Oak Brook Park District
1450 Forest Gate Road
Oak Brook, IL 60523

REQUEST FOR LETTERS OF INTEREST AND STATEMENTS OF QUALIFICATIONS FOR PROFESSIONAL SERVICES

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REQUEST FOR LETTERS OF INTEREST AND STATEMENTS OF QUALIFICATIONS FOR PROFESSIONAL SERVICES

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RFQ NOTICE
REQUEST FOR LETTERS OF INTEREST, STATEMENTS OF QUALIFICATIONS AND PERFORMANCE DATA FOR PROFESSIONAL SERVICES

The Oak Brook Park District (the "District") is soliciting letters of interest, statements of qualifications, and performance data from qualified professional civil engineers to provide an analysis of the existing gabion weir (low-head dam) and foot bridge crossing over Ginger Creek at Central Park, to make recommendations and create stamped engineered plans for recommended improvements and potential grant funding opportunities for the project.

The Request for Qualifications and Submittal Requirements (the "RFQ") for the Project is on file and available for pick up at the District's Administration Office, in the Family Recreation Center at 1450 Forest Gate Road, Oak Brook, IL 60523, or by PDF format from the District's website (www.obparks.org/bids).

The RFQ will be available Monday – Friday, 9:00 a.m. – 5:00 p.m., beginning Thursday, August 25, 2022 through Thursday, September 8, 2022.

Responses to the RFQ shall be submitted in a sealed, opaque envelope and marked with "Submittal for Professional Services for Central Park Bridge Project". Responses must be received on or before 12:00 p.m. on Thursday, September 8, 2022 in the Administrative Office of the Oak Brook Park District, 1450 Forest Gate Road, Oak Brook, IL 60523. No e-mail or fax submittals will be accepted.

The firm(s) selected must comply with applicable federal, state and local laws, rules, regulations and executive orders including but not limited to those pertaining to equal employment opportunity.

The selection of the successful firm(s) shall be at the District's discretion and shall be made pursuant to the provisions of the Local Government Professional Services Selection Act, 50 ILCS 510/0.01, *et seq.* The District reserves the right to reject any and all proposals, or to accept any portion of the proposal, to waive any formality, technicality or irregularity in any proposal, and to be the sole judge of the value and merit of the proposals offered. Such decisions by the District shall be final.

Laure Kosey
Executive Director
Oak Brook Park District

Oak Brook Park District
1450 Forest Gate Road • Oak Brook, IL 60523-2151
Phone: 630-990-4233 • Fax: 630-990-8379 • www.obparks.org

August 25, 2022

Re: Request for Letters of Interest and Statements of Qualifications for Professional Services ("RFQ")

Deadline: September 8, 2022 at 12:00 p.m.

Location: Oak Brook Park District Administration Office
Family Recreation Center
1450 Forest Gate Road
Oak Brook, IL 60523

Dear Vendor:

Enclosed you will find information relating to the Oak Brook Park District's (the "District" or the "District's") request for letters of interest and statements of qualifications from qualified professional civil engineers to provide an analysis of an existing gabion weir (low-head dam) and bridge crossing over Ginger Creek.

Enclosed is the project understanding. Please submit one (1) original and two (2) copies of your proposal to the location and by the deadline set forth above. Proposals received after the deadline set forth above will not be considered. It is the sole responsibility of the respondent to ensure that the District has received the proposal on time. Electronic or facsimile transmission will not be accepted.

For further information regarding the RFQ, please contact Laure Kosey, Executive Director, at 630-645-9535.

OAK BROOK PARK DISTRICT

Laure Kosey, Executive Director

We strive to provide the ***very best*** in **park** and **recreational opportunities, facilities** and **open lands** for **our community**.

OAKBROOK PARK DISTRICT
1450 Forest Gate Road
Oak Brook, IL 60523

REQUEST FOR LETTERS OF INTEREST AND STATEMENTS OF QUALIFICATIONS FOR PROFESSIONAL SERVICES

The Oak Brook Park District (the "District") is soliciting letters of interest and statements of qualification ("RFQ") from qualified professional civil engineers who can provide an analysis of the existing gabion weir (low-head dam) and bridge crossing, and to make recommendations, create stamped engineered plans for recommended improvements, and recommend potential grant funding for the project. ("Project").

The selection of the successful firm(s) for the Project shall be at the District's discretion and shall be made pursuant to the provisions of the Local Government Professional Services Selection Act, 50 ILCS 510/0.01, *et seq.* The District reserves the right to reject any and all proposals, or to accept any portion of the proposal, to waive any formality, technicality or irregularity in any proposal, and to be the sole judge of the value and merit of the proposals offered. Such decisions by the District shall be final.

A. PROJECT UNDERSTANDING

The Oak Brook Park District has recently made significant improvements to Central Park. Ginger Creek bisects Central Park east/west through the entire property. The recent improvements are located on the north side of Ginger Creek and have been partially funded through State of Illinois grants. The Park District desires to improve accessibility for both pedestrians and maintenance vehicles from the south to the north section of Central Park over Ginger Creek. Currently, a concrete/asphalt/steel pedestrian walk connects the two sections at a low head dam located over Ginger Creek. The low head dam is constructed of gabion baskets with the low flow concrete channel covered with a steel grate. Frequently, during heavy rainfall events, the path is impassible due to high water conditions. Additionally, the high velocity of the water flowing over the dam is a safety concern, and the crossing is not ADA accessible.

It is the goal of the Park District to replace the existing creek foot bridge crossing with a new, aesthetically pleasing elevated bridge structure, and review the condition of the dam/gabion weir structure to determine the preferred option for mitigation, renovation, or removal of the structure with minimal impact to the existing water level of Ginger Creek. Therefore, the Park District is requesting proposals from qualified engineering firms who can provide these services.

B. SCOPE OF SERVICES

The information described below shall be the expectations and requirements of the engineering firm that is awarded the project.

Existing Conditions

Topographic survey - Preliminary topographic features shall be obtained for the project site.

Wetland Delineation – A wetland delineation for the project area has previously been prepared and will be made available for review.

Hydraulic Evaluation for Each Alternative

Obtain the regulatory hydraulic model for this section of Ginger Creek and perform the hydraulic analysis necessary to determine the hydraulic conditions for the concept alternatives. Alternatives should include a combination of a new bridge and potential modifications to the existing dam configuration.

Conceptual Grading Plans for Each Alternative

A preliminary grading layout shall be prepared for each alternative and the extent of floodplain and floodway fill shall be quantified and the required compensatory storage volume identified by the permitting agency.

Structural Concept Plans for Each Alternative

Up to three structural configurations will be considered and reviewed as part of the concept alternative. The structural elements shall consider the proposed bridge structure and potential dam modifications for each option.

Cost Estimates for Each Alternative

A total of three concept alternatives shall be prepared for consideration by the Park District. The concepts shall conform to the identified goals and objectives outlined by the Park District during the initial project kick-off meeting. The concept alternatives shall include scaled renderings for illustrative purposes. Preliminary cost opinions shall be prepared for each alternative.

Permitting Requirements

A summary of the permitting requirements associated with each concept shall be provided including the permitting agency, type of permit, anticipated review time and any anticipated fees for each permit. Any requested changes made by permit review officials shall be made by the Engineer without any additional cost to the District.

Construction Documents

Engineer shall prepare complete Construction Documents for the Project. The Construction Documents shall consist of Engineered Drawings, Specifications, and other necessary documents as required to seek proposals/bids from qualified General Contractors.

Construction Administration

Firms will be expected to provide resident engineers, architects, inspectors and any other technical personnel necessary to observe, monitor and document a contractor's progress on a project from the start of field operations to final completion.

C. SELECTION PROCESS

The District will select firms on a Quality Based Selection process. The selection process will be made in accordance with the Local Government Professional Services Selection Act, 50 ILCS 510/1 *et seq*. (the "Act").

1. Evaluation of Written Submissions:

   An evaluation committee, consisting of District staff members, will review and evaluate all written responses to the RFQ in accordance with the general evaluation criteria set forth below (Selection Criteria) and based on such other information and matters as the committee deems necessary or desirable to determine the qualifications, responsibility, and suitability of each firm submitting a proposal in response to the RFQ.

   After conducting such review and making such evaluations, the District may select not less than three (3) qualified firms (unless the District receives less than 3 submissions) to proceed to the oral interview stage of the selection process (a "Finalist" and/or the "Finalists"), or may reject all proposals.

2. Oral Interview:

   If one or more Finalists are selected, an oral interview or interviews may be conducted by the District. At the interview, each Finalist shall be required to explain its submission in detail, including a full discussion of how its approach to the Project satisfies the general evaluation criteria set forth below (Selection Criteria). In addition, each Finalist shall be required to answer questions posed by the District. Oral interviews may be tape recorded.

   Upon completion, review and consideration of the oral interviews, the District may request additional information from one or more of the Finalists if deemed necessary or desirable by the District to assist it in evaluating a Finalist's qualifications for the Project.

3. Ranking:

   Based upon the written submissions, oral interviews and any supplementary information submitted in response to the District's request, and based upon the general evaluation criteria listed in below (Selection Criteria), such other criteria as the District determines appropriate, and such independent investigation (e.g. discussions with previous clients) as the District determines to be necessary or

desirable to assist it in evaluating a Finalist's qualifications, the District will rank the Finalists in the order of their qualifications for the Project.

4. Negotiations:

Following such ranking, the District will contact the highest ranking firm and attempt to negotiate a contract for the services at a fair and reasonable compensation taking into consideration the Project budget and the estimated value, scope, complexity and nature of the services to be rendered.

If fewer than three (3) submissions are received and the District determines that the firm(s) which did submit statements of interest is (are) qualified, the District may negotiate a contract with any such firm(s) in accordance with the requirements of the Act.

The Oak Brook Board of Park Commissioners will make the final selection of the architect/engineer for each Project.

D. SELECTION CRITERIA

The evaluation committee shall review the responses to the RFQ for the Project. The engineer for the Project will be selected based on the following criteria (in no order):

1. Qualifications and experience of firm for the Project;
2. Qualifications and experience of staff assigned to the District;
3. Experience/Performance -- Review of past performance on public projects, evaluations of references, etc;
4. Method and/or approach to the Project;
5. Expressed understanding of issues related to the Project; and

E. SUBMITTAL REQUIREMENTS

Submissions for each Project shall include:

1) Letter of Interest

A letter of interest from the firm, introducing any team members, highlighting the team's proposal for performing the services in accordance with the Project description and meeting the results to be achieved as described in the RFQ.

Provide a cover letter indicating your firm's understanding of the requirements of the specific job proposal. The letter should be a brief formal letter from the prospective firm that provides information regarding the firm's interest in and ability to perform the requirements of the RFQ.

A duly authorized representative of the firm must sign the letter in response to the RFQ. The cover letter should be on letterhead and state the legal name of the firm, phone number, fax number, mailing address and e-mail address.

2) Firm History and Experience

a) Please give a brief history and description of your firm (years in business, type of ownership, type of organization, size of firm, professional affiliations, and mission/vision). Firm will have no less than five (5) years actual business experience in engineering services, with not less than two (2) years performing work for public agencies.

b) Provide an organization chart graphically depicting the staff to be assigned to the specific Project.

c) Please include resumes of all key personnel to be assigned to the specific Project, which should include, but is not limited to: years of experience, degrees, licensure, and etcetera. Attach any certifications, awards, or training that will assist in qualifying your firm for the Project.

d) Provide documentation of firm's licensure to practice engineering services in the State of Illinois. List all in-house design disciplines that your firm provides.

e) Submit descriptions for similar projects your firm has worked on and list your firm's role for each project. List at least three (3) of the firm's recent project references for projects of a similar scope and size that have been completed within a similar timeframe. Provide performance data on these similar projects and describe why they are effective. Experience with park district and other units of local government, non-for-profit or other non-commercial clients is preferred. Grant funding experience for similar projects is preferred. During the interview process we will expect performance data for previous work on the following:

- Project delivery method;
- Start and end dates of the project and start and end dates of your services for the project; the targeted substantial and final completion dates for the project and the actual dates the project was substantially complete and finally complete and if the targeted dates were not met, why not;
- The project budget and whether the project was completed within budget and if not, why not; number and scope (dollar amount/time extension) of change orders and reasons for change orders;
- Disputes on the project (including without limitation disputes between your firm and the Owner or Owner's Representative, your firm and the Construction Manager, or your firm and a contractor or material supplier) and with respect to each dispute, describe the nature of the dispute in detail and how the dispute was resolved. Your information

should include, but not be limited to any litigation, mediation or arbitration proceedings, work suspension or stoppage and suspension or termination of your services.

f) Provide a list of any projects in the past 3years that were not completed.

g) Provide at least three (3) references for any ***sub-consultants*** that will be involved, with ***current*** addresses, principal client representatives, phone numbers and email addresses.

