ENVIRONMENTAL IMPACT STATEMENT
FOR
THE PRESERVE AT WEST BRANCH

COMPLETED: 7/22/21
REVISION: N/A

PREPARED BY:
Pulte Home Company, LLC
1900 E Golf Road
Suite 300
Schaumburg, IL 60173

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GENERAL SITE INFORMATION:

PROJECT DESCRIPTION & LOCATION:

The project site is comprised of approximately 112 acres of vacant farmland north of St. Andrew's Golf Course in the City of West Chicago, IL, located on the south side of Smith Road, 0.25-mile east of the IL Route 59 commercial and employment corridor.

The existing condition of the project site is agricultural in nature, which requires the use of fertilization for crop farming and minimizes the ability to control stormwater flow.

The proposed development includes 269 single family dwelling units of varying size and design, a 4.38-acre park site, and several naturalized stormwater detention areas. The proposed development features three distinct home series and neighborhoods, an Estates series with 87 lots measuring 75' wide, a Meadows series with 129 lots measuring 55' wide, and a Landings series with 53 lots measuring 55' wide.

Entry to the proposed development will be provided via two access points, including full access from both Smith Road and Klein Road.

ZONING STATUS:

The project site was annexed into the City of West Chicago in 2007 and rezoned to R-3, Single Family Residence District per approved Ordinance No. 07-O-0077 ("Annexation Agreement"). The current land use is undeveloped land and agricultural in nature.

The City of West Chicago's 2006 Comprehensive Plan identifies the property as future residential, which is consistent with the Annexation Agreement.

WETLANDS:

Three wetland areas (Area 1, 2 and 3) exist within the project site as described in **Appendix A - Wetland Delineation & Assessment Report**. Area 1 (0.39 acres) is an isolated regulatory wetland located in the southern portion the project area. Area 2 (0.03) and Area 3 (0.03 acres) are isolated regulatory wetlands located in the northwest portion of the project site. No other wetlands or Waters of DuPage were identified within 100-feet of the project site, per the DuPage County Ordinance.

The delineated wetland boundaries for Area 1, 2 and 3 were field verified by Mr. Nick Assell of the DuPage County Stormwater and Ms. Alicia Metzger of V3 Companies on June 2, 2021. Mr. Assell of DuPage County Stormwater further concluded that farmed wetlands are not present within the project site.

As proposed, the development will directly impact wetland Areas 2 & 3. However, due to the limited size of wetland Areas 2 & 3 (each less than 0.10 acre), we anticipate that the project will likely qualify for a Regional Permit from the U.S. Army Corps of Engineers without wetland mitigation.

The larger wetland, Area 1 (0.39 acres), will be preserved and protected to prevent direct and indirect impact from the proposed development. In accordance with the DuPage County Ordinance, a 50' vegetated buffer is proposed along Area 1. A wetland impact analysis will be provided as part of final engineering.

SOILS & TOPOGRAPHY:

The project site consists of gently rolling farmland with wooded areas present close to Smith Road on the northern portion. Ground surface elevations are generally in the range of 770 to 810, with the site being relatively high in the middle and dropping off to the north, south and east.

Per the Soils Exploration Report prepared by TSC in April 2021, the project site consists primarily of surface topsoil, stiff to very stiff native silty clay soils, stiff to hard silty clay and sandy soils. Most of the soils were dry following drilling operations with 7 borings (located in proposed detention areas) encountering water 10-18 feet deep. TSC recommends that the bottom of the proposed detention basins be held to a depth that obtains silty clays to avoid any groundwater intrusion that could lead to sloughing of materials.

Additional soil findings are included in **Appendix B – Soil Exploration Report**.

JURISDICTIONAL REVIEWS:

ECOCAT:

The Illinois Department of Natural Resources' (IDNR) Ecological Compliance Assessment Tool (EcoCAT) was used to determine the presence of known state threatened or endangered species on or near the subject property. The EcoCAT report, dated March 17, 2021, shows the following protected resources may be within the vicinity of the subject property:

- Yellow-Headed Blackbird (*Xanthocephalus xanthocephalus*)

In a letter dated March 18, 2021 the IDNR concluded that adverse effects are unlikely and terminated the consultation. A copy of the EcoCAT and IDNR report is included in **Appendix C – EcoCAT Report and Review Letter**.

ILLINOIS STATE HISTORIC PRESERVATION OFFICE:

An application for review was submitted to the Illinois State Historic Preservation ("IHPA") in April of 2021.

In a letter dated April 29, 2021 the IHPA determined, based on the available information, that no significant historic, architectural, or archeological resources are located within the project site. A copy of the IHPA Clearance Letters is included in **Appendix D – IHPA Clearance Letter**.

U.S FISH & WILDLIFE SERVICE:

In accordance with U.S. Fish and Wildlife Service ("USFWS") procedures, an analysis of information concerning federally listed species was conducted on May 12, 2021 by V3 Companies. The analysis was conducted following the Section 7 technical assistance guidelines. The USFWS Section 7 consultation did not find species or critical habitat present on the subject property. A copy of the USFWS Section 7 consultation is included in **Appendix E – USFWS Consultation**.

KANE-DUPAGE SOIL & WATER CONSERVATION DISTRICT:

An application has been submitted to the Kane-DuPage Soil & Water Conservation District. A copy of the Land Use Opinion will be provided upon receipt.

FOREST PRESERVE DISTRICT OF DUPAGE COUNTY:

A preliminary consultation with the Forest Preserve District of DuPage County staff was completed in June of 2021. Preliminary comments were received in July of 2021 and have been incorporated into the plans.

UTILITY REQUIREMENTS:

Per the Annexation Agreement, the City of West Chicago represents and warrants that its water and sanitary sewage systems have sufficient capacity to service the project site under the R-3 zoning classification and that the Owner of the project site will be able to connect the project site to said systems.

All proposed off-site utility connections and required easements shall be in accordance with the existing Annexation Agreement.

SANITARY SEWER:

The proposed development will be serviced by a proposed 12-inch sanitary sewer located on the existing St. Andrew's Golf Course to the south. An easement will be obtained from the existing Owner to facilitate the connection location. Due to existing topography, a 10-inch sanitary sewer will be constructed into the site to service the southeastern portion of the property. A lift station will be required to serve the northern portion of the property. The proposed lift station will be located along the entrance road to Smith Road and pump sewage through a force main to a gravity sewer located on the site. All sanitary sewers will be tributary to the existing 12-inch sanitary sewer located to the south.

WATER:

The proposed development will be serviced by an 8-inch public water main, internally looped and will connect to a watermain located in the St. Andrew's Estates Subdivision. There is an existing easement corridor between Lots 22 & 23 of St. Andrew's Estates Subdivision. A second point of connection will be to an existing watermain stub located at the southeastern corner of the property, extending from the Meadowood Subdivision Unit One.

STORMWATER:

Storm sewers will be designed to convey runoff from a 10-year storm event without surcharge to onsite stormwater detention/retention facilities.

The stormwater management facilities will be sized to restrict the peak rate of discharge from the onsite developed portion of the property to 0.10 cfs/acre for a 100-year storm event, as required by the DuPage County Stormwater Management Ordinance. Several stormwater management facilities will be located throughout the subdivision to meet the stormwater requirements. The southern detention facility will discharge to an existing wetland. With the final design a wetland impact study will be conducted. The eastern

detention facility will discharge to an existing depression that straddles the common property line with the Forest Preserve. The NWL of this stormwater facility will be set at the overflow elevation of the existing depression to mitigate future maintenance concerns if the existing drain tile that drains the depression ever becomes inoperable.

A portion of the existing depression will be filled to allow for development. Compensatory storage at a 1:1 ratio will be provided as required by the County Stormwater Ordinance.

The detention facilities will be designed and planted with natural vegetation to satisfy DuPage County Best Management Practice requirements and improve existing water quality conditions.

Erosion control measures will be utilized to control sediment and prevent erosion in accordance with the Illinois Urban Manual and the City and County regulations.

CONCLUSION:

The proposed development is consistent with the approved Annexation Agreement and the City of West Chicago's 2006 Comprehensive Plan. Development of the project site will not adversely impact the character of the community or

APPENDICES:

APPENDIX A - WETLAND DELINEATION & ASSESSMENT REPORT

APPENDIX B - SOIL EXPLORATION REPORT

APPENDIX C – ECOCAT REPORT & REVIEW LETTER

APPENDIX D – IHPA CLEARANCE LETTER

APPENDIX E – USFWS CONSULTATION

WETLAND DELINEATION AND ASSESSMENT REPORT

PROJECT SITE:

St. Andrew's

West Chicago, DuPage County, Illinois

PREPARED FOR:

Pulte Home Corporation
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

PREPARED BY:

V3 Companies, Ltd.
7325 Janes Avenue
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630-724-9200

June 30, 2021

We hereby certify that this Wetland Delineation and Assessment Report has been prepared by V3 Companies for use by Pulte Home Corporation, their affiliates, lenders, and assignees.

Project Staff:

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EXECUTIVE SUMMARY

The 110-acre project area was investigated by V3 Companies (V3) on May 12, 2021 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) and/or DuPage County jurisdiction.

Delineation Summary

Three wetland areas (Area 1, 2 and 3) were delineated within the project area. Area 1 (0.39 acres) is an isolated regulatory wetland located in the southern portion the project area. Area 2 (0.03) and Area 3 (0.03 acres) are isolated regulatory wetlands located in the northwest portion of the project area. A summary of the identified areas is provided in Table 1 and a summary of the data points is provided in Table 2.

No other wetlands or Waters of DuPage were identified within 100-feet of the project area, per the DuPage County Ordinance.

The delineated wetland boundaries for Area 1, 2 and 3 were field verified by Mr. Nick Assell of the DuPage County Stormwater and Ms. Alicia Metzger of V3 Companies on June 2, 2021. Mr. Assell of DuPage County Stormwater further concluded that farmed wetlands are not present within the project area (**Appendix VIII**).

Table 1. Wetland Summary Table.

Area	On-Site Size (Acres)	Off-Site Size (Acres)	Native Mean Conservatism (NMC)*	Floristic Quality Index (FQI)*	Quality**	USACE Jurisdiction	Buffer Required
1	0.39	0.00	1.67	7.07	Regulatory	No	50’
2	0.03	0.00	0.20	0.45	Regulatory	No	50’
3	0.03	0.00	1.43	3.78	Regulatory	No	50’
Total	0.45	0.00					

* Based on the Floristic Quality Assessment (FQA) methodology in *Plants of the Chicago Region* (Swink and Wilhelm, 1994).

** **Regulatory**= Non-HQAR Isolated Wetland (NMC ≤ 3.5 and FQI ≤ 20, DuPage County jurisdiction); **Critical**= High Quality Isolated Wetland (NMC ≥ 3.5 or FQI ≥ 20, DuPage County jurisdiction)

Table 2. Data Point Summary Table.

Area	Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland (Y/N)
1	X06	Y	Y	Y	Y
2	X09	Y	Y	Y	Y
3	X10	Y	Y	Y	Y
4	X01	N	N	N	N
	X03	N	Y	N	N
	X04	N	N	N	N
	X05	N	N	N	N
	X07	N	Y	N	N
	X08	N	N	N	N
	X11	N	N	N	N
	X12	N	N	N	N
	X13	N	N	N	N

Regulatory Summary

Pursuant to Section 404 of the Clean Water Act, the U. S. Army Corps of Engineers (USACE) has jurisdiction over the placement of fill or dredged material in all jurisdictional waters of the United States. Jurisdictional areas include rivers, streams, tributary waterways, lakes, natural ponds and wetlands adjacent to these areas. A Section 404 permit must be obtained before placing any fill material within a jurisdictional area.

In accordance with the Navigable Waters Protection Rule, which went into effect on June 22, 2020, there are four categories of jurisdictional "Waters of the United States":

1. The territorial seas and waters which are currently used, or were used in the past, or may be susceptible to use in interstate and foreign commerce;

2. Tributaries. Tributaries are defined as a river, stream or similar naturally occurring surface water channel that contributes surface water flow to a category 1 waters in a typical year either directly or indirectly. A tributary must be perennial or intermittent in a typical year.

3. Lakes and ponds, and impoundments or jurisdictional waters; and

4. Adjacent wetlands.

Areas which do not qualify as jurisdictional "Waters of the United States" are provided in Appendix III.

If less than 0.10 acre of impact to USACE jurisdictional wetlands are proposed, the project would likely qualify for a Regional Permit from the USACE without wetland mitigation. If wetland impacts will consist of between 0.10 acre and 1.0 acre of wetland, a Regional Permit would still be possible, but compensatory mitigation will be required at a minimum ratio of 1.5:1. Mitigation at a higher ratio (typically 3:1 or greater) would be required for impacts to High Quality Aquatic Resources (HQAR). Wetland impacts greater than 1.0 acre will require an Individual Permit, with a public comment period and additional regulatory scrutiny. Required buffer widths under the Regional Permit Program are shown in Table 1. If a permit from the USACE is not required, then the USACE buffer requirements are not applicable.

Pursuant to the *2019 DuPage County Countywide Stormwater and Flood Plain Ordinance* (Ordinance), any development that affects a special management area (i.e., floodplain, wetland, wetland buffer, or waterway buffer) requires a Stormwater Management Permit. All delineated wetlands are to be classified as critical or regulatory wetlands according to the criteria defined in Section 15-85 of the Ordinance. A vegetated buffer 50 feet wide is required around all regulatory wetlands and a vegetated buffer 100 feet wide is required around all critical wetlands, unless mitigation for buffer functions is provided. Information concerning applicable regulatory requirements is provided in Appendix III.

INTRODUCTION AND BACKGROUND

The 110-acre subject property was investigated by V3 Companies (V3) on May 12, 2021 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) and/or The City of West Chicago/DuPage County jurisdiction. Any identified wetland boundaries are marked in the field using pink wire flags labeled "Wetland Delineation". This report summarizes the results of the field investigation and provides technical documentation for all investigated areas. The delineated wetland boundaries for Area 1, 2 and 3 were field verified by Mr. Nick Assell of the DuPage County Stormwater and Ms. Alicia Metzger of V3 Companies on June 2, 2021.

The subject property is located north of North Avenue, south of Smith Road, east of Doral Drive, and west of Klein Road in West Chicago, DuPage County, Illinois (Section 22, T40N, R9E; 41.932258°N, -88.199286°W; West Chicago quadrangle, Figure 1).

No wetlands are identified within the project area on the National Wetlands Inventory (NWI) Map (Figure 2).

No regulatory wetlands are identified within the project area on the DuPage County Wetlands Map (Figure 3).

The USGS Hydrologic Atlas (Figure 4) does not show the presence of any Waters, wetlands, floodplain or floodway within the project area.

The 12-Digit Hydrologic Unit Code (HUC) Map (Figure 5) shows that the project area lies within the Upper West Branch DuPage River sub watershed (Hydrologic Unit 071200040802), which is associated with the larger DuPage River watershed.

The FEMA Flood Insurance Rate Map (FIRM) (Figure 6) does not identify any flood zones within the project area.

The Flood Zones of DuPage County, Illinois (2019) Map (Figure 7) does not identify any flood zones within the project area.

Nine soil series are mapped within the project area on the Soil Survey of DuPage County, Illinois Map (Figure 8) and are listed below.

Table 3. Soils Information

Soil Map Unit	Soil Name	Hydric?
146A	Elliott silt loam	N
152A	Drummer silty clay loam	Y
223B	Varna silt loam	N
232A	Ashkum silty clay loam	Y
442A	Mundelein silt loam	N
443B	Barrington silt loam	N
530D3	Ozaukee silty clay loam	N
531C2/531B	Markham silt loam	N
541B	Graymont silt loam	N

The Wetland Delineation Map, Figure 9, shows the location of all data points and the locations of the identified areas as professionally surveyed by Cemcon.

WETLAND DELINEATION METHODS

Wetland delineations are conducted following the methods given in the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region*. Under the delineation procedures in this manual, an area must exhibit characteristic hydrophytic vegetation, hydric soils, and wetland hydrology to be considered a wetland. If field investigation determines that any of the three parameters are not satisfied, the area usually does not qualify as wetland. Moreover, drainage ditches excavated in dry land are generally not considered jurisdictional waters of the United States by the Corps of Engineers (preamble to 33 CFR Parts 320 through 330, *Federal Register* Vol. 56, No. 219, 41217).

As part of a delineation report, data forms and technical information are required by the U.S. Army Corps of Engineers, to document the three parameters for any area determined to be wetland. Data forms for wetlands identified at the subject property are provided in **Appendix I**. The vegetation data calculated on the data forms reflects the changes made to the National Wetland Plant List as of May 1, 2016. Representative photographs of delineated wetlands are provided in **Appendix II**. A brief description of the field methods used and a description of the three wetland parameters are provided in **Appendix IV**.

Plant species lists are compiled for each area identified, focusing on the plant communities within each identified wetland area. This accumulated floristic data is analyzed using the Floristic Quality Assessment (FQA) methodology, which is an assessment technique for a rapid quality evaluation of vegetation in a defined area. Technical names in the FQA and this report follow the nomenclature of *The National Wetland Plant List: 2014 Update of Wetland Ratings* (Lichvar *et. al.,* 2014). A detailed explanation of the Floristic Quality Assessment method is provided in **Appendix IV**.

As part of the wetland delineation assessment, Illinois Department of Natural Resources (IDNR) and US Fish and Wildlife Service (USFWS) threatened and endangered species evaluations were conducted (**Appendix V**).

The IDNR EcoCAT report shows the following protected resources may be within the vicinity of the project area:

- Yellow -Headed Blackbird (*Xanthocephalus xanthocephalus*)

The IDNR confirmed that adverse effects to these resources from the proposed project are unlikely and the EcoCAT consultation has been terminated. A copy of the termination letter is included in **Appendix V**.

The USFWS Section 7 consultation did not find species or critical habitat present on the subject property. A copy of the USFWS Section 7 consultation is included in **Appendix V**.

FARMED WETLAND SLIDE REVIEW

As of January 2005, the Natural Resource Conservation Service (NRCS) and U.S. Army Corps of Engineers (USACE) have withdrawn from the January 1994, *Memorandum of Agreement Between the Departments of Agriculture, Interior, and Army and EPA Concerning the Delineation of Wetlands under Section 404 of the Clean Water Act and Subtitle B of the Food Security Act* (MOA), and the January 1995, *Illinois Interagency Implementation of the National Wetland MOA*. Therefore, NRCS no longer makes certified wetland determinations on agricultural lands where the land use is changing to a non-agricultural use.

However, in the Chicago District, the USACE requires a review of crop compliance slides in accordance with the National Food Security Act Manual (NFSAM) methodology for agricultural lands.

V3 used the precipitation data from the Wheaton National Weather Service (WETS) Station in order to determine the appropriate Farm Service Agency (FSA) crop compliance slides to review. The slides were examined on March 18, 2021 using NRCS spectral response criteria and category definitions for wetland determinations.

One wet year (2017; Figure A) was selected as the base aerial photograph to identify consistently wet areas present on the site in which wetland signatures could be distinguished. Five normal precipitation years (2018, 2016, 2013, 2010 and 2008; Figures B-F) were examined to determine how many years the wetland signatures identified in the base wet year persist during the normal precipitation years. If the signature occurred in at least 50% of the years of normal rainfall, this area was determined to be a farmed wetland. Non-farmed areas are not included in the farmed wetland determination.

The results of the crop compliance slide examination are provided in Appendix VI. The examination did not identify any farmed wetland within the project area. Mr. Assell of DuPage County Stormwater further concluded that farmed wetlands are not present within the project area (Appendix VIII).

RESULTS OF THE FIELD INVESTIGATION

JURISDICTIONAL AREAS

Area 1 – Emergent Wetland

Data Point X06

Area 1 (0.39 acres) is located in the southern portion of the project area and consists of a regulatory wetland that appears to be hydrologically isolated.

Summary:

- Isolated Emergent Wetland
- Jurisdiction: DuPage County
- Quality: Regulatory
- Vegetated Buffer Required: 50'

Vegetation: The dominant plant species at Data Point X06 are silver maple (*Acer saccharinum*), fall panic grass (*Panicum dichotomiflorum*), cinnamon willow herb (*Epilobium coloratum*) and panicled aster (*Symphyotrichum lanceolatum*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 1 are provided below.

Conservatism-Based Metrics		**Additional Metrics**	
Mean C (native species)	**1.67**	Species Richness (all)	26
Mean C (all species)	1.15	Species Richness (native)	18
Mean C (native trees)	1.00	% Non-native	0.31
Mean C (native shrubs)	4.00	Wet Indicator (all)	-0.31
Mean C (native herbaceous)	1.69	Wet Indicator (native)	-0.44
FQAI (native species)	**7.07**	% hydrophyte (Midwest)	0.77
FQAI (all species)	5.88	% native perennial	0.46
Adjusted FQAI	13.87	% native annual	0.19
% C value 0	0.62	% annual	0.19
% C Value 1-3	0.31	% perennial	0.73
% C value 4-6	0.04		
% C value 7-10	0.04		

Species Acronym	**Species Name (NWPL/Mohlenbrock)**	**Species(Synonym)**	**Common Name**	**C Value**	**Midwest WET indicator**	**WET indicator (numeric)**	**Habit**	**Duration**	**Nativity**
aceneg	*Acer negundo*	*Acer negundo var. violaceum*	Ash-Leaf Maple	0	FAC	0	Tree	Perennial	Native
acesai	*Acer saccharinum*	*Acer saccharinum*	Silver Maple	1	FACW	-1	Tree	Perennial	Native
agealt	*Ageratina altissima*	*Eupatorium rugosum*	White Snakeroot	3	FACU	1	Forb	Perennial	Native
agrsto	*Agrostis stolonifera*	*Agrostis alba palustris*	Spreading Bent	2	FACW	-1	Grass	Perennial	Native
allpet	*Alliaria petiolata*	*ALLIARIA PETIOLATA*	Garlic-Mustard	0	FAC	0	Forb	Biennial	Adventive
ambtri	*Ambrosia trifida*	*Ambrosia trifida*	Great Ragweed	0	FAC	0	Forb	Annual	Native
cxgran	*Carex granularis*	*Carex granularis*	Limestone-Meadow	3	FACW	-1	Sedge	Perennial	Native

			Sedge						
cxtrib	*Carex tribuloides*	*Carex tribuloides*	Blunt Broom Sedge	7	OBL	-2	Sedge	Perennial	Native
cypesc	*Cyperus esculentus*	*Cyperus esculentus*	Chufa	0	FACW	-1	Sedge	Perennial	Native
eriann	*Erigeron annuus*	*Erigeron annuus*	Eastern Daisy Fleabane	0	FACU	1	Forb	Biennial	Native
galapa	*Galium aparine*	*Galium spurium*	Sticky-Willy	0	FACU	1	Forb	Annual	Native
geulac	*Geum laciniatum*	*Geum laciniatum*	Rough Avens	3	FACW	-1	Forb	Perennial	Native
perpen	*Persicaria pensylvanica*	*Polygonum pensylvanicum*	Pinkweed	0	FACW	-1	Forb	Annual	Native
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
popdel	*Populus deltoides*	*Populus deltoides*	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
ducind	*Potentilla indica*	*DUCHESNEA INDICA*	Indian-Strawberry	0	FACU	1	Forb	Perennial	Adventive
ranabo	*Ranunculus abortivus*	*Ranunculus abortivus*	Kidney-Leaf Buttercup	1	FACW	-1	Forb	Annual	Native
rhacat	*Rhamnus cathartica*	*RHAMNUS CATHARTICA*	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
rosmul	*Rosa multiflora*	*ROSA MULTIFLORA*	Rambler Rose	0	FACU	1	Shrub	Perennial	Adventive
rumcri	*Rumex crispus*	*RUMEX CRISPUS*	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
samcan	*Sambucus nigra ssp. canadensis*	*Sambucus canadensis*	Black Elder	4	FAC	-1	Shrub	Perennial	Native
taroff	*Taraxacum officinale*	*TARAXACUM OFFICINALE*	Common Dandelion	0	FACU	1	Forb	Perennial	Adventive
typang	*Typha angustifolia*	*TYPHA ANGUSTIFOLIA*	Narrow-Leaf Cat-Tail	0	OBL	-2	Forb	Perennial	Adventive
ulmame	*Ulmus americana*	*Ulmus americana*	American Elm	3	FACW	-1	Tree	Perennial	Native
viosor	*Viola sororia*	*Viola priceana*	Hooded Blue Violet	3	FAC	0	Forb	Perennial	Native
xanstr	*Xanthium strumarium*	*Xanthium strumarium var. canadense; Xanthium strumarium var. glabratum*	Rough Cockleburr	0	FAC	0	Forb	Annual	Native

Soils: The soil profile at Data Point X06 consisted of 0-20 inches of black (10YR 2/1) silty clay loam with 10% grayish brown (10YR 5/2) and 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of two secondary hydrology indicators at Data Point X06 satisfies the hydrology criterion.

