VILLAGE OF ORLAND PARK WATERSHED MANAGEMENT ORDINANCE (WMO) WETLAND, BUFFER, & RIPARIAN ENVIRONMENT SUBMITTAL

PROJECT SITE:

Estates at Ravinia Meadows

Orland Park, Cook County, Illinois

PREPARED FOR:

Pulte Home Corporation
1900 E. Golf Road, Suite 1700
Schaumburg, Illinois 60173

PREPARED BY:

V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200

November 8, 2024

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APPENDICES

WETLAND, BUFFER, & RIPARIAN ENVIRONMENT SUBMITTAL

This wetland, buffer & riparian environment submittal for the proposed project in Orland Park, Cook County was prepared in accordance with the Metropolitan Water Reclamation District of Greater Chicago (MWRD) Watershed Management Ordinance (WMO), as amended April 7, 2022, and adopted by the Village of Orland Park, provided on behalf of Pulte Home Corporation, the owner and Applicant, for the proposed project. The items provided herein are numbered in accordance with the wetland submittal requirements of WMO Sections 302.2D, 603, 604, 605, 606, and 607.

The proposed project will develop the site as a residential subdivision with native stormwater management basins. No impacts to a USACE jurisdictional wetland or Waters will occur as a result of the project.

The proposed project will impact 0.64 acres total of standard isolated wetland Areas 1, 2, 3, 5, and 6 (Figure B, **Appendix D**), which are subject to Village of Orland Park jurisdiction. The 0.64 acres of impacts includes 0.09 acres of direct wetland impacts and 0.55 acres of indirect wetland impacts for the development of the residential subdivision and stormwater management basins. Impacts to standard isolated wetland Areas 1, 2, 3, 5,and 6 will be mitigated for through the purchase of credits from an USACE approved off-site mitigation bank.

A total of 0.15 acres of temporary disturbance to the functional riparian environment of Area 4 will occur for grading of the native stormwater management basin as shown on Figure B and as described below. The areas of temporary disturbance will be restored with native vegetation upon completion of the project, as shown on the Planting Plan (Figure C, **Appendix D**).

Since the site disturbance is greater than 0.50 acres, stormwater and volume control are provided.

SECTION 302.2.D WETLAND SUBMITTAL

1. The signed Schedule W form for Areas 1, 2, 3, 5, and 6 are provided in **Appendix A**.
2. A copy of the USACE No Permit Required (NPR) with Approved Jurisdictional Determination (AJD) request dated August 18, 2024 (*LRC-2024-487*) is included in **Appendix B**.
3. Not applicable. The wetland areas identified are greater than 0.10 acres in aggregate.
4. The wetland areas identified on the subject property include standard isolated wetlands greater than 0.10 acres in aggregate.
5. The Wetland & Waters Delineation Report, dated August 26, 2024, is included in **Appendix C**. The Wetland Delineation and Assessment Report meets all requirements of the USACE and WMO.
6. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.
7. The Village of Orland Park wetland boundary confirmation letter dated August 22, 2024 is provided in the Wetland & Waters Delineated Report (**Appendix D**).

SECTION 302.2.E RIPARIAN ENVIRONMENT SUBMITTAL

1. The signed Schedule H form for Area 4 is provided in **Appendix A**.

2. The limits of the functional and non-functional portions of the 50' riparian environment for Area 4 is depicted on Figure A in **Appendix D**.

3. A majority of the riparian environment for Area 4 is agricultural cropland, which is considered non-functional and exempt from the Ordinance, per the WMO Technical Guidance Manual. A total of 0.15 acres of temporary disturbance to the functional riparian environment of Area 4 will occur for grading of the native stormwater management basin and will be restored with native vegetation upon completion of the project as shown on the Planting Plan (Figure C, **Appendix D**).

4. Not applicable. No impacts to a Jurisdictional Waters of the U.S. are proposed by the project. A copy of the USACE No Permit Required (NPR) with Approved Jurisdictional Determination (AJD) request dated August 18, 2024 (*LRC-2024-487*) is included in **Appendix B**.

5. Not applicable. Channel relocation is not proposed by the project.

SECTION 603. REQUIREMENTS FOR WETLAND BOUNDARY, QUALITY, AND BUFFER WIDTH DETERMIINATION

The 72 – acre subject property was investigated by V3 on May 13 and 18, 2024 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) and/or Village of Orland Park jurisdiction. The Wetland & Waters Delineation Report dated August 26, 2024 is provided in **Appendix C**. The report contains the required WMO exhibits, USACE data forms, photographs of the subject property and wetlands, correspondence from IDNR regarding threatened and endangered species, USFWS Section 7 Consultation information, and Village of Orland Park boundary verification information.

Six wetlands were identified on the site and include five standard isolated wetlands (Area 1, 2, 3, 5, and 6) that are subject to Village of Orland Park jurisdiction and one wetland (Area 4) subject to USACE jurisdiction. The delineated areas are summarized below.

- Area 1 (0.04 acres on-site; 0.01 acres off-site) is an isolated wetland located on the west property boundary and continues off-site to the west. Area 1 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 2 (0.01 acres) is an isolated wetland located in an erosional feature in the center of the property. Area 2 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 3 (0.14 acres) is an isolated wetland located in the east portion of the property. Area 3 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 4 (6.11 acres on-site; 11+ acres off-site) is an emergent wetland which is adjacent to Marley Creek along the southern portion of the property. Area 4 continues off-site to the south and west.

- Area 5 (0.41 acres) is an isolated wetland located in the southeast portion of the property. Area 5 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 6 (0.04 acres on-site; 0.01 acres off-site) is an isolated wetland located in the southeast corner of the property. Area 6 receives stormwater from a culvert and appears to be hydrologically isolated and is not adjacent to Marley Creek.

The wetland delineation was verified and approved by Hey and Associates on behalf of the Village of Orland Park on August 22, 2024 (**Appendix D**). A copy of the USACE No Permit Required (NPR) with Approved Jurisdictional Determination (AJD) request dated August 18, 2024 (*LRC-2024-487*) is included in **Appendix B**.

SECTION 604. REQUIREMENTS FOR DEVELOPMENT AFFECTING THE FUNCTION OF WETLANDS AND WETLAND BUFFERS

1. The proposed project will impact 0.64 acres total of standard isolated wetland Areas 1, 2, 3, 5, and 6 (Figure B, **Appendix D**) including 0.09 acres of direct wetland impacts and 0.55 acres of indirect wetland impacts.

2. No impacts to USACE jurisdictional wetland Area 4 will occur. A copy of the USACE No Permit Required (NPR) with Approved Jurisdictional Determination (AJD) request dated August 18, 2024 (*LRC-2024-487*) is included in **Appendix B**.

3. Not applicable. There are no high-quality isolated wetlands on the subject property.

4. The proposed project will impact 0.64 acres of standard isolated wetland for the proposed development, including 0.09 acres of direct wetland impacts to Area 1, Area 3, and Area 6 and 0.55 acres of indirect wetland impacts to Area 2, Area 3, and Area 5. Direct wetland impacts were avoided as much as possible and remain under the 0.10 acre threshold required for mitigation. However, indirect wetland impacts totaling 0.55 acres are a result of hydrology requirements and site development constraints. While direct impacts to these areas have been avoided, stormwater design requirements would not be able to sufficiently sustain the hydrology of these areas through artificial means and therefore these areas will be indirectly impacted by the proposed project as described below.

5. Not applicable. Impacts to standard isolated wetlands are greater than 0.10 acres.

6. Direct impacts totaling 0.09 acres will occur to Area 1, Area 3, and Area 6. A total 0f 0.55 acres of indirect impacts will occur to Area 2, Area 3, and Area 5. The SWMF for the residential portion of the subject site drains to Area 4 in the floodplain of Marley Creek Tributary D. The required criteria of Section 604.6 was evaluated for Areas 2, 3, 4, and 5. The residential Existing and Proposed PondPack Model was established to evaluate runoff volume to Areas 2, 3, and 5. The summary tables below show the proposed indirect impacts that will occur to Area 2, 3, and 5 as a result of reduced runoff volume.

Area 2 and Area 3

		2Yr-24Hr
Existing Wetland	Runoff volume (Ac.-Ft.)	0.36
Proposed Wetland	Runoff volume (Ac.-Ft.)	0.15
		42%

Area 4

		2Yr-24Hr
Existing Wetland	Runoff volume (Ac.-Ft.)	7.33
Proposed Wetland	Runoff volume (Ac.-Ft.)	7.45
		102%

Area 5

		2Yr-24Hr
Existing Wetland	Runoff volume (Ac.-Ft.)	0.31
Proposed Wetland	Runoff volume (Ac.-Ft.)	0.12
		39%

7. Not applicable. Detention facilities are not proposed within existing wetlands.

8. Not applicable. Stormwater outlets discharging into an existing wetland are not proposed.

9. Certified mitigation credits will be purchased through an USACE approved wetland mitigation bank. Impacts to 0.64 acres of standard isolated wetlands Areas 1, 2, 3, 5, and 6 will be mitigated for at a 1:1 ratio, totaling 0.64 acres of mitigation required.

10. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

11. Not applicable. No impacts to USACE jurisdictional wetland Area 4 will occur.

12. Not applicable. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

13. Not applicable. No wetland creation is proposed by the project.

14. Not applicable. No wetland creation is proposed by the project.

15. Not applicable. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

16. Noted. No development in or affecting an isolated wetland will occur without approval by the Village of Orland Park.

17. Not applicable. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

18. Not applicable. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

19. Not applicable. All standard isolated wetlands will be completely impacted by the proposed project and therefore buffers are not required.

20. Not applicable. All standard isolated wetlands will be completely impacted by the proposed project and therefore buffers are not required.

SECTION 605. WETLAND BANKING

1. Noted. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

2. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

3. Not applicable. No impacts to USACE jurisdictional wetland Area 4 will occur.

4. Noted. The required 0.64 acres of mitigation required by the proposed project will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

SECTION 606. RIPARIAN ENVIRONMENT REQUIREMENTS

1. The 50-foot riparian environment of USACE jurisdictional wetland Area 4 was investigated during the wetland delineation and was determined to be comprised of functional and non-functional portions including non-functional agricultural cropland, which is considered exempt, per the WMO Technical Guidance Manual, and does not require mitigation, and functional vegetated buffer in the southeast portion of the area.

2. As shown on Figure A, Existing Conditions in **Appendix D**, portions of the existing 50’ riparian environment for USACE jurisdictional wetland Area 4 consist of non-functional agricultural cropland that is considered exempt and not subject to jurisdiction, per the Technical Guidance Manual. Therefore, impacts and disturbance to the non-functional, agricultural cropland portion of the riparian environment of Area 4 do not require mitigation. A total of 0.15 acres of temporary disturbance to the 50’ functional riparian environment of Area 4 will occur for grading of the native stormwater management basin and will be restored with native vegetation upon completion of the project as shown on the Planting Plan (Figure C, **Appendix D**).

3. The 0.15 acres of temporary disturbance to the 50’ functional riparian environment of Area 4 will be restored with native vegetation upon completion of the project as shown on the Planting Plan (Figure C, **Appendix D**) which will enhance the overall function of the buffer from low quality scrub-shrub vegetation to native vegetation.

SECTION 607. REQUIREMENTS FOR DEVELOPMENT AFFECTING THE FUNCTION OF RIPARIAN ENVIRONMENTS

1. Not applicable. No impacts to a jurisdictional wetland or Waters of the U.S. is proposed by the project.

2. The riparian environment consists of the 50 foot buffer from Area 4, a wetland/Waters of the U.S., and consists of non-functional agricultural cropland and functional low-quality, vegetated areas. The portions of the buffer in agricultural cropland area considered non-functional an exempt, per the WMO Technical Guidance Manual. The 0.15 acres of temporary disturbance to the functional riparian environment of Area 4 will be restored with native vegetation upon completion of the project as shown on the Planting Plan (Figure C, **Appendix D**) and will enhance the overall function of the buffer.

3. The 0.15 acres of temporary disturbance to the functional riparian environment of Area 4 will be restored with native vegetation upon completion of the project as shown on the Planting Plan (Figure C, **Appendix D**) and will enhance the overall function of the buffer.

4. The 0.15 acres of temporary disturbance to the functional riparian environment of Area 4 will be restored with native vegetation upon completion of the project as shown on the Planting Plan (Figure C, **Appendix D**).

5. Not applicable. Channel stabilization is not proposed by the project.

6. Revegetation within the riparian environment will occur as outlined in the Buffer Planting Plan Summary and Mitigation & Monitoring Plan (MMP) which will be provided in the final native design at a later date.

7. Not applicable. No stormwater outlets discharging into the channel are proposed.

8. A riparian mitigation plan developed in accordance with §302.2.E(2) and §303.2.N of the WMO will be provided in the final native design at a later date.

9. Noted. The design, analysis, and constriction of all riparian environment mitigation measures comply with all applicable federal, state, and local regulations.

10. Noted. No development affecting the riparian environment will be initiated without approval by the District or Authorized Municipality.

11. Noted. The Native BMP Plan Summary and Mitigation & Monitoring Plan (MMP) will outline the management and monitoring period and annual reporting requirements.

APPENDIX A

WETLAND/RIPARIAN ENVIRONMENT CHECKLIST AND SIGNED SCHEDULE FORMS

SCHEDULE H

WMO Permit Number: _____

FLOODPLAIN/FLOODWAY & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

1. TYPE OF DEVELOPMENT (*check one below*)**:**

☐ Single-Family Home ■ Residential Subdivision ☐ Multi-Family Residential

☐ Non-Residential ☐ Right-of-Way ☐ Open Space

2. FEMA FIRM PANELS

Provide the Cook County FIRM panel(s) for the site: 17031C0701J and 17031C0703K

3. FLOODPLAIN

A. Is there regulatory floodplain located onsite?

☐ No ■ Yes → Provide the name(s) of the flooding source(s): Marley Creek Tributary D

B. Is there Zone A floodplain within 100 feet of the project site or does the site require a project-specific floodplain study? ☐ No ■ Yes

C. If the answer to 3.A or 3.B is "Yes", complete the following.

List the BFE(s) on the project site (*Round to the nearest 0.1 ft. If more than one BFE, list each individually*):

697.0 ft, NAVD 88.

