  NO

<input type="checkbox"/>	Ordinance
<input type="checkbox"/>	Resolution
<input type="checkbox"/>	Bid Authorization/Award
<input checked="" type="checkbox"/>	Policy Direction
<input type="checkbox"/>	Informational Only

### Item History:

July 9, 2013 Regular Council Meeting  
September 17, 2013 Regular Council Meeting

### Executive Summary:

The Village has identified a major stormwater improvement project, consisting of a new storm sewer beneath Willow Road that would convey water from a roughly 900-acre drainage area on the west side of the Village eastward towards Lake Michigan. This project, known as the Willow Road Tunnel project, would combine improvements for 5 drainage areas, for the 100- year design storm event, into a single project with a cost estimate of \$34.5 million. Preliminary engineering and a detailed feasibility study have been completed for this project, and the Village is now in the process of contracting with an engineering firm to develop the preliminary engineering into detailed engineering plans, permit applications, and construction bidding documents. The engineering firm is being selected using a two-step, qualification-based selection (QBS) process. In the QBS process, consulting firms submit qualification packages to the owner for the purpose of evaluating and selecting the firm that is most qualified to complete the project. The owner then negotiates the project scope of work, schedule, budget, and consultant fee with the most qualified firm.

In July, 2013, the Village published an RFQ for Engineering Services, requesting qualifications for detailed design and permitting for the Willow Road Stormwater Tunnel and Area Drainage Improvements.

The Village received two submittals, one from MWH Global, and one from a team led by Christopher B. Burke Engineering, Ltd (CBBEL), and including Hatch Mott McDonald, W.F. Baird & Associates, Metropolitan Planning Council, and Material Service Testing. Village staff and the Village's Stormwater Project Manager reviewed both submittals and found both firms to be highly qualified. The Village Council reviewed the qualification submittals at the September 17, 2013 Council Meeting, and authorized staff to proceed with issuing a full Request for Proposal to these two firms.

The RFP was provided to each firm in October, and details a general desired scope of work to bring the project from the current preliminary stage to the construction bidding stage. RFP responses, including fee proposals corresponding to the proposed scope of work, were received from each firm on November 22, 2013. After reviewing the written submittals, the Village's project team interviewed each firm on December 4, 2013. Each firm was provided an opportunity to highlight their qualifications, discuss their proposed project approach and scope, review their fee proposal, and answer questions posed by the Village's project team.

Based on the proposal responses, reference checks, and the interviews, the project team recommends that the Village award a contract to MWH Global for design and permit engineering services for the Willow Road Tunnel Project, based on the scope of work and fee estimate contained in their proposal dated November 21, 2013, with intermediate decision and review points to allow for phased engineering of the project.

### Recommendation / Suggested Action:

Consider authorizing staff to negotiate a contract for Design Engineering Services with MWH Global for the Willow Road Stormwater Tunnel Project, based on the scope of work and fee estimate contained in their proposal dated November 21, 2013, with intermediate decision and review points to allow for phased engineering of the project, for a total project fee not to exceed \$2,023,818.

### Attachments:

1. Agenda Report
2. Willow Road Tunnel Engineering RFP
3. Response: CBBEL
4. Response: MWH

## **Agenda Report**

**Subject:** Willow Road Stormwater Tunnel Engineering – Request for Proposals

Prepared By: Steven M. Saunders, Director of Public Works/Village Engineer

Date: January 9, 2014

Ref: July 9, 2013 Regular Council Meeting  
September 17, 2013 Regular Council Meeting

### **Project Description.**

The Village has identified a major stormwater improvement project, consisting of a new storm sewer beneath Willow Road that would convey water from a roughly 900-acre drainage area on the west side of the Village eastward towards Lake Michigan. This project, known as the Willow Road Tunnel project, would combine improvements for 5 drainage areas into a single project with a cost estimate of \$34.5 million. This project would provide benefits to the North Willow Road, South Willow Road, Provident Avenue, Cherry Street Outlet and the Winnetka Avenue Underpass Study areas for the 100-year design storm event. These 5 drainage areas include approximately 2,500 properties, and a total of about 1,200 acres. The proposed improvement consists of an 8-foot diameter storm sewer underneath Willow Road running from approximately Glendale Avenue to Lake Michigan, a distance of 7,900 feet. Approximately 3,300 feet would be constructed by tunneling, the remainder by open cut methods. The project includes construction of additional storm sewers connected to the tunnel to provide relief to 5 drainage basins affected by frequent and/or severe stormwater flooding, and construction of a below ground outlet structure to control water velocity and prevent erosion.

Preliminary engineering and a detailed feasibility study have been completed for this project, and the Village is now in the process of contracting with an engineering firm to develop the preliminary engineering into detailed engineering plans, permit applications, and construction bidding documents. The engineering firm is being selected using a two-step, qualification-based selection (QBS) process. In the QBS process, consulting firms submit qualification packages to the owner for the purpose of evaluating and selecting the firm that is most qualified to complete the project. The owner then negotiates the project scope of work, schedule, budget, and consultant fee with the most qualified firm.

### **Request for Qualifications (RFQ).**

In July, 2013, the Village published an RFQ for Engineering Services, requesting qualifications for detailed design and permitting for the Willow Road Stormwater Tunnel and Area Drainage Improvements. The Village received two submittals, one from MWH Global, and one from a team led by Christopher B. Burke Engineering, Ltd (CBBEL), and including Hatch Mott McDonald, W.F. Baird & Associates, Metropolitan Planning Council, and Material Service Testing.

Village staff and the Village's Stormwater Project Manager reviewed both submittals and found both firms to be highly qualified. The Village Council reviewed the qualification submittals at the September 17, 2013 Council Meeting, and authorized staff to proceed with issuing a full Request for Proposal to these two firms.

**Request for Proposals (RFP).**

The RFP, shown as **Attachment #1**, was provided to each firm in October. The RFP provides a general desired scope of work to bring the project from the current preliminary stage to the construction bidding stage, and requests each firm to provide:

- A detailed scope of work;
- A description of its approach to the project;
- A preliminary schedule for completing the project, and;
- A fee proposal.

**RFP Responses and Interviews.**

RFP responses were received from each firm on November 22, 2013. Each firm submitted a complete and responsive proposal. Proposals were reviewed by a team consisting of Director of Public Works/Village Engineer Steve Saunders, Village Manager Rob Bahan, Assistant to the Village Manager Megan Pierce, and Stormwater Program Manager Jim Johnson. After reviewing the written submittals, the Village's project team interviewed each firm on December 4, 2013. Each firm was provided an opportunity to highlight their qualifications, discuss their proposed project approach and scope, review their fee proposal, and answer questions posed by the Village's project team. Some comments on each firm follow:

**CBBEL.** CBBEL has proposed a project team of multiple firms, with significant expertise in their specific subject areas. CBBEL has demonstrated significant expertise in hydraulic and hydrologic modeling and stormwater engineering. CBBEL's partner, Hatch Mott McDonald, is a nationally known engineering firm specializing in tunnel design and construction. Finally, Baird Associates is a recognized leader in coastal engineering. Together, this team brings a significant level of expertise and experience to Winnetka's project. However, while Thomas Burke will be the project manager and the Village's point of contact for the project, the number of partners on this team also introduces additional levels of coordination and communication to be managed.

CBBEL has a high degree of familiarity with the project, having completed the initial hydraulic and hydrologic modeling and preliminary design for the project. This familiarity allows the team to focus their effort. As a result of this familiarity, CBBEL has not included a review of the preliminary engineering and supporting modeling in their project scope.

CBBEL's original RFQ submittal included the Metropolitan Planning Council (MPC) as a project partner for communications and public relations. CBBEL has

since substituted Serafin and Associates in this role for their project team. During the interview process, CBBEL clarified their decision to substitute Serafin as being related to a potential conflict with a Board member of MPC who is also a local resident that would potentially benefit from the project.

CBBEL has proposed a project schedule that extends construction of the project through 2019. The project team discussed this proposed schedule with CBBEL, and it became apparent that the proposed schedule is based on limiting the amount of construction disruption from multiple contracts, and that the schedule could be compressed.

**MWH.** MWH presented an extremely logical and clear proposed scope of work and project approach, laying out a step-by-step roadmap to bring the project from the current conceptual engineering level to construction. The proposed project plan includes clear and specific deliverables, with a number of proposed Council presentations that could serve as potential review points for the contract. Along with the clarity of project approach are a series of clearly identified deliverables that allow a clear tracking and accountability for project progress.

MWH has proposed a project team consisting mostly of in-house resources, organized under Project Manager Joe Johnson. As a single entity, this does simplify project team communication and coordination. Mr. Johnson has developed a good understanding of the project by attending multiple Village Council meetings over the past year or so, at his own initiative, to keep abreast of project developments and to be familiar with the Village's decisions and discussions on stormwater management.

MWH has included in their team David Potts of sub-consultant Baetis Environmental Services, an aquatic ecologist experienced in water quality management and Total Maximum Daily Load (TMDL's), to assist the Village in our goal of protecting water quality throughout the project. Mr. Potts' experience and understanding related to water quality management provides significant value to the proposed project team.

While focusing on the proposed project alignment in the current conceptual engineering, MWH has also identified some potential alternate routings to investigate that could possibly result in reduced construction disruption at a comparable construction cost. Although these potential alternate alignments have not been developed beyond preliminary concepts, it is worth noting that this demonstrates an initiative to critically and creatively approach the engineering project, to the Village's benefit.

MWH's schedule includes an aggressive construction schedule and results in project completion by the end of 2017.

**Fee Proposals.**

Each firm prepared and submitted a fee proposal that corresponds to the proposed scope of work required to design and develop the project all the way through construction. The fee proposals are contained in Section 2 of each proposal response. **It is important to note when evaluating the engineering fees that the fee associated with construction engineering should NOT be considered at this time.** This is because the fees associated with construction engineering are only a rough estimate and will be greatly affected by many intermediate design and contracting decisions. For example, the ultimate length of tunneling vs. open cut construction will greatly affect the level of effort involved in construction engineering and oversight. The number of concurrent construction contracts and the ultimate construction schedule will also affect the fees associated with construction engineering and oversight. As a result, there is a significant variance between the two fee proposals for construction engineering, and both proposals are heavily influenced by the scheduling and contracting assumptions made by each firm. The fee proposals from each firm, without construction engineering costs, are summarized below:

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**CBBEL**

	<b>Hours</b>	<b>Fees</b>	<b>Expenses</b>	<b>Total</b>
<b>PHASE 1 PERMITTING</b>				
Prelim. Engineering	6,321	\$1,022,485	\$25,025	\$1,047,510
Project Mgmt.	622	\$132,671	\$13,240	\$145,911
Outreach	180	\$34,920	\$15,000	\$49,920
CM Selection	248	\$64,006	\$1,750	\$65,756
<b>Subtotal</b>	<b>7,371</b>	<b>\$1,254,082</b>	<b>\$55,015</b>	<b>\$1,309,097</b>
<b>PHASE 2 ENGINEERING</b>				
Engineering	7,964	\$1,113,636	\$25,875	\$1,139,511
Project Mgmt.	1,039	\$166,200	\$5,000	\$171,200
Outreach	365	\$63,600	\$15,000	\$78,600
<b>Subtotal</b>	<b>9,368</b>	<b>\$1,343,436</b>	<b>\$45,875</b>	<b>\$1,389,311</b>
<b>ENGINEERING TOTAL</b>	<b>16,739</b>	<b>\$2,597,518</b>	<b>\$100,890</b>	<b>\$2,698,408</b>

**MWH Global**

	<b>Hours</b>	<b>Fees</b>	<b>Expenses</b>	<b>Total</b>
<b>PHASE 1 PERMITTING</b>				
Prelim. Engineering	4,327	\$547,000	\$119,020	\$666,020
Project Mgmt.	306	\$46,248	\$3,080	\$49,328
Outreach	164	\$27,600	\$1,650	\$29,250
CM Selection	236	\$51,360	\$2,860	\$54,220
<b>Subtotal</b>	<b>5,033</b>	<b>\$672,208</b>	<b>\$126,610</b>	<b>\$798,818</b>
<b>PHASE 2 ENGINEERING</b>				
Engineering	7,152	\$965,553	\$141,580	\$1,107,133
Project Mgmt.	459	\$69,372	\$4,620	\$73,992
Outreach	246	\$41,400	\$2,475	\$43,875
<b>Subtotal</b>	<b>7,857</b>	<b>\$1,076,325</b>	<b>\$148,675</b>	<b>\$1,225,000</b>
<b>ENGINEERING TOTAL</b>	<b>12,890</b>	<b>\$1,748,533</b>	<b>\$275,285</b>	<b>\$2,023,818</b>

Each firm was instructed on how to organize their fee proposals for ease of comparison. The following descriptions will help to understand the contents of the two tables above:

- **Phase 1 Permitting** refers to all of the project activities associated with bringing the project from its current level of conceptual development through the point where all necessary environmental permits have been applied for:
  - Preliminary Engineering, includes project modeling and concept reviews, alternative analysis, preliminary survey, utility locations, 30% plans and cost estimates,
  - Project Management, includes project team meetings, correspondence, schedule reviews, budget tracking, and other project management tasks
  - Outreach, includes Village Council briefings, public meetings, and project updates
  - Construction Manager (CM) Selection
  
- **Phase 2 Engineering** refers to the project activities associated with Completing the engineering, from permit application through bid award:
  - Engineering, includes permit finalization, survey, detailed construction, utility, and traffic control plans, specifications, cost estimates, and bid documents
  - Project Management
  - Outreach

Based on a straight up comparison of fees, MWH's proposed fee is nearly \$675,000 less than CBBEL's proposed fee. During the interview process, the project team discussed these fee proposals with each firm to determine the basis on which they were calculated. Each firm indicated that their fee proposal reflects the estimated work effort required to complete their proposed scope of work, and the differences are primarily indicated by the number of hours estimated to complete the project. CBBEL's detailed Scope of Services is located on pages 4 through 24 of their proposal document (**Attachment #2**). MWH's Scope of Services is located in Section 3, pages 3-21 through 3-46, of their proposal document (**Attachment #3**).

**[Remainder of page left intentionally blank]**

### **Reference Projects.**

The project team reviewed several reference projects for MWH, including:

- City of Evanston Combined Sewer Relief Project. This project consisted of approximately 50 miles of sewer constructed over a 10-phase, 22-year program. The project included 8 miles of sewer installed by pipe jacking or tunneling. MWH Chicago provided master planning, design and construction services for all phases of the project. During discussions with Evanston staff, they strongly recommended MWH in all aspects of the project, including the project team of Joe Johnson, Dan Gallagher, and Mohammad Djavaid that are proposed for Winnetka's project.
- City of Austin, TX Water Treatment Plant, Intake and tunnels (7 miles). MWH is serving as the Construction Manager At-Risk on this project, which consists of a marine raw water intake, tunnels, pump stations, conveyance systems and water treatment facilities with an initial 50-mgd capacity, expandable to 300 mgd. The project features a 9-ft finished diameter tunnel, and a 36,300 foot long, 84-inch diameter transmission main also constructed in tunnel. Austin officials indicated that MWH's Construction Management, specifically including the geotechnical risk management component managed by Mohammad Djavaid, resulted in the tunnel project exceeding expectations. MWH also worked hand-in-hand with the US Army Corps of Engineers throughout the design and construction phases to assure permitting for the project.
- MWRD Thornton Reservoir Connecting Tunnel. MWH Chicago performed engineering design and construction services for the project which connects the Calumet TARP Tunnel at the existing construction shaft to the Thornton Reservoir, roughly doubling the storage capacity of the TARP system and providing much-needed flood relief to Cook County's communities. MWH provided preliminary and final design services, as well as post-award services during construction for the rock tunnel and a wet well shaft in rock. MWH was responsible for the preliminary engineering and conceptual layouts for the project, final design, preparation of contract documents, and engineering services during construction. MWRD staff strongly recommended MWH, and in particular Mohammad Djavaid, specifically because of his approach to identifying and evaluating design alternatives, which resulted in significant project cost savings.

### **Summary and Recommended Action.**

Based on the proposal responses, reference checks, and the interviews, the project team recommends that the Village award a contract to **MWH Global** for design and permit engineering services for the Willow Road Tunnel Project. The team's recommendation is based on several factors:

1. MWH's clear project plan and scope. MWH's proposed scope of work was outlined in an exceptionally clear and structured manner, providing an easy-to-follow roadmap to bring the Tunnel Project from the current conceptual level

- through to construction. The project plan is constructed such that there are easily identified and specified deliverables, and the tasks identified in the plan build upon each other in a logical manner. This clarity makes for easily identifiable review points that allow the Village flexibility in proceeding with the project, without locking the Village into significant engineering expense.
2. The benefit of a project review with fresh eyes. MWH's proposed scope of work includes two work tasks (Concept Review and Hydrologic and Hydraulic Model Verification) that provide the Village with the opportunity to review the project engineering to verify the project parameters, calculations, models, and costs with a fresh set of eyes prior to incurring significant project expense.
  3. MWH's environmental permitting expertise using Baetis Environmental Services. MWH has included Baetis Environmental Services as part of their project team, to bring added environmental engineering and permitting expertise to the Village's project. This is a significant benefit to the Village.
  4. MWH's single entity team. MWH has organized their project team such that all of the engineering work is being performed by a single entity – MWH – with environmental and permitting support from a single sub-consultant. This allows for clear and consistent project communication and organization with a single point of contact and a single firm.
  5. MWH's significant tunnel experience in a nearby community (Evanston). One of MWH's representative projects is a multi-phase Combined Sewer Relief Project for the City of Evanston. This project consisted of approximately 50 miles of sewer constructed over a 10-phase, 22-year program. Evanston spoke highly of the work performed by members of Winnetka's proposed project team. Their work in Evanston also demonstrates their familiarity with the Lake Michigan and North Shore environment.
  6. MWH's project fee. MWH's proposed engineering fee is significantly less than CBBEL's fee, for a proposed scope of work that will effectively advance the project to the construction phase.

The project is currently at the preliminary, conceptual engineering stage, and a significant amount of engineering is required to bring the project to the stage where construction contracts can be executed. Importantly, there are also many questions about the project to be answered, permits to be acquired, and decisions to be made by the Village, before construction contracts can be awarded. Therefore, this engineering contract should be structured to recognize these questions and decision points, without obligating the Village to complete engineering services in their entirety for the project. Structuring the contract in this way allows the Village to advance the project on a step by step basis, with intermediate review points for Council approval before advancing to the next phase. Logical phasing and review points include:

- After concept review, model verification, preliminary regulatory agency meetings, and a preliminary permitting action plan;
- After development of a Request for Qualifications for Construction Management At-Risk services, before publication;

- After engineering has advanced sufficiently to allow completion and submission of permit applications, but before applications have been submitted;
- After permit submittal and regulatory agency action;
- After project plans and contract bidding documents have been completed but before bidding documents have been advertised for bid solicitation.

**Recommendation:**

Consider authorizing staff to negotiate a contract for Design Engineering Services with MWH Global for the Willow Road Stormwater Tunnel Project, based on the scope of work and fee estimate contained in their proposal dated November 21, 2013, with intermediate decision and review points to allow for phased engineering of the project, for a total project fee not to exceed \$2,023,818.

**Attachments:**

1. Willow Road Tunnel Engineering RFP
2. Response: CBBEL
3. Response: MWH

**Attachment #1**  
**Willow Road Tunnel Engineering RFP**

# **REQUEST FOR PROPOSALS**

## **VILLAGE OF WINNETKA**



### **ENGINEERING SERVICES DETAILED DESIGN AND PERMITTING WILLOW ROAD STORMWATER TUNNEL AND AREA DRAINAGE IMPROVEMENTS**

**ISSUED: October 23, 2013**

**RESPONSES DUE: November 22, 2013**

**PREPARED BY:**  
**Steven M. Saunders, Director of Public Works**  
**Village of Winnetka**  
**1390 Willow Road**  
**Winnetka, IL 60093**  
**Telephone: 847-716-3534**  
**Fax: 847-716-3599**  
**[ssaunders@winnetka.org](mailto:ssaunders@winnetka.org)**

## **I. INTRODUCTION**

The Village of Winnetka is requesting detailed proposals from engineering firms to provide professional services for preliminary engineering, permitting, final engineering and construction oversight for the proposed Willow Road Stormwater Tunnel and for storm sewer improvements in the 5 associated drainage areas proposed to be connected to the tunnel. The Village completed the first step in the selection process with the Request for Qualifications (RFQ). Your firm is one of two that is receiving this Request for Proposals (RFP) to finalize the selection.

## **II. PROJECT DESCRIPTION**

The Village has identified a major stormwater improvement project, consisting of a new storm sewer beneath Willow Road that would convey water from a roughly 900-acre drainage area on the west side of the Village eastward towards Lake Michigan. This project, known as the Willow Road Tunnel project, would combine improvements for 5 areas into a single project with a cost estimate of \$34.5 million. This project would provide benefits to the North Willow Road, South Willow Road, Provident Avenue, Cherry Street Outlet and the Winnetka Avenue Underpass Study areas for the 100-year design storm event. This proposed improvement consists of an 8-foot diameter storm sewer underneath Willow Road running from approximately Glendale Avenue to Lake Michigan, a distance of some 7,900 feet. Approximately 3,800 feet would be constructed by tunneling, the remainder by open cut methods. The project includes construction of additional storm sewer connected to the tunnel to provide relief to 5 drainage basins affected by frequent and/or severe stormwater flooding, construction of a structure to address water quality, and construction of an outlet structure to control water velocity and prevent erosion.

The Village has completed a detailed feasibility analysis of the proposed project, consisting of the review of the following factors:

- Soil Borings
- Railroad Coordination
- Outfall Conditions
- Regulatory & Permitting Considerations
- Construction Costs and Methods
- Utility Conflicts

The Village has also evaluated an alternate route consisting of using Ash Street rather than Willow Road for the main run of storm sewer, and has concluded that Willow Road is the preferred route.

For project construction, the Village envisions seven phases. Phase 1 must be completed first. However after completion of Phase 1, several of the remaining phases could be constructed concurrently.

1. Outfall, Energy Dissipater, Water Quality Structure and 96-inch RCP storm sewer along Willow Road from Lake Michigan to Provident Avenue. The tunnel component is from Poplar Street to Birch Street, and is part of this first phase. It is anticipated that this phase may be contracted by the “Construction Manager At-Risk” contract delivery method.
2. 96-inch RCP on Willow Road from Provident Road to Glendale Avenue. This project will be constructed as part of a Jurisdictional Transfer from IDOT to the Village. The Phase 1 Study has been approved by IDOT.
3. 48, 54 and 72-inch RCP storm sewer on Poplar Street, Cherry Street and Sheridan Road.
4. 84-inch RCP storm sewer on Winnetka Road, Essex Road and Sheridan Road.
5. 66-inch RCP on Birch Street.
6. 60-inch RCP on Provident Avenue and Blackthorn Road.
7. 96-inch RCP on Glendale Avenue, 60-inch RCP on Cherry and Ash Streets, 5’ x 8’ RCBC on Oak Street, and a 84-inch RCP on Hibbard Road. This phase cannot be constructed until phase 2 is complete.

### **III. PROPOSED SCOPE OF WORK**

A proposed scope of work is outlined in the following paragraphs. It is the Village’s intention to proceed in three primary phases for the project as follows:

- A. Permitting – The engineering consultant must identify and submit permit applications to the various regulatory agencies and units of government. The Village’s preliminary evaluation indicates that permits will be required from the following agencies:

1. US Army Corps of Engineers
2. Illinois Environmental Protection Agency
3. Illinois Department of Natural Resources
4. Metropolitan Water Reclamation District of Greater Chicago
5. North Cook County Soil & Water Conservation District
6. Illinois Department of Transportation
7. Union Pacific Railroad

Work during this phase includes necessary preliminary engineering, permit identification, project management and public outreach. ***The deliverables for this phase are the necessary permits to proceed with engineering and construction.***

1. Preliminary Engineering - The Consultant will review the initial concept, all technical issues, and all project requirements with the Village. Following is a listing of proposed activities:
  - a. Review the previous drainage investigations.
  - b. Identify required permits, license agreements, and easements.
    - i. Meet with the identified agencies to discuss the project

- ii. Identify the permits required and the necessary supporting documentation for each
  - c. Verify the existing master plan hydrologic and hydraulic models for the basins in this project and modify as necessary for their purposes.
  - d. Conduct the necessary field work (e.g., survey, geotechnical, environmental, water quality) to prepare the supporting documents for the permits.
    - i. Review the existing soils and pavement reports and supplement as necessary.
    - ii. Identify and locate utilities along the proposed alignments and locate potential conflicts.
    - iii. Produce a report detailing the results and include a mitigation plan to address potential geotechnical and environmental conflicts.
  - e. Perform the preliminary design of the storm sewer system(s) to a level that supports permit applications. The design should include green infrastructure components where applicable.
  - f. Prepare and submit the necessary permits
    - i. Attend submittal meetings
    - ii. Respond to questions and clarifications
    - iii. Modify permits as required
- 2. Project Management – The consultant will:
  - a. Provide the necessary management of the work including planning, meeting, coordinating, scheduling, quality control, reporting and invoicing
  - b. Communicate with fully private entities such as Union Pacific Railroad (UPRR), public and private utilities such as North Shore Gas Company, AT&T, Comcast, and others, as well as with other federal and state governmental entities identified
  - c. Meet with local entities including Winnetka Park District, Winnetka School District 36, and New Trier High School District, and the Public as needed concerning project functions, permitting, schedules, and other requirements.
  - d. Meet periodically as required (typically at two-week intervals) with the project team. These Progress Meetings will be used to coordinate the work effort and resolve problems.
- 3. Outreach – Public outreach is required throughout the course of the project. For the Permitting Phase, potential meetings include:
  - a. Village Council briefings
  - b. Public information meetings associated with and required for permits
- 4. Construction Management Selection Process – Although not part of the permitting process, it is the Village’s intent to use the “Construction Manager-At Risk” form of agreement for the first phase of the project (i.e., the Willow Road Tunnel). For the remaining phases, the Village plans to use the General Contractor form of agreement. To that end, the selection process is included

in the Permitting Phase to allow for the CM to participate at the onset of the Engineering Phase. The design professional shall:

- a. Participate as a member of the Village's CM at Risk Prequalification Committee and CM at Risk Selection Committee.
- b. When authorized by the Village, prepare for reproduction and distribution all project documents that are required for the solicitation and receipt of qualifications and proposals from CM at Risk firms. The Designer shall prepare all addenda (to include questions from CM at Risk firms and Designer responses), subject to the approval of the Village. The Designer shall attend a pre-proposal conference, and existing site and building tour if either or both are to be scheduled, taking note of all questions asked. Relevant questions submitted in writing shall be answered by the Designer by means of written addenda to the RFQ or RFP described below, as required.
- c. As a member of the Village's CM at Risk prequalification committee, shall review and evaluate in conjunction with the Prequalification Committee, the Statements of Qualifications received from CM at Risk firms on the basis of the evaluation criteria established in the RFQ and shall make appropriate recommendations regarding the selection of qualified CM at Risk firms to receive a request for proposals from the Village.
- d. As a member of the Village's CM at Risk selection committee, review and evaluate the RFP's received from prequalified CM at Risk firms on the basis of the evaluation criteria included in the RFP. The Designer shall make appropriate recommendations regarding the evaluation and ranking of RFP's and the conducting of interviews, if any. If the Selection Committee elects to conduct interviews of the CM at Risk firms, the Designer shall participate in conducting interviews. It is the Village's intention to retain the services of a Construction Manager for the project so that the selected CM is under contract during the engineering phase of the project.

B. Engineering - Based on comments from the Permitting Phase, the Consultant will prepare final construction documents suitable for bidding to include plans, specifications, cost estimates, surveys, and geotechnical investigations. ***The deliverables for the Engineering Phase are 60%, 90% and Final Construction Plans and Specifications, cost estimates, surveys, and permits.***

1. Engineering
  - a. Confirm the feasibility of the design. Verify the existing master plan hydrologic and hydraulic models for the basins in this project and modify as necessary for their purposes based on the permits.
  - b. Identify required permits, license agreements, and easements. Prepare the supporting documentation for each.
  - c. Conduct a field survey as necessary and establish control for the project.

- d. Review the existing soils and pavement reports and supplement as necessary.
  - e. Identify and locate utilities along the proposed alignments and locate potential conflicts.
  - f. Produce a report detailing the results of their studies.
  - g. Perform the preliminary design of the storm sewer system(s).
  - h. Develop a preliminary construction-phasing plan which integrates the construction of all the project work elements into a practical and feasible sequence. This includes a report on construction methods and contracting alternatives.
  - i. Develop a traffic control plan that is compatible with the phasing plan.
  - j. Develop a mitigation plan to address potential geotechnical and environmental conflicts.
  - k. Provide Design Services in a manner consistent with the CM at Risk Delivery Method for all phases of design. For the construction projects, the Village envisions using the CM at Risk for Phase 1 (i.e., the Willow Road Tunnel as described in Section II.1 above). For the remaining phases, the Village envisions using the traditional General Contractor format.
1. Prepare plans and specifications for discrete portions of the program that can be incorporated into separate bid packages as enumerated in Section II, and identify and describe any multiple bid packages or fast-tracked construction that may be used and any separate bid packages that may be required.
2. Project Management - The Consultant will be required to communicate with fully private entities such as Union Pacific Railroad (UPRR), public and private utilities such as North Shore Gas Company, AT&T, Comcast, and others, as well as with other federal and state governmental entities identified in the Permitting section, local entities including Winnetka Park District, Winnetka School District 36, and New Trier High School District, and the Public as needed concerning project functions, design, schedules, and other requirements. The Consultant shall provide services to document all phases of design and construction of the project.

The Village and Consultant Project Managers will meet periodically as required (typically at two-week intervals during the planning and design phase of the project). These Progress Meetings will be used to coordinate the work effort and resolve problems, and the meetings will be required throughout the duration of the design of the project.

3. Outreach – Public outreach is required throughout the course of the project. Potential meetings include:
  - a. Village Council briefings
  - b. Public information meetings at the 60% design stage for each phase of the project

- c. Public information meetings required for permits
- d. Pre-construction public information meetings

C. Construction Oversight – Following are services required of the consultant during the construction phase of the projects:

1. Provide construction observation
2. Respond to and track Requests for Information
3. Review and approve shop drawings
4. Review and recommend changes
5. Review and approve payment applications
6. Conduct punchlist inspections
7. Assist in project closeout
8. Assist with public outreach to include Village Council and neighborhood meetings.

#### IV. SUBMITTAL REQUIREMENTS

The deadline for submittals is **1:00 p.m. on November 22, 2013**. Five (5) paper copies and one (1) electronic copy of the submittal should be delivered to:

Raymond D. Restarski, Purchasing Agent  
Village of Winnetka  
510 Green Bay Road  
Winnetka, IL 60093  
(847) 716-3504  
(847) 446-1139 (fax)  
rrestarski@winnetka.org

**The Village intends to hold separate pre-submittal meetings with each firm to discuss the RFP and the process, and to answer questions regarding the project and RFP. This is intended to be an informal meeting with no presentation required. The meetings will take place during the week of October 28<sup>th</sup> or November 4<sup>th</sup>.**

To be considered for this project, the Consultant must submit an informative statement of interest to the Village, which also includes the following information, organized in the following manner to facilitate review:

A. Documents

1. A completed compliance affidavit (Attachment 1)
2. A completed Proposal (Attachment 2)
3. The Consultant will propose a scope of work based upon the preliminary scope contained herein, and describe its approach in performing the proposed scope.
4. A preliminary schedule for completing the project is required. This schedule should address all work and meetings recommended by the Consultant and which clearly corresponds to the Consultant's approach to the project.

5. Provide supporting documents to support the aforementioned 1 thru 4.

**V. INDEMNIFICATION**

Respondents to this RFP shall understand that the successful proposer shall indemnify and hold harmless the Village of Winnetka, its agents, and its employees against any and all lawsuits, claims, demands, liabilities, losses or expenses, including court costs, and attorney's fees, for or on account of any injury to any person or any death at any time resulting from such injury, or any damaged property, which may be alleged to have arisen out of the negligent acts, errors, or omissions of the Consultant. It is further understood that this indemnification shall not be construed to cover the negligent acts or omissions of the Village of Winnetka, its agents, or its employees. It is additionally understood that this indemnification shall not be construed to cover the negligent acts or omissions of parties unrelated to this contract.

**VII. LIST OF AVAILABLE DOCUMENTS**

The following documents are available for review upon request:

- Project Map
- Christopher B. Burke Engineering, Ltd. Report, June 2011
- Christopher B. Burke Engineering, Ltd. Report, October 2011
- Staff Tunnel Feasibility, September 2012
- Baird Outfall Report, June 2012
- Willow Road Jurisdictional Transfer Phase I Report

**VIII. ATTACHMENTS**

- 1) Compliance Affidavit

## **ATTACHMENT 1**

### **COMPLIANCE AFFIDAVIT**

As a condition of entering into a contract with the Village of Winnetka, and under oath and penalty of perjury and possible termination of contract rights and debarment, the undersigned deposes and states that he has the authority to make any certifications required by this Affidavit on behalf of the bidder, and that all information contained in this Affidavit is true and correct in both substance and fact.