Conclusion: Data Point X06 satisfies all three criteria; therefore Area 1 qualifies as wetland.

Area 2 – Emergent Wetland

Data Point X09

Area 1 (0.03 acres) is located in the northwest portion of the project area and consists of a regulatory wetland that appears to be hydrologically isolated.

Summary:

- Isolated Emergent Wetland
- Jurisdiction: DuPage County
- Quality: Regulatory
- Vegetated Buffer Required: 50'

Vegetation: The dominant plant species at Data Point X09 are reed canary grass (*Phalaris arundinacea*) and narrow leaved cattail (*Typha angustifolia*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 2 are provided below.

Conservatism-Based Metrics		**Additional Metrics**	
Mean C (native species)	**0.20**	Species Richness (all)	11
Mean C (all species)	0.09	Species Richness (native)	5
Mean C (native trees)	n/a	% Non-native	0.55
Mean C (native shrubs)	n/a	Wet Indicator (all)	-0.36
Mean C (native herbaceous)	0.00	Wet Indicator (native)	-0.80
FQAI (native species)	**0.45**	% hydrophyte (Midwest)	0.73
FQAI (all species)	0.30	% native perennial	0.18
Adjusted FQAI	1.35	% native annual	0.27
% C value 0	0.91	% annual	0.45
% C Value 1-3	0.09	% perennial	0.55
% C value 4-6	0.00		
% C value 7-10	0.00		

Species Acronym	**Species Name (NWPL/Mohlenbrock)**	**Species(Synonym)**	**Common Name**	**C Value**	**Midwest WET indicator**	**WET indicator (numeric)**	**Habit**	**Duration**	**Nativity**
abuthe	*Abutilon theophrasti*	*ABUTILON THEOPHRASTI*	Velvetleaf	0	FACU	1	Forb	Annual	Adventive
amapal	*Amaranthus palmeri*	*AMARANTHUS PALMERI*	Careless Weed	0	FACU	1	Forb	Annual	Adventive
cypesc	*Cyperus esculentus*	*Cyperus esculentus*	Chufa	0	FACW	-1	Sedge	Perennial	Native
pandic	*Panicum dichotomiflorum*	*Panicum dichotomiflorum*	Fall Panic Grass	0	FACW	-1	Grass	Annual	Native
perpen	*Persicaria pensylvanica*	*Polygonum pensylvanicum*	Pinkweed	0	FACW	-1	Forb	Annual	Native
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
rumcri	*Rumex crispus*	*RUMEX CRISPUS*	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
taroff	*Taraxacum officinale*	*TARAXACUM OFFICINALE*	Common Dandelion	0	FACU	1	Forb	Perennial	Adventive
typang	*Typha angustifolia*	*TYPHA ANGUSTIFOLIA*	Narrow-Leaf Cat-Tail	0	OBL	-2	Forb	Perennial	Adventive

vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native
xanstr	*Xanthium strumarium*	*Xanthium strumarium var. canadense; Xanthium strumarium var. glabratum*	Rough Cockleburr	0	FAC	0	Forb	Annual	Native

Soils: The soil profile at Data Point X09 consisted of 0-10 inches of black (10YR 2/1) silty clay loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of two secondary hydrology indicators at Data Point X09 satisfies the hydrology criterion.

Conclusion: Data Point X09 satisfies all three criteria; therefore Area 2 qualifies as wetland.

Area 3 – Emergent Wetland

Data Point X10

Area 1 (0.03 acres) is located in the northwest portion of the project area and consists of a regulatory wetland that appears to be hydrologically isolated.

Summary:

- Isolated Emergent Wetland
- Jurisdiction: DuPage County
- Quality: Regulatory
- Vegetated Buffer Required: 50'

Vegetation: The dominant plant species at Data Point X10 are fall panic grass (*Panicum dichotomiflorum*) and common beggar's tick (*Bidens frondosa*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 3 are provided below.

Conservatism-Based Metrics		**Additional Metrics**	
Mean C (native species)	**1.43**	Species Richness (all)	9
Mean C (all species)	1.11	Species Richness (native)	7
Mean C (native trees)	1.00	% Non-native	0.22
Mean C (native shrubs)	n/a	Wet Indicator (all)	-0.67
Mean C (native herbaceous)	1.00	Wet Indicator (native)	-0.57
FQAI (native species)	**3.78**	% hydrophyte (Midwest)	0.89
FQAI (all species)	3.33	% native perennial	0.33
Adjusted FQAI	12.60	% native annual	0.44
% C value 0	0.44	% annual	0.44
% C Value 1-3	0.44	% perennial	0.56
% C value 4-6	0.11		
% C value 7-10	0.00		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
acesai	*Acer saccharinum*	*Acer saccharinum*	Silver Maple	1	FACW	-1	Tree	Perennial	Native
bidfro	*Bidens frondosa*	*Bidens frondosa*	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
pandic	*Panicum dichotomiflorum*	*Panicum dichotomiflorum*	Fall Panic Grass	0	FACW	-1	Grass	Annual	Native
parqui	*Parthenocissus quinquefolia*	*Parthenocissus quinquefolia*	Virginia-Creeper	4	FACU	1	Vine	Perennial	Native
perpen	*Persicaria pensylvanica*	*Polygonum pensylvanicum*	Pinkweed	0	FACW	-1	Forb	Annual	Native
ranabo	*Ranunculus abortivus*	*Ranunculus abortivus*	Kidney-Leaf Buttercup	1	FACW	-1	Forb	Annual	Native
rumcri	*Rumex crispus*	*RUMEX CRISPUS*	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
astsim	*Symphyotrichum lanceolatum*	*Aster simplex*	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
typang	*Typha angustifolia*	*TYPHA ANGUSTIFOLIA*	Narrow-Leaf Cat-Tail	0	OBL	-2	Forb	Perennial	Adventive

Soils: The soil profile at Data Point X10 consisted of 0-12 inches of very dark gray (10YR 3/1) silt loam with 25% dark yellowish brown (10YR 4/6) and 5% grayish brown (10YR 5/2) redoximorphic concentrations. This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of two secondary hydrology indicators at Data Point X10 satisfies the hydrology criterion.

Conclusion: Data Point X10 satisfies all three criteria; therefore Area 3 qualifies as wetland.

Additional Areas Investigated

Area 4 – Upland

Data Point X01, X03, X04, X05, X07, X08, X11, X12 & X13

Area 4 consists of the upland areas around Area 1, 2 and 3.

Vegetation:

- Data Point X01 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.
- Data Point X03 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X04 are pear (*Pyrus communis*), gray dogwood (*Cornus racemose*), common buckthorn (*Rhamnus cathartica*), black raspberry (*Rubus occidentalis*) and meadow fescue (*Festuca pratensis*). Less than 50% of the dominant vegetation is hydrophytic so the vegetation criterion is not satisfied.

- The dominant plant species at Data Point X05 are common buckthorn (*Rhamnus cathartica*), honeysuckle (*Lonicera tatarica*), moneywort (*Lysimachia nummularia*) and tall goldenrod (*Solidago altisima*). Less than 50% of the dominant vegetation is hydrophytic so the vegetation criterion is not satisfied.
- Data Point X07 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.
- Data Point X08 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.
- Data Point X11 is an unvegetated tilled agricultural field rill, so the vegetation criterion is not satisfied.
- Data Point X12 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.
- Data Point X13 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.

Soils:

- The soil profile at Data Point X01 consisted of 0-15 inches of black (10YR 2/1) silty clay loam. The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.
- The soil profile at Data Point X03 consisted of 0-8 inches of very dark grayish brown (10YR 3/2) silty clay loam, underlain by 12 inches, to a depth of 20 inches below the surface of black (10YR 2/1) silty clay loam with 10% yellowish brown (10YR 5/6) redoximorphic features. The soil in this location exhibits hydric soil indicator F6, Redox Dark Surface, and satisfied the soils criterion.
- The soil profile at Data Point X04 consisted of 0-10 inches of yellowish brown (10YR 5/4) silty clay loam. The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.
- The soil profile at Data Point X05 consisted of 0-3 inches of very dark grayish brown (10YR 3/2) silty clay loam, underlain by 12 inches, to a depth of 15 inches below the surface of yellowish brown (10YR 5/4) silty clay loam. The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.
- The soil profile at Data Point X07 consisted of 0-20 inches of black (10YR 2/1) silty clay loam, underlain by 4 inches, to a depth of 24 inches below the surface of black (10YR 2/1) silty clay loam with 5% gray (10YR 5/1) and 10% dark yellowish brown (10YR 4/6) redoximorphic features. The soil in this location exhibits hydric soil indicator A12, Thick Dark Surface, and satisfied the soils criterion.
- The soil profile at Data Point X08 consisted of 0-8 inches of black (10YR 2/1) silty clay loam, underlain by 12 inches, to a depth of 20 inches below the surface of yellowish brown (10YR 5/4) silty clay loam. The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.
- The soil profile at Data Point X11 consisted of 0-1 inches of dark yellowish brown (10YR 3/4) silt loam, underlain by 11 inches, to a depth of 12 inches below the surface of yellowish brown (10YR 5/6) silty clay loam with 20% strong brown (7.5YR 5/8). The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

- The soil profile at Data Point X12 consisted of 0-10 inches of brown (10YR 4/4) silty clay loam. The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.
- The soil profile at Data Point X13 consisted of 0-10 inches of black (10YR 2/1) silty clay loam, underlain by 14 inches, to a depth of 24 inches below the surface of brown (10YR 4/4) silty clay loam with 10% grayish brown (10YR 5/2) and 10% dark yellowish brown (10YR 4/6). The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

Hydrology:

- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X01, so the hydrology criterion is not satisfied.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X03, so the hydrology criterion is not satisfied.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X04, so the hydrology criterion is not satisfied.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X05, so the hydrology criterion is not satisfied.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X07, so the hydrology criterion is not satisfied.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X08, so the hydrology criterion is not satisfied.
- The presence of one secondary wetland hydrology indicator at Data Point X11 is not enough to satisfy the hydrology criterion.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X12, so the hydrology criterion is not satisfied.
- Neither primary nor secondary wetland hydrology indicators were observed at Data Point X13, so the hydrology criterion is not satisfied.

Conclusion:

- Data Point X01 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland.
- Data Point X03 fails to satisfy the vegetation and hydrology criteria; therefore Area 4 does not qualify as wetland.
- Data Point X04 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland.
- Data Point X05 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland.
- Data Point X07 fails to satisfy the vegetation and hydrology criteria; therefore Area 4 does not qualify as wetland.
- Data Point X08 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland.
- Data Point X11 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland.
- Data Point X12 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland.
- Data Point X13 fails to satisfy all three criteria; therefore Area 4 does not qualify as wetland

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APPENDIX I

WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X01**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.933494 | Long.: -88.198189 | Datum: NAD 1983

Soil Map Unit Name: Elliott silt loam (146A) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails all three criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 4.000

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Data Point X01 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X01**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1						Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X03**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.930496 | Long.: -88.195705 | Datum: NAD 1983

Soil Map Unit Name: Ashkum silty clay loam (232A) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
This location fails the vegetation and hydrology criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0.000

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Data Point X03 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X03**

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	10YR	3/2	100						Silty Clay Loam	
8-20	10YR	2/1	90	10YR	5/6	10			Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ○

Remarks:

This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

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 ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X04**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 41.929481 | Long.: -88.19141 | Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531B) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails all three criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Pyrus communis	20	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. Cornus racemosa	30	☑ 42.9%	FAC
2. Rhamnus cathartica	40	☑ 57.1%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	70	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Rubus occidentalis	30	☑ 42.9%	UPL
2. Festuca pratensis	40	☑ 57.1%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	70	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	40	x 4 =	160
UPL species	50	x 5 =	250
Column Totals:	160 (A)		620 (B)

Prevalence Index = B/A = 3.875

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Less than 50% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X04**

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
0-10	10YR	5/4	100						Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X05**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 41.929503 | Long.: -88.190194 | Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531B) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails all three criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. Rhamnus cathartica	60	☑ 75.0%	FAC
2. Lonicera tatarica	20	☑ 25.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	80	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Lysimachia nummularia	30	☑ 60.0%	FACW
2. Solidago altissima	20	☑ 40.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	50	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1. Parthenocissus quinquefolia	10	☑ 100.0%	FACU
2.	0	☐ 0.0%	
	10	= 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: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	60	x 3 =	180
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	140 (A)		440 (B)

Prevalence Index = B/A = 3.143

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Less than 50% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X05**

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
0-3	10YR	3/2	100						Silty Clay Loam	
3-15	10YR	5/4	100						Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X06**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Lowland | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 41.929558 | Long.: -88.199104 | Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531C2) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
This location satisfies all three criteria and qualifies as wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')				
1. Acer saccharinum	5	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	5	= Total Cover		
Herb Stratum (Plot size: 5')				
1. Panicum dichotomiflorum	40	☑	44.4%	FACW
2. Epilobium coloratum	30	☑	33.3%	OBL
3. Symphyotrichum lanceolatum ssp. lanceolatum var. interior	20	☑	22.2%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	90	= Total Cover		
Woody Vine Stratum (Plot size: 5')				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= 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: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	45	x 2 =	90
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		180 (B)

Prevalence Index = B/A = 1.895

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 ○

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

All of the dominant species are hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X06**

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
0-20	10YR	2/1	80	10YR	5/2	10			Silty Clay Loam	
				10YR	4/6	10				

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ○

Remarks:

This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

The presence of two secondary wetland hydrology indicators satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X07**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.931288 | Long.: -88.201799 | Datum: NAD 1983

Soil Map Unit Name: Drummer silty clay loam (152A) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
This location fails the vegetation and hydrology criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0.000

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Data Point X07 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X07**

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
0-20	10YR	2/1	100						Silty Clay Loam	
20-24	10YR	2/1	85	10YR	5/1	5			Silty Clay Loam	
				10YR	4/6	10				

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ○

Remarks:

This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Enter Project/Site | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X08**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.933015 | Long.: -88.202918 | Datum: NAD 1983

Soil Map Unit Name: Barrington silt loam (443B) | NWI classification: None

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

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails all three criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0.000

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 ◉

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

•Data Point X08 is an unvegetated tilled agricultural field, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X08**

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	10YR	2/1	100						Silty Clay Loam	
8-20	10YR	5/4	100						Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X09**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Lowland | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.934993 | Long.: -88.20303 | Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531C2) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
This location satisfies all three criteria and qualifies as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	60	☑ 66.7%	FACW
2. Typha angustifolia	30	☑ 33.3%	OBL
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	90	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		150 (B)

Prevalence Index = B/A = 1.667

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 ○

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

All of the dominant species are hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X09**

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
0-10	10YR	2/1	90	10YR	4/6	10			Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ○

Remarks:

This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

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 ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

The presence of two secondary wetland hydrology indicators satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X10**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Lowland | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.93499 | Long.: -88.202316 | Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531C2) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
This location satisfies all three criteria and qualifies as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Panicum dichotomiflorum	60	☑ 60.0%	FACW
2. Bidens frondosa	30	☑ 30.0%	FACW
3. Persicaria pensylvanica	10	☐ 10.0%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.000

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 ○

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

All of the dominant species are hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X10**

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	10YR	3/1	70	10YR	4/6	25			Silt Loam	
				10YR	5/2	5				

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ○

Remarks:

This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

The presence of two secondary wetland hydrology indicators satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X11**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Ditch | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.935531 | Long.: -88.20241 | Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531C2) | NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails all three criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0.000

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Data Point X11 is an unvegetated agricultural field rill, so the vegetation criterion is not met.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: X11

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
0-1	10YR	3/4	100						Silt Loam	
1-12	10YR	5/6	98	7.5YR	5/8	20			Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

The presence of one secondary wetland hydrology indicator is not enough to satisfy the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews City/County: West Chicago/DuPage Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation State: IL Sampling Point: **X12**

Investigator(s): Alicia Metzger & Daniel Jablonski Section, Township, Range: S 22 T 40N R 9E

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

Slope: 0.0% / 0.0 ° Lat.: 41.9356 Long.: -88.201155 Datum: NAD 1983

Soil Map Unit Name: Markham silt loam (531C2) NWI classification: None

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

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails all three criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 4.000

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
Data Point X12 is an unvegetated agricultural field rill, so the vegetation criterion is not met.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: X12

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
0-10	10YR	4/4	100						Silty Clay Loam	

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pulte Smith Road St. Andrews | City/County: West Chicago/DuPage | Sampling Date: 05-May-21

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X13**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 22 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): rolling

Slope: 0.0% / 0.0 ° | Lat.: 41.93508 | Long.: -88.198482 | Datum: NAD 1983

Soil Map Unit Name: Varna silt loam (223B) | NWI classification: None

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

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails the soils and hydrology criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 2.000

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 ◉

Remarks: (Include photo numbers here or on a separate sheet.)
The dominant species is hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **X13**

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
0-10	10YR	2/1	100						Silty Clay Loam	
10-24	10YR	4/4	80	10YR	5/2	10			Silty Clay Loam	
				10YR	4/6	10				

[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 Muck 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)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

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 ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

The presence of one secondary wetland hydrology indicator is not enough to satisfy the hydrology criterion.

APPENDIX II

REPRESENTATIVE PHOTOGRAPHS

PHOTO 1

05/12/2021

Image of upland Area 4, near Data Point X01. Facing north.

PHOTO 2

05/12/2021

Image of upland area 4, near Data Point X03. Facing north.

PHOTO 3

05/12/2021

Image of upland Area 4, near Data Point X04. Facing south.

PHOTO 4

05/12/2021

Image of upland Area 4, near Data Point X05. Facing southwest.

PHOTO 5

05/12/2021

Image of wetland Area 1, near Data Point X06. Facing west.

PHOTO 6

05/12/2021

Image of upland Area 4, near Data Point X07. Facing south.

PHOTO 7

05/12/2021

Image of upland Area 4, near Data Point X08. Facing south.

PHOTO 8

05/12/2021

Image of wetland Area 2, near Data Point X09. Facing west.

PHOTO 9

05/12/2021

Image of wetland Area 3, near Data Point X10. Facing west.

PHOTO 10

05/12/2021

Image of upland Area 4, near Data Point X11. Facing north.

PHOTO 11

05/12/2021

Image of upland Area 4, near Data Point X12. Facing north.

PHOTO 12

05/12/2021

Image of upland Area 4, near Data Point X13. Facing west.

APPENDIX III

REGULATORY INFORMATION

REGULATORY REQUIREMENTS

U.S. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the U. S. Army Corps of Engineers (USACE) has jurisdiction over the placement of fill or dredged material in all jurisdictional waters of the United States. Jurisdictional "Waters of the United States" were defined by the Navigable Waters Protection Rule (NWPR) which became effective on June 22, 2020. The NWPR defines the following four categories of jurisdictional "Waters of the United States":

1. The territorial seas and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including the territorial seas and waters which are subject to the ebb and flow of the tide;
2. Tributaries;
3. Lakes and ponds, and impoundments of jurisdictional waters; and
4. Adjacent wetlands.

The NWPR also defines the following which do not qualify as jurisdictional "Waters of the United States":

1. Waters or water features not included in categories 1 – 4 above;
2. Groundwater, including groundwater drained through subsurface drainage systems;
3. Ephemeral features, including ephemeral streams, swales, gullies, rills and pools;
4. Diffuse stormwater run-off and directional sheet flow over upland;
5. Ditches that are not category 1 or 2 waters, and those portions of ditches constructed in category 4 waters that do not satisfy the definition of adjacent wetlands;
6. Prior converted cropland;
7. Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;
8. Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as these artificial lakes and ponds are not impoundments of jurisdictional waters;
9. Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or non-jurisdictional waters for the purpose of obtaining fill, sand or gravel;
10. Stormwater control features constructed or excavated in upland or non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;

11. Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and

12. Waste treatment systems.

A Section 404 permit must be obtained before placing any fill material within a jurisdictional area. General permits, including nationwide and regional permits, are designed to expedite the processing of permits for minor non-controversial projects that are similar in nature and of minimal environmental impact. Currently, 52 nationwide permits have been issued. They became effective on March 19, 2017, and will expire on March 18, 2022.

Within the boundaries of the Chicago District, USACE, most NWPs were replaced with the Regional Permit Program (RPP), which were reissued on April 1, 2017 and will expire on April 1, 2022. Category I RPPs will generally authorize impacts of 0.50 acres or less. Category II RPPs will authorize impacts of between 0.50 acres and 1.0 acre. Any projects proposing impacts to High Quality Aquatic Resources will be processed under Category II. Compensatory wetland mitigation, at a ratio of 1.5:1, is required for all projects that impact more than 0.10 acre. Mitigation for impacts to High Quality Aquatic Resources typically is required at a higher ratio (generally 3:1 or greater).

High Quality Aquatic Resources (HQARs) are aquatic areas considered to be regionally critical due to their uniqueness, scarcity, and/or value, and other wetlands considered to perform functions important to the public interest, as defined in 33 CFR 320.4(b)(2). These resources include Advanced Identification (ADID) sites, bogs, ephemeral pools, fens, forested wetlands, sedge meadows, seeps, streams rated Class A or B in the Illinois Biological Stream Characterization study, streamside marshes, wet prairies, wetlands supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater, or mean C-value of 3.5 or greater. These areas generally are regarded as unsuitable for dredge or fill activities. See Appendix IV for definitions of the wetland types, and criteria used to evaluate the presence of HQARs during wetland delineations.

Wetland impacts greater than 1.0 acre will require authorization under an individual permit (IP), which requires greater scrutiny of the proposed project by the USACE and other concerned government agencies, and a comment period from the general public.

DuPage County Ordinance

Pursuant to the 2019 *DuPage County Countywide Stormwater and Flood Plain Ordinance* (Ordinance), any development that affects a special management area (i.e., floodplain, wetland, wetland buffer, or waterway buffer) requires a Stormwater Management Permit. Jurisdictional wetland determinations for review under the ordinance are made following the methods given in the 1987 *Corps of Engineers Wetlands Delineation Manual*. Wetland delineations conducted in DuPage County do not rely on federal jurisdiction, so both adjacent and isolated wetlands are regulated. Field verification of wetland delineations is conducted by the DuPage County, or by village staff in full waiver communities.

All delineated wetlands are to be classified as critical or regulatory wetlands according to the criteria defined in Section 15-85 of the Ordinance. If any one of the criteria is satisfied, that wetland is considered Critical and mitigation will be required at a ratio of 3:1. If none of the criteria is satisfied, that wetland is considered Regulatory and mitigation will be required at a ratio of 1.5:1. The assessment criteria are listed and addressed in Appendix V.

Under the DuPage County Ordinance, a narrative description of measures taken to avoid and minimize wetland impacts is required for all wetlands greater than 0.1 acre in size. Development in or affecting a wetland can be initiated only after an applicant demonstrates that there are no practicable alternatives to impacting a wetland. According to Section 15-92 of the Ordinance, a vegetated buffer 50 feet wide is required around all preserved regulatory wetlands and a vegetated buffer 100 feet wide is required around all critical wetlands unless mitigation for buffer functions is provided.