Provide the elevation source(s) of the BFE(s):

FIRM Panel

D. Does the project include development of a residential building within 100-ft of the regulatory floodplain?

■ No ☐ Yes

E. If the development includes a new building or a foundation expansion of an existing building that increases the building footprint by the lesser of either 20% or 2,500 square feet, in aggregate, provide the lowest floor elevation: _____ ft, NAVD 88.

F. Does the project result in fill in the floodplain? ☐ No ☐ Yes → Provide floodplain fill and compensatory storage quantities:

Floodplain Fill (acre-feet)		Compensatory Storage Provided (acre-feet)	
_____	0 – 10 Year	_____	0 – 10 Year*
_____	10 – 100 Year	_____	10 – 100 Year*
_____	Total	_____	Total**

* Must be at least 1.0 times the floodplain fill

** Must be at least 1.1 times the floodplain fill

SCHEDULE H

WMO Permit Number: _____

FLOODPLAIN/FLOODWAY & RIPARIAN ENVIRONMENTS

4. FLOODWAY

A. Is any part of the development in the regulatory floodway?

☐ No ☐ Yes → Provide copy of IDNR-OWR Floodway Construction Permit for the development and describe appropriate use: _____

_____

_____

_____

B. Does the development involve a waterway with greater than one square mile of tributary area?

☐ No ☐ Yes → Provide copy of IDNR-OWR Floodway Construction Permit for the development

5. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☐ No ■ Yes → Proceed to Items 5.B and 5.C

B. Indicate the conditions that apply:

■ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No ■ Yes → Proceed to Item 6

6. MITIGATION FOR RIPARIAN IMPACTS

Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: The 0.15 acres of riparian environment disturbance will be restored with native vegetation and will be outlined in the Buffer Planting Plan Summary and Management & Monitoring Report that will be provided in the final submittal.

Engineering Firm: _____

P.E. SEAL

Name: _____ **Phone:** _____

Title: _____ **Email:** _____

Signature: _____ **Date:** _____

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

Complete all items, unless instructed to proceed to a later section.

1. WETLAND IDENTIFICATION: Area 1

2. ONSITE WETLANDS ***(Wetlands located within the property holdings are considered onsite wetlands. If multiple wetlands are located within the property holdings, submit a separate Schedule W for each wetland.)***

A. Is a wetland or farmed wetland located on the property interest?

☐ No → Proceed to Item 3 ☒ Yes → Delineate wetland per §603.3. Proceed to Item 2.B

B. Is the onsite wetland within the development area or within 100 feet of the development?

☐ No → Proceed to Item 2.C ☒ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

C. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 3 ☐ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

D. Does the Corps regulate the onsite wetland?

☒ No → Proceed to Item 2.F ☐ Yes → Proceed to Item 2.E

E. Will the Corps regulated wetland be impacted by the development?

☐ No → Proceed to Item 5 ☐ Yes → Submit a copy of the Corps permit application. (Approved Corps permit required prior to issuance.) Proceed to Item 4

F. Will the isolated wetland or associated buffer be impacted by the development?

☐ No → Proceed to Item 5 ☒ Yes → Proceed to Item 4

3. OFFSITE WETLANDS ***(Wetlands located outside the property holdings are considered offsite wetlands. If multiple wetlands are located offsite within 100 feet of the property holdings, submit a separate Schedule W for each wetland.)***

A. Is there an offsite wetland located within 100 feet of the development site?

☐ No → Proceed to Item 3.E ☐ Yes → Delineate wetland per §603.5 and follow §603.6. Proceed to Item 3.B

B. Can a Corps Jurisdictional Determination letter be obtained?

☐ No → Consider high quality isolated wetland Proceed to Item 3.C ☐ Yes → Proceed to Item 3.C

C. Does the wetland buffer extend onto the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 3.D

D. Is the wetland or associated buffer impacted by the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 4

E. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 5 ☐ Yes → Proceed to Item 4

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

4. MITIGATION FOR WETLAND IMPACTS

☒ Standard Isolated ☐ High Quality Isolated ☐ Corps Jurisdictional

Prepare the wetland/buffer submittal and briefly describe the impacts and proposed mitigation, below. (If the wetland is a Corps regulated wetland, briefly describe the wetland impacts and mitigation proposed under the Corps permit.)

The required mitigation will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

5. STORMWATER DETENTION WITHIN THE WETLAND

A. Is stormwater detention proposed within the wetland?

☒ No → Proceed to Item 6 ☐ Yes → Proceed to Item 5.B

B. Is the wetland regulated by the Corps and is a Corps permit required for the development?

☐ No → Proceed to Item 5.D ☐ Yes → Proceed to Item 5.C

C. Did the Corps approve placing detention in the wetland?

☐ No → Detention not allowed ☐ Yes → Submit a copy of the approved Corps permit
Proceed to Item 6

D. Is the wetland considered a high quality isolated wetland?

☐ No → Hydrologic study required ☐ Yes → Detention not allowed

6. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☒ No → Proceed to Item 8 ☐ Yes → Proceed to Items 6.B and 6.C

B. Indicate the conditions that apply:

☐ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No → Proceed to Item 8 ☐ Yes → Proceed to Item 7

7. MITIGATION FOR RIPARIAN IMPACTS

A. Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: _____

8. WETLAND SPECIALIST CERTIFICATION

NOTE: If the answers to Items 2.D, 2.F, 3.E, 5.A or 6.C are yes, prepare the appropriate wetland, buffer and riparian environment submittals with supporting documentation along with the Watershed Management Permit application. (Electronic signatures are not accepted.)

Company/Agency: V3 Companies

Wetland Specialist: Alicia Metzger, CPSC, PWS Title: Project Wetland & Soil Scientist

Signature: Alicia Metzger Date: 11/08/2024

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

Complete all items, unless instructed to proceed to a later section.

1. WETLAND IDENTIFICATION: Area 2

2. ONSITE WETLANDS ***(Wetlands located within the property holdings are considered onsite wetlands. If multiple wetlands are located within the property holdings, submit a separate Schedule W for each wetland.)***

A. Is a wetland or farmed wetland located on the property interest?

☐ No → Proceed to Item 3 ☒ Yes → Delineate wetland per §603.3. Proceed to Item 2.B

B. Is the onsite wetland within the development area or within 100 feet of the development?

☐ No → Proceed to Item 2.C ☒ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

C. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 3 ☐ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

D. Does the Corps regulate the onsite wetland?

☒ No → Proceed to Item 2.F ☐ Yes → Proceed to Item 2.E

E. Will the Corps regulated wetland be impacted by the development?

☐ No → Proceed to Item 5 ☐ Yes → Submit a copy of the Corps permit application. (Approved Corps permit required prior to issuance.) Proceed to Item 4

F. Will the isolated wetland or associated buffer be impacted by the development?

☐ No → Proceed to Item 5 ☒ Yes → Proceed to Item 4

3. OFFSITE WETLANDS ***(Wetlands located outside the property holdings are considered offsite wetlands. If multiple wetlands are located offsite within 100 feet of the property holdings, submit a separate Schedule W for each wetland.)***

A. Is there an offsite wetland located within 100 feet of the development site?

☐ No → Proceed to Item 3.E ☐ Yes → Delineate wetland per §603.5 and follow §603.6. Proceed to Item 3.B

B. Can a Corps Jurisdictional Determination letter be obtained?

☐ No → Consider high quality isolated wetland Proceed to Item 3.C ☐ Yes → Proceed to Item 3.C

C. Does the wetland buffer extend onto the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 3.D

D. Is the wetland or associated buffer impacted by the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 4

E. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 5 ☐ Yes → Proceed to Item 4

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

4. MITIGATION FOR WETLAND IMPACTS

☒ Standard Isolated ☐ High Quality Isolated ☐ Corps Jurisdictional

Prepare the wetland/buffer submittal and briefly describe the impacts and proposed mitigation, below. (If the wetland is a Corps regulated wetland, briefly describe the wetland impacts and mitigation proposed under the Corps permit.)

The required mitigation will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

5. STORMWATER DETENTION WITHIN THE WETLAND

A. Is stormwater detention proposed within the wetland?

☒ No → Proceed to Item 6 ☐ Yes → Proceed to Item 5.B

B. Is the wetland regulated by the Corps and is a Corps permit required for the development?

☐ No → Proceed to Item 5.D ☐ Yes → Proceed to Item 5.C

C. Did the Corps approve placing detention in the wetland?

☐ No → Detention not allowed ☐ Yes → Submit a copy of the approved Corps permit
Proceed to Item 6

D. Is the wetland considered a high quality isolated wetland?

☐ No → Hydrologic study required ☐ Yes → Detention not allowed

6. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☒ No → Proceed to Item 8 ☐ Yes → Proceed to Items 6.B and 6.C

B. Indicate the conditions that apply:

☐ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No → Proceed to Item 8 ☐ Yes → Proceed to Item 7

7. MITIGATION FOR RIPARIAN IMPACTS

A. Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: _____

8. WETLAND SPECIALIST CERTIFICATION

NOTE: If the answers to Items 2.D, 2.F, 3.E, 5.A or 6.C are yes, prepare the appropriate wetland, buffer and riparian environment submittals with supporting documentation along with the Watershed Management Permit application. (Electronic signatures are not accepted.)

Company/Agency: V3 Companies

Wetland Specialist: Alicia Metzger, CPSC, PWS Title: Project Wetland & Soil Scientist

Signature: Alicia Metzger Date: 11/08/2024

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

Complete all items, unless instructed to proceed to a later section.

1. WETLAND IDENTIFICATION: Area 3

2. ONSITE WETLANDS ***(Wetlands located within the property holdings are considered onsite wetlands. If multiple wetlands are located within the property holdings, submit a separate Schedule W for each wetland.)***

A. Is a wetland or farmed wetland located on the property interest?

☐ No → Proceed to Item 3 ☒ Yes → Delineate wetland per §603.3. Proceed to Item 2.B

B. Is the onsite wetland within the development area or within 100 feet of the development?

☐ No → Proceed to Item 2.C ☒ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

C. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 3 ☐ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

D. Does the Corps regulate the onsite wetland?

☒ No → Proceed to Item 2.F ☐ Yes → Proceed to Item 2.E

E. Will the Corps regulated wetland be impacted by the development?

☐ No → Proceed to Item 5 ☐ Yes → Submit a copy of the Corps permit application. (Approved Corps permit required prior to issuance.) Proceed to Item 4

F. Will the isolated wetland or associated buffer be impacted by the development?

☐ No → Proceed to Item 5 ☒ Yes → Proceed to Item 4

3. OFFSITE WETLANDS ***(Wetlands located outside the property holdings are considered offsite wetlands. If multiple wetlands are located offsite within 100 feet of the property holdings, submit a separate Schedule W for each wetland.)***

A. Is there an offsite wetland located within 100 feet of the development site?

☐ No → Proceed to Item 3.E ☐ Yes → Delineate wetland per §603.5 and follow §603.6. Proceed to Item 3.B

B. Can a Corps Jurisdictional Determination letter be obtained?

☐ No → Consider high quality isolated wetland Proceed to Item 3.C ☐ Yes → Proceed to Item 3.C

C. Does the wetland buffer extend onto the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 3.D

D. Is the wetland or associated buffer impacted by the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 4

E. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 5 ☐ Yes → Proceed to Item 4

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

4. MITIGATION FOR WETLAND IMPACTS

☒ Standard Isolated ☐ High Quality Isolated ☐ Corps Jurisdictional

Prepare the wetland/buffer submittal and briefly describe the impacts and proposed mitigation, below. (If the wetland is a Corps regulated wetland, briefly describe the wetland impacts and mitigation proposed under the Corps permit.)

The required mitigation will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

5. STORMWATER DETENTION WITHIN THE WETLAND

A. Is stormwater detention proposed within the wetland?

☒ No → Proceed to Item 6 ☐ Yes → Proceed to Item 5.B

B. Is the wetland regulated by the Corps and is a Corps permit required for the development?

☐ No → Proceed to Item 5.D ☐ Yes → Proceed to Item 5.C

C. Did the Corps approve placing detention in the wetland?

☐ No → Detention not allowed ☐ Yes → Submit a copy of the approved Corps permit
Proceed to Item 6

D. Is the wetland considered a high quality isolated wetland?

☐ No → Hydrologic study required ☐ Yes → Detention not allowed

6. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☒ No → Proceed to Item 8 ☐ Yes → Proceed to Items 6.B and 6.C

B. Indicate the conditions that apply:

☐ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No → Proceed to Item 8 ☐ Yes → Proceed to Item 7

7. MITIGATION FOR RIPARIAN IMPACTS

A. Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: _____

8. WETLAND SPECIALIST CERTIFICATION

NOTE: If the answers to Items 2.D, 2.F, 3.E, 5.A or 6.C are yes, prepare the appropriate wetland, buffer and riparian environment submittals with supporting documentation along with the Watershed Management Permit application. (Electronic signatures are not accepted.)

Company/Agency: V3 Companies

Wetland Specialist: Alicia Metzger, CPSC, PWS Title: Project Wetland & Soil Scientist

Signature: Alicia Metzger Date: 11/08/2024

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

Complete all items, unless instructed to proceed to a later section.