3) Financial and Legal

a) Provide a copy of your firm's most recent audited financial statements.

b) Provide banking and insurance references (include name, titles and contact information).

c) A summary of all claims, litigation, administrative proceedings, arbitration or mediation which has been made against your firm, any of its principals and/or staff within the last five (5) years related to construction, architectural design or other professional services, or business activities. The summary should include claims whether or not a lawsuit was filed or if the claim, the amount of the claim, the type of project and services involved and the resolution of the claim.

4) Firm's Methodology/Approach to the Project

a) Discuss your firm's role, methodology and approach to the scope of services. Firms may suggest different approaches to achieving the objectives.

b) Please provide a description of your team's approach to value engineering, efficient permitting, and working with other consultants.

c) Describe how time will be allocated. Be precise about the division of responsibility.

d) Describe your typical approach to construction observation and administration, including but not limited to your recommended anticipated frequency of site visits for this Project and what you will do during those site visits.

e) Describe post construction services rendered, if any and whether such services are included as part of basic services.

5) The firm's capability to complete a project on schedule.

a). Provide an outline work plan and tentative schedule for the specific Project;

b) Break down work plan/timeline by task.

c) Discuss your firm's method/approach for controlling the schedule of a project.

d) Provide information on your team's current and planned workload and your ability to complete the Project within the desired timeline. Include a statement regarding the key personnel listed in this submission and their availability for the duration of the Project.

6) References/Signature Sheet

On the Reference and Signature sheet included, provide three (3) recent references for similar work. The list shall include the client's name, address, telephone number, project title and description, project location and the contact person.

Without a duly signed and executed Reference and Signature Sheet, the firm's submittal in response to this RFQ will not be considered.

7) RFQ Response Format

a) Submit one (1) original and two (2) copies of your response for the Project, including all required forms and supporting documentation, with the original copy of the submittal clearly labeled "Original."

b) Submissions must be presented on 8 ½" x 11" paper in a loose leaf folder or binder and inserted in a separate sealed, opaque envelope and labeled as "Submittal for Professional Services for Central Park Bridge Project".

c) A cover sheet containing the name of the firm making the proposal including the name, address, and telephone number of a specific contact person for this RFQ.

d) A Table of Contents: All requested information must be presented in the order as listed within the Submittal Requirements.

e) Any supplemental information you wish to provide. These additional supporting documents **should not exceed ten pages**. All submittals shall be bound and on 8.5" x 11" paper. The contents of the response to this RFQ by the successful firm will be referenced in any contract awarded for this Project.

f) Submittals become the property of the District. The cost of preparation of proposals shall be the sole obligation of the submitting firms; the District is not liable for any costs incurred by submitting firms. The District, at its sole discretion, may waive any informalities and act in what it determines to be in the District's best interest. Submissions will not be returned to the individual or the company that has submitted the proposal.

Submissions are due on or before September 8, 2022 at 12:00 p.m. at the following address: Oak Brook Park District Administration Office, Family Recreation Center, 1450 Forest Gate Road, Oak Brook, IL 60523.

F. COMPENSATION TO BE EXCLUDED

In accordance with the Local Government Professional Services Selection Act, 50 ILCS 510/1 *et. seq.*, please ensure that submissions and any related materials do not include estimates of costs or proposals in terms of dollars, hours required, percentage of construction cost, or any other measure of compensation related to the Project. Any submission containing cost estimates or other compensation related figures will be considered non-responsive and will not be considered by the District.

G. SELECTION SCHEDULE

RFQ available to the Public	August 25, 2022
Letter of Interest/Statement of Qualifications due	September 8, 2022 12:00 p.m.
Selection of "Short List" for interviews	September 9, 2022
Interviews with top rated firms	September 12-14, 2022
Recommendation of Firm(s)/Approval by Board of Commissioners	October 17, 2022

Request for Qualifications for Professional Services
Reference and Signature Sheet

All firms providing a submittal for "Professional Services" shall include the Reference and Signature sheet completed and signed by the individual providing the submittal in behalf of the firm.

Please provide three (3) recent references for similar work. The list shall include the client name, address, telephone number, project title and description, project location and the contact person

Reference # 1

Client Name: .....

Contact: .....

Address: .....

Telephone Number: .....

Project title: .....

Description of Project: .....

Project Location: .....

Reference # 2

Client Name: .....

Contact: .....

Address: .....

Telephone Number: .....

Project title: .....

Description of Project: .....

Project Location: .....

Reference # 3

Client Name: .....

Contact: .....

Address: .....

Telephone Number: .....

Project title: .....

Description of Project: .....

Project Location: .....

Submitted by:

Name of Firm: .....

Address of Firm: .....

City: ..... State: ..... Zip .....

Submitter's Name: .....

Telephone: ..... E-mail: .....

Oak Brook Park District
1450 Forest Gate Road
Oak Brook, IL 60523

Request for Qualifications for Professional Services –
Oak Brook Park District Information

The Village of Oak Brook, nestled in the eastern suburbs of DuPage County is located near major expressways and is just minutes away from downtown Chicago. This successful upscale community is rich in history and yet offers the amenities that modern families, singles and retirees desire.

The population of Oak Brook averages around 8,091 residents that swells to a population of approximately 100,000 each day as Oak Brook is the headquarters location for 50 of the Fortune 500 companies.

The people of the Village of Oak Brook are fortunate to have the Oak Brook Sports Core, with 269 acres of open green space and sports facilities, which historically has featured gold, polo, trap, skeet, and game shooting; field and target archery, and miles of bridle trails. The Sports Core property now includes the Oak Brook Bath and Tennis Club, Oak Brook Golf Club, the Oak Brook Polo Grounds and open fields. The Sports Core property is zoned Conservation Recreation and is maintained by the Village of Oak Brook.

Additionally, over 390 acres of open land are maintained by the DuPage County Forest Preserve District to protect the natural ecosystem and historical sites of Graue's Mill, Ben Fuller House, and Mayslake Peabody Estate among others.

The Oak Brook Park District was created on November 5, 1962. The Park District serves the residents and corporate residents of Oak Brook, and also welcomes non-residents as well. The Oak Brook Park District owns 7 park sites, including a 40-acre nature sanctuary. In total, it controls approximately 140 acres of land.

The Oak Brook Park District features award winning facilities, parks and programs. The Park District has received the 2015 National Gold Medal Award for Excellence in Park and Recreation Management from the American Academy for Park and Recreation Administration and the National Park and Recreation Association for excellence in agency planning and management.

The Oak Brook Park District amenities include 3 recreational facilities and seven park locations as follows.

Recreational Facility	Location	Recreational Description
Family Recreation Center	1450 Forest Gate Road, Oak Brook, IL 60523	Fitness Center & indoor/outdoor Aquatic Center, Preschool Rooms, multipurpose rooms, kiln, Dance/Exercise Studios, 3 gyms, walking track
Tennis Center	1300 Forest Gate Road, Oak Brook, IL 60523	8 indoor tennis courts, 3 racquetball courts, 1walleyball court, one table top tennis court, sauna, spa, fitness center
Central Park West	1500 Forest Gate Road Oak Brook, IL 60523	Facility used for rentals and recreational programming

Parks	Location	Acreage
Central Park	1450 Forest Gate Rd 1315 Kensington Rd.	173 Acres
Chillem Park	32 Yorkshire Woods Oak Brook, IL 60525	1 Acre
Dorothy and Sam Dean Nature Sanctuary	115 Canterberry St. Oak Brook, IL 60525	40 acres
Forest Glen Park	Wood Glen Lane & Forest Glen St.	16.4 acres
Saddle Brook Park	Saddle Brook & Hambletonian Road	11 acres total (3 locations in Saddle Brook subdivision)

WETLAND DELINEATION & ASSESSMENT REPORT
CENTRAL PARK NORTH FIELDS

WBK Project #190117

Prepared for:

Oak Brook Park District
1450 Forest Gate Road
Oak Brook, Illinois, 60523

Prepared by:

Alyse Olson
Environmental Resource Specialist

Reviewed by:

Natalie Paver, PWS
Senior Environmental Specialist

May 31, 2019

WBK Engineering, LLC
WBKEngineering.com
Part of the Mno-Bmadsen Family

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St. Charles, IL 60174
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WETLAND DELINEATION & ASSESSMENT REPORT
CENTRAL PARK NORTH FIELDS
OAK BROOK, DUPAGE COUNTY, ILLINOIS

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Introduction

WBK Engineering, LLC (WBK) performed a wetland delineation of the Central Park North Fields project area in Oak Brook, DuPage County, Illinois for the Oak Brook Park District on April 22, 2019. The project area is located west of Jorie Boulevard, east of Illinois Route 83, north of Forest Gate Road, and south of Kensington Road in Central Park. The study area is centered at 41.840238°N and -87.952911° W in the W ½ of Section 26, Township 39N, Range 11E (Exhibit 1). The wetland delineation was performed in accordance with the criteria and methods established by the U.S. Army Corps of Engineers (USACE) in their Corps of Engineers Wetlands Delineation Manual (1987) and Midwest Regional Supplement (2010).

Based on the information obtained from the field visit, WBK identified one Waters of the U.S. (Waters 1 - Ginger Creek) with associated areas of wetland fringe and two wetlands (Wetlands 1 & 2). The delineated Waters total 5.662 on-site acres, and the delineated wetlands and wetland fringe total 0.253 on-site acres. Jake Kyrias-Gann from Burns & McDonnell verified the wetland boundaries on May 6, 2019 with Jamie Patterson, the consulting civil engineer for the Village of Oak Brook, and Alyse Olson from WBK. The wetland on site appear to connect to Ginger Creek (Waters 1). Ginger Creek flows to Salt Creek, which is a tributary of the Des Plaines River. The Des Plaines River is a Traditional Navigable Waterway regulated by the U.S. Army Corps of Engineers. Therefore, the wetlands and waters on site appear to be under the jurisdiction of the U.S. Army Corps of Engineers.

Permit Requirements

Under the current regulations, a disturbance of a jurisdictional or isolated wetland area requires a permit (USACE Letter of No-Objection, Regional Permit, Individual Permit and/or DuPage County County-Wide Stormwater and Flood Plain Permit). However, mitigation may or may not be required, depending on the overall impact (> 0.10 acres) to the wetland or Waters of the United States. This determination is at the discretion of the Chicago District Corps of Engineers.

Wetland Determination Methodology

The USACE Wetland Delineation Manual, dated January 1987, identifies the mandatory technical criteria for wetland identification. The three essential characteristics of a wetland are: 1) hydrophytic vegetation; 2) hydric soils; and 3) wetland hydrology. These characteristics are described below:

Hydrophytic Vegetation:
The hydrophytic vegetation criterion is based on a separation of plants into five basic groups:

1) Obligate wetland plants (OBL) almost always occur (estimated probability >99%) in wetlands under natural conditions;

2) Facultative wetland plants (FACW) usually occur in wetlands (estimated probability 67-99%), but occasionally are found in non-wetlands;
3) Facultative plants (FAC) are equally likely to occur in wetland or non-wetlands (estimated probability 34-66%);
4) Facultative upland plants (FACU) usually occur in non-wetlands (estimated probability 67-99%), but occasionally are found in wetlands (estimated probability 1-33%); and
5) Obligate upland plants (UPL) almost always occur (estimated probability >99%) in non-wetlands under natural conditions.

At each data point, vegetation is sampled in plots of varying size based on the type of vegetation being sampled. The following plot sizes are recommended by the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Midwest Region:

Trees	30-ft radius
Saplings/Shrubs	15-ft radius
Herbaceous Plants	1-m^2 plot
Woody vines	30-ft radius

If greater than 50% of the plants present in all strata or layers of the plant community are FAC, FACW, or OBL the subject area is considered a wetland in terms of vegetation (Dominance Test). If the vegetation does not meet the requirements of the Dominance Test, the Prevalence Index (PI) should be utilized.

The PI evaluates the coverage, on a weighted basis of coverage over all strata, of the vegetation within the plot. The PI ranges between 1.0 and 5.0, with a 3.0 or less indicating hydrophytic vegetation is present. If the PI is greater than 3.0, the dominance test is failed, but if there is also a hydric soil and wetland hydrology presence, the observation of morphological adaptations by vegetation can be used to indicate that the hydrophytic vegetation criteria is met.

Morphological adaptations are changes in the structure of vegetation in response to conditions outside the normal character of the plant. These adaptations include adventitious roots, multi-stemmed trunks, shallow root systems developed at or near the surface, and buttressing in tree species. To meet this indicator, more than 50% of the individuals of FACU species must exhibit the morphological adaptations. Care must be given that the adaptations observed are due to wetter conditions that the species is used to as opposed to other factors such as shallow roots present because of erosion of the surface.