#### **Section 1: BID RIGGING AND ROTATING**

1. This bid is not made in the interest of, or on behalf of an undisclosed person, partnership, company, association, organization or corporation;
2. The bidder has not in any manner directly or indirectly sought by communication, consultation or agreement with anyone to fix the bid price of any bidder, or to fix any overhead profit or cost element of their bid price or that of any other bidder, or to secure any advantage against the Village of Winnetka or anyone interested in the proper contract;
3. This bid is genuine and not collusive or sham;
4. The prices, breakdowns of prices and all the contents quoted in this bid have not knowingly been disclosed by the bidder directly or indirectly to any other bidder or any competitor prior to the bid opening;
5. All statements contained in this bid are true;
6. No attempt has been or will be made by the bidder to induce any other person or firm to submit a false or sham bid;
7. No attempt has been or will be made by the bidder to induce any other person or firm to submit or not submit a bid for the purpose of restricting competition;
8. The undersigned on behalf of the entity making this proposal or bid certifies the bidder has never been convicted for a violation of State laws prohibiting bid rigging or rotating.

#### **Section 2: TAX COMPLIANCE**

1. The undersigned on behalf of the entity making this proposal or bid certifies that neither the undersigned nor the entity is barred from contracting with the Village of Winnetka because of any delinquency in the payment of any tax administered by the State of Illinois, Department of Revenue, unless the undersigned or the entity is contesting, in accordance with the procedures established by the appropriate revenue

act, liability of the tax or the amount of tax;

2. The undersigned or the entity making this proposal or bid understands that making a false statement regarding delinquency of taxes is a Class A Misdemeanor and in addition voids the contract and allows the municipality to recover all amounts paid to the entity under the contract in civil action.

### **Section 3: EQUAL EMPLOYMENT OPPORTUNITY**

This EQUAL OPPORTUNITY CLAUSE is required by the Illinois Human Rights Act, 775 ILCS 5/101 et seq.

In the event of the contractor's non-compliance with any provision of the Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights, the contractor may be declared non-responsive and therefore ineligible for future contractor subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulations.

During the performance of this contract, the contractor agrees:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or woman are underutilized and will take appropriate action to rectify any such underutilization;
2. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations for Public Contract's) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized;
3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other such agreement or understanding, a notice advising such labor organization or representative of the contractor's obligation under the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contract. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and

contracting agency will recruit employees from other sources when needed to fulfill its obligation hereunder.

5. That it will submit reports as required by the Department's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Department or contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contracts.
6. That it will permit access to all relevant books, records, accounts, and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Departments Rules and Regulations for Public Contracts.
7. That it will include verbatim or by reference the provisions of this Equal Opportunity Clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so such provisions will be binding upon such subcontractor. In the same manner as the other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

#### **Section 4: ILLINOIS DRUG FREE WORK PLACE ACT**

The undersigned will publish a statement:

1. Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or a use of a controlled substance is prohibited in the work place;
2. Specifying the actions that will be taken against employees for violating this provision;
3. Notifying the employees that, as a condition of their employment to do work under the contract with the Village of Winnetka, the employee will:
  - A. Abide by the terms of the statement;
  - B. Notify the undersigned of any criminal drug statute conviction for a violation occurring in the work place not later than five (5) days after such a conviction.
4. Establishing a drug free awareness program to inform employees about:
  - A. The dangers of drug abuse in the work place;

- B. The policy of maintaining a drug-free work place;
  - C. Any available drug counseling, rehabilitation or employee assistance programs;
  - D. The penalties that may be imposed upon an employee for drug violations.
5. The undersigned shall provide a copy of the required statement to each employee engaged in the performance of the contract with the Village of Winnetka, and shall post the statement in a prominent place in the work place.
  6. The undersigned will notify the Village of Winnetka within ten (10) days of receiving notice of an employee's conviction.
  7. Make a good faith effort to maintain a drug free work place through the implementation of these policies.
  8. The undersigned further affirms that within thirty (30) days after receiving notice of a conviction of a violation of the criminal drug statute occurring in the work place he shall:
    - A. Take appropriate action against such employee up to and including termination; or
    - B. Require the employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

**Section 5: SEXUAL HARRASSMENT POLICY**

The undersigned on behalf of the entity making this proposal or bid certifies that a written sexual harassment policy is in place pursuant to Public Act 87-1257, effective July 1, 1993, 775 ILCS 5/2-105 (A).

This Act has been amended to provide that every party to a public contract must have written sexual harassment policies that include, at a minimum, the following information:

1. The illegality of sexual harassment;
2. The definition of sexual harassment under State law;
3. A description of sexual harassment, utilizing examples;
4. The vendor's internal complaint process, including penalties;

5. The legal recourse, investigative and complaint process available through the Department of Human Rights, and the Human Rights Commission;
6. Directions on how to contact the Department and Commission;
7. Protection against retaliation as provided by 6-101 of the Act.

**Section 6: VENDOR INFORMATION**

1. Is the bidder a publicly traded company? (yes or no) \_\_\_\_\_  
If the answer is yes, state the number of outstanding shares in each class of stock.  
Provide the name of the market or exchange on which the company's stock is traded.

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2. Is the bidder 50% or more owned by a publicly traded company? (yes or no) \_\_\_\_\_

If the answer to the above question is yes, name the publicly traded company or companies owning 50% or more of your stock, state the number of outstanding shares in each class of stock and provide the name of the market or exchange on which the stock of such company or companies is traded.

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IT IS EXPRESSLY UNDERSTOOD THAT THE FOREGOING STATEMENTS AND REPRESENTATIONS AND PROMISES ARE MADE AS A CONDITION TO THE RIGHT OF THE BIDDER TO RECEIVE PAYMENT UNDER ANY AWARD MADE UNDER THE TERMS AND PROVISIONS OF THIS BID.

SIGNATURE: \_\_\_\_\_

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(print or type)

Subscribed and sworn to me this \_\_\_\_\_ day of \_\_\_\_\_, 2012, A.D.

By:  
(Notary Public)

-Seal-

ATTACHMENT 2

	<u>Manhours</u>	<u>Fees</u>	<u>Expenses</u>
Permitting			
Prel. Engineering			
Project Management			
Outreach			
CM Selection			
Subtotal			
Engineering			
Engineering			
Project Management			
Outreach			
Subtotal			
Construction Oversight			
Total			

**Attachment #2**  
**CBBEL RFP Response**



**CHRISTOPHER B. BURKE ENGINEERING, LTD.**

9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX (847) 823-0520

November 22, 2013

Village of Winnetka  
510 Green Bay Road  
Winnetka, IL 60093

Attention: Mr. Raymond D. Restarski, Purchasing Agent

Subject: Request for Proposals (RFP)  
Detailed Design and Permitting Willow Road Stormwater Tunnel  
and Area Drainage Improvements

Dear Mr. Restarski:

Christopher B. Burke Engineering, Ltd. (CBBEL) along with Hatch Mott McDonald (HMM), W.F. Baird & Associates, Ltd. (Baird), Serafin & Associates, Inc. (Serafin) and Material Service Testing, Inc. (MST) are teaming to offer the Village of Winnetka (Village) a high quality team that is eager to work on the subject project. Our team is capable, experienced, and excited to demonstrate our qualifications to the Village for the Willow Road Stormwater Tunnel and Area Drainage Improvements.

We have addressed the submittal requirements as outlined in the RFP and we have added additional tasks we believe are necessary to complete the project. Included with this letter are a completed compliance affidavit (Attachment 1), a completed Proposal (Attachment 2), our Scope of Services, Preliminary Schedule and Fee Estimate.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Chris Burke', followed by the word 'for'.

Christopher B. Burke, PhD, PE, D.WRE, Dist.M.ASCE  
President

## ATTACHMENT 1

### COMPLIANCE AFFIDAVIT

As a condition of entering into a contract with the Village of Winnetka, and under oath and penalty of perjury and possible termination of contract rights and debarment, the undersigned deposes and states that he has the authority to make any certifications required by this Affidavit on behalf of the bidder, and that all information contained in this Affidavit is true and correct in both substance and fact.

#### Section 1: BID RIGGING AND ROTATING

1. This bid is not made in the interest of, or on behalf of an undisclosed person, partnership, company, association, organization or corporation;
2. The bidder has not in any manner directly or indirectly sought by communication, consultation or agreement with anyone to fix the bid price of any bidder, or to fix any overhead profit or cost element of their bid price or that of any other bidder, or to secure any advantage against the Village of Winnetka or anyone interested in the proper contract;
3. This bid is genuine and not collusive or sham;
4. The prices, breakdowns of prices and all the contents quoted in this bid have not knowingly been disclosed by the bidder directly or indirectly to any other bidder or any competitor prior to the bid opening;
5. All statements contained in this bid are true;
6. No attempt has been or will be made by the bidder to induce any other person or firm to submit a false or sham bid;
7. No attempt has been or will be made by the bidder to induce any other person or firm to submit or not submit a bid for the purpose of restricting competition;
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act, liability of the tax or the amount of tax;

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During the performance of this contract, the contractor agrees:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or woman are underutilized and will take appropriate action to rectify any such underutilization;
2. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations for Public Contract's) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized;
3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other such agreement or understanding, a notice advising such labor organization or representative of the contractor's obligation under the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contract. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and

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  - A. Abide by the terms of the statement;
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4. Establishing a drug free awareness program to inform employees about:
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  8. The undersigned further affirms that within thirty (30) days after receiving notice of a conviction of a violation of the criminal drug statute occurring in the work place he shall:
    - A. Take appropriate action against such employee up to and including termination; or
    - B. Require the employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

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This Act has been amended to provide that every party to a public contract must have written sexual harassment policies that include, at a minimum, the following information:

1. The illegality of sexual harassment;
2. The definition of sexual harassment under State law;
3. A description of sexual harassment, utilizing examples;
4. The vendor's internal complaint process, including penalties;

5. The legal recourse, investigative and complaint process available through the Department of Human Rights, and the Human Rights Commission;
6. Directions on how to contact the Department and Commission;
7. Protection against retaliation as provided by 6-101 of the Act.

**Section 6: VENDOR INFORMATION**

1. Is the bidder a publicly traded company? (yes or no) NO  
If the answer is yes, state the number of outstanding shares in each class of stock. Provide the name of the market or exchange on which the company's stock is traded.

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2. Is the bidder 50% or more owned by a publicly traded company? (yes or no) NO

If the answer to the above question is yes, name the publicly traded company or companies owning 50% or more of your stock, state the number of outstanding shares in each class of stock and provide the name of the market or exchange on which the stock of such company or companies is traded.

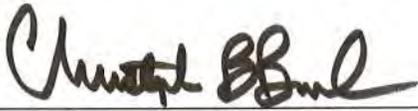
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SIGNATURE: 

NAME: Christopher B. Burke TITLE: President  
(print or type)

Subscribed and sworn to me this 21st day of Nov, 2013, A.D.

By:   
(Notary Public)



ATTACHMENT 2

	<u>Manhours</u>	<u>Fees</u>	<u>Expenses</u>
Permitting			
Prel. Engineering	<u>6,321</u>	<u>\$1,022,484.82</u>	<u>\$25,025.00</u>
Project Management	<u>622</u>	<u>\$ 132,671.36</u>	<u>\$13,240.00</u>
Outreach	<u>180</u>	<u>\$ 34,920.00</u>	<u>\$15,000.00</u>
CM Selection	<u>248</u>	<u>\$ 64,006.07</u>	<u>\$ 1,750.00</u>
Subtotal	<u>7,371</u>	<u>\$1,254,082.25</u>	<u>\$55,015.00</u>
Engineering			
Engineering	<u>7,964</u>	<u>\$1,113,636.48</u>	<u>\$25,875.00</u>
Project Management	<u>1,039</u>	<u>\$ 166,200.00</u>	<u>\$ 5,000.00</u>
Outreach	<u>365</u>	<u>\$ 63,600.00</u>	<u>\$15,000.00</u>
Subtotal	<u>9,368</u>	<u>\$1,343,436.48</u>	<u>\$45,875.00</u>
Construction Oversight	<u>16,046</u>	<u>\$2,209,505.62</u>	<u>\$44,450.00</u>
Total	<u>32,785</u>	<u>\$4,807,024.35</u>	<u>\$145,340.00</u>

# ***PROJECT UNDERSTANDING & SCOPE OF SERVICES***

## **INTRODUCTION**

The Village has identified a major stormwater improvement project consisting of a new storm sewer beneath Willow Road that would convey water from a roughly 900 acre drainage area on the west side of the Village eastward towards Lake Michigan. This project will provide benefits to the North Willow Road, South Willow Road, Provident Avenue, Cherry Street Outlet and the Winnetka Avenue Underpass Study Area for the 100 design storm event.

This proposed improvement consists of an 8-foot diameter storm sewer underneath Willow Road running from approximately Glendale Avenue to Lake Michigan, a distance of some 7,900 feet. Approximately 3,800 feet, from Poplar Street to Birch Street, would be constructed by tunneling, the remainder by open cut methods. The project includes construction of additional storm sewer connected to the tunnel to provide relief to 5 drainage basins affected by frequent and/or severe stormwater flooding, construction of a structure to address water quality, and construction of an outlet structure at Lake Michigan to control water velocity and prevent erosion.

The Village has completed a detailed feasibility analysis of the proposed project, consisting of the review and investigations of the following factors:

- Soil Borings
- Railroad Coordination
- Outfall Conditions
- Regulatory & Permitting Considerations
- Utility Conflicts

For construction, it is our understanding the Village envisions seven projects. The seven projects are described below under Phase I of this proposal. Our TEAM has proposed a slightly different approach to the project. We are proposing to complete 30% Engineering Plans for all seven locations. This will allow the TEAM to focus on determining that all the permits that can be obtained for the outfall in a reasonable manner, prior to moving full blast thru all the engineering. We feel this approach is a TEAM effort and it gives the Village the ability to hold off on the spending of Village funds on the engineering until the TEAM and Village have a high degree of certainty on obtaining all the necessary permits associated with the outfall.

Our TEAM consists of Christopher B. Burke Engineering, Ltd. (CBBEL), Hatch Mott MacDonald, LLC (HMM), W. F. Baird & Associates, Ltd. (Baird), Serafin & Associates, Inc. (Serafin) and Material Service Testing, Inc. (MST). As we described in the Request of Qualifications, we believe we are very qualified to do the work and very excited about the project.

## **UNDERSTANDING OF ASSIGNMENT**

Based on CBBEL and Baird's previous experience with this project during the conceptual phase, as well as HMM's tunneling and CM At-Risk experience, our TEAM is eager to work on the project and tackle the challenge ahead. We understand that the conceptual design that was previously performed will need to be refined as we go through the detailed engineering design, gather additional information, evaluate

# *PROJECT UNDERSTANDING & SCOPE OF SERVICES*

alternatives and work with Village Staff. Based on the public meetings the Village recently held and calls that have been made to some of the permitting agencies, this project will receive significant public attention and scrutiny. Our TEAM is ready and capable of meeting all the technical challenges. Our TEAM has included Serafin to help communicate with the public and maintain a website and social media channels. Outreach will be in an incredibly important component for this project to be successful. It needs to start from the beginning and constant communication with the Village staff and residents is essential. We have provided our Scope of Services that we believe gives the best advantage to the Village. We will work through some of the scheduling options with the Village and layout the pros and cons as we develop the plans. While not specifically requested or called out in the Scope of Services, our Project Manager, Thomas Burke, will continue to provide first hand reporting and observations of flooding during major storm events at no cost to the Village. We believe seeing the flooding and interacting with the residents during the flooding provides unique experience, knowledge and trust.

We have separated the Scope of Services into several phases. The Scope of Services is separated into 4 phases and an overview of the phases is as follows:

## **I. Alternative Analysis and Concept Engineering (30% Engineering Plans and Cost Estimate)**

The purpose of this phase is to evaluate tunnel and outfall alternatives, determine a proposed alignment of the open cut sewers, Subsurface Underground Engineering (SUE) to determine the location of the existing utilities and permitting.

We will complete a GIS survey of all the mainline structures for the existing base sheets for the 30% Engineering Plans. Also, we will have Subsurface Utility Engineering (SUE) completed to determine the horizontal and vertical elevations of the private utilities. Based on this information, we will prepare 30% engineering plans for the open cut areas. At the same time, the TEAM will be working on alternative tunnel alignments under Willow Road. We will evaluate the length and depth of the tunnel, especially as it relates to the outfall configuration. Simultaneously the TEAM will be evaluating alternatives for the outfall and discussing and meeting with permitting agencies. Again, this will allow the Village to review the proposed tunneling, outfall structure and storm sewer alignments as well as further discuss permits with the required agencies. This gives the Village the minimal amount of engineering to be completed until all parties determine the permits can be obtained in a reasonable manner and move forward with the project. A major component of this phase is Public Outreach and Water Quality Assessment. As described in more detail under the Scope of Services, the two components will be a significant focus of the alternatives analysis.

The project will be separated into the following 7 locations:

**Project Area 1:** Outfall, Energy Dissipation, Water Quality Structures and 96 inch RCP storm sewer along Willow Road from Lake Michigan to Provident Avenue. The tunnel component is from Poplar Street to Birch Street and is part of this phase. **CM-At-Risk for Tunnel Portion**

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

*Project Length = 6,400 feet*

**Project Area 2:** 96 inch RCP on Willow Road from Provident Road to Glendale Avenue  
*Project Length = 2,000 feet*

**Project Area 3:** 48 inch, 54 inch and 72 inch RCP storm sewer on Poplar Street, Cherry Street and Sheridan Road  
*Project Length = 4,000 feet*

**Project Area 4:** 84 inch RCP storm sewer on Winnetka Road, Essex Road and Sheridan Road  
*Project Length = 4,800 feet*

**Project Area 5:** 66 inch RCP on Birch Street  
*Project Length = 2,400 feet*

**Project Area 6:** 60 Inch RCP on Provident Avenue and Blackthorn Road  
*Project Length = 6,000 feet*

**Project Area 7:** 96 inch RCP on Glendale Avenue, 60 inch RCP on Cherry and Ash Street, 5 foot x 8 foot RCBC on Oak Street and 84 inch RCP on Hibbard Street  
*Project Length = 6,400 feet*

## II. Pre-Final Engineering, Plans, Specifications and Estimates

Once the TEAM and Village have a high degree of certainty regarding the permitting, the next phase of design will begin. We will finalize the tunnel and shafts design as well as negotiate the Geotechnical Baseline Report (GBR). The outfall structure selected from the first phase will be fully designed. We will prepare a full topographic survey of approximately 32,000 feet; perform a geotechnical investigation for approximately 32,000 feet of storm sewer; complete pre-final plans, specs and estimates for 32,000 feet of sewer; submit permit applications to the application agencies for permitting for 32,000 feet of sewer; and conduct public information meetings.

The pre-final plans will be completed for each project area identified in the previous section. We believe it will work well if two project areas are designed at a time for submittal to the Village. The project areas would be areas 1, then 5 and 7, 2 and 3 and finally 4 and 6. We will work with the Village Staff to revise, if necessary.

## III. Final Engineering

The purpose of this phase is to finalize plans for the construction of the tunnel, outfall and each of the 7 distinct projects for bidding. The projects will be bid as previously outlined in the pre-final phase.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

## IV. Construction Observation

We will provide engineering services throughout the construction phase. Services will include organizing the preconstruction conferences, responding to contractor correspondence, coordinating with utilities, observation of the construction, shop drawing review, documentation of the project, preparing pay estimates, project close-out and outreach to residents, Village Staff, and Council.

### SCOPE OF SERVICES

## I. ALTERNATIVE ANALYSIS CONCEPT ENGINEERING (30% Engineering Plans and Cost Estimate)

**Task 1 – Data Collection:** We will meet with the Village to review the scope and collect, examine, review and evaluate data to be utilized for the development of the proposed improvements. This data will include the following:

- 1) Soil Borings
- 2) Utility GIS Atlases
- 3) Willow Road Phase I Study
- 4) Identify the Necessary Permits
- 5) Meet with Permitting Agencies

We have not included “previous drainage investigations” because we are confident in our previous work and the modeling is very fresh as we have considered various alternatives recently.

**Task 2 – Full Topographic Survey of Location 1:** The survey will be used as a base map for design purposes. Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone, 2007 Adjustment); We will establish recoverable primary control.
2. Vertical Control: Establish site benchmarks for construction purposes, tied to the NAVD '88 Vertical Datum. A level circuit will be run throughout the project, establishing benchmarks and assigning a vertical datum on the horizontal control points.
3. Field recon and survey to locate existing monumentation and boundary evidence.
4. Research at the Cook County Recorder’s Office. Analyze Record and Field Data necessary to compute approximate Parcel boundary and approximate Right-of-way.
5. All above ground utilities including, but not limited to: water, sanitary sewer, storm sewer, telephone, electric, cable and gas, etc. Identify size, type, rim, and invert elevations.

# ***PROJECT UNDERSTANDING & SCOPE OF SERVICES***

6. Existing hardscape improvements located in the project limits including paving, curbs, light fixtures, walks, street signs, parking, fencing and gates within the area designated for proposed drainage improvements (6,200 feet).
7. All trees of 6 inch caliper or greater to be surveyed. Provide tree size, location and elevation on survey.
8. Office calculations and plotting of field and record data.
9. Office contouring of field data and one foot contour intervals.
10. Drafting of an Existing Conditions Plan at a scale of 1"=20'.

**Task 3 – G.I.S. Verification of Storm/Sanitary/Water Structures of Locations 2 - 7:** This task will consist of locating all public fire hydrants, valve vaults, mainline storm and mainline sanitary manholes using standard GPS and conventional surveying methods. The horizontal locations and rim elevations (as applicable) will be determined based on the Village's documentation and will match NGS Horizontal and Vertical datum. It is estimated that our two man crew with GPS equipment will be able to locate approximately 110 structures per day depending on weather and the condition of the structures. As the structures are downloaded (weekly) into the digital orthophotography mapping, we will print out atlas sheets showing the location of each of the structures. These sheets will be given to the field crews to open each combined sewer structure and determine pipe sizes and inverts. The crews will measure down from the known rim elevation to determine the pipe flowline elevations. Pipe sizes will be determined by measurement and the manhole will be rated by condition, it is estimated that our two man crew can complete 70 structures per day.

We will utilize the information collected above to develop a data base and a utility atlas for each major utility. For difficult locations, we will ask Public Works to clean/inspect structures prior to re-surveying them. Atlases will be developed in MicroStation and will be utilized to assist with Preliminary Drainage Modeling and Utility coordination for locations 2 thru 7, and can be supplemented at a later date with Full Topographic Scope necessary for final infrastructure design.

We have estimated 153 storm structures, 110 sanitary structures, and 50 water structures.

**Task 4 – Utility Coordination:** We will send the GIS survey to all known utility companies for information on the horizontal and vertical locations of their utilities. The private utilities include Union Pacific Railroad, AT&T, Comcast and others as well as federal and state entities. Based on the information received from the utility companies, we will utilize this information to prepare an alignment of the preliminary engineering plans for locations 1 thru 7.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

**Task 5 – Subsurface Utility Engineering (SUE):** We will identify key locations based on the private utility information from the utility companies to perform Subsurface Utility Engineering (SUE). This information will be key in identifying the proposed alignment and identify possible conflicts for the project. The key locations to perform this work as follows but not limited to:

- Oak Street and Glendale Avenue
- Willow Road and Glendale Avenue
- Willow Road and Provident Avenue
- Hibbard Road and Pine Street
- Hibbard Road and Oak Street
- Willow Road and Birch Street
- Willow Road and Green Bay Road
- Willow Road and Poplar Street
- Willow Road and Sheridan Road

**Task 6 – Water Quality Monitoring:** We will work with an environmental laboratory and testing services to implement 3 auto-sampling locations to determine the existing condition baseline water quality of the storm water entering the Skokie River and Lake Michigan. Auto-sampling is the preferred method for this task to verify constituent levels in the “first flush” of the storm water entering the Skokie River and Lake Michigan from the existing storm sewer system. The baseline water quality monitoring is imperative to insure that the proposed storm sewer system does not increase constituent levels to either receiving system and will be used in concert with the permitting and public outreach processes. Auto-sampling equipment will be installed in three locations, (2) draining to the Skokie River and (1) to Lake Michigan. Auto-sampling will be conducted for (3) storm events where at least 0.5 inches of precipitation is measured from the on-set of each storm event. The samples will be analyzed for a suite of constituents including E.Coli, BOD, TSS, COD, Total P., Ammonia Nitrate, Nitrate, 4 Metals and Mercury. Auto sampling and laboratory testing will be conducted for a minimum of 3 storm events as described above for pre- and post-construction in this task. Post construction sampling has been included with this task for public outreach purposes. Ideally, samples will be collected and analyzed for storm events following a minimum of 72 hour dry period. Because our sampling window is limited, we may have to use samples that do not meet the 72 hour dry period. This information will be combined with the Baxter and Woodman grab samples to provide the best available information to address water quality.

**Task 7 – Hydraulic Analysis:** We will use the sewer size and invert information obtained in Tasks 1 and 3 to enhance the design in the XP-SWMM analysis completed for the Flood Reduction Assessment. Incorporating the surveyed sizes and elevations will increase the accuracy of the model and may cause the originally proposed sewer sizes to be modified. We will review the proposed sewer sizes and alignments for each project area to verify the required sewer sizing criteria. This task will be an iterative process while additional conflicts are identified in Tasks 4 and 5. The XP-SWMM analysis will be used in determining flow rates for inlet capacity and design. The XP-SWMM analysis may also be used to design and incorporate any additional lateral storm sewers as needed in areas such as along Sunset Road and Fuller Lane.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

**Task 8 – Green Infrastructure and Final Flush Design:** The sampling information obtained from Task 6 will be used to set the baseline condition for removal rates, design loading rates and acceptable constituent levels for the design of the water quality treatment structures and best management practices. We will use the XP-SWMM analysis from Task 7 to determine flow rates in each phase or area of the project and the associated sub-watershed for a range of storm events. This information will be combined to determine the number, location and the size of each structure or element of best management practice required for treatment. Because stormwater is picked up at a wide variety of locations throughout the system, each green infrastructure element will be tailored to achieve the maximum removal rate for the largest contributing pollutant for that location whether it be hydrocarbons or nitrogen. Consideration to the greatest extent possible will be given to the use of infiltration elements (rain garden/bio swales) in areas where site constraints permit. The incorporation of infiltration elements in this task will be included in the hydraulic analysis and determine the effects on the storm sewer sizes determined in Task 7. The design and configuration of structures for the diversion of low flows to the Skokie River and associated bypass structures is included in this task.

**Task 9 – Preliminary Engineering for Outfall:** We will investigate the requirements for bluff, shoreline and nearshore surveys, as well as a geotechnical investigation, and will incorporate the results of these investigations in the design process. In addition, we will collect the following information to characterize the beach and nearshore conditions:

- Up to ten sediment samples and grain size distribution tests;
- Up to six jet probes (to define depth of loose sediment over underlying glacial till)

The design of any coastal structure requires a thorough understanding of the environmental design conditions to which the structure will be exposed, including wave climate, water levels and ice conditions. We will undertake analyses to define the long term wave climate and water level fluctuations at the site, including the development of extreme nearshore design conditions as a function of return period. Specific activities will include review and analyses of historical water level data (lake levels and storm surge), wind-wave hindcast analyses and shallow water wave transformations. In addition, a review of ice conditions will be undertaken, as ice loads may be an important design consideration for the outfall structure.

The outcome of these analyses will be a summary of extreme design conditions by return period. These results will be summarized in a brief report, along with a discussion of risk. Specifically, a reduction in the risk of damage over the project design life generally requires an increase in capital cost. We will develop a recommendation for consideration by the Village regarding the acceptable risk to be utilized in detailed design development for the outfall.

**Task 10 – Preliminary Engineering Plans and Cost Estimate:** Based on information gathered, we will prepare 30% Engineering Plans and Cost Estimate for Village review and continue discussion of permit to the following agencies for review:

1. US Army Corps of Engineers
2. Illinois Environmental Protection Agency
3. Illinois Department of Natural Resources

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

4. Metropolitan Water Reclamation District of Greater Chicago
5. North Cook County Soil & Water Conservation District
6. Illinois Department of Transportation
7. Union Pacific Railroad

All final permit applications will be submitted with the pre-final plans. This task is further discussed in Task 15.

**Task 11 – Project Management and Meetings thru Preliminary Engineering:** - We will provide the necessary management for planning, coordinating, scheduling, quality control, reporting and invoicing. We will also provide appropriate representation at the following meetings:

- Project Kickoff Meeting
- Meeting every two weeks with project TEAM and preparation of meeting minutes
- Monthly Progress Meetings with the Village of Winnetka
- Other special design meetings, public meetings or other stakeholder meetings

Also, this will include meeting with local entities including Winnetka Park District, Winnetka School District 36 and New Trier High School District, and the public as needed. Also, we will meet periodically (typically at two week intervals) with the project TEAM. Included in this task, we will present the proposed alignment to Village Staff for review and discussion. Upon consensus of the proposed alignment, we will go forward with the design and permitting. At this point, the TEAM will wait to proceed further until it is determined the outfall can be permitted.

**Task 12 – Geotechnical Program Tunnel and Shafts Only:-** We will collect readily-available existing geotechnical information in the area of the tunnel and provide a full time geotechnical engineer in the field during drilling to log the soil, install the piezometers and provide QA during drilling. We will select samples for testing and coordinate the lab testing with MST who will perform the laboratory testing. We are assuming a 3 to 4 week drilling period with full-time involvement.

We will prepare the field boring logs as well as the final boring logs. Final boring logs will be produced using gInt software.

**Task 13 – Tunnel Alternatives Evaluation:** Using survey, utility, existing structure and hydraulic information, we will evaluate up to three tunnel alignments along Willow Road. In particular, we will evaluate the length and depth of tunnel, especially as it relates to the final outfall configuration. The results of this evaluation will be presented in a brief technical memorandum to the Village.

We will evaluate the stability of the lakeshore bluff to determine the risk of slope failure resulting from tunnel or open cut operations. The results of this, together with other identified risks and mitigations, will be included in a preliminary tunnel risk register prepared by HMM. We will ultimately host a one day workshop for all TEAM members on tunnel risk and alignment selection.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

**Task 14 – Preparation 30% Tunnel Design:** Upon completion of the geotechnical drilling and testing program, HMM will combine the existing and new geotechnical information into a Geotechnical Data Report (GDR). This is strictly a factual data report which will become a contract document.

Using the GDR, a geotechnical design memorandum will be written for use of the tunnel and shaft design TEAM. This memo will outline the design parameters and codes to be used and any other geotechnical-related information needed by the designers. This is an internal document to the TEAM, and is not meant to be a deliverable to the owner or contractor, as the information and recommendations may conflict with information in the Geotechnical Baseline Report (GBR) described later.

We will perform a computational fluid dynamics (CFD) study for the purpose of evaluation of sediment transport in the tunnel as well as pneumatics, air flow and system venting requirements. The results of this study will be used in the finalization of the tunnel and shaft design.

Finally, we will prepare 30% plans and specifications for the tunnel and shafts. The intent is that this 30% set will be sufficient on which to obtain pricing and contractor procurement. Other ancillary tasks during this phase will include internal QA/QC and an updated tunnel cost estimate.

**Task 15 – Permitting:** The proposed improvements associated with the new outlet to Lake Michigan at Willow Road will require approval from multiple agencies. Due to the numerous approvals required for this work, we will begin the permitting process following the execution of this proposal utilizing a concept level plan and will expand upon these plans with the additional information developed in Tasks 1, 3 and 5-10. We have included pre-application meetings with each of the required agencies. This task will consist of the necessary field work, coordination, preparation of the required submittals and forms for multiple applications to the following agencies:

- United States Army Corps of Engineers (USACE) – assumes a Regional Permit
  - North Cook County Soil and Water Conservation District (NCSWCD)
  - United States Fish and Wildlife Service (USFWS)
- Illinois Environmental Protection Agency (IEPA)
  - Section 401 Water Quality Certification and Anti-Degradation
  - Compliance with Section 404 of the Clean Water Act
  - National Pollutant Discharge Elimination System (NPDES)
  - SWPPP Preparation and Submittal
  - Division of Public Water Supplies
- Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)
  - Cook County Watershed Ordinance Compliance, Stormwater, Wetland, Buffer and Riparian Submittals
- Illinois Department of Natural Resources (IDNR)
- Illinois Department of Transportation (IDOT)
- Union Pacific Railroad

# ***PROJECT UNDERSTANDING & SCOPE OF SERVICES***

***USACE – Lake Michigan Outlet:*** The new outlet to Lake Michigan will require an energy dissipation structure to prevent erosion of the beach area associated with the new outlet. This work may occur within the established ordinary high water level associated with Lake Michigan. If work below the established ordinary high water mark of Lake Michigan is required, the exhibits, specifications data and project information will be compiled and assembled in a Regional Permit 8 application package to the USACE. Supporting calculations, specifications and details for the energy dissipation structure will be included as part of the USACE submittal.

***North Cook County Soil and Water Conservation District Submittal – Lake Michigan Outlet:*** We will submit a copy of the soil erosion and sediment control plan for the Lake Michigan Outlet, prepared in accordance with the Illinois Urban Manual, and the applications to the North Cook County Soil and Water Conservation District for review and approval. Project documentation from the NCSWCD is required to obtain approval from the USACE for the new outlet to Lake Michigan. Permit application and review fees will be billed as a direct cost.