1. WETLAND IDENTIFICATION: Area 4

2. ONSITE WETLANDS ***(Wetlands located within the property holdings are considered onsite wetlands. If multiple wetlands are located within the property holdings, submit a separate Schedule W for each wetland.)***

A. Is a wetland or farmed wetland located on the property interest?

☐ No → Proceed to Item 3 ☒ Yes → Delineate wetland per §603.3. Proceed to Item 2.B

B. Is the onsite wetland within the development area or within 100 feet of the development?

☐ No → Proceed to Item 2.C ☒ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

C. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 3 ☐ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

D. Does the Corps regulate the onsite wetland?

☐ No → Proceed to Item 2.F ☒ Yes → Proceed to Item 2.E

E. Will the Corps regulated wetland be impacted by the development?

☒ No → Proceed to Item 5 ☐ Yes → Submit a copy of the Corps permit application. (Approved Corps permit required prior to issuance.) Proceed to Item 4

F. Will the isolated wetland or associated buffer be impacted by the development?

☐ No → Proceed to Item 5 ☒ Yes → Proceed to Item 4

3. OFFSITE WETLANDS ***(Wetlands located outside the property holdings are considered offsite wetlands. If multiple wetlands are located offsite within 100 feet of the property holdings, submit a separate Schedule W for each wetland.)***

A. Is there an offsite wetland located within 100 feet of the development site?

☐ No → Proceed to Item 3.E ☐ Yes → Delineate wetland per §603.5 and follow §603.6. Proceed to Item 3.B

B. Can a Corps Jurisdictional Determination letter be obtained?

☐ No → Consider high quality isolated wetland Proceed to Item 3.C ☐ Yes → Proceed to Item 3.C

C. Does the wetland buffer extend onto the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 3.D

D. Is the wetland or associated buffer impacted by the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 4

E. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 5 ☐ Yes → Proceed to Item 4

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

4. MITIGATION FOR WETLAND IMPACTS

☐ Standard Isolated ☐ High Quality Isolated ☐ Corps Jurisdictional

Prepare the wetland/buffer submittal and briefly describe the impacts and proposed mitigation, below. (If the wetland is a Corps regulated wetland, briefly describe the wetland impacts and mitigation proposed under the Corps permit.)

_____

_____

_____

5. STORMWATER DETENTION WITHIN THE WETLAND

A. Is stormwater detention proposed within the wetland?

☒ No → Proceed to Item 6 ☐ Yes → Proceed to Item 5.B

B. Is the wetland regulated by the Corps and is a Corps permit required for the development?

☐ No → Proceed to Item 5.D ☐ Yes → Proceed to Item 5.C

C. Did the Corps approve placing detention in the wetland?

☐ No → Detention not allowed ☐ Yes → Submit a copy of the approved Corps permit
Proceed to Item 6

D. Is the wetland considered a high quality isolated wetland?

☐ No → Hydrologic study required ☐ Yes → Detention not allowed

6. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☐ No → Proceed to Item 8 ☒ Yes → Proceed to Items 6.B and 6.C

B. Indicate the conditions that apply:

☒ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No → Proceed to Item 8 ☒ Yes → Proceed to Item 7

7. MITIGATION FOR RIPARIAN IMPACTS

A. Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: Temporary disturbance totaling 0.15 acres to the 50' functional riparian environment of Area 4 will be restored with native vegetation upon completion of the project as shown on the Planting Plan and will enhance the overall function of the buffer.

_____

_____

8. WETLAND SPECIALIST CERTIFICATION

NOTE: If the answers to Items 2.D, 2.F, 3.E, 5.A or 6.C are yes, prepare the appropriate wetland, buffer and riparian environment submittals with supporting documentation along with the Watershed Management Permit application. (Electronic signatures are not accepted.)

Company/Agency: V3 Companies

Wetland Specialist: Alicia Metzger, CPSC, PWS Title: Project Wetland & Soil Scientist

Signature: Alicia Metzger Date: 11/08/2024

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

Complete all items, unless instructed to proceed to a later section.

1. WETLAND IDENTIFICATION: Area 5

2. ONSITE WETLANDS ***(Wetlands located within the property holdings are considered onsite wetlands. If multiple wetlands are located within the property holdings, submit a separate Schedule W for each wetland.)***

A. Is a wetland or farmed wetland located on the property interest?

☐ No → Proceed to Item 3 ☒ Yes → Delineate wetland per §603.3. Proceed to Item 2.B

B. Is the onsite wetland within the development area or within 100 feet of the development?

☐ No → Proceed to Item 2.C ☒ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

C. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 3 ☐ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

D. Does the Corps regulate the onsite wetland?

☒ No → Proceed to Item 2.F ☐ Yes → Proceed to Item 2.E

E. Will the Corps regulated wetland be impacted by the development?

☐ No → Proceed to Item 5 ☐ Yes → Submit a copy of the Corps permit application. (Approved Corps permit required prior to issuance.) Proceed to Item 4

F. Will the isolated wetland or associated buffer be impacted by the development?

☐ No → Proceed to Item 5 ☒ Yes → Proceed to Item 4

3. OFFSITE WETLANDS ***(Wetlands located outside the property holdings are considered offsite wetlands. If multiple wetlands are located offsite within 100 feet of the property holdings, submit a separate Schedule W for each wetland.)***

A. Is there an offsite wetland located within 100 feet of the development site?

☐ No → Proceed to Item 3.E ☐ Yes → Delineate wetland per §603.5 and follow §603.6. Proceed to Item 3.B

B. Can a Corps Jurisdictional Determination letter be obtained?

☐ No → Consider high quality isolated wetland Proceed to Item 3.C ☐ Yes → Proceed to Item 3.C

C. Does the wetland buffer extend onto the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 3.D

D. Is the wetland or associated buffer impacted by the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 4

E. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 5 ☐ Yes → Proceed to Item 4

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

4. MITIGATION FOR WETLAND IMPACTS

☒ Standard Isolated ☐ High Quality Isolated ☐ Corps Jurisdictional

Prepare the wetland/buffer submittal and briefly describe the impacts and proposed mitigation, below. (If the wetland is a Corps regulated wetland, briefly describe the wetland impacts and mitigation proposed under the Corps permit.)

The required mitigation will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

5. STORMWATER DETENTION WITHIN THE WETLAND

A. Is stormwater detention proposed within the wetland?

☒ No → Proceed to Item 6 ☐ Yes → Proceed to Item 5.B

B. Is the wetland regulated by the Corps and is a Corps permit required for the development?

☐ No → Proceed to Item 5.D ☐ Yes → Proceed to Item 5.C

C. Did the Corps approve placing detention in the wetland?

☐ No → Detention not allowed ☐ Yes → Submit a copy of the approved Corps permit
Proceed to Item 6

D. Is the wetland considered a high quality isolated wetland?

☐ No → Hydrologic study required ☐ Yes → Detention not allowed

6. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☒ No → Proceed to Item 8 ☐ Yes → Proceed to Items 6.B and 6.C

B. Indicate the conditions that apply:

☐ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No → Proceed to Item 8 ☐ Yes → Proceed to Item 7

7. MITIGATION FOR RIPARIAN IMPACTS

A. Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: _____

8. WETLAND SPECIALIST CERTIFICATION

NOTE: If the answers to Items 2.D, 2.F, 3.E, 5.A or 6.C are yes, prepare the appropriate wetland, buffer and riparian environment submittals with supporting documentation along with the Watershed Management Permit application. (Electronic signatures are not accepted.)

Company/Agency: V3 Companies

Wetland Specialist: Alicia Metzger, CPSC, PWS Title: Project Wetland & Soil Scientist

Signature: Alicia Metzger Date: 11/08/2024

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

NAME OF PROJECT: Estates at Ravinia Meadows

Complete all items, unless instructed to proceed to a later section.

1. WETLAND IDENTIFICATION: Area 6

2. ONSITE WETLANDS ***(Wetlands located within the property holdings are considered onsite wetlands. If multiple wetlands are located within the property holdings, submit a separate Schedule W for each wetland.)***

A. Is a wetland or farmed wetland located on the property interest?

☐ No → Proceed to Item 3 ☒ Yes → Delineate wetland per §603.3. Proceed to Item 2.B

B. Is the onsite wetland within the development area or within 100 feet of the development?

☐ No → Proceed to Item 2.C ☒ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

C. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 3 ☐ Yes → Submit a copy of the US Army Corps of Engineers (Corps) Jurisdictional Determination letter. Proceed to Item 2.D

D. Does the Corps regulate the onsite wetland?

☒ No → Proceed to Item 2.F ☐ Yes → Proceed to Item 2.E

E. Will the Corps regulated wetland be impacted by the development?

☐ No → Proceed to Item 5 ☐ Yes → Submit a copy of the Corps permit application. (Approved Corps permit required prior to issuance.) Proceed to Item 4

F. Will the isolated wetland or associated buffer be impacted by the development?

☐ No → Proceed to Item 5 ☒ Yes → Proceed to Item 4

3. OFFSITE WETLANDS ***(Wetlands located outside the property holdings are considered offsite wetlands. If multiple wetlands are located offsite within 100 feet of the property holdings, submit a separate Schedule W for each wetland.)***

A. Is there an offsite wetland located within 100 feet of the development site?

☐ No → Proceed to Item 3.E ☐ Yes → Delineate wetland per §603.5 and follow §603.6. Proceed to Item 3.B

B. Can a Corps Jurisdictional Determination letter be obtained?

☐ No → Consider high quality isolated wetland Proceed to Item 3.C ☐ Yes → Proceed to Item 3.C

C. Does the wetland buffer extend onto the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 3.D

D. Is the wetland or associated buffer impacted by the development?

☐ No → Proceed to Item 3.E ☐ Yes → Proceed to Item 4

E. Is an indirect wetland impact proposed?

☐ No → Proceed to Item 5 ☐ Yes → Proceed to Item 4

SCHEDULE W

WMO Permit Number: _____

WETLANDS, BUFFERS & RIPARIAN ENVIRONMENTS

4. MITIGATION FOR WETLAND IMPACTS

☒ Standard Isolated ☐ High Quality Isolated ☐ Corps Jurisdictional

Prepare the wetland/buffer submittal and briefly describe the impacts and proposed mitigation, below. (If the wetland is a Corps regulated wetland, briefly describe the wetland impacts and mitigation proposed under the Corps permit.)

The required mitigation will be purchased through an off-site wetland mitigation bank that has been approved by the USACE.

5. STORMWATER DETENTION WITHIN THE WETLAND

A. Is stormwater detention proposed within the wetland?

☒ No → Proceed to Item 6 ☐ Yes → Proceed to Item 5.B

B. Is the wetland regulated by the Corps and is a Corps permit required for the development?

☐ No → Proceed to Item 5.D ☐ Yes → Proceed to Item 5.C

C. Did the Corps approve placing detention in the wetland?

☐ No → Detention not allowed ☐ Yes → Submit a copy of the approved Corps permit
Proceed to Item 6

D. Is the wetland considered a high quality isolated wetland?

☐ No → Hydrologic study required ☐ Yes → Detention not allowed

6. RIPARIAN ENVIRONMENTS

A. Is there a riparian environment located onsite?

☒ No → Proceed to Item 8 ☐ Yes → Proceed to Items 6.B and 6.C

B. Indicate the conditions that apply:

☐ Jurisdictional Waters of the U.S. (50-ft buffer from OHWM)

☐ Jurisdictional or isolated waters with BSC of "A" or "B" or BSS Streams (100-ft buffer from OHWM)

☐ Isolated Waters (30-ft buffer from OHWM)

C. Is the riparian environment adversely impacted by the development?

☐ No → Proceed to Item 8 ☐ Yes → Proceed to Item 7

7. MITIGATION FOR RIPARIAN IMPACTS

A. Prepare a riparian submittal and briefly describe the impacts and proposed mitigation: _____

8. WETLAND SPECIALIST CERTIFICATION

NOTE: If the answers to Items 2.D, 2.F, 3.E, 5.A or 6.C are yes, prepare the appropriate wetland, buffer and riparian environment submittals with supporting documentation along with the Watershed Management Permit application. (Electronic signatures are not accepted.)

Company/Agency: V3 Companies

Wetland Specialist: Alicia Metzger, CPSC, PWS Title: Project Wetland & Soil Scientist

Signature: Alicia Metzger Date: 11/08/2024

APPENDIX B

USACE JURISDICTIONAL DETERMINATION

August 19, 2024

Ms. Teralyn Pompeii
Chief, Regulatory Branch
U.S. Army Corps of Engineers
Chicago District
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604

Re: No Permit Required Request
With Approved Jurisdictional Determination Request
Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

Dear Ms. Pompeii:

V3 Companies, Ltd. (V3) on behalf of Pulte Home Corporation, is submitting this request for a No Permit Required (NPR) Letter, and a request for an Approved Jurisdictional Determination (JD) for the proposed Estates of Ravinia Meadow residential development in Orland Park, Cook County, Illinois.

The proposed project consists of a residential development containing 124 single-family homes with associated utilities and stormwater management facilities.

As identified in the Wetland and Waters Delineation Report, dated May 29, 2024, it is V3's professional opinion that Areas 1, 2, 3, 5, and 6 are non-USACE jurisdictional wetlands as they are not adjacent to a Waters of the U.S., and Area 4 is a wetland adjacent to a Waters of the U.S. and is subject to USACE jurisdiction. As seen in the site engineering plans included in **Appendix D**, the project will fully avoid wetland Area 4.

Attached with this request are the following:

1) Signed USACE No Permit Required request form (**Appendix A**).
2) Signed USACE Request for an Approved Jurisdictional Determination form (**Appendix B**).
3) Wetland & Waters Delineation Report dated May 29, 2024, as prepared by V3 (**Appendix C**).
4) Site Engineering Plans (**Appendix D**).

V3, on behalf of the Applicant, is requesting your expedited review of the submitted NPR documentation contained herein and the issuance of an Approved Jurisdictional Determination and NPR letter from the USACE.

Please contact me at 630-907-1606 or clafond@v3co.com if you have any questions or comments.

Respectfully,

V3 COMPANIES, LTD.

