WETLAND DELINEATION REPORT

PREPARED FOR:

Lexington Homes
1731 N. Marcey Street,
Suite 200
Chicago, Illinois 60614

SUBJECT SITE:

10 Acre Reserve at Muir Park
1001 Oak Avenue
Prospect Heights, Cook County, Illinois
Latitude 42.118118 - Longitude -87.932605

June 30, 2020

MIDWEST ECOLOGICAL
PO BOX 321 | GILBERTS, ILLINOIS 60136 | 847-514-5476

TABLE OF CONTENTS

WETLAND DELINEATION REPORT

EXECUTIVE SUMMARY

In response to the request of Lexington Homes, Midwest Ecological Inc. (MEI) has performed and wetland delineation of the approximate 10 acre study area located at 1001 Oak Avenue. Geographically the site is located within Section 15, Township 42 North, Range 11 East of the Third Principal Meridian within Prospect Heights, Cook County, Illinois. Utilizing the methods and criteria established by the U.S. Army Corps of Engineers (COE) in their Corps of Engineers Wetlands Delineation Manual (1987) & Midwest Regional Supplement (2008) a wetland investigation of the property was performed. Based on the on-site investigation using the information obtained from the field samples Midwest Ecological, Inc. (MEI) identified one (1) wetland areas totaling **0.19 acres** in size.

Site	Size in Acres	Mean C	FQI	Anticipated Regulatory Agency
Wetland A	0.19	1.13	3.18	MWRD

Please Note: The wetland area is not fully contained within property boundaries. The acreage and quality of the delineated area was assessed for the entire wetland including the off-site portion.

It should be noted that under the current guidelines, any disturbance of a wetland area requires a permit through the US Army Corps of Engineers, Cook County Metropolitan Water Reclamation District (MWRD) or the Village of Prospect Heights. However, mitigation may or may not be required, depending on the overall impact (> 0.10) to the wetland, Waters of the United States or Isolated Wetland of Cook County. This jurisdiction of the identified wetland is at the discretion of the COE.

PURPOSE OF VISIT

The purpose of the site visit is to determine if any Wetlands (various types), Open water pockets, Creeks or Rivers exist on-site and to determine their approximate size, location, quality and jurisdiction. Wetlands encountered were delineated using standard methods sanctioned by the United States Army Corps of Engineers in their Corps of Engineers Wetlands Delineation Manual (1987), Regional Supplement (2008) and Wetland Mapping Conventions – NRCS. Illinois (1998).

DEFINITION OF A WETLAND

The U.S. Army Corps of Engineers (ACOE) and the U.S. Environmental Protections Agency (EPA) define wetlands as:

> "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do

support, a prevalence of vegetation typically adapted for life in saturated soil conditions…" (33 CFR 328.3[b], 1977).

Although not defined by regulation, "normal circumstances" are interpreted by both the ACOE and the Natural Resources Conservation Service to be "the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed" (7 CFR 12.31[b][2][*i*]).

METHODOLOGY

Prior to visiting the site, Midwest Ecological, Inc. (MEI) performed a review of the aforementioned National Wetland Inventory map, Cook County Soil Survey map, United States Geological Survey Maps and aerial photographs in order to determine existing site conditions. Site visits were then conducted by an Environmental Wetland Specialist from MEI on June 12 & 26, 2020. The COE 1987 Wetlands Delineation Manual Technical Report Y-87-1 & 2008 Midwest Regional Supplement 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.

Within 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 m2 plot
Woody vines	- 30-ft radius

If greater than 50% of the plants present in each stratum or layer of the plant community are FAC (with the exception of 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 there are still 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 (Field Indicators of Hydric Soils in the United States) which provides a detailed description of how to identify the indicators in during a site visit. 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: Observation of Surface Water or Saturated Soils, Evidence of Recent Inundation, Evidence of Current or Recent Soil Saturation, and 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.

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 7).

Location

The approximate 10 acre study area is found at common address 1001 Oak Avenue. Geographically the site is located within Section 15, Township 42 North, Range 11 East of the Third Principal Meridian within Prospect Heights, Cook County, Illinois (Latitude 42.118118 - Longitude -87.932605).

National Wetland Inventory Map

The National Wetland Inventory (NWI) Map for the Arlington Heights Quadrangle was reviewed to determine the location of wetland areas on the subject site. It should be noted that these maps are only large scale guides, actual wetland locations and types may vary. Ultimate qualification occurs during field reconnaissance.

Per our review of the NWI map the study does contain a PEMC wetland area on the SE corner.

PEMC: Palustrine, Emergent Season Flooded

The PEMC wetland, identified on the NWI Map, was not observed at the time of our investigation. The location of the wetland noted on the NWI map is partial wooded area that is also being utilized for mulch. Two data points, DP 1 & DP 2, were taken within the area of highlighted PEMC wetland and no wetland soil profile or wetland vegetation was observed. The PEMC wetland designated on the NWI map was either historically impacted or improperly identified.

Cook County Soil Survey Map

The Soil Survey of Cook County (2011), Illinois was investigated to determine the location of hydric soils on the subject site. Mapped hydric soils can indicate wetland areas. The following soil profiles were noted.

854 B – Markham-Ashkum-Beecher Complex, 1-6% slopes (moderately well drained)

United States Geological Survey and Hydrological Atlas Maps

The Hydrological Atlas for Prospect Heights Illinois (2018 and 1963), as illustrated on the Arlington Heights quadrangle, U.S.G.S. and Hydrological Atlas maps. These maps were reviewed to determine the historical local drainage patterns. Upon review of this drainage pattern, all drainage is conveyed east, northeast, towards the Wheeling Drainage Ditch. The overall site and wetland drains to an existing stormsewer located on the east property line. An open grate stormwater manhole was observed within the delineated wetland boundary

Flood Insurance Rate Map (F.I.R.M.)

The Flood Insurance Rate Maps (F.I.R.M.), for Cook County, Illinois, Community Panel No. 17031C0206 J effective dates August 19, 2008 were reviewed to determine the location of regulatory floodplains and floodways within the subject site. Mapped floodplains can be indicative of wetland hydrology.

Based on the F.I.R.M. Map, the study area does contain a Zone A flood plain zone within the property boundaries.

WETLAND FIELD DELINEATION

An on-site wetland delineation of the property was conducted on June 12 & 26, 2020. Wetland boundaries were determined using the COE guidelines and the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) guidelines, as stated previously. The routine method of wetland delineation was used, incorporating information on vegetation, hydrology and soils. The full width of the property was traversed and when a suspected wetland was encountered, the plant species present were determined by making several random passes through the area. If wetland plant species were found to be comprised of 50% or more of plant cover (i.e., wetland vegetation was dominant), the suspected wetland was further examined for the necessary field indicators of hydric soil and hydrology. The wetland boundaries were then defined and all observed plant species were recorded.

The plant taxonomic nomenclature and the Natural Area Index (NAI) used in this report follow's the Chicago Region FQA Index (2017). A more detailed survey would be necessary for a more complete plant list and while more species might be obtained from additional surveys, this would not change the areas delineated as wetlands.

Study Area: The approximate 10 acre parcel was previously an Elementary School and park. The vacant school building and parking area is found onsite along with the baseball and soccer field. One wetland was located along the east property line.

Wetland A: Wetland A is a depressional wooded wetland pocket located on the east property line. Wetland is a contained depression that receives surface drainage from upland watershed surrounding the site. The delineated wetland appears to have a regulated outfall via an open grate stormwater manhole. The manhole was full of water but appears to convey water to the north. Wetland A is characterized by data point 1A & 2A and is **0.18 acres** in size. The dominant vegetation found was determined to be Common Buckthorn (*Rhamnus cathartica*).