***USACE – Skokie Ditch:*** The new connection to the Skokie Ditch that comes from Indian Hill Club, will require a wetland assessment. An investigation of the project site will be completed to determine the limits of wetlands present. The wetland delineation will be completed based on the methodology established by the USACE. Also during the site visit, wildlife and plant community qualities will be assessed. The limits of the wetland community will be field staked so that they can be located in relation to the project coordinate system. The results of the field reconnaissance will be summarized in a letter report. The wetlands' general quality, according to Swink and Wilhelm Methodology (1994), will be included along with exhibits depicting the approximate wetland and project boundaries, National Wetland Inventory, Soil Survey, floodplain, USGS topography, and the U.S. Army Corps of Engineers' Routine On-Site Data Forms. The delineation will be field surveyed and incorporated into our base mapping. The required exhibits, specifications data and project information will be compiled and assembled in a permit application package to the USACE under the Regional Permit Program. Supporting calculations, specifications and details for the energy dissipation structure will be included as part of the USACE submittal.

***North Cook County Soil and Water Conservation District Submittal – Skokie Ditch:*** We will submit a copy of the soil erosion and sediment control plan for the Skokie Ditch, prepared in accordance with the Illinois Urban Manual, and the applications to the North Cook County Soil and Water Conservation District for review and approval. Project documentation from the NCSWCD is required to obtain approval from the USACE for the new connection to the Skokie Ditch. Permit application and review fees will be billed as a direct cost.

***IEPA:*** The proposed project includes a specific design with numerous water treatment elements to meet the water quality standards required by the IEPA. We will prepare and submit the required documentation to the IEPA for an application for Section 401 Water Quality Certification and Anti-degradation. We will meet with the IEPA and make revisions to the application as requested. The IEPA review process is subservient to the USACE review process and will occur simultaneously.

# *PROJECT UNDERSTANDING & SCOPE OF SERVICES*

We will organize two meetings with the regulatory agencies regarding the design of the energy dissipater, outfall, bluff regrading and toe protection. The first meeting will be scheduled early in the study in order to obtain agency input to guide design development and permitting activities. Following this meeting, we will prepare draft permit information that will be presented to the regulatory agencies in a second meeting.

Based upon comments from the regulatory agencies, we will incorporate revisions, prepare and submit the final permit applications. We will prepare permit applications and supporting written information that includes a descriptive narrative of the project, the outfall alternatives analysis (completed in previous Baird study), summary of the technical analysis (water levels, wind wave climate, ice and selected design conditions), site layout, cross-sections details, estimated quantities, costs and schedule.

We will prepare and submit a SWPPP and an ILR 10 Notice of Intent (NOI) for each of the seven projects in accordance with Part IV of the General NPDES Permit No. ILR10. Please note that completion of this task will require signed certification statements from the community, contractors, subcontractors, and the operator as identified in the SWPPP. This task also covers the preparation and submittal of an electronic copy of the SWPPP to the IEPA. As required by the NPDES ILR10 Permit, an up-to-date copy of the SWPPP must be maintained on the project site during construction activities and kept for a three-year period following final stabilization of the site.

We will prepare and submit an IEPA permit Division of Water Supplies for all watermain improvements associated with the project due to conflicts with the storm sewer. This will involve one permit submittal for each project location.

**MWRDGC:** We will prepare the required exhibits, specifications data, supporting calculations, hydraulic modeling and project information for compilation into a permit application package to the MWRDGC. This submittal will include a Wetland, Buffer and Riparian Submittal. This information will be prepared in compliance with the Watershed Management Ordinance. The submittal will address the new outlet to Lake Michigan.

**IDNR:** Lake Michigan is defined by IDNR as a Public Body of Water or Public Waters. CBBEL will prepare the required application package to the IDNR for the work associated with the new outlet to Lake Michigan and the energy dissipation structure. We will submit a request for threatened and endangered species consultation with the IDNR and complete U.S. Fish and Wildlife Service Project documentation for the new outlet to Lake Michigan and the new connection to the Skokie Ditch. Project documentation from IDNR is required to obtain approval from the USACE.

**Railroad Permitting:** We will prepare and coordinate the required railroad permits for the tunnel. We will develop the supporting documents to necessary obtain the rail permit for the tunnel crossing. Permit effort also includes attending one meeting with railroad staff and incorporating railroad requirements, such as, instrumentation into the contract documents.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

During the final design, we will work together with the Contractor, Village and other members of the design TEAM to finalize the tunnel and shaft designs (including drop structure finalization). At this stage of the design, HMM, Contractor and Owner will negotiate the Geotechnical Baseline Report (GBR) which will then become a contract document. A submittal of the full tunnel package will be made to the Village at 90% (approximately) for final comments. Once all comments are addressed, the documents will be provided to the Contractor so that he can provide a Best and Final Price.

**IDOT:** The new outlet to Lake Michigan will require a storm sewer connection within the Willow Road, Green Bay Road and Sheridan Road right-of-way which is under IDOTs jurisdiction. We will prepare a letter report requesting approval from IDOT for work within the right-of-way.

We will coordinate development of documents with the Village and other project TEAM members. The required exhibits, specifications data and project information will be compiled and assembled in a permit application packages to each agency listed above. During the permit review process, follow-up information, submittals, and documentation are anticipated. We expect that meetings with the Village, other stakeholders and regulatory agencies will occur to finalize required information, submittals and documentation. Permit application fees to each of the agencies have not been included in our fee.

**Task 16 – Public Outreach:** The TEAM will include **Serafin & Associates, Inc.** which will serve as an accessible, responsive and proactive partner to facilitate mutually beneficial relationships among the TEAM, Village Staff and officials, Village residents and various agencies with interest in the project. They also will work with the adjacent property owners, IDOT, Union Pacific Railroad, key community stakeholders and media. By initiating a dialogue with these groups to answer questions and disseminate information, they will educate the public and ensure any concerns about the project are addressed thoughtfully and accurately. They will:

- Develop and execute a fully integrated communications strategy
- Outreach and respond to local media organizations, including reporters and editors
- Produce written and collateral materials, including press releases, FAQs and fact sheets
- Proactively develop a dialogue with the community and local stakeholders as needed
- Establish a 24/7 mechanism to respond to media and community/stakeholder inquiries
- Establish an Internet presence via a website and social media channels (Facebook, Twitter)
- Provide outreach to the encompassing the project improvements including communication with the Village Staff will begin as soon as possible and continue throughout construction. Many neighborhood groups and residents will rely on the Village for information as to the status of the improvements, and it will be our responsibility to keep them as up-to-date as possible.
- Work with area stakeholders, business owners, and residents to help them understand the project and the benefits that will result from it. Inform them of the plan and listen and address concerns.

**Serafin & Associates, Inc.,** based in Chicago, has more than 30 years extensive community and public relations experience. They have been involved in many zoning, development and permitting issues where they have worked with community and ward organizations, chambers of commerce,

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

homeowners and neighborhood associations and local residents. They have worked with CBEL on several similar municipal projects.

**Task 17 – Contractor Selection:** We will develop Tunnel Contractor Qualification Requirements and Bid Documents, and will host a meeting/workshop with the design TEAM and the Village and their legal staff to finalize the document. We will provide Assistance during the bid period, including attending a pre-bid meeting, reproduction of 10 bid sets, answer bidders’ questions and prepare one addendum. We will also attend the bid opening, review bids, and provide input to the Village on Contractor selection, using criteria established in the bid documents.

## II. PRE-FINAL ENGINEERING PLANS, SPECIFICATIONS AND ESTIMATES

Once it is determined to the satisfaction of the Village, the outfall can be permitted; we will begin preparation of the pre-final engineering plans and specifications for the 7 projects based on the comments received from the permitting agencies and the Village. The 7 projects include the following locations:

- Project Area 1:** Outfall, Energy Dissipation, Water Quality Structures and 96 inch RCP storm sewer along Willow Road from Lake Michigan to Provident Avenue. The tunnel component is from Poplar Street to Birch Street and is not part of this phase for pre-final engineering plans.
- Project Area 2:** 96 inch RCP on Willow Road from Provident Road to Glendale Avenue
- Project Area 3:** 48 inch, 54 inch and 72 inch RCP storm sewer on Poplar Street, Cherry Street and Sheridan Road
- Project Area 4:** 84 inch RCP storm sewer on Winnetka Road, Essex Road and Sheridan Road
- Project Area 5:** 66 inch RCP on Birch Street
- Project Area 6:** 60 Inch RCP on Provident Avenue and Blackthorn Road
- Project Area 7:** 96 inch RCP on Glendale Avenue, 60 inch RCP on Cherry and Ash Street, 5 foot x 8 foot RCBC on Oak Street and 84 inch RCP on Hibbard Street

We will determine a preliminary construction phasing plan for the projects.

**Task 18 – Topographic Survey of Locations 2 - 7:** The survey will be used as a base map for design purposes for each location 2 thru 7. Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone, 2007 Adjustment); we will establish recoverable primary control.
2. Vertical Control: Establish site benchmarks for construction purposes, tied to the NAVD '88 Vertical Datum. A level circuit will be run throughout the project, establishing benchmarks and assigning a vertical datum on the horizontal control points.

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3. Field recon and survey to locate existing monumentation and boundary evidence.
4. Research at the Cook County Recorder's Office. Analyze Record and Field Data necessary to compute approximate Parcel boundary and approximate Right-of-way.
5. All above ground utilities including, but not limited to: water, sanitary sewer, storm sewer, telephone, electric, cable and gas, etc. Identify size, type, rim, and invert elevations.
6. Existing hardscape improvements located in the project limits including paving, curbs, light fixtures, walks, street signs, parking, fencing and gates within the area designated for proposed drainage improvements.
7. All trees of 6 inch caliper or greater to be surveyed. Provide tree size, location and elevation on survey.
8. Office calculations and plotting of field and record data.
9. Office contouring of field data and one foot contour intervals.
10. Drafting of an Existing Conditions Plan at a scale of 1"=20'.

**Task 18.1 - Project Area 2:** 96 inch RCP on Willow Road from Provident Road to Glendale Avenue – Survey of 1,750 feet

**Task 18.2 - Project Area 3:** 48 inch, 54 inch and 72 inch RCP storm sewer on Poplar Street, Cherry Street and Sheridan Road - Survey of 3,800 feet

**Task 18.3 - Project Area 4:** 84 inch RCP storm sewer on Winnetka Road, Essex Road and Sheridan Road - Survey of 4,620 feet

**Task 18.4 - Project Area 5:** 66 inch RCP on Birch Street - Survey of 2,900 feet

**Task 18.5 - Project Area 6:** 60 Inch RCP on Provident Avenue and Blackthorn Road - Survey of 4,250 feet

**Task 18.5a - Drainage Easement Exhibits and Legal Descriptions:** (Estimate 13 Proposed Easements) – Blackthorn Road Area

1. Initial coordination with Client.
2. Research at the Cook County Recorder's Office.
3. Office calculations and plotting of field and record data.
4. CAD drafting of the drainage easement exhibits for the proposed easement areas.
5. Write legal description's for the proposed easement areas.

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6. Final review and submittal by an Illinois Professional Land Surveyor.

**Task 18.6 - Project Area 7:** 96 inch RCP on Glendale Avenue, 60 inch RCP on Cherry and Ash Street, 5 foot x 8 foot RCBC on Oak Street and 84 inch RCP on Hibbard Street - Survey of 6,065 feet

**Task 18.6a - Drainage Easement Exhibits and Legal Descriptions:** (Estimate 3 Proposed Easements) -Ash Street Area

1. Initial coordination with Client
2. Research at the Cook County Recorder's Office
3. Office calculations and plotting of field and record data
4. CAD drafting of the drain age easement exhibits for the proposed easement areas
5. Write legal description's for the proposed easement areas
6. Final review and submittal by an Illinois Professional Land Surveyor

Task 18.7 - Temporary Construction Easement Exhibits and Legal Descriptions - per parcel if needed (not included in fee schedule)

1. Initial coordination with Client.
2. Research at the Cook County Recorder's Office.
3. Office calculations and plotting of field and record data.
4. CAD drafting of temporary construction easement exhibits for the proposed easement area s.
5. Write legal description's for the proposed easement areas.
6. Final review and submittal by an Illinois Professional Land Surveyor.

**Please note this is approximately \$2500 per parcel. This is not included in our fee schedule.**

**Task 19 – Geotechnical Investigation:** We will include approximately 15 soil borings conducted at approximately 500 foot intervals on Willow Road. The soil boring depths range between depths of 20 feet and 105 feet depending upon the area of the tunnel to be explored. Also, there will be approximately 27 soil borings conducted at the various side streets to a depth of 15 feet. Laboratory testing and evaluation will be performed as each soil boring is completed.

Our team will complete the following recommendations and information:

- I. Perform geotechnical soil borings to recommended depths
- II. Provide traffic control and obtain the necessary permitting for soil boring exploration
- III. Requested laboratory analysis of soil specimens
- IV. Structural characteristics of the soil profiles encountered

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

**Task 20 – Final Design of Tunnel Portion:** During the Final Design of the tunneling portion, we will attend:

- Monthly Progress Meetings with the Village of Winnetka
- Other special design meetings, public meetings or other stakeholder meetings

During the final design, we will work together with the Contractor, Village and other members of the design TEAM to finalize the tunnel and shaft designs (including drop structure finalization). At this stage of the design, HMM, Contractor and Owner will negotiate the Geotechnical Baseline Report (GBR) which will then become a contract document. A submittal of the full tunnel package will be made to the Village at 90% (approximately) for final comments. Once all comments are addressed, the documents will be provided to the Contractor so that they can provide a Best and Final Price.

**Task 21 – Project Management and Meetings During Pre-Final Engineering:** We will provide the necessary management for planning, coordinating, scheduling, quality control, reporting and invoicing. We will also provide appropriate representation at the following meetings:

- Meeting every two weeks with the Village and preparation of meeting minutes
- Other special design meetings, public meetings or other stakeholder meetings

Although not specifically requested in the RFP, we recommend holding public information meetings for the residents affected by the proposed construction and address environmental concerns to Lake Michigan. We will prepare exhibits and answer resident's questions about the project. We will record and respond to written comments submitted by the public at the meeting. This task will include public outreach with respect to water quality. The TEAM will quantify and present the results obtained in the water quality testing. The TEAM will provide research support and background information as it relates to the project as requested. This task may also include a follow up presentation of the post construction water quality sampling results.

**Task 22 – Pre-Final Engineering Plans, Specifications and Cost Estimate:** We will prepare pre-final plans, specifications, and a cost estimate for every project location. Plans will generally follow IDOT, IEPA, and Village Standards and Specifications.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

## Project Area 1: Outfall, Energy Dissipation, Water Quality Structuring, a 96 inch RCP Storm Sewer along Willow Road From Lake Michigan to Provident Avenue (Approximately 6,400')

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	7	6	42
Typical Section	1	12	12
Existing Conditions & Removal Plan	3	8	24
Roadway Plan & Profile	6	10	60
Utility Plan & Profile	6	18	108
Junction Chamber Details	4	20	80
Detour Plan	1	14	14
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Construction Details	1	10	10
Cross Sections	8	8	64
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
<b>TOTAL</b>	<b>44</b>		<b>588</b>

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

\*\* This does not include the tunneling portion of the project.

## Project Area 2: 96 inch RCP on Willow Road From Provident to Glendale Avenue (Approximately 2,000')

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	2	6	12
Typical Section	1	12	12
Existing Conditions & Removal Plan	2	8	16
Roadway Plan & Profile	4	12	48
Utility Plan & Profile	4	18	72
Junction Chamber Details	4	20	80
Detour Plan	1	14	14
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Construction Details	1	10	20
Cross Sections	6	8	48
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
<b>TOTAL</b>	<b>32</b>		<b>496</b>

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

## Project Area 3: 48 inch, 54 inch and 72 inch RCP storm sewer on Poplar Street, Cherry Street and Sheridan Road (Approximately 4,000')

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	2	6	12
Typical Section	1	12	12
Existing Conditions & Removal Plan	3	8	24
Roadway Plan & Profile	6	12	72
Utility Plan & Profile	6	18	108
Junction Chamber Details	5	20	100
Detour Plan	1	14	14
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Construction Details	2	10	20
Cross Sections	9	8	72
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
<b>TOTAL</b>	<b>42</b>		<b>608</b>

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

## Project Area 4: 84 inch RCP storm sewer on Winnetka Road, Essex Road and Sheridan Road (Approximately 4,800')

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	5	6	30
Typical Section	1	12	12
Existing Conditions & Removal Plan	5	8	40
Roadway Plan & Profile	10	12	120
Utility Plan & Profile	10	18	180
Detour Plan	1	14	14
Junction Chamber Details	5	20	100
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Construction Details	2	10	20
Cross Sections	5	8	40
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
<b>TOTAL</b>	<b>51</b>		<b>730</b>

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

## Project Area 5: 66 inch RCP on Birch Street (Approximately 2,400')

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	2	6	12
Typical Section	1	12	12
Existing Conditions & Removal Plan	2	8	16
Roadway Plan & Profile	5	12	60
Utility Plan & Profile	5	24	120
Junction Chambers Details	3	20	60
Detour Plan	1	14	14
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Typical Section & Construction Details	2	10	20
Cross Sections	7	8	56
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
<b>TOTAL</b>	<b>35</b>		<b>544</b>

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

## Project Area 6: 60 Inch RCP on Provident Avenue and Blackthorn Road (Approximately 6,000')

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	6	6	36
Typical Section	2	12	24
Existing Conditions & Removal Plan	6	8	48
Roadway Plan & Profile	12	12	144
Utility Plan & Profile	12	18	216
Junction Chambers Details	4	20	80
Detour Plan	1	14	14
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Construction Details	2	10	20
Cross Sections	17	8	136
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
<b>TOTAL</b>	<b>69</b>		<b>892</b>

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

**Project Area 7: 96 inch RCP on Glendale Avenue, 60 inch RCP on Cherry and Ash Street, 5 foot x 8 foot RCBC on Oak Street and 84 inch RCP on Hibbard Street (Approximately 6,400')**

SHEET	# OF SHEETS	HOURS PER SHEET	TOTAL HOURS
Title Sheet	1	6	6
General Notes	1	8	8
Summary of Quantities	1	12	12
Alignment, Ties & Benchmarks	6	6	36
Typical Section	2	12	24
Existing Conditions & Removal Plan	6	8	48
Roadway Plan & Profile	12	12	144
Utility Plan & Profile	13	18	234
Junction Chamber Details	6	20	120
Detour Plan	1	14	14
Maintenance of Traffic Plan and Details	2	8	16
Erosion & Sediment Control Plans	2	6	12
Construction Details	2	10	20
Cross Sections	17	8	136
Specifications	-	-	60
Cost Estimate/Quantities	-	-	60
	72		950

\* Note: This sheet count and total hours are representative of Tasks 10, 22 and 23.

## III. FINAL ENGINEERING

**Task 23 – Bid Documents:** We will finalize the plans, specifications, and estimate for the first construction phase based on final review comments. We will provide the Village with 20 full size hard copies, 10 half-size hard copies, and an electronic PDF format of the plans and specifications. All bid documents will also be provided in Word, Excel, and AutoCAD format.

**Task 24 – Bidding Assistance:** We will answer questions during the bidding process, attend pre-bid meeting, prepare pre-bid meeting minutes, addendums, attend the bid opening, verify low bidder’s references, tabulate the bids and make recommendations to the Village, prepare contracts for the successful bidder, and attend the preconstruction meeting.

## IV. CONSTRUCTION OBSERVATION

**Task 25 – Construction Oversight of Tunneling:** We will provide full time resident construction monitoring for tunnel mining and lining (assume one person for 8 months and one 8 hour work shift per day). During these 8 months, full time monitoring can also be provided for shaft mining and lining as long as it is not concurrent with tunnel mining and lining, or does not require more than 8 hours per day. If additional monitoring is required for shaft construction or other tunnel related activity, (for example, if the Contractor goes to double shifts or if shaft and tunnel construction are concurrent), we can

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

provide additional monitoring with a change to our scope and budget, or this can be provided by the Village or the Contractor. Between the field engineer and HMM Home Office Support, we will attend the construction kick-off meeting, answer up to 20 Requests for Information and review up to 50 submittals. In addition we will prepare daily reports, maintain a submittal and RFI log, review pay requests, and attend special meetings as may be required during construction (up to 24).

## Task 26 – Construction Observation of Open Cut:

### Task 26.1 – Provide Construction Observation:

#### *Construction Observation*

1. Attend a pre-construction conference with the contractor, Village, and other parties to discuss goals, objectives, and issues of the project. We shall prepare a project contact list, including 24-hour emergency numbers, for distribution with the meeting minutes.
2. Conduct utility coordination meetings, as required, to monitor and verify the progress of utility relocations being completed by others.
3. Obtain and distribute all permits issued for the construction of the project.
4. Obtain from the contractor a list of proposed suppliers and subcontractors. Make recommendations to the Village regarding the suitability of the subcontractors for the proposed work.
5. Review the construction schedule submitted by the contractor for compliance with the contract
6. We shall document all existing conditions with digital photographs and videotapes to insure that all disrupted areas have been restored per the plan or existing conditions.
7. Review the plans and specifications for potential conflicts or problems, so that solutions can be developed prior to construction.
8. Provide information to the Village so you can update your website with construction updates.
9. Prepare project files, Quantity and IDR books.
10. Observe the progress and quality of the executed work. Determine if the work is proceeding in accordance with the Contract Documents. We shall keep the Village informed of the progress of the work, guard the Village against defects and deficiencies in the work, and advise the Village of all observed deficiencies of the work and disapprove or reject all work failing to conform to the Contract Documents.
11. Provide extensive on-site observations of the work in progress and field checks of materials and equipment through a Resident Engineer and Inspector (if necessary), who shall:
  - Serve as the Village's liaison with the contractor working principally through the contractor's field superintendent.
  - Be present whenever the contractor is performing work on-site, associated with the project.
  - Cooperate with the contractor in dealing with the various local agencies and utility companies having jurisdiction over the Project in order to complete service connections to public utilities and facilities.

# PROJECT UNDERSTANDING & SCOPE OF SERVICES

- Record names, addresses and telephone numbers of all contractors, subcontractors, and major material suppliers.
  - Attend all construction conferences. Arrange a schedule of weekly progress meetings and other job conferences as required. Maintain and circulate copies of records of the meetings.
  - Review contractor's progress on a weekly basis and update the progress schedule. Compare actual progress to the contractor's approved schedule. If the project falls 14 calendar days behind schedule, work with the contractor to determine the appropriate course of action to get back on schedule. The contractor is required to submit a revised schedule for approval prior to further payments being made.
  - Maintain orderly files of correspondence, reports of job meetings, shop drawings and other submissions, RFI responses, original contract documents including all addenda, change orders and additional drawings issued subsequent to the award of the contract.
  - Prepare any RFC's needed as construction proceeds. Once the contractor submits a proposal, assist the Village in their review and provide a recommendation.
12. Determine if the project has been completed in accordance with the contract documents and if the contractor has fulfilled all obligations.
  13. Alert the Contractor's field superintendent when materials or equipment are being installed before approval of shop drawings or samples, where such are required, and advise the Village when it is necessary to disapprove work as failing to conform to the Contract Documents.
  14. Discuss the truck routes with the Contractor and monitor that the identified routes are being used.
  15. All our personnel and their sub-consultants will comply with the Village's current safety guidelines.
  16. Perform Traffic Control Inspections.
  17. Perform NPDES Inspections as required.

## **Construction Documentation**

1. Keep an inspector's daily report book and project diary in the Village's format, recording hours on the job site, weather conditions, general and specific observations, daily activities, quantities placed, inspections, decisions, and list of visiting officials, as outlined in IDOT's Construction Manual. Additionally, prepare photo documentation of construction to be submitted in both hard and digital formatting.
2. Schedule any material testing through the Village's Consultant at the frequency required by IDOT's QC/QA provisions. Also obtain and document all material inspection received from the Contractor as outlined in the Project Procedures Guide of IDOT's Construction Manual.
3. Prepare a monthly written update to the Village summarizing the Project status, costs and schedule.

**Task 26.2 – Respond to and Track RFI's:** Review and coordinate response to any RFI from the Contractor in a timely manner and maintain a separate file for each request.

# ***PROJECT UNDERSTANDING & SCOPE OF SERVICES***

## **Task 26.3 – Review and Approve Shop Drawings:**

1. Check and approve, or reject and request resubmittal of, any submittals made by the contractor for compliance with the contract documents.
2. Shop Drawings and Contractor Submittals:
  - a. Record data received, maintain a file of drawings and submissions, and check construction for compliance with them.
  - b. Review Contractor’s submittals for compliance with contract documents. Notify the Village of any deviations or substitutions. With the notification, provide the Village with a recommendation for acceptance or denial, and request direction from the Village regarding the deviation or substitution.

**Task 26.4 – Review and Recommend Changes:** Review and coordinate response to any required contract changes in a timely manner and maintain a separate file for each request. Except upon written instruction of the Village, the Resident Engineer or Inspector shall not authorize any deviation from the Contract Documents.

**Task 26.5 – Review and Approve Payment Application:** Prepare payment requisitions and change orders. Review applications for payment with the Contractor for compliance with established submission procedure and forward them with recommendations to the Village.

## **Task 26.6 – Conduct Punchlist Inspections:**

1. Prior to final inspection, submit to the Contractor a list of observed items requiring correction and verify that each correction has been made.
2. Conduct final inspection with the Village and prepare a final list of items to be corrected.
3. Verify that all items on the final list have been corrected and make recommendations to the Village concerning acceptance.

## **Task 26.7 – Assist with Project Closeout:**

1. Prepare final pay estimate and change order for the Village’s approval.
2. Verify all necessary material inspection has been received and documented.
3. Submit the job box to the Village with all pertinent project information, including Record Drawings.

**Task 26.8 – Assist with Public Outreach:** The Resident Engineer will be responsible for keeping the public aware of the construction activities, as required. This will include, but not limited to, notification of construction starting, detours and/or road closures, access limitations, and disruption of water, sewer, and gas service. The RE will also be available throughout the construction project to address any questions or concerns area residents and/or businesses may have. Our policy is to respond to all questions or concerns within one business day.

# ***PROJECT UNDERSTANDING & SCOPE OF SERVICES***

**Task 27 – Project Management and Meetings During Construction:** We will provide the necessary management for planning, coordinating, scheduling, quality control, reporting and invoicing. We will also provide appropriate representation at the following meetings:

- Meeting every two weeks with the Village and preparation of meeting minutes
- Other special design meetings, public meetings or other stakeholder meetings

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ID	Task Mode	Task Name	Duration	Start	Finish	h 1		January 1		November 1		September 1		July 1		May 1		March 1		January 1		November	
						5/19	10/13	3/9	8/3	12/28	5/24	10/18	3/13	8/7	1/1	5/28	10/22	3/18	8/12	1/6	6/2	10/27	
1		Engineering NTP	0 days	Mon 1/6/14	Mon 1/6/14			1/6															
2		30% Engineering Plans Task Begins	0 days	Mon 1/6/14	Mon 1/6/14			1/6															
14		30% Plan and Estimate Submittal	0 days	Fri 2/13/15	Fri 2/13/15						2/13												
17		Pre-Final P,S,E task begins	0 days	Mon 3/30/15	Mon 3/30/15						3/30												
41		Pre-Final P,S,E Submittal Completed	0 days	Wed 12/2/15	Wed 12/2/15								12/2										
57		Bid Documents Completed	0 days	Wed 1/27/16	Wed 1/27/16								1/27										
73		Construction Complete	0 days	Tue 6/4/19	Tue 6/4/19																6/4		

Project: Schedule2.mpp  
Date: Fri 11/22/13

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

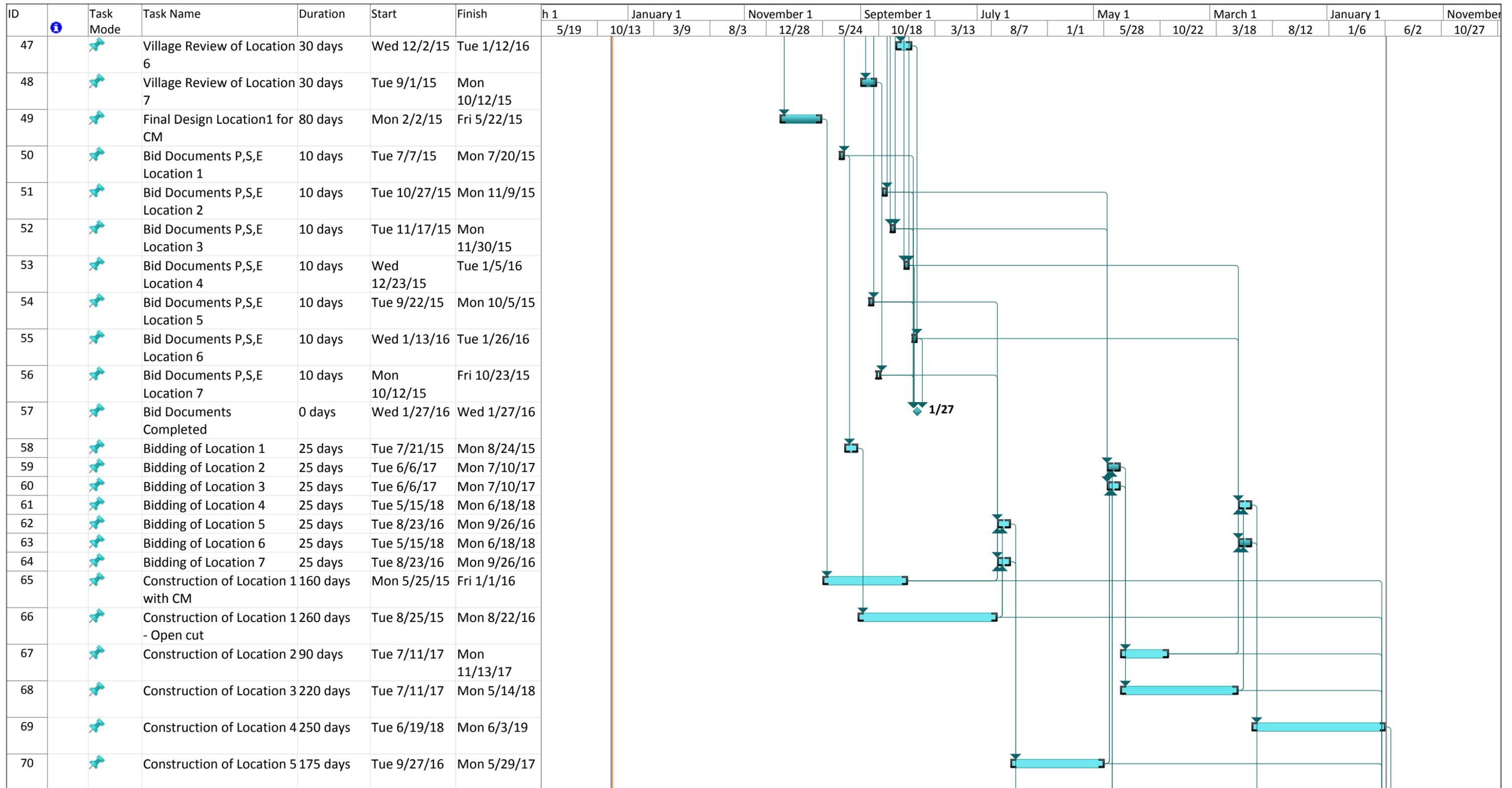
ID	Task Mode	Task Name	Duration	Start	Finish	Timeline																							
						h 1	January 1			November 1		September 1		July 1		May 1		March 1		January 1		November							
						5/19	10/13	3/9	8/3	12/28	5/24	10/18	3/13	8/7	1/1	5/28	10/22	3/18	8/12	1/6	6/2	10/27							
1		Engineering NTP	0 days	Mon 1/6/14	Mon 1/6/14		◆ 1/6																						
2		30% Engineering Plans Task Begins	0 days	Mon 1/6/14	Mon 1/6/14		◆ 1/6																						
3		Preliminary Outfall Permitting	240 days	Mon 1/6/14	Fri 12/5/14		■																						
4		Data Collection	20 days	Mon 1/6/14	Fri 1/31/14		■																						
5		Topography-Location 1	30 days	Mon 1/6/14	Fri 2/14/14		■																						
6		Prelim Eng Management 30% Design and CM	240 days	Mon 1/6/14	Fri 12/5/14		■																						
7		Field Verification of Storm/Sanitary/Water Structures of Locations 2-7	15 days	Mon 1/6/14	Fri 1/24/14		■																						
8		Subsurface Utility Engineering	20 days	Mon 1/6/14	Fri 1/31/14		■																						
9		Water Quality Monitoring	80 days	Mon 1/6/14	Fri 4/25/14		■																						
10		Geotechnical Investigation Location 1	15 days	Mon 1/6/14	Fri 1/24/14		■																						
11		Utility Coordination	40 days	Mon 1/6/14	Fri 2/28/14		■																						
12		Hydraulic Modeling Verification	30 days	Mon 2/17/14	Fri 3/28/14		■																						
13		30% Plan Design for Locations 2 -7	50 days	Mon 12/8/14	Fri 2/13/15		■																						
14		30% Plan and Estimate Submittal	0 days	Fri 2/13/15	Fri 2/13/15																								
15		Village Review and Go/No Go	30 days	Mon 2/16/15	Fri 3/27/15																								
16		Construction Management Selection Process	40 days	Mon 12/8/14	Fri 1/30/15																								
17		Pre-Final P,S,E task begins	0 days	Mon 3/30/15	Mon 3/30/15																								
18		Topography-Location 2	15 days	Thu 4/23/15	Wed 5/13/15																								
19		Topography-Location 3	20 days	Mon 5/11/15	Fri 6/5/15																								
20		Easements Location 3	40 days	Mon 6/8/15	Fri 7/31/15																								
21		Topography-Location 4	20 days	Thu 5/14/15	Wed 6/10/15																								
22		Topography-Location 5	18 days	Mon 3/30/15	Wed 4/22/15																								
23		Topography-Location 6	20 days	Mon 6/8/15	Fri 7/3/15																								
24		Easements Location 6	40 days	Mon 7/6/15	Fri 8/28/15																								
25		Topography-Location 7	30 days	Mon 3/30/15	Fri 5/8/15																								