Caden LaFond
Wetland Scientist

Print Form | E-mail

U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT

REQUEST FOR A LETTER OF NO OBJECTION

For use of this form, see ER 405-1-12; the proponent agency is CELRC-TS-R.

PRIVACY ACT STATEMENT

AUTHORITIES: 33 U.S.C. §§ 403, 1344; 33 C.F.R. pts. 322, 323, 325.
PRINCIPAL PURPOSE: To process requests for a Letter of No Objection from the U.S. Army Corps of Engineers permitting programs under Sections 10 and 404.
ROUTINE USE*(s)*: This information may be used for any one of the Department of Defense blanket routine uses as published in the Federal Register, available at **http://dpcld.defense.gov/privacy/sornsindex/blanketroutineuses.aspx**.
MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: Furnishing all of the information below is voluntary; failure to provide complete information may prevent or delay processing your request.

INSTRUCTIONS

THIS FORM CAN BE USED WHEN YOU WANT CONFIRMATION THAT A PROJECT ON YOUR PROPERTY DOES NOT FALL UNDER THE REGULATORY REQUIREMENTS OF THE U.S. ARMY CORPS OF ENGINEERS *(USACE)*. PLEASE SUPPLY THE FOLLOWING INFORMATION AND SUPPORTING DOCUMENTS DESCRIBED BELOW. THIS FORM CAN BE FILLED OUT ONLINE AND THEN PRINTED. IT **MUST BE SIGNED BY THE PROPERTY OWNER** TO BE CONSIDERED A FORMAL REQUEST. SUBMITTING THIS REQUEST AUTHORIZES THE US ARMY CORPS OF ENGINEERS TO FIELD INSPECT THE PROPERTY SITE, IF NECESSARY, TO HELP IN THE DETERMINATION PROCESS. THE PRINTED FORM AND SUPPORTING DOCUMENTS SHOULD BE MAILED TO:

US ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT REGULATORY BRANCH 231 SOUTH LASALLE STREET, SUITE 1500 CHICAGO, ILLINOIS 60604 TELEPHONE: 312.846.5530 FAX: 312.353.4110 E-MAIL: ChicagoRequests@usace.army.mil	ADDITIONALLY, YOU MAY EITHER CALL OUR BRANCH TELEPHONE AT 312.846.5530 OR VIEW OUR WEBSITE AT http://www.lrc.usace.army.mil/Portals/36/docs/Regulatory/newapps.pdf TO DETERMINE WHICH NUMBER AND PROJECT MANAGER HAS BEEN ASSIGNED TO YOUR REQUEST. PROJECT MANAGER CONTACT INFORMATION CAN BE FOUND HERE: http://www.lrc.usace.army.mil/Missions/Regulatory/ContactInfo.aspx. PLEASE CONTACT US IF YOU NEED ANY ASSISTANCE WITH FILLING OUT THIS FORM.

SECTION I - LOCATION AND INFORMATION ABOUT PROPERTY TO BE SUBJECT TO A LETTER OF NO OBJECTION

1. PROPERTY ADDRESS LOCATION

North of Marley Creek, south of W. 159th Street, east of 104th Avenue, and west of S. LaGrange Road in Orland Park, Cook County, Illinois (Section 21, T36N, R12E; 41.596501°N, −87.858788°W; Tinley Park Quadrangle).

2. CITY OR UNINCORPORATED NAME	3. STATE	4. ZIP CODE
Orland Park	Illinois	60467

5. COUNTY	6. TOWNSHIP NAME
Cook	Orland

7. QUARTER	8. SECTION	9. TOWNSHIP	10. RANGE	11. PRINCIPAL MERIDIAN (*PM*)
	21	36N	12E	3

12a. LATITUDE IN DECIMAL DEGREES °NORTH	b. LONGITUDE IN DECIMAL DEGREES °WEST
41.596501°N	−87.858788°W

13. SIZE OF PROPERTY IN ACRES	14. TAX PERSONAL IDENTIFICATION NUMBER (*PIN*)
72	2721200010, 2721400004

15. PRIOR OR RELATED USACE PROJECT NUMBER	16. OTHER DESCRIPTIVE INFORMATION

17a. IS THE PROPERTY SUBJECT TO A CONSERVATION EASEMENT OR DEED RESTRICTION? ☐ YES *(specify below)* ☒ NO

b. IF YES, PLEASE EXPLAIN AND SUBMIT DETAILS OF THE PROJECT AREA.

18a. WAS THE PROPERTY A SITE FOR MITIGATION PURSUANT TO A PROJECT PREVIOUSLY PERMITTED BY USACE? ☐ YES *(specify below)* ☒ NO

b. IF YES, PLEASE EXPLAIN AND SUBMIT DETAILS OF THE PROJECT AREA.

19a. IS THE PROPERTY NEIGHBORING / ADJACENT TO / BORDERING A PROJECT PREVIOUSLY PERMITTED BY USACE?
☐ YES *(specify below)* ☒ NO

b. IF YES, PLEASE EXPLAIN AND SUBMIT THE NAME OF THE PROJECT, THE PERMITTEE'S NAME AND / OR ADDRESS, AND CORPS PERMIT NUMBER, IF AVAILABLE.

SECTION II - PROPERTY OWNER / REQUESTOR'S CONTACT INFORMATION

1. PROPERTY OWNER NAME *(Last, First MI) (must be an individual)*
Mortensen, Steve

2. PROPERTY OWNER COMPANY *(if applicable)*
Edge Capital Advisors

3. MAILING ADDRESS *(Street, Post Office Box, City, State and Zip Code)*
7459 Darnoch Way
Los Angeles, California 91307

4. DAYTIME TELEPHONE NUMBER	5. FAX NUMBER	6. E-MAIL ADDRESS
310-498-6303		steve.mortensen4@gmail.com

IF THE PERSON REQUESTING THE LETTER OF NO OBJECTION IS NOT THE PROPERTY OWNER, PLEASE ALSO SUPPLY THE REQUESTOR'S CONTACT INFORMATION HERE.

7. REQUESTOR'S NAME *(Last, First MI)*
LaFond, Caden

8. COMPANY *(if applicable)*
V3 Companies

9. MAILING ADDRESS *(Street, Post Office Box, City, State and Zip Code)*
7325 Janes Avenue
Woodridge, Illinois 60517

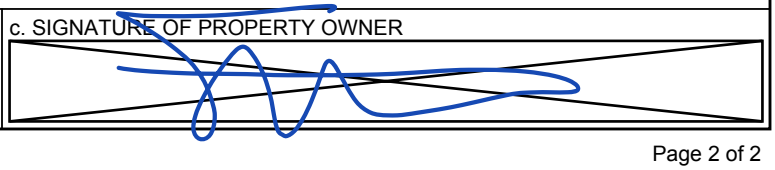
10. DAYTIME TELEPHONE NUMBER	11. FAX NUMBER	12. E-MAIL ADDRESS
630-907-1606		clafond@v3co.com

IF YOU HAVE ANY OF THE FOLLOWING INFORMATION, PLEASE INCLUDE IT WITH YOUR REQUEST: WETLAND DELINEATION, GRADING PLANS, RELEVANT MAPS, TOPOGRAPHIC SURVEY, AND SITE PHOTOGRAPHS. PLEASE IDENTIFY ON THE REQUIRED SITE MAP, PLAT OF SURVEY, OR IN A SEPARATE DRAWING: THE FOOTPRINT, LOCATION, AND TYPE OF POTENTIAL WORK. IT WILL ASSIST US IN DETERMINING IF NO PERMIT IS NECESSARY, AND WILL BE REFERENCED IN OUR RESPONSE LETTER.

13. PLEASE DESCRIBE THE PROPOSED WORK ON THE PROPERTY
Site for residential development.

SECTION III - SIGNATURE CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS REQUEST FOR A LETTER OF NO OBJECTION IS ACCURATE AND COMPLETE.

1a. PROPERTY OWNER (*Last, First MI*)	b. DATE *(YYYYMMDD)*	c. SIGNATURE OF PROPERTY OWNER
Mortensen, Steve	20240809	

Print Form E-mail

US Army Corps of Engineers ®
Chicago District

US ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT
REQUEST FOR A JURISDICTIONAL DETERMINATION
The proponent agency is CELRC-TS-R.

This form can be used when you want to determine if areas on your property fall under regulatory requirements of the U.S. Army Corps of Engineers (*USACE*). Please supply the following information and supporting documents described below. This form can be filled out online and then printed. It must be **SIGNED BY THE PROPERTY OWNER** to be considered a formal request. Submitting this request authorizes the US Army Corps of Engineers to field inspect the property site, if necessary, to help in the determination process. The printed form and supporting documents should be mailed to:

U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT
REGULATORY BRANCH
231 SOUTH LASALLE STREET, SUITE 1500
CHICAGO, ILLINOIS 60604

Additionally, you may either call our branch telephone at 312.846.5530 or view our website at http://www.lrc.usace.army.mil/Portals/36/docs/Regulatory/newapps.pdf to determine which number and project manager has been assigned to your request. Project Manager contact information can be found here: http://www.lrc.usace.army.mil/Missions/Regulatory/ContactInfo.aspx . Please contact us if you need any assistance with filling out this form.

SECTION I - LOCATION AND INFORMATION ABOUT PROPERTY TO BE SUBJECT TO A JURISDICTIONAL DETERMINATION

1. PROPERTY ADDRESS / LOCATION
North of Marley Creek, south of W. 159th Street, east of 104th Avenue, and west of S. LaGrange Road in Orland Park, Cook County, Illinois (Section 21, T36N, R12E; 41.596501°N, −87.858788°W; Tinley Park Quadrangle).

2. CITY (*Name*) OR UNINCORPORATED	3. STATE	4. ZIP CODE
Orland Park	Illinois	60467

5. COUNTY	6. TOWNSHIP NAME
Cook	Orland

7. QUARTER	8. SECTION	9. TOWNSHIP	10. RANGE	11. PM
	21	36N	12E	3

12a. LATITUDE IN DECIMAL DEGREES °NORTH	b. LONGITUDE IN DECIMAL DEGREES °WEST
41.596501°N	−87.858788°W

13. SIZE OF PROPERTY IN ACRES	14. TAX PIN
72	2721200010, 2721400004

15. PRIOR OR RELATED USACE PROJECT NUMBER

16. IS THE PROPERTY SUBJECT TO A CONSERVATION EASEMENT OR DEED RESTRICTION ? ☐ YES ☒ NO IF YES, PLEASE EXPLAIN AND SUBMIT DETAILS OF THE PROJECT AREA.

17. WAS THE PROPERTY A SITE FOR MITIGATION PURSUANT TO A PROJECT PREVIOUSLY PERMITTED BY USACE? ☐ YES ☒ NO IF YES, PLEASE EXPLAIN AND SUBMIT DETAILS OF THE PROJECT AREA.

18. IS THE PROPERTY NEIGHBORING / ADJACENT TO / BORDERING A PROJECT PREVIOUSLY PERMITTED BY USACE? ☐ YES ☒ NO IF YES, PLEASE EXPLAIN AND SUBMIT THE NAME OF THE PROJECT, THE PERMITTEE'S NAME AND / OR ADDRESS, AND CORPS PERMIT NUMBER, IF AVAILABLE.

SECTION II - PROPERTY OWNER CONTACT INFORMATION

1. PROPERTY OWNER NAME *(Last, First MI) (must be an individual)*
Mortensen, Steve

2. PROPERTY OWNER COMPANY *(if applicable)*
Edge Capital Advisors

3. MAILING ADDRESS *(Post Office Box, Street, City, State and Zip Code)*
7459 Darnoch Way
Los Angeles, California 91307

4. DAYTIME TELEPHONE NUMBER	5. FAX NUMBER	6. E-MAIL ADDRESS
310-498-6303		steve.mortensen4@gmail.com

SECTION III - REQUESTOR NON-PROPERTY OWNER CONTACT INFORMATION

IF THE PERSON REQUESTING THE JURISDICTIONAL DETERMINATION IS NOT THE PROPERTY OWNER, PLEASE ALSO SUPPLY THE REQUESTOR'S CONTACT INFORMATION HERE.

1. REQUESTOR'S NAME *(Last, First MI)*
LaFond, Caden

2. REQUESTOR'S COMPANY *(if applicable)*
V3 Companies

3. MAILING ADDRESS *(Post Office Box, Street, City, State and Zip Code)*
7325 Janes Avenue
Woodridge, Illinois 60517

4. DAYTIME TELEPHONE NUMBER	5. FAX NUMBER	6. E-MAIL ADDRESS
630-907-1606		clafond@v3co.com

SECTION IV - OTHER DATA AND SIGNATURE CERTIFICATION

1. OTHER DATA / INFORMATION THAT MAY ASSIST WITH DETERMINATION

The 72-acre subject property was investigated by V3 Companies (V3) on May 13 and 18, 2024 to determine the presence, extent and quality of any wetlands or Waters under U.S. Army Corps of Engineers (USACE) jurisdiction. Six wetland areas (Areas 1, 2, 3, 4, 5, and 6) were identified on the subject property.

In V3's professional opinion, Areas 1, 2, 3, 5, and 6 are isolated, non-USACE jurisdictional wetlands as they are not adjacent to a Waters of the U.S. V3, on behalf of the contract purchaser, requests that the USACE review the provided information and issue an approved jurisdictional determination for the property.

Please provide a map and / or copy of the plat of survey identifying the physical boundaries of the property.

Additionally, if you have any of the following information, please include it with your request: wetland delineation, relevant maps, drain tile survey, topographic survey, and site photographs.

If you are considering doing work on the property, please identify on the required site map, plat of survey, or in a separate drawing: the footprint, location, and type of potential work. It will assist us in the determination process and reduce unnecessary delays of processing subsequent permits, if required.