During our investigation, positive wetland hydrology was met with the primary indicators of Saturation (A3), High Water Table (A2), Water Marks (B1), Sparsely Vegetated Concave Surface (B8) and secondary indicators of Surface Soil Cracks (B6) and Drainage Patterns (B10). Mapped soil is identified as Markham-Ashkum-Beecher Complex (854 B) which is a moderately well drained soil. Primary soil indicators of thick dark surface (A12) was noted within the flagged boundary.

Said vegetation soils and hydrology information noted above can be found in the datasheets section of this report. Please note data sheets 1A-3A reference wetland A.

Site:	Reserve at Muir Park
Locale:	Wetland A
By:	Robert Vanni

Conservatism-Based Metrics		**Additional Metrics**	
Mean C (native species)	1.13	Species Richness (all)	14.00
Mean C (all species)	0.64	Species Richness (native)	8.00

Mean C (native trees)	1.25	% Non-native	0.43
Mean C (native shrubs)	1.00	Wet Indicator (all)	-0.36
Mean C (native herbaceous)	1.00	Wet Indicator (native)	-0.63
FQAI (native species)	3.18	% hydrophyte (Midwest)	0.93
FQAI (all species)	2.41	% native perennial	0.50
Adjusted FQAI	8.50	% native annual	0.07
% C value 0	0.57	% annual	0.07
% C Value 1-3	0.36	% perennial	0.86
% C value 4-6	0.07		
% C value 7-10	0.00		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
aceneg	*Acer negundo*	Ash-Leaf Maple	0	FAC	0	Tree	Perennial	Native
acesai	*Acer saccharinum*	Silver Maple	1	FACW	-1	Tree	Perennial	Native
allpet	*Alliaria petiolata*	Garlic-Mustard	0	FAC	0	Forb	Biennial	Adventive
bidfro	*Bidens frondosa*	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
corrac	*Cornus racemosa*	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
cypstr	*Cyperus strigosus*	Straw-Color Flat Sedge	1	FACW	-1	Sedge	Perennial	Native
frapen	*Fraxinus pennsylvanica*	Green Ash	4	FACW	-1	Tree	Perennial	Native
lontat	*Lonicera tatarica*	Twinsisters	0	FACU	1	Shrub	Perennial	Adventive
phaaru	*Phalaris arundinacea*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
poapra	*Poa pratensis*	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	*Populus deltoides*	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
rhacat	*Rhamnus cathartica*	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
soldul	*Solanum dulcamara*	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
vitrip	*Vitis riparia*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Wetland A Jurisdictional Determination Opinion: It appears the wetland is an isolated wetland of Cook County due to the lack of a traceable connection to a navigable waterway. A JD should be requested to verify the regulatory agency.

CONCLUSIONS

The site was evaluated using U.S. Army Corps of Engineers and USDA guidelines for identifying wetlands. After evaluation of all data obtained, the study area contains one wetland area totaling **0.19 acres** in size.

COOK COUNTY REGULATIONS

The Watershed Management Ordinance governed by the Metropolitan Water Reclamation District of Greater Chicago regulates the protection of existing water resources based on Article 3 & Article 6. The regulated areas include: lakes, streams, floodplains, wetlands and groundwater from detrimental and unnecessary modification in order to maintain their beneficial functions, reducing or mitigating the environmentally detrimental effects of existing and future runoff in order to improve and maintain water quality, preserving and enhancing existing riparian environments, controlling erosion and the discharge of sediment from all sources including, but not limited to, stormwater facilities, waterways, developments, and construction sites.

Mitigation for developments that impact an isolated wetland shall provide for the replacement of the lost wetland environment in accordance with Table 5 of this Article 6 of this Ordinance:

Table 5. Isolated Wetland Mitigation Requirement Ratios

Wetland Quality	Area	§604.9(A)	§604.9(B)	§604.9(C)	§604.9(D)
Standard Isolated Wetland	[illegible] acre	None			
	[illegible] acre		[illegible]		
High Quality Isolated Wetland	Any			[illegible]	
Impacts Prior to Issuance of Permit					[illegible]

A. Impacts to standard isolated wetlands less than one-tenth of an acre (0.10 acre) in aggregate do not require mitigation;
B. Impacts to standard isolated wetlands more than or equal to one-tenth of an acre (0.10 acre) in aggregate shall be mitigated at a minimum ratio of one-and- one-half acre of creation for each acre impacted (1.5:1);
C. High quality isolated wetlands impacts shall be mitigated at a minimum ratio of three acres of creation for each acre impacted (3:1);
D. Isolated wetland impacts initiated after the effective date of this Ordinance and prior to issuance of a Watershed Management Permit, or other unauthorized impact shall be mitigated at a minimum ratio of three acres of creation for each acre impacted (3:1); and
E. The District, federal, state, and local authorities may require a greater compensation ratio where unique wetland functions are threatened.

Development that impacts onsite standard isolated wetlands that are equal to or greater than one-tenth of an acre (0.10 acre) in aggregate shall be prohibited unless documentation is submitted which demonstrates that no practicable alternative to wetland modification exists. Based upon a review of the submitted documentation and other available resources, either the District or an authorized municipality will make a determination as to whether the proposed wetland modifications will be permitted. Development that impacts onsite high quality isolated wetlands shall be prohibited unless documentation is submitted that demonstrates:

A. That the presence of high quality isolated wetlands precludes all economic use of the site and that no practicable alternative to wetland modification exists; or
B. That avoidance of high quality isolated wetlands would create a hazardous road condition and that no practicable alternative to isolated wetland modification exists.

Based upon a review of the submitted documentation and any other available resources, either the District or an authorized municipality will make the final determination as to whether the proposed high quality isolated wetland modification represents the least amount of wetland impact required to allow economic use of the parcel or to mitigate the road hazard; and a determination as to whether a permit should be granted.

Based on the Metropolitan Water Reclamation District, Watershed Management Ordinance, a buffer to the off-site wetland may be required. The wetland buffers criteria based on the Watershed Management Ordinance is as follows: Any developments involving riparian

environments shall identify the boundaries of those riparian environments by using the following documents or procedures at the time of the development and which are summarized in Table 6 of this Article 6 of this Ordinance:

Table 6. Riparian Environment Determination				
Biological Stream Characterization	**Waters Classification**	**§606.2 (A)**	**§606.2 (B)**	**§606.2 (C) or (D)**
All Other Streams	Jurisdictional Water of the U.S.	*50 feet from the OHWM*		
	Isolated Waters		*30 feet from the OHWM*	
BSC of "A" or "B" or **BSS** Streams	Jurisdictional Water of the U.S.			*100 feet from the OHWM*
	Isolated Waters			*100 feet from the OHWM*

A. For any Jurisdictional Waters of the U.S. that does not qualify as a wetland, the riparian environment shall be 50 feet from the OHWM.
B. For any Isolated Waters that does not qualify as a wetland, the riparian environment shall be 30 feet from the OHWM.
C. For any Jurisdictional Waters of the U.S. or for any Isolated Waters that do not qualify as a wetland, and which have a BSC of "A" or "B", the riparian environment shall be 100 feet from the OHWM.
D. For any Jurisdictional Waters of the U.S. or Isolated Waters that do not qualify as a wetland identified as a BSS, the riparian environment shall be 100 feet from the OHWM.