For projects which occur in partial waiver communities, where the wetland review is conducted by the DuPage County Department of Economic Development & Planning (EDP), the Corps of Engineers has issued General Permit (GP) Number 25, *Programmatic General Permit for Activities Requiring Review under Section 404 of the Clean Water Act Within the Established Boundaries of DuPage County, Illinois*. GP 25 authorizes the EDP to conduct technical reviews on behalf of the Corps of Engineers for projects with minimal impacts to the aquatic environment, including wetlands. Upon the completion of the technical review by EDP, the Corps of Engineers will authorize a project in accordance with the General Permit. In full waiver communities, such as Downers Grove, the community engineer has authority under the ordinance "to review and approve all applications for development in all areas under its jurisdiction." (§15-31.3 of the County Ordinance).

APPENDIX IV

DELINEATION METHODS AND FLORISTIC ANALYSIS

WETLAND DELINEATION METHODS

The site was field-inspected and plant species lists were recorded to document the vegetation types present. A wetland indicator status is assigned to each plant species based on a regional list published by the U.S. Army Corps of Engineers in 2016. The categories are based on the estimated probability that a species would be naturally encountered in a wetland. Under the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region*, the area is considered to be dominated by hydrophytic vegetation and representative of a wetland plant community by one of two methods, the dominance test or the prevalence index. The dominance test is satisfied if greater than 50% of the dominant plant species in a given area have a wetland indicator status of FAC, FACW, or OBL. The prevalence index assigns a numeric value to the wetland indicator status, and uses a weighted-average of the wetland indicator status of all plant species present in the sampling area. A wetland plant community is present if the prevalence index is less than 3.0.

Plant Wetland Indicator Status Categories

Indicator Category	Symbol	Indicator Definition
Obligate Wetland Plants	OBL	Plants that occur almost always (estimated probability greater than 99%) in wetlands under natural conditions, but which may also occur rarely in non-wetlands.
Facultative Wetland Plants	FACW	Plants that usually occur in wetlands (estimated probability 67% to 99%), but occasionally are found in non-wetlands.
Facultative Plants	FAC	Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands.
Facultative Upland Plants	FACU	Plants that usually occur in non-wetlands (estimated probability 67% to 99%) but occasionally are found in wetlands.
Obligate Upland Plants	UPL	Plants that occur almost always (estimated probability greater than 99%) in non-wetlands under natural conditions, but which may also occur rarely in wetlands.

In addition to being dominated by hydrophytic vegetation, each suspect wetland must also exhibit hydric soils and wetland hydrology. As defined in the Federal Register (*Federal Register, Volume 59*: July 13, 1994), "A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." According to the National Technical Committee for Hydric Soils, documentation of the presence or absence of a hydric soil can only be determined through on-site investigation, not strictly by its classification of an area on soil survey maps. Soils are identified as hydric in the field if they possess certain indicators, as defined in the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region.* These field indicators are a regionally specific subset of the field indicators described in the *Field Indicators of Hydric Soils in the United States* (Version 8.0; NRCS, 2016). The absence of a field indicator in a soil does not exclude that soil from being classified as hydric. Soil series, soil color, the presence of mottling or gleying, and depth to water table are

determined and recorded in the field. These features, when present, may indicate a hydric soil when hydric soil field indicators are absent.

Determinations of hydrology are based on observations wetland hydrology indicators. There are two types of indicators, primary indicators and secondary indicators. A determination of wetland hydrology requires the presence of one primary indicator or two secondary indicators. Hydrology indicators are placed into four groups, these being observations of surface water or saturated soils, evidence of recent inundation, evidence of recent soil saturation, or evidence of other site conditions or data. A listing of the wetland hydrology indicators is provided in the table below.

Indicator	Category	
	Primary	Secondary
Group A – Observation of Surface Water or Saturated Soils		
A1 – Surface water	X	
A2 – High water table	X	
A3 – Saturation	X	
Group B – Evidence of Recent Inundation		
B1 – Water marks	X	
B2 – Sediment deposits	X	
B3 – Drift deposits	X	
B4 – Algal mat or crust	X	
B5 – Iron deposits	X	
B7 – Inundation visible on aerial imagery	X	
B8 – Sparsely vegetated concave surface	X	
B9 – Water-stained leaves	X	
B13 – Aquatic fauna	X	
B14 – True aquatic plants	X	
B6 – Surface soil cracks		X
B10 – Drainage patterns		X
Group C – Evidence of Current or Recent Soil Saturation		
C1 – Hydrogen sulfide odor	X	
C3 – Oxidized rhizospheres along living roots	X	
C4 – Presence of reduced iron	X	
C6 – Recent iron reduction in tilled soils	X	
C7 – Thin muck surface	X	
C2 – Dry-season water table		X
C8 – Crayfish burrows		X
C9 – Saturation visible on aerial imagery		X
Group D – Evidence from Other Site Conditions or Data		
D9 – Gauge or well data	X	
D1 – Stunted or stressed plants		X
D2 – Geomorphic position		X
D5 – FAC-neutral test		X

FLORISTIC QUALITY ASSESSMENT

Plant communities of the site were evaluated with the Floristic Quality Assessment (FQA) methodology, a widely-used technique used for rapid assessment of the floristic quality in a defined area or plant community. In using FQA, the presence of each plant species is recorded, generating a species inventory. This inventory is entered into computer software that was used to generate the species lists used in this report. Floristic quality calculations are also generated that provides a compilation of various floristic quality data, resulting in a determination of the floristic quality of the subject area.

The floristic quality data for an area partially indicates its quality as a natural area (i.e., relative to known or perceived pre-settlement or disturbance conditions). One indicator of the degree of disturbance or floristic quality in an area is the calculated Native Floristic Quality Index (Native FQI). A high Native FQI value indicates a high-quality natural area, but how high the Native FQI must be for an area to be of high quality is a subjective determination. In general, a wetland (or other defined area) with a Native FQI greater than 20.00 from a single observation may be considered a moderately high quality plant community. These areas have a high potential for containing more conservative or high-quality plant species. Therefore, adverse impacts to such areas, especially wetlands and subsequent proposals for compensatory mitigation, may be scrutinized carefully by the regulatory agencies.

A high number of native species with high coefficients of conservatism "C" (a subjective measure of quality based on habitat specificity and relative tolerance to disturbance; weedy species are highly disturbance tolerant, and are ranked lower) will result in a high Native FQI. The C value is based on the relative rarity of a species and/or the resiliency of a species following disturbance. Coefficients of conservatism for native plant species range from 0 for common, weedy species to 10 for rare, highly conservative species. Adventive species are not assigned a C value. Adventive species are non-native species that have entered the Chicago region since European settlement. These species generally do not lend themselves to increased floristic quality, but instead appear after a disturbance. Thus, a high proportion of these species in a given area or community may be an indication of a lower quality plant community.

The wetness coefficient (W, ranging from -5 to +5) refers to the corresponding wetland indicator status (e.g., OBL = obligate wetland species, -5; FAC = facultative species, 0; UPL = upland species, +5) for U.S. Fish and Wildlife Service Region 3 (Illinois, Michigan, Indiana, Missouri, Iowa, Wisconsin, and Minnesota). A wetland indicator status noted in brackets (e.g., [FACW]) is a modification of the Region 3 indicator status to apply locally in the 22-county Chicago region covered by *Plants of the Chicago Region*. The Wetness coefficient is useful in evaluating the general "wetness" affinity of a sampled plant community. If the average indicator status among all species present is in the FAC, FACW, or OBL classes, then the plant community may be considered hydrophytic.

HIGH QUALITY AQUATIC RESOURCES

U.S. Army Corps of Engineers, Chicago District Regional Permit Program

High Quality Aquatic Resources (HQARs) include Advanced Identification (ADID) sites (mapped in Kane, Lake and McHenry Counties), bogs, dune and swale complexes, ephemeral pools, fens, forested wetlands, sedge meadows, seeps, streams rated Class A or B in the Illinois Biological Stream Characterization study, wet prairies, wetlands supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater, or mean C-value of 3.5 or greater. These definitions are listed below. If a given wetland meets one or more of these definitions, that wetland is considered a HQAR and a Category II Regional Permit or Individual Permit is required.

Advanced Identification (ADID) sites: Aquatic sites that have been identified by the Chicago District and U.S. Environmental Protection Agency, in advance of specific permit requests, as areas generally unsuitable for the disposal of dredged or fill material, because of a variety of factors, including high floristic values, water quality or storage functions, or similar wetland functions performed at elevated levels. ADID sites include various Waters of the U.S., including wetlands. An ADID map for the subject property is included with this report as Figure 3.

Bog: A low nutrient peatland, usually in a glacial depression, that is acidic in the surface stratum and often dominated at least in part by the genus *Sphagnum*.

Dune and Swale Complex: Areas usually parallel to the Lake Michigan shoreline and typified by sandy, linear, upland ridges alternating with low-relief wetland created over time during changes in the Lake Michigan's water levels.

Ephemeral pool: A seasonally inundated depression within a forested wetland or upland community, usually located on a moraine, glacial outwash plain, or in an area shallow to bedrock; also known locally as a "vernal pool." These areas may not be permanently vegetated.

Fen: A peatland, herbaceous (including calcareous floating mats) or wooded, with calcareous groundwater flow.

Forested wetland: A wetland dominated by native woody vegetation with at least one of the following species or genera present: *Carya* spp., *Cephalanthus occidentalis*, *Cornus alternifolia*, *Fraxinus nigra*, *Juglans cinerea*, *Nyssa sylvatica*, *Quercus* spp., *Thuja occidentalis, Betula nigra, Betula alleghaniensis, Betula papyrifera, Fagus grandifolia.*.

Sedge meadow: A wetland dominated by at least one of the following genera: *Carex*, *Calamagrostis*, *Cladium*, *Deschampsia*, *Eleocharis*, *Rynchospora*, *Scleria*, or *Eriophorum*.

Seep: A wetland, herbaceous or wooded, with saturated soil or inundation resulting from the diffuse flow of groundwater to the surface stratum. [Seeps typically occur on slopes because of blocked vertical infiltration.]

Streams rated A or B in the Illinois Biological Stream Characterization study: The historical Class A and B rating system was replaced with the new Illinois Department of Natural Resources stream classification system that can be found at:
https://www.dnr.illinois.gov/conservation/BiologicalStreamratings/Pages/default.aspx

Wet prairie: A wetland dominated by native graminoid species with a diverse indigenous forb component that is seasonally saturated and/or temporarily inundated and may resemble a fen in its best development. Species found in a high quality wet prairie include at least one of the following: *Calamagrostis canadensis*, *Spartina pectinata*, *Aster puniceus firmus*, *Beckmannia syzigachne*, *Chelone glabra*, *Eleocharis wolfii*, *Lysimachia quadrifolia*, *Oenothera perennis*, *Oenothera pilosella*, *Pedicularis lanceolata*, and *Solidago ohioensis*.

Wetlands Supporting Federal or Illinois Endangered or Threatened Species: An Agency Action Report is routinely requested from the Illinois Department of Natural Resources (IDNR) and from the U.S. Fish and Wildlife Service (USFWS) for wetland delineations. These reports indicate the likelihood of listed species (that is, those species considered legally protected as threatened or endangered) being found near or on a subject property, or possible encroachment into protected natural area reserves. If a listed species record is indicated for the site, an endangered and threatened species investigation may be required to evaluate the actual presence or absence of the species in question. This inquiry is preliminary and does not preclude the presence of otherwise unrecorded listed species.

Wetlands with a Floristic Quality Index of 20 or greater or a mean C-value of 3.5 or greater: Plant species inventories collected during wetland delineations are used to generate floristic quality values using the Floristic Quality Assessment method published in *Plants of the Chicago Region* (Swink and Wilhelm, 1994). These tables are included in this report for each of the areas identified as wetland.

STREAM CLASSIFICATION
WITHIN THE CHICAGO DISTRICT

The historical Class A and B rating system was replaced with the new Illinois Department of Natural Resources stream classification system that can be found at:

https://www.dnr.illinois.gov/conservation/BiologicalStreamratings/Pages/default.aspx

APPENDIX V

DUPAGE COUNTY WETLAND ASSESSMENT

DUPAGE COUNTY ORDINANCE WETLAND ASSESSMENT

The information provided below addresses the additional assessment criteria for wetlands as required in DuPage County under the *DuPage County Countywide Stormwater and Flood Plain Ordinance*. Each criterion is addressed independently below, with the County criteria provided in *italics* and the assessment of each following in regular type.

a. *The wetland is identified as a critical wetland in the County's wetland inventory;*

- There are no critical wetlands identified on the subject property (Figure 3).

b. *The wetland is known to possess a Federal or State listed threatened or endangered species;*

- The Illinois Department of Natural Resources' (IDNR) Ecological Compliance Assessment Tool (EcoCAT) was used to determine the presence of known state threatened or endangered species on or near the subject property. The EcoCAT report, dated March 17, 2021, shows the following protected resources may be within the vicinity of the subject property:

    - Yellow-Headed Blackbird (*Xanthocephalus xanthocephalus*)

In a letter dated March 18, 2021 the IDNR concluded that adverse effects are unlikely and terminated the consultation. A copy of the EcoCAT and IDNR report is included.

- In accordance with U.S. Fish and Wildlife Service (USFWS) procedures, an analysis of information concerning federally listed species was conducted on May 12, 2021 by V3 Companies. The analysis was conducted following the Section 7 technical assistance guidelines. The USFWS Section 7 consultation did not find species or critical habitat present on the subject property. A copy of the USFWS Section 7 consultation is included.

c. *The plant community within the wetland is determined to have a native floristic quality index (FQI) of 20 or higher during a single season assessment or a native mean C-value (NMC) of 3.5 or higher, as calculated by the Swink and Wilhelm methodology.*

- A floristic inventory of all investigated areas was conducted on May 12, 2021. A copy of the floristic quality inventory for each area is provided in the delineation report.

    - The floristic quality data for Area 1 yielded a NMC value of 1.67 and an FQI value of 7.07. Based on this calculation, Area 1 does not qualify as a High Quality Aquatic Resource.
    - The floristic quality data for Area 2 yielded a NMC value of 0.20 and an FQI value of 0.45. Based on this calculation, Area 2 does not qualify as a High Quality Aquatic Resource.
    - The floristic quality data for Area 3 yielded a NMC value of 1.43 and an FQI value

of 3.78. Based on this calculation, Area 3 does not qualify as a High Quality Aquatic Resource.

d. *The initial wildlife quality value using the Modified Michigan Department of Natural Resources Method is 5.0 or higher, or alternatively, the mean rated wildlife quality (MRWQ) is determined to be 8.0 or higher, as calculated by the Ludwig wildlife habitat evaluation methodology. (If both methods are performed, the Ludwig value shall prevail as the determining value.)*

- *The Modified Michigan Department of Natural Resource Wildlife Habitat/Use Evaluation Score Sheets* were used to calculate the MRWQ on August 18, 2015. Copies of the score sheets are included.

    - Area 1 yielded a Wildlife Habitat/Use Score of 2.5. Therefore, Area 1 does not qualify as critical habitat.
    - Area 2 yielded a Wildlife Habitat/Use Score of 2.0. Therefore, Area 2 does not qualify as critical habitat.
    - Area 3 yielded a Wildlife Habitat/Use Score of 2.0. Therefore, Area 3 does not qualify as critical habitat

Conclusion

Area 1, 2 and 3 qualify as regulatory wetlands according to the criteria of the *DuPage County Countywide Stormwater and Flood Plain Ordinance*.

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Pulte Home Company,LLC
Contact: Ty Morris
Address: 1900 East Golf Road, suite 300
Schaumburg, IL 60173

IDNR Project Number: 2111646
Date: 03/17/2021
Alternate Number: 402.078

Project: St. Andrews of West Chicago
Address: SE of Smith Road and Klein Road, West Chicago

Description: The proposed project consist of developing the existing agricultural Cropland into residential Homes.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Yellow-Headed Blackbird *(Xanthocephalus xanthocephalus)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: DuPage

Township, Range, Section:
40N, 9E, 22

IL Department of Natural Resources Contact
Brian Willard
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Bureau of Water Quality
1021 NGrand Ave East
Springfield, Illinois 62794

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

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EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor
Colleen Callahan, Director

March 18, 2021

Ty Morris
Pulte Home Company,LLC
1900 East Golf Road, suite 300
Schaumburg, IL 60173

RE: St. Andrews of West Chicago
Project Number(s): 2111646 [402.078]
County: DuPage

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Brian Willard
Division of Ecosystems and Environment
217-785-5500

U.S. FISH AND WILDLIFE SERVICE: SECTION 7 CONSULTATION

Project: St. Andrews, West Chicago, DuPage County, Illinois (#210179)

Analysis conducted by: Daniel Jablonski, V3 Companies, May 12, 2021

Site Description: The project area consists of agricultural land with old homestead area surrounded residential development, golf course and agricultural land.

SPECIES	STATUS	HABITAT	SUITABLE HABITAT PRESENT?	CONCLUSION
Eastern prairie fringed orchid (*Platanthera leucophaea*)	Threatened	Mesic prairies to wetlands such as sedge meadows, marsh edges, and bogs with full sun and little or no woody encroachment.	No, suitable habitat is not present. Wetlands are of low quality with woody encroachment.	Species and habitat not present. No further consultation is required.
Mead's milkweed (*Asclepias meadii*)	Threatened	Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil	No, suitable habitat is not present. Tallgrass prairie not present within the project area.	Species and habitat not present. No further consultation is required.
Prairie bush clover (*Lespedeza leptostachya*)	Threatened	Dry to mesic prairies with gravelly soils.	No, suitable habitat is not present. Mesic prairie not present within the project area.	Species and habitat not present. No further consultation is required.
Northern long-eared bat (*Myotis septentrionalis*)	Threatened	Small crevices and cavities in caves, mines, and under the bark of dead and live trees.	No, suitable habitat is not present. Preferred tree species not present.	Species and habitat not present. No further consultation is required.
Hine's emerald dragonfly (*Somatochlora hineana*)	Endangered	Spring fed wetlands, wet meadows, and marshes within the Designated Critical Habitat areas.	No, suitable habitat is not present. Project area not within a conservation zone.	Species and critical habitat not present. No further consultation is required.
Leafy-prairie clover (*Dalea foliosa*)	Endangered	Prairie remnants with thin soil over limestone along the Des Plaines River.	No, suitable habitat is not present. Project area does not contain dolomite prairie.	Species and habitat not present. No further consultation is required.
Rusty patched bumble bee (*Bombus affinis*)	Endangered	Grasslands with flowering plants from April – October, underground rodent cavities or clumps of grasses above ground as nesting sites and undisturbed soil for hibernating queens to overwinter; High Potential Zones	No, suitable habitat is not present. The eastern most extent of the project area is in a zone of high potential; however, the project area is an agricultural field devoid of flowering plants.	Species and habitat not present. No further consultation is required.

Conclusion: Species and critical habitat are not present. No further consultation is required.

OBSERVER: Daniel Jablonski

DATE: 5/12/2021

LOCATION: St. Andrews: Area 1

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. The wetland system as a whole must be considered. If the wetland extends off-site, aerial photographs, observations from public access areas (roads, etc.) should be considered in the evaluation sheet.

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

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3.0
Evident	2.0
Low	1.0
Occasional	0.5
Non-Existent	0.0
SUB-TOTAL =	**1.0**

Observations/Notes:
Area 1 is a scrub shrub wetland adjacent an agricultural field

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3.0
Medium	2.0
Low	1.0
SUB-TOTAL =	**1.0**

Community Type	% Cover
Emergent	
Scrub Shrub	60
Wet Meadow	40
Forested	
Aquatic	
Other	

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
25%-75% Cover, Patches	3.0
5%-25% Cover, Peripheral	1.0
<5% Cover	0.5
SUB-TOTAL =	**0.5**

TOTAL SCORE (A+B+C) =	**2.5**

Total score ≥ 5.00 wetland receives CRITICAL status
Total score < 5.00 wetland receives REGULATORY status

OBSERVER: Daniel Jablonski

DATE: 5/12/2021

LOCATION: St. Andrews: Area 2

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. The wetland system as a whole must be considered. If the wetland extends off-site, aerial photographs, observations from public access areas (roads, etc.) should be considered in the evaluation sheet.

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

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3.0
Evident	2.0
Low	1.0
Occasional	0.5
Non-Existent	0.0
SUB-TOTAL =	**0.5**

Observations/Notes:
Area 2 is a very small wetland pocket adjavent an agricultural field

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3.0
Medium	2.0
Low	1.0
SUB-TOTAL =	**1.0**

Community Type	% Cover
Emergent	5
Scrub Shrub	5
Wet Meadow	90
Forested	
Aquatic	
Other	

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
25%-75% Cover, Patches	3.0
5%-25% Cover, Peripheral	1.0
<5% Cover	0.5
SUB-TOTAL =	**0.5**

TOTAL SCORE (A+B+C) =	**2.0**

Total score ≥ 5.00 wetland receives CRITICAL status
Total score < 5.00 wetland receives REGULATORY status

OBSERVER: Daniel Jablonski

DATE: 5/12/2021

LOCATION: St. Andrews: Area 3

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. The wetland system as a whole must be considered. If the wetland extends off-site, aerial photographs, observations from public access areas (roads, etc.) should be considered in the evaluation sheet.

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

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3.0
Evident	2.0
Low	1.0
Occasional	0.5
Non-Existent	0.0
SUB-TOTAL =	**0.5**

Observations/Notes:
Area 3 is a very small wetland pocket adjavent an agricultural field

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3.0
Medium	2.0
Low	1.0
SUB-TOTAL =	**1.0**

Community Type	% Cover
Emergent	5
Scrub Shrub	5
Wet Meadow	90
Forested	
Aquatic	
Other	

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
25%-75% Cover, Patches	3.0
5%-25% Cover, Peripheral	1.0
<5% Cover	0.5
SUB-TOTAL =	**0.5**

TOTAL SCORE (A+B+C) =	**2.0**

Total score ≥ 5.00 wetland receives CRITICAL status
Total score < 5.00 wetland receives REGULATORY status

APPENDIX VI

FARMED WETLAND DETERMINATION

FARMED WETLAND SLIDE REVIEW

As of January 2005, the Natural Resource Conservation Service (NRCS) and U.S. Army Corps of Engineers (USACE) have withdrawn from the January 1994, *Memorandum of Agreement Between the Departments of Agriculture, Interior, and Army and EPA Concerning the Delineation of Wetlands under Section 404 of the Clean Water Act and Subtitle B of the Food Security Act* (MOA), and the January 1995, *Illinois Interagency Implementation of the National Wetland MOA*. Therefore, NRCS no longer makes certified wetland determinations on agricultural lands where the land use is changing to a non-agricultural use. However, in the Chicago District, the USACE requires a review of crop compliance slides in accordance with the National Food Security Act Manual (NFSAM) methodology for agricultural lands. V3 also followed the currently Federal wetland delineation methodology as outlined in the *2019 DuPage County Countywide Stormwater and Flood Plain Ordinance* (Ordinance).

V3 used the precipitation data from the Elgin National Weather Service (WETS) Station in order to determine the appropriate Farm Service Agency (FSA) crop compliance aerials to review. The aerials were examined on May 20, 2021 using NRCS spectral response criteria and category definitions for wetland determinations.

Two wet years (2019, Figures A1 and A2; and 2017, Figures B1 and B2) were selected as the base aerial photograph to identify consistently wet areas present on the site in which wetland signatures could be distinguished. Two sets of aerial imagery for each wet year were analyzed to determine if wet signatures were identified on the subject property. Figure A1 and Figure B1 are aerial imagery layers provided by the National Agricultural Imagery Program (NAIP), a program administered by the USDA's Farm Service Agency that acquires aerial imagery during agricultural growing season; and Figures A2 and Figure B2 are aerial imagery layers provided by DuPage County GIS. Additional information including National Wetland Inventory (NWI), Flood Zone, and Soil Survey information were also analyzed. No wetland signatures were identified in the wet years; therefore no farmed wetlands were determined to be on the subject property.

Normal precipitation years are analyzed when farmed wetland signatures are identified during the wet years; however, since no farmed wetland signatures were observed during the wet years, normal precipitation years are not included in this analysis.