I hereby certify that the information contained in the Request for a Jurisdictional Determination is accurate and complete:

2a. DATE *(YYYYMMDD)*	b. PROPERTY OWNER'S SIGNATURE
20240809	

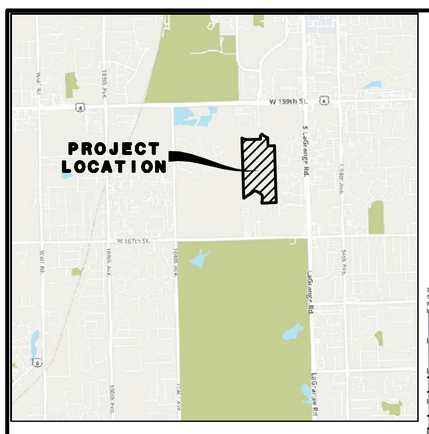
ENGINEERING SITE PLAN

FOR

ESTATES AT RAVINIA MEADOW

ORLAND PARK, ILLINOIS
TOWNSHIP 36 NORTH, RANGE 12E

PARCEL INDEX NUMBER
27-21-200-010
ORLAND PARK, ILLINOIS



LOCATION MAP

N

100 50 0 100
SCALE: 1 INCH = 100 FEET

S. RAVINIA AVE.
L=282.41'
R=480.00'
Chd. Brg. =S 62°03'34" E
N 46°47'53" E 80.12'
S 01°22'00" E 138.78'
S 73°18'14" E 167.30'
N 88°38'00" E 613.47'
S 01°57'26" E 337.81'
N 88°04'06" E 255.00'
S 01°57'26" E 1006.73'
N 01°50'29" W 2470.39'
S 01°57'36" E 1337.38'
N 88°09'45" E 590.75'
ROAD A
ROAD B
ROAD C
ROAD D
ROAD E
60' R.O.W.
30' R.O.W.
OUTLOT A 0.12 acres
OUTLOT C 3.82 acres
OUTLOT D 19.04 acres
OUTLOT E 1.03 acres
PARK 0.70 acres
0.52 acres
(ZONED E1 – ESTATE RESIDENTIAL)
(ZONED COR – MIXED USE)
UNSUBDIVIDED (ZONED OL – OPEN LAND)
UNSUBDIVIDED (ZONED R4 – MULTIPLE FAMILY) (ORLAND HILLS)
LIBERTY SQUARE P.U.D. PER DOC. 0420439064 (ZONED PARKS/OPEN SPACE) (ORLAND HILLS)
SOUTH HILL P.U.D. PER DOC. 0536318064 (ZONED R4 – MULTIPLE FAMILY) (ORLAND HILLS)
MISTEE RIDGE SUBDIVISION PER DOC. 0319032089 (ZONED COR – MIXED USE)
SARATOGA PLACE – PHASE 1 PER DOC. 04082555 (ZONED COR – MIXED USE)
SARATOGA PLACE PHASE 4 PER DOC. 9796319 (ZONED COR – MIXED USE)
SARATOGA LAKES SUBDIVISION PER DOC. 9608321 (ZONED COR – MIXED USE)
RETAINING WALL (TYP.)
STORMWATER MANAGEMENT FACILITY
APPROXIMATE LIMITS OF A SPECIAL ZONE AE SCALED FROM F.I.R.M. PANEL 17031C0703K
APPROXIMATE LIMITS OF FLOODWAY SCALED FROM F.I.R.M. PANEL 17031C0703K
LOCATION OF WETLAND LIMITS AS PROVIDED BY OTHERS (TYP.)
PROPOSED CONNECTION TO EXISTING DRIVEWAY
165TH ST.

SITE DATA

A. TOTAL GROSS AREA	72.56 AC.±
B. PROPOSED ZONING	R3
C. INTERNAL R.O.W.	10.82 AC.±
D. OPEN SPACE	
PARK	0.70 AC.
STORMWATER/COMMON AREA	24.62 AC.
TOTAL	25.32 AC. OR 34.9%
E. NET BIULDABLE AREA	60.46 AC.
F. ALLOWABLE DENSITY (2.5 UNITS X 60.46 AC.)	151 UNITS
G. PROPOSED UNITS	132
H. GROSS DENSITY	1.82 DU/AC.
I. NET DENSITY	2.18 DU/AC.
J. MIN. LOT WIDTH	75 FT.
K. MIN. LOT SIZE	10,004 S.F.
L. AVE. LOT SIZE	12,019 S.F.
M. MAX. LOT SIZE	26,268 S.F.
N. SETBACKS	
FRONT YARD	25 FT,
CORNER SIDE YARD	25 FT.
INTERIOR SIDE YARD	8 FT.
REAR YARD	30 FT.
O. MAXIMUM LOT COVERAGE	47.8%
P. GROSS IMPERVIOUS AREA	1,996,611 S.F. OR 63.2%

PREPARED FOR:

PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

PREPARED BY:

CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
PH: 630.862.2100 FAX: 630.862.2199
E-Mail: info@cemcon.com Website: www.cemcon.com

DISC NO.: 402.170 FILE NAME: SITE PLAN
DRAWN BY: PRP/DDD FLD. BK. / PG. NO.: BK./PG.
COMPLETION DATE: 08-23-2024 JOB NO.: 402.170
XREF : PROJECT MANAGER CRM

PLOT FILE CREATED: 8/16/2024 BY: KRISTIN STAERKEL DRAWING PATH: P:\402170\DWG\ENG\DRAWINGS\EXHIBITS\SITE PLAN.DWG

APPENDIX C

WETLAND & WATERS

DELINEATION REPORT

WETLAND & WATERS DELINEATION REPORT

PROJECT SITE:

Estates at Ravinia Meadow

Orland Park, Cook County, Illinois

PREPARED FOR:

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

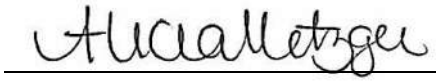
PREPARED BY:

V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200

May 29, 2024
Revised August 26, 2024

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

Project Staff:



Alicia Metzger, CPSC, PWS
Soil Scientist

Daniel Jablonski
Wetland Scientist

Caden LaFond
Wetland Scientist

Approved by:

Scott J. Brejcha, PWS
Wetland Consulting Group Leader
Natural Resources Group

Thomas E. Slowinski, PWS
Technical Director, Wetlands and Ecology
Natural Resources Group

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APPENDICES

FIGURES

EXECUTIVE SUMMARY

The 72-acre subject property was investigated by V3 Companies (V3) on May 13 and 18, 2024 to determine the presence, extent, and quality of any wetlands or Waters under U.S. Army Corps of Engineers (USACE) and/or Metropolitan Water Reclamation District (MWRD) jurisdiction.

Delineation Summary

Six wetland areas (Areas 1, 2, 3, 4, 5, and 6) were identified on the subject property, as summarized below. One off-site stormwater detention basin was identified within 100 feet of the subject property. A summary of the identified areas is provided in Table 1 and a summary of the data points is provided in Table 2.

- Area 1 (0.04 acres on-site; 0.01 acres off-site) is an isolated wetland located on the west property boundary and continues off-site to the west. Area 1 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 2 (0.01 acres) is an isolated wetland located in an erosional feature in the center of the property. Area 2 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 3 (0.14 acres) is an isolated wetland located in the east portion of the property. Area 3 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 4 (6.11 acres on-site; 11+ acres off-site) is an emergent wetland which is adjacent to Marley Creek along the southern portion of the property. Area 4 continues off-site to the south and west.

- Area 5 (0.41 acres) is an isolated wetland located in the southeast portion of the property. Area 5 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

- Area 6 (0.04 acres on-site; 0.01 acres off-site) is an isolated wetland located in the southeast corner of the property. Area 6 receives stormwater from a culvert and appears to be hydrologically isolated and is not adjacent to Marley Creek.

In V3's professional opinion, Areas 1, 2, 3, 5, and 6 are isolated, non-USACE jurisdictional wetlands as they are not adjacent to a Waters of the U.S., and qualify as Standard Isolated Wetlands under MWRD jurisdiction. Area 4 is a wetland adjacent to a Waters of the U.S. and is subject to USACE jurisdiction. V3 recommends a No Permit Required (NPR) with Approved Jurisdictional Determination (AJD) request be submitted to USACE to confirm the jurisdiction of the identified areas.

Table 1. Aquatic Resource 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	0.04	0.01	1.57	4.16	SIW	No	N/A
2	0.01	N/A	2.57	6.80	SIW	No	N/A
3	0.14	N/A	2.57	9.62	SIW	No	30’
4	6.11	11+	1.68	7.34	Non-HQAR	Yes	50’
5	0.41	N/A	3.00	10.82	SIW	No	30’
6	0.04	0.01	1.80	4.02	SIW	No	N/A
Total	6.75	11.02+					

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

** SIW= Standard Isolated Wetland (NMC ≤ 3.5 and FQI ≤ 20, MWRD jurisdiction); HQIW= High Quality Isolated Wetland (NMC ≥ 3.5 or FQI ≥ 20, MWRD jurisdiction); Non-HQAR= Non- High Quality Aquatic Resource (NMC ≤ 3.5 and FQI ≤ 20, USACE jurisdiction); HQAR= High Quality Aquatic Resource (NMC ≥ 3.5 or FQI ≥ 20, USACE jurisdiction); WOUS= Waters of the United States (USACE jurisdiction)

Table 2. Data Point Summary Table

Area	Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland (Y/N)
1	X07	Y	Y	Y	Y
2	X06	Y	Y	Y	Y
3	X03	Y	Y	Y	Y
	X04	Y	Y	Y	Y
4	X09	Y	Y	Y	Y
5	X15	Y	Y	Y	Y
6	X13	Y	Y	Y	Y
Upland	X01	N	N	N	N
	X02	N	N	N	N
	X05	N	Y	N	N
	X08	N	Y	N	N
	X10	N	Y	N	N
	X11	N	Y	N	N
	X12	N	Y	N	N
	X14	Y	N	N	N
	X16	N	Y	N	N
	X17	N	Y	N	N
	X18	N	Y	N	N
	X19	Y	N	Y	N
	X20	Y	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. On September 8, 2023, the Revised Definition of "Waters of the United States", which conforms to the 2023 U.S. Supreme Court Sackett decision, was published in the Federal Register and became effective immediately. Under the revised definitions, the following areas qualify as "Waters of the US" subject to USACE jurisdiction:

1. Navigable waters; the territorial seas; or interstate waters;
2. Impoundments of these waters;
3. Tributaries of navigable waters, the territorial seas and interstate waters that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to navigable waters, the territorial seas, or interstate waters that are relatively permanent, standing or continuously flowing bodies of water, and with a continuous surface connection to those waters;
5. Interstate lakes or ponds not identified above that are relatively permanent, standing or continuously flowing bodies of water, and with a continuous surface connection to the waters identified in items 1-4 above;

The following areas are not jurisdictional "Waters of the United States":

1. Waste treatment systems;
2. Prior converted cropland;
3. Ditches, including roadside ditches, excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water
4. Artificially irrigated areas that would revert to dry land if irrigation ceased;
5. Artificial lakes and ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
7. Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

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.

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. On January 13, 2021, the USACE reissued and modified 12 previous NWPs, issued 4 new NWPs, and reissued general conditions and definitions. These 16 NWPs went into effect on March 15, 2021. On December 27, 2021, the USACE reissued or issued 41 NWPs which went into effect on February 25, 2022. The 57 NWPs in effect will all expire on March 14, 2026. Wetland impacts greater than 0.5 acre may require authorization under an Individual Permit (IP), which requires greater scrutiny of the proposed project by the USACE and other concerned government agencies, and includes a public notice comment period available to the general public. Wetland impacts greater than 0.5 acre may require authorization under an Individual Permit (IP), which requires greater scrutiny of the proposed project by the USACE and other concerned government agencies, and includes a public notice comment period available to the general public.

On April 7, 2022, the Metropolitan Water Reclamation District (MWRD) amended the Cook County Watershed Management Ordinance (WMO) which regulates isolated wetlands and isolated "waters" within Cook County. The Cook County WMO requires a Watershed Management Permit for any proposed impacts to isolated wetlands and/or isolated "waters" of Cook County resulting from regulated development activities. Impacts to isolated wetlands/waters of Cook County that are equal to or exceed 0.10 acre will require compensatory mitigation based on the quality of the area. Mitigation at a ratio of 1.5:1 is required for impacts to Standard Isolated Wetlands (SIW) which are defined as isolated wetlands and "waters" of Cook County that have a NMC less than 3.5 and an FQI less than 20. Mitigation at a ratio of 3:1 is required for impacts to High Quality Isolated Wetlands (HQIW) which are defined as isolated wetlands and "waters" of Cook County that have a NMC of 3.5 or greater and/or an FQI of 20 or greater. Buffer requirements, which are dependent on the quality and size of the wetland, are shown in Table 1.

INTRODUCTION AND BACKGROUND

The 72-acre subject property was investigated by V3 Companies (V3) on May 13 and 18, 2024 to determine the presence, extent and quality of any wetlands or Waters under U.S. Army Corps of Engineers (USACE) and/or Metropolitan Water Reclamation District (MWRD) 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 subject property is located north of Marley Creek, south of W. 159th Street, east of104th Avenue, and west of S. LaGrange Road in Orland Park, Cook County, Illinois (Section 21, T36N, R12E; 41.596501°N, –87.858788°W; Tinley Park Quadrangle, Figure 1).

One wetland, classified as palustrine, emergent, persistent, seasonally flooded, partially drained/ditched (PEM1Cd), is mapped in the southern portion of the subject property on the National Wetlands Inventory (NWI) Map (Figure 2) and is associated with Marley Creek.

The USGS Hydrologic Atlas (Figure 3) shows Marley Creek in the southern portion of the subject property.