Wetland buffers for isolated wetlands shall be determined according to the classification of the wetland as determined in §603.8 of this Ordinance. Minimum isolated wetland buffer widths shall be as follows and as summarized in Table 3 of this Article 6 of this Ordinance:

A. Thirty feet from the boundary of **standard isolated wetlands** greater than or equal to one-tenth of an acre (0.10 acre) and less than one-half of an acre (0.5 acre) in area;
B. Fifty feet from the boundary of **standard isolated wetlands** greater than or equal to one-half of an acre (0.5 acre) in area; or
C. One-hundred feet from the boundary of **high quality isolated wetlands**.

Table 3. Wetland Buffer Determination for Isolated Wetlands

Wetland Quality	Acreage	§603.9(A)	§603.9(B)	§603.9(C)
Standard Isolated Wetland	≥ 0.10 acre and < 0.50 acre	30 ft		
	≥ 0.50 acre		50 ft	
High Quality Isolated Wetland	No minimum			100 ft

Should you have any questions, please do not hesitate to contact our office.

Sincerely,

Midwest Ecological, Inc. (MEI)

Robert L. Vanni
Senior Environmental Resource Specialist

APPENDIX A

Exhibits

Source: BingAerial Photograph, May 2020

MIDWEST ECOLOGICAL

Wetland Aerial Photograph (1 of 2)

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S

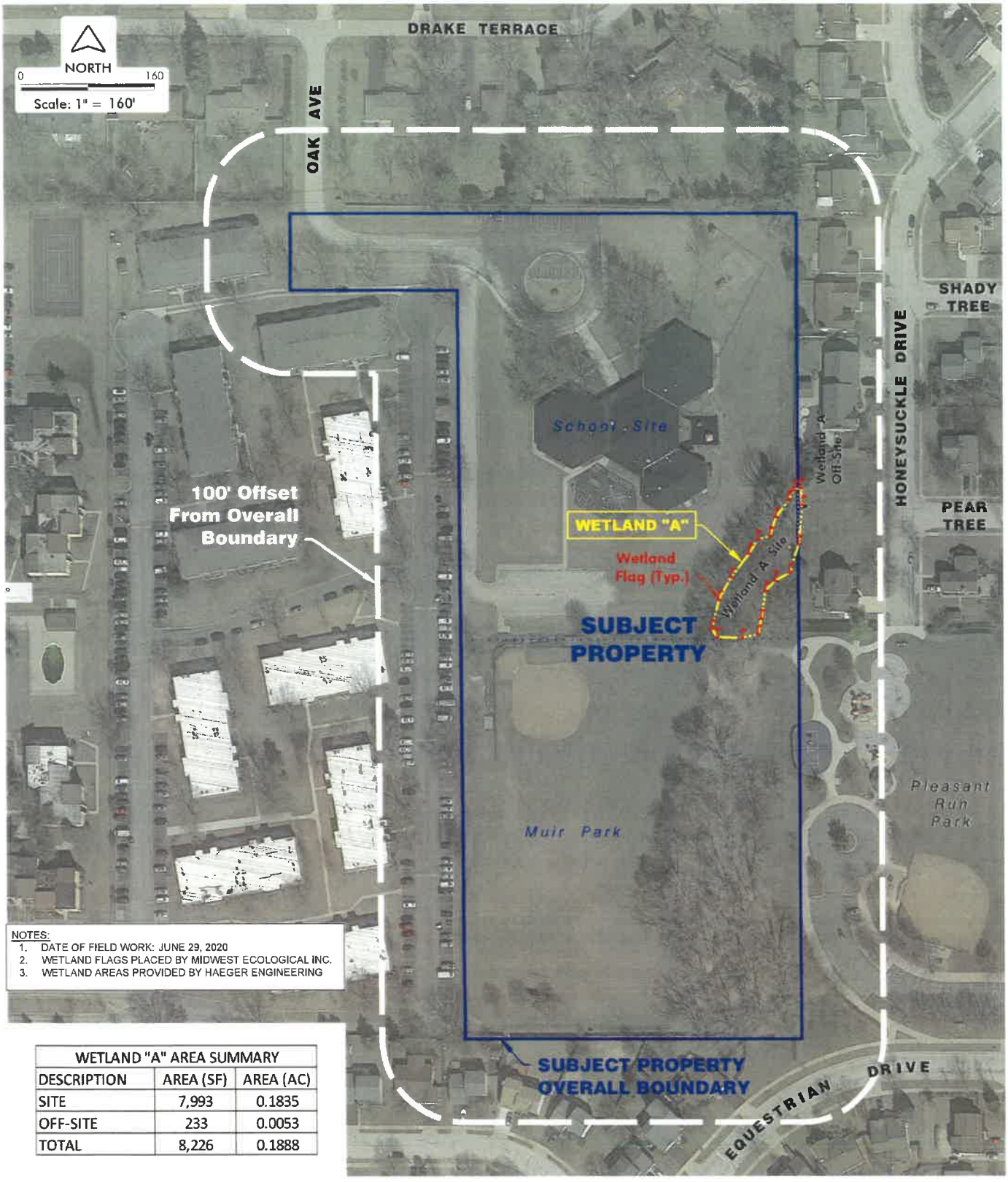
Source: Pictometry Aerial Photograph, May 2019

MIDWEST ECOLOGICAL

Wetland Aerial Photograph (2 of 2)

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S



NOTES:
1. DATE OF FIELD WORK: JUNE 29, 2020
2. WETLAND FLAGS PLACED BY MIDWEST ECOLOGICAL INC.
3. WETLAND AREAS PROVIDED BY HAEGER ENGINEERING

WETLAND "A" AREA SUMMARY		
DESCRIPTION	AREA (SF)	AREA (AC)
SITE	7,993	0.1835
OFF-SITE	233	0.0053
TOTAL	8,226	0.1888

Project Manager: TAS
Engineer: PAC
Date: 06/29/2020
Project No. 18-219
Sheet 1 / 1