Project: Schedule2.mpp Date: Fri 11/22/13	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only			
	Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	Task Name	Duration	Start	Finish	h 1	January 1		November 1		September 1		July 1		May 1		March 1		January 1		November
						5/19	10/13	3/9	8/3	12/28	5/24	10/18	3/13	8/7	1/1	5/28	10/22	3/18	8/12	1/6	6/2
26		Geotechnical Investigation 2-7	60 days	Mon 3/30/15	Fri 6/19/15																
27		Pre-Final P,S,E-Location 1	40 days	Mon 3/30/15	Fri 5/22/15																
28		Pre-Final P,S,E Location 1 Submittal	1 day	Mon 5/25/15	Mon 5/25/15																
29		Pre-Final P,S,E-Location 2	25 days	Mon 8/10/15	Fri 9/11/15																
30		Pre-Final P,S,E Location 2 Submittal	1 day	Mon 9/14/15	Mon 9/14/15																
31		Pre-Final P,S,E-Location 3	25 days	Mon 8/31/15	Fri 10/2/15																
32		Pre-Final P,S,E Location 3 Submittal	1 day	Mon 10/5/15	Mon 10/5/15																
33		Pre-Final P,S,E-Location 4	40 days	Tue 9/15/15	Mon 11/9/15																
34		Pre-Final P,S,E Location 4 Submittal	1 day	Tue 11/10/15	Tue 11/10/15																
35		Pre-Final P,S,E-Location 5	35 days	Mon 6/22/15	Fri 8/7/15																
36		Pre-Final P,S,E Location 5 Submittal	1 day	Mon 8/10/15	Mon 8/10/15																
37		Pre-Final P,S,E-Location 6	40 days	Tue 10/6/15	Mon 11/30/15																
38		Pre-Final P,S,E Location 6 Submittal	1 day	Tue 12/1/15	Tue 12/1/15																
39		Pre-Final P,S,E-Location 7	50 days	Mon 6/22/15	Fri 8/28/15																
40		Pre-Final P,S,E Location 7 Submittal	1 day	Mon 8/31/15	Mon 8/31/15																
41		Pre-Final P,S,E Submittal Completed	0 days	Wed 12/2/15	Wed 12/2/15																
42		Village Review of Location 1	30 days	Tue 5/26/15	Mon 7/6/15																
43		Village Review of Location 2	30 days	Tue 9/15/15	Mon 10/26/15																
44		Village Review of Location 3	30 days	Tue 10/6/15	Mon 11/16/15																
45		Village Review of Location 4	30 days	Wed 11/11/15	Tue 12/22/15																
46		Village Review of Location 5	30 days	Tue 8/11/15	Mon 9/21/15																

Project: Schedule2.mpp  
Date: Fri 11/22/13

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			



Project: Schedule2.mpp  
Date: Fri 11/22/13

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	Task Name	Duration	Start	Finish	h 1		January 1		November 1		September 1		July 1		May 1		March 1		January 1		November
						5/19	10/13	3/9	8/3	12/28	5/24	10/18	3/13	8/7	1/1	5/28	10/22	3/18	8/12	1/6	6/2	10/27
71		Construction of Location 6	150 days	Tue 6/19/18	Mon 1/14/19																	
72		Construction of Location 7	180 days	Tue 9/27/16	Mon 6/5/17																	
73		Construction Complete	0 days	Tue 6/4/19	Tue 6/4/19																	6/4

Project: Schedule2.mpp  
Date: Fri 11/22/13

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

**Attachment #3**  
**MWH RFP Response**

# Engineering Services for Detailed Design and Permitting for Willow Road Stormwater Tunnel and Area Drainage Improvements

NOVEMBER 2013



PROPOSAL



**MWH**<sup>®</sup>

*BUILDING A BETTER WORLD*



**MWH**<sup>®</sup>

**BUILDING A BETTER WORLD**

November 21, 2013

Raymond D. Restarski, Purchasing Agent  
Village of Winnetka  
510 Green Bay Road  
Winnetka, Illinois 60093

**RE: Proposal for Engineering Services – Detailed Design and Permitting  
Willow Road Stormwater Tunnel and Area Drainage Improvements**

Dear Mr. Restarski:

Thank you for the opportunity to submit a Proposal for Engineering Services related to the Village of Winnetka’s Willow Road Stormwater Tunnel and Area Drainage Improvements Project. We recognize that the selection of a design consultant for this project represents a major milestone in the Village’s overall program of stormwater management. In preparing our proposal, we have carefully reviewed the request for proposals, materials available on the Village’s stormwater management webpage, the reference materials provided by the Village, and other documents from our historic files and the public record. The scope, schedule, and budget presented in our proposal reflect our consideration of these materials as well as discussions from our pre-proposal meeting with Mr. Steve Saunders and Mr. Jim Johnson.

MWH is committed to working with the Village of Winnetka to successfully implement the Willow Road Stormwater Tunnel and Area Drainage Improvements Project in a manner that achieves the established flood risk reduction goals for the area while managing potential risks related to water quality impacts, permitting delays, cost overruns, and damage/disruption to the community during construction. We understand that the Village wants this signature infrastructure project to be viewed as an effective and economical solution to a problem that has severely affected residents in a number of parts of the community. We welcome the opportunity to work collaboratively with you to address the technical challenges associated with project permitting, design, and construction, and the implementation challenges associated with gaining full public and regulatory support for the project.

In developing our proposed approach to the Willow Road Stormwater Tunnel and Area Drainage Improvements Project, we have identified three major themes that we believe are critical to our successful delivery of this project for the Village:



***Build confidence in the overall value of the Project to the community***



***Use local experience as the basis for development of a cost-effective and implementable design that reliably meets performance objectives while managing risks to the community***



***Employ a strong approach to project and risk management to keep the Project on budget and schedule***



**BUILDING A BETTER WORLD**

The proposed approach and scope of services presented in our proposal reflect these themes, and describe specific efforts that MWH will undertake to build consensus around the project, manage overall project costs and schedule, and limit adverse impacts on the community during design. Some of these efforts include:

- Early formulation of a detailed strategy for addressing concerns about impacts at the proposed new outfall site and obtaining required regulatory approvals;
- Early review, modeling, and refinement of the proposed alignments for a new storm sewer, including evaluation of the relative split between open cut and tunnel construction, to reduce costs, risks, and disruption associated with construction in residential areas;
- Development of a contracting strategy that considers how to best blend traditional design-bid-build and alternative delivery models (e.g., construction management at risk) to achieve a balance between cost control through competition and risk management based on clear delineation of expected conditions.

As we at MWH work with our clients, we strive to develop strong working relationships that reflect our commitment to the delivery of high value projects. The Chicago-based project team proposed to deliver this assignment for Winnetka recognizes that effective collaboration and responsive communication are critical during the development and implementation of a major construction project. Our team looks forward to working closely with Village staff, internal and external stakeholders, and members of the Winnetka community to make this a successful project.

Thank you again for this opportunity to present our credentials to the Village of Winnetka. Should you have any questions regarding our proposal, please contact me, Joe Johnson at **joe.johnson@mwhglobal.com** or **(312) 831-3821**.

Very truly yours,

MWH AMERICAS, INC.

A handwritten signature in blue ink, appearing to read "T. Joe Johnson", written over a horizontal line.

**T. Joe Johnson, PMP, P.E.**  
Project Manager / Vice President



# Table of Contents



SECTION ONE  
Compliance  
Affidavit  
(Attachment 1)

Page 1-1

This section contains the completed, signed and sealed Compliance Affidavit #1 as requested by the RFP.



SECTION TWO  
Proposal  
(Attachment 2)

Page 2-1

This section contains the completed Price Proposal (Attachment 2) as required by the RFP.



SECTION THREE  
Project Approach  
and Scope of  
Services

Page 3-1

This section contains our proposed scope of work and our approach to completing the scope.



SECTION FOUR  
Preliminary  
Schedule

Page 4-1

This section contains our proposed project schedule which includes major milestones that clearly correspond to our project approach.



SECTION FIVE  
Supporting  
Documents

Page 5-1

This section contains resumes of additional team members who were added to our organizational chart to reflect our improved understanding of the project.

SECTION ONE

Compliance Affidavit (Attachment 1)



## ATTACHMENT 1

### COMPLIANCE AFFIDAVIT

As a condition of entering into a contract with the Village of Winnetka, and under oath and penalty of perjury and possible termination of contract rights and debarment, the undersigned deposes and states that he has the authority to make any certifications required by this Affidavit on behalf of the bidder, and that all information contained in this Affidavit is true and correct in both substance and fact.

#### Section 1: BID RIGGING AND ROTATING

1. This bid is not made in the interest of, or on behalf of an undisclosed person, partnership, company, association, organization or corporation;
2. The bidder has not in any manner directly or indirectly sought by communication, consultation or agreement with anyone to fix the bid price of any bidder, or to fix any overhead profit or cost element of their bid price or that of any other bidder, or to secure any advantage against the Village of Winnetka or anyone interested in the proper contract;
3. This bid is genuine and not collusive or sham;
4. The prices, breakdowns of prices and all the contents quoted in this bid have not knowingly been disclosed by the bidder directly or indirectly to any other bidder or any competitor prior to the bid opening;
5. All statements contained in this bid are true;
6. No attempt has been or will be made by the bidder to induce any other person or firm to submit a false or sham bid;
7. No attempt has been or will be made by the bidder to induce any other person or firm to submit or not submit a bid for the purpose of restricting competition;
8. The undersigned on behalf of the entity making this proposal or bid certifies the bidder has never been convicted for a violation of State laws prohibiting bid rigging or rotating.

#### Section 2: TAX COMPLIANCE

1. The undersigned on behalf of the entity making this proposal or bid certifies that neither the undersigned nor the entity is barred from contracting with the Village of Winnetka because of any delinquency in the payment of any tax administered by the State of Illinois, Department of Revenue, unless the undersigned or the entity is contesting, in accordance with the procedures established by the appropriate revenue

act, liability of the tax or the amount of tax;

2. The undersigned or the entity making this proposal or bid understands that making a false statement regarding delinquency of taxes is a Class A Misdemeanor and in addition voids the contract and allows the municipality to recover all amounts paid to the entity under the contract in civil action.

### **Section 3: EQUAL EMPLOYMENT OPPORTUNITY**

This EQUAL OPPORTUNITY CLAUSE is required by the Illinois Human Rights Act, 775 ILCS 5/101 et seq.

In the event of the contractor's non-compliance with any provision of the Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights, the contractor may be declared non-responsive and therefore ineligible for future contractor subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulations.

During the performance of this contract, the contractor agrees:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or woman are underutilized and will take appropriate action to rectify any such underutilization;
2. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations for Public Contract's) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized;
3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other such agreement or understanding, a notice advising such labor organization or representative of the contractor's obligation under the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contract. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and

contracting agency will recruit employees from other sources when needed to fulfill its obligation hereunder.

5. That it will submit reports as required by the Department's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Department or contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contracts.
6. That it will permit access to all relevant books, records, accounts, and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Departments Rules and Regulations for Public Contracts.
7. That it will include verbatim or by reference the provisions of this Equal Opportunity Clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so such provisions will be binding upon such subcontractor. In the same manner as the other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

#### **Section 4: ILLINOIS DRUG FREE WORK PLACE ACT**

The undersigned will publish a statement:

1. Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or a use of a controlled substance is prohibited in the work place;
2. Specifying the actions that will be taken against employees for violating this provision;
3. Notifying the employees that, as a condition of their employment to do work under the contract with the Village of Winnetka, the employee will:
  - A. Abide by the terms of the statement;
  - B. Notify the undersigned of any criminal drug statute conviction for a violation occurring in the work place not later than five (5) days after such a conviction.
4. Establishing a drug free awareness program to inform employees about:
  - A. The dangers of drug abuse in the work place;

- B. The policy of maintaining a drug-free work place;
  - C. Any available drug counseling, rehabilitation or employee assistance programs;
  - D. The penalties that may be imposed upon an employee for drug violations.
5. The undersigned shall provide a copy of the required statement to each employee engaged in the performance of the contract with the Village of Winnetka, and shall post the statement in a prominent place in the work place.
  6. The undersigned will notify the Village of Winnetka within ten (10) days of receiving notice of an employee's conviction.
  7. Make a good faith effort to maintain a drug free work place through the implementation of these policies.
  8. The undersigned further affirms that within thirty (30) days after receiving notice of a conviction of a violation of the criminal drug statute occurring in the work place he shall:
    - A. Take appropriate action against such employee up to and including termination; or
    - B. Require the employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

**Section 5: SEXUAL HARRASSMENT POLICY**

The undersigned on behalf of the entity making this proposal or bid certifies that a written sexual harassment policy is in place pursuant to Public Act 87-1257, effective July 1, 1993, 775 ILCS 5/2-105 (A).

This Act has been amended to provide that every party to a public contract must have written sexual harassment policies that include, at a minimum, the following information:

1. The illegality of sexual harassment;
2. The definition of sexual harassment under State law;
3. A description of sexual harassment, utilizing examples;
4. The vendor's internal complaint process, including penalties;

5. The legal recourse, investigative and complaint process available through the Department of Human Rights, and the Human Rights Commission;
6. Directions on how to contact the Department and Commission;
7. Protection against retaliation as provided by 6-101 of the Act.

**Section 6: VENDOR INFORMATION**

1. Is the bidder a publicly traded company? (yes or no) NO  
If the answer is yes, state the number of outstanding shares in each class of stock.  
Provide the name of the market or exchange on which the company's stock is traded.

N/A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Is the bidder 50% or more owned by a publicly traded company? (yes or no) NO

If the answer to the above question is yes, name the publicly traded company or companies owning 50% or more of your stock, state the number of outstanding shares in each class of stock and provide the name of the market or exchange on which the stock of such company or companies is traded.

N/A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

IT IS EXPRESSLY UNDERSTOOD THAT THE FOREGOING STATEMENTS AND REPRESENTATIONS AND PROMISES ARE MADE AS A CONDITION TO THE RIGHT OF THE BIDDER TO RECEIVE PAYMENT UNDER ANY AWARD MADE UNDER THE TERMS AND PROVISIONS OF THIS BID.

SIGNATURE:  \_\_\_\_\_

NAME: T. Joe Johnson TITLE: Vice President  
(print or type)

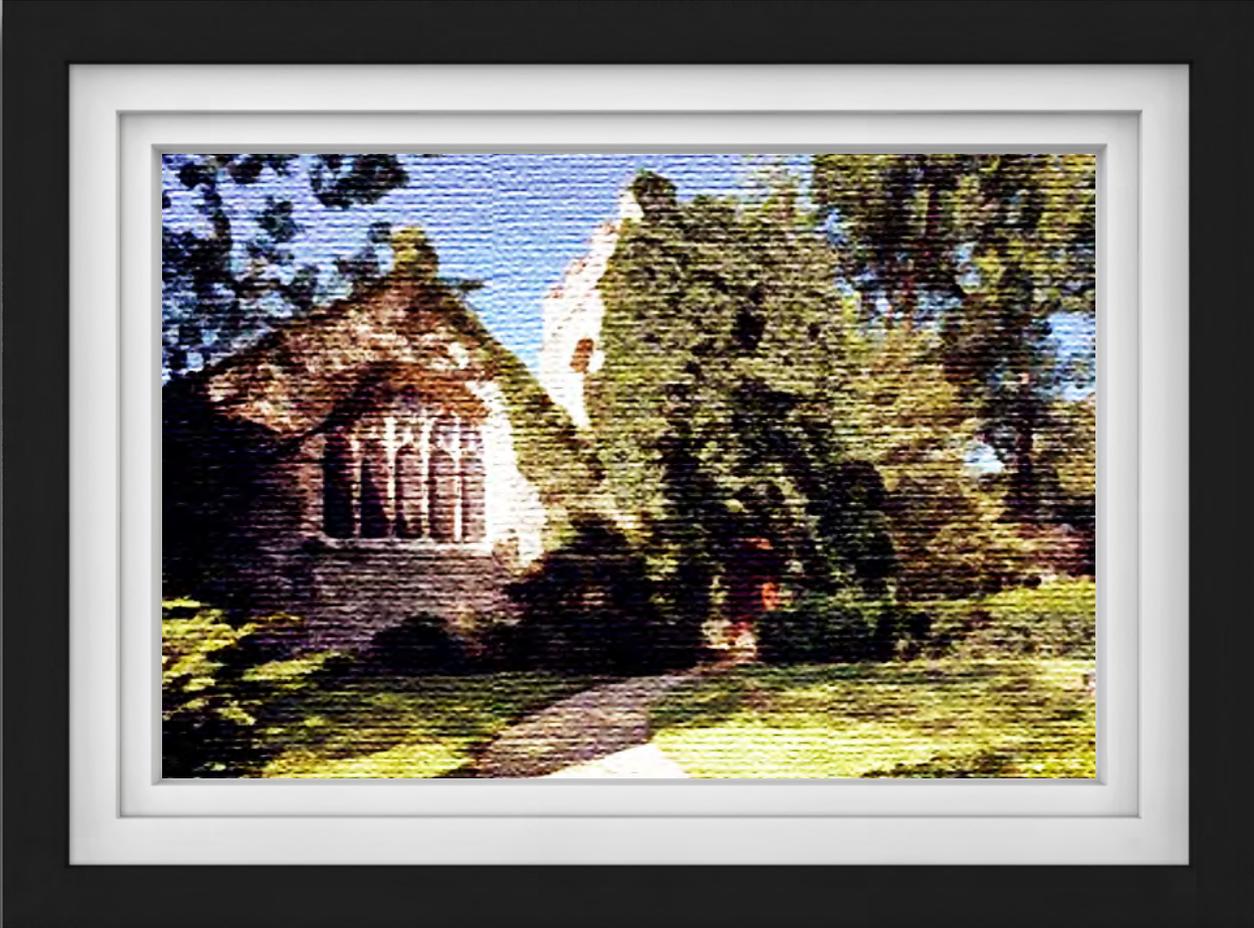
Subscribed and sworn to me this 18th day of November, 2013, A.D.

By:   
(Notary Public)

-Seal- 

SECTION TWO

# Proposal (Attachment 2)



2. Proposal (Attachment 2)



## SECTION 2

# Proposal (Attachment 2)

The completed table at the end of this section provides a summary of the MWH Fee Proposal for the Scope of Services described in a later section of this document. The table matches the structure of the proposal table included as Attachment 2 to the Village's RFP, and provides estimated effort (Manhours), labor billings (Fees), and reimbursable direct costs (Expenses) for all three phases of the Stormwater Tunnel and Area Drainage Improvements Project. For the purpose of this submittal, our proposal assumes that the project to be designed and constructed will include the specific drainage improvements described in the Village's RFP and previous stormwater reports prepared by others.

These include:

- Construction of approximately 30,800 feet of new large diameter storm sewer, roughly 3,250 feet of which is proposed to be constructed by tunneling under Willow Road, and
- Construction of a new 96-inch diameter outfall to Lake Michigan at the Willow Road right-of-way.

Key assumptions related to the Fee Proposal are summarized below and in our proposed Scope of Services.

## Fee Proposal Assumptions

1. Pricing for the scope of services proposed has been developed on the basis of labor hours estimated to be required to complete the tasks described times hourly rates defined for each significant classification of staff involved in the project. Pricing for subcontract costs and other direct expenses directly attributable to this project is based on estimated subcontract and direct costs plus a mark-up of 10%.
2. Given the level of detail defined for the Phase 1 Scope of Services, MWH would propose that compensation for the Phase 1 effort be made on a lump sum basis with partial payments tied to project progress.
3. As final decisions are made regarding the detailed configuration of the sewer projects to be designed, MWH would welcome the opportunity to discuss the potential for negotiating lump sum amounts for the detailed engineering phase of the project.
4. Our proposal includes budget allowances for the analyses that we believe are required to prepare and submit a complete Joint Permit Application for the proposed new outfall to Lake Michigan. However, our budget does not include allowances for additional water quality sampling and/or testing at the Village's stormwater outfalls or in Lake Michigan. Rather, we plan to use data gathered by Baxter and Woodman together with available Lake Michigan water quality data as support for the permit application. Should early discussions with the permitting agencies determine that additional water quality data or dispersion modeling for Lake Michigan are required, we would work with the Village to define the scope and budget for these additional efforts.
5. MWH will prepare a Class 4 Opinion of Probable Construction Costs (OPCC) for the improvements based on the preliminary design drawings developed during the Phase 1 effort, and then will prepare a Class 2 OPCC for each of the six design-bid-build projects as 100% drawings and specifications for those projects are completed. It is assumed that the CMAR contractor will have primary responsibility for the preparation of design phase opinions of cost for the Willow Road Outfall/Tunnel/Sewer project.
6. The Notice-to-Proceed with services related to this project is anticipated to be issued by Monday, January 6, 2014. Services are anticipated to run through December 2017. The Fee Proposal presented considers assumed annual increases in hourly billing rates in April 2015, April 2016, and April 2017.

## Proposal Pricing Table

### ATTACHMENT 2

MWH Fee Proposal for Engineering Services, Detailed Design and Permitting  
for the Willow Road Stormwater Tunnel and Area Drainage Improvements

	MANHOURS	FEES	EXPENSES	TOTAL
<b>PERMITTING</b>				
Prel. Engineering	4,327	\$ 547,000	\$ 119,020	\$ 666,020
Project Management	306	46,248	3,080	49,328
Outreach	164	27,600	1,650	29,250
CM Selection	236	51,360	2,860	54,220
<b>Subtotal</b>	<b>5,033</b>	<b>672,208</b>	<b>126,610</b>	<b>798,818</b>
<b>ENGINEERING<sup>1</sup></b>				
Engineering	7,152	965,553	141,580	1,107,133
Project Management	459	69,372	4,620	73,992
Outreach	246	41,400	2,475	43,875
<b>Subtotal</b>	<b>7,857</b>	<b>1,076,325</b>	<b>148,675</b>	<b>1,225,000</b>
<b>CONSTRUCTION OVERSIGHT<sup>1</sup></b>	<b>6,100</b>	<b>826,532</b>	<b>48,400</b>	<b>874,932</b>
<b>Total</b>	<b>\$ 18,990</b>	<b>\$ 2,575,065</b>	<b>\$ 323,685</b>	<b>\$ 2,898,750</b>

<sup>1</sup> Estimates presented for the Engineering and Construction Oversight phases of the project are based on implementation of the storm sewer improvements currently proposed to provide the Village 100-year protection with a new Lake Michigan Outlet. MWH would recommend that these estimates be reviewed and refined as the Phase 1 Permitting efforts move forward and the final configuration of the proposed improvements are determined.

SECTION THREE

# Project Approach and Scope of Services



3. Project Approach and Scope of Services



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## SECTION 3

# Project Approach and Scope of Services

In its RFP, the Village of Winnetka has requested that the Consultant propose a scope of work and describe its approach in performing the proposed scope. MWH has structured its response to this request as three inter-related sections described below:

- **Understanding of the Assignment** – provides an overview of the project and MWH’s understanding of key strategies for success of the Project
- **Project Approach** – presents a narrative description of specific technical challenges associated with the Project and the ways in which MWH will address them
- **Proposed Scope of Services** – provides a detailed description of the individual tasks that MWH will perform to complete the Project in accordance with the fee proposal and proposed schedule presented in other sections of this proposal

## Understanding of the Assignment

### Project Overview

The Village of Winnetka’s Stormwater Tunnel and Area Drainage Improvements Project (Project) is a major capital effort formulated to dramatically reduce the risk of severe flooding throughout the central part of the community. Over the past 5 years, residents

in many parts of the Project area have been severely impacted by flooding associated with major rainfall events (**Figure 1**). Village officials have committed to providing residents in flood-prone areas with reliable protection against flooding for events up to the 1% annual chance storm.



**FIGURE 1** Severe flooding occurs during major rain events throughout the central part of Winnetka.

Severe flooding within Winnetka occurs primarily in low-lying areas that lack a positive overland drainage outlet. During extreme rainfall events stormwater runoff exceeds the capacity of the existing storm sewer system and drains toward these low-lying areas. Floodwaters pond at these locations until they reach a depth that allows for continued overland drainage. The ponded stormwater also exerts pressure on sanitary sewers in the area, contributing to wet weather infiltration, surcharging of the sewer system, and associated basement backups.

The concept presently proposed to achieve the Village’s goal of minimizing the risk of flooding to its residents requires:

- Provision of capacity to allow runoff from frequent events as well as the first flush of runoff from extreme events to continue to drain toward the Village’s existing storm sewer discharge to the Skokie River



**FIGURE 2** The conceptual, seven-phase Willow Road Stormwater Tunnel and Area Drainage Improvements Project is estimated to cost \$34.5M.

- Construction of new inlet and conveyance infrastructure to provide low-lying areas with a reliable drainage outlet for flows from events up to a 1% annual chance storm
- Construction of a new outfall and associated water quality structure to serve as a reliable positive outlet for the new stormwater conveyance system

In addition, the Village will likely need to implement stormwater best management practices to reduce the peak rate, total volume, and pollutant loading of runoff from the Project area to the drainage system where practical.

A conceptual, seven-phase plan of improvements developed by others to meet these requirements is shown in **Figure 2**. The plan includes approximately 30,800 feet of new, large diameter storm sewer as well as a new 96-inch diameter outfall to Lake Michigan. The proposed layout of these improvements is shown in **Figure 2** along with the locations of existing large-diameter wastewater interceptor sewers owned by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). As the Village's engineering consultant for this Project, MWH would be responsible for permitting support, preliminary and detailed engineering design, engineering services during bidding and construction of the improvements, and support of outreach efforts related to the Project.

### Key Strategies for Success

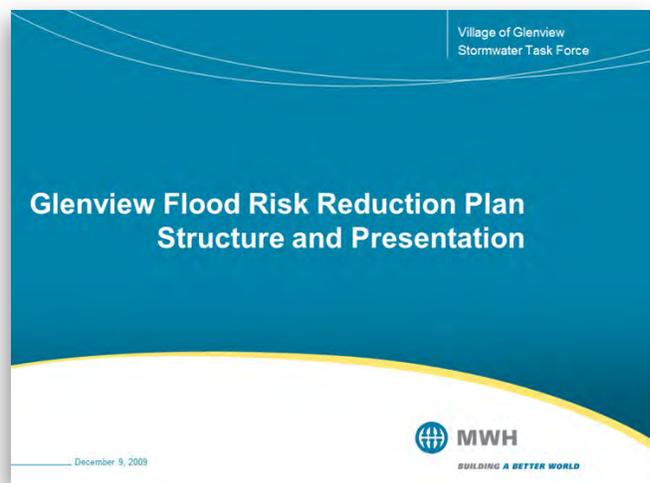
In developing a detailed approach to this assignment, MWH has identified several key strategies that we believe are important to the successful delivery of the Stormwater Tunnel and Area Drainage Improvements Project. These strategies are described below.



#### **Build confidence in the overall value of the Project to the community**

The consultant team must work collaboratively with the Village's stormwater team to quickly build confidence within the community in the overall value and benefits of the proposed improvements. Confidence in the Project will be important in winning and sustaining public support for the effort, especially

if a referendum on the Project is included on the April 2014 municipal election ballot. To develop this confidence, MWH will complete intensive evaluations of key technical issues related to the Project and work with Village staff to clearly communicate findings to the public in a manner that addresses concerns and emphasizes the positive benefits of the Project. Issues to be addressed at the outset of the Project include the management of potential water quality impacts to the lake at the new outfall and the expected level of performance to be provided by the new system. MWH provided similar services to the Village of Glenview (**Figure 3**).



**FIGURE 3** MWH was selected by the Village of Glenview to facilitate a Stormwater Task Force charged with developing consensus around an approach to flood risk reduction.

MWH will quickly work to document in detail the strategy to be used in managing water quality and the level of performance that will be provided by the new storm sewers. Details of proposed mitigation measures and results from updated analyses will be shared with Village staff and the community early on so that concerns are addressed and confidence in the Project is established.



**Use local experience as the basis for development of a cost-effective and implementable design that reliably meets performance objectives while managing risks to the community**

The Village and its design consultant will need to identify and effectively address a variety of technical challenges to convert the Project from its current conceptual form into detailed design plans that can be used as the basis for successful implementation of the needed improvements. MWH will draw upon its extensive local experience in Evanston (**Figure 4**), Chicago, Glenview, and other area communities to establish a “real world” basis of design for the proposed sewer system, confirming that factors such as inlet capacity, overland flow routes, and major subsurface obstacles are properly considered. In addition, MWH will use its experience and readily available data to evaluate constructability issues and risks associated with installation of large diameter storm sewer within a mature, residential community.

In particular, the MWH Team will identify and evaluate options for adjusting the proposed sewer alignments and defining the mix of open cut and tunneled sewer construction to meet the Project’s performance objectives while minimizing disruption, impacts on residents, businesses, and the community at large, and overall project risk.



**Employ a strong approach to project and risk management to keep the Project on budget and schedule**

A project of this magnitude and complexity will require a dedicated project management effort to plan, monitor, and coordinate the activities associated with the effort, and to provide for effective management of project risks. MWH is committed to effective project management and encourages all of its project managers to obtain their certification as a Project Management Professional from the Project Management Institute (PMI), and to apply PMI’s best practices in their daily project management roles.

MWH’s candidate project manager for this assignment, Joe Johnson, has more than 15 years of project management experience and is a certified Project Management Professional.

At the outset of the Project, Joe will work with the project team to develop a Project Execution Plan that defines the framework for overall management of the Project and provision of engineering services. MWH’s Project Execution Plan includes key items including:

- Baseline schedule and budget
- Responsibility Matrix
- Risk Register and Risk Management Plan
- Communication Plan

Joe will use the Project Execution Plan together with appropriate project management tools from MWH’s Project Delivery Framework (**Figure 5**) to provide for timely evaluation of project



**FIGURE 4** The City of Evanston and MWH received this award for outstanding work related to the City’s Combined Sewer Relief program.

issues and support informed decision-making. Several of the tools that will be used on a consistent basis include:

- Key Performance Indicators (schedule variance index, cost variance index)
- Action Item List (bi-weekly summary of actions and decisions)
- Earned Value Analysis (quantitative analysis of project progress against the baseline schedule and budget)

Lastly, MWH's technical design experts will use industry-standard approaches (e.g. Geotechnical Baseline Report) and practical experience gained from the use of alternative delivery methods to structure designs, specifications, and contract documents in a manner that clearly defines contractor and owner risks. Allowances for risk will be built into the project schedule and monitored/managed throughout the Project.

These strategies form the foundation of the MWH approach to the final planning, design, and construction support efforts required for the Willow Road Stormwater Tunnel and Area Drainage Improvements Project.

### MWH Project Team

The Willow Road Stormwater Tunnel and Area Drainage Improvements Project is a complex undertaking that will require technical expertise across a range of skill sets as well as an organized and disciplined approach during design, permitting, and construction. MWH has extensive experience with the planning and implementation of large, multi-phase projects involving multiple contractors, permitting agencies, and stakeholders. Our local team has successfully managed large, award-winning programs such as the Evanston Combined Relief Sewer Program, the O'Hare South Airfield Drainage

Improvement Project, the Rockford Water System Improvement Program, and the Arlington Heights – Weller Creek Watershed Improvement Program. This local team is further supported by our national and international expertise in the development and implementation of large scale stormwater and wastewater conveyance projects for communities through the U.S. and overseas. We understand the critical importance of organization, communication, and discipline in the completion of these projects, and are prepared to use our experience and project management tools to partner with Winnetka in the successful delivery of this important Project.



**FIGURE 5** Our proposed Project Manager, Joe Johnson, is a certified Project Management Professional. His skills, coupled with MWH's rigid Project Delivery Framework ensure on-time, on-budget delivery.

Engineering services related to the design and construction of the stormwater and drainage improvements planned for Winnetka will be staffed primarily from MWH's downtown Chicago office. With a presence in Chicago dating back to 1920, a local staff of almost 200 professionals, and unmatched experience in tunneling in northeastern Illinois, MWH stands ready to work with Winnetka to move this Project from concept through permitting and detailed design, and then to successful completion.

An experienced multi-disciplinary team will be required to effectively plan, design, permit, and support the construction of the major infrastructure improvements proposed for the Village of Winnetka. MWH has assembled a team that provides the full range of technical capabilities needed for the Project, and offers extensive experience with the design and construction of similar projects in northeastern Illinois. The Chicago-based members of this team have worked together previously to design and support construction of more than 20 miles of large diameter sewer in nearby communities including Evanston,

Arlington Heights, Glenview, and Chicago. These projects included the construction of new sewers using open cut and trenchless methods (pipe jacking, soft ground tunnel, hard rock tunnel, etc.) as well as connections to aging, existing sewer infrastructure.