WETS Station: Elgin IL2736

	Average	<30%	>30%
April	3.91	2.66	4.67
May	3.84	2.55	4.60
June	4.31	2.71	5.21

CLIMATIC EVALUATION OF PRECIPITATION
3 MONTHS BEFORE AERIAL CROP
HISTORY SLIDES

Year	April Precipitation	Type of Month	May Precipitation	Type of Month	June Precipitation	Type of Month	April Score 1X	May Score 2X	June Score 3X	Score for Year	Type of Year	Year	RECORD OF WETLAND SIGNATURES OBSERVED ON AERIAL CROP HISTORY SLIDES
1980	2.67	Normal	3.02	Normal	3.35	Normal	2	4	6	12	NORMAL	1980	
1981	5.03	Wet	3.28	Normal	5.80	Wet	3	4	9	16	WET	1981	
1982	3.33	Normal	3.98	Normal	1.52	Dry	2	4	3	9	DRY	1982	
1983	6.76	Wet	3.47	Normal	2.10	Dry	3	4	3	10	NORMAL	1983	
1984	4.49	Normal					2			2	DRY	1984	No precip data for May & June
1985	1.45	Dry	3.74	Normal	3.08	Normal	1	4	6	11	NORMAL	1985	
1986	2.30	Dry	4.98	Wet	4.24	Normal	1	6	6	13	NORMAL	1986	
1987	3.51	Normal	4.52	Normal	1.68	Dry	2	4	3	9	DRY	1987	
1988	3.18	Normal	1.15	Dry	1.36	Dry	2	2	3	7	DRY	1988	
1989	1.01	Dry			4.38	Normal	1		6	7	DRY	1989	No precip data for May
1990 IR**	2.01	Dry	4.70	Wet	4.98	Normal	1	6	6	13	NORMAL	1990** IR	
1991*	4.13	Normal	5.02	Wet	1.59	Dry	2	6	3	11	NORMAL	1991*	
1992	2.75	Normal	0.47	Dry	1.02	Dry	2	2	3	7	DRY	1992	
1993^{W}	7.16	Wet	2.07	Dry	10.40	Wet	3	2	9	14	NORMAL	1993W	very wet June
1994	1.84	Dry	1.47	Dry	4.19	Normal	1	2	6	9	DRY	1994	
1995*	5.82	Wet	5.35	Wet	1.71	Dry	3	6	3	12	NORMAL	1995*	
1996^{W}	2.43	Dry	8.70	Wet	5.51	Wet	1	6	9	16	WET	1996W	
1997*	1.64	Dry	5.57	Wet	2.80	Normal	1	6	6	13	NORMAL	1997*	
1998*	5.07	Wet	3.81	Normal	5.27	Wet	3	4	9	16	WET	1998*	
1999	8.53	Wet	3.38	Normal	6.51	Wet	3	4	9	16	WET	1999	
2000	4.36	Normal	4.50	Normal	6.16	Wet	2	4	9	15	WET	2000	
2001*	3.42	Normal	4.24	Normal	3.86	Normal	2	4	6	12	NORMAL	2001*	
2002	3.66	Normal	4.89	Wet	5.56	Wet	2	6	9	17	WET	2002	
2003	2.35	Dry	8.46	Wet	1.58	Dry	1	6	3	10	NORMAL	2003	
2004**	1.73	Dry	8.60	Wet	4.11	Normal	1	6	6	13	NORMAL	2004**	
2005	2.62	Dry	2.51	Dry	0.46	Dry	1	2	3	6	DRY	2005	
2006	3.41	Normal	4.76	Wet	4.39	Normal	2	6	6	14	NORMAL	2006	
2007	3.91	Normal	2.52	Dry	2.93	Normal	2	2	6	10	NORMAL	2007	
2008	4.53	Normal	3.84	Normal	4.45	Normal	2	4	6	12	NORMAL	2008	
2009	5.31	Wet	4.18	Normal	6.17	Wet	3	4	9	16	WET	2009	
2010	3.50	Normal	6.12	Wet	4.21	Normal	2	6	6	14	NORMAL	2010	
2011	5.62	Wet	8.22	Wet	4.45	Normal	3	6	6	15	WET	2011	
2012	3.13	Normal	1.57	Dry	2.66	Dry	2	2	3	7	DRY	2012	
2013	7.42	Wet	2.96	Normal	3.86	Normal	3	4	6	13	NORMAL	2013	
2014	2.72	Normal	5.46	Wet	5.89	Wet	2	6	9	17	WET	2014	
2015	3.14	Normal	5.18	Wet	8.35	Wet	2	6	9	17	WET	2015	
2016	3.04	Normal	6.49	Wet	3.86	Normal	2	6	6	14	NORMAL	2016	
2017	4.57	Normal	5.48	Wet	5.45	Wet	2	6	9	17	WET	2017	
2018	2.06	Dry	9.79	Wet	2.45	Dry	1	6	3	10	NORMAL	2018	
2019	4.69	Wet	8.76	Wet	3.74	Normal	3	6	6	15	WET	2019	
2020	0.00		0.00		0.00							2020	
2021	0.00		0.00		0.00							2021	

SCORE

Dry =	1
Normal =	2
Wet =	3

TYPE OF YEAR

Dry =	6 to 9
Normal =	10 to 14
Wet =	14 to 18

* Preferred NORMAL slide years
** Alternate NORMAL slide years
W -- Preferred WET slide years
IR -- Infrared slides

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

Visio, Vertere, Virtute...
"The Vision To Transform With Excellence"

PROJECT NO.:	210179
CREATED BY:	DJJ
DATE:	06/10/2021
SCALE:	See Scale Bar

CLIENT:
Pulte Home Corp.
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

BASE LAYER:
NAIP
Aerial Imagery
(2019)

SITE:
St. Andrew's
West Chicago, Illinois

TITLE:
FARMED WETLAND DETERMINATION WET/BASE YEAR (2019) MAP

FIGURE:
A1

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\Farmed Wetland\FIGA_Wet_210179.mxd

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Woodridge, IL 60517
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CLIENT:
Pulte Home Corp.
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

BASE LAYER:
DuPage County
Aerial Imagery
(2019)

SITE:
St. Andrew's
West Chicago, Illinois

TITLE:
FARMED WETLAND DETERMINATION WET/BASE YEAR (2019) MAP

FIGURE:
A2

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\Farmed Wetland\FIGA_Wet_210179.mxd

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SCALE:	See Scale Bar

CLIENT:
Pulte Home Corp.
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

BASE LAYER:
NAIP
Aerial Imagery
(2017)

SITE:
St. Andrew's
West Chicago, Illinois

TITLE:
FARMED WETLAND DETERMINATION
WET/BASE YEAR (2017) MAP

FIGURE:
B1

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\Farmed Wetland\FIGA_Wet_210179.mxd

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Woodridge, IL 60517
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Visio, Vertere, Virtute...
"The Vision To Transform With Excellence"

PROJECT NO.:	210179
CREATED BY:	DJJ
DATE:	06/10/2021
SCALE:	See Scale Bar

CLIENT:
Pulte Home Corp.
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

BASE LAYER:
DuPage County
Aerial Imagery
(2017)

SITE:
St. Andrew's
West Chicago, Illinois

TITLE:
FARMED WETLAND DETERMINATION
WET/BASE YEAR (2017) MAP

FIGURE:
B2

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\Farmed Wetland\FIGA_Wet_210179.mxd

APPENDIX VII

STATE HISTORIC PRESERVATION OFFICE DOCUMENTS

Illinois Department of
Natural Resources
One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov
JB Pritzker, Governor
Colleen Callahan, Director
Mailing address: State Historic Preservation Office, 1 Old State Capitol Plaza, Springfield, IL, 62701

DuPage County PLEASE REFER TO: SHPO LOG #010031921
West Chicago
Sites: 11DU610-615, Section:22-Township:40N-Range:9E,
Smith Road between Pramukh Swami Maharaj Rd. & Klein Rd.
CEMCON-402.078, IEPA
New construction, residential subdivision - St. Andrews

April 29, 2021

Cynthia L. Balek, Ph.D.
Archaeology and Geomorphology Services
2220 Mayfair Avenue
Westchester, IL 60154

Dear Dr. Balek:

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

If further assistance is needed please contact Jeff Kruchten, Chief Archaeologist at 217/785-1279 or Jeffery.kruchten@illinois.gov.

Sincerely,

PrivateInformation

Robert F. Appleman
Deputy State Historic
Preservation Officer

APPENDIX VIII

WETLAND FIELD VERIFICATION

Dan Jablonski

From: Scott Brejcha
Sent: Friday, June 25, 2021 1:37 PM
To: Dan Jablonski; Alicia Metzger; Tom Slowinski
Subject: FW: St Andrews Site - west Chicago

Scott J. Brejcha, PWS | Wetland Consulting Group Leader
V3 Companies | 7325 Janes Avenue | Woodridge, IL 60517
P 630.729.6325 | **C** PrivateInform | **E** Sbrejcha@v3co.com

V3 | Visio, Vertere, Virtute … *The Vision to Transform with Excellence*
LinkedIn | Facebook | Instagram | Twitter | www.v3co.com

From: Assell, Nick <Nick.Assell@dupageco.org>
Sent: Friday, June 25, 2021 1:35 PM
To: Scott Brejcha <sbrejcha@v3co.com>; Fahey, Jenna <Jenna.Fahey@dupageco.org>
Subject: RE: St Andrews Site - west Chicago

Yes, we concur with the areas delineated as wetland (Areas 1, 2, & 3).

Thanks,

Nick Assell
Wetland Specialist
DuPage County Stormwater Management
421 N. County Farm Rd.
Wheaton, IL 60187
Office: 630.407.6725
Cell: PrivateInformation
nick.assell@dupageco.org
www.dupageco.org/swm
DUPAGECOUNTY

From: Scott Brejcha <sbrejcha@v3co.com>
Sent: Friday, June 25, 2021 1:31 PM
To: Assell, Nick <Nick.Assell@dupageco.org>; Fahey, Jenna <Jenna.Fahey@dupageco.org>
Subject: RE: St Andrews Site - west Chicago

Nick, thank you for your response. To confirm, you concur and have field verified Areas 1, 2, and 3 per the attached. The date of the field verification was June 2, 2021.

Thank you,
Scott

Scott J. Brejcha, PWS | Wetland Consulting Group Leader
V3 Companies | 7325 Janes Avenue | Woodridge, IL 60517
P 630.729.6325 | **C** PrivateInform | **E** Sbrejcha@v3co.com

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From: Assell, Nick <Nick.Assell@dupageco.org>
Sent: Friday, June 25, 2021 1:27 PM
To: Scott Brejcha <sbrejcha@v3co.com>; Fahey, Jenna <Jenna.Fahey@dupageco.org>
Subject: RE: St Andrews Site - west Chicago

Hi Scott,

After reviewing the additional data we will ***not*** be regulating any areas as farmed wetland (negative findings). Thanks for getting us all the information to review.

Thanks again,

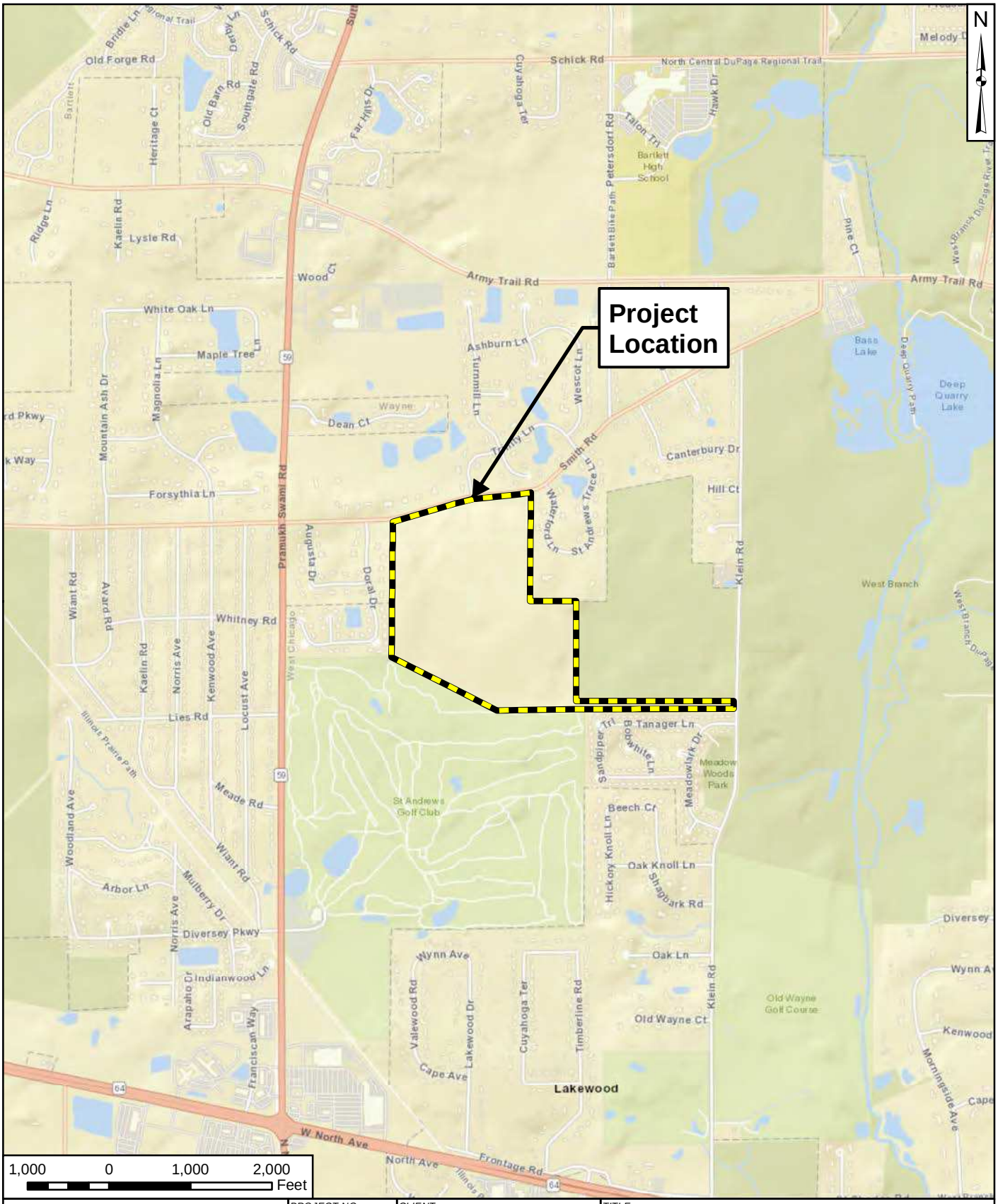
Nick Assell
Wetland Specialist
DuPage County Stormwater Management
421 N. County Farm Rd.
Wheaton, IL 60187
Office: 630.407.6725
Cell: PrivateInformation
nick.assell@dupageco.org
www.dupageco.org/swm
DUPAGECOUNTY

From: Scott Brejcha <sbrejcha@v3co.com>
Sent: Friday, June 25, 2021 11:32 AM
To: Fahey, Jenna <Jenna.Fahey@dupageco.org>; Assell, Nick <Nick.Assell@dupageco.org>
Subject: St Andrews Site - west Chicago

Hi Jenna and Nick, just following up on this site and the field verification information and additional data provided. Please let me know if you concur.
Thank you,
Scott

Scott J. Brejcha, PWS
Wetland Consulting Group Leader
V3 Companies
PrivateInformation sbrejcha@v3co.com
- sent from my mobile device

FIGURES



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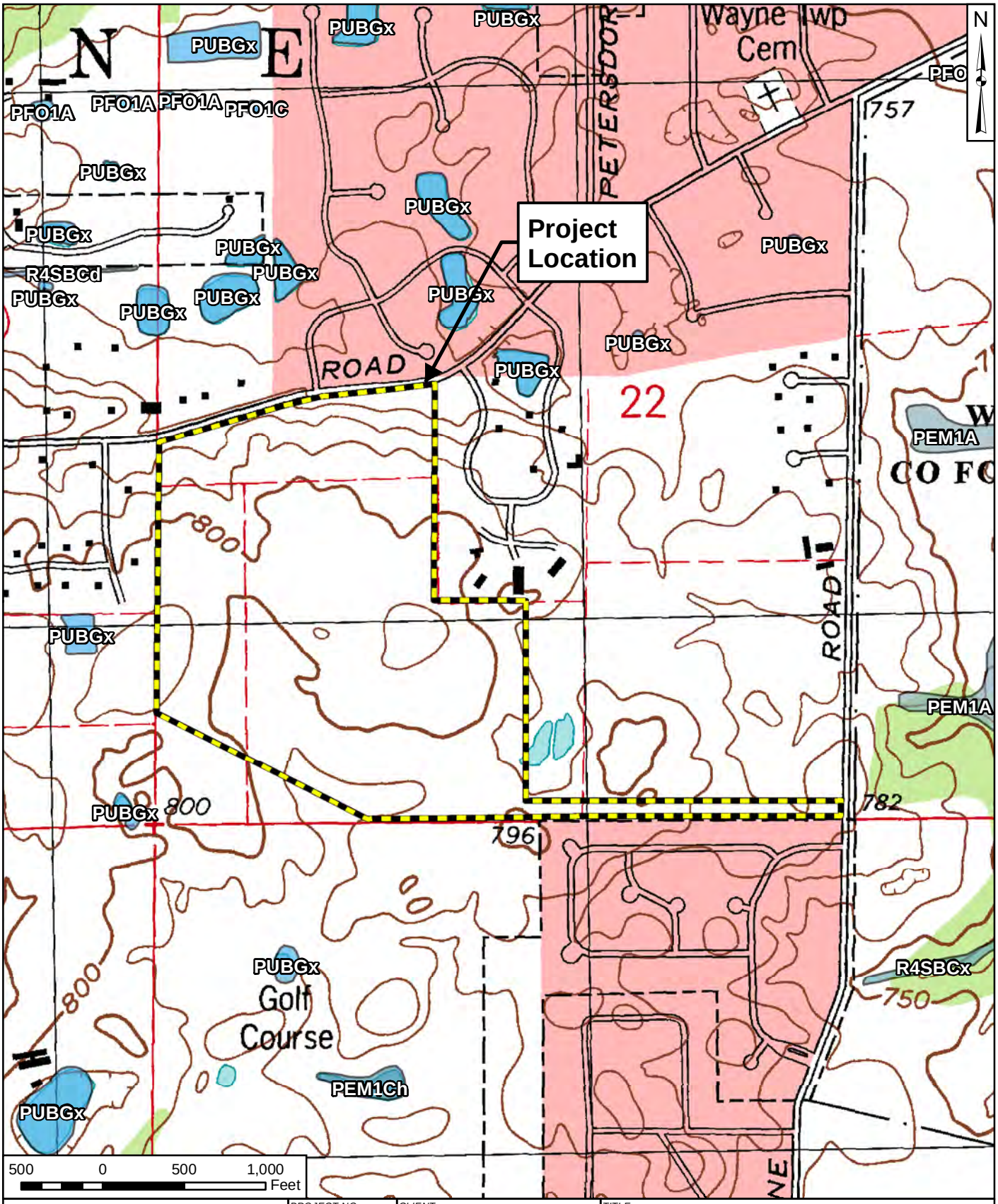
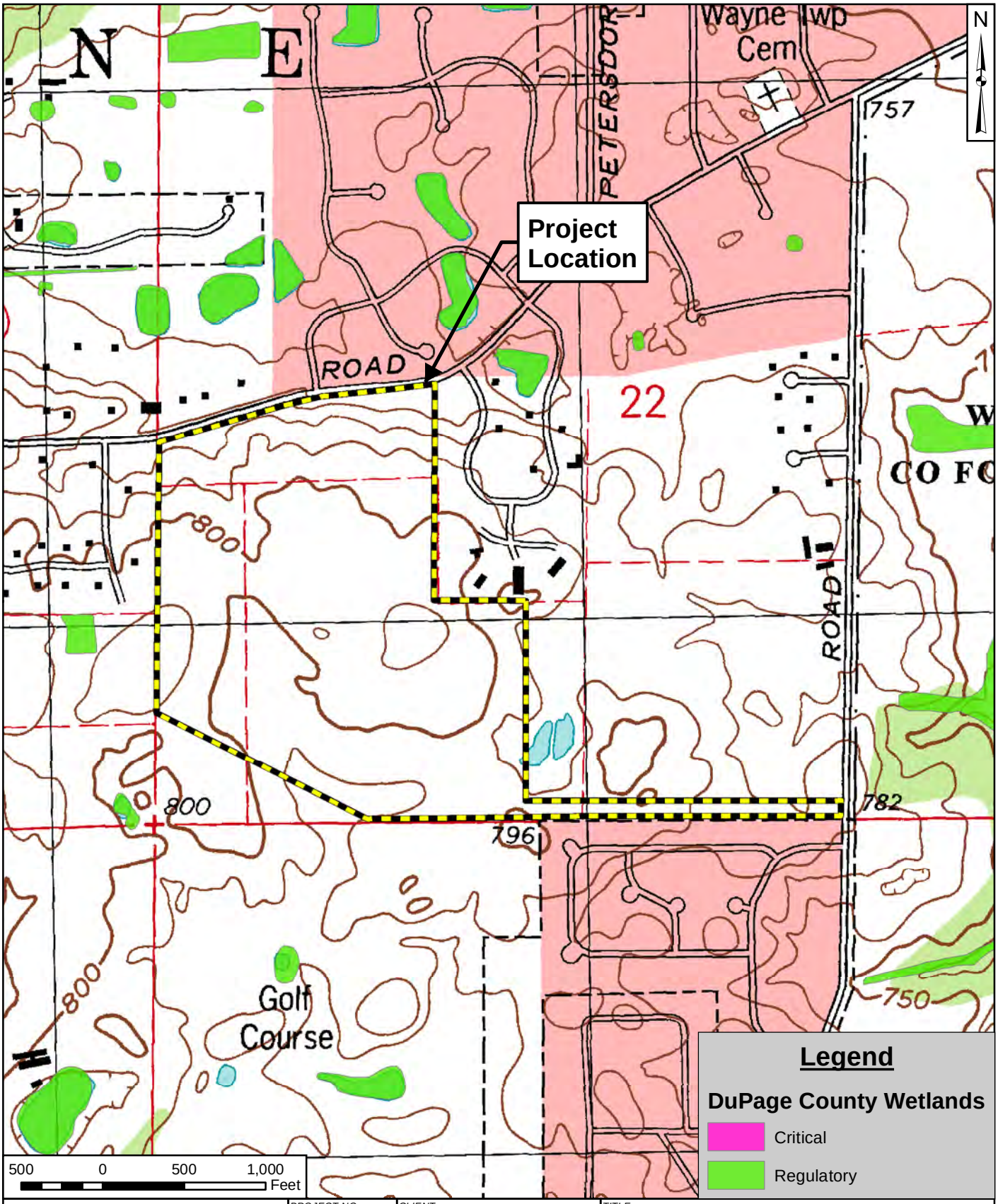
PROJECT NO.: 210179	CLIENT: Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173	TITLE: **PROJECT LOCATION MAP**	
CREATED BY: AMM			
DATE: 03/18/2021	BASE LAYER: ESRI World Street Map	SITE: St. Andrew's West Chicago, Illinois	FIGURE: 1
SCALE: See Scale Bar			

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG1loc210179.mxd



V3 7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 210179	CLIENT: Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173	TITLE: **NATIONAL WETLANDS INVENTORY (NWI) MAP**
	CREATED BY: AMM		
	DATE: 03/18/2021	BASE LAYER: USGS Topographic Map West Chicago Quadrangle (1998)	SITE: St. Andrew's West Chicago, Illinois
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		FIGURE: 2