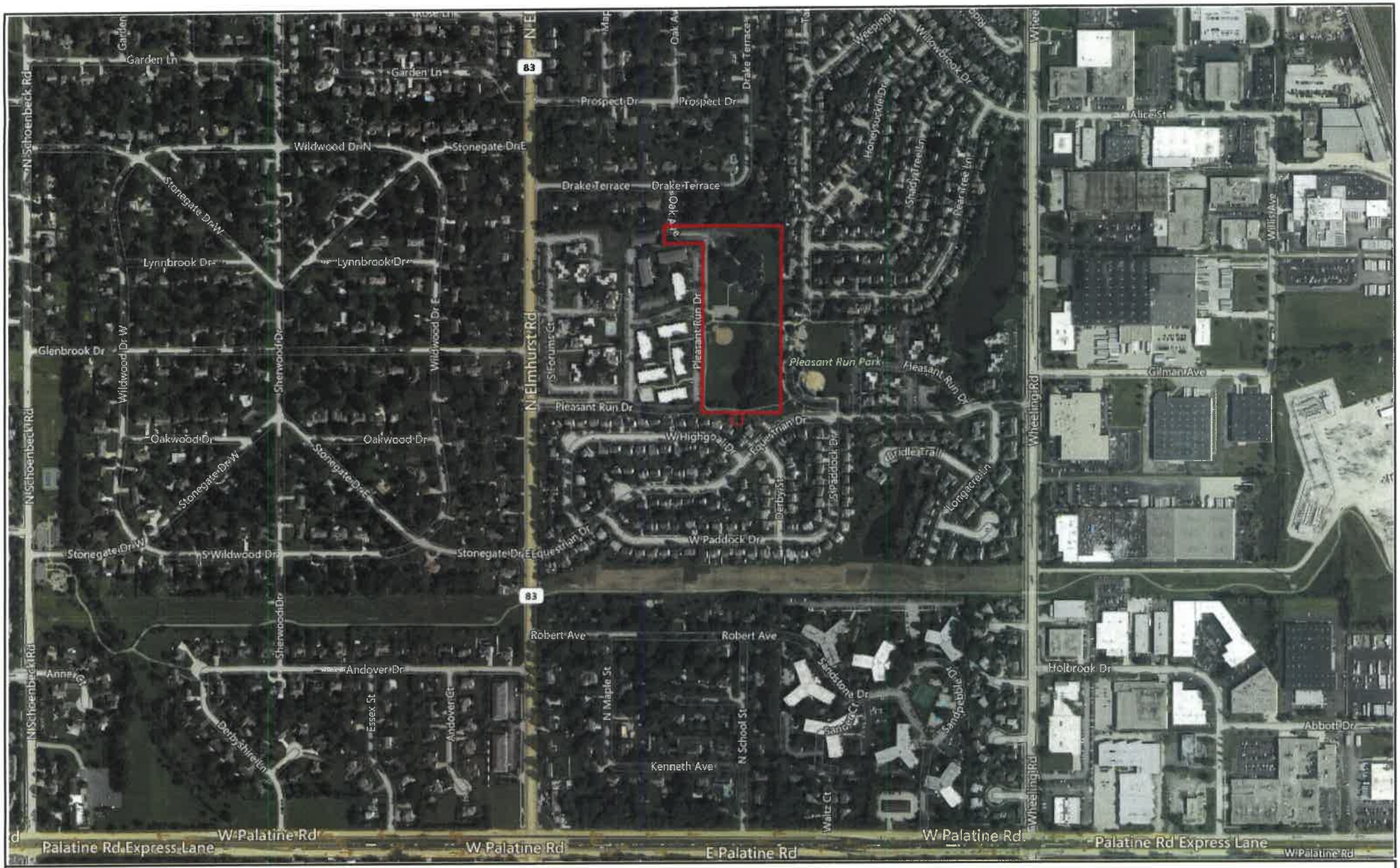
WETLAND EXHIBIT

RESERVE AT MUIR PARK

CITY OF PROSPECT HEIGHTS, COOK COUNTY, ILLINOIS

HAEGER ENGINEERING
consulting engineers • land surveyors
100 East State Parkway, Schaumburg, IL 60173 • Tel: 847.394.6600 Fax: 847.394.6608
Illinois Professional Design Firm License No. 184-003152
www.haegerengineering.com