MWH believes that its unparalleled local experience in the design and construction of large diameter storm sewers constructed by open cut and trenchless methods will be of significant value to the Village for this Project. With a strong history of work throughout the northeastern Illinois region, our entire team brings an understanding of the challenges and proven solutions associated with the construction of large diameter sewers in a fully-developed, primarily residential setting.

The organizational chart (**Figure 6**) presented below illustrates the structure and make-up of the proposed MWH design and construction support

team. The chart shown in this proposal differs slightly from the chart shown in our August Statement of Qualifications, as we have made a few changes to reflect our improved understanding of the Stormwater Tunnel and Area Drainage Improvements Project. The reasons for these changes are summarized below:

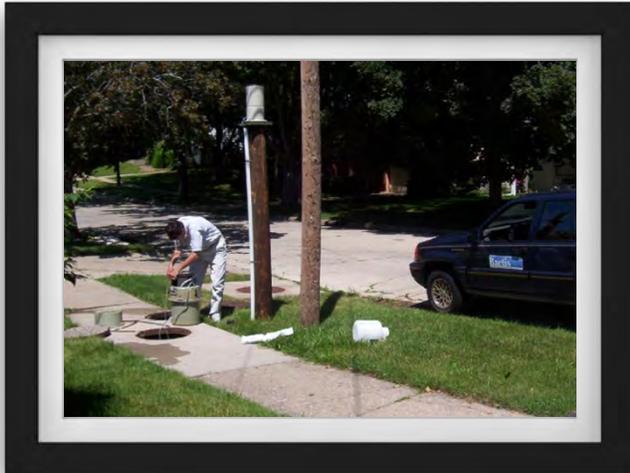
- Given the critical importance of overall coordination and communication between MWH, the Village of Winnetka, and key Project stakeholders, we are proposing to shift the roles originally proposed for Joe Johnson and Dan Gallagher. As shown in the new organization chart, Joe will serve as our overall project manager for this assignment. Joe is a certified Project Management Professional and Vice President with MWH. He brings to this Project significant experience in the technical aspects of stormwater management planning, design, and construction, the management of large, multi-phase



**FIGURE 6** Our team has extensive experience with open-cut and trenchless sewer construction in fully-developed, residential neighborhoods of northeastern Illinois.

projects, and the facilitation of stakeholder meetings dealing with sensitive and/or high profile issues related to stormwater management and flood mitigation.

- In the revised structure, Dan Gallagher will serve as the Project Engineer, drawing upon his extensive pipeline experience to guide and direct the technical efforts of the sewer design team.
- We have also added David Pott of Baetis Environmental Services to our team to enhance our local capabilities in the area of water quality management and permitting. Mr. Pott is an aquatic ecologist with extensive water quality management and TMDL experience in Illinois and on Lake Michigan (**Figure 7**). David worked with MWH in Chicago prior to forming Baetis Environmental in 2002 and is well known to our team and to regulators at the regional and state levels. A copy of David's resume is included in Section 5, Supporting Documents.



**FIGURE 7** David Pott developed and conducted stormwater water quality sampling programs for Rockford and other northeastern Illinois communities.

We will be happy to answer any questions you may have regarding these adjustments to our organization chart during our interview session with the Village's Project Team.

## MWH Project Approach

MWH's proposed approach to the permitting, design, and construction of the Willow Road Stormwater Tunnel and Area Drainage Improvements Project is structured to focus technical resources and effort on the critical aspects and objectives of the Project. Highlights of our proposed approach are presented below. Our detailed scope of services for the Project is included at the end of this section of our proposal.

### Phase 1 Permitting

MWH's approach to the first phase of the Project will focus on the development of details required to obtain regulatory and community approval of the design concept. Village staff has clearly indicated that the Project will not go forward if water quality standards

Decisions made during this initial phase will significantly influence the overall cost and impacts of the Project. MWH is highly qualified to help the Village make these decisions.

set by permitting agencies for a new discharge to Lake Michigan cannot be met. Therefore, development of a plan to define and meet those standards will be the project team's highest priority. At the same time, it will be necessary to further develop details related to the configuration and performance of the improvement program so that final decisions related to alignment, method of construction (tunnel vs. open cut), and contract delivery model (design-bid-build vs. construction management at risk) can be made prior to the start of final engineering design activities.

Major tasks that will be completed as part of the Phase 1 – Permitting effort include:

- Initial submittal of an outfall Joint Permit Application
- Preliminary Engineering
- Phase 1 Project Management and Public Outreach
- Construction Management Selection Process

Detailed descriptions of these tasks and associated deliverables are provided in our Scope of Services. Comments and observations related to several aspects of this phase of the Project are highlighted on the following pages.

### Lake Michigan Discharge Permitting

MWH understands that initial discussions with permitting agencies have indicated that Winnetka will need to modify its existing NPDES MS4 stormwater permit, apply for permits through the Joint Application process, and satisfy an anti-degradation assessment for Section 401 Water Quality Certification in order to obtain a permit for the proposed outfall. Pollutants of greatest concern for these efforts are expected to include:

- E-coli (bacteria) – TMDL sets limit at 126 cfu/100 ml for Lake Michigan beaches
- Suspended Solids
- Oil and Grease
- Phosphorus
- Chloride
- Floatables

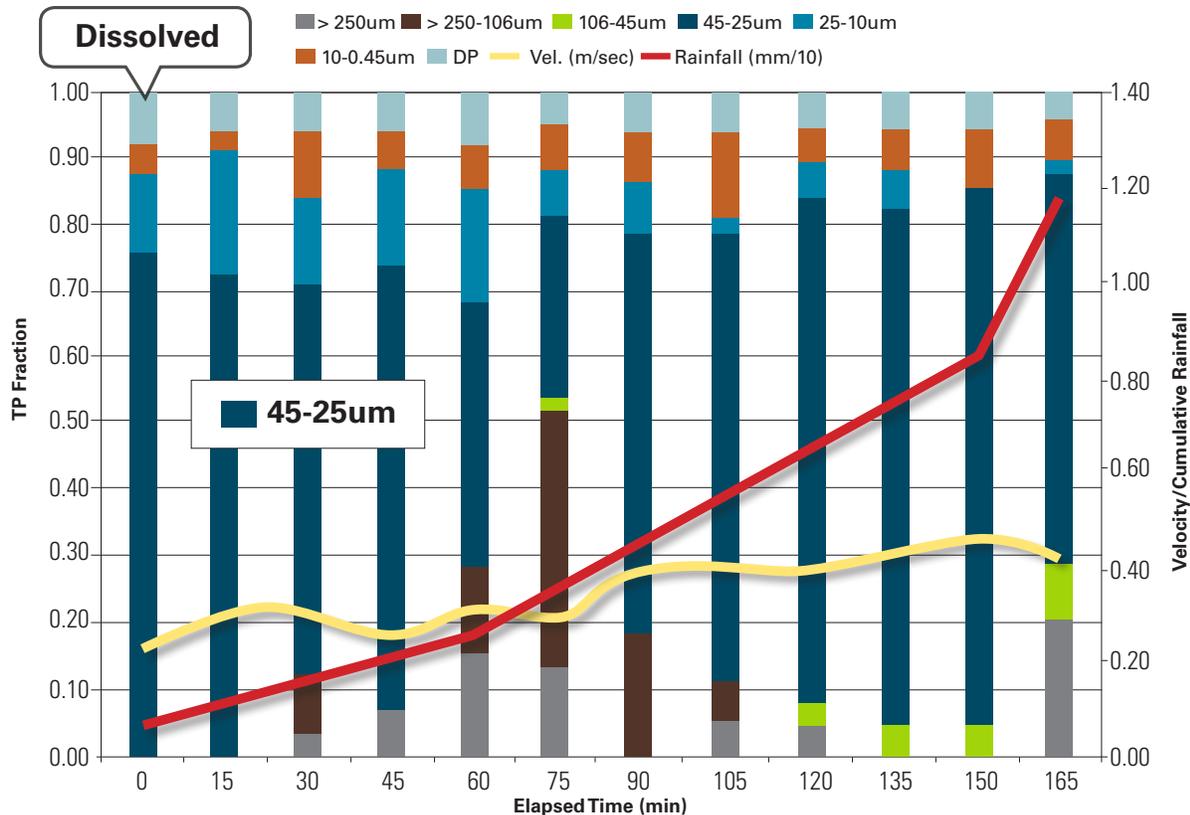
In addition, the outfall configuration must not contribute to beach erosion or impacts on neighboring beaches.

Immediately upon notice-to-proceed, MWH will begin working with the Village to renew its discussions with the Illinois Environmental Protection Agency (IEPA),

the Corps of Engineers, and the Illinois Department of Natural Resources (IDNR) regarding specific requirements that will have to be met to secure a permit for a new, large capacity outfall to Lake Michigan. Based on past experience, MWH believes that a combination of strategies will likely be required to meet these conditions. MWH would expect to formulate an overall plan that includes a combination of:

- **Effective design of the proposed system to confirm that the first flush of stormwater runoff from areas west of Green Bay Road is directed toward the existing discharge to the Skokie River.** MWH will use available water quality data and the hydrologic/hydraulic model of the project area to simulate pollutant loadings at discharge points under current and proposed conditions. Results from the simulations will be used to establish overflow and diversion elevations that maximize the effectiveness of the existing system for convey-





**FIGURE 9** In Cambridge, MWH found that removal of particles between 25 and 45 microns in size significantly reduced phosphorus levels in stormwater discharge.

ance of the first flush of stormwater. David Pott will provide critical input to the team for the analysis of water quality data and potential impacts.

- Voluntary implementation of stormwater best management practices by individual property owners based on an aggressive public education campaign.** While local measures such as rain barrels, rain gardens, bioswales, and/or permeable pavement will not alleviate flooding on their own, they can contribute to reductions in the volume and rate of stormwater runoff while providing for removal of some contaminants. MWH will use techniques developed during its modeling of the City of Chicago's combined trunk sewer system to quantify the impact that two different levels of best management practice (BMP) implementation could have on design flows and loadings for the proposed storm sewer system.
- Aggressive implementation of distributed water quality management technologies within the proposed storm sewer system.** Water quality technologies can be considered for incorporation

into the new storm sewer system at scales ranging from individual inlets to major in-line sewer structures. MWH believes that the appropriate installation of a range of these devices within the Project area, as illustrated in concept in **Figure 8**, can reduce the pollutant loads directed toward the new outfall.

MWH will conduct a review of available technologies for improving stormwater quality and work with the Village and vendors to define a practical blend of private and public sector stormwater BMPs. Typical performance data will be used to assess the impact that these distributed BMPs will likely have on stormwater quality in the proposed system and to formulate a distributed BMP implementation plan.

For example, testing done for an MWH project in Cambridge, MA found that much of the phosphorus contained in an area's runoff was associated with particles ranging in size from 25 to 45 microns (**Figure 9**). When BMPs were implemented to remove the particles in this size range, the phosphorus levels in the stormwater were decreased significantly.

- **An integrated outfall/energy dissipation/water quality structure located at the point where the new system discharges to Lake Michigan.** The Willow Road right-of-way that extends to the lake provides both a convenient location for construction of a new large diameter outfall and a potential site for a structure to manage many of the outfall’s potential impacts. The linear nature of the right-of-way, and the significant change in elevation from Sheridan Road to the beach, allow for the potential development of a sequence of “gray” and “green” infrastructure to dissipate energy and provide for the physical management of floatables and solids. MWH has a proven track record in the design of major outfall structures, energy dissipaters, storm-water treatment systems, and lakefront structures along Lake Michigan. We will draw upon this experience and our advanced design and analysis tools (including computational fluid dynamics modeling) to create a structure that meets the requirements of permitting agencies while respecting the need to minimize aesthetic impacts on the beach area at the outfall site.

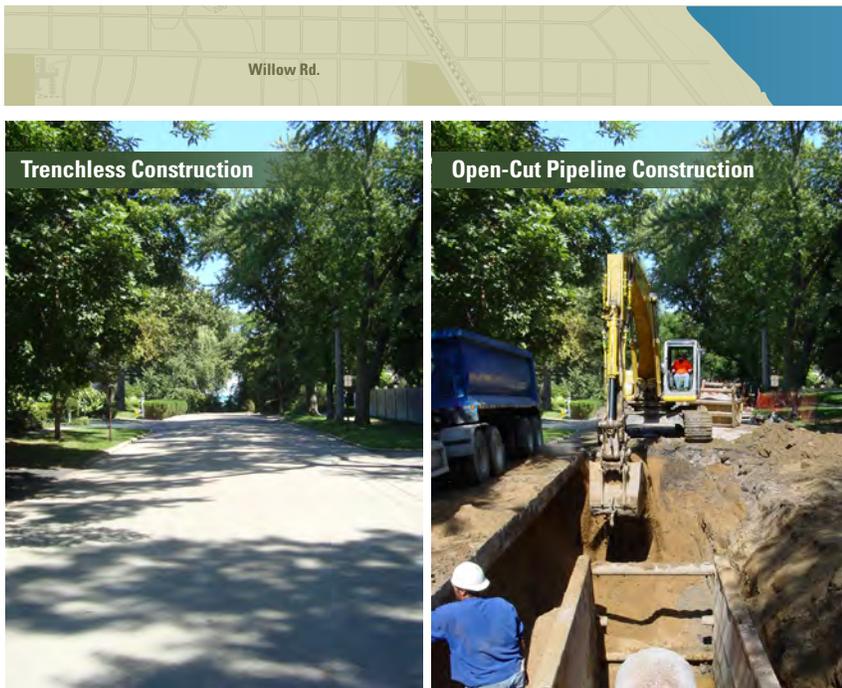
**Preliminary Engineering**

As the lake discharge permitting strategy for the Project is being defined and implemented, the MWH Team will also work to review and refine the proposed storm sewer system concept to clearly document the level of performance that the system will provide, and seek out opportunities to reduce project costs and impacts on the community. Key issues to be evaluated will include:

**EXTENT OF TUNNEL AND OPEN CUT CONSTRUCTION.**

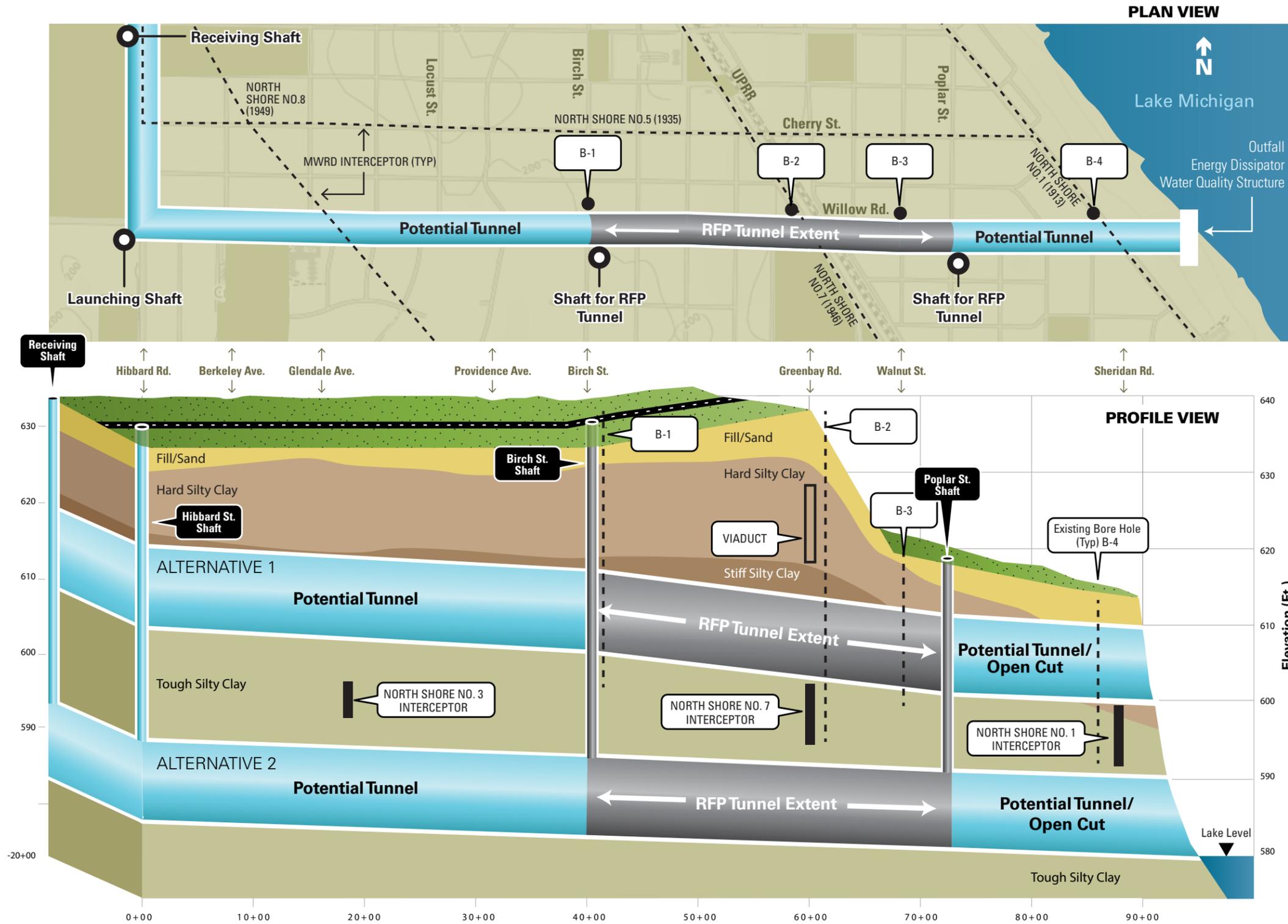
The current Project concept suggests that more than 85% of the new sewer would be constructed using open cut construction techniques. However, based on our review of the Project area and potential subsurface obstructions (e.g. MWRD interceptors), we believe that it will be critically important to evaluate the relative costs and benefits of open cut and tunnel construction throughout the Project area. Given the narrow, residential character of much of Winnetka, open cut construction of large diameter storm sewer has the potential to be extremely disruptive and potentially very costly. Our experience in other communities has shown that in some cases the

cost of constructing storm sewer greater than 60-inches in diameter and more than 20 feet deep by tunneling can be comparable or less than the total cost for the same construction using open cut techniques when impacts on roadway, parkways, and existing utilities are considered. **Figure 10** compares open-cut and trenchless construction along Willow Road. If trenchless construction is used, surface disruption would occur at one launching shaft and one receiving shaft instead of along the entire corridor.



**FIGURE 10** Trenchless construction will significantly reduce disruption to the public and impacts to utilities along Willow Road and other residential areas of Winnetka.





ONE PASS LINING	
<p><b>Segments</b></p>  <p>Precast concrete lining segments assembled immediately behind the TBM to form the final lining</p>	<p><b>Providing Immediate Support:</b> Good. Minimizes groundwater flow into tunnel behind TBM.</p> <p><b>Cost:</b> Approximately the same (segments ideal for poor ground)</p> <p><b>Schedule:</b> Slightly quicker* (single-pass system)</p> <p><b>Durability:</b> Designed and constructed correctly, both systems will have high durability.</p>
TWO PASS LINING	
<p><b>Initial Support</b></p>  <p>Temporary support for the tunnel is provided by rib and liner plates</p>	<p><b>Providing Immediate Support:</b> In poor ground, initial support installation will slow down the machine.</p> <p><b>Cost:</b> Approximately the same (segments costs increase in poor ground)</p> <p><b>Schedule:</b> Slightly slower* (two-pass operation)</p> <p><b>Durability:</b> Designed and constructed correctly, both systems will have high durability.</p>
<p><b>CIP Final Lining</b></p>  <p>Permanent concrete final lining cast using forms once the TBM has finished excavation</p>	

**FIGURE 12** The soils along Willow Road are suitable for soft-ground tunneling. Preliminary Engineering in Phase 1 will determine the length and depth of the tunnel. If the tunnel goes from Birch Street to Poplar Street as described in the RFP, we expect that a two-pass approach using a soft-ground tunnel boring machine (TBM – Lovat Type) will provide a cost-effective method for installation of the 96-inch diameter along Willow Road. However, should a decision be made during Phase 1 to extend the overall length of the sewer (Alternative 1 and 2 in the drawing to the left); a one-pass tunnel with precast segments may become viable.

shown, would allow for almost the full run of 96-inch sewer along Willow and Hibbard to be constructed as a tunnel, with surface disruption limited primarily to a working shaft near the intersection of Willow and Hibbard, and receiving shafts on Willow just east of Sheridan Road, and on Hibbard near Pine Street. Preliminary soils information suggests that subsurface conditions in this area are potentially suitable for soft ground tunneling, and once an appropriate machine for tunneling has been mobilized to the site, additional tunneling becomes more economical on a cost per foot basis. Lastly, this approach would allow for the jurisdictional transfer improvements along the western part of Willow Road to be effectively decoupled from the stormwater tunnel Project, increasing the Village's flexibility in the overall implementation of improvements.

**PHASE 1 FIELD INVESTIGATIONS.** To support the selection of final sewer alignments and evaluation of construction alternatives, MWH will conduct initial field investigations during the preliminary engineering phase of the Project. Existing aerial photography and GIS data will be utilized to the degree possible so as to limit the scope and cost of initial surveying efforts. Phase 1 surveying efforts by MWH's subcontractor, American Surveying & Engineering (ASE), will focus on the collection of data needed for the development of base sheets to be used in the preparation of preliminary engineering plans, and the determination of select invert and/or top of pipe elevations at critical connection or conflict points. Phase 1 geotechnical investigations to be conducted by Testing Services Corporation (TSC) will include the performance of as many as 20 borings between 30 and 75 feet deep along with related geotechnical testing to support the evaluation of potential tunnel and open cut options for the Willow Road alignment and select sections of tributary storm sewer.

The options presented in this proposal are based on very preliminary reviews of available data. However, MWH believes these types of opportunities for reducing project costs and disruption must be carefully considered in the early stages of the Project. We are prepared to work with the Village and its CMAR

contractor to devise the best plan for using tunneling to successfully complete the proposed Project while managing impacts on the community.

### **Phase 1 Project Management and Outreach**

Having reviewed the list of stakeholders associated with this Project and attended one of the Village's recent public meetings; MWH understands the critical importance that coordination and communication will have during the course of this Project. As part of the initial Project kickoff effort, MWH will work with Village staff to define a clear strategy and formal communication plan for interaction with the public, permitting agencies, and other stakeholders. We would recommend that a status summary be developed and maintained for all permits and agreements that may impact the Project. Review of the status summary and necessary actions should be a standing agenda item for the bi-weekly progress meetings with the Village stormwater team.

The management, coordination, outreach and communication strategies adopted during the first phase of the Project will be maintained to provide a consistent and familiar format over the duration of the overall Project. As each project transitions from one phase to the next, the strategies will be updated and refined to match with the specific concerns and challenges of project activities.

MWH brings to this Project a strong combination of experience in public communications on stormwater management and major construction projects, and specialized communications capabilities (e.g., graphic design capabilities including 3-D and 4-D visualization tools, meeting facilitation tools, and social media support capabilities). We are prepared to work with the Village to build upon the communications infrastructure presently in place and maintain an appropriate and effective flow of information over the course of the stormwater tunnel and area drainage improvements Project.

### **Construction Management Selection Process**

The Village's design consultant needs to be a firm that understands how to effectively leverage the full potential of the Construction Management at

Risk (CMAR) delivery model to successfully achieve Project objectives. What better advisor than a firm that implements CMAR projects while also being a premier wet infrastructure design firm and a construction management firm. MWH is a single point of contact for hands-on experience and expertise in all functional areas needed for project success. We understand what it takes to be at-risk and deliver a quality project on-time and on-budget. We know how constructability reviews of design can save money, increase efficiency and provide best value. We know how to avoid surprises and disputes and remove uncertainty from project procurement and implementation, and we know how to work in a collaborative atmosphere to achieve delivery of a best-value, on-time, on-budget project using the CMAR model.

MWH's services during the CMAR selection activities will provide for a streamlined implementation and delivery process. We see our role as advisor being one that will:

- Assist in the development and execution of an effective procurement process that attracts competition from the very best
- Provide guidance and information that allows rapid and informed decision making
- Provide independent advice based on considering and understanding both the owner and CMAR perspectives
- Provide assistance in evaluating responses and the selection of a CMAR
- Provide assistance in the development and negotiation of the contract, especially ensuring that a fair and equitable allocation of risk is achieved that provides the optimum risk cost/benefit position for the Village

MWH will be an advocate and facilitator on behalf of the Village throughout the procurement and project execution phases and provide guidance and information that allows rapid and informed decision making. We can provide independent advice, considerations and understandings both from an owner's (the Village)

and proposers/CMAR perspectives based on lessons learned and experiences of what it takes for a successful procurement and project. This will enable the Village to make the right decisions and ensure that the CMAR procurement and project is done right.

## Phase 2 – Engineering

The final engineering phase of this Project will focus on the completion of design activities and the preparation of bidding/construction documents for the individual construction contracts. The information provided in the Village's RFP suggests that the proposed improvements may be packaged into as many as seven different bidding packages and construction contracts. MWH will work with the Village during Phase 1 to refine the plans for bidding and contracting to best meet the Project objectives.

Major tasks that will be completed as part of the Phase 2 – Detailed Engineering Design effort include:

- Phase 2 field survey and geotechnical investigations
- Design engineering: outfall structure
- Design engineering: storm sewer constructed as tunnel
- Design engineering: open cut storm sewer
- Design engineering: water quality management facilities
- Design engineering: traffic control provisions
- Constructability Reviews and Opinions of Probable Construction Cost
- Phase 2 project management and coordination with stakeholders
- Phase 2 project outreach

Detailed descriptions of these tasks and associated deliverables are provided in our Scope of Services. Comments and observations related to several aspects of this phase of the Project are highlighted on the following pages.

### **General Design Approach**

Design efforts for individual projects will generally follow a consistent plan (design analysis, preparation of 60% design drawings and specifications, design review workshop, preparation of permitting documents, preparation of 90% review and final bidding documents, and development of opinions of probable construction costs), and use consistent standards, details, and pay items. However, the nature of the detailed design activities will vary depending on the scope of the individual projects.

The final development of accurate base sheets showing both surface features and existing subsurface utilities will be critically important to the development of reliable bidding documents for the improvement contracts. During the detailed engineering design phase of the Project, MWH's subcontractor, American Surveying & Engineering will conduct additional field investigations and subsurface utility engineering (SUE) to gather data required for final design of the subsurface sewers and for final restoration of roadways along the sewer alignments. These data will be added to the preliminary engineering base sheets to provide highly accurate representations of the areas in which improvements are proposed. Key features to be included on the base sheets will include right-of-way limits, surface features including significant parkway trees, and existing above ground and below ground utility locations developed from mapping provided by utility companies and field location of visible features.

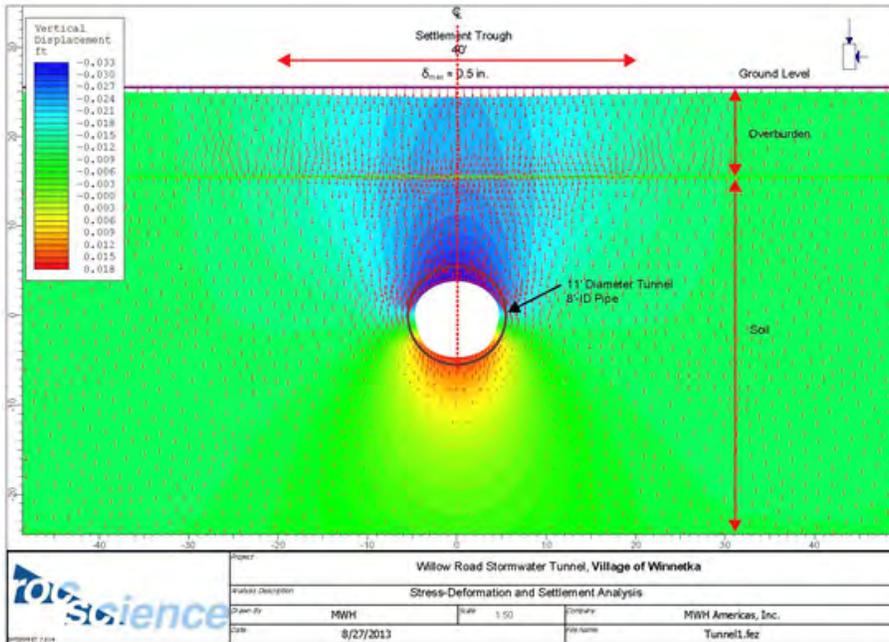
MWH will work with Village staff at the outset of the design phase to review current standards being used on other sewer construction projects and discuss lessons learned from previous projects. Our goal will be to establish a consistent basis for design that builds upon the Village's experience with prior projects and provides for competitive bidding and efficient construction of improvements.

### **Sewer Tunnel**

Detailed geotechnical and construction analyses will be critically important to the design of sewers using tunnel construction. MWH's approach to the design of

sewer tunnels begins with the definition and performance of a structured program of field investigations and analysis. Data provided in the Village's tunnel feasibility report suggests that conditions along Willow Road are suitable for soft ground tunneling. As final decisions are made regarding both the horizontal and vertical alignments of the proposed improvements during Phase 1, MWH will formulate and oversee a detailed scope for additional investigations. The results of these investigations and related soils analysis will be incorporated into the Geotechnical Data Report (GDR) and Geotechnical Baseline Report (GBR) for the Project. These documents are an essential part of the industry-standard approach currently used for risk management on tunneling projects.

Based on our experience, we would expect that a two-pass approach using a soft-ground tunnel boring machine (TBM – Lovat Type) would provide a cost-effective method for installation of the 96-inch diameter pipe along Willow Road. In this method, the ground is temporarily supported using rib and lagging and rib and liner plates as the tunnel excavation proceeds. Upon completion of excavation, the TBM is removed and the final tunnel liner is installed in the tunnel. Based on the preliminary soils data provided, we believe that a 10-11 foot diameter tunnel excavation can be constructed in the stiff silty Clay material ( $Q_u=2$  tsf) at a depth of 20-30 feet with minimal risk of significant tunnel-induced surface settlement. The actual diameter of the tunnel excavation will depend on the approach used and the final selection of a tunnel liner (e.g., RCP, cast-in-place concrete, HOBAS pipe). Should a decision be made during Phase 1 to extend the overall length of the sewer to be constructed by tunneling, a one pass tunnel with precast segments may become a viable and competitive option. In this method the tunnel final liner (precast concrete segment) is installed immediately behind the TBM. The MWH Team is prepared to work with the Village, and with its CMAR contractor to devise the best plan for using tunneling to successfully complete the proposed Project while managing impacts on the community.



**FIGURE 13** MWH uses Finite Element Analysis to model and mitigate impacts to ground surface infrastructure.

Tunnel design tasks typically include detailed reviews and analysis of data collected from field investigations (and documented in a Geotechnical Data Report), design analyses of tunnel support systems and potential settlement using finite element methods (**Figure 13**), and detailed structural design of shafts and/or connections to the tunnel system. These efforts are used to develop the tunnel drawings and specifications, and prepare a Geotechnical Baseline Report that documents the identified subsurface conditions and provides a mechanism for addressing potential changed conditions should they arise during construction. Results from the analysis are also important in anticipating potential construction impacts on aging infrastructure that crosses above the alignment of the tunnel. Inspection of critical infrastructure prior to tunneling is important, and in some cases, provisions for reinforcement, protection, or replacement of the utilities may have to be considered. Lastly, during final tunnel design, consideration must also be given to the space required by a contractor for tunneling operations, and the provisions required for the management of spoil removed from the tunnel. Coordination with the CMAR contractor throughout the design phase of the Project will provide opportunities for accurately

defining these aspects of the Project and seeking options to manage disruption to the community during the course of the Project.

### Open-Cut Sewers

Final design efforts for large diameter sewers to be constructed by open-cut methods will be concentrated to a large degree on establishing an alignment that provides the required connections, slope, and capacity while minimizing impacts on existing utilities, service connections, trees, and structures along the alignment. Maintenance of access and traffic control will also be critical factors to

be considered throughout the sewer design effort. During the detailed design phase, MWH will refine the preliminary alignments established during Phase 1 and carefully evaluate locations where the proposed work will cross or conflict with existing utilities, or pass near to sensitive properties, structures, or large trees. Special attention will be paid to minimum separation requirements between sewers and water main, as well as desired levels of separation from trees or other structures.

MWH will coordinate its design efforts closely with Village staff to identify locations where other utilities may be impacted by sewer construction and to evaluate opportunities for coordination of projects to replace aging infrastructure as part of the storm sewer construction Project.

As a result of our long history with large diameter open-cut sewer construction in the Chicago area, we understand the importance of combining a cost-effective design with an approach that respects the concerns of adjacent property owners. Our goal will be to work with the Village to establish bidding documents that allow contractors sufficient flexibility to make competitive bids while including requirements

that mitigate the impacts and inconvenience of construction on the affected residents and/or businesses.