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG2nwi210179.mxd



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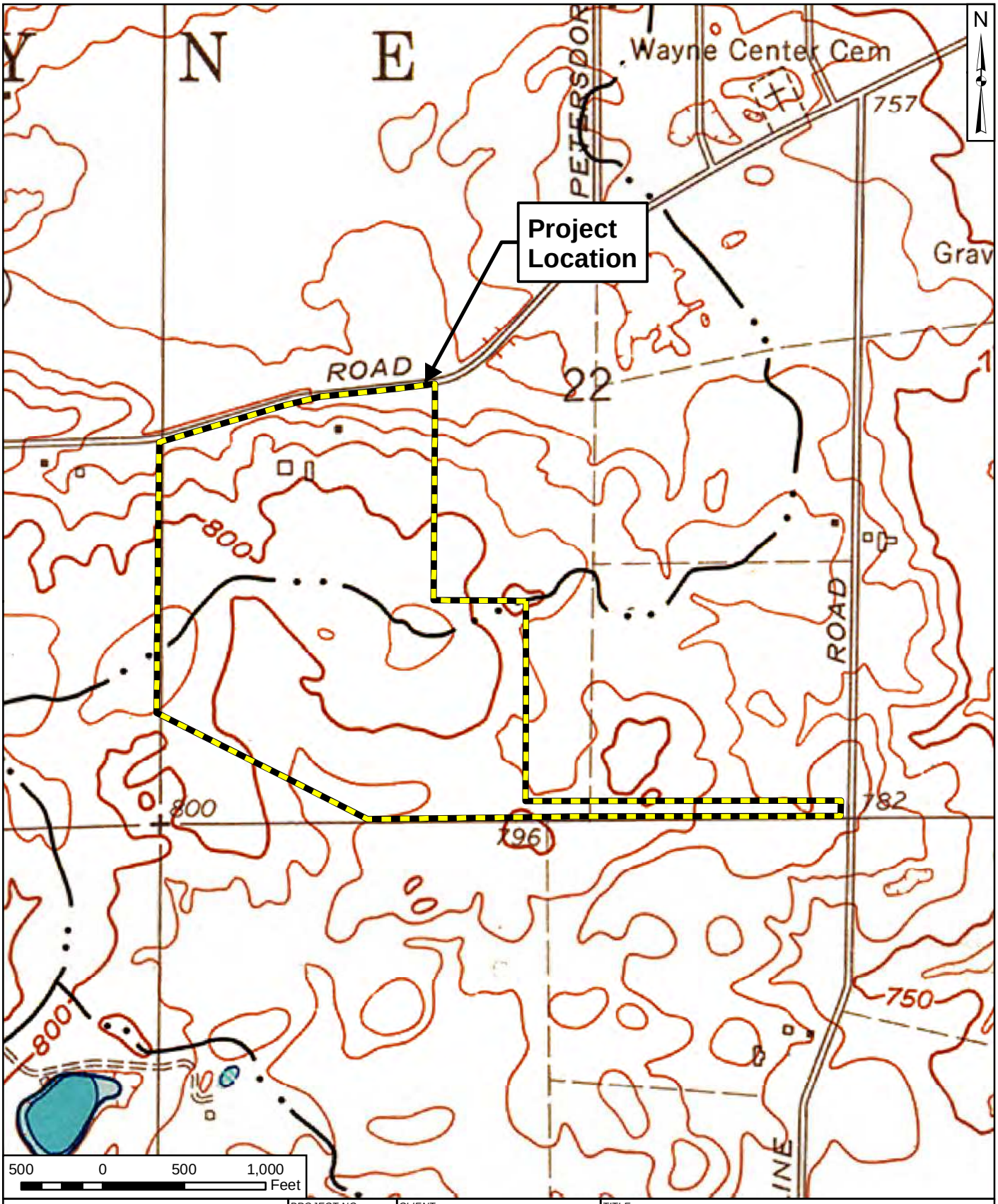
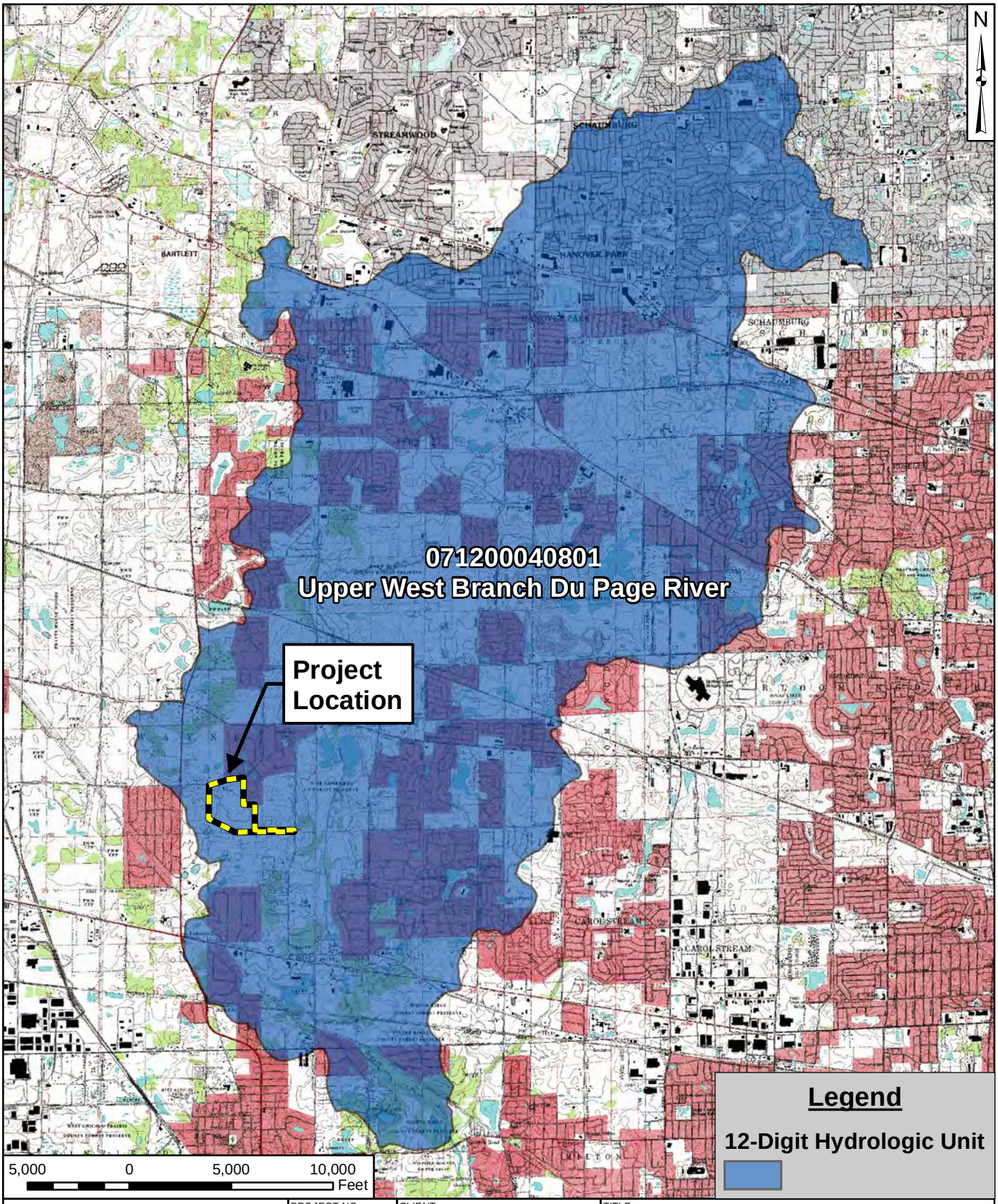
PROJECT NO.:	210179
CREATED BY:	AMM
DATE:	03/18/2021
SCALE:	See Scale Bar
CLIENT:	Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173
BASE LAYER:	USGS Topographic Map West Chicago Quadrangle (1998)
TITLE:	**DUPAGE COUNTY WETLANDS MAP**
SITE:	St. Andrew's West Chicago, Illinois
FIGURE:	3

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG3dcw210179.mxd



7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 210179 CREATED BY: AMM	CLIENT: Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173	TITLE: **USGS HYDROLOGIC ATLAS**
	DATE: 03/18/2021	BASE LAYER: USGS Hydrologic Atlas West Chicago Quadrangle (1965)	SITE: St. Andrew's West Chicago, Illinois FIGURE: 4
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG4hydro210179.mxd



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PROJECT NO.: 210179

CREATED BY: AMM

DATE: 03/18/2021

SCALE: See Scale Bar

CLIENT: Pulte Home Corp.
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

BASE LAYER: USGS Topographic Map
DuPage County, Illinois

TITLE: **12-DIGIT HYDROLOGIC UNIT CODE (HUC) MAP**

SITE: St. Andrew's
West Chicago, Illinois

FIGURE: 5

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG5huc210179.mxd

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PROJECT NO.:	210179
CREATED BY:	AMM
DATE:	03/18/2021
SCALE:	See Scale Bar

CLIENT:
Pulte Home Corp.
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

BASE LAYER:
FEMA FIRM Panel
17043C0037J
Effective 08/19/2019

TITLE:
FEMA FLOOD INSURANCE RATE MAP (FIRM)

SITE:
St. Andrew's
West Chicago, Illinois

FIGURE:
6

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG6firm210179.mxd

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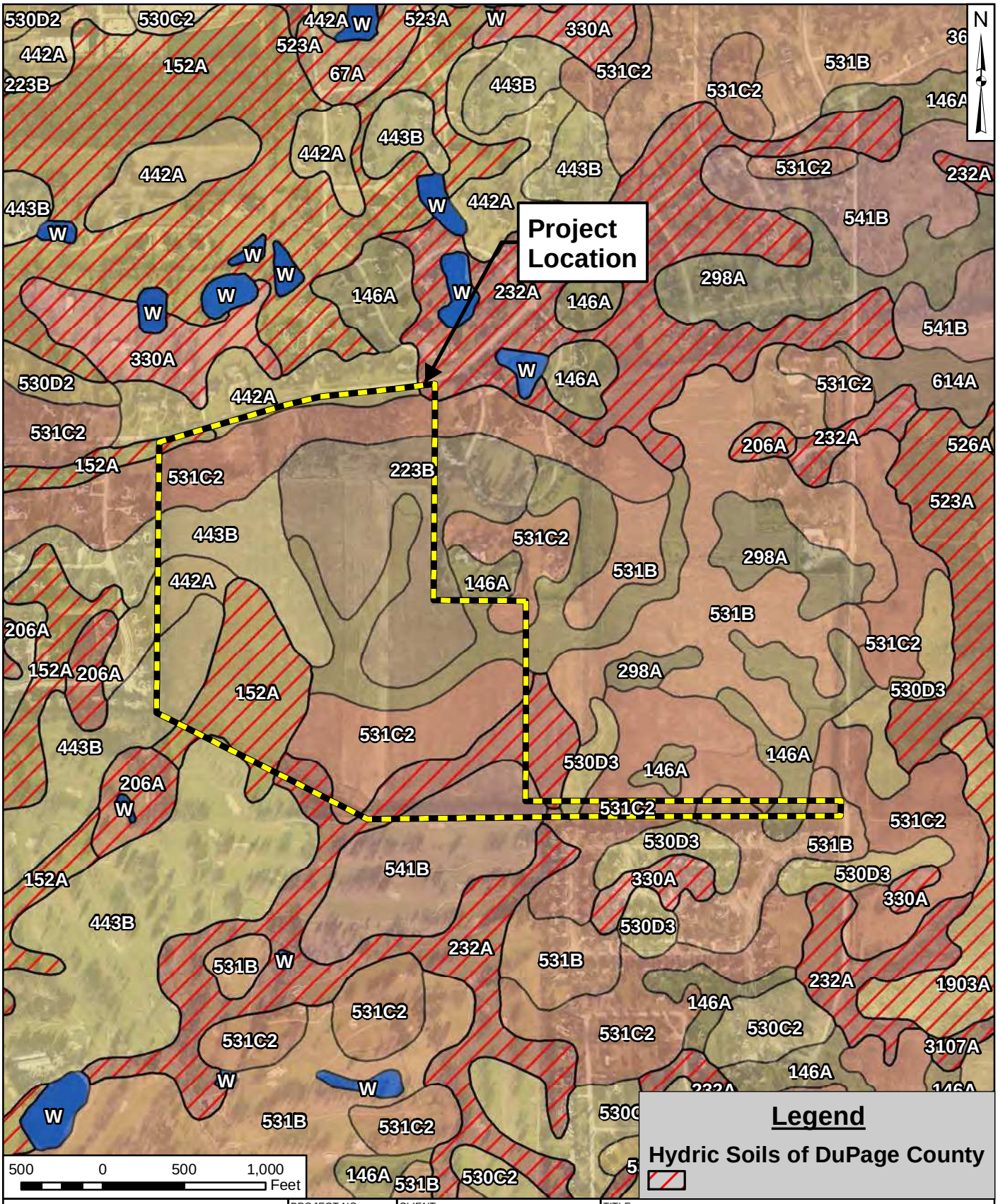
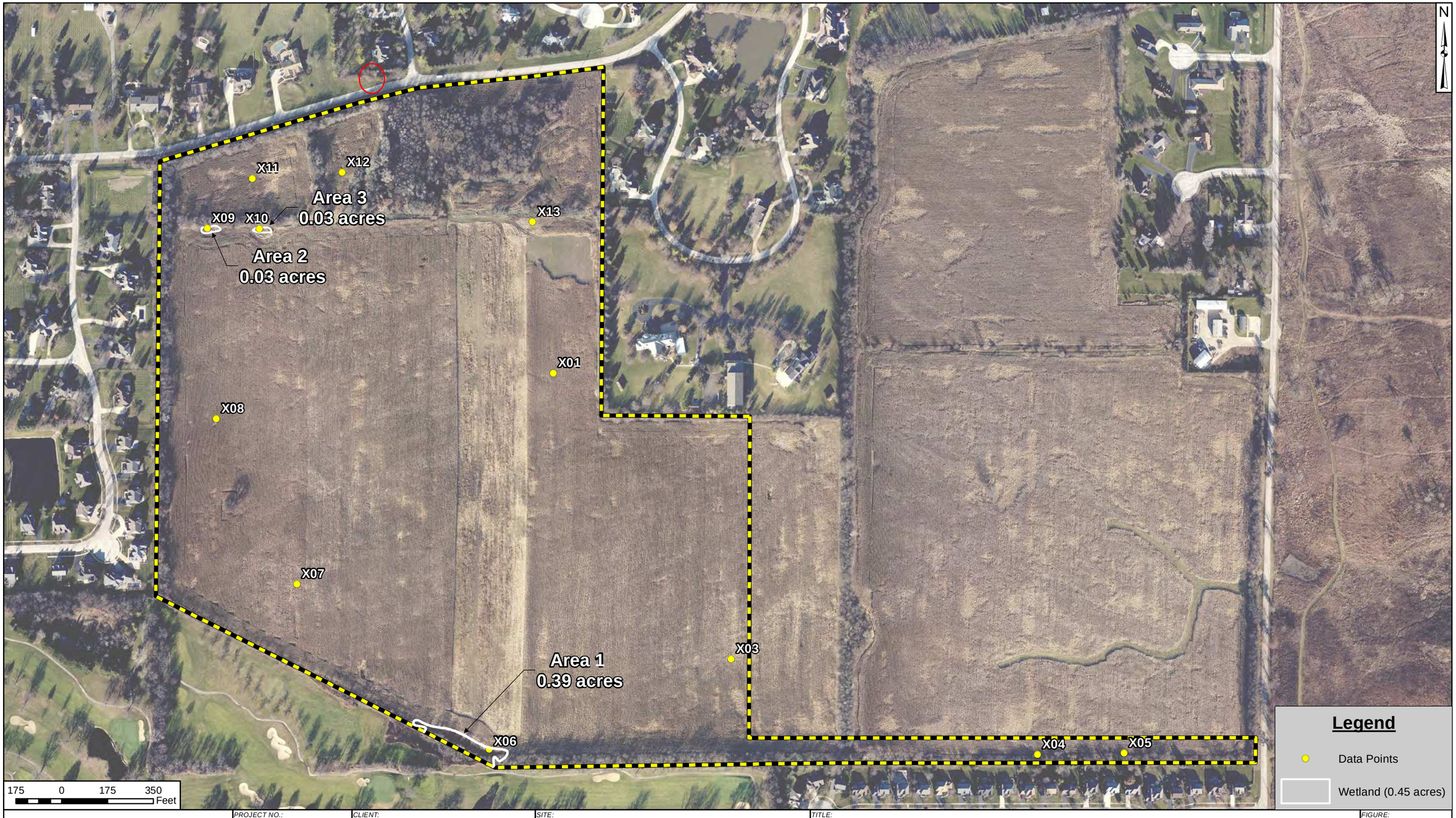
PROJECT NO.:	210179
CREATED BY:	AMM
DATE:	03/18/2021
SCALE:	See Scale Bar
CLIENT:	Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173
BASE LAYER:	DuPage County Aerial Imagery (2019)
TITLE:	**FLOOD ZONES OF DUPAGE COUNTY, ILLINOIS (2019) MAP**
SITE:	St. Andrew's West Chicago, Illinois
FIGURE:	7

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG7nfhl210179.mxd



7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 210179 CREATED BY: AMM DATE: 03/18/2021	CLIENT: Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173 BASE LAYER: DuPage County Aerial Imagery (2019)	TITLE: **SOIL SURVEY OF DUPAGE COUNTY, ILLINOIS MAP** SITE: St. Andrew's West Chicago, Illinois FIGURE: 8
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG8soil210179.mxd



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PROJECT NO.:	210179
CREATED BY:	DJJ
DATE:	06/30/2021
SCALE:	See Scale Bar
CLIENT:	Pulte Home Corp. 1900 E. Golf Road, Suite 300 Schaumburg, Illinois 60173
BASE LAYER:	DuPage County Aerial Imagery (2019)
SITE:	St. Andrew's West Chicago, Illinois
TITLE:	**WETLAND DELINEATION MAP**
FIGURE:	9

N:\2021\210179\Drawings\ArcGIS\NR\Wetland\FIG9delin210179.mxd

TESTING SERVICE CORPORATION

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360 S. Main Place, Carol Stream, IL 60188-2404
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Local Offices:
457 E. Gundersen Drive, Carol Stream, IL 60188-2492
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650 N. Peace Road, Suite D, DeKalb, IL 60115-8401
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847.249.6040 • Fax 844.767.4721

2235 23RD Avenue, Rockford, IL 61104-7334
815.394.2562 • Fax 815.394.2566

203 Earl Road, Suite A, Shorewood, IL 60404-9446
815.744.1510 • Fax 815.744.1728

Geotechnical & Environmental Engineering

Construction Materials Engineering & Testing

Laboratory Testing of Soils, Concrete & Asphalt

Geo-Environmental Drilling & Sampling

April 23, 2021
L-92,313

Report of Soils Exploration

St. Andrews Property

112-Acre Residential Parcel

Smith Road East of Route 59

West Chicago, Illinois

Prepared For:

Pulte Home Company, LLC
1900 E. Golf Road, Suite 300
Schaumburg, IL 60173

GEOTECHNICAL GROUP

April 23, 2021
L-92,313

REPORT OF SOILS EXPLORATION
ST. ANDREWS PROPERTY
112-ACRE RESIDENTIAL PARCEL
SMITH ROAD EAST OF ROUTE 59
WEST CHICAGO, ILLINOIS

PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173

PREPARED BY:
TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188
(630) 653-3920

TABLE OF CONTENTS

April 23, 2021
L-92,313

REPORT OF SOILS EXPLORATION
ST. ANDREWS PROPERTY
112-ACRE RESIDENTIAL PARCEL
SMITH ROAD EAST OF ROUTE 59
WEST CHICAGO, ILLINOIS

1.0 INTRODUCTION

This report presents results of a soils exploration performed for the St. Andrews Property in West Chicago, Illinois. These geotechnical engineering services are being provided in accordance with TSC Proposal No. 66,659 and associated Pulte work order with commencement date of March 22, 2021. A Soils Opinion Letter and Boring Evaluation Form are also being prepared in connection with our investigation.

The project site encompasses 112 acres which lies about 1500' east of IL Route 59 on the south side of Smith Road. It extends on the order of 2000' to the south where it butts up against the St. Andrews Golf and Country Club. The property consists of gently rolling farmland with wooded areas present close to Smith Road on the northern portion. Ground surface elevations are generally in the range of 770 to 810, with the site being relatively high in the middle and dropping off to the north, south and east.

Current plans call for 285 single-family homes to be constructed as part of the proposed residential development. These are to presumably consist of 1 to 2-story wood-frame structures with attached garages as well as up to 9-foot deep basements. Site improvements are to otherwise include paved streets and underground utilities as well as stormwater management facilities, with four (4) detention basins to be located across the north, south and eastern ends of the property. No grading information was available at the time of this report, i.e. top of foundation (T/F) elevations for the single-family homes as well as high and normal water levels (HWL and NWL) for the detention basins have not been set.

2.0 FIELD INVESTIGATION AND LABORATORY TESTING

Thirty-seven (37) soil borings were performed as part of our investigation, with an attempt being made to hit low-lying/suspect areas. Boring Location Plans plotted on a conceptual site plan and Google Earth photo are included in the Appendix, showing the drilling layout as well as ground surface elevations at the boring locations. The elevations were acquired by TSC using a Trimble R8s GNSS receiver and are rounded to the nearest 0.5 foot.

The borings were extended to 15 to 25 feet below existing grade with the deeper ones typically in the detention basin areas. They were drilled and samples tested in accordance with currently recommended American Society for Testing and Materials specifications. Soil sampling was performed at 2½-foot intervals to at least 15 feet in depth and at no greater than 5-foot intervals thereafter. The samples were taken in conjunction with the Standard Penetration Test (SPT), for which driving resistance to a 2" split-spoon sampler (N value in blows per foot) provides an indication of the relative density of granular materials and consistency of cohesive soils. Water level readings were taken during and following completion of drilling operations.

Reference is made to the boring logs in the Appendix which indicate subsurface stratigraphy and soil descriptions, results of field and laboratory tests, as well as water level observations. Definitions of descriptive terminology are also included. While strata changes are shown as a definite line on the boring logs, the actual transition between soil layers is likely to be more gradual. Fluctuations in the groundwater table may also occur due to variations in precipitation (short-term and seasonal) as well as rises or drops in creek, pond or other nearby surface water features, i.e. water levels at a future date may be higher or lower than those recorded at the time of drilling.

3.0 DISCUSSION OF TEST DATA

Surficial topsoil was 6 to 18 inches thick at the majority of the boring locations. It was 2 to 3 feet deep at Borings 5, 9, 24, 26, 29, 31 and 32 (7 total), concentrated in low-lying areas on the southern portion of the site. The thicker clayey topsoil deposits had moisture contents which were typically in the range of 28 to 36 percent.

Stiff to very stiff native silty clay soils of apparent medium to high plasticity was found underlying the topsoil layer at two-thirds of the boring locations, extending 3 to 8 feet below existing grade. These CL/CH materials (Unified classification) exhibited unconfined comprehensive strengths typically ranging from 1.0 to 3.0 tons per square foot (tsf) and occasionally lower. Water contents normally varied from 24 to 32 percent. Relatively soft and very moist silty clay soils were found underlying a stiffer crust and extended 8 feet in depth at B-16, having unconfined strengths of 0.5 tsf or less.

Stiff to hard silty clay and sandy clay soils of low to medium plasticity (CL or CL-ML by Unified classification) were also encountered at the majority of the borings, extending 8 to 14 feet below existing grade in most cases. They were less deep or absent at Borings 1, 2, 4 and 6 drilled across the northern portion of the site, extending over 15 to 25+ feet in depth at about one-quarter of the borings. These deeper cohesive materials exhibited unconfined compressive strengths typically ranging from 1.5 to 7.5 tsf (occasionally both higher and lower) at water contents of 12 to 24 percent.

Loose to dense silt, sand and gravel deposits were found underlying the cohesive materials and extended to the bottom of about three-quarters of the borings. These intermediate and granular materials also occurred as interbedded layers and were encountered close to the surface (i.e. above 6 feet in depth) at Borings 1, 2, 4, 6 and 20 (5 total) concentrated across the northern portion of the site. They had SPT N-values typically ranging from 5 to 40 blows per foot (bpf), with occasional higher blow counts likely being associated with the presence of cobbles and boulders.