Hydric Soils:
Hydric soils are defined in the manual as "soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part." Hydric soil indicators are distinctive characteristics that persist in the soil during both wet and dry periods, and are used to identify hydric soils in the field. Field indicators include color, mottling, gleying, and sulfidic odor. A specific set of indicators has been developed by the USDA Natural Resource

Conservation Service (NRCS) (Field Indicators of Hydric Soils in the United States), which provides a detailed description of what characteristics must be present to be hydric. A soil meets the definition of a hydric soil if it exhibits at least one of these indicators.

Wetland Hydrology:
Indicators of hydric soil and hydrophytic vegetation typically reflect the middle and long-term conditions of a site but not the short term conditions. The wetland hydrology criterion is often the most difficult to determine because of climatological variation. Typically, the presence of water for a week or more during the growing season creates anaerobic conditions indicative of wetland hydrology. Anaerobic conditions lead to the prevalence of wetland plants. The 2010 USACE Regional Supplement for the Midwest Region provides specific indicators in four different groups for wetland hydrology:

1. Observation of Surface Water or Saturated Soils
2. Evidence of Recent Inundation
3. Evidence of Current or Recent Soil Saturation
4. Evidence from Other Site Conditions or Data

If a site exhibits 1 primary indicator or 2 secondary indicators, then it meets the hydrology criteria for a wetland.

Vegetation Data

A meander vegetation inventory was taken at the time of the field visit within the wetland and plant communities. This inventory was entered into a Floristic Quality Assessment (FQA) program, which calculates a value for the Floristic Quality Index (FQI) and Coefficient of Conservatism (C-value). The FQI gives an idea of the quality of the community being inventoried. Wilhelm and Rericha established C-values for plants to give some insight as to the overall quality of the community. Each plant species is rated on a scale of 0 to 10, 0-representing non-native or noxious species commonly found in a variety of habitats, and 10 representing plants found only under specific ecological conditions. Communities containing an abundance of plants with a low C-value suggest that these communities have been disturbed in the past. Communities containing an abundance of plants with a high C-value suggest that specific ecological conditions necessary for their survival are intact thus disturbance is probably minimal and the community maintains at least some of its original integrity.

The native C-values and native FQI values were recorded for the wetland plant communities within the project area. This analysis is required by the USACE Chicago District. These values are shown below in Table 2. The complete FQA for the wetland plant communities are located in Appendix C.

Site Conditions

The Central Park North Fields project site is an open, grassy plot used by the Oak Brook Park District for soccer fields. Ginger Creek (Waters 1) runs along the south side of the project area and contains adjacent wetland and wetland fringe communities. The project area is surrounded by residential and commercial property. The majority of the project area contains non-hydric soil (Orthents, clayey, undulating – 805B) according to the USDA SSURGO soil data (Exhibit 4). The soil surrounding Ginger Creek, however, is mapped, hydric soil (Sawmill silty clay loam, heavy till plain – 3107A). The National Wetlands Inventory (NWI) Map (Exhibit 3A) classifies Ginger Creek as freshwater pond (PUBGx). According to the DuPage County Wetlands Inventory Map (Exhibit 3B), Ginger Creek is identified as a River/Stream and Lake/Pond. The site does not contain Regulatory or Critical Wetlands according to the DuPage County Wetlands Inventory Map. The Digital Flood Insurance Rate Map (Exhibit 6A) and DuPage County Regulatory Flood Map (Exhibit 6B) show that Zone AE Floodway, Zone AE Special Flood Hazard areas, and Zone X flood areas outside of the 500-year floodplain exist within the project site. At the time of the site visit, the project area contained one Waters of the U.S., two wetlands, and two areas of wetland fringe.

Data points were taken at the time of the field visits in wetland and upland areas. At each data point, the vegetation, soil, and hydrology was observed and the details of each were recorded onto a USACE Data Form. Data points are taken to help determine the location of wetland boundaries. The information collected on-site is listed in the USACE Data Forms located in Appendix B.

See Appendix A for the Aerial Photograph with Wetland Delineation exhibit (Exhibit 2), which shows the delineated waters and wetland boundaries as well as the data point locations. Also see Appendix A for the Site Photograph Exhibits (Exhibits 7A & 7B), which show photographs of the site conditions at the time of the field visit.

Table 1: Water Summary Table

Delineated Area	Type	On-Site Length (ft.)	On-Site Acres	NWI Classification	County Classification	Jurisdiction*	Photos
Waters 1	Ginger Creek	2,229	5.662	PUBGx	River/Stream & Lake/Pond	USACE	3 & 6

*A Jurisdictional Determination has not been completed but based on Ginger Creek's connection to Salt Creek, which connects to the Des Plaines River, USACE jurisdiction is anticipated.

Table 2: Wetland Summary Table

Delineated Area	Wetland Type	Data Point	On-Site Acres	Native FQI	Native Mean C	Mapped Soil	NWI Classification	County Classification	Jurisdiction*	Photos
Wetland 1	Riparian	1A	0.201	9.24	2.67	3107A	None	None	USACE & DuPage County	1 & 3
Wetland 2	Riparian	2A	0.026	10.25	3.63	3107A	None	None	USACE & DuPage County	4
Wetland Fringe	Fringe	N/A	0.026	8.67	2.89	3107A	None	None	USACE & DuPage County	N/A
TOTAL			**0.253**							

*A Jurisdictional Determination has not been completed but based on wetlands location adjacent to Ginger Creek, USACE jurisdiction is anticipated.

The following is a description of the waters and wetlands identified during the site visit:

Waters of the US:
Ginger Creek (Waters 1) is a perennial stream that flows west to east within the project area and was delineated at the Ordinary High Water Mark (OHWM). The OHWM is established by the fluctuations of water and is indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation and/or the presence of litter and debris. The National Wetlands Inventory Map (Exhibit 3A) identifies Waters 1 as a Palustrine, Unconsolidated Bottom, Intermittently Exposed, and Excavated (PUBGx) freshwater pond. The DuPage County Wetlands Inventory Map (Exhibit 3B) identifies Waters 1 as a River/Stream and Lake/Pond. The Hydrologic Investigations Atlas shows the project area contains areas of historic flooding. The Digital Flood Insurance Rate Map (Exhibit 6A) identifies Waters 1 as Zone AE floodway within the project area. The DuPage County Regulatory Flood Map (Exhibit 6B) also identifies Waters 1 as a floodway area.

A plant community consisting of Great Bulrush (*Schoenoplectus tabernaemontani*), sedges (*Carex ssp.*), and Water Willow (*Justicia Americana*) was observed just east of the dam structure located in the center of Ginger Creek. The plant community was located in a small area (approximately 6'x5') where the dam structure and sea wall come together (see Photo 6). Despite the presence of hydrophytic vegetation and hydrology, this area was delineated as part of the Waters of the U.S. due to the presence of piled rock and riprap preventing a soil sample from being obtained.

Wetland 1 – Data Point 1A:
Wetland 1 is a 0.201 acre riparian wetland community located along Ginger Creek (Waters 1). Wetland 1 has a Floristic Quality Index of 9.24, a Native Mean C-value of 2.67, and a Native Mean Wetness Coefficient Value of -0.83. The delineated wetland fulfills all three indicators of a wetland; hydrophytic vegetation, hydric soils, and wetland hydrology. The dominant plant species of Wetland 1 include Spreading Bent (*Agrostis stolonifera*), Common Reed (*Phragmites australis ssp. americanus*), Cattails (*Typha ssp.*), and Willows (*Salix ssp*.). The hydrophytic vegetation indicator is met with greater than 50% of the dominant species present being FAC, FACW, and OBL and a Prevalence Index of less than or equal to 3 at Data Point 1A. The Soil Survey Map (Exhibit 4) shows the delineated area to be within the hydric soil unit Sawmill silty clay loam (3107A). Field observations verify the presence of poorly drained hydric soils with the indicators Depleted Below Dark Surface (A11), Sandy Redox (S5), Dark Surface (S7), and Depleted Matrix (F3) at Data Point 1A. Wetland hydrology is met with the presence of a High Water Table (A2) at a depth of 8 inches, Saturation (A3) at a depth of 7 inches, and Water-Stained Leaves (B9). The secondary hydrology indicators Saturation Visible on Aerial Imagery (C9) and Geomorphic Position (D2) also apply to Wetland 1.

Wetland 2 – Data Point 2A:
Wetland 2 is a 0.026 acre riparian fringe wetland community located along Ginger Creek (Waters 1). Wetland 2 has a Floristic Quality Index of 10.25, a Native Mean C-value of 3.63, and a Native Mean Wetness Coefficient Value of 0.00. The delineated wetland fulfills all three indicators of a

wetland; hydrophytic vegetation, hydric soils, and wetland hydrology. The dominant plant species of Wetland 2 include Cutleaf Coneflower (*Rudbeckia laciniata*), Black Alder (*Alnus glutinosa*), European Buckthorn (*Rhamnus cathartica*), and Wild Parsnip (*Pastinaca sativa*). The hydrophytic vegetation indicator is met with greater than 50% of the dominant species present being FAC, FACW, and OBL at Data Point 2A. The Soil Survey Map (Exhibit 4) shows the delineated area to be within the hydric soil unit Sawmill silty clay loam (3107A). Field observations verify the presence of poorly drained hydric soils with the indicator Redox Dark Surface (F6) at Data Point 2A. Wetland hydrology is met with the secondary indicators Geomorphic Position (D2) and FAC-Neutral Test (D5).

Wetland Fringe:
During the site visit, two areas of wetland fringe, totaling 0.026 on-site acres, were observed along Ginger Creek. Data points were not taken but the vegetation was recorded within the wetland fringe. The dominant plant species include Blue Vervain (*Verbena hastata*), Spreading Bent (*Agrostis stolonifera*), and Lesser Poverty Rush (*Juncus tenuis*). The wetland fringe has a Floristic Quality Index of 8.67, a Native Mean C-value of 2.89, and a Native Mean Wetness Coefficient Value of -0.44.

Reference Materials

The following materials were reviewed and utilized to assist in the field reconnaissance and completion of this report. See Appendix A for the Reference Materials (Exhibits 1 through 7B).

Location Map:
The project is located in Oak Brook, DuPage County, Illinois. The project area is located west of Jorie Boulevard, east of Illinois Route 83, north of Forest Gate Road, and south of Kensington Road in Central Park. The study area is centered at 41.840238°N and -87.952911° W in the W ½ of Section 26, Township 39N, Range 11E (Exhibit 1).

Aerial Photograph with Wetland Delineation:
A 2018-2019 ESRI World Imagery aerial photograph of the Central Park North Fields project area was reviewed to determine areas of inundation and saturation within the project boundary. Areas of inundation or saturation can indicate wetland areas. The Aerial Photograph with Wetland Delineation (Exhibit 2) shows the limits of the field delineated waters, wetlands, and data points.

National Wetlands Inventory Map and DuPage County Wetlands Inventory Map:
The U.S. Fish and Wildlife Service's National Wetlands Inventory for DuPage County (Exhibit 3A) and DuPage County's Web Mapping – Wetland Inventory Layer (Exhibit 3B) resources were reviewed to determine the location of wetland areas. The National Wetlands Inventory (NWI) Map identifies Waters 1 (Ginger Creek) as a Palustrine, Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx) freshwater pond. The DuPage County Wetlands Inventory Map identifies Waters 1 (Ginger Creek) as a River/Stream and Lake/Pond.

It should be noted that the NWI map is only a large scale guide, actual wetland locations and types may vary.

Soil Survey Map:
The USDA SSURGO Soil Data of September 2017 (Exhibit 4) was investigated to determine the location of hydric soils on the subject site. Mapped hydric soils are indicators of potential wetland areas. The following soil types were mapped within the project area:

805B: Orthents, clayey, undulating
3107A: Sawmill silty clay loam (Hydric)

USGS Topographic Map:
The 2018 USGS 7.5 Topographic Map of the Hinsdale Quadrangle (Exhibit 5A) was reviewed for site topography and drainage. Based on the map, it can be seen that Ginger Creek runs through the project area and eventually connects to Salt Creek.

Hydrologic Investigations Atlas:
The United States Geological Survey (USGS) Hydrological Investigations Atlas for the Hinsdale Quadrangle, HA-86 of 1964 (Exhibit 5B) was reviewed to determine the historical local drainage pattern. The atlas shows that the project contains areas of historic flooding from 1952, 1954, 1957, 1960, and 1962.