© 2020 Haeger Engineering, LLC



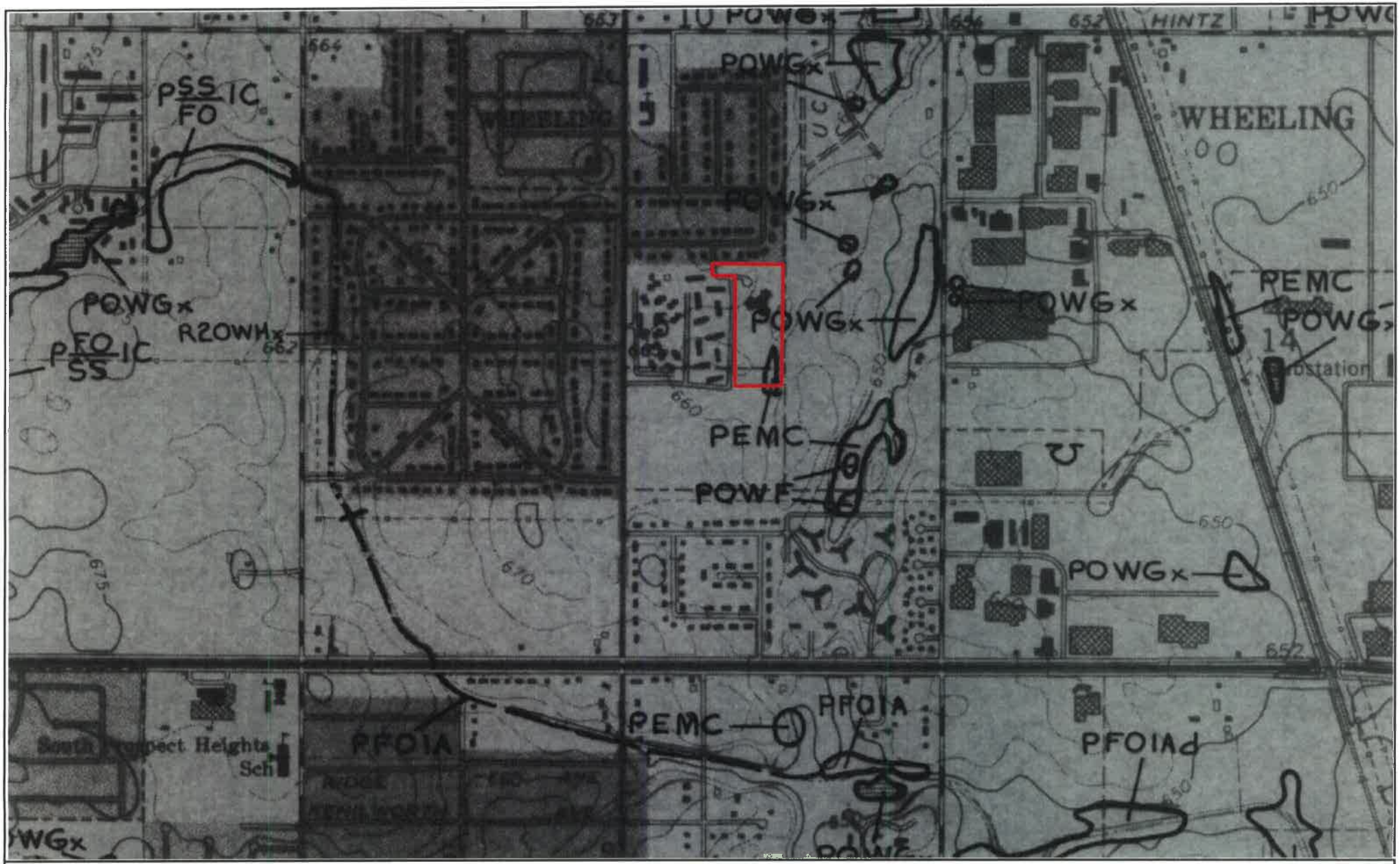
Source: Bing Aerial Street Finder Map

MIDWEST ECOLOGICAL

Location Map

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S



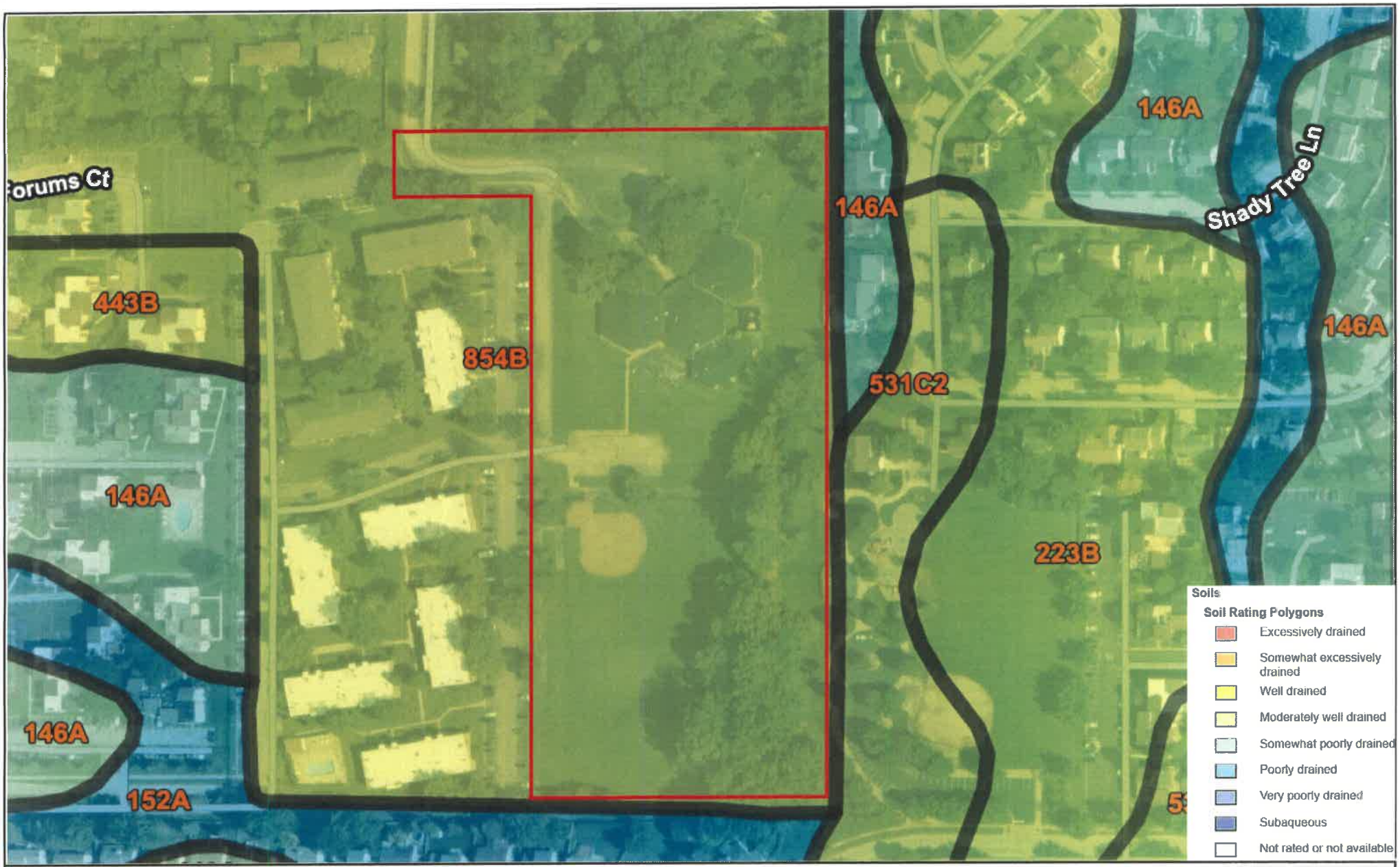
Source: National Wetland Inventory Map

MIDWEST ECOLOGICAL

N.W.I. Map

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S



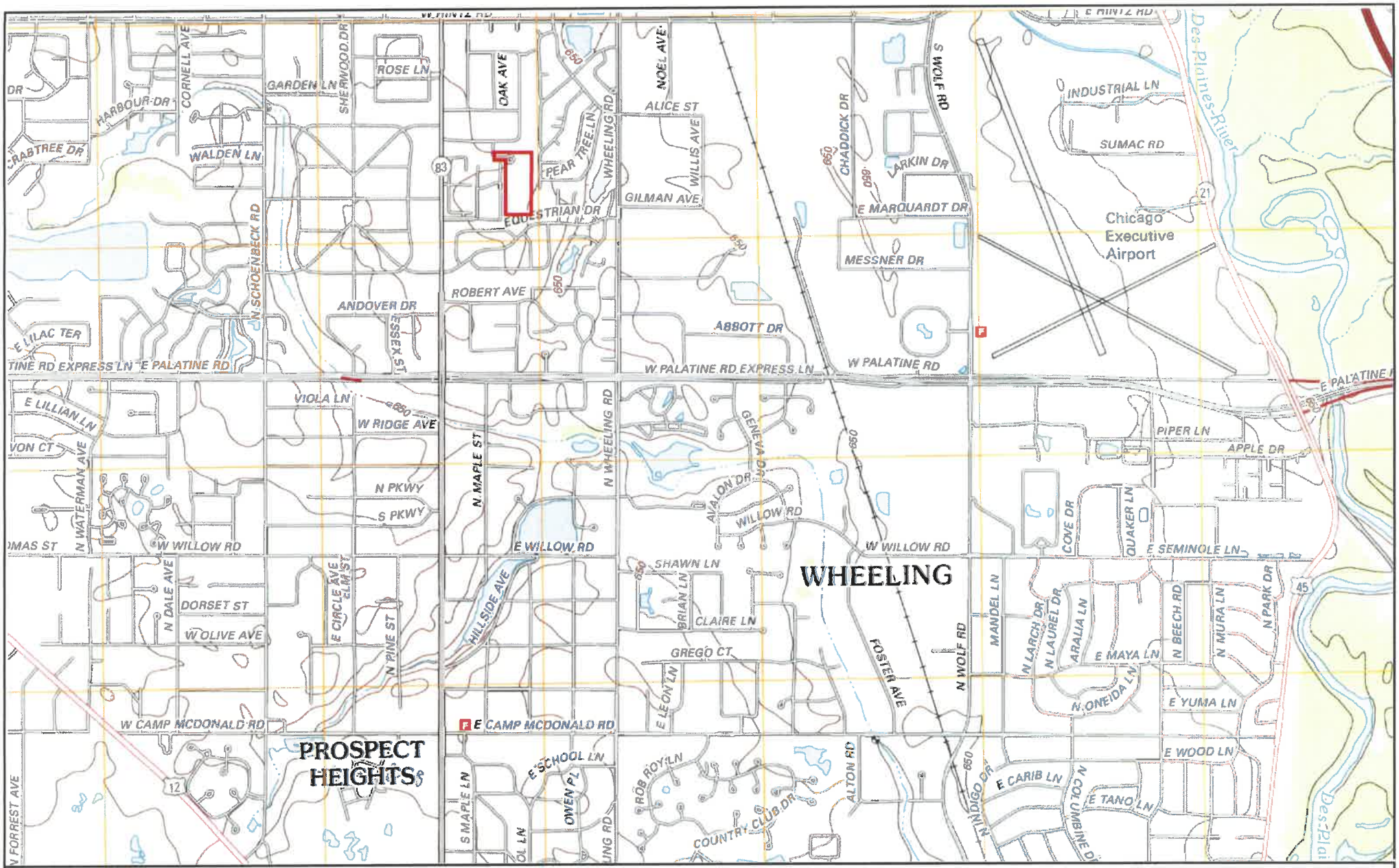
Source: Websoil Cook County Soil Survey Map