The majority of the borings were "dry" both during and following completion of drilling operations. Free water was initially encountered at 10 to 18 feet below existing grade at Borings 1, 3 - 5, 31, 34 and 36 (7 total) and as shallow as around 5 feet deep at B-35. These are concentrated across the northern end of the site as well as around the southeast corner, both of which are relatively low-lying. The water levels in the boreholes at the end of drilling had dropped by 3 to 10 feet in several cases.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 Bearing Table

Summarized in the following table is the shallowest depth/elevation at which in-situ soils considered capable (or marginally capable) of supporting a net allowable bearing pressure of at least 3000 pounds

per square foot (psf) were encountered at each of the borings (including those drilled in detention areas). Ground surface elevations and depths of surficial topsoil are also indicated. Added notes relate to the presence of relatively low strength clay or loose silt and sand deposits found underlying the bearing elevation given in the table (L) and marginal bearing soils for fill placement and/or foundation support (M); these conditions are discussed in greater detail in the text which follows. The recommended bearing pressure of 3000 psf is typical and generally satisfactory for residential construction.

BORING NUMBER	GROUND SURFACE ELEVATION *	SURFICIAL TOPSOIL DEPTH (FEET)	3000 PSF NATIVE BEARING	
			DEPTH (FEET) *	ELEVATION *
1	780.0	1.2	1.5 M	778.5
2	790.5	1.0	1.0 M	789.5
3	772.5	1.3	1.5 M	771.0
4	783.5	0.7	1.0	782.5
5	767.0	3.0	3.0	764.0
6	796.5	0.7	1.0 M	795.5
7	794.5	0.8	1.0 M	793.5
8	798.5	0.8	1.0	797.5
9	801.0	2.0	2.0	799.0
10	798.5	1.0	1.0 M	797.5
11	800.5	0.4	0.5	800.0
12	813.0	0.6	0.5 M	812.5
13	806.0	0.3	0.5	805.5
14	802.0	0.4	0.5 M	801.5
15	806.0	1.0	1.0	805.0
16	800.5	1.2	1.5 ML	799.0
17	804.5	1.0	1.0	803.5
18	804.0	1.0	1.0 M	803.0
19	803.0	0.7	1.0 M	802.0

BORING NUMBER	GROUND SURFACE ELEVATION *	SURFICIAL TOPSOIL DEPTH (FEET)	3000 PSF NATIVE BEARING	
			DEPTH (FEET) *	ELEVATION *
20	813.5	1.0	1.0	812.5
21	805.0	1.0	1.0	804.0
22	802.5	0.7	1.0 ML	801.5
23	802.0	1.0	1.0	801.0
24	796.0	2.5	2.5 M	793.5
25	794.5	1.0	1.0	793.5
26	793.5	3.0	3.0 M	790.5
27	796.0	1.0	1.0	796.5
28	797.5	0.5	0.5	797.0
29	796.0	3.0	3.0 M	793.0
30	792.5	1.3	1.5 M	791.0
31	788.5	3.0	3.0 M	785.5
32	789.5	2.5	2.5 M	787.0
33	794.0	1.0	1.0 M	793.0
34	798.0	1.2	1.5 ML	796.5
35	787.0	1.5	1.5 M	786.5
36	793.5	0.8	1.0 ML	792.5
37	792.0	1.5	1.5 M	790.5

* Ground surface elevations and the depth/elevation of 3000 psf native bearing soils have been rounded to the nearest 0.5 foot.

L Relatively low strength clay or loose silt and sand deposits found underlying the bearing elevation given in the table.

M Marginal bearing soils for fill placement and/or foundation support.

4.2 Building Foundations

As shown in the above table, the native soils found directly underlying the topsoil layer at the majority of the boring locations are considered suitable (or marginally suitable) for the support of 3000 psf bearing. These are for the most part indicated by bearing depths ranging from 0.5 to 2.0 feet in the above table. Exceptions included Borings 5 ,24, 26, 29, 31 and 32 (6 total) where thicker clayey topsoil was encountered. Suitable bearing typically consists of cohesive soils exhibiting unconfined compressive strengths of 1.75 tsf or greater, 1.0 to 1.5 tsf and/or exhibiting relatively high moisture contents exceeding 25 percent in the case of marginal bearing.

In the areas of marginal to satisfactory bearing, footings may also be constructed on engineered fill that is placed as part of mass-grading. Assuming that surficial topsoil (and any existing fill) is first stripped and new fill placed and compacted to a 95 percent criterion, footings constructed on the engineered fill may also be sized for 3000 psf bearing. However, in areas underlain by thicker deposits of low to marginal strength and/or relatively high moisture content soils, as well as anywhere that the height of new fill is to exceed 10 feet, it is recommended that settlement considerations related to fill placement be further evaluated.

Marginal bearing soils were encountered below the topsoil layer in over half of the borings. They consisted of silty clay soils having unconfined compressive strengths in the range of 1.0 to 1.5 tsf and/or moisture contents exceeding 25 percent. Relatively low strength silty clays having unconfined strengths of 0.4 to 1.0 tsf were also found underlying a stiffer crust at Borings 16, 22, 34 and 36, to possibly be penetrated in basement excavations.

Relatively low strength or unstable soils exposed at footing grade should be removed and replaced with structural backfill, with undercuts of between 1 and 2 feet generally required based on field observations. Foundation overexcavations are then typically backfilled and footings constructed at design elevations in accordance with the following recommended procedures.

The base of foundation overexcavations should exceed footing dimensions by at least 12 inches along each side, 6 inches for every foot of overdig where the undercut exceeds 2.0 feet in depth. Replacement materials should consist of crushed stone, crushed gravel or recycled concrete between ¼ to 3 inches in size and containing no fines; IDOT gradations CA-1 and CA-7 meet these criteria. This "structural" fill should be spread in 12-inch layers loose thickness, each lift to be densified using

vibratory compaction equipment or by tamping with a backhoe bucket. Footings constructed on the coarse aggregate backfill may also be proportioned for 3000 psf bearing.

In order to preclude disproportionately small footing sizes, it is recommended that all continuous wall footings be made at least 20 inches wide, trench footings at least 10 inches wide and isolated foundations at least 2.5 feet square, regardless of calculated dimensions. For frost considerations, all exterior footings should be constructed at least 3.5 feet below outside finished grade and 4.0 feet for foundations located outside of heated building limits. Interior footings may be constructed at higher elevations as long as they are protected against frost heave in the event of winter construction.

Consideration should be given to reinforcing foundation walls wherever footing undercuts exceed 2 feet in depth or total fill heights are 8 feet or greater. This recommendation is often made based upon field observations at the time of mass-grading. The reinforcement typically consists of two #4 or #5 rebars placed at the top and bottom of foundation walls.

4.3 Mass-Grading

It is recommended that building pad and pavement areas be cleared of vegetation prior to mass-grading. Stripping operations should also include the removal of all surficial topsoil and other decomposable plant matter. The exposed subgrades should then be proof-rolled using a loaded dump truck or other approved piece of heavy rubber-tired construction equipment, in order to check for the presence of unsuitable soil types. All soft or unstable materials determined by proof-rolling should be reworked and recompacted or, if that does not substantially improve subgrade stability, removed and replaced.

Removal and replacement of unsuitable soil types as part of mass-grading is not specifically recommended at any of the boring locations. However, stripping of the deeper clayey topsoil deposits as well as any other undercuts will require that the building pads be enlarged to permit the horizontal distribution of footing loads. It is recommended that the base of the undercut, or zone of stripping where only topsoil is to be removed, extend a minimum of 5 feet outside the outer edge of the structure plus an additional 0.5 feet for every foot of fill to be placed.

Marginal subgrade stability, represented by clay soil types having unconfined compressive strengths of 1.0 to 1.5 tsf and/or moisture contents exceeding 25 percent, was otherwise encountered at over

half of the borings. These materials will likely need to be reduced in moisture content and recompacted in order to provide a stable base. Lime stabilization can achieve similar results and has the advantage of allowing work to proceed under adverse weather conditions. In any event, the need for subgrade reworking or additional undercutting should be evaluated on the basis of proof-rolling.

New fill should otherwise consist of inorganic silty/sandy clays of low to medium plasticity or approved granular materials. It is recommended that compaction for building pad and pavement areas be to a minimum of 95 and 90 percent of maximum dry density, respectively, as determined by the Modified Proctor test (ASTM D 1557). The upper 2 feet of roadway subgrade is also often compacted to the 95 percent criterion, to create a more stable base for final proof-rolling as well as paving. The fill should be placed in approximate 9 inch lifts loose measure for cohesive soils and up to 12 inches for granular materials, each lift to be compacted to the specified density prior to the placement of additional fill.

Moisture control is important in the compaction of most soil types, and it is recommended that the water content of new fill be within about 1 percentage point on the low side and 3 percentage points on the high side of optimum moisture as established by its laboratory compaction curve. If the soil is compacted too dry, it will have an apparent stability which will be lost if it later becomes saturated. If the soil is too wet, the Contractor will not be able to achieve proper compaction.

In regard to the use of on-site borrow, shallow silty clay soils were often relatively moist - having water contents of between 24 and 32 percent. It is estimated that their use as engineered fill or a stabilized subgrade will require that the in-situ moisture be reduced by about 6 to 12+ percentage points. This reduction in moisture content is typically achieved by spreading the material in a single lift and aerating with a continuous discing operation. For obvious reasons, it will work best in hot, dry and windy weather. Lime stabilization can also be used and has the advantage of working in less ideal weather conditions.

4.4 Pavement Design and Construction

Pavement subgrade preparation may be in general accordance with previous recommendations for mass-grading. It is anticipated that existing subgrade will in many areas have to be reduced in moisture content and recompacted prior to paving; compaction to at least 90 percent Modified Proctor density is recommended. However, as noted above, the upper 2 feet of roadway subgrade is often compacted to 95 percent Modified Proctor density to aid in proof-rolling and paving. If paving

construction is performed when drying of surficial soils cannot be accomplished, lime stabilization or removal of unstable subgrade and replacement with drier cohesive fill or 1 to 2 feet of coarse aggregate backfill materials may be required.

It is recommended that a nominal California Bearing Ratio (CBR) value of 3.0 be used in the design of pavements. This reflects the medium to high plasticity cohesive subgrade soils which are prevalent in the area. Use of a CBR of 3.0 assumes that any soft or unstable areas will be remediated, i.e. subgrade stabilized until able to pass a proof-roll.

Bituminous pavements are typically used in conjunction with residential development. Base course materials for them should conform to IDOT gradation CA-6 and be compacted to 95 percent Modified Proctor density or 100 percent of the Standard Proctor (ASTM D 698) maximum density value. Bituminous materials should conform to an approved IDOT Superpave minimum design (N30 or N50 typical for residential pavements) as well as Standard Specifications for Road and Bridge Construction, Section 406 and 1032. They should be compacted to between 93 and 97 percent of their theoretical maximum density, the "Big D" as determined by the asphalt supplier.

4.5 Stormwater Management Facilities

Stormwater management facilities are to include four (4) detention basins which are located across the north, south and eastern ends of the property. It should be noted that no grading information was available at the time this report was prepared, i.e. high and normal water levels (HWL and NWL) for the detention basins have not been set. However, variable depth cuts are primarily anticipated with earthen berms to likely be required around the basin perimeters. The detention basins are listing in the following table by general location with the borings drilled for each of them are shown:

Detention Basin General Location	Soil Borings
Northwest	1, 2
Northeast	3 - 5
South-Central	29 - 33
East-Southeast	34 - 36

Stiff to hard silty/sandy clay soils extended 10 to 17 feet below existing grade (or deeper) at the majority of the borings listed in the above table. This includes Borings 3 and 5 for the northeastern basin as well as 29 - 36 for the south and eastern ones. The cohesive materials had medium to high unconfined compressive strengths which were typically in the range of 1.5 to 6.0 tsf (occasionally being slightly lower). They are expected to be stable on the 4H:1V or gentler slopes typically used for detention basin excavations in this area, with any sloughing associated with the lower strength soils or interbedded silt and/or sand layers expected to be minor and localized.

Loose to medium dense silt, sand and gravel deposits were encountered within 5 feet of ground surface and predominated in Borings 1, 2 and 4, the majority of those drilled for the northern detention basins. They were also found underlying the cohesive materials at 10 to 17 feet below existing grade at the majority of the other borings referenced above. These intermediate and granular materials will also be stable on 4H:1V side slopes above the groundwater table. However, they will be subject to erosion if left exposed to the elements (i.e. rainfall events) for any length of time. Consideration should therefore be given to capping them with cohesive soil types and/or establishing good ground cover as quickly as possible.

It is our opinion that the bottom of the detention basin excavations should ideally be kept within the uppermost silty clay soils, to thereby minimize associated sloughing as well as potential groundwater issues. In this regard, wet sand deposits were found at around 17 feet below existing grade in Borings 1, 4, 31 and 36. If penetrated by deeper excavations and under hydrostatic pressure at the time of construction, this can lead to running conditions where the materials will rapidly slough or “flow” in the basin bottom and sidewalls.

If the detention basin excavations are able to be held in the uppermost silty clay soils, groundwater seepage into and/or infiltration out of the basins would be expected to be low. In this regard, the silty clay materials are estimated to have very low coefficients of permeability in the range of 10^{-6} to 10^{-8} cm/sec, making them practically impervious. Design Infiltration Rates for USDA Soil Textures (University of Wisconsin, Madison, 2006) gives estimated values for these soil types of 0.07 in/hr or less, also considered to be very low.

Replacement materials (if required) as well as those used to construct berms around the perimeter of the detention basins should consist of clay soil types of medium to high plasticity, ideally containing less that 35 percent sand and gravel size particles. The majority of the cohesive deposits

encountered by the borings meet these general requirements. The liner/embankment materials should be placed in approximate 10 inch lifts loose measure and compacted to at least 90 percent of maximum dry density as determined by the Modified Proctor test (ASTM D 1557). At the time of placement and compaction the clay fill should also be on the wet side of optimum moisture content as determined by the laboratory compaction curve.

4.6 Groundwater Management

The majority of the borings were "dry" both during and following completion of drilling operations. Free water was initially encountered at 10 to 18 feet below existing grade at Borings 1, 3 - 5, 31, 34 and 36 (7 total) and as shallow as around 5 feet deep at B-35. These are concentrated across the northern end of the site as well as around the southeast corner, both of which are relatively low-lying. The water levels in the boreholes at the end of drilling had dropped by 3 to 10 feet in several cases.

Serious groundwater problems are not anticipated for shallower excavations including those in the uppermost silty/sandy clay (i.e. low permeability) soils. However, the accumulation of run-off water or seepage at the base of excavations should still be expected to occur during foundation construction and site work. The Contractor should therefore be prepared to implement dewatering procedures, as a minimum to include pumping from strategically placed sumps.

Wet sand deposits were encountered at around 17 feet below existing grade in Borings 1, 4, 31 and 36. It should be noted that granular soil types encountered under hydrostatic pressure at the time of construction (e.g. below the groundwater table) can lead to a running condition, where the materials will rapidly slough or “flow” into the excavations. Running soil conditions are typically controlled with a “tight” excavation support system, preconstruction dewatering or a combination thereof. They will typically be more of a problem for the deeper utilities as well as detention basin excavations.

All basement and below grade structures should otherwise be provided with perimeter drain tile tied into a sump pit with an automatic pumping system. This is a standard requirement in the project area, the effectiveness of which will be dependent on groundwater at the site being controllable. In any event, if continuous or high rates of groundwater seepage are noted at or close to basement levels, the design engineer and geotechnical consultant should be notified so that the condition can be further evaluated.

5.0 CLOSURE

It is recommended that full-time inspection be provided by Testing Service Corporation personnel during foundation construction, so that the soils at undercut and foundation levels can be observed and tested. In addition, adequacy of building materials, stripping and undercutting, fill placement and compaction as well as pavement construction should be monitored for compliance with the recommended procedures and specifications.

This report has been prepared without the benefit of grading plans or related information. It is therefore suggested that Testing Service Corporation review the plans when available (especially for the stormwater management facilities), to check the accuracy of the report as it may be affected, to verify the correct interpretation of recommendations contained herein and to modify the findings accordingly.

The analysis and recommendations submitted in this report are based upon the data obtained from the thirty-seven (37) soil borings performed at the locations indicated on the Boring Location Plans. This report does not reflect any variations which may occur between these borings, the nature and extent of which may not become evident until during the course of construction. If variations are then identified, recommendations contained in this report should be re-evaluated after performing on-site observations.

We are available to review this report with you at your convenience.

Respectfully submitted,

TESTING SERVICE CORPORATION

PrivateInformation

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Vice President
Registered Professional Engineer
Illinois No. 062-038559

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Timothy R. Peceniak, P.E.
Project Engineer

MVM:TRP:dk

APPENDIX

GENERAL CONDITIONS

UNIFIED CLASSIFICATION CHART

LEGEND FOR BORING LOGS

BORING LOGS (37)

BORING LOCATION PLANS (2)

TESTING SERVICE CORPORATION

GENERAL CONDITIONS

Geotechnical and Construction Services

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Unless otherwise expressly assumed in writing, TSC's services are provided exclusively for client. TSC shall have no duty or obligation other than those duties and obligations expressly set forth in this Agreement. TSC shall have no duty to any third party. Client shall communicate these General Conditions to each and every party to whom the Client transmits any report prepared by TSC. Ordering services from TSC shall constitute acceptance of TSC's proposal and these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this Agreement. Unless otherwise agreed in writing, TSC's responsibility with respect to underground utility locations is to contact the Illinois Joint Utility Locating Information for Excavators for the location of public, but not private, utilities.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C.§ 6901, et, seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to perform same shall not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. DOCUMENTS AND SAMPLES: Client is granted an exclusive license to use findings and reports prepared and issued by TSC and any sub-consultants pursuant to this Agreement for the purpose set forth in TSC's proposal provided that TSC has received payment in full for its services. TSC and, if applicable, its sub-consultant, retain all copyright and ownership interests in the reports, boring logs, maps, field data, field notes, laboratory test data and similar documents, and the ownership and freedom to use all data generated by it for any purpose. Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

8. TERMINATION: TSC's obligation to provide services may be terminated by either party upon (7) seven days prior written notice. In the event of termination of TSC's services, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses. The terms and conditions of these General Conditions shall survive the termination of TSC's obligation to provide services.

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to $50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.

In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on damages shall be increased to $500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

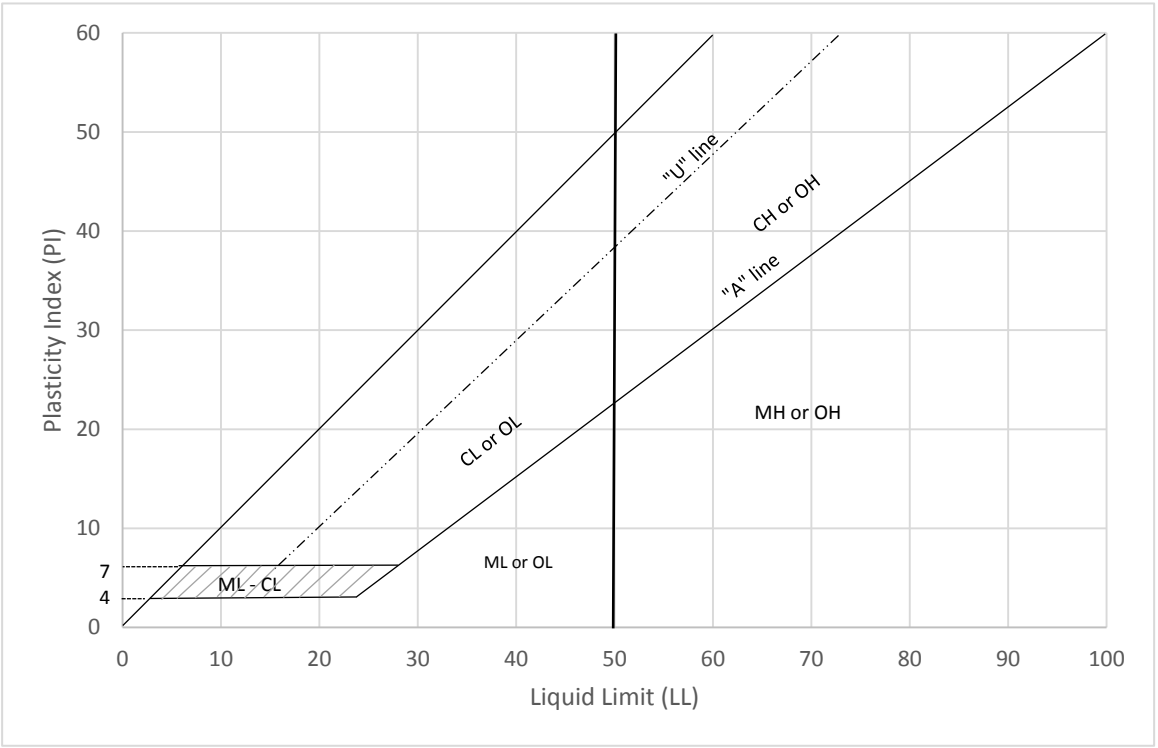
13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claim; (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

Testing Service Corporation
Unified Classification Chart

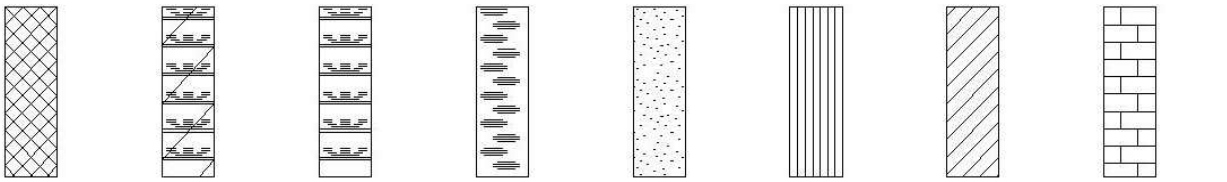
CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TEST [o]				SOIL CLASSIFICATION	
				Group Symbol	GROUP NAME [b]
COARSE - GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS less than 5% fines [c]	$C_u \geq 4$ and $1 \leq C_C \leq 3$ [e]	GW	Well-graded gravel [f]
			$C_u < 4$ and/or $1 > C_C > 3$ [e]	GP	Poorly-graded gravel [f]
		GRAVELS WITH FINES more than 12% fines [c]	Fines classify as ML or MH	GM	Silty gravel [f, g, h]
			Fines classify as CL or CH	GC	Clayey gravel [f, g, h]
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS less than 5% fines [d]	$C_u \geq 6$ and $1 \leq C_C \leq 3$ [e]	SW	Well-graded sand [l]
			$C_u < 6$ and/or $1 > C_C > 3$ [e]	SP	Poorly-graded sand [l]
		SANDS WITH FINES more than 12% fines [d]	Fines classify as ML or MH	SM	Silty sand [g, h, f]
			Fines classify as CL or CH	SC	Clayey sand [g, h, f]
FINE - GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS & CLAYS Liquid limit less than 50%	Inorganic	PI > 7 or plots on or above "A" line j	CL	Lean clay [k, l, m]
			PI < 4 or plots below "A" line j	ML	Silt [k, l, m]
		Organic	$\frac{\text{Liquid limit – oven dried}}{\text{Liquid limit – not dried}} < 0.75$	OL	Organic clay [k, l, m, n] Organic silt [k, l, m, o]
	SILTS & CLAYS Liquid limit 50% or more	Inorganic	PI plots on or above "A" line	CH	Fat clay [k, l, m]
			PI plots below "A" line	MH	Elastic silt [k, l, m]
		Organic	$\frac{\text{Liquid limit – oven dried}}{\text{Liquid limit – not dried}} < 0.75$	OH	Organic clay [k, l, m, p] Organic silt [k, l, m, q]
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

a. Based on the material passing the 3-inch (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name
c. Gravels with 5 to 12% fines required dual symbols
GW-GM well graded gravel with silt
GW-GC well graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
SW-SM well graded sand with silt
SW-SC well graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

f. If soils contains ≥ 15% sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM
h. If fines are organic, add "with organic fines" to group name
i. If soils contains ≥ 15% gravel, add "with gravel" to group name
j. If Atterberg Limits plot in hatched area, soil is a CL – ML, silty clay
k. If soils contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant
l. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soils contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name
n. PI ≥ 4 and plots on or above "A" line
o. PI ≥ 4 and plots below "A" line
p. PI plots on or above "A" line
q. PI plots below "A" line