Digital Flood Insurance Rate Map and DuPage County Regulatory Flood Map:
The Federal Emergency Management Agency's (FEMA) Digital Flood Insurance Rate Map (DFIRM) for DuPage County, Community Panel No. 17043C0609H effective date December 16, 2004 (Exhibit 6A) and FEMAs Regulatory Flood Map No. 17043C0179A for DuPage County effective date July 7, 2010 (Exhibit 6B) were reviewed to determine the location of regulatory floodplain and floodway within the subject site. Mapped floodplains can be indicative of wetland hydrology. Based on the maps, the waters and wetlands onsite are identified as a Zone AE Floodway. The site also contains Special Flood Hazard Areas inundated by the 1% annual chance flood event (Zone AE) and areas determined to be outside of the 500-year floodplain (Zone X).

Site Photographs:
Site Photographs (Exhibits 7A & 7B) were taken at the time of the April 22, 2019 site visit to show the areas investigated and the conditions of the site. Exhibit 7A shows Wetland 1 and the adjacent upland. Exhibit 7B shows Wetland 2, the adjacent upland, and an area of wetland vegetation growing within Waters 1.

Conclusions

WBK has identified that the Central Park North Fields project area contains one Waters of the U.S. (Waters 1 – Ginger Creek), with associated areas of wetland fringe and two wetlands (Wetlands 1 & 2). The delineated Waters total 5.662 on-site acres, and the delineated wetlands and wetland fringe total 0.253 on-site acres. This is based on field reconnaissance conducted using techniques outlined in the USACE 1987 Delineation Manual, 2010 Midwest Regional Supplement, historical maps, and aerial images depicting the condition of the site. The field determination for the presence of wetland supersedes all published maps as they are general guidance only. The wetlands are connected to Ginger Creek, which flows to Salt Creek. Salt Creek is a tributary to the Des Plaines River. The Des Plaines River is a Traditional Navigable Waterway regulated by the U.S. Army Corps of Engineers. Based on WBK's findings and the current guidelines, the wetlands and waters on site appear to be under the jurisdiction of the U.S. Army Corps of Engineers.

References

DuPage County Web Mapping – Wetland Inventory Layer. DuPage County Wetlands Inventory Map.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. U.S. Army Corps of Engineers, Waterways Experimental Station, Vicksburg, MS, USA. Technical Report Y-87 1.

ESRI Basemaps – World Street Map. 2019. Location Map.

ESRI World Imagery. 2018-2019. Aerial Photograph with Wetland Delineation.

Federal Emergency Management Agency, Digital Flood Insurance Rate Maps, DuPage County, Illinois, Map Number 17043C0609H. 2004. Digital Flood Insurance Rate Map.

Federal Emergency Management Agency, Regulatory Flood Maps, DuPage County, Illinois, Map Number 17043C0179A. 2010. DuPage County Regulatory Flood Map.

Herman, B., Sliwinski, R. and S. Whitaker. 2017. Chicago Region FQA (Floristic Quality Assessment) Calculator. U.S. Army Corps of Engineers, Chicago, IL.

Lichvar, Robert W. and John T. Kartesz. 2012. North American Digital Flora: National Wetland Plant List, version 3.0 (https://wetland_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC.

United States Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*. U.S. Army Engineer Research and Development Center, Vicksburg, MS.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). 2010. *Field Indicators of Hydric Soils in the United States*, Version 7.0. L.M. Vasilas, G.W. Hurt, and C.V. Noble (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). 2012. *Field Book for Describing and Sampling Soils, Version 3.0*. ed. P. J. Schoeneberger, D. A. Wysocki, E. C. Benham, and W. D. Broderson. Lincoln, NE: National Soil Survey Center.

United States Department of Agriculture SSURGO Soil Data. 2017. Soil Survey Map.

United States Fish and Wildlife Service National Wetlands Inventory Wetlands Mapper. National Wetlands Inventory Map.

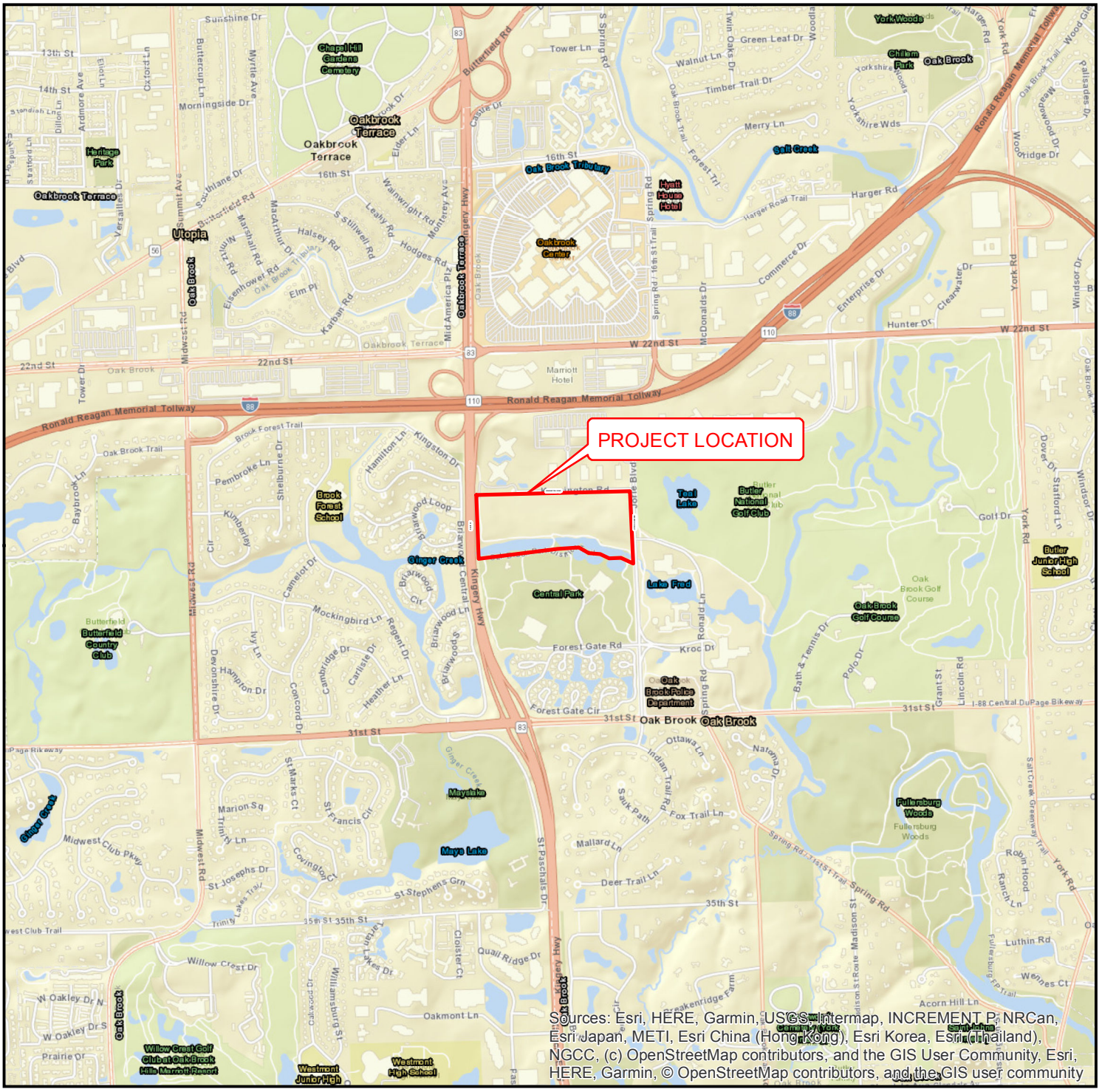
United States Geological Survey, Hinsdale Quadrangle, HA-86. 1964. Hydrologic Investigations Atlas.

United States Geological Survey 7.5' Topographic Map Hinsdale Quadrangle. 2018. USGS Topographic Map.

Wilhelm, G and Rericha, L. 2017. *Flora of the Chicago Region, A Floristic and Ecological Synthesis*. Indianapolis, IN: Indiana Academy of Science.

APPENDIX A

Reference Materials

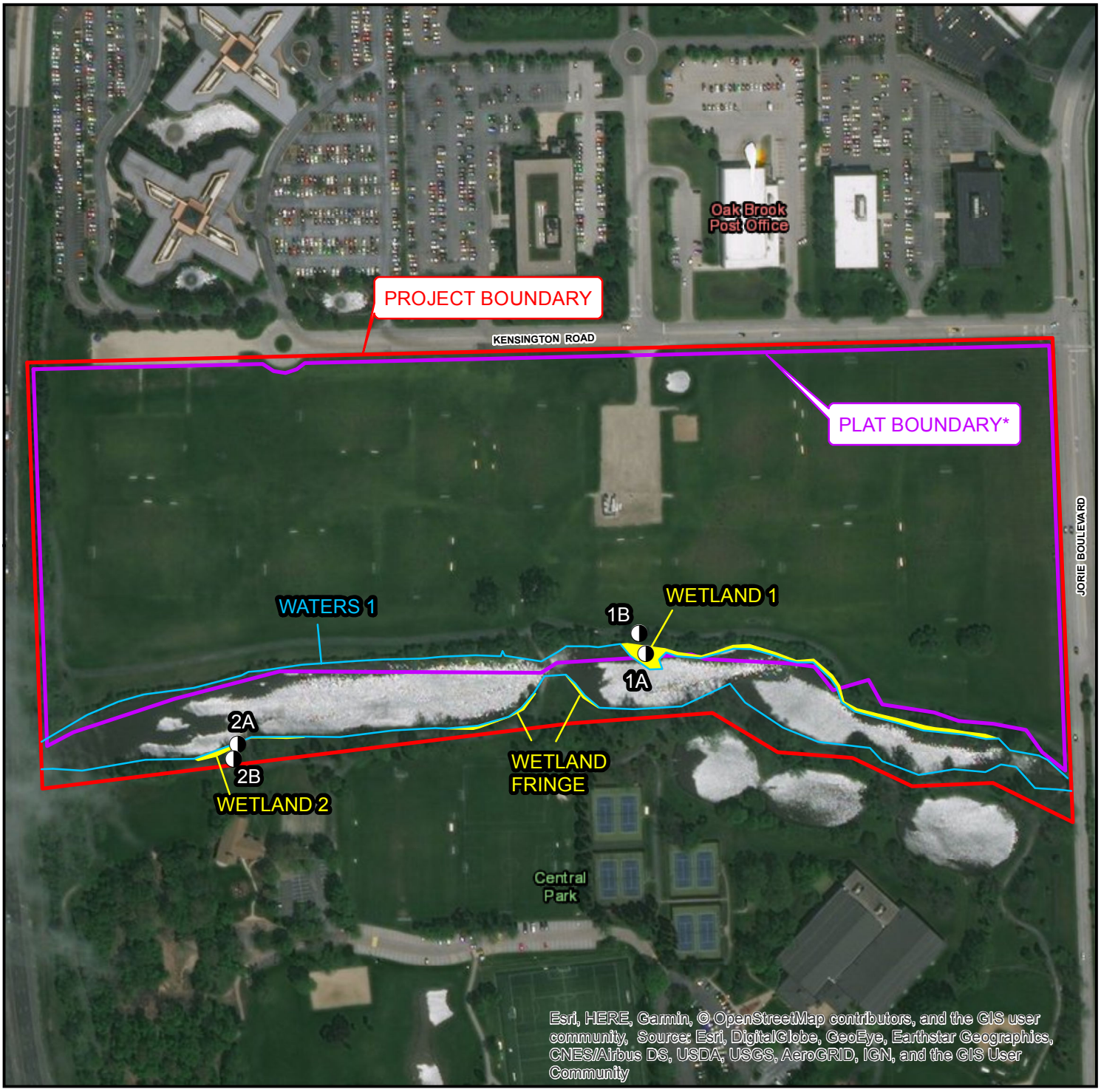


SOURCE: ESRI WORLD STREET MAP

SCALE: 1 " = 2,000 '

PLSS DESCRIPTION - W 1/2 SECTION 26, TOWNSHIP 39N, RANGE 11E
LATITUDE: N041.840238 DEGREES
LONGITUDE: W-087.952911 DEGREES

CLIENT	TITLE	DWN.	ACO	CHKD.	NMP
OAK BROOK PARK DISTRICT 1450 FOREST GATE ROAD OAK BROOK, IL 60523	**CENTRAL PARK NORTH FIELDS**	JOB# 190117			N
WBK engineering **WBK ENGINEERING, LLC** 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	**LOCATION MAP**			DATE 05/09/2019	**EXHIBIT 1**



SOURCE: AERIAL PHOTOGRAPH ESRI IMAGERY DuPAGE COUNTY 2018-2019

SCALE: 1 " = 300 '