The 12-Digit Hydrologic Unit Code (HUC) Map (Figure 4) shows the subject property is in Hickory Creek sub watershed (HUC 071200040603) which is within the larger Des Plaines River (HUC 07120004) watershed.

The FEMA Flood Insurance Rate Map (FIRM) (Figure 5) shows flood zone associated with Marley Creek Tributary D in the southern portion of the subject property.

The Flood Zones of Cook County, Illinois Map (2022) (Figure 6) shows flood zones X, AE, and AE floodway associated with Marley Creek in the southern portion of the subject property.

The eight soil series mapped on the subject property on the Soil Survey of Cook County, Illinois Map (Figure 7) are listed below.

Table 3. Soils Information

Soil Map Unit	Soil Name	Hydric?
91B	Swygert silty clay loam	No
228C2	Nappanee silty clay loam	No
235A	Bryce silty clay loam	No
241D3	Chatsworth silty clay	No
320B/320C2	Frankfort silt loam/Frankfort silty clay loam	No
330A	Peotone silty clay loam	Yes
530C2/530D2	Ozaukee silt loam	No
1903A	Muskego and Houghton mucks	Yes

The Wetland & Waters Delineation Map (Figure 8) shows the location of all data points and identified areas as professionally surveyed by V3 Companies.

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 subject property:

- Orland Grassland INAI Site
- Orland Grassland Land and Water Reserve
- King Rail (*Rallus elegans*)
- Short-Eared Owl (*Asio flammeus*)

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 from IDNR dated May 24, 2024 is included in Appendix V.

The USFWS Information for Planning and Consultation (IPaC) is a project planning tool used to streamline the USFWS environmental review process for Section 7 Consultation. An IPaC Species and Resource List generated for the project on May 24, 2024 did not identify any Critical Habitat in the project area. A list of the candidate, experimental, threatened, proposed endangered, and endangered species which may occur near the project area is summarized in Table 4 below.

Table 4. T&E Species Information

Species Name	Status	Habitat Present In Project Area
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	No
Tricolored Bat (*Perimyotis subflavus)*	Proposed Endangered	No
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	No
Whooping Crane (*Grus americana*)	Experimental	No
Eastern Massasauga (*Sistrurus catenatus*)	Threatened	No
Hine's Emerald Dragonfly (*Somatochlora hineana*)	Endangered	No
Monarch Butterfly (*Danaus plexippus*)	Candidate	No
Eastern Prairie Fringed Orchid (*Platanthera leucophaea*	Threatened	No
Leafy Prairie-Clover (*Dalea foliosa*)	Endangered	No

The project area is dominated by agricultural cropland and low-quality wetland that would not support the listed species. The surrounding area is highly developed with residential and commercial development that would not support the listed species. Based on this information, V3 determined there are no listed species or suitable habitat on the subject property. A copy of the IPaC Species and Resource List is included in Appendix V.

Additionally, a "No Effect Determination" letter (Appendix V) dated May 24, 2024 issued by USFWS confirms the project will have "No Effect" on the Northern Long-Eared Bat.

FARMED WETLAND DETERMINATION

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 Park Forest National Weather Service (WETS) Station to determine the appropriate Farm Service Agency (FSA) crop compliance slides to review. The slides were examined on May 24, 2024 using NRCS spectral response criteria and category definitions for wetland determinations.

Wetland signatures are an indication of ponding, flooding, or impacts of saturation for sufficient duration that meets wetland hydrology and possible wetland vegetation criteria. Wetland signatures include:

- Mapped on NWI
- Hydrophytic vegetation
- Surface Water
- Drowned-out crops or crop damage due to wetness
- Differences in vegetation (within a field) due to different planting dates
- Isolated areas that are not farmed with the rest of the field (includes areas not planted due to wetness at the time of planting)
- Inclusion of wet areas as set-aside if other signs of wetness are evident
- Patches of greener vegetation (crop) during years of below normal precipitation
- Crop stress (can only be used if the reviewer believes that it is a valid indicator in that area)

One wet year and during a time of year where crop is visible (2015; 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. If the signature occurred in at least 50% of the years of normal rainfall, this area was determined to be potential farmed wetland. Non-farmed areas and existing wetlands are not included in the farmed wetland determination.

Farmed Wetland Determination Summary

No farmed wetlands were observed during the wet/base year and therefore it was determined that there are no potential farmed wetlands on the subject property. During the field investigation, erosional features that did not qualify as farmed wetland, wetland, or Waters of the U.S. were observed throughout the subject property.

RESULTS OF THE FIELD INVESTIGATION

JURISDICTIONAL AREAS

Area 1 – Non-USACE Jurisdictional Wetland

Data Point X07

Area 1 (0.04 acres on-site; 0.01 acres off-site) is an isolated wetland located on the west property boundary and continues off-site to the west. Area 1 appears to be hydrologically isolated which is not adjacent to a Waters of the U.S.

Summary:

- Isolated Wetland
- Jurisdiction: MWRD
- Quality: SIW
- Vegetated Buffer Required: Not Required (<0.10 acre threshold)

Vegetation: The dominant plant species at Data Point X01 are reed canary grass (*Phalaris arundinacea*) and common three-seed-mercury (*Acalypha rhomboidea*). 66.7% 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)	**1.57**	Species Richness (all)	9
Mean C (all species)	1.22	Species Richness (native)	7
Mean C (native trees)	n/a	% Non-native	22%
Mean C (native shrubs)	n/a	Wet Indicator (all)	-0.22
Mean C (native herbaceous)	1.20	Wet Indicator (native)	-0.29
FQAI (native species)	**4.16**	% hydrophyte (Midwest)	67%
FQAI (all species)	3.67	% native perennial	44%
Adjusted FQAI	13.86	% native annual	33%
% C value 0	44%	% annual	33%
% C Value 1-3	44%	% perennial	67%
% C value 4-6	11%		
% C value 7-10	0%		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
acarho	*Acalypha rhomboidea*	*Acalypha rhomboidea*	Common Three-Seed-Mercury	0	FACU	1	Forb	Annual	Native
ambtri	*Ambrosia trifida*	*Ambrosia trifida*	Great Ragweed	0	FAC	0	Forb	Annual	Native
cirarv	*Cirsium arvense*	*CIRSIUM ARVENSE*	Canadian Thistle	0	FACU	1	Forb	Perennial	Adventive
geulac	*Geum laciniatum*	*Geum laciniatum*	Rough Avens	3	FACW	-1	Forb	Perennial	Native
juntor	*Juncus torreyi*	*Juncus torreyi*	Torrey's Rush	2	FACW	-1	Forb	Perennial	Native
parqui	*Parthenocissus quinquefolia*	*Parthenocissus quinquefolia*	Virginia-Creeper	4	FACU	1	Vine	Perennial	Native
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
ranabo	*Ranunculus abortivus*	*Ranunculus abortivus*	Kidney-Leaf Buttercup	1	FACW	-1	Forb	Annual	Native

vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Soils: The soil profile at Data Point X07 consisted of 0-22+ inches of black (10YR 2/1) silty clay 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 three secondary wetland hydrology indicators, B6, Surface Soil Cracks, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion at Data Point X07.

Conclusion: Data Point X07 satisfies all three criteria; therefore Area 1 qualifies as wetland.

Area 2 – Non-USACE Jurisdictional Wetland

Data Point X06

Area 2 (0.01 acres) is an isolated wetland associated with an erosional feature in the center of the subject property. Area 2 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

Summary:

- Isolated Wetland
- Jurisdiction: MWRD
- Quality: SIW
- Vegetated Buffer Required: Not Required (<0.10 acre threshold)

Vegetation: The dominant plant species at Data Point X06 are common reed (*Phragmites australis*) and reed canary grass (*Phalaris arundinacea*). 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)	**2.57**	Species Richness (all)	12
Mean C (all species)	1.50	Species Richness (native)	7
Mean C (native trees)	1.00	% Non-native	42%
Mean C (native shrubs)	1.00	Wet Indicator (all)	-0.08
Mean C (native herbaceous)	3.20	Wet Indicator (native)	-0.43
FQAI (native species)	**6.80**	% hydrophyte (Midwest)	67%
FQAI (all species)	5.20	% native perennial	58%
Adjusted FQAI	19.64	% native annual	0%
% C value 0	42%	% annual	0%
% C Value 1-3	50%	% perennial	92%
% C value 4-6	0%		
% C value 7-10	8%		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
cxtrib	*Carex tribuloides*	*Carex tribuloides*	Blunt Broom Sedge	7	OBL	-2	Sedge	Perennial	Native
corrac	*Cornus racemosa*	*Cornus racemosa*	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
diplac	*Dipsacus laciniatus*	*DIPSACUS LACINIATUS*	Cut-Leaf Teasel	0	UPL	2	Forb	Biennial	Adventive
geulac	*Geum laciniatum*	*Geum laciniatum*	Rough Avens	3	FACW	-1	Forb	Perennial	Native
gletri	*Gleditsia triacanthos*	*Gleditsia triacanthos*	Honey-Locust	1	FACU	1	Tree	Perennial	Native

juntor	*Juncus torreyi*	*Juncus torreyi*	Torrey's Rush	2	FACW	-1	Forb	Perennial	Native
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausm	*Phragmites australis ssp. americanus*	*Phragmites americanus*	Common Reed	3	FACW	-1	Grass	Perennial	Native
poapra	*Poa pratensis*	*POA PRATENSIS*	Kentucky Blue Grass	0	FAC	0	Grass	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
solalt	*Solidago altissima*	*Solidago altissima*	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native

Soils: The soil profile at Data Point X06 consisted of 0-8 inches of very dark grayish brown (10YR 3/2) silt runoff with 5% dark yellowish brown (10YR 4/6) redoximorphic concentrations underlain by 8-14+ inches of brown (10YR 4/3) silty clay loam with 20% dark yellowish brown (10YR 4/6) redoximorphic concentrations and 5% gray (10YR 5/1) redoximorphic depletions. This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of three secondary wetland hydrology indicators, B10 Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion at Data Point X06.

Conclusion: Data Point X06 satisfies all three criteria; therefore Area 2 qualifies as wetland.

Area 3 – Non-USACE Jurisdictional Wetland

Data Points X03 and X04

Area 3 (0.14 acres) is an isolated wetland located in the east portion of the subject property. Area 3 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

Summary:

- Isolated Wetland
- Jurisdiction: MWRD
- Quality: SIW
- Vegetated Buffer Required: 30’

Vegetation:

- The dominant plant species at Data Point X03 are sandbar willow (*Salix interior*) and reed canary grass (*Phalaris arundinacea*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied.
- The dominant plant species at Data Point X04 is fall panic grass (*Panicum dichotomiflorum*). 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)	**2.57**	Species Richness (all)	20
Mean C (all species)	1.80	Species Richness (native)	14
Mean C (native trees)	1.67	% Non-native	30%
Mean C (native shrubs)	3.50	Wet Indicator (all)	-0.30
Mean C (native herbaceous)	2.83	Wet Indicator (native)	-0.57
FQAI (native species)	**9.62**	% hydrophyte (Midwest)	85%
FQAI (all species)	8.05	% native perennial	60%
Adjusted FQAI	21.51	% native annual	10%
% C value 0	40%	% annual	10%
% C Value 1-3	40%	% perennial	90%
% C value 4-6	15%		
% C value 7-10	5%		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
cxtrib	*Carex tribuloides*	*Carex tribuloides*	Blunt Broom Sedge	7	OBL	-2	Sedge	Perennial	Native
cirarv	*Cirsium arvense*	*CIRSIUM ARVENSE*	Canadian Thistle	0	FACU	1	Forb	Perennial	Adventive
corsto	*Cornus alba*	*Cornus stolonifera; Cornus baileyi; Cornus sericea*	Red Osier	5	FACW	-1	Shrub	Perennial	Native
frapen	*Fraxinus pennsylvanica*	*Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata*	Green Ash	4	FACW	-1	Tree	Perennial	Native
geulac	*Geum laciniatum*	*Geum laciniatum*	Rough Avens	3	FACW	-1	Forb	Perennial	Native
gletri	*Gleditsia triacanthos*	*Gleditsia triacanthos*	Honey-Locust	1	FACU	1	Tree	Perennial	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
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
poapra	*Poa pratensis*	*POA PRATENSIS*	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	*Populus deltoides*	*Populus deltoides*	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
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
salint	*Salix interior*	*Salix interior*	Sandbar Willow	2	FACW	-1	Shrub	Perennial	Native
salfra	*Salix X fragilis*	*SALIX FRAGILIS; SALIX X RUBENS*	Crack Willow	0	FAC	2	Tree	Perennial	Adventive
astsim	*Symphyotrichum lanceolatum*	*Aster simplex*	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
astnov	*Symphyotrichum novae-angliae*	*Aster novae-angliae*	New England American-Aster	3	FACW	-1	Forb	Perennial	Native

toxrad	*Toxicodendron radicans*	*Rhus radicans*	Eastern Poison-Ivy	2	FAC	0	Vine	Perennial	Native
vibopu	*Viburnum opulus var. opulus*	*VIBURNUM OPULUS*	Highbush-Cranberry	0	FAC	0	Shrub	Perennial	Adventive
vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Soils:

- The soil profile at Data Point X03 consisted of 0-13 inches of black (10YR 2/1) silty clay loam with 10% dark yellowish brown (10YR 3/6) redoximorphic concentrations underlain by 3+ inches, to 16+ inches below the surface, of dark gray (10YR 4/1) silty clay loam with 20% yellowish brown (10YR 5/8) redoximorphic concentrations and 5% gray (10YR 5/1) redoximorphic depletions. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X04 consisted of 0-10 inches of black (10YR 2/1) silty clay loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations underlain by 5+ inches, to 15+ inches below the surface, of dark gray (10YR 4/1) silty clay loam with 10% yellowish brown (10YR 4/6) redoximorphic concentrations and 5% gray (10YR 5/1) redoximorphic depletions. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

Hydrology:

- The presence of three secondary wetland hydrology indicators, B10 Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion at Data Point X03.
- The soil was saturated at the surface which satisfies the hydrology criterion at Data Point X04.