MIDWEST ECOLOGICAL

Cook County Soil Map

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S



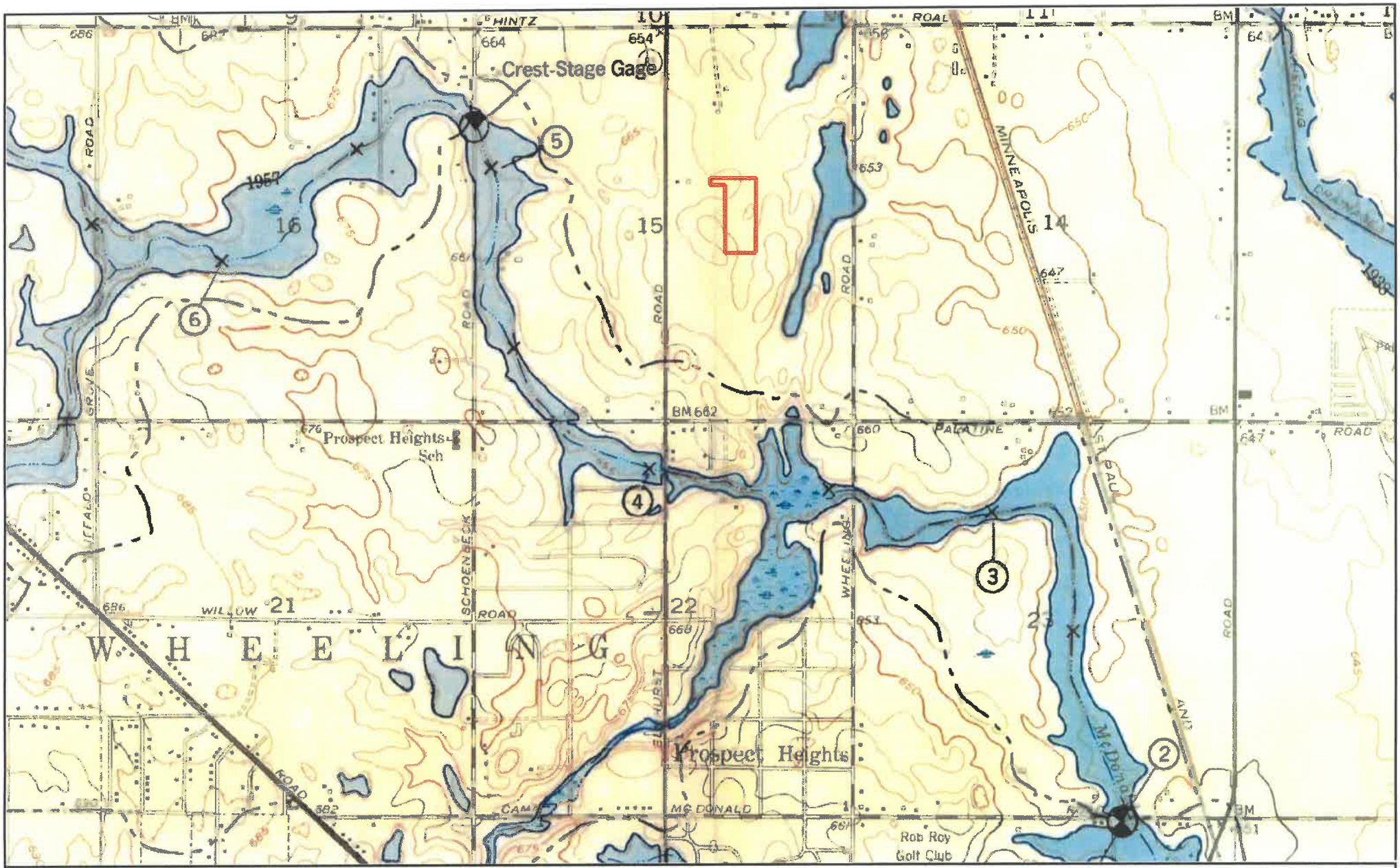
Source: United States Geological Survey Map (2015)

MIDWEST ECOLOGICAL

U.S.G.S. Map

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S



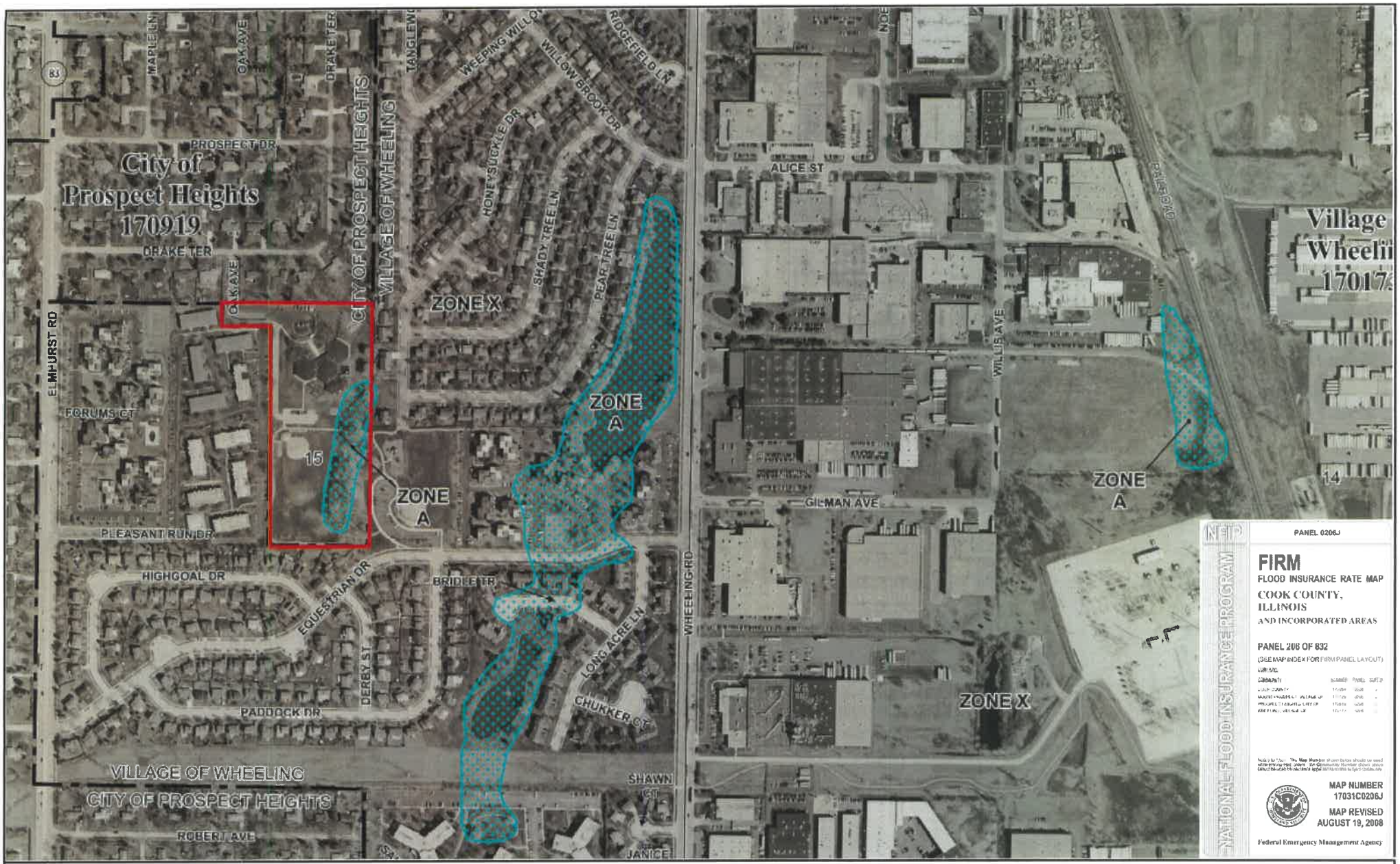
Source: United States Geological Survey, Hydrological Atlas Map HA -67 (1963)

MIDWEST ECOLOGICAL

Hydrological Atlas Map

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S



Source: Flood Insurance Rate Map (FIRM)

MIDWEST ECOLOGICAL

F.I.R.M. Map

Client: John Agenlian, Lexington Homes
1731 N. Marcey Street, Suite 200
Chicago, IL., 60614

N
W E
S

APPENDIX B

Photographs

Wetland A is a depressional wooded wetland located along the east property line.

Wetland A is primarily devoid of herbaceous vegetation within the under story. Ponding, soil cracking, water marks and drift deposits were common.