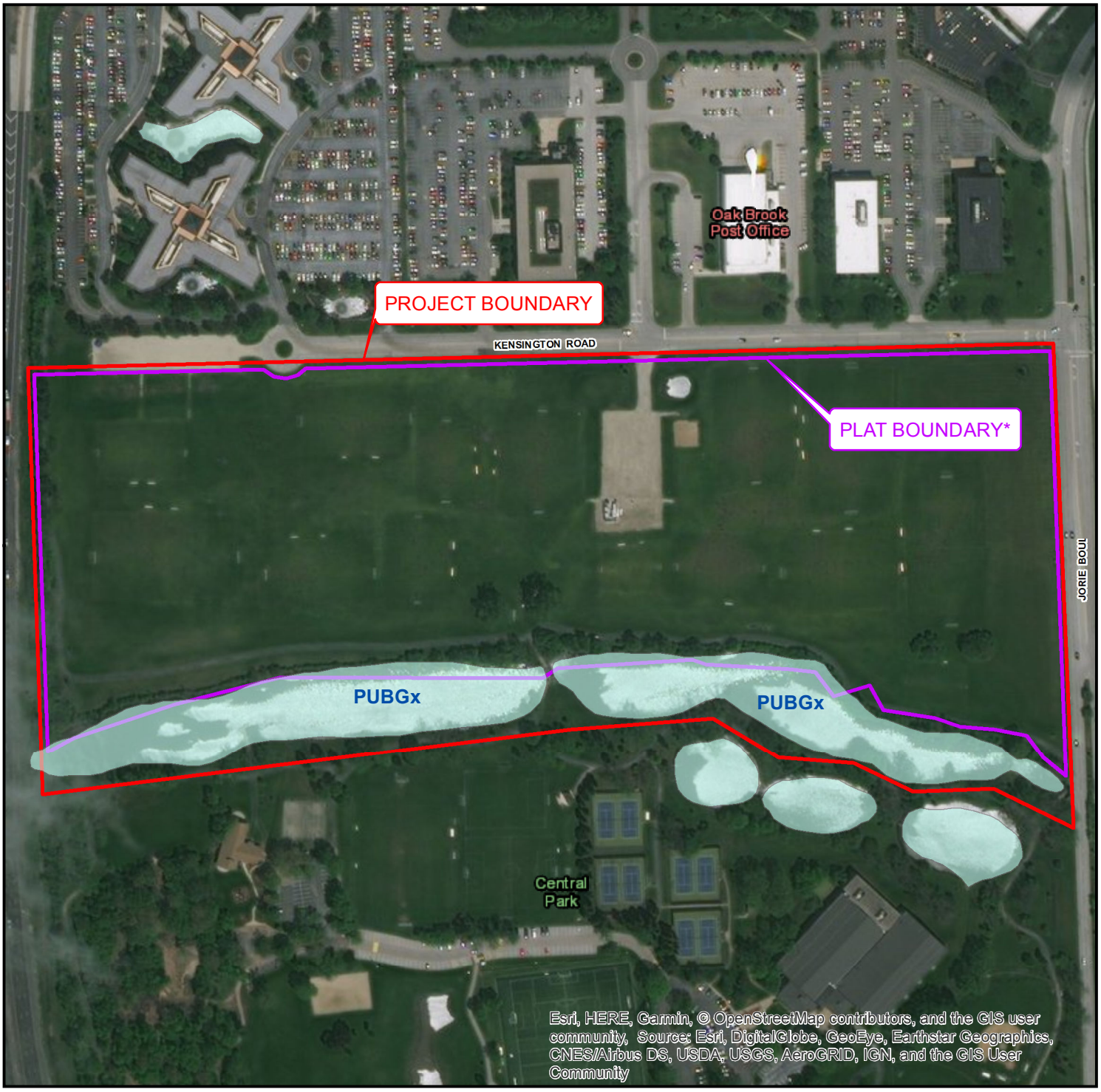
◑ **DATA POINT LOCATION**

WETLAND BOUNDARY

WATERS BOUNDARY

*BOUNDARY SURVEY AND PLAT PERFORMED AND PREPARED BY CEMCON, LTD. IN APRIL 2019

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	TITLE **CENTRAL PARK NORTH FIELDS**	DWN.	ACO	CHKD. NMP
		JOB# 190117		N
WBK engineering **WBK ENGINEERING, LLC** 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	**AERIAL PHOTOGRAPH WITH WETLAND DELINEATION**			DATE 05/14/2019 **EXHIBIT 2**



SOURCE: U.S. FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY, DuPAGE COUNTY

SCALE: 1 " = 300 '

LEGEND:
PUBGx: PALUSTRINE, UNCONSOLIDATED BOTTOM, INTERMITTENTLY EXPOSED, EXCAVATED FRESHWATER POND

*BOUNDARY SURVEY AND PLAT PERFORMED AND PREPARED BY CEMCON, LTD. IN APRIL 2019

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	TITLE **CENTRAL PARK NORTH FIELDS**	DWN.	ACO	CHKD.	NMP
		JOB# 190117			N
WBK engineering **WBK ENGINEERING, LLC** 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	**NATIONAL WETLANDS INVENTORY MAP**				DATE 05/09/2019 **EXHIBIT 3A**

SOURCE: DuPAGE COUNTY WEB MAPPING - WETLAND INVENTORY LAYER

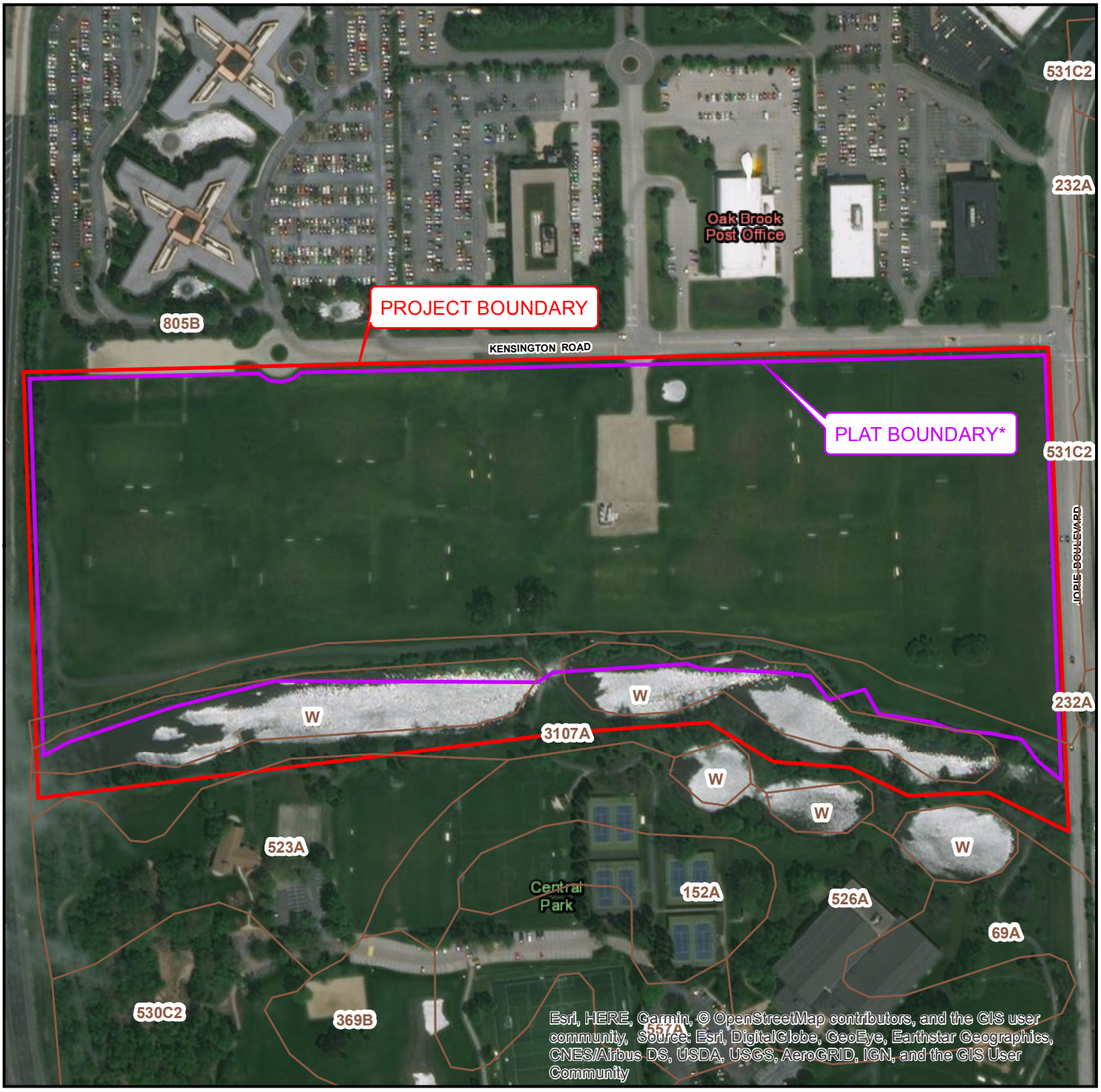
SCALE: 1 " = 300 '

LEGEND:

- LAKES AND PONDS
- RIVERS AND STREAMS
- REGULATORY WETLANDS
- CRITICAL WETLANDS

*BOUNDARY SURVEY AND PLAT PERFORMED AND PREPARED BY CEMCON, LTD. IN APRIL 2019

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	TITLE **CENTRAL PARK NORTH FIELDS**	DWN.	ACO	CHKD. NMP
		JOB# 190117		N
WBK engineering **WBK ENGINEERING, LLC** 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	**DuPAGE COUNTY WETLANDS INVENTORY**			DATE 05/09/2019
				EXHIBIT 3B



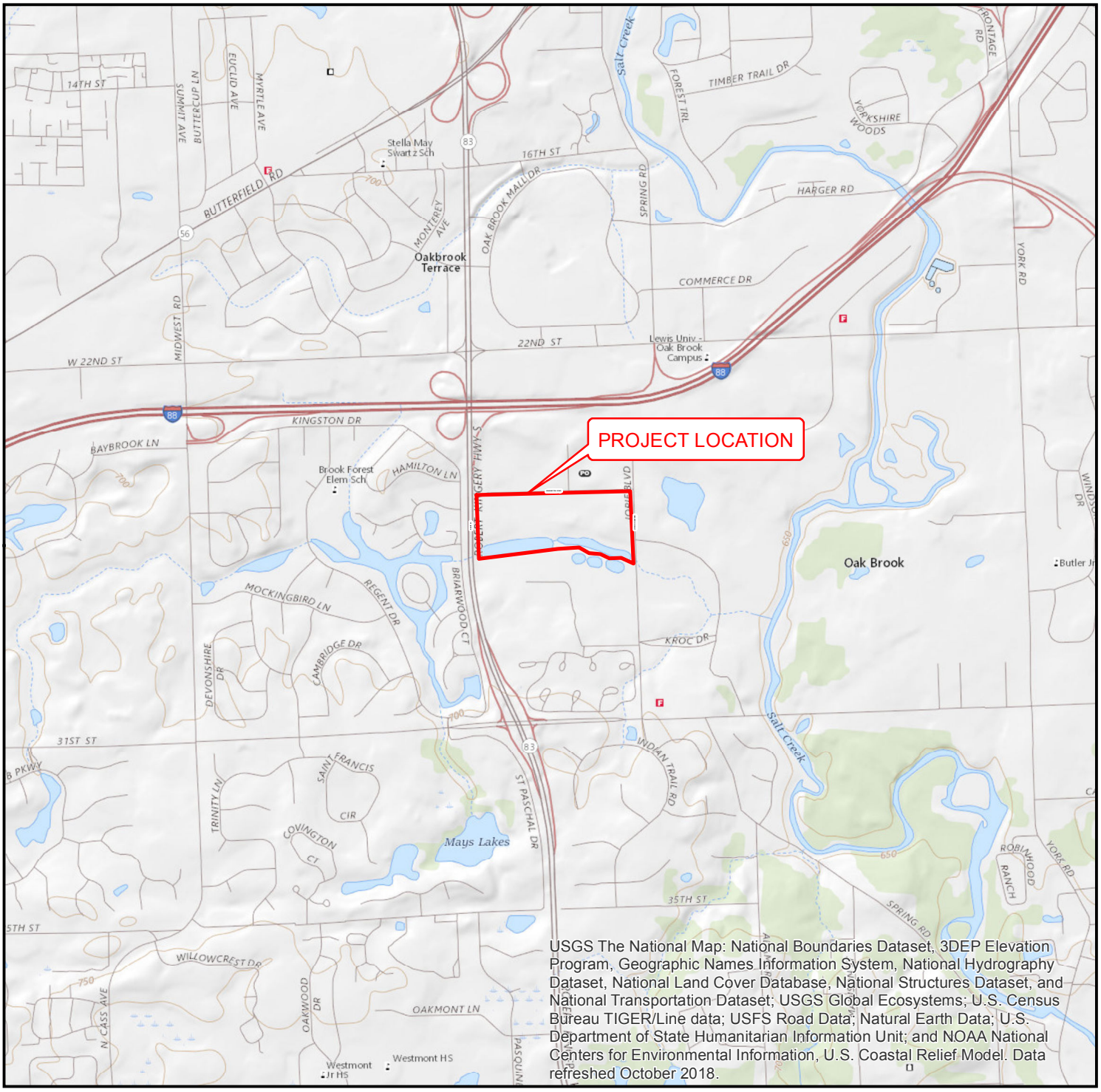
SOURCE: USDA SSURGO SOIL DATA, DuPAGE COUNTY, ILLINOIS, SEPTEMBER 2017

SCALE: 1 " = 300 '