LEGEND FOR BORING LOGS



FILL | TOPSOIL | PEAT | GRAVEL | SAND | SILT | CLAY | LIMESTONE/ DOLOMITE

SAMPLE TYPE

SS	=	Split-Spoon
ST	=	Thin-Walled Tube
A	=	Auger
MC	=	Macro-Core (Geoprobe)

WATER LEVEL OBSERVATIONS

▼	While Drilling
▽	End of Boring
▼	24 Hours

FIELD AND LABORATORY TEST DATA

N	=	Standard Penetration Resistance in Blows per Foot (bpf)
WC	=	In-Situ Water Content (%)
Qu	=	Unconfined Compressive Strength in Tons per Square Foot (tsf)
	*	Pocket Penetrometer Reading: Maximum Value = 4.5 tsf
γ_{dry}	=	Dry Unit Weight in Pounds per Cubic Foot (pcf)

SOIL DESCRIPTIONS:

MATERIAL	PARTICLE SIZE RANGE
BOULDER	Over 12 inches
COBBLE	12 inches to 3 inches
Large GRAVEL	3 inches to ¾ inch
Small GRAVEL	¾ inch to No. 4 Sieve
Coarse SAND	No. 4 Sieve to No. 10 Sieve
Medium SAND	No. 10 Sieve to No. 40 Sieve
Fine SAND	No. 40 Sieve to No. 200 Sieve
SILT and CLAY	Passing No. 200 Sieve

COHESIVE SOILS

CONSISTENCY	Qu (tsf)
Very Soft	Less than 0.25
Soft	0.25 to 0.5
Medium Stiff	0.5 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	4.0 and over

COHESIONLESS SOILS

RELATIVE DENSITY	N (bpf)
Very Loose	0 – 3
Loose	4 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 and over

MODIFYING TERM	PERCENT BY WEIGHT
Trace	1 – 10
Little	10 – 20
Some	20 – 35

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **1** DATE STARTED **4-17-21** DATE COMPLETED **4-17-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **780.0**

END OF BORING **760.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **17.5 '**

AT END OF BORING **17.5 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.2	778.8	
1	SS		11	28.1	2.75*				Very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.0	777.0	
2	SS		4	17.1					Loose brown clayey SAND and GRAVEL, very moist (SC/GC)
							5.5	774.5	
3	SS		25	13.2					Medium dense brown silty SAND and GRAVEL, occasional Cobbles and Boulders, damp to moist (SM/GM)
4	SS		20	11.1					
5	SS		28	9.2					
							13.0	767.0	
6	SS		60						Dense to very dense brown SAND and GRAVEL, occasional Cobbles and Boulders, damp to wet (SP/GP)
7	SS		38						
							20		End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **2** DATE STARTED **4-17-21** DATE COMPLETED **4-17-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **790.5**

END OF BORING **765.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
							1.0	789.5	Black clayey TOPSOIL (OL)
1	SS		10	28.8	2.28 2.5*				Very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.0	787.5	
2	SS		39	20.8	4.5+*				Hard brown silty CLAY, little sand, trace gravel, moist (CL)
							5.0	785.5	
3	SS		11	18.8					Medium dense brown silty fine SAND, trace gravel, moist to very moist (SM)
							8.0	782.5	
4	SS		31	14.3					Medium dense to dense brown silty SAND and GRAVEL, occasional Cobbles and Boulders, damp (SM/GM)
							10.0	780.5	
5	SS		43	3.1					Dense brown SAND and GRAVEL, occasional Cobbles and Boulders, trace to little silt, damp (SP/GP-GM)
							13.0	777.5	
6	SS		18	10.6					Medium dense brown silty SAND and GRAVEL, moist (SM/GM)
							17.0	773.5	
7	SS		19						Medium dense to dense brown SAND and GRAVEL, occasional Cobbles, damp (SP/GP)
8	SS		36						

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **3** DATE STARTED **4-17-21** DATE COMPLETED **4-17-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **772.5**

END OF BORING **747.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **13.0 '**

AT END OF BORING **23.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.3	771.2	
1	SS		6	28.8	2.0*				Stiff to very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.5	769.0	
2	SS		16	9.6	4.79 4.5+*				Hard brown trace gray silty CLAY, little to some sand and gravel, moist (CL)
							5.5	767.0	
3	SS		17	11.6					Medium dense brown clayey SAND, little to some gravel, occasional sand seams, moist to very moist (SC)
							8.0	764.5	
4	SS		14	18.4	2.5*				Very stiff brown very silty CLAY, little sand, occasional silt seams, moist (CL-ML)
							10.5	762.0	
5	SS		16	17.8	1.75*				
6	SS		13	17.7	2.55 2.25*				Stiff to very stiff gray very silty CLAY, little sand, occasional silt and sand seams, moist (CL-ML)
7	SS		14	14.2	3.75*				
							22.0	750.5	
8	SS		14	21.6	2.5*				Very stiff gray silty CLAY, little sand, occasional silt seams, moist (CL)
							25		End of Boring at 25.0'

DISTANCE BELOW SURFACE IN FEET

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

DRILL RIG NO. **315**

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **4** DATE STARTED **4-17-21** DATE COMPLETED **4-17-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **783.5**

END OF BORING **758.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **17.0 '**

AT END OF BORING **23.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	782.8	Dark brown clayey TOPSOIL (OL)
1	SS		11	16.7	3.34 3.5*				Very stiff to hard brown silty CLAY, little sand and gravel, occasional Cobbles, moist (CL)
2	SS		16	14.8	4.5+*				
							5.5	778.0	
3	SS		29	9.1					Medium dense brown silty SAND and GRAVEL, occasional Cobbles and Boulders, damp (SM/GM)
							8.0	775.5	
4	SS		32						Medium dense to dense brown SAND and GRAVEL, occasional Cobbles and Boulders, damp to moist (SP/GP)
5	SS		40						
6	SS		23						
							17.0	766.5	▼
7	SS		13	15.7					Medium dense gray silty fine SAND, moist (SM)
							22.0	761.5	
8	SS		10-50/2"	16.1					▽ Medium dense to dense brown SILT and silty fine SAND lenses, occasional Cobbles and Boulders, moist to very moist (ML/SM)

DISTANCE BELOW SURFACE IN FEET

0, 5, 10, 15, 20, 25

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **5** DATE STARTED **4-17-21** DATE COMPLETED **4-17-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **767.0**

END OF BORING **747.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **18.0 '**

AT END OF BORING **17.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		8	31.8					Black clayey TOPSOIL, very moist (OL)
							3.0	764.0	
2	SS		14	19.8	3.08 2.5*				Very stiff brown silty CLAY, little sand, trace gravel, moist (CL)
3	SS		14	19.1	2.5*				
							8.0	759.0	
4	SS		19	14.8	4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
5	SS		27	15.0	8.22 4.5+*				
							13.0	754.0	
6	SS		18	17.1	4.0*				Very stiff to hard brownish-gray silty CLAY, little sand, trace gravel, moist (CL)
							17.0	750.0	▽
7	SS		12	11.9					▼ Medium dense brown clayey SILT, little to some sand, trace gravel, moist to very moist (ML)
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **6** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **796.5**

END OF BORING **781.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	795.8	Dark brown clayey TOPSOIL (OL)
1	SS		9	22.2	1.49 1.75*		3.0	793.5	Stiff brown silty CLAY, little sand, trace gravel, moist to very moist (CL)
2	SS		13	16.9	4.5+*		5.5	791.0	Hard brown silty CLAY, little sand and gravel, moist (CL)
3	SS		25	5.7			8.0	788.5	Medium dense brown SAND and GRAVEL, occasional Cobbles and Boulders, trace to little silt, damp (SP/GP-GM)
4	SS		21	10.8			10.5	786.0	Medium dense brown silty fine SAND, trace gravel, moist (SM)
5	SS		16				13.0	783.5	Medium dense brown SAND, little gravel, damp (SP)
6	SS		20						Medium dense brown SAND and GRAVEL, damp (SP/GP)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **7** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **794.5**

END OF BORING **779.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	793.7	Dark brown clayey TOPSOIL (OL)
1	SS		10	25.0	2.0*				Stiff to very stiff brown silty CLAY, little sand, moist (CL/CH)
							3.0	791.5	
2	SS		9	17.3	3.34 4.0*				Very stiff to hard brown trace gray silty CLAY, little sand and gravel, moist (CL)
3	SS		9	17.5	4.5+*				
							8.0	786.5	
4	SS		7	10.3					Loose brown clayey fine SAND, trace to little gravel, moist to very moist (SC)
							10.5	784.0	
5	SS		9	13.0					Loose to medium dense brown clayey SAND and GRAVEL, moist to very moist (SC/GC)
6	SS		10	12.8					
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **8** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **798.5**

END OF BORING **783.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	797.7	Black clayey TOPSOIL (OL)
1	SS		8	15.4	2.0*				Stiff to very stiff brown silty CLAY, little sand and gravel, moist (CL)
2	SS		11	17.1	1.75 2.0*				
							5.5	793.0	
3	SS		15	16.1	5.90 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
							8.0	790.5	
4	SS		9	16.5	2.0*				Stiff to very stiff brown silty CLAY, little sand and gravel, moist (CL)
							10.5	788.0	
5	SS		10	12.3					Medium dense brown clayey SAND, little gravel, moist to very moist (SC)
							13.0	785.5	
6	SS		10	10.3					Medium dense brown fine sandy SILT, trace to little gravel, moist (ML)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **9** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **801.0**

END OF BORING **786.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
A				21.8					Dark brown clayey TOPSOIL, moist (OL)
1	SS		14						
B				23.1	2.5*		2.0	799.0	
									Very stiff dark brown silty CLAY, little sand, trace organic, moist (CL/CH)
							3.5	797.5	
2	SS		16	15.4	3.80 4.25*				Very stiff to hard brown silty CLAY, little sand and gravel, moist (CL)
3	SS		22	13.9	4.5+*				
							8.0	793.0	
4	SS		8	17.8	1.0*				Medium stiff to stiff brown sandy CLAY, little gravel, very moist (CL-ML)
							10.5	790.5	
A									Medium dense brown SAND and GRAVEL, occasional Cobbles, damp (SP/GP)
5	SS		15						
B				10.6			12.0	789.0	
									Medium dense brown silty SAND, trace to little gravel, moist (SM)
6	SS		15	11.3					
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **10** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **798.5**

END OF BORING **783.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
							1.0	797.5	Dark brown clayey TOPSOIL (OL)
1	SS		8	29.2	2.02 1.75*				Stiff to very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.0	795.5	
2	SS		13	20.8	3.34 2.75*				Very stiff brown silty CLAY, little sand, trace gravel, moist (CL)
3	SS		17	17.8	3.0*				
							8.0	790.5	
4	SS		23	11.0					Medium dense brown silty fine SAND, little gravel, moist (SM)
							10.0	788.5	
5	SS		11	12.8					Medium dense brown clayey SAND, little gravel, moist (SC)
							13.0	785.5	
6	SS		16	10.7	2.0*				Stiff to very stiff brown sandy CLAY, trace to little gravel, moist (CL-ML)
							15.0		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **11** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **800.5**

END OF BORING **785.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.4	800.1	Black clayey TOPSOIL (OL)
1	SS		9	16.8	4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
2	SS		12	13.1	4.79 4.5+*				
3	SS		16	16.1	4.5+*				
							8.0	792.5	
4	SS		10	12.2					Medium dense brown clayey SAND, little gravel, moist to very moist (SC)
5	SS		10	11.0					
							13.0	787.5	
6	SS		26	8.9	4.5+*				Hard brown sandy CLAY, little gravel, occasional Cobbles, damp (CL-ML)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **12** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **813.0**

END OF BORING **798.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.6	812.4	Dark brown clayey TOPSOIL (OL)
1	SS		11	25.4	2.81 2.25*				Very stiff brown silty CLAY, little sand, moist (CL/CH)
							3.0	810.0	
2	SS		9	16.5	3.5*				Very stiff brown silty CLAY, little sand and gravel, moist (CL)
3	SS		16	16.9	3.60 3.0*				
							8.0	805.0	
4	SS		16	17.9	4.5+*				Hard brown silty CLAY, little sand, trace gravel, moist (CL)
5	SS		18	18.6	4.5+*				
							13.0	800.0	
6	SS		22	10.7					Medium dense brown silty SAND, little gravel, moist (SM)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **13** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **806.0**

END OF BORING **791.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	805.7	Dark brown clayey TOPSOIL (OL)
1	SS		13	17.6	4.5+*				Hard to very stiff brown silty CLAY, little sand, trace gravel, moist (CL)
2	SS		10	16.1	3.47 4.0*				
3	SS		12	17.1	4.5+*				
							8.0	798.0	
4	SS		14	5.4					Medium dense brown silty fine SAND, moist (SM)
5	SS		13	5.1					
6	SS		15	4.7					
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **14** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **802.0**

END OF BORING **787.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.4	801.6	Dark brown clayey TOPSOIL (OL)
1	SS		8	30.7	1.89 2.0*				Stiff to very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.0	799.0	
2	SS		12	17.1	3.5*				
3	SS		14	14.2	4.53 4.5+*				Very stiff to hard brown silty CLAY, little sand and gravel, moist (CL)
4	SS		12	17.0	3.5*				
							10.5	791.5	
5	SS		25	10.8					Medium dense SILT and very silty CLAY lenses, little to some sand and gravel, moist (ML/CL-ML)
6	SS		17	10.1	4.5+*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **15** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **806.0**

END OF BORING **791.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	805.0	Black clayey TOPSOIL (OL)
	1	SS	15	23.7	3.0*				Very stiff dark brown silty CLAY, little sand, trace organic, moist (CL/CH)
							3.0	803.0	
	2	SS	20	13.6	5.06 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
	3	SS	14	14.4	4.5+*				
							8.0	798.0	
	4	SS	12	20.8	2.02 2.25*				Stiff to very stiff brown silty CLAY, little sand, trace gravel, moist (CL)
	5	SS	16	20.5	3.25*				
	A 6 B	SS	25	21.5	3.75*		14.0	792.0	Medium dense grayish-brown SAND and GRAVEL, occasional Cobbles and Boulders, damp (SP/GP)
									End of Boring at 15.0'

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **16** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **800.5**

END OF BORING **785.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
							1.2	799.3	Black clayey TOPSOIL (OL)
1	SS		8	30.2	2.0*				Stiff to very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.5	797.0	
2	SS		5	32.9	0.43 0.25*				Soft brown trace gray silty CLAY, trace sand, very moist (CL/CH)
							5.5	795.0	
3	SS		6	27.2	0.5*				Soft to medium stiff brown silty CLAY, little sand, trace gravel, very moist (CL)
							8.0	792.5	
4	SS		18	16.6	5.32 4.5+*				Hard brown silty CLAY, little sand, trace gravel, moist (CL)
5	SS		22	16.8	4.5+*				
							13.0	787.5	
6	SS		16	11.7	3.5*				Very stiff gray silty CLAY, little to some sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **17** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **804.5**

END OF BORING **789.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	803.5	Dark brown clayey TOPSOIL (OL)
1	SS		15	16.6	3.0*				Very stiff to hard brown trace gray silty CLAY, little sand, trace gravel, moist (CL)
2	SS		18	16.5	4.5+*				
3	SS		21	16.6	7.73 4.5+*				
4	SS		27	16.4	4.5+*				
5	SS		30	14.9	4.5+*				
							13.0	791.5	
6	SS		14	12.1					Medium dense brown sandy SILT, trace to little gravel, moist (ML)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **18** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **804.0**

END OF BORING **789.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	803.0	Dark brown clayey TOPSOIL (OL)
1	SS		11	28.4	2.5*		3.0	801.0	Very stiff brown trace black silty CLAY, trace sand, trace organic, moist (CL/CH)
2	SS		12	20.4	2.0*				
3	SS		13	14.9	2.68 3.0*				
4	SS		13	18.5	3.5*				Stiff to very stiff brown trace gray silty CLAY, little sand, trace gravel, moist (CL)
5	SS		16	21.1	2.5*				
6	SS		13	19.0	2.15 2.25*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **19** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **803.0**

END OF BORING **788.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	802.3	Dark brown clayey TOPSOIL (OL)
1	SS		10	28.0	2.0*				Stiff to very stiff dark brown silty CLAY, trace sand, trace organic, moist (CL/CH)
							3.0	800.0	
2	SS		17	18.8	4.46 4.5*				Hard to very stiff brown trace gray silty CLAY, little sand, trace gravel, moist (CL)
3	SS		22	19.3	4.5+*				
4	SS		16	19.2	4.13 3.75*				
5	SS		13	19.5	3.25*				
							13.0	790.0	
6	SS		15	13.0					Medium dense brown silty SAND and GRAVEL, moist (SM/GM)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **20** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **813.5**

END OF BORING **798.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	812.5	Dark brown clayey TOPSOIL (OL)
1	SS		9	15.6			3.0	810.5	Loose brown SAND, little gravel, trace to little silt, moist (SP-SM)
2	SS		10	19.9	2.48 3.25*				Very stiff to hard brown silty CLAY, little sand, trace gravel, moist (CL)
3	SS		13	18.2	3.75*				
4	SS		20	13.6	4.25*				
5	SS		24	16.0	4.92 4.5+*				
6	SS		21	18.4	4.5*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **21** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **805.0**

END OF BORING **790.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	804.0	Dark brown clayey TOPSOIL (OL)
1	SS		11	17.6	4.0*				Very stiff to hard brown silty CLAY, little sand and gravel, moist (CL)
2	SS		14	15.1	2.68 3.0*				
3	SS		19	17.1	4.5+*				
4	SS		16	12.8	4.5+*				
5	SS		20	16.8	5.32 4.5+*				
A				12.8	4.5+*				
6	SS		37						
B				4.7			14.5	790.5	Dense brown silty fine SAND, damp (SM)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **22** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **802.5**

END OF BORING **787.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	801.8	Dark brown clayey TOPSOIL (OL)
1	SS		8	28.1	3.0*				Very stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.0	799.5	
2	SS		7	25.8	0.70 1.0*				Medium stiff brown and gray silty CLAY, little sand, trace gravel, very moist (CL)
							5.5	797.0	
3	SS		11	15.8	4.5+*				Hard to very stiff brown silty CLAY, little sand and gravel, moist (CL)
4	SS		18	18.7	3.87 3.5*				
5	SS		22	18.2	4.5+*				
6	SS		14	15.5	4.5*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **23** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **802.0**

END OF BORING **787.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	801.0	Dark brown clayey TOPSOIL (OL)
1	SS		12	14.5	2.68 3.0*				Very stiff to hard brown silty CLAY, little sand and gravel, moist (CL)
2	SS		13	16.1	4.5+*				
3	SS		16	16.7	4.5+*				
4	SS		19	16.2	5.90 4.5+*				
5	SS		23	16.6	4.5+*				
							13.0	789.0	
6	SS		32	9.4					Dense brown silty fine SAND, little gravel, moist (SM)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **24** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **796.0**

END OF BORING **781.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		7	27.6			0		Black clayey TOPSOIL, very moist (OL)
							2.5	793.5	
2	SS		6	29.4	1.36 1.25*				Stiff dark brown silty CLAY, trace sand, trace organic, moist to very moist (CL/CH)
							5.5	790.5	
3	SS		13	22.9	2.5*				Very stiff brown and gray silty CLAY, little sand, trace gravel, moist (CL)
4	SS		14	20.4	2.28 2.75*				
							10.5	785.5	
5	SS		11	18.8	2.5*				Very stiff to hard gray silty CLAY, little sand, trace gravel, moist (CL)
6	SS		12	18.2	4.5+*				
							15		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **25** DATE STARTED **4-19-21** DATE COMPLETED **4-19-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **794.5**

END OF BORING **779.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	793.5	Black clayey TOPSOIL (OL)
1	SS		7	17.8	3.0*				Very stiff to hard brown and gray silty CLAY, little sand and gravel, moist (CL)
2	SS		14	16.6	4.92 4.5+*				
3	SS		14	16.6	4.5+*				
							8.0	786.5	
4	SS		15	11.1					Medium dense brownish-gray sandy SILT, little gravel, moist to very moist (ML)
							10.5	784.0	
5	SS		31						Dense brown and gray SAND and GRAVEL, little Cobbles, damp (GP)
							13.0	781.5	
6	SS		22	9.6	4.5+*				Hard gray sandy CLAY, little gravel, occasional Cobbles, moist (CL-ML)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **26** DATE STARTED **4-19-21** DATE COMPLETED **4-19-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **793.5**

END OF BORING **778.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		6	30.0	2.0*		3.0	790.5	Black clayey TOPSOIL, moist (OL)
2	SS		8	24.1	1.89 1.75*		6.0	787.5	Stiff brown and gray silty CLAY, little sand, moist (CL/CH)
3	SS		14	18.5	3.5*		8.0	785.5	Very stiff brown and gray silty CLAY, little sand, trace gravel, moist (CL)
4	SS		15	14.2	4.5+*		13.0	780.5	Hard to very stiff gray silty CLAY, little to some sand and gravel, moist (CL)
5	SS		16	12.5	3.21 4.0*				
6	SS		35	9.2					Medium dense gray sandy SILT, little gravel, occasional Cobbles and Boulders, damp (ML)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **27** DATE STARTED **4-7-21** DATE COMPLETED **4-7-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **797.5**

END OF BORING **782.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	796.5	Dark brown clayey TOPSOIL (OL)
1	SS		12	18.0	4.0*				Very stiff to hard brown trace gray silty CLAY, little sand, trace gravel, moist (CL)
2	SS		16	15.7	5.19 4.5+*				
3	SS		20	17.6	4.5+*				
4	SS		13	20.5	3.08 3.25*				
5	SS		16	19.5	3.75*				
							13.0	784.5	
6	SS		12	14.6					Medium dense brown silty SAND and GRAVEL, moist (SM/GM)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **28** DATE STARTED **4-19-21** DATE COMPLETED **4-19-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **797.5**

END OF BORING **782.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	797.0	Dark brown clayey TOPSOIL (OL)
1	SS		17	14.8	8.22 4.5+*				Hard brown silty CLAY, little sand, trace gravel, moist to damp (CL)
2	SS		16	18.7	4.5+*				
3	SS		22	17.7	4.5+*				
4	SS		18	19.0	7.23 4.5+*				
5	SS		20	20.7	4.5+*				
							13.0	784.5	
6	SS		20	9.3					Medium dense brown sandy SILT, little gravel, moist (ML)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **29** DATE STARTED **4-19-21** DATE COMPLETED **4-19-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **796.0**

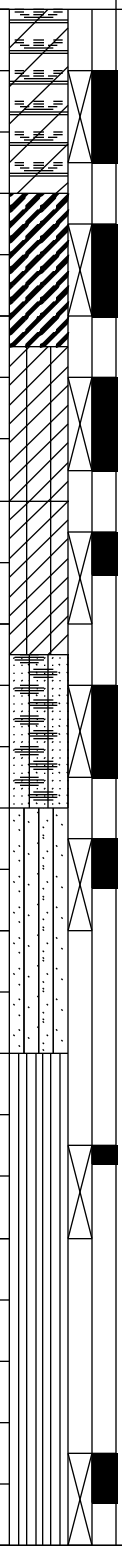
END OF BORING **771.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		7	28.5					Black clayey TOPSOIL, moist (OL)
							3.0	793.0	
2	SS		7	24.9	1.75 1.75*				Stiff brown trace black silty CLAY, little sand, trace organic, moist (CL/CH)
							5.5	790.5	
3	SS		8	26.3	1.25*				Stiff brown trace gray silty CLAY, little sand, trace gravel, moist to very moist (CL)
							8.0	788.0	
4	SS		22	16.1	4.5+*				Hard brown silty CLAY, little sand and gravel, occasional Cobbles and Boulders, moist (CL)
							10.5	785.5	
5	SS		16	12.1					Medium dense brown silty SAND and GRAVEL, moist (SM/GM)
							13.0	783.0	
6	SS		24	11.3					Medium dense brown sandy SILT, trace to little gravel, occasional Cobbles, moist to very moist (ML)
							17.0	779.0	
7	SS		26	8.7					Medium dense gray SILT, little to some sand, trace to little gravel, moist (ML)
8	SS		19	10.4					* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **30** DATE STARTED **4-19-21** DATE COMPLETED **4-19-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **792.5**