A open grate manhole structure was found within the wetland area. The structure was full of water.

Data Point 1A confirmed a wetland soil condition.

Data Point 2A confirmed a wetland soil condition.

Data Point 3A was taken up the slope and is considered an upland soil profile.

Investigated area 2 contained a partial wooded area that separates the ball field and play ground area.

This partial wooded area is highlighted as a wetland on the NWI map. This area contains about 18" of shredded mulch. A soil sample was taken below the mulch and revealed dry black dirt. The sample did not meet the hydrology criteria highlighted on DP 2. This area is not considered a wetland.

DP1 was taken in a low lying area on the edge of the wooded area. The data point did not reveal a wetland condition.

Photograph taken of the ball field located at the Southwest corner of the site.

APPENDIX C

Data Sheets

Reset Form | Print Form

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 1001 Oak Avenue City/County: Prospect Heights, Cook Sampling Date: 6-26-2020

Applicant/Owner: Lexington Homes State: Illinois Sampling Point: 1A

Investigator(s): Rob Vanni Section, Township, Range: Sec 15, T42 N, R 11E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 42.117724 Long: -88.932032 Datum: _____

Soil Map Unit Name: Markham-Ashkum-Beecher Complex (854 B) NWI or WWI classification: No

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 X significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

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:

An open grate stormwater basin was observed within the delineated wetland A. Wetland A may be used for stormwater purposes.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	15	No	FACW
2.			
3.			
4.			
5.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rhamnus cathartica*	50	Yes	FAC
2.			
3.			
4.			
5.			
	50 = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. *Vitis riparia*	15	No	FACW
2.			
	15 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		210 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ 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.)

Hyrdophytic vegetation was present within the sample point.

SOIL

Sampling Point: 1A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10 YR 2/1	100					SiCL	
16-22"	10 YR 3/1	98	10YR 4/2	2	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- X 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)
- ___ 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)
- ___ 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:

Hydric soil was noted within the sample point.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)

- X Surface Soil Cracks (B6)
- X 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 X No ____ Depth (inches): 12"

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 8"

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Wetland hydrology criteria has been met.

Reset Form | Print Form

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 1001 Oak Avenue City/County: Prospect Heights, Cook Sampling Date: 6-26-2020

Applicant/Owner: Lexington Homes State: Illinois Sampling Point: 2A

Investigator(s): Rob Vanni Section, Township, Range: Sec 15, T42 N, R 11E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 42.117493 Long: -88.932470 Datum: _____

Soil Map Unit Name: Markham-Ashkum-Beecher Complex (854 B) NWI or WWI classification: No

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 X significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

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:

Wetland A may have been used for stormwater purposes for the adjacent school building.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	15	No	FACW
2.			
3.			
4.			
5.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rhamnus cathartica*	60	Yes	FAC
2.			
3.			
4.			
5.			
	60 = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. *Vitis riparia*	10	No	FACW
2.			
	10 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		230 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ 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.)

Hydrophytic vegetation was present within the sample point.

SOIL

Sampling Point: 2A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10 YR 2/1	100					SiL	
12-28"	10 YR 2/1	95	10YR 4/1	5	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- X 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)
- ___ 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)
- ___ 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:

Hydric soil was noted within the sample point.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)

- X Surface Soil Cracks (B6)
- X 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 X No _____ Depth (inches): 10"

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Wetland hydrology criteria has been met.

Reset Form | Print Form

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 1001 Oak Avenue City/County: Prospect Heights, Cook Sampling Date: 6-26-2020

Applicant/Owner: Lexington Homes State: Illinois Sampling Point: 3A

Investigator(s): Rob Vanni Section, Township, Range: Sec 15, T42 N, R 11E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 42.117562 Long: -87.932290 Datum: _____

Soil Map Unit Name: Markham-Ashkum-Beecher Complex (854 B) NWI or WWI classification: No

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 _____ No X

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 _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

The data point was taken on the upslope, in between the flagged wetland and turf grass area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rhamnus cathartica*	50	Yes	FAC
2. *Lonicera tatarica*	25	Yes	FACU
3. *Rosa multiflora*	15	No	FACU
4.			
5.			
	90 = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. *Vitis riparia*	5	No	FACW
2.			
	5 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	50	x 3 =	150
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	95 (A)		320 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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.)

Hydrophytic vegetation was not present within the sample point.

SOIL

Sampling Point: 3A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8"	10 YR 2/1	100					SiCL	
8-18"	10 YR 2/1	80	10YR 4/3	20	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ 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:

Hydric soil was not observed within the sample point.

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): >18"

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Wetland hydrology criteria was not met.

Reset Form | Print Form

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 1001 Oak Avenue City/County: Prospect Heights, Cook Sampling Date: 6-26-2020

Applicant/Owner: Lexington Homes State: Illinois Sampling Point: DP 1

Investigator(s): Rob Vanni Section, Township, Range: Sec 15, T42 N, R 11E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 42.117260 Long: -87.932309 Datum: _____

Soil Map Unit Name: Markham-Ashkum-Beecher Complex (854 B) NWI or WWI classification: No

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 _____ No X

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 _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

The data point was taken within a minor depression on the edge of the wooded area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rhamnus cathartica*	15	No	FAC
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: _____)			
1. *Poa pratensis*	30	Yes	FAC
2. *Trifolium hybridum*	45	Yes	FACU
3. *Alliaria petiolata*	10	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	55	x 3 =	165
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	100 (A)		345 (B)

Prevalence Index = B/A = 3.45

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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.)

Hydrophytic vegetation was not present within the sample point.

SOIL

Sampling Point: DP 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10 YR 2/1	100					SiCL	
6-14"	10 YR 2/1	100					SiCL	mulch/wood dust was observed
14-18"	10 YR 2/1	80	10 YR 4/3	20	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ 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:

Hydric soil was not observed within the sample point.

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): >18"

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Wetland hydrology criteria was not met.

Reset Form | Print Form

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 1001 Oak Avenue City/County: Prospect Heights, Cook Sampling Date: 6-26-2020

Applicant/Owner: Lexington Homes State: Illinois Sampling Point: DP 2

Investigator(s): Rob Vanni Section, Township, Range: Sec 15, T42 N, R 11E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 42.116406 Long: -87.932261 Datum: _____

Soil Map Unit Name: Markham-Ashkum-Beecher Complex (854 B) NWI or WWI classification: No

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

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

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:

The data point had 14" of mulch placed over the ground. MEI removed the mulch to take a soil sample of bare ground.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	30	Yes	FAC
2. *Acer negundo*	10	No	FACW
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rhamnus cathartica*	10	No	FAC
2. *Lonicera tatarica*	5	No	FACU
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Arctium minus*	20	Yes	FACU
2. *Trifolium hybridum*	5	No	FACU
3. *Alliaria petiolata*	10	No	FAC
4. *Taraxacum officinale*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	40	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	50	x 3 =	150
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	95 (A)		310 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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.)

Hydrophytic vegetation was not present within the sample point.

SOIL

Sampling Point: DP 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14"								MULCH PILE
14-28"	10 YR 2/1	100					SiL	
28-34"	10 YR 2/1	75	10 YR 4/1	15	C	M	SiL	
			10 YR 4/3	10	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- X 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)
- ___ 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)
- ___ 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:

Hydric soil was observed within the sample point.

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): >18"

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Wetland hydrology criteria was not met.

APPENDIX D

Habitat Evaluation Score Sheet

OBSERVER: Rob Vanni
DATE: June 26, 2020
LOCATION: Wetland A

WILDLIFE HABITAT/USE EVALUATION SCORE SHEET

To assess the existing and/or potential wildlife habitat use of the subject wetland, the applicant must first complete this score sheet. The attached documentation provides examples of each scoring parameter.