LEGEND:
805B - Orthents, clayey, undulating
3107A - Sawmill silty clay loam (Hydric)

*BOUNDARY SURVEY AND PLAT PERFORMED AND PREPARED BY CEMCON, LTD. IN APRIL 2019

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	TITLE **CENTRAL PARK NORTH FIELDS**	DWN.	ACO	CHKD. NMP
		JOB# 190117		N
WBK engineering **WBK ENGINEERING, LLC** 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	**SOIL SURVEY MAP**			DATE 05/09/2019 **EXHIBIT 4**

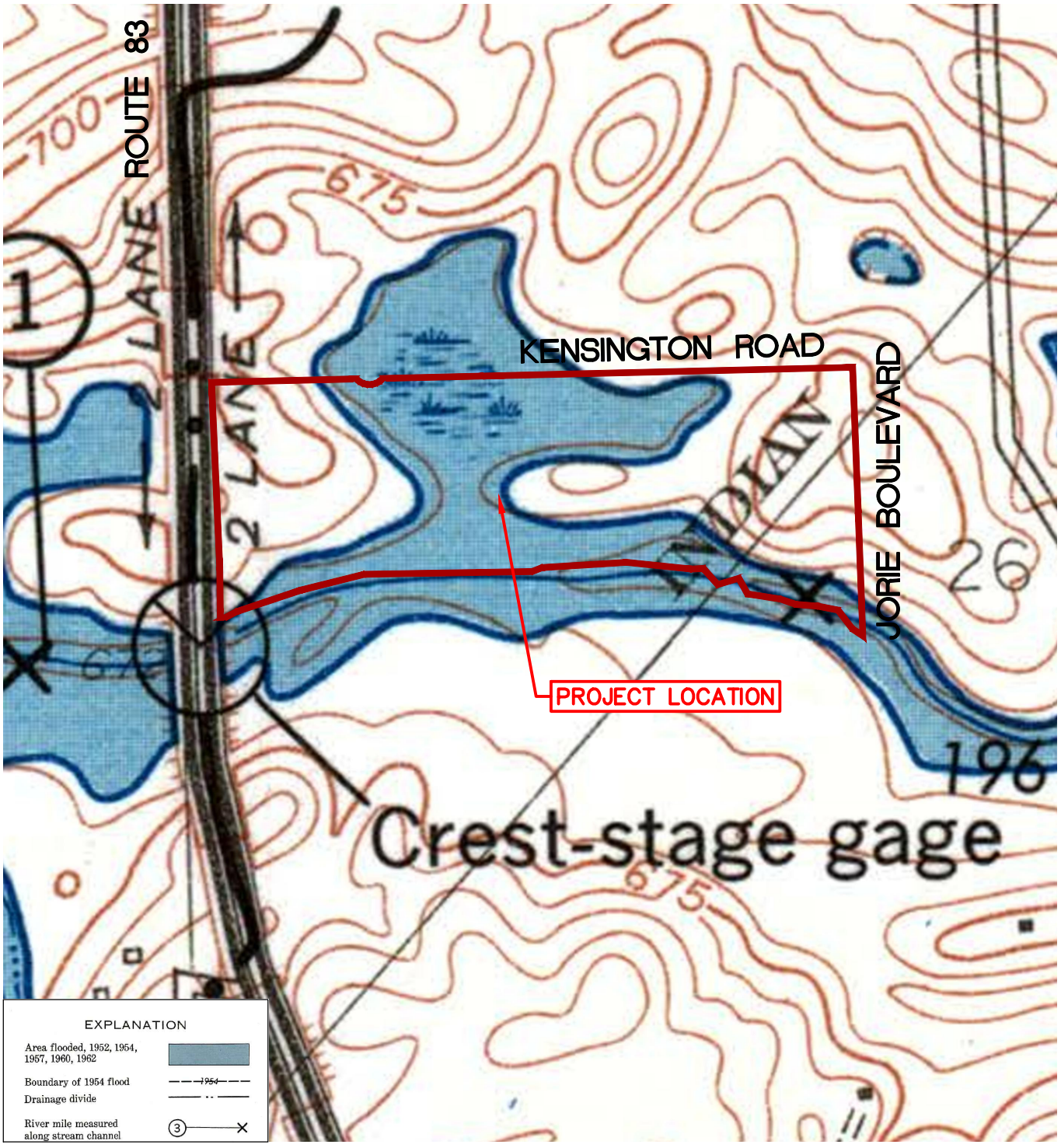


SOURCE: USGS 7.5 TOPO MAP, HINSDALE QUADRANGLE 2018

SCALE: 1 " = 2,000 '

PLSS DESCRIPTION - W 1/2 SECTION 26, TOWNSHIP 39N, RANGE 11E
LATITUDE: N041.840238 DEGREES
LONGITUDE: W-087.952911 DEGREES

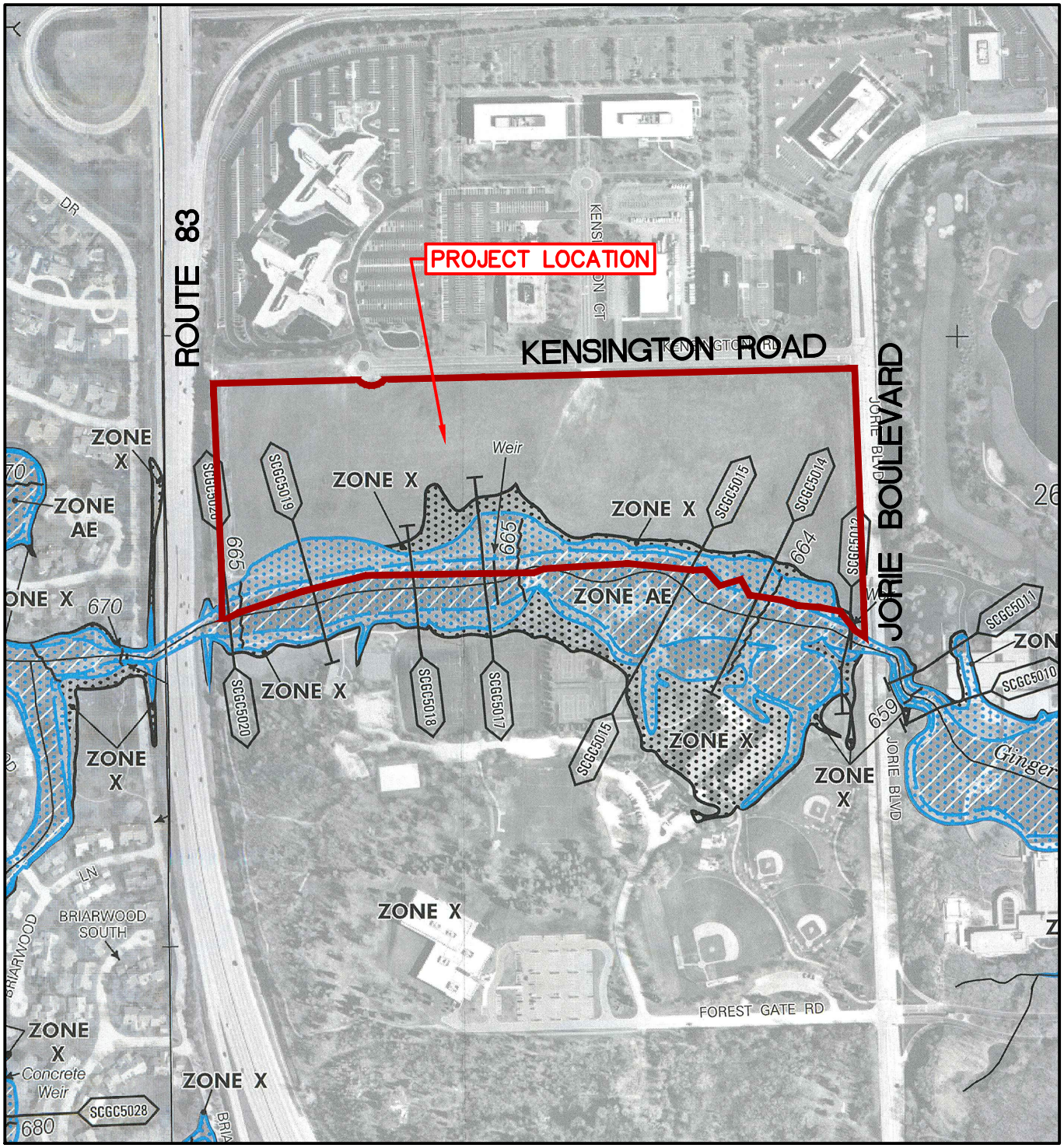
CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	TITLE **CENTRAL PARK NORTH FIELDS**	DWN.	ACO	CHKD. NMP
		JOB# 190117		N
WBK engineering **WBK ENGINEERING, LLC** 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	**USGS TOPOGRAPHIC MAP**			DATE 05/09/2019 **EXHIBIT 5A**



SOURCE: U.S. GEOLOGICAL SURVEY HYDROLOGIC INVESTIGATIONS ATLAS HINSDALE QUADRANGLE, 1964, HA-86

SCALE: 1" = 500'

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, ILLINOIS	TITLE **CENTRAL PARK NORTH FIELDS**	DWN.	GMP	CHKD.	NMP
		JOB# 190117			N
WBK engineering **WBK ENGINEERING, LLC** 116 WEST MAIN STREET, SUITE 201 ST. CHARLES, ILLINOIS 60174 (630) 443-7755	**HYDROLOGIC INVESTIGATIONS ATLAS**				DATE 05/09/2019
					EXHIBIT 5B

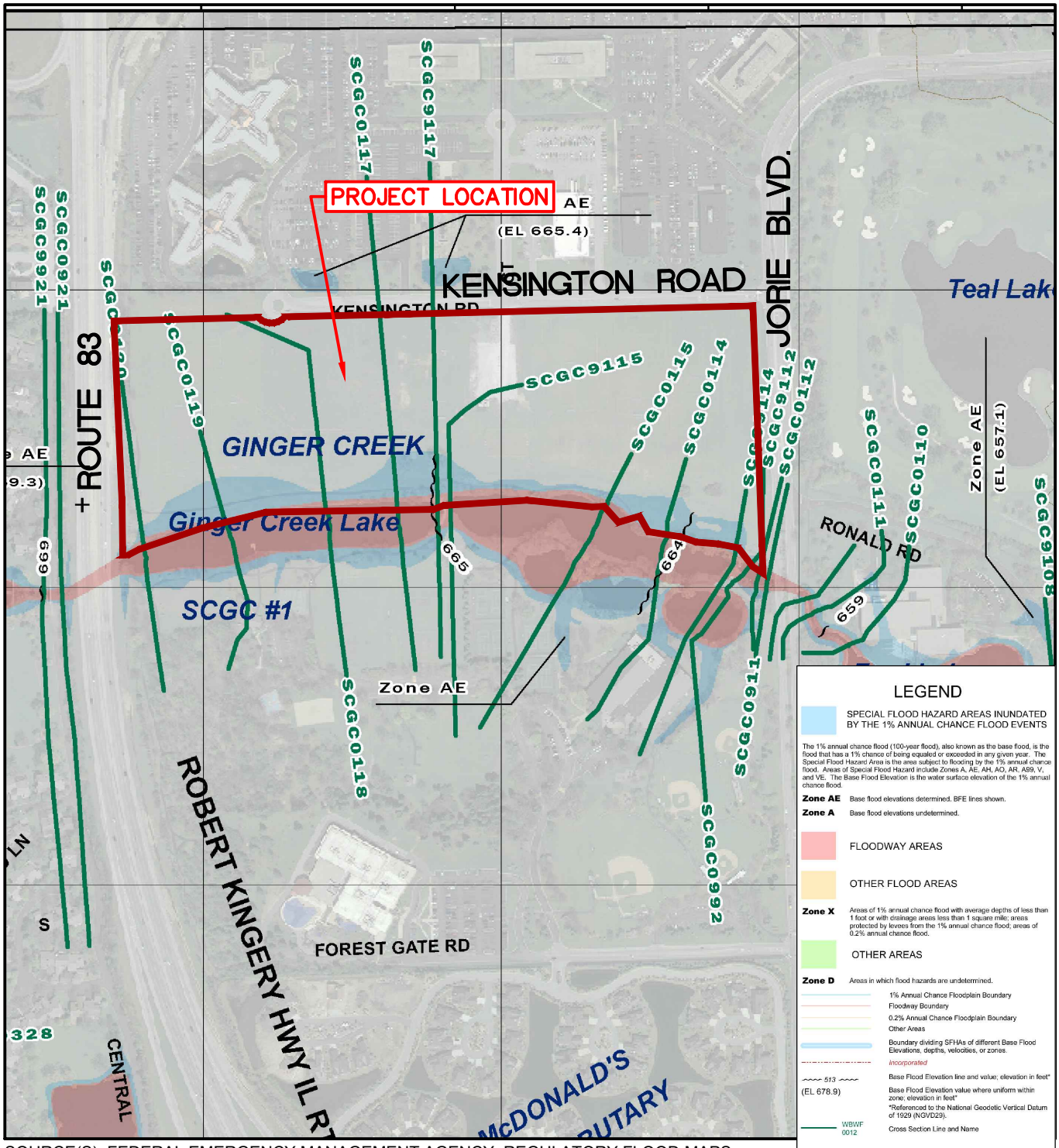


SOURCE(S): FEDERAL EMERGENCY MANAGEMENT, DIGITAL FLOOD INSURANCE RATE MAPS, DEC. 16, 2004 SCALE: 1" = 500'
County, Illinois MAP NUMBER(S): 17043C0609H

LEGEND

ZONE AE - Base flood elevations determined.
ZONE X - Areas determined to be outside 500-year floodplain.