### Major Structures

Given the size of the storm sewers included in the proposed Project, design of several major structures will be required. Where practical, MWH will evaluate the potential for using pre-cast sections (e.g., base tees) to avoid the need for custom, cast-in-place structures, but our preliminary review suggests that at least 10 large structures (**Figure 14**) will have to be designed and constructed as part of the overall sewer improvement Project. These structures include the outfall/energy dissipater at the lakeshore, as well as multiple junction chambers located where large sewers meet or change direction. Prior to the preparation of detailed drawings for these structures, MWH will review the characteristics of each to identify opportunities for the development of design templates that maximize consistency and reduce construction costs. Once initial layouts for the structures have been developed, structural calculations will be performed as the basis for determining final structure dimensions and reinforcement requirements. Drawings included in the 60% progress set will include overall structure dimensions and layouts. Construction and reinforcement details will be added to the drawings at the 90% design level.

#### PRELIMINARY LIST OF MAJOR STRUCTURES

- Outfall/Energy Dissipator
- Willow/Sheridan Junction Chamber
- Elder/Sheridan Junction Chamber
- Cherry/Sheridan Junction Chamber
- Willow/Birch Junction Chamber
- Willow/Provident Junction Chamber
- Willow/Glendale Junction Chamber
- Oak/Glendale Junction Chamber
- Hibbard/Oak Junction Chamber
- Winnetka/Essex Junction Chamber

**FIGURE 14** MWH will use design templates for these major structures to maximize consistency and reduce construction costs.

The proposed outfall structure (**Figure 15** is an example of MWH's outfall design) to Lake Michigan will require consideration of foundation conditions, safety, and construction access. Winnetka's beaches are a prized resource of the community. As such, the final design of the outfall structure must respect the character of the lakefront both during construction and certainly in its final form. As the final design process proceeds, MWH can use its 3D modeling and CAD capabilities to generate models of the outfall that can be shared with adjacent property owners to solicit input, alleviate concerns, and develop consensus regarding the configuration and appearance of the outfall structure.



**FIGURE 15** MWH designed this stormwater outfall and energy dissipation structure for recent runway expansion at O'Hare Airport.

### Water Quality Management Facilities

MWH anticipates that the detailed plans and specifications for the various elements of the Project will need to include provisions for the installation of several distributed water quality management facilities to satisfy the conditions associated with the discharge permit for a new lake outfall. Stormwater treatment facilities that may be part of the selected water quality management strategy include individual catch basin inserts, large scale hydrodynamic separators, and/or stormwater filtration systems. As most of these technologies are delivered as packaged systems, MWH will work closely with vendors to define key design criteria including overall dimensions and head loss at the design flow. The factors will

be considered in the design and specification of the needed systems.

### **Traffic Control Provisions**

Traffic control requirements must be considered during the development of the contracting plan and bidding documents for all of the Stormwater Tunnel and Area Drainage Improvement Project elements.

Because the Project area consists primarily of residential properties along generally narrow streets, construction activities associated with the open cut installation of large diameter storm sewers will be highly disruptive. In many cases, construction will result in full closure of a given segment of a street for a period of time (**Figure 16**). In other situations, construction vehicles may add significantly to the vehicle load on local streets or at the limited crossings of the Union Pacific North Line railroad tracks. MWH will work closely with the Village to develop and implement traffic control strategies designed to manage the impacts on the community and minimize the potential for major disruptions to businesses, schools, and the public. Traffic control requirements will be considered during the preliminary engineering phase of the Project so as to try and configure and sequence the proposed improvements in a manner that reduces traffic management issues, especially in critical areas where extended closures are not feasible. However, as the detailed design effort proceeds, MWH will formulate detailed traffic control plans that consider specific needs, safety, constraints, and concerns in individual project areas.



**FIGURE 16** Public safety is imperative during construction.

### **Restoration**

Since the proposed improvement is intended to provide drainage for extreme storm events (up to the 1% annual chance storm), design drawings must include restoration details that provide for effective overland flow of runoff toward inlets and catch basins. As such, drawings that instruct a contractor to “match existing conditions” along the route of a new large diameter storm sewer will not be suitable for your Project. Rather, restoration drawings must provide details related to desired roadway cross sections, gutter flow paths, and critical drainage structure elevations. In addition, restoration design details and specifications must promote the effective and timely restoration of affected roadway and parkway areas. While the primary objective of the detailed engineering effort is to design sewer improvements, the timeliness and quality of restoration activities will directly impact many residents’ overall impression of the success of the proposed construction projects.

As a result of our local experience with the construction of large diameter sewer in developed residential and commercial areas, MWH understands the importance of working to adequately specify restoration details and requirements that are consistent with the Village’s expectations.

### **Risk Management Strategy**

A key goal for MWH is to formulate design, bidding, and construction documents that will help the Village of Winnetka manage the risks associated with a major underground construction project. To this end, MWH will include in its approach to the design of the proposed improvements a risk management program that addresses cost, technical issues, schedule, and community factors. For tunneling projects, the risk management process has been adopted as a best practice for the minimization and management of risks associated with the design and construction activities. The International Tunneling Insurance Group, made up of the major providers of all-risks insurance for tunnel projects, has issued “A Code of Practice for Risk Management of Tunnel Works.” Several MWH tunnel experts assisted in the development of this code. In the U.S., insurers have implemented

RISK STATEMENT											RISK MITIGATION	
Risk Reg. No.	Risk Type	Risk Description	Potential Result	Project Impact		Likelihood		Potential Consequence		Initial Risk Score		Measures to Mitigate Ris
1.0	Permitting	Requirements for outfall permit are vague	Delay in permitting could affect overall project schedule	Cost, Schedule	1,2	Possible	3	High	4	12	Unacceptable	Early interaction with permitting agencies; Aggressive water quality management strategy
2.0	Subsurface Conditions	Poor subsurface conditions affect cost and productivity	Increased construction costs, delays, change orders	Cost, Schedule	1,2	Possible	3	Very High	5	15	Undesirable	Conduct subsurface investigation during design; Incorporate GDR, G into bidding documents
3.0	Infrastructure Damage	Damage to existing infrastructure due to adjacent excavation, settlement	Failure of existing infrastructure resulting in service disruption, emergency repairs	Cost, Schedule, Safety	1,2,6	Likely	4	High	4	16	Unacceptable	Conduct settlement analyses; identify critical infrastructure; perform pre-construction assessments of critical infrastructure
4.0	Private Property	Construction-related damage to private property	Settlement, foundation cracking, loss of trees	Cost	1	Possible	3	High	4	12	Undesirable	Clearly define construction limits; perform settlement analyses; conduct pre-construction surveys
5.0	Hydraulics	Excessive flows cause overflows	Overflows result in property damage and may create	Safety	1,6	Possible	3	High	4	12	Undesirable	Perform extensive surge analyses, design in overflow facility at optimum

**FIGURE 17** The Risk Register is formulated early in the Project and is updated continuously during preliminary engineering, detailed design and construction.

the code to different extents, but all expect to see evidence of the risk management process in use on significant tunneling projects.

MWH’s approach to risk management starts by identifying enterprise level risks early in the Project through workshops with the various stakeholders. We then drill down into project specific risks from the inception of design through all phases of design development. Ultimately, we identify construction related risks and mitigation features to be built into the construction contract packages.

Our approach uses a comprehensive risk register (**Figure 17**) as its foundation. The Risk Register addresses many project issues such as schedule delays or impacts, cost containment/control, potential client liability, and public safety. Risks can be reviewed regularly with Village staff as part of routine progress meetings, and will be allocated through contract requirements.

Periodic risk management exercises can be an effective and structured means of soliciting input regarding the concerns of key stakeholders and updating the Project’s risk profile. MWH will organize and host an initial risk management workshop with key Village staff and the Program Manager to formulate an overall risk management strategy. Subsequently, risk management exercises can be incorporated into periodic meetings or workshops throughout the life

of the project to gain input on potential risks, identify mitigation measures, and evaluate the need for management of contingencies or risk reserves.

### Phase 3 – Construction Oversight

Engineering services during construction can take many forms. Our professional construction engineering staff is prepared to provide the full range of construction support services tailored to the requirements of this project. MWH has successfully provided such services for the more than 30 contracts completed as part of the City of Evanston’s Combined Relief Sewer Program.

As a firm frequently involved in the design and construction of large projects, we encourage our clients to involve design and construction experts throughout the course of their projects. Just as construction staff can provide valuable input to the design of a project, the staff responsible for the preparation of the design documents can serve as valuable resources throughout the construction of new infrastructure.

During the design phase of the stormwater tunnel and area drainage improvements Project, MWH will work with the Village to develop a staffing plan for engineering services during construction that reflects the final contracting and sequencing plan for overall project. At a minimum, we would expect to have a full-time construction engineer in the field during all periods of active construction.

Additional field support can be provided on a part-time basis from MWH's Chicago office during periods of major construction activity on multiple contracts. Where workload allows, our experience has shown that an effective field engineer can often be responsible for a broad range of office and field activities. Given the nature of most of the work involved in storm sewer construction, a qualified field engineer can facilitate the review of many submittals and address routine field questions quickly rather than simply serving as a communication conduit between the contractor and office staff. At the same time, the field engineer can facilitate the involvement of technical specialists where warranted to address specific challenges or questions during construction (**Figure 18**).



**FIGURE 18** MWH maintains a staff of full-time construction engineers that have experience in open-cut and tunnel construction.

For example, MWH believes that it is particularly important to have a specialized geotechnical/tunnel engineer in the field during tunneling operations. This individual can serve to monitor and document subsurface conditions as they are encountered, monitor contractor progress and activities, and facilitate the resolution of questions or issues that arise in the field. Similarly, a structural engineer should be on site during the layout and construction of major structures. Either can provide valuable insight into the design intent and support the field engineer in the review and assessment of questions that may arise.

Our construction staff understands the importance of coordination between contractors responsible for separate construction activities, the need for appropriate staffing during periods of critical activity on multiple contracts, and the importance of a positive customer service-based attitude when dealing with affected residents and property owners. We look forward to working with the Village and its Program Manager to establish an appropriate scope for construction oversight services as the details of the overall construction program are refined.

# Scope of Services

Engineering services required to support the Village of Winnetka's implementation of its Willow Road Stormwater Tunnel and Area Drainage Improvements Project will be provided in three phases.

Phase 1 Permitting activities will focus on the identification of permitting requirements that must be met in order for the project to proceed, and the development of the current project concept through preliminary engineering design. The preliminary design will be documented in 30% drawings. During Phase 1, MWH will also support the Village in the pre-qualification and selection of a contractor to deliver major elements of the project under the Construction Management at Risk (CMAR) delivery model.

Phase 2 Engineering tasks will build upon the 30% design and lead to the preparation of bidding documents (plans and specifications) for the various construction contracts that will make up the overall project. Interim deliverables (60% and 90% plans and specifications) will be prepared as part of the Phase 2 effort and submitted to the Village for review and comments. During Phase 2, MWH will work closely with the selected CMAR contractor to evaluate the impact of design decisions on project constructability, cost, and disruption, and incorporate features into the design that will facilitate the implementation of improvements selected for CMAR delivery. For project elements to be delivered via the traditional design-bid-build model, MWH's Phase 2 services will include engineering support during the bidding process up through review and evaluation of bids received for the various construction contracts.

Phase 3 Construction Oversight will include office- and field-based engineering services during construction of the various projects that are part of the overall drainage improvement plan. MWH field staff will provide construction observation during active construction and participate in construction administration activities including review and processing of Requests for Information (RFI), partial payment applications, and proposed change orders. MWH field staff will also actively participate in community outreach and public information efforts during construction. MWH office staff will provide specialized technical support during construction activities and participate in reviews of RFIs, shop drawings, and change order requests. Office staff will also participate in periodic site visits at key points during the construction of various projects.

Unless otherwise noted, MWH will submit five (5) printed copies and one electronic copy (.pdf format) of all deliverables prepared under this scope of services.

Detailed descriptions of the tasks to be performed as part of MWH's proposed Scope of Services follow. The anticipated schedule for delivery of these tasks is presented in the following section of this proposal.

## Phase 1 - Permitting

Upon receipt of a Notice-to-Proceed from the Village, MWH will mobilize its staff and proceed with services required to refine the project concept, identify and pursue critical permits, coordinate interaction and outreach with key stakeholders, and support the pre-qualification and selection of a CMAR contractor for delivery of the new outfall and Willow Road storm sewer extending from Lake Michigan to Provident Avenue.

### Task 1.1 – Preliminary Engineering

Preliminary engineering activities will include studies, analyses, evaluations and design efforts required to advance the current project concept to a 30% design that considers major permitting requirements.

### **Task 1.1.1 – Concept Review**

#### **OBJECTIVE**

At the outset of the project, MWH will prepare for and conduct a review of the current project concept with Village staff to frame major decisions that have the potential to significantly impact the performance, cost, schedule, and/or impacts of the project on the community. Working with Village staff, MWH will identify critical questions/concerns that must be addressed to demonstrate the overall value of the project to the community. The concept review will determine what, if any, modifications to the concept plan sewer alignments will be considered during preliminary engineering.

#### **ACTIVITIES**

Under this task MWH will:

- Review current reports and documents describing the basis for and elements of the proposed project plan. Comments from recent public meetings will also be reviewed.
- Identify critical issues that have the greatest potential to impact the success, cost, schedule, and impacts of the project on the community and environment
- Conduct a half-day Concept Review Workshop with Village staff in Winnetka. Topics to be reviewed will include:
  - performance expectations – flood mitigation
  - performance expectations – water quality impacts on lake
  - sewer configuration and alignments
  - construction methodologies
  - project delivery models

The goal of the workshop is to establish a common basis for the evaluation and refinement of the proposed project plan.

#### **DELIVERABLE**

MWH will document the results of the Concept Review Workshop in a technical memorandum.

### **Task 1.1.2 – Permit Plan**

#### **OBJECTIVE**

MWH will prepare a well-defined plan and schedule for actions needed to support the acquisition of permits, license agreements, easements, and or rights-of-way during the course of the project. The plan will serve as a template and will be updated periodically during the course of the project.

#### **ACTIVITIES**

Under this task, MWH will:

- Compile available and relevant information to be used as a starting point for the development of the detailed permit action plan for the Willow Road Stormwater Tunnel and Area Drainage Improvements Project.
  - Review permit-related information provided by Village (e.g., minutes from previous meetings with regulatory agencies, Baxter & Woodman water quality data, Village NPDES stormwater discharge permit and associated Village stormwater management plan, preliminary outfall design selection)

- Perform web-based research of regulatory requirements (e.g., Lake Michigan water quality standards, Lake Michigan beach E. Coli TMDL, Skokie River water quality standards)
- Research potential stormwater BMPs to identify measures that may help mitigate water quality issues and search primary literature for quantifiable pollutant load reductions for those BMPs
- Organize and attend pre-application meetings with the appropriate regulatory agencies:
  - Review/refine list of required permits and associated permit agencies
  - Schedule and conduct meetings with identified permitting agencies to discuss the project (including alternatives), identify permitting requirements and limitations, and identify supporting technical data/analysis required for the permitting process. Pre-application meetings may be held by phone or in person with the following agencies:
    - » Illinois Environmental Protection Agency (IEPA) – Springfield, IL
      - Clean Water Act Section 401 Water Quality Certification (WQC)
      - Phase II MS4 (ILR400476)
    - » Illinois Department of Natural Resources (IDNR) – Chicago, IL
      - Lake Michigan Programs Section
      - Water Resources Management Section
      - Coastal Management Program
  - U. S. Army Corps of Engineers, Chicago District (USACOE) – Chicago, IL
  - Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) – Chicago, IL
  - Illinois Department of Transportation (IDOT) – Schaumburg, IL
  - Union Pacific Railroad – Chicago, IL
  - North Cook County Soil & Water Conservation District – Hoffman Estates, IL
- Prepare a Permitting Action Plan to contain:
  - Permit fact sheets for each required permit (conditions, application materials, fees, review time, key contact)
  - Permitting schedule
  - Summary of research performed
  - Meeting minutes from agency pre-application meetings
  - Identification of permit-related fatal flaws, if any

#### **DELIVERABLE**

MWH will prepare a Permitting Action Plan that provides a prioritized schedule of permitting activities anticipated to be required for implementation of the proposed project.

#### ***Task 1.1.3 – Hydrologic and Hydraulic Model Verification***

##### **OBJECTIVE**

MWH will review and refine the previous hydrologic and hydraulic modeling of the current project concept to establish an updated hydraulic basis of design for project. The modeling will be used to confirm level of service and performance expectations.

**ACTIVITIES**

Under this task, MWH will:

- Review the XP-SWMM model and simulations that serve as the basis for the existing project concept. It is assumed that the Village will provide MWH with a running version of the existing model that accurately represents the current project concept. MWH will review the model and advise the Village of any issues or concerns prior to proceeding with use of the model for this task.
- Document baseline flow rates and proposed storm sewer sizes for the project concept design condition (1% annual chance rainfall event)
- Document flow rates and proposed storm sewer sizes for an alternative project concept that considers factors identified during the concept review.
- Document inlet capacity, overland flow, and flow diversion requirements for the proposed system
- Conduct a two-hour “green infrastructure” workshop with Village staff to assess the potential for incorporation of public and/or private best management practices into the project plan
- Based on results from the workshop, MWH will develop two alternative model scenarios (public only implementation of green infrastructure, public and private implementation of green infrastructure) and generate corresponding estimates of design flows.
- Develop storm sewer sizes for each of the two green infrastructure scenarios
- Prepare an alternative sizing memorandum documenting the impact of each of the green infrastructure scenarios on proposed storm sewer sizes.
- Conduct an alternative sizing workshop with Village staff to review potential modifications to the concept plan and adopt a hydraulic basis for preliminary design. It is assumed that the alternative sizing evaluation will not result in a significant change in the length of storm sewer to be included in the preliminary design. Should the evaluation result in significant changes to the overall project concept, MWH will meet with the Village to review the project scope, schedule and budget before proceeding.

**DELIVERABLES**

MWH will prepare an Alternative Sewer Sizing Memorandum that documents the results of modeling of the baseline and alternative project concepts as well as simulations of the benefits of two green infrastructure implementation scenarios.

***Task 1.1.4 – Phase 1 Field Investigations*****OBJECTIVE**

MWH will plan and oversee field investigations to obtain the supplemental data needed to support critical permitting and preliminary engineering activities. Phase 1 field investigations will include surveys required to document conditions and locate critical utilities along the proposed sewer alignments and geotechnical investigations required to provide data for the evaluation of construction methods for individual sewer segments.

**ACTIVITIES**

Under this task, MWH will:

- Plan and oversee topographic and utility engineering surveys as outlined below to support preparation of preliminary engineering (30%) drawings. Field surveys will be performed by American Surveying & Engineering under subcontract to MWH.
  - Obtain and review relevant existing survey data

- Catalog, summarize, and transfer available data to working drawings
- Recover/set horizontal and vertical control points along the proposed sewer alignment
- Perform GPS/traverse and level circuit through control points
- Perform field surveys for planimetric depiction and DTM creation
- Obtain invert elevations for select drainage and sewerage, structures at critical connection or conflict points
- Create base sheets showing project mapping (topographic planimetrics, DTM, and profile) along the proposed improvement alignments
- Plan and oversee geotechnical investigations as outlined below to support preliminary design and evaluation of open cut and tunnel construction methods for proposed sewer segments. Geotechnical investigations will be performed by Testing Services Corporation under subcontract to MWH. MWH will observe and document geotechnical field investigations.
  - Collect available data/review results from previous subsurface investigations
  - Prepare geotechnical investigation plan, locate borings, obtain permits for borings in IDOT rights-of-way, and clear sites for utilities
  - Perform borings at 24 locations to provide information needed for evaluation of open cut and tunneling construction options. It is assumed that 8 borings will be to a depth of approximately 75 feet, while the other 4 borings will be to a depth of 30 feet. Up to five borings will be converted to standpipe piezometers.
  - Collect up to 200 pavement cores
  - Document subsurface conditions with standard boring logs
  - Perform field tests including standard penetration testing (SPT) at 2.5 foot intervals with a calibrated pocket penetrometer
  - Collect samples at each boring site and conduct laboratory testing for soil gradation, Atterberg Limit, abrasivity, and Unconfined Compressive Strength
  - Collect samples at five boring sites for environmental screening of parameters that may impact soil disposal characteristics
- Perform an analysis of the geotechnical investigation results and prepare a generalized geotechnical profile along the proposed tunnel and open cut sewer alignments. The analysis results and profile will be considered in the final evaluation of construction options for various sewer segments.

### **DELIVERABLE**

MWH will prepare an interim report documenting the Phase 1 field investigations conducted and the results obtained. Section 1 of the report will include a summary description of the field investigations. Section 2 will include a Phase 1 Geotechnical Data Report (GDR) based on American Society of Civil Engineers (ASCE) guidelines that describes the method of investigation and the boring logs and test data obtained. Soil boring logs and laboratory analysis results will be included as appendices to the Phase 1 GDR. Section 3 of the report will contain a Geotechnical Design Memorandum that presents the analysis of geotechnical data obtained and includes a generalized geotechnical profile along the proposed tunnel and open cut alignments.

### **Task 1.1.5 – Preliminary Design**

#### **OBJECTIVE**

Preliminary design drawings for the proposed outfall and storm sewer improvements will be prepared to advance critical permitting activities and provide a refined basis for overall planning of design and construction activities associated with the proposed stormwater tunnel and area drainage improvements. The preliminary design documents will also be used as a reference during the pre-qualification and selection of the CMAR contractor.

#### **ACTIVITIES**

MWH will perform preliminary design activities including:

- Planning and leadership of a two-hour Design Standards Workshop with Village staff. The workshop will provide the MWH and Village teams with the opportunity to review/define general design standards for the project based on existing Village and IDOT standards, lessons learned from recent Village projects, and MWH input.
- Preparation of a set of 30% preliminary design drawings (total sheet count of approximately 108 sheets) and a list of special provisions expected to be required in the final bidding packages for the projects.
  - Preparation of approximately 62 preliminary plan and profile drawings showing the proposed configuration and horizontal and vertical alignment of the proposed storm sewer improvements. Open cut drawings will be prepared at a horizontal scale of 1"=20'. Tunnel drawings will be prepared at a horizontal scale of 1"=50'.
  - Hydraulic design analysis of the proposed outfall structure and major junction/diversion structures. MWH will use its Computational Fluid Dynamics (CFD) modeling to analyze flow rates and velocities through the structure, and develop appropriate provisions for energy/velocity dissipation at the outfall. Results from the analysis will be used to develop a preliminary site plan and layout for the new structure at the lake front.
  - Development of basic structural design criteria and preliminary type, size, and location layouts for the proposed outfall structure and major junction or diversion structures. The layouts will be incorporated into the 30% drawing set as preliminary structure drawings.
  - Preparation of preliminary drawings showing the type, size, and location of proposed water quality management structures to be incorporated into the new storm sewer system.
  - Preparation of preliminary traffic control and detour plans. MWH will review the extent of the proposed storm sewer improvements, preliminary plans for project staging and sequencing, and alternatives for the maintenance of traffic during construction of the proposed projects. A series of preliminary traffic control and detour plans will be documented and incorporated into the preliminary plan set.
- Preparation of a Class 4 Opinion of Probable Construction Costs (OPCC). MWH will use the preliminary drawing set as the basis for the preparation of an Association for the Advancement of Cost Engineering (AACE) Class 4 OPCC. The OPCC will be developed to provide a high level indication of overall project costs given refinements made to the original project concept and improved geotechnical, permitting and survey information.
- Preparation of a Preliminary Design Report/Preliminary Design Workshop. MWH will prepare a Preliminary Design Report summarizing the major features of the proposed project as included in the preliminary design drawings, the estimated OPCC for the project, the status of permitting activities, and issues remaining to be

addressed during the detailed design phase of the project. MWH will submit a draft copy of the report to the Village (including 11"x17" prints of the preliminary drawings) for review and comment, and then schedule a half-day workshop with Village staff and key permitting agency representatives to review and discuss the materials. Based upon comments from the workshop, MWH will prepare a final copy of the Preliminary Design Report and submit the document to the Village as the basis for the next phase of design activities.

### **Task 1.1.6 – Phase 1 Permitting**

#### **OBJECTIVE**

Advance permitting efforts to the point of pre-approval or documented consensus on critical issues related to overall project feasibility and/or cost. The permits of greatest concern include those related to the siting and construction of the proposed new stormwater outfall, the construction of the Willow Road storm sewer under the Union Pacific railroad, and the construction of major new storm sewers within IDOT rights-of-way.

#### **ACTIVITIES**

Under this task, MWH will:

- Prepare and submit an initial Joint Permit Application to the IEPA, IDNR, and USACOE for the proposed new stormwater outfall to Lake Michigan. Steps involved in this process are as follows:
  - Compile, document and review available water quality data for stormwater discharges from Winnetka and for Lake Michigan. MWH anticipates that the IEPA 401 Water Quality Certification will be a key regulatory hurdle in the permit process. MWH will need to assist the Village (the Applicant) in convincing the IEPA that the effluent from the proposed stormwater outfall will neither violate state water quality standards nor degrade the quality or designated uses of Lake Michigan. For the purpose of this scope of work, MWH assumes that the water quality data collected by Baxter & Woodman as part of Winnetka's stormwater master planning effort, in addition to publicly available Lake Michigan water quality data (offshore and at beaches), will be sufficient data for the permit process. No new water quality monitoring of stormwater discharges from Wilmette or baseline conditions in Lake Michigan is proposed as part of this scope of services.

If regulatory agency feedback indicates that additional water quality data must be collected, MWH will prepare a proposal for performing additional water quality sampling and laboratory analysis that reflects the specific requirements of the permitting agency. Such a plan could, for example, include additional analytes or a sampling regime focused on characterizing first flush water quality versus other runoff.

Similarly, if regulatory agency feedback indicates that water quality modeling of conditions in the lake at the proposed outfall to Lake Michigan will be required for the permit process, MWH will prepare a proposal for performing the required analysis using appropriate dispersion modeling approaches.

- Prepare the initial Joint Permit Application to IEPA, IDNR, and USACOE for the construction of a new stormwater outfall to Lake Michigan. MWH would also propose to use these same permitting materials as the basis for communications with MWRDGC regarding the acceptability of a new stormwater outfall to the lake. The application will include the completed joint permit application forms, preliminary drawings of the proposed outfall structure and proposed water quality management facilities as well as a Water Quality Management Plan as described below. The draft Joint Permit Application will be submitted to the Village for review, and comments incorporated before it is transmitted to the permitting agencies for initial consideration.

- Prepare a Water Quality Management Plan to document the measures that the Village will incorporate into its stormwater system to meet the water quality standards and anti-degradation criteria that will apply to the new discharge. Primary parameters of concern to be addressed in the Water Quality Management Plan will likely include sediment, total suspended solids, floatables, oil and grease, phosphorus, chloride, E. Coli, flow, temperature, and/or dissolved oxygen. To establish the Water Quality Management Plan, MWH will:
  - Adapt the hydrologic and hydraulic model of the project area for the analysis of pollutant loadings based on representative wash-off rates for communities with similar land use patterns
  - Estimate pollutant loadings at the existing discharge points from the project area for four specific design storm events and use the results to project peak and average loadings under current conditions
  - Document the likely water quality discharge standards for both the Lake Michigan and the Skokie River,
  - Assess available technologies for meeting the discharge standards
  - Develop a water quality management strategy for the project that includes consideration of private stormwater best management practices (BMPs), BMPs or stormwater treatment facilities constructed at distributed locations within the storm sewer system and within the public right-of-way, and/or end-of-pipe treatment measures.
  - Estimate pollutant loadings at existing and proposed discharge points within the proposed new storm sewer system with and without consideration of the water quality management measures proposed.
  - Document the estimated impact of the proposed storm sewer improvements on pollutant loadings to Lake Michigan with and without the proposed water quality management measures.
  - Compile results from the analyses into a project-specific Water Quality Management Plan for submittal with the Joint Permit Application.
  - Conduct a review of the Water Quality Management Plan with the Village and address/incorporate comments
  - Submit the initial Joint Permit Application, Water Quality Management Plan, and other supporting materials to the permit agencies for review
  - Review agency comments on the initial submittal and make revisions as appropriate
  - Participate in one public meeting to present the water quality management plan to the community and other interested parties
- Prepare and submit an initial application to the MWRDGC requesting approval for the proposed new stormwater outfall to Lake Michigan. It is assumed that the materials contained in the Joint Permit Application will be suitable for submittal to the MWRDGC with minimal modification. MWH will follow-up with MWRDGC to document any comments or questions related to the permit application. MWH will document requested revisions to be addressed during final design.
- Prepare and submit an initial application to IDOT for the construction of new large-diameter storm sewers within state rights-of-way. The application to IDOT will consist of the completed forms and preliminary (30%) design drawings for the facilities proposed for construction within the IDOT right-of-way. MWH will follow-up with IDOT to document any comments or questions related to the permit application. MWH will document requested revisions to be addressed during final design.

- Prepare and submit an initial application to the Union Pacific Railroad for the construction of a 96-inch diameter storm sewer across the railroad right-of-way at Willow Road. The application to the railroad will consist of the completed forms and preliminary (30%) design drawings for the portion of the new sewer crossing the railroad right-of-way. MWH will follow-up with the railroad to document any comments or questions related to the permit application. MWH will also document requested revisions to be addressed during final design.

## **Task 1.2 – Phase 1 Project Management**

The Winnetka Stormwater Tunnel and Area Drainage Improvements Project will require a dedicated project management effort to plan, monitor, and coordinate the activities and stakeholders associated with the effort. At the outset of the project, MWH will develop a Project Execution Plan that defines the framework for overall management of the project and coordination with the Village, private and local stakeholders, and residents of Winnetka.

### **Task 1.2.1 – Project Management**

#### **OBJECTIVE**

MWH will make use of its project management processes and tools to manage, direct, and administer project activities in a manner that promotes the completion of the defined tasks in accordance with the established project scope, schedule, budget, and quality objectives set for the project.

#### **ACTIVITIES**

Under this task, MWH will:

- Prepare a Project Execution Plan (including a risk register, change log, and high level communication plan)
- Conduct regular team meetings to coordinate project activities
- Schedule, conduct, and document appropriate quality reviews of project activities and deliverables
- Maintain a project action item list
- Monitor and report monthly to the Village on progress, expenditures, potential issues/changes, risks
- Prepare and submit monthly invoices and progress reports
- Coordinate communications between the project team, the Village, the Village's Program Manager, and other stakeholders

#### **DELIVERABLES**

Deliverables associated with project management activities will include

- Project Execution Plan (including risk register, change log, and high level communication plan)
- Monthly invoice and progress reports

### **Task 1.2.2 – Coordination with Private, State, Federal Entities**

#### **OBJECTIVE**

MWH will partner with the Village to communicate and coordinate with private, state, and Federal stakeholders in such a way that the stakeholders remain informed of key project elements and plans, and that potential issues are identified early so that they can be resolved at a minimum impact to the project.

**ACTIVITIES**

Under this task, MWH will:

- Prepare/implement a communication plan for private, state, and federal stakeholders that includes information for specific contacts
- Prepare and distribute a quarterly update of 4 pages or less to identified stakeholders along with a summary of pending issues or action items
- Conduct a quarterly phone briefing for stakeholders during which key milestones, questions, issues, or changes are presented

**DELIVERABLES**

MWH will prepare a quarterly project update for distribution electronically to stakeholders and posting to the Village's stormwater management website.

***Task 1.2.3 – Coordination with Local Entities*****OBJECTIVE**

MWH will partner with the Village to communicate and coordinate with local entities including the Winnetka Park District, the Winnetka School District 36, New Trier High School District, affected businesses, and local community groups so as to identify and address specific concerns in a timely fashion.

**ACTIVITIES**

Under this task, MWH will:

- Prepare a communication plan for local stakeholders that includes information for specific contacts
- Distribute a quarterly update on the project to identified local stakeholders along with a summary of pending issues or action items. This effort will be coordinated with the similar effort for private, state and federal stakeholders.
- Conduct a quarterly briefing in Winnetka with key local stakeholders to facilitate the discussion of project challenges and concerns as well as opportunities for coordination of activities to enhance project results or mitigate project impacts.

**DELIVERABLES**

MWH will prepare a quarterly project update for distribution electronically to stakeholders and posting to the Village's stormwater management website.

***Task 1.2.4 – Progress Meetings*****OBJECTIVE**

MWH will participate in bi-weekly progress meetings with Village staff to provide for consistent and effective communication and action within the overall MWH/Village Project Team.

**ACTIVITIES**

The MWH Project Manager will participate in regular progress meetings in Winnetka (typically at two –week intervals) with the Village's Project Team to review progress to date, discuss/resolve outstanding or anticipated issues, review plans for upcoming meetings or tasks, and coordinate overall project activities. To the degree practical, MWH will work to coordinate other project meetings or activities with the progress meetings so as to maximize the value of time spent in Winnetka and reduce overall travel time.

**DELIVERABLES**

- Progress, budget, and schedule updates
- Action item updates
- Risk Register updates
- Change log updates

**Task 1.3 – Phase 1 Project Outreach**

The proposed Willow Road Stormwater Tunnel and Area Drainage Improvements Project has already been the subject of significant debate and disagreement among various parties within the Village of Winnetka. As the project moves from concept into preliminary engineering, effective outreach will be critically important to provide stakeholders at all levels appropriate information regarding the project, to solicit input on decisions that are being considered, and to work toward a broader consensus regarding the overall value of the project to the community. MWH will provide effective outreach through a combination of ongoing communication and periodic structured interactions with stakeholders.