END OF BORING **767.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.3	791.2	
1	SS		10	27.1	2.28 2.75*				Very stiff brown trace black silty CLAY, trace sand, trace organic, moist (CL/CH)
							3.5	789.0	
2	SS		11	22.3	4.0*				Very stiff to hard brown silty CLAY, little sand, trace gravel, moist (CL)
3	SS		13	19.9	4.92 4.5+*				
							8.0	784.5	
4	SS		22	15.0	4.5+*				Hard brown and gray silty CLAY, little sand and gravel, moist (CL)
							10.5	782.0	
5	SS		28	14.4	4.0*				Very stiff to hard brownish-gray silty CLAY, little sand and gravel, moist (CL)
							13.0	779.5	
6	SS		29	8.4					Medium dense brown silty SAND, little gravel, moist (SM)
							17.0	775.5	
7	SS		12	12.3					Medium dense brown sandy SILT, trace to little gravel, moist to very moist (ML)
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.
							22.0	770.5	
8	SS		16	9.9					Medium dense gray sandy SILT, trace to little gravel, very moist (ML)
							25		End of Boring at 25.0'

DISTANCE BELOW SURFACE IN FEET

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **31** DATE STARTED **4-19-21** DATE COMPLETED **4-19-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **788.5**

END OF BORING **768.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **13.0 '**

AT END OF BORING **18.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		6	29.8					Black clayey TOPSOIL, very moist (OL)
							3.0	785.5	
2	SS		4	29.0	1.49 1.5*				Stiff brown and gray silty CLAY, trace sand, moist to very moist (CL/CH)
							5.5	783.0	
3	SS		11	14.1					Medium dense brown and gray clayey SAND, trace to little gravel, moist to very moist (SC)
							8.0	780.5	
4	SS		10	21.7	2.68 2.5*				Very stiff brown and gray to brownish-gray silty CLAY, little sand, trace gravel, moist (CL)
5	SS		13	19.3	3.0*				
							13.0	775.5	▼
6	SS		8	15.8	2.0*				Stiff to very stiff gray silty CLAY, little sand and gravel, occasional sand seams, moist (CL)
							17.0	771.5	▽
7	SS		12	10.8					Medium dense gray sandy SILT, little gravel, moist to very moist (ML)
							20		End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **32** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **789.5**

END OF BORING **769.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	7	37.1					Dark brown clayey TOPSOIL, very moist (OL)
							2.5	787.0	
	2	SS	10	27.0	1.5*				Stiff brown trace black silty CLAY, trace to little sand, trace organic, moist to very moist (CL/CH)
	3	SS	7	27.4	1.36 1.5*				
							8.0	781.5	
	4	SS	14	15.7	3.75*				Very stiff brown trace gray silty CLAY, little sand, trace gravel, moist (CL)
	5	SS	12	17.7	2.25*				
							13.0	776.5	
	6	SS	8	16.2	1.09 1.0*				Medium stiff to stiff gray silty CLAY, little to some sand and gravel, very moist (CL)
							17.0	772.5	
	7	SS	10	10.3					Medium dense brown sandy SILT, little gravel, very moist (ML)
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **33** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **794.0**

END OF BORING **769.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	793.0	Black clayey TOPSOIL (OL)
1	SS		10	25.3	1.75*				Stiff brown silty CLAY, little sand, moist (CL/CH)
							3.0	791.0	
2	SS		12	17.1	7.23 4.5+*				Hard brown trace gray silty CLAY, little sand, trace gravel, moist (CL)
3	SS		16	15.5	4.5+*				
4	SS		17	16.3	4.5+*				
5	SS		18	16.2	8.22 4.5+*				
							13.0	781.0	
A				10.5	4.5+*				Hard brown sandy CLAY, trace to little gravel, moist (CL-ML)
6	SS		46				14.0	780.0	
B				9.7					Dense to medium dense brown silty SAND and GRAVEL, occasional Cobbles and Boulders, moist (SM/GM)
7	SS		28	8.6					
							22.0	772.0	
8	SS		74	7.0					Very dense brownish-gray silty SAND and GRAVEL, occasional Cobbles and Boulders, moist (SM/GM)

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **34** DATE STARTED **4-15-21** DATE COMPLETED **4-15-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **798.0**

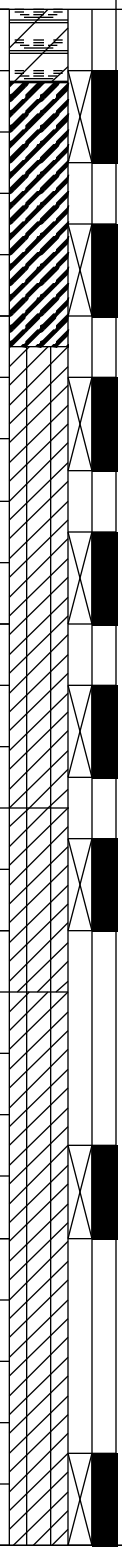
END OF BORING **773.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **10.0 '**

AT END OF BORING **18.0 '**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.2	796.8	
1	SS		10	28.6	1.49 1.75*				Stiff to medium stiff brown silty CLAY, trace sand, moist to very moist (CL/CH)
2	SS		7	29.4	0.96 1.25*				
							5.5	792.5	
3	SS		13	19.8	2.0*				Stiff to very stiff brown trace gray silty CLAY, little sand, trace gravel, occasional sand seams, moist (CL)
4	SS		13	20.2	2.5*				
5	SS		20	16.8	1.75*				
							13.0	785.0	
6	SS		23	16.8	4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
							16.0	782.0	
7	SS		21	13.8	3.74 4.0*				Very stiff to hard gray silty CLAY, little to some sand and gravel, moist (CL)
8	SS		24	14.5	4.5+*				
							25		End of Boring at 25.0'

DISTANCE BELOW SURFACE IN FEET

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **100**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **35** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **787.0**

END OF BORING **767.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **9.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
	A			30.3					Black clayey TOPSOIL, very moist (OL)
	1	SS	6				1.5	785.5	
	B			24.0	1.75*				Stiff dark brown silty CLAY, little sand, trace organic, moist (CL/CH)
							3.5	783.5	
	2	SS	5	24.2	1.89 2.0*				Stiff brown and gray silty CLAY, little sand, occasional silt seams, moist (CL)
							5.5	781.5	
	3	SS	13	20.5					Medium dense brown and gray clayey SILT, little sand, trace gravel, very moist (ML)
							8.0	779.0	
	4	SS	12	18.6	1.75*				Stiff to very stiff brownish-gray to gray silty CLAY, little sand, trace gravel, moist to very moist (CL)
	5	SS	15	16.7	1.89 2.0*				
	6	SS	10	17.9	1.5*				
							17.0	770.0	
	7	SS	19	10.8					Medium dense gray silty SAND, little gravel, moist (SM)
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **36** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **793.5**

END OF BORING **768.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **18.0 '**

AT END OF BORING **21.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	792.7	Black clayey TOPSOIL (OL)
1	SS		9	28.1	1.75*		3.0	790.5	Stiff brown trace black silty CLAY, trace sand, trace organic, moist (CL/CH)
2	SS		6	21.6	0.90 0.75*		5.5	788.0	Medium stiff brown trace gray silty CLAY, little sand, occasional silt seams, very moist (CL)
3	SS		21	14.9	4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
4	SS		14	17.5	5.19 4.5+*				
5	SS		22	18.4	4.5+*		13.0	780.5	
6	SS		79	9.7					Very dense brown silty SAND and GRAVEL, little Cobbles and Boulders, moist (SM/GM)
							17.0	776.5	
7	SS		26	14.6					▽ Medium dense to dense brown silty SAND, trace to little gravel, very moist to wet (SM)
8	SS		60	8.4					

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

PROJECT **St. Andrews Property, 112-Acre Residential Parcel, West Chicago, IL**

CLIENT **Pulte Home Company, LLC, Schaumburg, Illinois**

BORING **37** DATE STARTED **4-16-21** DATE COMPLETED **4-16-21** JOB **L-92,313**

ELEVATIONS

GROUND SURFACE **792.0**

END OF BORING **777.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
A				29.2					Black clayey TOPSOIL, very moist (OL)
1	SS		6				1.5	790.5	
B				27.8	1.0*				Medium stiff to stiff brown trace black silty CLAY, trace sand, trace organic, very moist to moist (CL/CH)
2	SS		6	29.5	1.36 1.5*		5.5	786.5	
3	SS		14	19.5	3.0*				Very stiff to hard brown silty CLAY, little sand, trace gravel, moist (CL)
4	SS		19	18.3	4.5+*				
5	SS		30	14.5	4.5+*		13.5	778.5	
6	SS		27	10.9					Medium dense brownish-gray silty SAND, little gravel, moist (SM)
							15		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 92313.GPJ TSC_ALL.GDT 4/22/21

B-1 780.0
B-2 790.5
B-3 772.5
B-4 783.5
B-5 767.0
B-6 796.5
B-7 794.5
B-8 798.5
B-9 801.0
B-10 798.5
B-11 800.5
B-12 813.0
B-13 806.0
B-14 802.0
B-15 806.0
B-16 800.5
B-17 804.5
B-18 804.0
B-19 803.0
B-20 813.5
B-21 805.0
B-22 802.5
B-23 802.0
B-24 796.0
B-25 794.5
B-26 793.5
B-27 797.5
B-28 797.5
B-29 796.0
B-30 792.5
B-31 788.5
B-32 789.5
B-33 794.0
B-34 798.0
B-35 787.0
B-36 793.5
B-37 792.0
BM
BM2
STWM AREA
1.54 ACRE PARK
SUBDIVIDED
Smith Rd
Angela Dr
Doral Dr
St Andrews Ln
Golf View Ct
Waterford Ln
St Andrews Trace Ln
N
0 300
(IN FEET)
SCALE 1" = 300'

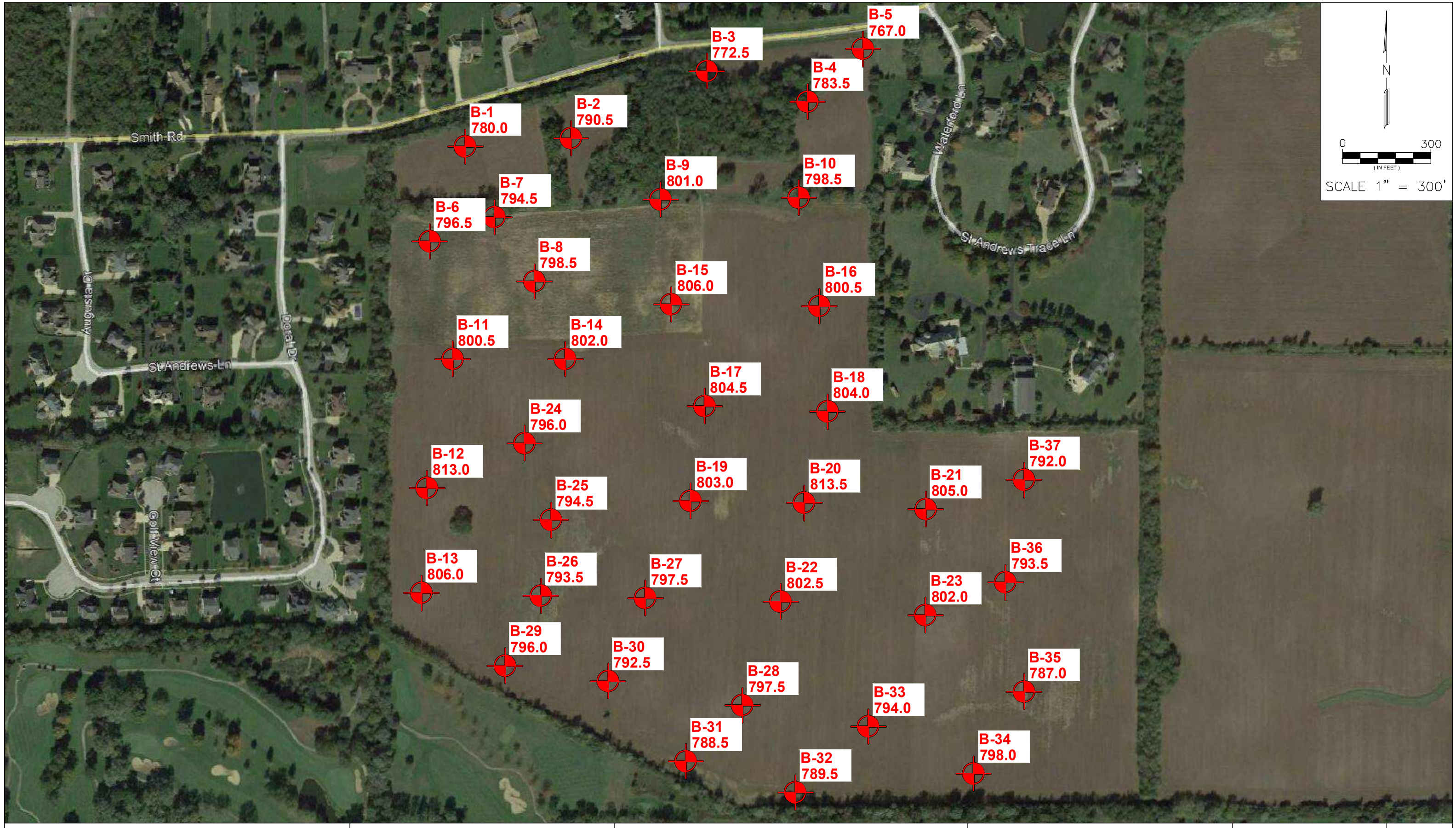
NOTE:
GROUND SURFACE ELEVATIONS AT THE BORINGS WERE ACQUIRED BY TSC USING A TRIMBLE R8S GNSS RECEIVER, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

LEGEND
SOIL BORING LOCATION

BORING LOCATION PLAN
ST. ANDREWS PROPERTY
112-ACRE RESIDENTIAL PARCEL
SMITH ROAD EAST OF ROUTE 59
WEST CHICAGO, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY: TJF
CHECKED BY: MVM
JOB NO. : L-92,313
DATE: 04-21-21



NOTE:

GROUND SURFACE ELEVATIONS AT THE BORINGS WERE ACQUIRED BY TSC USING A TRIMBLE R8S GNSS RECEIVER, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

LEGEND

SOIL BORING LOCATION

BORING LOCATION PLAN
ST. ANDREWS PROPERTY
112-ACRE RESIDENTIAL PARCEL
SMITH ROAD EAST OF ROUTE 59
WEST CHICAGO, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY:	TJF
CHECKED BY:	MVM
JOB NO. :	L-92,313
DATE:	04-21-21

PAGE NO.

TESTING SERVICE CORPORATION

Local Office:
457 E. Gundersen Drive, Carol Stream, IL 60188-2492
630.653.3920 • Fax 630.653.2726

Corporate Office:
360 S. Main Place, Carol Stream, IL 60188-2404
630.462.2600 • Fax 630.653.2988

April 23, 2021

Mr. Ty Morris
Pulte Home Company, LLC
1900 E. Golf Road, Suite 300
Schaumburg, Illinois 60173

Re: L-92,313
Soils Opinion Letter
St. Andrews Property
112-Acre Residential Parcel
Smith Road East of Route 59
West Chicago, Illinois

Dear Mr. Morris:

I understand that Pulte Group is considering the purchase of the land identified in the attached legal description (not available) and commonly known as the St. Andrews Property (West Chicago, IL) and that, in order to assist in its decision whether to purchase the land, Pulte has requested our professional assistance with respect to the feasibility of using the land for a single-family residential subdivision.

We acknowledge that:

1. We are professional geotechnical engineers licensed by the State of Illinois.

2. We have professional liability insurance coverage with minimum limits of one million dollars ($1,000,000), per claim and in the aggregate, as evidenced by the attached certificate of insurance.

3. We have reviewed Pulte's Soils Investigation Policy, dated June 2013 (the "Policy"). We understand that this letter is being furnished to assist Pulte in complying with the Policy.

4. We have inspected the land described above which Pulte purposes to purchase for potential hazards and adverse conditions, including such things as adverse rock formations, groundwater and unstable soils (expansive, collapsible or erodible) that could affect suitability for the land for the intended purpose described above, and we have conducted and/or reviewed such tests as we deem appropriate to form a professional opinion that the land can be developed and used for the intended purpose. In addition, we have inspected the land to determine whether "expansive soils" exist on the site (as defined in, and determined in accordance with, Section R403.1.8 of the 2009 International Residential Code (IRC) and applicable version of each such code applicable to the project), and any other building code that may be applicable to the project).

Based upon our investigation, review and/or tests, it is our professional opinion that there are no hazards or adverse conditions which (a) would materially increase the cost of developing the property for the proposed use or (b) would require the special design of foundations, underground utility systems, surface or subsurface drainage systems, paving, cut and fill procedures, soil conditioning or treatment, dewatering, soil removal and disposal, or any other development and construction activities, in order to render the land suitable for proposed use. However, relatively minor mass-grading and/or foundation undercuts may be required due to the presence of uppermost marginal bearing soils across much of the site.

PrivateInformation

Michael V. Machalinski
Vice President
Registered Professional Engineer
Illinois No. 062-038559

4/23/2021
Date

SOIL BORING EVALUATION FORM

Parcel: St. Andrews Property L-92,313

County: City of West Chicago, DuPage County, IL

In performing the requested work, the driller should also look for and record the following condition if they occur on the parcel:

ITEMS CHECK IF LOCATION OR	Check if Found	LOCATION OR BORING #
1. Unusual Soil Coloration or Streaking (Surface or Subsurface)	_____	_____
2. Disturbed Soil (Surface or Subsurface)	_____	_____
3. Fill Materials		
a. Soil not Native to Site	_____	_____
b. Debris Fill (metal, glass, concrete, garbage, etc.) garbage, etc.)	_____	_____
4. Areas of Sparse, Sick or Dead Vegetation	_____	_____
5. Drums, Storage Tanks or Other Containers	_____	_____
6. Discolored/Polluted Water (ground or surface)	_____	_____
7. Unusual Odors:		
a. Chemical/Solvent	_____	_____
b. Gasoline	_____	_____
c. Rotten Egg/Sewage	_____	_____
d. Oil or Fuel Oil	_____	_____

COMMENTS AND SUMMARY: None of the above conditions were noted as part of our site visit or in any of the borings.

Signed: PrivateInformation

Date: 4/23/2021

Company: Testing Service Corporation

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Pulte Home Company,LLC
Contact: Ty Morris
Address: 1900 East Golf Road, suite 300
Schaumburg, IL 60173

IDNR Project Number: 2111646
Date: 03/17/2021
Alternate Number: 402.078

Project: St. Andrews of West Chicago
Address: SE of Smith Road and Klein Road, West Chicago

Description: The proposed project consist of developing the existing agricultural Cropland into residential Homes.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Yellow-Headed Blackbird *(Xanthocephalus xanthocephalus)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: DuPage

Township, Range, Section:
40N, 9E, 22

IL Department of Natural Resources Contact
Brian Willard
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Bureau of Water Quality
1021 NGrand Ave East
Springfield, Illinois 62794

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor
Colleen Callahan, Director

March 18, 2021

Ty Morris
Pulte Home Company,LLC
1900 East Golf Road, suite 300
Schaumburg, IL 60173

RE: St. Andrews of West Chicago
Project Number(s): 2111646 [402.078]
County: DuPage

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Brian Willard
Division of Ecosystems and Environment
217-785-5500

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov
Mailing address: State Historic Preservation Office, 1 Old State Capitol Plaza, Springfield, IL, 62701

JB Pritzker, Governor
Colleen Callahan, Director

DuPage County PLEASE REFER TO: SHPO LOG #010031921
West Chicago
Sites: 11DU610-615, Section:22-Township:40N-Range:9E,
Smith Road between Pramukh Swami Maharaj Rd. & Klein Rd.
CEMCON-402.078, IEPA
New construction, residential subdivision - St. Andrews

April 29, 2021

Cynthia L. Balek, Ph.D.
Archaeology and Geomorphology Services
2220 Mayfair Avenue
Westchester, IL 60154

Dear Dr. Balek:

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

If further assistance is needed please contact Jeff Kruchten, Chief Archaeologist at 217/785-1279 or Jeffery.kruchten@illinois.gov.

Sincerely,

PrivateInformation

Robert F. Appleman
Deputy State Historic
Preservation Officer

U.S. FISH AND WILDLIFE SERVICE: SECTION 7 CONSULTATION

Project: St. Andrews, West Chicago, DuPage County, Illinois (#210179)

Analysis conducted by: Daniel Jablonski, V3 Companies, May 12, 2021

Site Description: The project area consists of agricultural land with old homestead area surrounded residential development, golf course and agricultural land.

SPECIES	STATUS	HABITAT	SUITABLE HABITAT PRESENT?	CONCLUSION
Eastern prairie fringed orchid (*Platanthera leucophaea*)	Threatened	Mesic prairies to wetlands such as sedge meadows, marsh edges, and bogs with full sun and little or no woody encroachment.	No, suitable habitat is not present. Wetlands are of low quality with woody encroachment.	Species and habitat not present. No further consultation is required.
Mead's milkweed (*Asclepias meadii*)	Threatened	Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil	No, suitable habitat is not present. Tallgrass prairie not present within the project area.	Species and habitat not present. No further consultation is required.
Prairie bush clover (*Lespedeza leptostachya*)	Threatened	Dry to mesic prairies with gravelly soils.	No, suitable habitat is not present. Mesic prairie not present within the project area.	Species and habitat not present. No further consultation is required.
Northern long-eared bat (*Myotis septentrionalis*)	Threatened	Small crevices and cavities in caves, mines, and under the bark of dead and live trees.	No, suitable habitat is not present. Preferred tree species not present.	Species and habitat not present. No further consultation is required.
Hine's emerald dragonfly (*Somatochlora hineana*)	Endangered	Spring fed wetlands, wet meadows, and marshes within the Designated Critical Habitat areas.	No, suitable habitat is not present. Project area not within a conservation zone.	Species and critical habitat not present. No further consultation is required.
Leafy-prairie clover (*Dalea foliosa*)	Endangered	Prairie remnants with thin soil over limestone along the Des Plaines River.	No, suitable habitat is not present. Project area does not contain dolomite prairie.	Species and habitat not present. No further consultation is required.
Rusty patched bumble bee (*Bombus affinis*)	Endangered	Grasslands with flowering plants from April – October, underground rodent cavities or clumps of grasses above ground as nesting sites and undisturbed soil for hibernating queens to overwinter; High Potential Zones	No, suitable habitat is not present. The eastern most extent of the project area is in a zone of high potential; however, the project area is an agricultural field devoid of flowering plants.	Species and habitat not present. No further consultation is required.

Conclusion: Species and critical habitat are not present. No further consultation is required.

Redaction Date: 11/5/2021 9:58:03 AM

Redaction Log

Total Number of Redactions in Document: 15

Redaction Reasons by Page

Page	Reason	Description	Occurrences
8	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	4
82	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	1
84	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	2
85	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	2
86	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	1
111	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	2

Redaction Log

Page	Reason	Description	Occurrences
156	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	1
157	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	1
161	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	1

Redaction Log

Redaction Reasons by Exemption

Reason	Description	Pages (Count)
PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	8(4) 82(1) 84(2) 85(2) 86(1) 111(2) 156(1) 157(1) 161(1)