Conclusion: Data Points X03 and X04 satisfy all three criteria; therefore Area 3 qualifies as wetland.

Area 4 – USACE Jurisdictional Wetland

Data Point X09

Area 4 (6.11 acres on-site; 11+ acres off-site) is an emergent wetland adjacent to Marley Creek along the southern portion of the subject property. Area 4 continues off-site to the south and west.

Summary:

- Emergent Wetland
- Jurisdiction: USACE
- Quality: Non-HQAR
- Vegetated Buffer Required: 50'

Vegetation: The dominant plant species at Data Point X09 is reed canary grass (*Phalaris arundinacea*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 4 are provided below.

Conservatism-Based Metrics		**Additional Metrics**	
Mean C (native species)	**1.68**	Species Richness (all)	26
Mean C (all species)	1.23	Species Richness (native)	19
Mean C (native trees)	1.25	% Non-native	27%
Mean C (native shrubs)	2.00	Wet Indicator (all)	0.00
Mean C (native herbaceous)	1.50	Wet Indicator (native)	-0.11
FQAI (native species)	**7.34**	% hydrophyte (Midwest)	81%
FQAI (all species)	6.28	% native perennial	58%

Adjusted FQAI	14.40	% native annual	15%
% C value 0	50%	% annual	15%
% C Value 1-3	38%	% perennial	85%
% C value 4-6	12%		
% C value 7-10	0%		

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
ambtri	*Ambrosia trifida*	*Ambrosia trifida*	Great Ragweed	0	FAC	0	Forb	Annual	Native
celocc	*Celtis occidentalis*	*Celtis occidentalis*	Common Hackberry	2	FAC	0	Tree	Perennial	Native
corsto	*Cornus alba*	*Cornus stolonifera; Cornus baileyi; Cornus sericea*	Red Osier	5	FACW	-1	Shrub	Perennial	Native
corrac	*Cornus racemosa*	*Cornus racemosa*	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
crycan	*Cryptotaenia canadensis*	*Cryptotaenia canadensis*	Canadian Honewort	4	FAC	0	Forb	Perennial	Native
galapa	*Galium aparine*	*Galium spurium*	Sticky-Willy	0	FACU	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
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausm	*Phragmites australis ssp. americanus*	*Phragmites americanus*	Common Reed	3	FACW	-1	Grass	Perennial	Native
popdel	*Populus deltoides*	*Populus deltoides*	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
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
rubocc	*Rubus occidentalis*	*Rubus occidentalis*	Black Raspberry	0	UPL	2	Shrub	Perennial	Native
rumcri	*Rumex crispus*	*RUMEX CRISPUS*	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
salint	*Salix interior*	*Salix interior*	Sandbar Willow	2	FACW	-1	Shrub	Perennial	Native
salfra	*Salix X fragilis*	*SALIX FRAGILIS; SALIX X RUBENS*	Crack Willow	0	FAC	2	Tree	Perennial	Adventive
soldul	*Solanum dulcamara*	*SOLANUM DULCAMARA*	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
solalt	*Solidago altissima*	*Solidago altissima*	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	*Symphyotrichum lanceolatum*	*Aster simplex*	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
toxrad	*Toxicodendron radicans*	*Rhus radicans*	Eastern Poison-Ivy	2	FAC	0	Vine	Perennial	Native

ulmame	*Ulmus americana*	*Ulmus americana*	American Elm	3	FACW	-1	Tree	Perennial	Native
vibopu	*Viburnum opulus var. opulus*	*VIBURNUM OPULUS*	Highbush-Cranberry	0	FAC	0	Shrub	Perennial	Adventive
vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Soils: The soil profile at Data Point X09 consisted of 0-18+ inches of black (10YR 2/1) silty clay loam with 15% yellowish brown (10YR 5/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of two secondary wetland hydrology indicators, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion at Data Point X09.

Conclusion: Data Point X09 satisfies all three criteria; therefore Area 4 qualifies as wetland.

Area 5 – Non-USACE Jurisdictional Wetland

Data Point X15

Area 5 (0.41 acres) is an isolated wetland located in the southeast portion of the subject property. Area 5 appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

Summary:

- Isolated Wetland
- Jurisdiction: MWRD
- Quality: SIW
- Vegetated Buffer Required: 30'

Vegetation: The dominant plant species at Data Point X15 are sandbar willow (*Salix* interior), reed canary grass (*Phalaris arundinacea*), and common reed (*Phragmites australis*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 5 are provided below.

Conservatism-Based Metrics		**Additional Metrics**	
Mean C (native species)	**3.00**	Species Richness (all)	18
Mean C (all species)	2.17	Species Richness (native)	13
Mean C (native trees)	1.00	% Non-native	28%
Mean C (native shrubs)	4.00	Wet Indicator (all)	-0.22
Mean C (native herbaceous)	3.75	Wet Indicator (native)	-0.23
FQAI (native species)	**10.82**	% hydrophyte (Midwest)	78%
FQAI (all species)	9.19	% native perennial	72%
Adjusted FQAI	25.50	% native annual	0%
% C value 0	39%	% annual	0%
% C Value 1-3	39%	% perennial	100%
% C value 4-6	11%		
% C value 7-10	11%		

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
agrgry	*Agrimonia gryposepala*	*Agrimonia gryposepala*	Tall Hairy Grooveburr	2	FACU	1	Forb	Perennial	Native

cxtrib	*Carex tribuloides*	*Carex tribuloides*	Blunt Broom Sedge	7	OBL	-2	Sedge	Perennial	Native
cirarv	*Cirsium arvense*	*CIRSIUM ARVENSE*	Canadian Thistle	0	FACU	1	Forb	Perennial	Adventive
corsto	*Cornus alba*	*Cornus stolonifera; Cornus baileyi; Cornus sericea*	Red Osier	5	FACW	-1	Shrub	Perennial	Native
corrac	*Cornus racemosa*	*Cornus racemosa*	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
fraaln	*Frangula alnus*	*RHAMNUS FRANGULA*	Glossy False Buckthorn	0	FACW	-1	Shrub	Perennial	Adventive
parqui	*Parthenocissus quinquefolia*	*Parthenocissus quinquefolia*	Virginia-Creeper	4	FACU	1	Vine	Perennial	Native
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausm	*Phragmites australis ssp. americanus*	*Phragmites americanus*	Common Reed	3	FACW	-1	Grass	Perennial	Native
popdel	*Populus deltoides*	*Populus deltoides*	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
rhacat	*Rhamnus cathartica*	*RHAMNUS CATHARTICA*	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
rumcri	*Rumex crispus*	*RUMEX CRISPUS*	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
salint	*Salix interior*	*Salix interior*	Sandbar Willow	2	FACW	-1	Shrub	Perennial	Native
ulmame	*Ulmus americana*	*Ulmus americana*	American Elm	3	FACW	-1	Tree	Perennial	Native
vibraf	*Viburnum rafinesquianum*	*Viburnum rafinesquianum*	Downy Arrowwood	8	UPL	2	Shrub	Perennial	Native
viosor	*Viola sororia*	*Viola priceana*	Hooded Blue Violet	3	FAC	0	Forb	Perennial	Native
vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Soils: The soil profile at Data Point X15 consisted of 0-14 inches of black (10YR 2/1) silt loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations underlain by 4+ inches, to 18+ inches below the surface, of dark gray (10YR 4/1) silty clay loam with 5% yellowish brown (10YR 4/6) redoximorphic concentrations and 5% gray (10YR 5/1) redoximorphic depletions. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of three secondary wetland hydrology indicators, B10 Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion at Data Point X15.

Conclusion: Data Point X15 satisfies all three criteria; therefore Area 5 qualifies as wetland.

Area 6 – Non-USACE Jurisdictional Wetland

Data Point X13

Area 6 (0.04 acres on-site; 0.01 acres off-site) is an isolated wetland located in the southeast corner of the subject property. Area 6 receives stormwater from a culvert and appears to be hydrologically isolated and is not adjacent to a Waters of the U.S.

Summary:

- Isolated Wetland
- Jurisdiction: MWRD
- Quality: SIW
- Vegetated Buffer Required: Not Required (<0.10 acre threshold)

Vegetation: The dominant plant species at Data Point X13 are reed canary grass (*Phalaris arundinacea*), and Torrey's rush (*Juncus torreyi*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 6 are provided below.

Conservatism-Based Metrics		Additional Metrics	
Mean C (native species)	**1.80**	Species Richness (all)	12
Mean C (all species)	0.75	Species Richness (native)	5
Mean C (native trees)	n/a	% Non-native	58%
Mean C (native shrubs)	0.00	Wet Indicator (all)	0.00
Mean C (native herbaceous)	2.00	Wet Indicator (native)	-0.40
FQAI (native species)	**4.02**	% hydrophyte (Midwest)	67%
FQAI (all species)	2.60	% native perennial	33%
Adjusted FQAI	11.62	% native annual	0%
% C value 0	67%	% annual	8%
% C Value 1-3	33%	% perennial	75%
% C value 4-6	0%		
% C value 7-10	0%		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
brarap	*Brassica rapa*	*BRASSICA RAPA*	Field Mustard	0	UPL	2	Forb	Annual	Adventive
cirarv	*Cirsium arvense*	*CIRSIUM ARVENSE*	Canadian Thistle	0	FACU	1	Forb	Perennial	Adventive
diplac	*Dipsacus laciniatus*	*DIPSACUS LACINIATUS*	Cut-Leaf Teasel	0	UPL	2	Forb	Biennial	Adventive
eriann	*Erigeron annuus*	*Erigeron annuus*	Eastern Daisy Fleabane	0	FACU	1	Forb	Biennial	Native
juntor	*Juncus torreyi*	*Juncus torreyi*	Torrey's Rush	2	FACW	-1	Forb	Perennial	Native
lytsal	*Lythrum salicaria*	*LYTHRUM SALICARIA*	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausm	*Phragmites australis ssp. americanus*	*Phragmites americanus*	Common Reed	3	FACW	-1	Grass	Perennial	Native
soldul	*Solanum dulcamara*	*SOLANUM DULCAMARA*	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
astsim	*Symphyotrichum lanceolatum*	*Aster simplex*	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
vibopu	*Viburnum opulus var. opulus*	*VIBURNUM OPULUS*	Highbush-Cranberry	0	FAC	0	Shrub	Perennial	Adventive
vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Soils: The soil profile at Data Point X13 consisted of 0-12+ inches of dark gray (10YR 4/1) silty clay loam with 20% yellowish brown (10YR 5/8) redoximorphic concentrations. This profile exhibits hydric soil field indicator F3, Depleted Matrix, and satisfies the soils criterion.

Hydrology: The presence of three secondary wetland hydrology indicators, B10 Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion at Data Point X13.

Conclusion: Data Point X13 satisfies all three criteria; therefore Area 6 qualifies as wetland.

ADDITIONAL AREAS INVESTIGATED

Area 7 – Upland

Data Points X01, X02, X05, X08, X10, X11, X12, X13, X14, X16, X17, X18, X19, and X20

Area 7 represents all of the upland areas throughout the subject property.

Vegetation:

- The dominant plant species at Data Point X01 are Canada thistle (*Cirsium arvense*) and Queen Anne's lace (*Daucus carota*). None of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X02 is Queen Anne's lace (*Daucus carota*). The dominant species is not hydrophytic, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X05 are common pear (*Pyrus communis*), meadow fescue (*Festuca pratensis*), and fall panic grass (*Panicum dichotomiflorum*). Only 25% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.
- The area at Data Point X08 is an unvegetated agricultural field in a washout area and does not satisfy the vegetation criterion.
- The area at Data Point X10 is an unvegetated agricultural field in a washout area and does not satisfy the vegetation criterion.
- The dominant plant species at Data Point X11 are fall panic grass (*Panicum dichotomilflorum*), common three-seed-mercury (*Acalypha rhomboidea*), and field penny cress (*Thlaspi arvense*). Only 33.3% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X12 are common three-seed-mercury (*Acalypha rhomboidea*), and field penny cress (*Thlaspi arvense*). None of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X14 are sandbar willow (*Salix interior*), gray dogwood (*Cornus racemosa*), reed canary grass (*Phalaris arundinacea*), and tall goldenrod (*Solidago altissima*). 60% of the dominant species are hydrophytic, so the vegetation criterion is satisfied.
- The dominant plant species at Data Point X16 are gray dogwood (*Cornus racemosa*), downy arrowwood (*Viburnum rafineesquianum*), reed canary grass (*Phalaris arundinacea*), and tall goldenrod (*Solidago altissima*). Only 40% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.

- The dominant plant species at Data Point X17 are honey locust (*Gleditsia triacanthos*), Tatarian honeysuckle (*Lonicera tatarica*), gray dogwood (*Cornus racemosa*), meadow fescue (*Festuca pratensis*), and cut-leaved teasel (*Dipsacus laciniatus*). Only 20% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X18 are reed canary grass (*Phalaris arundinacea*), cut-leaved teasel (*Dipsacus laciniatus*), and tall goldenrod (*Solidago altissima*). Only 33.3% of the dominant species are hydrophytic, so the vegetation criterion is not satisfied.
- The dominant plant species at Data Point X19 is common reed (*Phragmites australis*). The dominant species is hydrophytic, so the vegetation criterion is satisfied.