**OBJECTIVE**

Maintain a consistent and effective level of communication regarding project issues with key stakeholders. Specific activities associated with this task are focused on briefings to the Village Council and periodic public information meetings.

**Task 1.3.1 – Village Council Briefings****ACTIVITIES**

MWH's Project Manager will attend at least one Village Council meeting per quarter to provide a briefing to Council members on project progress and result and/or to answer questions.

**DELIVERABLE**

No deliverables are expected to be generated as part of this task. Briefing materials for Council Members will be taken from MWH's monthly progress report for the preceding or current month.

**Task 1.3.2 – Public Information Meetings****ACTIVITIES**

- MWH's Project Manager and select members of the project team will participate in quarterly public meetings during the permitting/preliminary engineering phase of the project. Likely topics for these meetings may include:
  - Water Quality Management Plan/Lake Michigan Outfall Permit
  - Updated Concept Review
  - Preliminary Design Report Review
- MWH will work with Village staff to document attendance at public meetings and provide a high level summary of issues discussed and general comments/questions addressed

**DELIVERABLES**

MWH will work with Village staff to prepare/distribute Public Meeting Summaries and attendee lists

## Task 1.4 – Construction Management Selection Process

MWH clearly understands the Village of Winnetka's desire to make use of the CMAR delivery model for the proposed Willow Road Stormwater Tunnel, segments of 96-inch diameter storm sewer to be installed east and west of the tunnel segment, and the proposed outfall to Lake Michigan. As an organization of planners, designers, and constructors, MWH has seen how an effective CMAR model can benefit both the owner and the CMAR contractor.

### Task 1.4.1 – CMAR Committee Workshop

#### OBJECTIVE

An early workshop will provide the opportunity for MWH to work with Village staff to review and refine the current strategy and expectations for the use of a CMAR contractor to implement major elements of this overall project.

#### ACTIVITIES

Immediately upon the notice to proceed from the Village, a CMAR Procurement Strategy and Decision Workshop will be held with key Village staff, Village's legal advisor for the procurement, MWH design staff and MWH CMAR advisor (The CMAR team). The legal requirements for the CMAR project will be reviewed and flexibilities within the legal requirements will be discussed as to potential benefits for the procurement or project. A matrix will be prepared that will contain all the decisions that need to be made for the RFQ and the RFP. Each decision will be discussed; options available with each decision will be reviewed as to pros and cons and with the decisions made a procurement strategy will unfold.

At this workshop coordination and development of the CMAR Team will be discussed and include the following:

- Define the vision: Discuss the team's vision for a successful procurement and project as well as their understanding of the purpose and scope of the CMAR approach.
- Clarify the team purpose: Determine who is on team and for what purpose.
- Define Responsibilities: What are the boundaries for individual responsibilities and where are the interfaces between individuals.
- Develop team Operating Guidelines: Develop the lines of communication and interaction among team members

The Workshop portion will focus on the key considerations for the procurement (submittals received, evaluations, selection) and development of the CMAR contract. Policy and other key decisions will have to be made which will guide the procurement and agreement(s) development. Such key considerations include but are not limited to:

- Determine need for procurement meeting/site visit after issuance of RFQ.
- Determine the scope of work for the preconstruction services phase of the project and at what point in the design the CMAR is brought on board. The earlier the CMAR is brought on board the greater potential for benefits and advantages to be gained by the Village.
- Confirm procurement process- need to be in conformance with State Law- incorporate requirements and flexibilities
- Based on above, review/revise procurement process.
- Develop appropriate methodology from the various forms available of how a submission (SOQ, RFP (and possibly interview) will be evaluated and rated/scored.

- Confirm extent costs or cost components will be included and evaluated in selection process.
- Determine self-performance requirements or constraints and thus the amount of competitive bidding of the construction work.
- Decide on necessity for Guarantor/Guaranty Agreement.
- Review key risk parameters and determine Village risk posture for the proposed contract. Determine process of introduction of contract into procurement and how to elicit comments from proposers and proposers' sureties. Obtaining surety concurrence as to form of bonds and terms and conditions of agreement as early as possible is critical for project schedule.
- Review/revise submittal (RFQ and RFP) requirements: qualifications/experience (construction, CMAR, prior working relationships on projects, dollar value, project types, etc.); key personnel; financial wherewithal; ability to meet critical deadlines and milestones; construction approach, project specific plans (Safety, QA/QC, Traffic Control, Cost and Schedule Control, etc.), price proposal, etc.
- MBE/WBE and other Village requirements
- Determine the selection committee and add the committee to the CMAR team
- Determine the procurement schedule
- Address the CMAR contract and option of a contract term sheet for the procurement

## **DELIVERABLES**

MWH will prepare a CMAR Workshop Summary Memo that documents key points of discussion and decisions made during the CMAR workshop.

### ***Task 1.4.2 – CMAR Prequalification***

#### **OBJECTIVE**

The CMAR prequalification process is intended to serve as a screening process for potential CMAR contractors. MWH will partner with the Village to develop and implement a prequalification process that attracts effective, experienced, and successful CMAR candidates.

#### **ACTIVITIES**

Based on observations from the CMAR workshop, MWH will develop an RFQ and submit it to the Village in draft format. MWH assumes that the Village will provide the necessary background information needed for the CMAR RFQ. The RFQ will reflect the decisions made at the workshop and appropriate language will be included to describe those decisions. Customary and routine RFQ requirements will be included based on our experiences, lessons learned and best practices.

MWH will meet with the CMAR project team to discuss comments and questions on the RFQ. Based on the comments and decisions made at the meeting the RFQ will be revised and finalized and submitted to the Village for its issuance.

Responses to all questions submitted during the proposal period will be developed by the appropriate CMAR team member and responses sent to the CMAR project team for comment and finalization. If appropriate, RFQ addenda will be developed, reviewed and finalized and submitted to Village for issuance.

MWH will review and evaluate submissions and prepare review summaries of each submission as to compliance with procurement requirements and provide a listing of deficiencies or omissions for each submission. We will prepare a memo of the deficiencies and omissions (and perhaps request for additional information) to be sent by Village to each proposer. It is assumed that no more than 5 SOQ's will be received. MWH will assist

the Village in answering final questions or comment on the SOQ's to enable the Village to select the short list of proposers who will receive the RFP.

### **DELIVERABLES**

Deliverables related to this task will include:

- Input to the Village's Request for Qualifications for CMAR Contractors
- CMAR Statement of Qualifications Review Memo

### **Task 1.4.3 – CMAR Selection**

#### **OBJECTIVE**

MWH will partner with the Village to develop and implement a CMAR Request for Proposals document that attracts effective, experienced, and successful CMAR candidates. MWH will work with the Village to promote the development of a strong and effective CMAR team for this project.

#### **ACTIVITIES**

MWH will collaborate with Village staff to prepare a Request for Proposals for potential CMAR contractors. The RFP will be developed and submitted to the Village in draft format. It is assumed that the Village will provide the necessary background information need for the RFP. The RFP will include the decisions made at the workshop and appropriate language will be included to describe those decisions.

MWH will work with the Village's legal advisor to develop the CMAR contract based on the legal posture and requirements of the Village. MWH will draw upon its considerable experience and expertise to help the Village identify and address some of the more troublesome terms and conditions used in CMAR agreements, and how they are often dealt with by the CMAR Contractor and owner. MWH assumes that the Village's legal advisor will prepare the draft CMAR contract for use on this project. MWH will review and make recommendations as to contract modifications and revisions.

MWH will meet with the CMAR project team to discuss comments and questions on the RFP. Based on the comments and decisions made at the meeting, MWH will finalize the RFP and submit it to the Village for its issuance.

Responses to questions submitted during the proposal period will be developed by the appropriate CMAR team member and responses sent to the CMAR project team for comment and finalization. If appropriate, RFP addenda will be developed, reviewed and finalized and submitted to Village for issuance.

MWH will review and evaluate submissions and prepare review summaries of each submission as to compliance with procurement requirements and provide a listing of deficiencies or omissions for each submission. MWH will prepare a memo of the deficiencies and omissions (and perhaps request for additional information) to be sent by Village to each proposer. It is assumed there will be a short list of three proposers.

MWH will meet with the CMAR team and address any questions and concerns associated with the proposals. We will discuss the agenda and protocol for the interviews and prepare the interview invitation and requirements. MWH will assist in the interview process and meet with the CMAR team for a debriefing session on the interviews. After the interviews MWH will address final questions, and provide comments and concerns to the Village for support in its selection.

### **DELIVERABLES**

- Input to the Village's Request for Proposal for a CMAR Contractor
- CMAR Proposal Review Memo

## Phase 2 – Engineering

Phase 2 Engineering services related to the Winnetka Stormwater Tunnel and Area Drainage Improvements Project will include the tasks necessary to move the project from the 30% design level to final bidding documents for individual construction contracts. Major activities will include:

- supplemental field investigations,
- detailed design analyses,
- design coordination with the CMAR contractor,
- development of a final plan for bidding, contracting and phasing of construction,
- preparation of bidding documents including plans and specifications, and
- provision of support services during the bidding process.

The scope and budget presented for Phase 2 services are based on the current concept plan of storm sewer improvements and the preparation of 60%, 90% and 100% documents. Should analyses completed during Phase 1 result in significant changes to the concept plan, MWH will meet with the Village to review and adjust the Phase 2 scope of services, schedule, and budget prior to proceeding.

### Task 2.1 – Engineering

#### *Task 2.1.1 – Project Implementation Planning Workshop*

##### **OBJECTIVE**

A project implementation planning workshop will be held at the outset of Phase 2 engineering to incorporate the CMAR contractor into the project team and establish a well-defined plan for phasing and coordination of design activities to support effective overall project implementation.

##### **ACTIVITIES**

Under this task, MWH will:

- Participate in a full-day workshop with the overall design team (Village, MWH, CMAR Contractor) to review the 30% design and formulate a coordinated plan for phasing of design and construction activities
- Discuss and define the roles of MWH and the CMAR consultant relative to the major Willow Road sewer and outfall design tasks
- Work with the overall design team to define the number of construction packages to be bid, the approximate limits for each package, and relative timing of the proposed construction efforts.

##### **DELIVERABLE**

MWH will document the results of the Project Implementation Planning Workshop in a technical memorandum that includes a schedule showing the relative timing of the proposed construction contracts.

#### *Task 2.1.2 – Phase 2 Field Investigations*

##### **OBJECTIVE**

Phase 2 Field Investigations will be performed to obtain supplemental survey and geotechnical data needed to support final design efforts and the preparation of a Geotechnical Baseline Report for the Willow Road Tunnel.

## ACTIVITIES

Under this task, MWH will:

- Plan and oversee supplemental topographic and utility engineering surveys as outlined below to support preparation of final bidding documents. Supplemental field surveys will be performed by American Surveying & Engineering under subcontract to MWH.
  - Create details of surveyed structures (manholes, inlets, vaults)
  - Add supplemental utility information the plan and profile base sheets
- Plan and oversee supplemental geotechnical investigations as outlined below to support preparation of the Geotechnical Baseline Report for the Willow Road sewer tunnel and final bidding documents for the other proposed sewer segments. Geotechnical investigations will be performed by Testing Services Corporation under subcontract to MWH. MWH will observe and document geotechnical field investigations.
  - Prepare geotechnical investigation plan, locate borings, obtain permits for borings in IDOT rights-of-way, and clear sites for utilities
    - » Perform borings at 20 locations to provide supplemental geotechnical information. It is assumed that 6 borings will be to a depth of approximately 75 feet, while the other 14 borings will be to a depth of 30 feet
    - » Document pavement and subsurface conditions with standard boring logs
    - » Perform field tests including standard penetration testing (SPT) at 2.5 foot intervals with a calibrated pocket penetrometer
    - » Collect samples at each boring site and conduct laboratory testing for soil gradation, Atterberg Limit, abrasivity, and Unconfined Compressive Strength
    - » Collect samples at three boring sites for environmental screening of parameters that may impact soil disposal characteristics
  - Supervise QA Field investigation, field and laboratory testing
  - Prepare supplemental GDR including method of investigation, boring logs and test data
    - » Prepare revised Geotechnical Design Memorandum (GDM) incorporating the results of the supplemental investigations

## DELIVERABLES

MWH will use results from the Phase 2 field investigations to update the previously developed GDR, GDM, and generalized geotechnical profile along the proposed tunnel and open cut alignments.

### ***Task 2.1.3 – Design Engineering: Willow Road Outfall to Provident Avenue***

#### OBJECTIVE

Design analyses will be performed in collaboration with the Village's CMAR contractor to define the requirements for construction of the proposed 96-inch diameter outfall to Lake Michigan and new 96-inch diameter storm sewer along Willow Road from the outfall to Provident Avenue. Approximately 3250 feet of this improvement is proposed to be constructed as tunnel.

## ACTIVITIES

Major activities associated with the design of the proposed improvements along Willow Road between the lake outfall and Provident Avenue include the following:

- **Geotechnical Analysis/Tunnel Design** – MWH will perform geotechnical and tunnel design analyses to support the design of the proposed 96-inch diameter sewer from the new lake outfall to Provident Avenue. Key considerations will include the tunnel section, tunnel depth and alignment, tunnel lining methods, shaft locations, constructability concerns, trucking and disposal, material delivery, tunnel operation shifts, staging areas, and tunnel and shaft analysis. Finite element analysis of initial and final support of tunnel and shafts will be performed to assess the risk of potential settlement impacts neighboring structures and utilities. Potential groundwater impacts (short term and long term) will be considered along with provisions for railroad crossings, MWRDGC interceptor crossings, ground improvement at crossings, and necessary movement monitoring instrumentation (shallow and deep monitoring, inclinometers, piezometers). Consideration will also be given to the subsurface conditions anticipated along the route of the 96-inch open cut sewer along Willow Road and to foundation and slope stability conditions in the vicinity of the proposed outfall.

Interim results from the geotechnical and tunnel design analyses will be reviewed with the Village's CMAR contractor to solicit input and recommendations regarding options or provisions to reduce construction costs, disruption, or risks associated with the proposed work along Willow Road.

Results from the geotechnical analysis and tunnel design efforts will be used as the basis for preparation of a Geotechnical Baseline Report (GBR). The GBR will serve to establish baseline subsurface conditions for the project and proactively allocate risks associated with the construction effort.

- **Storm Sewer Design** – Activities related to the design of open cut storm sewer improvements along Willow Road between the new outfall and Provident Avenue will focus on finalizing the horizontal and vertical alignment of the proposed sewer so as to limit, to the degree practical, impacts on adjacent utilities, parkway trees, and other sensitive features within the right-of-way. Locations where it is not possible to avoid significant impacts to existing utilities along the alignment will be identified and reviewed with Village staff. The scope of services and budget presented in this document do not include allowances for the development of additional detailed design drawings for relocation or replacement of impacted utilities.
- **Outfall and Major Structure Design** – MWH structural engineers will build upon the 30% preliminary layouts developed for the new outfall to Lake Michigan and other significant junction or diversion structures that are part of this project, and perform the structural analysis necessary to support preparation of final structure drawings for these elements. Analyses will include consideration of foundation conditions, analysis of anticipated loadings, and overall requirements for reinforcement. Where appropriate, MWH will evaluate the potential for using pre-cast base tee sections or other pre-cast structures to minimize the need for construction of large cast-in-place structures at routine junctions between large diameter sewers.
- **Permitting** – Final permitting applications and/or supporting materials will be developed during the preparation of final design drawings for the Willow Road outfall/tunnel/sewer project. These materials will complement preliminary material submitted during Phase 1 of the project and will include the final documentation required to complete the permit applications.
- **CMAR Coordination** – During the design of the Willow Road Outfall/Tunnel/Storm Sewer, MWH will participate in periodic (monthly) progress reviews with the Village's CMAR contractor. The CMAR contractor will also be provided with copies of the 60% and 90% sets of plans and specifications for more thorough design and constructability reviews. Comments and suggestions from the CMAR contractor will be evaluated and considered for incorporation into the design as design efforts continue.

## DELIVERABLES

Deliverables from the design of the Willow Road storm sewer improvements between the outfall and Provident Avenue will include the 60%, 90%, and 100% plans and specifications for the project as described below under Task 2.1.6.

### *Task 2.1.4 – Design Engineering: Other Storm Sewer Projects*

#### OBJECTIVE

Design analyses will be performed for the other storm sewer projects proposed to be tributary to the new Willow Road sewer/tunnel/outfall to support the preparation of detailed bidding documents for each of the defined construction projects. These projects are proposed to be constructed using a traditional design-bid-build delivery model.

#### ACTIVITIES

Major activities associated with the design of the proposed storm sewer improvements tributary to the Willow Road tunnel/sewer/outfall include the following:

- **Storm Sewer Design** – Activities related to the design of open cut storm sewer improvements tributary to the Willow Road trunk sewer will focus on finalizing the horizontal and vertical alignment of the proposed sewer so as to limit, to the degree practical, impacts on adjacent utilities, parkway trees, and other sensitive features within the right-of-way. Locations where it is not possible to avoid significant impacts to existing utilities along the alignment will be identified and reviewed with Village staff. The scope of services and budget presented in this document do not include allowances for the development of additional detailed design drawings for relocation or replacement of impacted utilities.
- **Geotechnical Analysis** – MWH will perform geotechnical analyses to support the design of the proposed large diameter storm sewers tributary to the Willow Road trunk sewer. Key considerations anticipated trench and bedding conditions, as well as potential groundwater impacts (short term and long term).
- **Major Structure Design** – MWH structural engineers will build upon the 30% preliminary layouts developed for the significant junction or diversion structures that are part of these projects, and perform the structural analysis necessary to support preparation of final structure drawings for these elements. Analyses will include consideration of foundation conditions, analysis of anticipated loadings, and overall requirements for reinforcement. Where appropriate, MWH will evaluate the potential for using pre-cast base tee sections or other pre-cast structures to minimize the need for construction of large cast-in-place structures at routine junctions between large diameter sewers.
- **Water Quality Management Facilities Design** – MWH will build upon the 30% preliminary plans and develop additional design details and specifications related to proposed water quality management facilities to be included in the proposed storm sewer projects. Depending on the nature of the facilities to be provided at specific locations, design drawings may range from typical details for package systems to custom designs for new structures.
- **Permitting** – Final permitting applications and/or supporting materials will be developed during the preparation of final design drawings for the Willow Road outfall/tunnel/sewer project. These materials will complement preliminary material submitted during Phase 1 of the project and will include the final documentation required to complete the permit applications.

**DELIVERABLES**

Deliverables from the design of the storm sewers proposed to drain to the Willow Road trunk sewer east of Provident Avenue will include 60%, 90%, and 100% plans and specifications for the projects as described below under Task 2.1.6.

**Task 2.1.5 – Traffic Control****OBJECTIVE**

Project specific traffic control and detour plans will be prepared based on the preliminary drawings developed during Phase 1 to allow for the effective management of traffic during construction of the proposed sewer improvements.

**ACTIVITIES**

Once the final contracting and sequencing plan for individual storm sewer projects has been established, MWH will develop project-specific traffic control and detour plans for the individual improvement projects. Plans will be based on consistent principles and details, and will consider options for limiting traffic impacts on sensitive properties (schools, hospitals, railroad crossings, businesses, etc.). Where practical, phased detour plans will be developed to limit impacts on particular areas. Traffic control and detour plans will be reviewed regularly with Village and IDOT staff to solicit detailed input regarding the proposed closures.

**DELIVERABLES**

Deliverables associated with the development of detour and traffic control plans will include 60%, 90%, and 100% plans and specifications for the projects as described below under Task 2.1.6.

**Task 2.1.6 – Preparation of Bidding Documents****OBJECTIVE**

Design details for each of the proposed projects will be used to prepare plans and specifications for each project that provide the information needed for the development of accurate and cost-effective construction bids.

**Table 1** below provides a summary of the estimated number of plan sheets required for each of the proposed storm sewer projects. These estimates assume that plan drawings for open cut storm sewer work will be prepared at a horizontal scale of 1" = 20', and that plan drawings for sewer constructed in tunnel will be prepared at a horizontal scale of 1" = 50'. No drawings are included for major water main or sanitary sewer replacement or relocation projects that the Village may want or need to coordinate with construction of the new storm sewer.

**TABLE 1** Estimated Number of Plan Sheets for Storm Sewer Projects

Project	Total Length (ft)	Tunnel Length (ft)	Open Cut Length (ft)	Total Plan & Profile Sheets	Est. Total Sheets (100%)
<b>Willow: Provident to Outfall</b>	6200	3250	2950	10	72
<b>Willow: Glendale to Provident</b>	1950	0	1950	4	26
<b>Provident/Blackthorn: Willow to Westmoor</b>	3850	0	3850	8	28
<b>Birch: Willow to Winnetka</b>	4600	0	4600	10	35
<b>Sheridan: Willow to Cherry</b>	2250	0	2250	5	30
<b>Sheridan: Willow to Underpass</b>	5900	0	5900	12	46
<b>Glendale/Hibbard: Willow to Pine</b>	6050	0	6050	13	48
<b>SUBTOTAL: Stormwater Tunnel and Area Drainage Improvements</b>	<b>30800</b>	<b>3250</b>	<b>27550</b>	<b>62</b>	<b>285</b>

**ACTIVITIES**

Under this task, MWH will:

- Prepare plans for each of the proposed storm sewer contracts, including general, civil, structural, and traffic control drawings.
- Prepare technical specifications including special provisions as required to supplement the Illinois Department of Transportation's (IDOT) Standard Specifications for Road and Bridge Construction. It is assumed that template contract documents for these projects will be provided by the Village for review and modification by MWH to reflect the specific requirements of the proposed projects.
- Produce and submit 60% and 90% sets of plans and specifications to the Village and appropriate permitting agencies for review and comment. MWH will submit five (5) full size sets of both the 60% and 90% plans along with five (5) copies of the specifications for each review cycle.
- Meet with the Village after both the 60% and the 90% submittals to review its comments on the plans and specifications as well as comments received from permitting agencies, and make decisions regarding resolution of comments and questions.
- Prepare and submit five (5) printed sets of 100% plans and specifications, and one pdf copy each of the plans and specifications to the Village for use in the production and distribution of documents to potential bidders.

**DELIVERABLES**

Deliverables from this task will include 60%, 90%, and 100% sets of plans and specifications

***Task 2.1.7 – Preparation of OPCCs and Construction Schedule*****OBJECTIVE**

As more detailed designs are completed for the individual storm sewer construction projects, MWH will prepare Opinions of Probable Construction Costs (OPCCs) for use by the Village in capital budgeting and evaluation of contractor bids for the traditional design-bid-build projects.

**ACTIVITIES**

Under this task, MWH will:

- Prepare a Class 3 AACE Opinion of Probable Construction cost for each of the six (6) storm sewer contracts to be delivered using the design-bid-build model once the 100% design drawings are complete.

**DELIVERABLE**

- A Class 3 OPCC prepared in accordance with the standards of the Association for the Advancement of Cost Engineering (AACE) will be delivered for each of the six (6) storm sewer projects to be constructed using the design-bid-build delivery model.

***Task 2.1.8 – Bidding Assistance*****OBJECTIVE**

The MWH design team will support the Village of Winnetka during the advertisement and review of bids for individual storm sewer construction project so as to provide bidders with the best available information on which to generate their prices.

**ACTIVITIES**

- An MWH representative will attend the Pre-Bid Meeting for each contract to document questions and prepare Pre-Bid Meeting notes.

- MWH will provide timely responses to technical questions submitted by contractors during the bidding period. MWH has assumed one that one addendum will be needed during the bidding period for each construction contract.
- MWH will review bids received by the Village for each construction contract and prepare a tabulation of unit prices and bid evaluation report.

### **DELIVERABLES**

During the bidding period for each of the six (6) proposed design-bid-build storm sewer projects, MWH will prepare Pre-Bid Meeting notes, one addendum (if required), and a bid evaluation report.

## **Task 2.2 – Phase 2 Project Management**

Project management activities during Phase 2 of the Stormwater Tunnel and Area Drainage Improvements Project will build upon the practices established during Phase 1 of the project. Coordination with external permitting agencies and stakeholders will become increasingly important as specific details of individual projects are developed and incorporated into design documents.

### **Task 2.2.1 – Phase 2 Project Management**

#### **OBJECTIVE**

During Phase 2 of the project, MWH continue to make use of its project management processes and tools to manage, direct, and administer project activities in a manner that promotes the completion of the defined tasks in accordance with the established project scope, schedule, budget, and quality objectives set for the project.

#### **ACTIVITIES**

Under this task, MWH will:

- Review and update the Project Execution Plan (including a risk register, change log, and high level communication plan)
- Conduct regular team meetings to coordinate project activities
- Schedule, conduct, and document appropriate quality reviews of project activities and deliverables
- Maintain a project action item list
- Monitor and report monthly to the Village on progress, expenditures, potential issues/changes, risks
- Prepare and submit monthly invoices and progress reports
- Coordinate communications between the project team, the Village, the Village's Program Manager, and other stakeholders

#### **DELIVERABLES**

Deliverables associated with project management activities will include

- Updated Project Execution Plan (including risk register, change log, and high level communication plan)
- Monthly invoice and progress reports

### ***Task 2.2.2 – Phase 2 Coordination with Private, State, Federal Entities***

#### **OBJECTIVE**

MWH will continue to partner with the Village to communicate and coordinate with private, state, and Federal stakeholders in such a way that the stakeholders remain informed of key project elements and plans, and that potential issues are identified early so that they can be resolved at a minimum impact to the project. In the case of permitting agencies, coordination during this stage of the project will focus increasingly on preparing final permit submittals for approval prior to bidding.

#### **ACTIVITIES**

Under this task, MWH will:

- Maintain/update the communication plan for private, state, and federal stakeholders that includes information for specific contacts
- Prepare and distribute a quarterly update of 4 pages or less to identified stakeholders along with a summary of pending issues or action items
- Conduct a quarterly phone briefing for stakeholders during which key milestones, questions, issues, or changes are presented

#### **DELIVERABLES**

MWH will prepare a quarterly project update for distribution electronically to stakeholders and posting to the Village's stormwater management website.

### ***Task 2.2.3 – Phase 2 Coordination with Local Entities***

#### **OBJECTIVE**

During Phase 2 of the project, MWH will continue to partner with the Village to communicate and coordinate with local entities including the Winnetka Park District, the Winnetka School District 36, New Trier High School District, affected businesses, and local community groups so as to identify and address specific concerns in a timely fashion. Discussions will increasingly focus on provisions that can be made in the design to mitigate the impact and disruption of construction activities on the community.

#### **ACTIVITIES**

Under this task, MWH will:

- Update the communication plan for local stakeholders that includes information for specific contacts
- Distribute a quarterly update on the project to identified local stakeholders along with a summary of pending issues or action items. This effort will be coordinated with the similar effort for private, state and federal stakeholders.
- Conduct a quarterly briefing in Winnetka with key local stakeholders to facilitate the discussion of project challenges and concerns as well as opportunities for coordination of activities to enhance project results or mitigate project impacts.

#### **DELIVERABLES**

MWH will prepare a quarterly project update for distribution electronically to stakeholders and posting to the Village's stormwater management website.

### **Task 2.2.4 – Progress Meetings**

#### **OBJECTIVE**

MWH will continue to participate in bi-weekly progress meetings with Village staff to provide for consistent and effective communication and action within the overall MWH/Village Project Team during Phase 2 Engineering activities.

#### **ACTIVITIES**

The MWH Project Manager will participate in regular progress meetings in Winnetka (typically at two –week intervals) with the Village’s Project Team to review progress to date, discuss/resolve outstanding or anticipated issues, review plans for upcoming meetings or tasks, and coordinate overall project activities. To the degree practical, MWH will work to coordinate other project meetings or activities with the progress meetings so as to maximize the value of time spent in Winnetka and reduce overall travel time.

#### **DELIVERABLES**

- Progress, budget, and schedule updates
- Action item updates
- Risk Register updates
- Change log updates

### **Task 2.3 – Phase 2 Project Outreach**

#### **OBJECTIVE**

Maintain a consistent and effective level of communication regarding project issues with key stakeholders. Specific activities associated with this task during the design phase of the project will continue to be focused on briefings to the Village Council and periodic public information meetings.

#### **Task 2.3.1 – Phase 2 Village Council Briefings**

##### **ACTIVITIES**

MWH’s Project Manager will attend at least one Village Council meeting per quarter to provide a briefing to Council members on project progress and result and/or to answer questions.

##### **DELIVERABLE**

No deliverables are expected to be generated as part of this task. Briefing materials for Council Members will be taken from MWH’s monthly progress report for the preceding or current month.

#### **Task 2.3.2 – Phase 2 Public Information Meetings (60% Design Stage)**

##### **ACTIVITIES**

- MWH’s Project Manager and select members of the project team will participate in seven public information meetings at the 60% design stage (one meeting for each construction contract). It is expected that these meetings will be focused on the individual neighborhoods that will be impacted by the proposed project. Topics for these meetings may include:
  - Proposed improvement alignments and construction methods
  - Anticipated construction schedule
  - Proposed detour and traffic control plans, including provisions for maintenance of access
  - Provisions for street and parkway restoration

- MWH will work with Village staff to document attendance at public meetings and provide a high level summary of issues discussed and general comments/questions addressed

## **DELIVERABLES**

MWH will work with Village staff to prepare/distribute Neighborhood Meeting Summaries and attendee lists

### ***Task 2.3.3 – Permitting Public Meeting***

#### **OBJECTIVE**

MWH anticipates that the Joint Permit Application process for the new stormwater outfall to Lake Michigan will require at least one public meeting. MWH will assist the Village in planning and conducting this meeting to solicit comments and input from stakeholders. Comments will be considered as final design and permit approval efforts related to the outfall proceed.

#### **ACTIVITIES**

- MWH will work with the Village to schedule the required public meeting on the new outfall. It is assumed that the meeting will be held at a public venue in Winnetka.
- MWH will prepare an announcement and agenda for the meeting to be distributed by the Village
- MWH will participate in the public meeting by making a presentation on the proposed design of the outfall structure and provisions made to minimize/mitigate impacts from the discharge on Lake Michigan.
- MWH will work with Village staff to document attendance at the meeting and capture comments and questions raised by participants.

## **DELIVERABLES**

MWH will work with Village staff to prepare/distribute Public Meeting Summaries and attendee lists

### ***Task 2.3.4 – Public Information Meetings – Pre-Construction***

#### **OBJECTIVE**

Prior to the start of each construction contract, MWH will coordinate with Village staff to conduct a pre-construction meeting with residents of the neighborhoods to be most directly impacted. The goal of the meetings is to establish clear expectations regarding the scope of the project, the impacts that the construction will have on the neighborhood, impact mitigation measures being taken, and key points of contact for questions or issues that arise during construction.

#### **ACTIVITIES**

- MWH's Project Manager and select members of the project team will participate with Village and construction contractor representatives in seven neighborhood pre-construction meetings (one meeting for each construction contract). It is expected that each of these meetings will be held at a public venue in Winnetka following the award of each contract to a construction contractor. Each meeting will focus on the individual neighborhoods that will be impacted by the proposed project. Topics for these meetings may include:
  - Proposed improvement alignments and construction methods
  - Anticipated construction schedule
  - Proposed detour and traffic control plans, including provisions for maintenance of access
  - Provisions for street and parkway restoration
  - Pre-construction surveys and provisions for management of damage claims

- MWH will work with Village staff to document attendance at the pre-construction meetings and provide a high level summary of issues discussed and general comments/questions addressed

## DELIVERABLES

MWH will work with Village staff to prepare/distribute Neighborhood Meeting Summaries and compile attendee lists.

## Phase 3 - Construction Oversight

Requirements for construction oversight services related to the Stormwater Tunnel and Area Drainage Improvements Project will be directly driven by the final schedules established for the proposed storm sewer improvement projects. For the purpose of this proposal, MWH's scope for construction oversight services includes the provision of one full-time field engineer and additional part-time field and office support during specific parts of the anticipated construction program. MWH would expect to review these assumptions with the Village and make adjustments as appropriate once the final construction plan for the overall project has been established.

Construction oversight staff proposed to provide services during this phase of the work are described below:

- **Lead Construction Engineer** – MWH will assign a Lead Construction Engineer to provide field observation and construction administration support services for [periods of active construction during construction program (assumed to be 24 months). The Lead Construction Engineer will serve as the primary representative for MWH in the field and the primary point of contact with the Village during construction activities. He/she will participate in periodic resident and/or community meetings scheduled to provide detailed information about the progress and impacts of the overall construction effort.

The Lead Construction Engineer will be responsible for construction observation as well as responding to routine Requests for Information (RFI), show drawing submittals, change order requests, and partial and final payment applications. The Lead Construction Engineer will coordinate with MWH office engineering support when specialized technical expertise or support is required. It is assumed that the Lead Construction Engineer will be based in office space provided by the Village of Winnetka at its Public Works facility. If such space is not available, requirements for the provision of temporary office space and support equipment will be incorporated into the bidding documents for select storm sewer projects. Billings for the Lead Construction Engineer's services will include billings for a leased construction vehicle and mileage expenses for the duration of the construction assignment.