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, ILLINOIS	TITLE **CENTRAL PARK NORTH FIELDS**	DWN. GMP	CHKD. NMP	
		JOB# 190117		N
WBK engineering **WBK ENGINEERING, LLC** 116 WEST MAIN STREET, SUITE 201 ST. CHARLES, ILLINOIS 60174 (630) 443-7755	**DIGITAL FLOOD INSURANCE RATE MAP**			DATE 05/09/2019
				EXHIBIT 6A



SOURCE(S): FEDERAL EMERGENCY MANAGEMENT AGENCY, REGULATORY FLOOD MAPS, JULY 7, 2010. DuPAGE COUNTY, ILLINOIS. MAP NUMBER: 17043C0179A

SCALE: 1" = 500'

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, ILLINOIS	TITLE **CENTRAL PARK NORTH FIELDS**	DWN. GMP	CHKD. NMP	N
		JOB# 190117		
WBK engineering **WBK ENGINEERING, LLC** 116 WEST MAIN STREET, SUITE 201 ST. CHARLES, ILLINOIS 60174 (630) 443-7755	**DuPAGE COUNTY REGULATORY FLOOD MAP**		DATE 05/09/2019	
			EXHIBIT 6B	

Photo 1: View from Data Point 1A in Wetland 1 looking east.

Photo 2: View from Data Point 1B in the upland adjacent to Wetland 1 looking east.

Photo 3: View of Wetland 1 fringe along Ginger Creek (Waters 1). View looking west.

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	JOB # 190117	DSGN.	ACO	CHKD. NMP
		TITLE **CENTRAL PARK NORTH FIELDS**		
WBK engineering **WBK ENGINEERING, LLC** 116 W. MAIN STREET, SUITE 201 ST. CHARLES, IL 60174 (630) 443-7755	**SITE PHOTOGRAPHS**	DATE 05/07/19		
		EXHIBIT 7A		

Photo 5: View from Data Point 2B in the upland adjacent to Wetland 2 looking west.

Photo 4: View from Data Point 2A in Wetland 2 looking west.

Photo 6: View of wetland plant community growing within Waters 1 near dam and sea wall.

CLIENT **OAK BROOK PARK DISTRICT** 1450 FOREST GATE ROAD OAK BROOK, IL 60523	JOB # 190117	DSGN.	ACO	CHKD. NMP
		TITLE **CENTRAL PARK NORTH FIELDS**		
WBK engineering **WBK ENGINEERING, LLC** 116 W. MAIN STREET, SUITE 201 ST. CHARLES, IL 60174 (630) 443-7755	**SITE PHOTOGRAPHS**	DATE 05/07/19		
		EXHIBIT 7B		

APPENDIX B

USACE Data Sheets

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Central Park North Fields | City/County: Oak Brook/DuPage | Sampling Date: 4/22/19

Applicant/Owner: Oak Brook Park District | State: IL | Sampling Point: 1A

Investigator(s): Alyse Olson | Section, Township, Range: Sec. 26, T39N, R11E

Landform (hillside, terrace, etc.): Floodplain | Local relief (concave, convex, none): Concave

Slope (%): 0-2 | Lat: 41.839412 | Long: -87.952588 | Datum: NAD83

Soil Map Unit Name: 3107A: Sawmill silty clay loam | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *N/A*			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: R=15ft)			
1. *Rhamnus cathartica*	10	Yes	FAC
2. *Lonicera maackii*	10	Yes	UPL
3.			
4.			
5.			
	20 =Total Cover		
Herb Stratum (Plot size: R=1m)			
1. *Scirpus atrovirens*	20	Yes	OBL
2. *Poa pratensis*	20	Yes	FAC
3. *Solidago canadensis*	15	Yes	FACU
4. *Typha latifolia*	15	Yes	OBL
5. *Securigera varia*	5	No	UPL
6.			
7.			
8.			
9.			
10.			
	75 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *N/A*			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	15	x 4 =	60
UPL species	15	x 5 =	75
Column Totals:	95 (A)		260 (B)

Prevalence Index = B/A = 2.74

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	85	10YR 4/6	15	C	M	Sandy	Prominent redox concentrations
7-16	10YR 5/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- X Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 7

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Geomorphic Position: Located adjacent to Ginger Creek

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Central Park North Fields | City/County: Oak Brook/DuPage | Sampling Date: 4/22/19

Applicant/Owner: Oak Brook Park District | State: IL | Sampling Point: 1B

Investigator(s): Alyse Olson | Section, Township, Range: Sec. 26, T39N, R11E

Landform (hillside, terrace, etc.): Top of slope | Local relief (concave, convex, none): Convex

Slope (%): 0-2 | Lat: 41.839493 | Long: -87.952614 | Datum: NAD83

Soil Map Unit Name: 3107A: Sawmill silty clay loam | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: R=30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Rhamnus cathartica*	30	Yes	FAC
2. *Acer negundo*	10	Yes	FAC
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: R=15ft)			
1. *Rhamnus cathartica*	40	Yes	FAC
2.			
3.			
4.			
5.			
	40	=Total Cover	
Herb Stratum (Plot size: R=1m)			
1. *Dipsacus fullonum*	10	Yes	FACU
2. *Solidago altissima*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20	=Total Cover	
Woody Vine Stratum (Plot size:)			
1. *N/A*			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		320 (B)
Prevalence Index = B/A =			3.20

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	100					Loamy/Clayey	
15-18	10YR 2/1	80	10YR 5/8	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Central Park North Fields | City/County: Oak Brook/DuPage | Sampling Date: 4/22/19

Applicant/Owner: Oak Brook Park District | State: IL | Sampling Point: 2A

Investigator(s): Alyse Olson | Section, Township, Range: Sec. 26, T39N, R11E

Landform (hillside, terrace, etc.): Hillside | Local relief (concave, convex, none): Convex

Slope (%): 0-2 | Lat: 41.838879 | Long: -87.955725 | Datum: NAD83

Soil Map Unit Name: 3107A: Sawmill silty clay loam | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: R=30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10	=Total Cover	
Sapling/Shrub Stratum (Plot size: R=15ft)			
1. *Rhamnus cathartica*	20	Yes	FAC
2. *Alnus glutinosa*	15	Yes	FACW
3.			
4.			
5.			
	35	=Total Cover	
Herb Stratum (Plot size: R=1m)			
1. *Rudbeckia laciniata*	20	Yes	FACW
2. *Pastinaca sativa*	15	Yes	UPL
3. *Dipsacus fullonum*	10	No	FACU
4. *Thalictrum dioicum*	5	No	FACU
5. *Allium canadense*	5	No	FACU
6. *Solidago altissima*	5	No	FACU
7. *Monarda fistulosa*	5	No	FACU
8.			
9.			
10.			
	65	=Total Cover	
Woody Vine Stratum (Plot size:)			
1. *N/A*			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	30	x 3 =	90
FACU species	30	x 4 =	120
UPL species	15	x 5 =	75
Column Totals:	110 (A)		355 (B)

Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	100					Loamy/Clayey	
5-11	10YR 2/1	80	10YR 4/2	15	D	M	Loamy/Clayey	
			10YR 5/8	5	C	PL		Prominent redox concentrations
11-19	10YR 2/1	50	10YR 4/2	20	D	M	Loamy/Clayey	
			10YR 5/1	20	D	M		
			10YR 5/8	10	C	PL		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Geomorphic Position: Located adjacent to Ginger Creek.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Central Park North Fields | City/County: Oak Brook/DuPage | Sampling Date: 4/22/19

Applicant/Owner: Oak Brook Park District | State: IL | Sampling Point: 2B

Investigator(s): Alyse Olson | Section, Township, Range: Sec. 26, T39N, R11E

Landform (hillside, terrace, etc.): Top of slope | Local relief (concave, convex, none): Convex

Slope (%): 0-2 | Lat: 41.838816 | Long: -87.955719 | Datum: NAD83

Soil Map Unit Name: 3107A: Sawmill silty clay loam | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: R=30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10	=Total Cover	
Sapling/Shrub Stratum (Plot size: R=15ft)			
1. *Rhamnus cathartica*	50	Yes	FAC
2.			
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: R=1m)			
1. *Pastinaca sativa*	20	Yes	UPL
2. *Solidago altissima*	15	Yes	FACU
3. *Monarda fistulosa*	10	No	FACU
4. *Dipsacus fullonum*	5	No	FACU
5. *Securigera varia*	5	No	UPL
6.			
7.			
8.			
9.			
10.			
	55	=Total Cover	
Woody Vine Stratum (Plot size:)			
1. *N/A*			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	30	x 4 =	120
UPL species	25	x 5 =	125
Column Totals:	115 (A)		425 (B)
Prevalence Index = B/A =			3.70

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	100					Loamy/Clayey	
7-11	10YR 2/1	90	10YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations
11-17	10YR 4/1	60	10YR 4/2	20	D	M	Loamy/Clayey	
			10YR 5/8	20	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C

Vegetation Data

Wetland 1 Plant Community Inventory & Summary

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	NC-NE WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
AGRSTO	Agrostis stolonifera	Agrostis alba palustris	Spreading Bent	2	FACW	FACW	-1	Grass	Perennial	Native
BARVUL	Barbarea vulgaris	BARBAREA VULGARIS	Garden Yellow-Rocket	0	FAC	FAC	0	Forb	Biennial	Adventive
CXTRIB	Carex tribuloides	Carex tribuloides	Blunt Broom Sedge	7	OBL	FACW	-2	Sedge	Perennial	Native
DIPFUL	Dipsacus fullonum	DIPSACUS SYLVESTRIS	Fuller's Teasel	0	FACU	FACU	1	Forb	Biennial	Adventive
JUNTEN	Juncus tenuis	Juncus tenuis	Lesser Poverty Rush	0	FAC	FAC	0	Forb	Perennial	Native
LONMAA	Lonicera maackii	LONICERA MAACKII	Amur Honeysuckle	0	UPL	UPL	2	Shrub	Perennial	Adventive
PHRAUSM	Phragmites australis ssp. americanus	Phragmites americanus	Common Reed	3	FACW	FACW	-1	Grass	Perennial	Native
POAPRA	Poa pratensis	POA PRATENSIS	Kentucky Blue Grass	0	FAC	FACU	0	Grass	Perennial	Adventive
POPDEL	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	FAC	0	Tree	Perennial	Native
RHACAT	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	FAC	0	Shrub	Perennial	Adventive
SALINT	Salix interior	Salix interior	Sandbar Willow	2	FACW	FACW	-1	Shrub	Perennial	Native
SCHTAB	Schoenoplectus tabernaemontani	Scirpus validus creber	Soft-Stem Club-Rush	3	OBL	OBL	-2	Sedge	Perennial	Native
SCIATV	Scirpus atrovirens	Scirpus atrovirens	Dark-Green Bulrush	4	OBL	OBL	-2	Sedge	Perennial	Native
SECVAR	Securigera varia	CORONILLA VARIA	Crown Vetch	0	UPL	UPL	2	Forb	Perennial	Adventive
SOLALT	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	FACU	1	Forb	Perennial	Native
SOLCAN	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	FACU	1	Forb	Perennial	Native
TAROFF	Taraxacum officinale	TARAXACUM OFFICINALE	Common Dandelion	0	FACU	FACU	1	Forb	Perennial	Adventive
TRIHYB	Trifolium hybridum	TRIFOLIUM HYBRIDUM	Alsike Clover	0	FACU	FACU	1	Forb	Perennial	Adventive
TYPLAT	Typha latifolia	Typha latifolia	Broad-Leaf Cat-Tail	5	OBL	OBL	-2	Forb	Perennial	Native
VERHAS	Verbena hastata	Verbena hastata	Simpler's-Joy	4	FACW	FACW	-1	Forb	Perennial	Native