A separate sheet must be completed for each wetland being considered.

Applicants must document their basis for scoring decisions with field surveys, current photographs, aerial photographs, and other appropriate information.

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3
Evident	2
Low	**1**
Occasional	0.5
Non-Existent	0

SUB-TOTAL SCORE = 1.0

Response: The wetland is a wooded wetland with little to no herbaceous vegetation within the understory. The wetland has little habitat usage.

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3
Medium	2
Low	**1**

SUB-TOTAL SCORE = 1.0

C. Vegetative Cover to Open Water

Cover	Score
>95% Cover	0.5
76% - 95% Cover, Peripheral	1.5
76% - 95% Cover, Various	2.5
26% - 75% Cover, Peripheral	2.0
26% - 75% Cover, Patches	3.0
5% - 25% Cover, Peripheral	**1.0**
<5% Cover	0.5

SUB-TOTAL SCORE = 1.0

Response: After rain events or snow melt, pockets of water are observed, however the wetland is typically dry

TOTAL SCORE (A+B+C) = 3.0

Total score ≥ 5.00 apply Ludwig Wildlife Methodology
Total score < 5.00 no further wildlife analysis is necessary

Wildlife habitat use evaluation of any particular wetland should consider both the actual wildlife uses and an analysis of the habitat values related to wildlife. Habitat evaluation provides consideration of conditions for species of wildlife that may not be currently using a wetland, but preferred habitat for feeding, nesting, rearing of young, or cover is present.

Wildlife habitat/use, ideally, should be analyzed over an entire year and for some wetlands, several years' conditions should be documented. However, obvious time constraints do not allow this. Therefore, if the evaluator does not have personal knowledge of the wetland during other seasons/years and does not have training in wildlife, a degreed wildlife biologist or ecologist should be requested to complete this section of the evaluation.

A. Utilization by Wildlife

Complete the table on the evaluation form for each wildlife group for the uses listed across the top of the table using the following point system. Consider all seasons of the year in this evaluation.

Use by wildlife group within each habitat is significant in that loss or reduction of the habitat would have an adverse effect (i.e., loss of individuals) on the population of the species or overall wildlife population in the general area (township). **SCORE = 3**

Use by wildlife group within each habitat is evident or probable and loss or reduction of the habitat would have an adverse effect (i.e., loss of individuals) on the local wildlife population (surrounding sections). **SCORE = 2**

Use by wildlife group within each habitat is incidental or low in that loss or reduction of the habitat would have a negligible effect (i.e., loss of individuals) on the local wildlife population. **SCORE = 1**

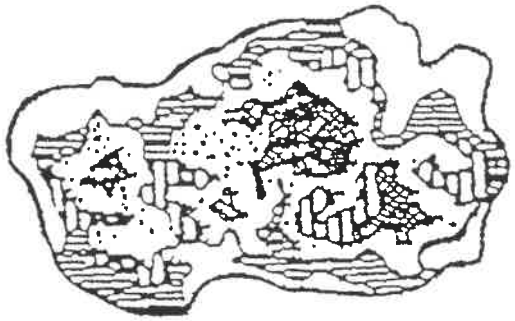
Use by wildlife group within each habitat is nonexistent at any time during any year. NOTE: Use 0.5 to signify occasional use. **SCORE = 0**

B. Interspersion of Vegetative Cover

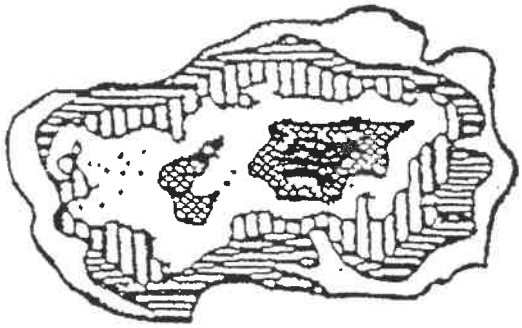
From recent aerial photographs of the wetland, determine which of the following criteria best describes the vegetative forms of the site. Determine from conditions at the peak of the growing season.

	COMMUNITY TYPE 1
	COMMUNITY TYPE 2
	COMMUNITY TYPE 3
	COMMUNITY TYPE 4
	COMMUNITY TYPE 5
	COMMUNITY TYPE 6

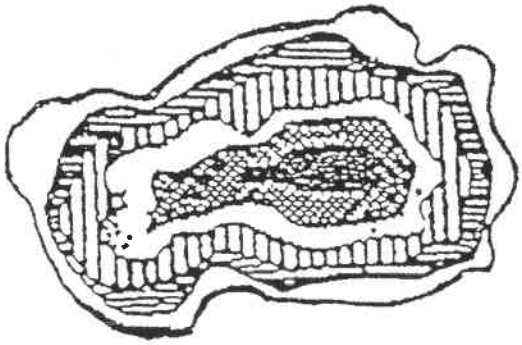
High interspersion of vegetation. Edge is abundant and consists of several species. Life form zones of vegetation are broken into segments of variable size and shape. Subforms of vegetation are small and scattered. **SCORE = 3**



Moderate interspersion of vegetation. Edge is moderate in length and diversity with some irregularity in the distribution of subform stands, but vegetation life forms remain largely intact. **SCORE = 2**



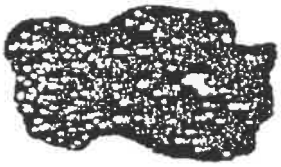
Low interspersion of vegetation. Length and types of edge are at a minimum. The wetland consists of concentric life forms and subforms. Subform stands are large and continuous. **SCORE = 1**



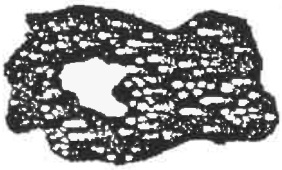
C. Vegetative Cover to Open Water

From a recent aerial photograph of the wetland, determine which of the following criteria best describes the vegetation/open water characteristics of the wetland. NOTE: Wetland cover types: white areas indicate water (with or without surface plants); black areas indicate emergents, shrubs, or trees.

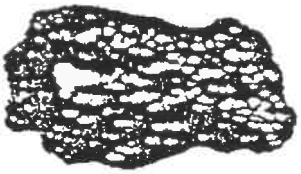
Cover occupies more than 95% of wetland **SCORE = 0.5**



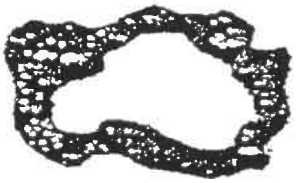
Cover occupies 76 - 95% of wetland occurring in peripheral band **SCORE = 1.5**



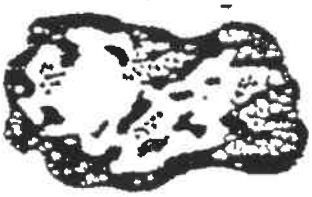
Cover occupies 76 – 95% of wetland with scattered open water **SCORE = 2.5**



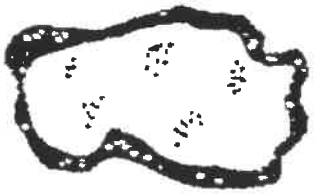
Cover occupies 26 – 75% of wetland occurring in peripheral band **SCORE = 2.0**



Cover occupies 26 – 75% of wetland occurring in dense patches or diffuse in open stands **SCORE = 3.0**



Cover occupies 5 – 25% of wetland occurring in peripheral band or diffuse in open stands **SCORE = 1.0**



Cover occupies less than 5% of wetland **SCORE = 0.5**