- **Geotechnical/Tunnel Field Engineer** – MWH will assign a geotechnical/tunnel engineer to a field role for the duration of the proposed tunneling operation along Willow Road (assumed to be 4 months). This engineer will monitor shaft construction and tunneling operations, gather data from the monitoring program, perform independent monitoring, prepare geotechnical documentation, monitor implementation of the GBR, and document conditions related to water inflow, abrasivity, boulders, differing site condition, risks and etc. The Geotechnical/Tunnel Field Engineer will coordinate directly with the Lead Construction Engineer and representatives of the CMAR contractor responsible for tunnel and sewer construction along Willow Road. Deliverables to be prepared by the Geotechnical/Tunnel Field Engineer will include:
  - Daily Reports including results from the monitoring system
  - Final Construction Report for tunneling operations.

It is assumed that the Geotechnical/Tunnel Field Engineer will be based in office space provided by the Village of Winnetka at its Public Works facility. If such space is not available, requirements for the provision of temporary office space and support equipment by the CMAR contractor will be incorporated into the negotiations of the CMAR agreement. Billings for the Geotechnical/Tunnel Field Engineer's services will include billings for a leased construction vehicle and mileage expenses for the duration of the construction assignment.

- **Part-time Construction Inspector** – MWH will provide a part-time Construction Inspector to provide additional field support during select periods of significant construction activity. For the purpose of this proposal, it is assumed that this individual would be in the field for a total of up to 4 months over the course of the construction program. The Part-time Construction Inspector would report to the Lead Construction Engineer and provide support for observation of construction activities, documentation of pay item quantities, and other routine field activities.

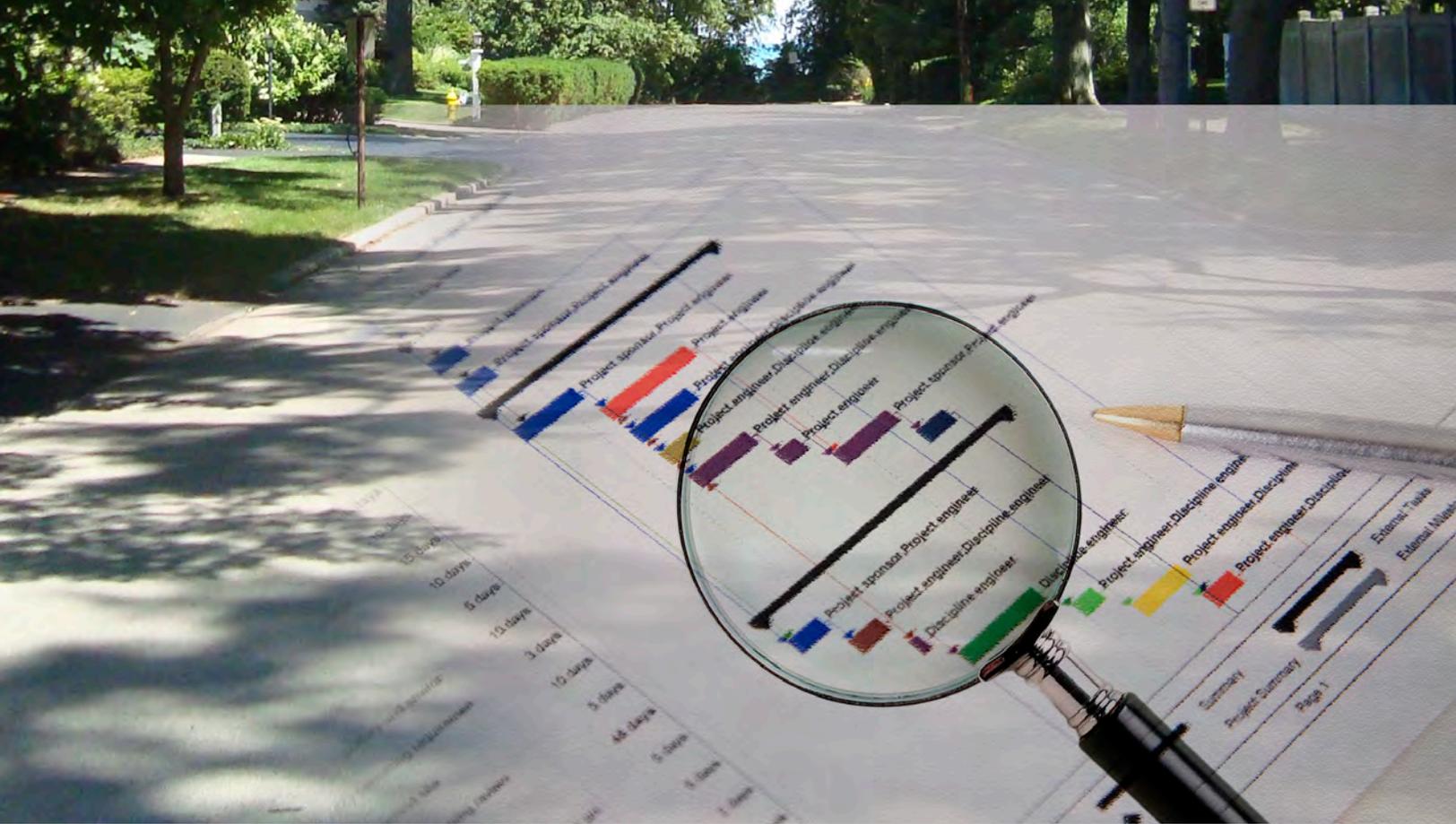
It is assumed that while in the field, the Part-time Construction Inspector will be based in office space provided by the Village of Winnetka at its Public Works facility. If such space is not available, requirements for the provision of temporary office space and support equipment will be incorporated into the bidding documents for select storm sewer projects.

- **Office Engineering Services During Construction** – Engineering staff based in MWH's Chicago Office will provide on-call support to the field engineering team during the course of construction activities in Winnetka. Key responsibilities will include responding to contractor RFI's , review of specialized shop drawings or other submittals, review of contractor proposed change requests, and provision of on-call technical support. For the purpose of this proposal, an allowance of approximately 16 person-hours of effort per month is allocated for these services.
- **Construction Phase Outreach** – The MWH Project Manager will continue to serve as the primary point of contact for the Village through the construction phase of the project. In this role, the Project Manager will continue to participate in quarterly briefings to the Village Council and periodic (no more than one per quarter) neighborhood meetings in areas affected by the construction.

SECTION FOUR

# Preliminary Schedule





## SECTION 4

# Preliminary Schedule

**Figure 19** on the following page presents a high level schedule of the major activities associated with the permitting, engineering, and construction of the Willow Road Stormwater Tunnel and Area Drainage Improvements Project. As shown, project activities are projected to extend over a period of approximately 4 years.

Activities planned for much of Year 1 focus on preliminary engineering tasks, workshops, and external permitting meetings associated with the refinement of the design concept and submittal of the initial permit application for the new outfall to Lake Michigan. Evaluation of CMAR qualifications and selection of the CMAR contractor are also scheduled for Year 1.

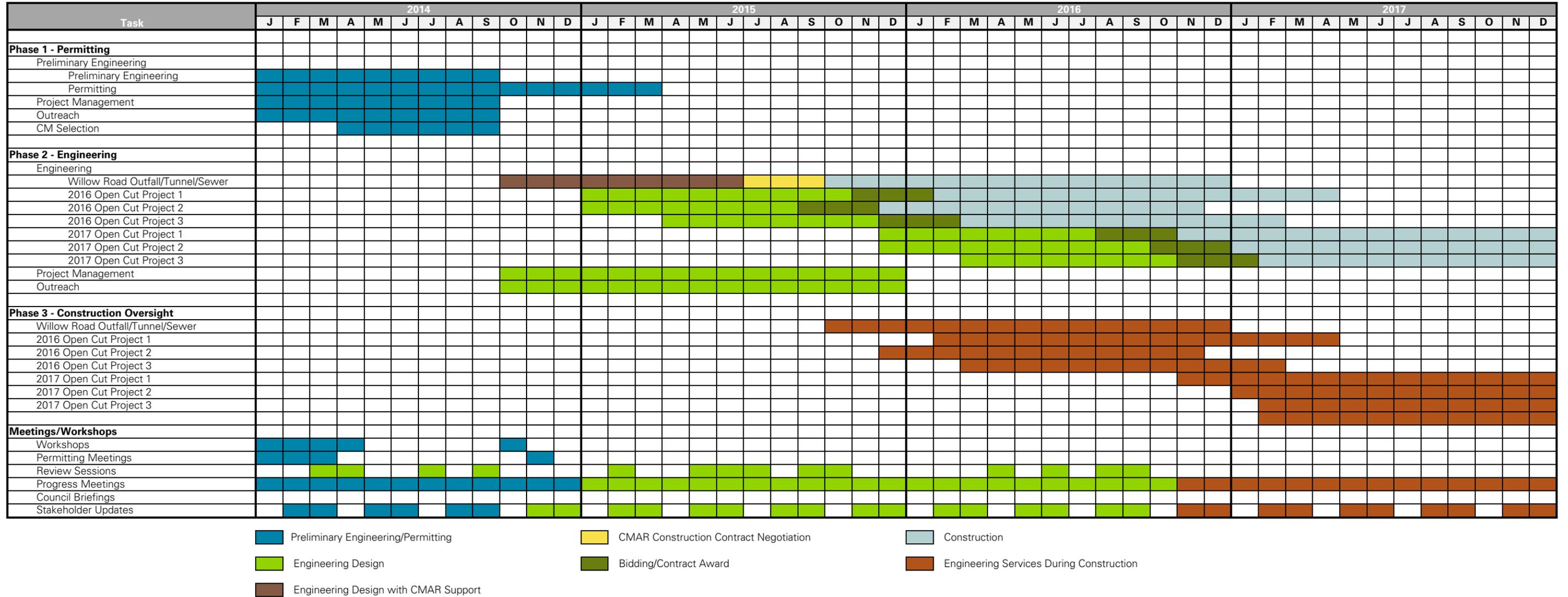
Late in Year 1, the focus of the project shifts toward detailed design engineering and collaboration with the CMAR contractor on the major Willow Road Outfall/Sewer/Tunnel project. These activities, along with detailed design efforts related to three of the tributary storm sewer projects and periodic design submittal reviews, continue through Year 2 of the program leading up to negotiation of the construction contract for the Willow Road project and bidding of these first tributary projects at the end of the year.

As construction begins on the Willow Road project and the first group of tributary projects in Year 3, design efforts and associated reviews will be concentrated on the remaining three tributary storm sewer projects. By the end of Year 3, design and bidding activities are projected to be generally complete for the last three projects.

Year 4 efforts will focus on completion of the first group of tributary projects, construction of the second group of tributary projects, and connection of all the new sewers to the completed Willow Road trunk sewer. As new sewers are connected to the Willow Road trunk sewer, areas tributary to these projects will begin to see the overall benefit of the improvement program in terms of increased flood protection.

This schedule represents one option for full implementation of the proposed drainage improvements over a four year period. While it is certainly not the only feasible schedule, it does reflect the significant time likely to be required to obtain the final permit for the new outfall and the benefits of staggering construction of some of the tributary projects so as to avoid an unacceptable concentration of construction disruption within the community.

**FIGURE 19**  
**WILLOW ROAD STORMWATER TUNNEL AND AREA DRAINAGE IMPROVEMENTS**  
**PROPOSED SCHEDULE**



SECTION FIVE

# Supporting Documents



# Doug Herbst, DBIA

MWH — CMAR Specialist



## EDUCATION/FORMAL TRAINING

BA, Physics, Adelphi University  
MS, Environmental  
Engineering, Manhattan  
College

## LICENSES/REGISTRATIONS

Professional Engineer (licensed  
not registered) – NY, NJ  
Designated Design Build  
Professional – Design Build  
Institute of America

## Summary

Mr. Herbst has more than 28 years of experience encompassing a wide range of work in the technical, procurement, financial and legal arenas of environmental projects, facilities and project development. He has a special focus and expertise in the alternative delivery approaches (construction management at risk (CMAR), design/build (DB), design/build/operate (DBO) and other forms including ownership and financing). Mr. Herbst has a wealth of experience from both the public and private perspectives, and as a municipal advisor, he has advised many state and local governments on the various aspects of alternative delivery projects. He has developed, structured and negotiated numerous alternative delivery transactions from the private side. Mr. Herbst's past experiences include a role as an advisor on a \$240M DB bio-solids project and \$80M DBO combined heat and power project both in Washington DC. He is currently an advisor for the Clark County Water Reclamation District, NV for a design-build wastewater treatment project, and a design-build wastewater project for the Metropolitan Sewer District of Greater Cincinnati, Ohio. Mr. Herbst has served as lead advisor to Houston, TX on the procurement, selection and negotiation of a DBO project for a large water treatment facility and conveyance system. He has acted as an advisor for public private partnership transactions in transaction in New York, South Carolina and Alabama, and served in various capacities as an advisor to local governments in Florida, South Carolina. He is the author of the ACEC DBO Manual and authored numerous articles on a wide range of topics involving alternative delivery arrangements.

## Relevant Experience

### ***DBO Advisor, Northeast Water Purification System, Houston Area Water Corporation, Houston (HAWC), TX***

The \$142M system consisted of a 40-mgd water treatment facility, an intake and raw water pump station, high service pump station, storage tanks and 61,000 Lft of 42- and 84-in treated water transmission lines. Mr. Herbst was responsible for development of the procurement strategy through interactive workshops, preparation and review of the RFQ and RFP, management of procurement process, interviews and evaluations. He developed the first draft of DBO agreement with company counsel which was turned over to HAWC legal counsel and assisted in finalization of DBO contract, selection workshop and contract negotiations. An essential

feature of the procurement and contract was the negotiated change order for the HAWC to expand the capacity of the plant from 40 mgd to 80 mgd.

### ***CMAR Advisor, Surface Water Facilities, San Jacinto River Authority (SJRA), Conroe, TX***

The surface water facilities included a raw water intake and pump station, water treatment plant (initial capacity 30-mgd), high service pump station and storage. The estimated value of the project was \$190M. Mr. Herbst was responsible for development of the procurement strategy through interactive workshops, preparation of RFQ and RFP, management of procurement process, interviews, evaluations and review of SOQs and proposals. He provided assistance in CMAR contract preparation, selection workshop, negotiation and preconstruction services workshop with selected CMAR prior to negotiations which included partial co-location and team building facilitated session inclusions.

### ***CMAR Advisor, Southeast Water Purification Plant Contract Operations Study, City of Pasadena, TX***

The study consisted of reviewing all underlying contractual agreements since 2006 whereby the City of Houston operated and maintained the plant for the Co-Participants. This evaluation was needed to determine the roles, responsibilities, obligations, risk and liabilities. This was an essential part of developing a move-forward decision as to whether to re-negotiate the existing arrangement with the City of Houston or pursue a contract operations approach. The study also included an industry sounding survey to assess the potential for contract operations and ability to reduce costs and better allocate O&M risks.

### ***Lead Advisor, Biosolids Management Plant, DC Water***

Mr. Herbst assisted in setting the procurement strategy with client and was principal author of the RFQ's and RFP's for both projects. He also assisted in the development of the DB and DBO contracts working with the team's legal advisor. Intimately involved with development of both projects technical requirements (bridging). The unique aspect of the DB project was incorporation of a sole sourced technology selected by client into the DB project procurement process and contract. Conducted client workshops on procurement strategy development, evaluation criteria development and proposal scoring method

# David Pott

Baetis Environmental Services, Inc.  
Principal Aquatic Ecologist, Founder



## EDUCATION/FORMAL TRAINING

Certificate in Statistics, Loyola University Chicago

Master of Science, Environmental Systems Engineering, Clemson University

Bachelor of Science, Chemistry and Biology, Appalachian State University

Ecosystem Modeling for TMDL Development: Modeling Multiple Environmental Stressors

TMDL Science Issues 2003, Water Environment Federation

Aquatic Invertebrates, University of Michigan Biological Station

SAS Macro Language, SAS Institute, Inc.

## LICENSES/REGISTRATIONS

Professional Engineer (licensed not registered) – NY, NJ

Designated Design Build Professional – Design Build Institute of America

## Relevant Experience

### *Total Maximum Daily Loads and Load Reduction Strategies, IL*

Subcontractor in a 3-yr indefinite delivery contract with the Illinois EPA in support of the TMDL program. Lead for development of TMDLs and load reduction strategies for the Big Muddy Watershed.

### *Development of TMDLs and Implementation Plans No. 3, IL*

Subcontractor in a 3-yr indefinite delivery contract with the Illinois EPA in support of the TMDL program. TMDLs and watershed implementation plans were pre-pared for phosphorus, DO, fecal coliform bacteria, and manganese.

### *Vermillion River TMDL, MN*

Development of loading functions for a fecal coliform bacteria TMDL in the Vermillion River.

### *Development of TMDLs and Implementation Plans No. 1, IL*

Project manager for development of Illinois' first TMDLs. Four watersheds were contracted, involving TMDL development for nutrients, DO, and siltation. Implementation plans were also developed.

### *Galena River Watershed Plan, IN*

Development of watershed-based plan in accordance with EPA's 9-key elements, including watershed characterization, source identification, pollutant loading estimates, critical review of state-prepared TMDL, development of action plan, BMP modeling, implementation planning.

### *Watershed Quality Analysis, IL*

Design and implementation of a diagnostic analysis of several urban watersheds emphasizing wet weather impacts to streams in Rockford. Services include O&M of automated stormwater sampling, baseflow sampling of receiving streams, stream bioassessments, Phase 1 Permit compliance support, 319 grant support, BMP planning and design.

## Experience Highlights

- Over two decades of broad-based water quality experience in the US and overseas
- Current TMDL developer for Illinois EPA
- Consultant to Illinois DNR Coastal Management Program

- Clean Marina Program
- Principal author of Illinois' Coastal Nonpoint Pollution Control Program
- Environmental and regulatory consultant to Northwestern University for modifications to NPDES permit and central utility plant outfall to Lake Michigan
- Watershed Ecologist for Galena River Watershed Plan in Indiana Coastal Management Zone
- Authored over two dozen scientific publications
- Urban and agricultural non-point source assessment and control experience in India, Egypt, Jordan, El Salvador and the US
- Expert in water quality and aquatic habitat simulations, including:
  - QUAL2K and other Streeter-Phelps based methods for predicting receiving water effects of pollutant loads
  - Various programs packaged in BASINS, both simulations and data mining
  - Empirical water quality modeling (linear, log-linear, nonlinear regression)
  - QHEI, HEP, SHAP, Rosgen geomorphic analyses, and other aquatic habitat evaluation tools

### Selected Publications & Presentations

"A Comparison of Methods for Meeting Monitoring Objectives using Macroinvertebrate Data in the Chicago Area Water-way System," presented to North American Benthological Society, May 2009 (with several co-authors)

"Effectiveness of the Meadow Lake "Clean Lakes" Project, submitted for presentation at the North American Lake Management Society Annual Conference, Indianapolis, IN, November, 2006

"Effects of Groundwater Stabilization and Nutrient Load Reduction at Meadow Lake, Illinois," presented to Illinois Lakes Management Association, March 2006 (K. Dreisilker, co-author)

"A Water Quality Monitoring Partnership Addresses Multiple Regulatory Programs," Illinois Water Environment Association, Rockford, IL, March 2004 (M. Johnson, B. Eber co-authors)

"Development of Agricultural TMDLs," presented to a training workshop hosted by Region 5 USEPA, Madison, WI, August 2003

"The Vermillion River TMDL: Implementing a General Spreadsheet Approach," Working Together in a Climate of Change to Manage Minnesota's Water Resources Conference, Minneapolis, MN, April 2002

"Urban Concrete Channels – the End of an Era," Proceedings, Watersheds 2002, sponsored by the Water Environment Federation, February 2002 (T. Chapman, M. Headrick co-authors)

"Developing TMDLs in the Absence of Numeric Criteria," TMDL Science Issues Conference, Water Environment Federation, March 2001 (D. Mulvey, B. Yurdin co-authors)

"Diverse Pollutant Loadings Require Integrated Watershed Planning," Proceedings, 5th International Conference on Diffuse/Nonpoint Pollution and Watershed Management, June 2001 (with three co-authors)

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## Agenda Item Executive Summary

**Title:** Progress Report: Urban Land Institute Recommendations

**Presenter:** Robert M. Bahan, Village Manager

**Agenda Date:** 01/14/2014

**Consent:**  YES  NO

<input type="checkbox"/>	Ordinance
<input type="checkbox"/>	Resolution
<input type="checkbox"/>	Bid Authorization/Award
<input type="checkbox"/>	Policy Direction
<input checked="" type="checkbox"/>	Informational Only

### Item History:

The Urban Land Institute (ULI) Chicago completed its two-part Technical Assistance Panel process and made a final report to the Village Council on August 6, 2013. On September 10, 2013, the Village Council held a strategic planning goal session-- leading to a Council Study Session dedicated to an in-depth review ULI recommendations on October 8, 2013.

### Executive Summary:

Since the Council's prioritizing of ULI recommendations and the 2014 budget process, progress has been made in three key areas: regulatory review, economic development staffing, and physical improvements. In addition, as directed by the Council, the Business Community Development Commission (BCDC) has been evaluating parking restrictions, height/density standards, and the Retail Overlay District. A report from Mike D'Onofrio summarizes their accomplishments to-date.

Staff anticipates a number of items will be ready for Council review and input over the next two months, including:

- Liquor License Ordinance Review: January 21, 2014 Regular Meeting (Introduction) and February 4, 2014 Regular Meeting (Tentative Adoption)
- Fire Sprinkler Requirement Review: February 11, 2014 Study Session
- Commercial parking district & building height regulations (BCDC): February 11, 2014 Study Session
- Traffic Signal and Utility Pole Painting Bid: March 4, 2014 Regular Meeting
- Retail Overlay District recommendations (BCDC): March 11, 2014 Study Session
- Economic Development Staffing Contract Options: March of 2014

### Recommendation / Suggested Action:

Informational report.

### Attachments:

- 1) Agenda Report, Manager Bahan
- 2) Agenda Report, Michael D'Onofrio

## AGENDA REPORT

TO: Village Council

PREPARED BY: Robert M. Bahan, Village Manager

DATE: January 9, 2014

SUBJECT: Progress Report: Urban Land Institute Recommendations

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### **Background**

The Urban Land Institute (ULI) Chicago completed its two-part Technical Assistance Panel process and made a final report to the Village Council on August 6, 2013. On September 10, 2013, the Village Council held a strategic planning goal session and expressed a desire for a more in-depth review of ULI's study recommendations. A Study Session on the ULI recommendations was held October 8, 2013. Based on the direction received from the Council at that time and the subsequent items outlined in the 2014 budget, progress has been made in three key areas. A summary of actions to-date is provided below.

### **Regulatory Review**

A number of ULI's recommendations focused on a review of the Village's regulatory environment and improving internal processes. From the Council's goal setting, two related items were prioritized for short-term evaluation, including: evaluating the Village's fire sprinkler requirements and revisiting current liquor licensing requirements. Staff anticipates bringing both these items forward for Council review and input in the next month.

#### ***Fire Sprinkler Requirements***

Fire Chief Alan Berkowsky appeared before the Council on January 7, 2014—presenting a recent appeal to the fire sprinkler requirements. His materials included options the Council may wish to consider if it wishes to revise the current Village Code. The modification options outlined were: 1) Modify current Code with some economic development incentives; 2) Adopt an overall retrofit ordinance for certain commercial structures/areas; and 3) Be more specific on which buildings require sprinklers. Chief Berkowsky will be available to present these materials at the February 11 Study Session.

#### ***Liquor Licensing***

We have identified three areas for potential changes to the administration of liquor licenses: (i) implementing procedural changes administratively, without amending the

Village Code (“WVC”); (ii) updating and modifying liquor license categories, definitions and regulations to allow for more variety and flexibility; and (iii) reducing or eliminating the various “rider licenses” that attach to the basic license.

### **1. Procedural Changes**

Renewal requirements are established by WVC Section 5.09.190 and address the eligibility of both the licensee and the licensed premises. First, the licensee must meet the same eligibility requirements as for the original issuance and not having any delinquent Village accounts. Second, the premises must remain suitable for the business and the licensee must describe all work on or alterations to the licensed premises during the term of the current license.

Since both the licensee and premises eligibility are the same for both the initial application and renewals, the renewal process has essentially been a duplication of the initial application process, complete with annually submitting the same multi-page form.

We are exploring having the licensee complete a disclosure form that is used to identify changes from the prior year. If changes are identified, *e.g.* a change in the legal form of the business, the addition or deletion of individuals subject to background checks, a change in the business manager or in the premises, or a new lease, then the licensee would be instructed to complete only the relevant sections of the application form. Proof of dram shop insurance and licensing by the State would still be required. This procedural change would create annual renewal efficiencies for the licensee and staff who are responsible for administering the license renewals.

### **2. Amendments to License Categories and Regulations**

We have been examining the Village’s license classifications and regulations, in light of the ULI Study, to see if there are better ways to define the license classifications so that existing licensees can thrive and new and different types of food services can be attracted to Winnetka’s business districts. We are also looking at the liquor licensing regulations in similar communities in the area for suitable examples of other types of license categories and liquor service for Council consideration.

Some examples of possible changes include:

- Allowing liquor service later into the evening (current limits are 11:00 p.m. for restaurants; 10:00 p.m. for sidewalk service on Friday and Saturday; and 9:00 p.m. for sidewalk service the remainder of the week).
- Creating limited service categories that allow for beer and wine only.
- Looking at different types of restaurants and amending the Village’s definitions as necessary. For example, the definition of “full service restaurant” could be amended to loosen restrictions on the service of alcoholic beverages without service of a full meal (as long as food remains available during business hours), as well as on how orders are taken and food is delivered. In addition, different types of restaurants could be defined, to allow for different types of liquor service, depending on how the food is served. For

example, allowing a liquor license to be issued to a restaurant that has customers order and pick up food and beverage orders at a service counter to eat at a table, would allow a restaurant such as Marco Roma to resume serving wine to its customers, and would have facilitated the licensing process for D's Haute Dogs.

In addition to the substantive changes, we are also looking at the licensing fees, to assure that the fees charged by the Village of Winnetka are comparable to the fees charged for similar licenses in nearby communities and do not serve as a deterrent to business development.

### **3. "Rider" Licenses**

The Liquor Ordinance provides for three different "rider" licenses that attach to the basic liquor license: (i) packaged meal (take-out) rider; (ii) sidewalk restaurant rider; and (iii) television rider. The packaged meal and sidewalk restaurant riders each require an additional fee.

We have been discussing the possibility of Code amendments that would eliminate the sidewalk and television riders and simply roll them into the basic license category. For example, televisions could be part of a "casual dining" restaurant license definition, while a "fine dining" or "full service" restaurant would exclude televisions.

As for sidewalk service, we propose permitting any establishment that serves alcoholic beverages to have sidewalk service. This would eliminate the unnecessary duplication that results from having both a sidewalk business license and a sidewalk liquor service license. It would also allow the extent of the sidewalk service to be defined by the kind of service allowed under the basic liquor license. For example, a full service restaurant could serve wine, beer and mixed drinks, the holder of a beer and wine license could serve only those two types of beverages, and a business like The Wine Shop would only be allowed to serve wine on the sidewalk.

We are already proceeding with the procedural changes outlined in point 1, above, with an eye toward implementing them as soon as possible, hopefully for the 2014 liquor license renewals, which will be processed shortly. (Under Ordinance MC-3-2013, which established the calendar-based fiscal year, the licenses that were issued last April for the 2013-14 fiscal year extend through the end of March, 2014. However, the new license, like all licenses issued since January 1, 2014, will be based on the calendar year, and will expire on December 31.)

We are preparing a draft ordinance addressing the substantive amendments outlined in points 2 and 3, above. The target dates for Council consideration are the January 21 Council meeting for introduction and the February 4 Council meeting for adoption if the Council chooses to act on these recommendations.

## **Economic Development Staffing**

The 2014 Community Development Department budget includes \$100,000 for “Economic Development Initiatives.” These funds were proposed for staffing, programming/event planning, and data analysis. Staff has been exploring options for an economic development staffer, who could be charged with some of the ULI recommendations prioritized in the 2013 strategic planning process. The scope of work targets the following areas:

- Process Improvement—analyzing current Village processes, researching best practices, offering recommendations that would streamline the Village’s permitting/approval process, as well as implementing new procedures and evaluating results.
- Property Inventory—developing a database of available property for business recruitment, expansion and retention; contacting retailers and site selection consultants to advise of available space; maintain contact with major property owners; identify and establish contact with businesses that may be interested in locating in Winnetka.
- Strategy and Material Development—reviewing current application materials, designing user guides, creating website content, outlining initial marketing strategies, and researching comparable community branding programs.

ULI highlighted the need to implement a marketing strategy and branding program, inclusive of all three business districts; the Council concurred this was a priority recommendation. The image of the community and its openness to the market will certainly be an influence on the Village’s long-term viability to attract and retain businesses. The Shopper Survey conducted by ULI as part of TAP 1 was a first step in understanding the business environment and the types of businesses that residents and visitors to our community hope to see.

A number of our neighboring communities are also engaged in marketing campaigns or branding initiatives. Staff is researching the work in the Villages of Lake Bluff and Northfield and the Cities of Lake Forest and Highland Park. Several of these municipalities have hired outside firms, though the goal of each project varies. While our neighbors’ experience will be good guidance, Staff believes improving our internal processes and more thoroughly understanding our existing assets and strengths is a valuable first step. The budget allocated is sufficient to allow work on marketing/branding this year.

At this time, it appears a contractual relationship will allow the Village the most flexibility in hiring a unique skill set, matched with the current objectives. A contractual relationship will also permit us to set specific benchmarks about the work to be accomplished and the deliverables we expect. Staff is interviewing several candidates, who all have extensive economic development background in the North Shore. We hope to learn about their various knowledge, skills, and abilities and then clarify a scope of work. A contractual relationship would then establish the timeframe and deliverables. It

is expected the next step of hiring a contractor will be brought before the Council in March of 2014.

### **Physical Improvements**

The Council also approved \$450,000 in the 2014 Business District “Downtown” Revitalization Fund budget to pursue several physical improvement projects highlighted in the ULI study. Funds were specifically designated for painting and light enhancements to the Hubbard Woods Parking Deck as well as for traffic signal and utility pole painting; other budgeted funds will allow the Village flexibility to identify additional streetscape and beautification efforts, conduct further planning for the Post Office Site, and entertain other redevelopment opportunities that arise.

Planning for these physical improvements is already underway. Staff anticipates a bid for the traffic signal and utility pole painting program will come before the Council on March 4, 2014. This will allow the Village to expand the program completed in the Hubbard Woods District in fall, 2013, to the rest of the community. Also, after a shortened season for the first year of the Business District Floral Program, Staff is initiating a more inclusive process for 2014. We have an internal planning meeting scheduled and then plan to seek input from local garden clubs, as well as merchants (such as the Hubbard Woods Design District) on floral basket and planter design. Staff anticipates an earlier bidding process this year that will allow the baskets to be on display for a full season. Though we had much positive feedback in 2013, the additional stakeholder input will help us improve the design with a more robust planting for the coming season.

### **Conclusion**

This is the first report of 2014 on the implementation of ULI’s recommendations, which remain a high priority. We welcome Council feedback and guidance on these matters.

## AGENDA REPORT

**TO:** Village Council

**PREPARED BY:** Michael D'Onofrio, Director of Community Development

**SUBJECT:** Update on ULI Recommendations – BCDC

**DATE:** January 9, 2014

ULI's Technical Assistance Panel made a number of recommendations which the Village could undertake in order to enhance the business climate. The recommendations included short-term, mid-term and long-term measures. In order to begin working on the recommendations, on November 4, 2013 Village President Greable met with Business Community Development Commission (BCDC) Chair Jason Harris, Village Manager Bahan and me in order to discuss the recommendations where the BCDC could assist in evaluation.

As a result of the meeting discussions, it was agreed that the BCDC would be tasked with examining three specific areas of ULI recommendations. These three areas included:

1. Review of the Zoning Ordinance's Parking requirements;
2. Evaluation of building height regulations in the commercial districts, and;
3. Analysis of C-2 Commercial District Retail overlay standards, boundaries and use limitations.

In order to accomplish a quick turnaround on these studies and tasks, the BCDC began meeting more frequently, increasing meetings to twice monthly. Two meetings in November focused on commercial district parking standards, evaluating Winnetka's commercial parking standards across comparable North Shore communities.

In addition, November BCDC meetings introduced the subject of building height regulations, focusing on the history behind the Village's current 2 ½ story commercial building height limit. Two meetings in December saw the BCDC finalize its review of parking standards, and resulted in the BCDC drafting a recommendation to lessen parking requirements in Business Districts for residential units, along with related zoning language modifications which are directed at easing the parking process requirements when changing building uses.

The majority of the second December meeting was spent reviewing data pertaining to the Retail Overlay District. Data was collected and distributed showing the number and size of commercial tenancies in each of the business districts (along with the number and size of spaces lying within, and outside of, the Overlay District boundaries).

It is anticipated that the BCDC will finalize its recommendations on the commercial parking district and building height regulations at its January 27 meeting. As such, its recommendations on those two items will come before the Village Council at the February 11 Study Session. With respect to the Retail Overlay District, the BCDC still has work to do with respect to its review and recommendations. It is expected that the BCDC will complete its review of the Retail Overlay District in February, with its recommendations coming before the Village Council at the March 11 Study Session.