Conservatism-Based Metrics

Mean C (native species)	2.67
Mean C (all species)	1.60
Mean C (native trees)	0.00
Mean C (native shrubs)	2.00
Mean C (native herbaceous)	3.00
FQAI (native species)	9.24
FQAI (all species)	7.16
Adjusted FQAI	20.66
% C value 0	50%
% C Value 1-3	30%
% C value 4-6	15%
% C value 7-10	5%

Additional Metrics

Species Richness (all)	20
Species Richness (native)	12
% Non-native	40%
Wet Indicator (all)	-0.15
Wet Indicator (native)	-0.83
% hydrophyte (Midwest)	65%
% native perennial	60%
% native annual	0%
% annual	0%
% perennial	90%

Wetland 2 Plant Community Inventory & Summary

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	NC-NE WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
ACENEG	Acer negundo	Acer negundo var. violaceum	Ash-Leaf Maple	0	FAC	FAC	0	Tree	Perennial	Native
ALLCAN	Allium canadense	Allium canadense	Meadow Garlic	3	FACU	FACU	1	Forb	Perennial	Native
ALNGLU	Alnus glutinosa	ALNUS GLUTINOSA	European Alder	0	FACW	FACW	-1	Tree	Perennial	Adventive
DIPFUL	Dipsacus fullonum	DIPSACUS SYLVESTRIS	Fuller's Teasel	0	FACU	FACU	1	Forb	Biennial	Adventive
IRIVIR	Iris virginica var. shrevei	Iris virginica shrevei	Virginia Blueflag	5	OBL	OBL	-2	Forb	Perennial	Native
MONFIS	Monarda fistulosa	Monarda fistulosa	Oswego-Tea	4	FACU	FACU	1	Forb	Perennial	Native
PASSAT	Pastinaca sativa	PASTINACA SATIVA	Parsnip	0	UPL	UPL	2	Forb	Biennial	Adventive
RHACAT	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	FAC	0	Shrub	Perennial	Adventive
RUDLAC	Rudbeckia laciniata	Rudbeckia laciniata	Green-Head Coneflower	4	FACW	FACW	-1	Forb	Perennial	Native
SILPER	Silphium perfoliatum	Silphium perfoliatum	Cup-Plant	5	FACW	FACW	-1	Forb	Perennial	Native
SOLALT	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	FACU	1	Forb	Perennial	Native
THADIO	Thalictrum dioicum	Thalictrum dioicum	Early Meadow-Rue	7	FACU	FACU	1	Forb	Perennial	Native

Conservatism-Based Metrics

Mean C (native species)	3.63
Mean C (all species)	2.42
Mean C (native trees)	0.00
Mean C (native shrubs)	0.00
Mean C (native herbaceous)	4.14
FQAI (native species)	10.25
FQAI (all species)	8.37
Adjusted FQAI	29.60
% C value 0	42%
% C Value 1-3	17%
% C value 4-6	33%
% C value 7-10	8%

Additional Metrics

Species Richness (all)	12
Species Richness (native)	8
% Non-native	33%
Wet Indicator (all)	0.17
Wet Indicator (native)	0.00
% hydrophyte (Midwest)	50%
% native perennial	67%
% native annual	0%
% annual	0%
% perennial	83%

Wetland Fringe Plant Community Inventory & Summary

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	NC-NE WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
AGRSTO	Agrostis stolonifera	Agrostis alba palustris	Spreading Bent	2	FACW	FACW	-1	Grass	Perennial	Native
ASCINC	Asclepias incarnata	Asclepias incarnata	Swamp Milkweed	3	OBL	OBL	-2	Forb	Perennial	Native
BETNIG	Betula nigra	Betula nigra	River Birch	5	FACW	FACW	-1	Tree	Perennial	Native
DAUCAR	Daucus carota	DAUCUS CAROTA	Queen Anne's Lace	0	UPL	UPL	2	Forb	Biennial	Adventive
DIPFUL	Dipsacus fullonum	DIPSACUS SYLVESTRIS	Fuller's Teasel	0	FACU	FACU	1	Forb	Biennial	Adventive
JUNTEN	Juncus tenuis	Juncus tenuis	Lesser Poverty Rush	0	FAC	FAC	0	Forb	Perennial	Native
MONFIS	Monarda fistulosa	Monarda fistulosa	Oswego-Tea	4	FACU	FACU	1	Forb	Perennial	Native
PHAARU	Phalaris arundinacea	PHALARIS ARUNDINACEA	Reed Canary Grass	0	FACW	FACW	-1	Grass	Perennial	Adventive
PLALAN	Plantago lanceolata	PLANTAGO LANCEOLATA	English Plantain	0	FACU	FACU	1	Forb	Perennial	Adventive
RHACAT	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	FAC	0	Shrub	Perennial	Adventive
SOLALT	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	FACU	1	Forb	Perennial	Native
SOLGIG	Solidago gigantea	Solidago gigantea	Late Goldenrod	4	FACW	FACW	-1	Forb	Perennial	Native
VERHAS	Verbena hastata	Verbena hastata	Simpler's-Joy	4	FACW	FACW	-1	Forb	Perennial	Native
VIOSOR	Viola sororia	Viola priceana	Hooded Blue Violet	3	FAC	FAC	0	Forb	Perennial	Native

Conservatism-Based Metrics

Mean C (native species)	2.89
Mean C (all species)	1.86
Mean C (native trees)	5.00
Mean C (native shrubs)	0.00
Mean C (native herbaceous)	2.63
FQAI (native species)	8.67
FQAI (all species)	6.95
Adjusted FQAI	23.16
% C value 0	43%
% C Value 1-3	29%
% C value 4-6	29%
% C value 7-10	0%

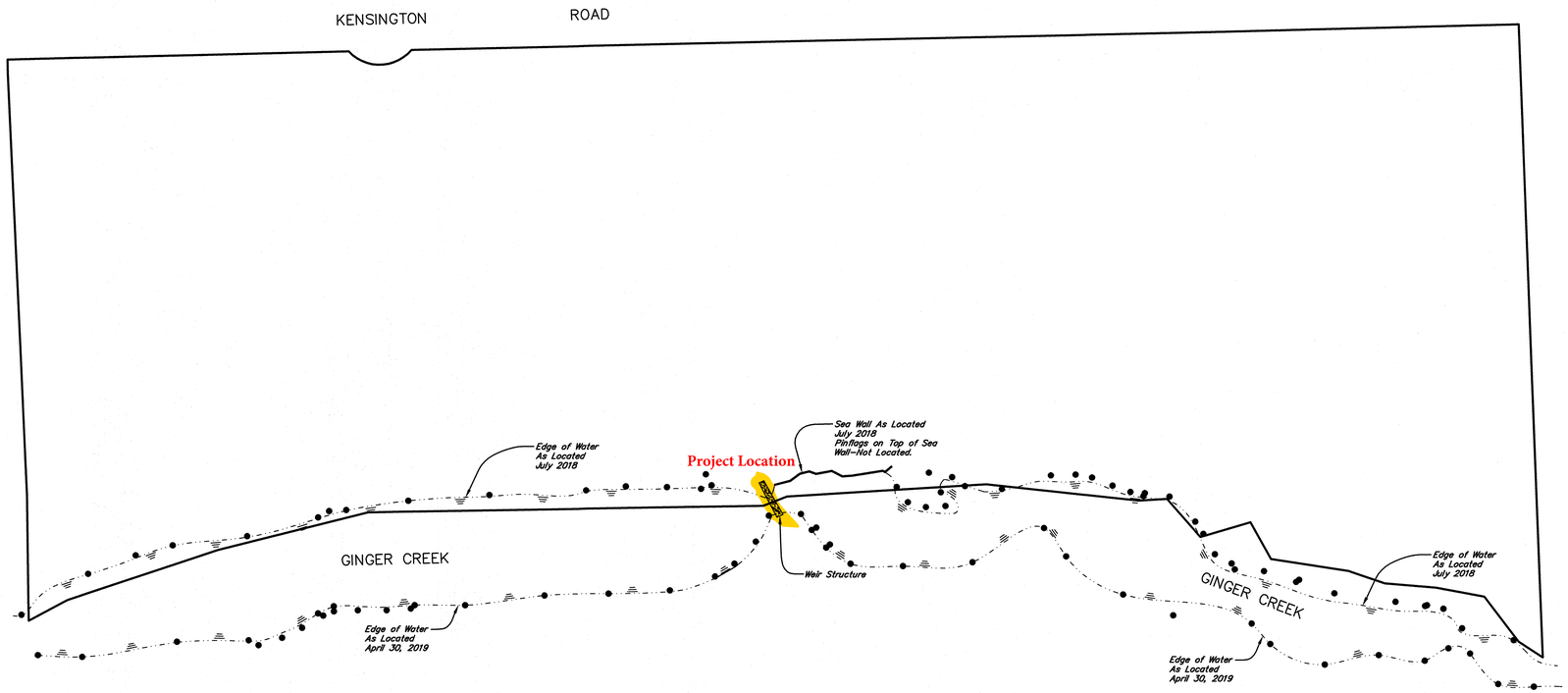
Additional Metrics

Species Richness (all)	14
Species Richness (native)	9
% Non-native	36%
Wet Indicator (all)	-0.07
Wet Indicator (native)	-0.44
% hydrophyte (Midwest)	64%
% native perennial	64%
% native annual	0%
% annual	0%
% perennial	86%

MAP OF GINGER CREEK & WETLANDS

BETWEEN IL ROUTE 83 & JORIE BLVD.

OAK BROOK , IL



N

100 50 0 100

SCALE: 1 INCH = 100 FEET

LINE/SYMBOL LEGEND

- BOUNDARY LIMITS
- EDGE OF WATER
- WETLAND PINFLAG AS LOCATED 4–30–19 AND STAKED BY OTHERS

SURVEYOR'S NOTES

- NORTH EDGE OF GINGER CREEK LOCATED DURING FIELD SURVEY CONDUCTED IN JULY 2018 UNDER NORMAL WATER LEVEL CONDITIONS.
- SOUTH EDGE OF GINGER CREEK LOCATED APRIL 30, 2019 UNDER HIGH WATER CONDITIONS BASED ON SEVERAL DAYS OF SUBSTANTIAL RAINFALL.
- BOUNDARY LINE LIMITS PURSUANT TO BOUNDARY SURVEY AND PLAT PERFORMED AND PREPARED BY CEMCON, LTD. IN APRIL 2019.

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

I, PETER A. BLAESER, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, #035–003072, HEREBY STATE THIS MAP WAS PREPARED UNDER MY DIRECTION BASED ON FIELD SURVEY PERFORMED IN APRIL OF 2018 AND 2019.

GIVEN UNDER MY HAND AND SEAL AT AURORA, ILLINOIS

THIS 2ND DAY OF MAY, A.D., 2019.

PETER A. BLAESER 3072 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS AURORA, ILLINOIS

ILLINOIS PROFESSIONAL LAND SURVEYOR #035–003072.
REGISTRATION/EXPIRATION RENEWAL DATE: NOVEMBER 30, A.D., 2020
PROFESSIONAL DESIGN FIRM LICENSE NO. 184–002937,
EXPIRATION DATE IS APRIL 30, 2021

PREPARED FOR:
OAK BROOK PARK DISTRICT
1450 FOREST GATE ROAD
OAK BROOK, IL 60523

PREPARED BY:

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DISC NO.: 904310 FILE NAME: WETLAND EXHIBIT
DRAWN BY: AJB FLD. BK. / PG. NO.: D81\34–39 & NOTES
COMPLETION DATE: 05–02–19 JOB NO.: 904.310
PROJECT REFERENCE: 402.122

PLOT FILE CREATED 5/2/2019 BY: TONY BUS DRAWING PATH: P:\904310\DWG\SURVEY\DRAWINGS\EXHIBITS\WETLAND EXHIBIT.DWG