Soils:

- The soil profile at Data Point X01 consisted of 0-6 inches of very dark grayish brown (10YR 3/2) silty clay loam underlain by 6 inches, to a depth of 12+ inches below the surface, of brown (10YR 4/3) silty clay loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations and 5% gray (10YR 5/1) redoximorphic depletions. Hydric soil indicators were not observed, so the soils criterion is not satisfied.
- The soil profile at Data Point X02 consisted of 0-6 inches of very dark grayish brown (10YR 3/2) silty clay loam underlain by 8+ inches, to a depth of 14+ inches below the surface, of brown (10YR 4/3) silty clay loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations. Hydric soil indicators were not observed, so the soils criterion is not satisfied.
- The soil profile at Data Point X05 consisted of 0-6 inches of very dark grayish brown (10YR 3/2) silt underlain by 6+ inches, to 12+ inches below the surface, of black (10YR 2/1) silty clay loam with 10% yellowish brown (10YR 5/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X08 consisted of 0-15 inches of black (10YR 2/1) silt loam with 5% dark yellowish brown (10YR 4/6) redoximorphic concentrations and 10% gray (10YR 5/2) redoximorphic depletions. Below that, from 15-18+ inches below the surface, the soil profile was dark gray (10YR 5/1) silty clay loam with 25% yellowish brown (10YR 4/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X10 consisted of 0-15 inches of black (10YR 2/1) silt loam with 5% dark yellowish brown (10YR 4/6) redoximorphic concentrations and 10% gray (10YR 5/2) redoximorphic depletions. Below that, from 15-18+ inches below the surface, the soil profile was dark gray (10YR 5/1) silty clay loam with 25% yellowish brown (10YR 4/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X11 consisted of 0-15 inches of black (10YR 2/1) silty clay loam with % gray (10YR 5/2) redoximorphic depletions and 5% yellowish brown (10YR 4/6) redoximorphic concentrations. Below that, from 15-20+ inches below the surface, the soil profile was very dark grayish brown (10YR 3/2) silty clay loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations and 10% gray (10YR 5/1) redoximorphic depletions. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

- The soil profile at Data Point X12 consisted of 0-18 inches of black (10YR 2/1) silty clay loam with 10% dark yellowish brown (10YR 4/6) redoximorphic concentrations underlain by 2+ inches, to 20+ inches below the surface, of black (N 2.5/) silty clay loam. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X14 consisted of 0-14+ inches of brown (10YR 4/4) silty clay loam. Hydric soil indicators were not observed, so the soils criterion is not satisfied.
- The soil profile at Data Point X16 consisted of 0-8 inches of very dark grayish brown (10YR 3/2) silt loam with 5% dark yellowish brown (10YR 4/6) redoximorphic concentrations underlain by 6+ inches, to 14+ inches below the surface, of dark gray (10YR 4/2) silty clay loam with 15% yellowish brown (10YR 5/8) redoximorphic concentrations. This profile exhibits hydric soil field indicator A11, Depleted Below Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X17 consisted of 0-12 inches of black (10YR 2/1) silty clay loam with 5% gray (10YR 4/2) redoximorphic depletions and 2% yellowish brown (10YR 5/6) redoximorphic concentrations. Below that, from 12-18+ below the surface, the soil profile was dark gray (10YR 4/2) silty clay loam with 20% yellowish brown (10YR 5/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator A12, Thick Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X18 consisted of 0-10 inches of brown (10YR 4/3) silt over 14+ inches, to 24+ inches below the surface, of black (10YR 2/1) silty clay loam with 20% gray (10YR 4/2) redoximorphic depletions and 5% yellowish brown (10YR 5/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator F7, Depleted Dark Surface, and satisfies the soils criterion.
- The soil profile at Data Point X19 consisted of 0-8 inches of brown (10YR 5/4) silty clay loam, underlain by 8-15+ inches of dark brown (10YR 4/4) silty clay loam. Hydric soil indicators were not observed, so the soils criterion is not satisfied.
- The soil profile at Data Point X20 consisted of 0-8 inches of brown (10YR 5/4) silty clay loam, underlain by 8-15+ inches of dark brown (10YR 4/4) silty clay loam. Hydric soil indicators were not observed, so the soils criterion is not satisfied.

Hydrology:

- The presence of one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion at Data Point X01.
- Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied at Data Point X02.
- The presence of one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion at Data Point X05.
- The presence of one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion at Data Point X08.
- The presence of one secondary wetland hydrology indicator, B6, Surface Soil Cracks, is not enough to satisfy the hydrology criterion at Data Point X10.

- Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied at Data Point X11.
- Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied at Data Point X12.
- The presence of one secondary wetland hydrology indicator, D2, Geomorphic Position, is not enough to satisfy the hydrology criterion at Data Point X14.
- The presence of one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion at Data Point X16.
- The presence of one secondary wetland hydrology indicator, D2, Geomorphic Position, is not enough to satisfy the hydrology criterion at Data Point X17.
- Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied at Data Point X18.
- The presence of three secondary wetland hydrology indicators, D2 Geomorphic Position, D5 FAC-Neutral Test, and B6 Surface Soil Cracks, satisfies the hydrology criterion at Data Point X19.
- The presence of three secondary wetland hydrology indicators, D2 Geomorphic Position, D5 FAC-Neutral Test, and B6 Surface Soil Cracks, satisfies the hydrology criterion at Data Point X20.

Conclusion: Data Points X01 and X02 fail to satisfy all three criteria; Data Points X05, X08, X10, X11, X12, X16, X17, X18 fail to satisfy the vegetation and hydrology criteria; Data Point X14 fails to satisfy the soils and hydrology criteria; and Data Points X19 and X20 fail to satisfy the soils criteria; therefore, Area 7 does not qualify as wetland.

REFERENCES CITED

Cowardin, L.M., V. Carter, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Office of Biological Services. FWS/OBS-79/31. Washington, D.C. 20240.

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

Lichvar, R.W. D. L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 Wetland Ratings. Phytoneuron 2016 – 30: 1-17. Published 28 April 2016. ISSN 2153 733X.

Lichvar, R.W. M. Butterwick, N.C. Melvin and W.N. Kirchner. 2014. The National Wetland Plant List : 2014 Update of Wetland Ratings. Phytoneuron 2014 – 41: 1-42. Published 2 April 2014. ISSN 2153 733X.

Metropolitan Water Reclamation District of Greater Chicago. 2022. Cook County Watershed Management Ordinance, Cook County, Illinois.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/.

Swink, F. and G. Wilhelm. 1994. Plants of the Chicago Region. 4th Edition. Indianapolis: Indiana Academy of Science.

U.S. Army Corps of Engineers. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

U.S. Army Corps of Engineers. 2007. Jurisdictional Determination Form Instructional Guidebook.

U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. J.S. Wakely, R.W. Lichvar, and C.V, Noble (eds.). ERDC/EL TR-08-27. Vicksburg, MS: U.S. Army Research and Development Center.

U.S. Army Corps of Engineers. 2021. Reissuance and Modification of Nationwide Permits. Federal Register Vol. 86, No. 8. 2744 – 2877. (January 13, 2021).

U.S. Army Corps of Engineers, Environmental Protection Agency (EPA). 2023. Revised Definition of “Waters of the United States”. Federal Register. Vol 88, No. 11. 3004-3144. (January 18, 2023).

U.S. Army Corps of Engineers, Environmental Protection Agency (EPA). 2023. Revised Definition of “Waters of the United States”; Conforming. Federal Register. Vol 88, No. 173. 61964 – 61969. (September 8, 2023).

U.S. Department of Agriculture, Natural Resources Conservation Service. 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

Wilhelm, G. and Rericha, L. 2017. Flora of the Chicago Region: A Floristic and Ecological Synthesis. The Indiana Academy of Science, in cooperation with Conservation Research Institute, The Forest Preserve District of Cook County and The Chicago Botanic Garden.

APPENDIX I

WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 13-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

Landform (hillslope, terrace, etc.): Gulch or Gully | Local relief (concave, convex, none): concave

Slope: 0.0% / 0.0 ° | Lat.: 41.596501 | Long.: -87.858788 | Datum: NAD 1983

Soil Map Unit Name: Nappanee silty clay loam (228C2) | 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%	
2.		☐ 0.0%	
3.		☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.		☐ 0.0%	
2.		☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Cirsium arvense	5	☑ 50.0%	FACU
2. Daucus carota	5	☑ 50.0%	UPL
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%	
	10	= 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: 2 (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	5	x 4 =	20
UPL species	5	x 5 =	25
Column Totals:	10 (A)		45 (B)

Prevalence Index = B/A = 4.500

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.)
None 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: **X01**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/2							Silty Clay Loam	
6-12+	10YR	4/3		10YR	4/6	10	C	M	Silty Clay Loam	
				10YR	5/1	5	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ 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:

Hydric soil indicators were not observed, 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, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion. This area is located in an erosional gulch/gully.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 13-May-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X02**

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.595576 | Long.: -87.858722 | Datum: NAD 1983

Soil Map Unit Name: Chatsworth silty clay (241D3) | 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. Daucus carota	50	☑	100.0%	UPL
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%	
	50	= 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	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.000

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 not 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: **X02**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/2							Silty Clay Loam	
6-14+	10YR	4/3		10YR	4/6	10	C	M	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:

Hydric soil indicators were not observed, 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: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 13-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.594466 | Long.: -87.858362 | Datum: NAD 1983

Soil Map Unit Name: Frankfort silty clay loam (320C2) | 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. Salix interior	30	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	30	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	40	☑ 72.7%	FACW
2. Cirsium arvense	5	☐ 9.1%	FACU
3. Panicum dichotomiflorum	10	☐ 18.2%	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%	
	55	= 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	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	85 (A)		180 (B)

Prevalence Index = B/A = 2.118

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: **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
0-13	10YR	2/1		10YR	3/6	10	C	M	Silty Clay Loam	
13-16+	10YR	4/1		10YR	5/8	20	C	M	Silty Clay Loam	
				10YR	5/1	5	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ 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 three secondary wetland hydrology indicators, B10, Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.594486 | Long.: -87.858299 | Datum: NAD 1983

Soil Map Unit Name: Frankfort silt loam (320B) | 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	5	☑ 100.0%	FACW
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%	
	5	= 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: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (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	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	5 (A)		10 (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: **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	2/1		10YR	4/6	5	C	M	Silty Clay Loam	
10-15+	10YR	4/1		10YR	4/6	10	C	M	Silty Clay Loam	
				10YR	5/1	5	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ 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): 0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

The soil was saturated at the surface which satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

Landform (hillslope, terrace, etc.): Gulch or Gully | Local relief (concave, convex, none): concave

Slope: 0.0% / 0.0 ° | Lat.: 41.594111 | Long.: -87.860342 | Datum: NAD 1983

Soil Map Unit Name: Bryce silty clay (235A) | 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. Pyrus communis	15	☑	100.0%	UPL
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	15	= Total Cover		
Herb Stratum (Plot size: 5')				
1. Festuca pratensis	30	☑	37.5%	FACU
2. Panicum dichotomiflorum	30	☑	37.5%	FACW
3. Melilotus alba	10	☐	12.5%	FACU
4. Daucus carota	10	☐	12.5%	UPL
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	80	= Total Cover		
Woody Vine Stratum (Plot size: 5')				
1. Parthenocissus quinquefolia	5	☑	100.0%	FACU
2.	0	☐	0.0%	
	5	= Total Cover		

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	45	x 4 =	180
UPL species	25	x 5 =	125
Column Totals:	100 (A)		365 (B)

Prevalence Index = B/A = 3.650

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
0-6	10YR	3/2							Silt	Silt runoff in gully
6-12+	10YR	2/1		10YR	5/6	10	C	M	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 one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion. This area is located in an erosional gulch/gully.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

Landform (hillslope, terrace, etc.): Gulch or Gully | Local relief (concave, convex, none): concave

Slope: 0.0% / 0.0 ° | Lat.: 41.594100 | Long.: -87.860707 | Datum: NAD 1983

Soil Map Unit Name: Bryce silty clay (235A) | 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. Phragmites australis	20	☑ 21.1%	FACW
2. Phalaris arundinacea	30	☑ 31.6%	FACW
3. Juncus torreyi	10	☐ 10.5%	FACW
4. Solidago altissima	15	☐ 15.8%	FACU
5. Poa pratensis	15	☐ 15.8%	FAC
6. Dipsacus laciniatus	5	☐ 5.3%	UPL
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	95	= 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	60	x 2 =	120
FAC species	15	x 3 =	45
FACU species	15	x 4 =	60
UPL species	5	x 5 =	25
Column Totals:	95 (A)		250 (B)

Prevalence Index = B/A = 2.632

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
0-8	10YR	3/2		10YR	4/6	5	C	M	Silt	Silt runoff in gully
8-14+	10YR	4/3		10YR	4/6	20	C	M	Silty Clay Loam	
				10YR	5/1	5	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ 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 three secondary wetland hydrology indicators, B10, Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.595139 | Long.: -87.862237 | Datum: NAD 1983

Soil Map Unit Name: Bryce silty clay (235A) | 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	☑	80.0%	FACW
2. Acalypha rhomboidea	15	☑	20.0%	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%	
	75	= Total Cover		
Woody Vine Stratum (Plot size: 5')				
1. Vitis riparia	10	☑	100.0%	FACW
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: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	85 (A)		200 (B)

Prevalence Index = B/A = 2.353

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.)
Greater than 50% 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: **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
0-22+	10YR	2/1		10YR	4/6	10	C	M	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 three secondary wetland hydrology indicators, B6, Surface Soil Cracks, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.592775 | Long.: -87.861976 | Datum: NAD 1983

Soil Map Unit Name: Bryce silty clay (235A) | 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.)
This area is located in an unvegetated agricultural field in a washout area and does not satisfy the vegetation criterion.

*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
0-15	10YR	2/1		10YR	4/6	5	C	M	Silt Loam	
				10YR	5/2	10	D	M		
15-18+	10YR	5/1		10YR	4/6	25	C	M	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 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 one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion. This area is located in a low-lying washout area.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.592139 | Long.: -87.861938 | Datum: NAD 1983

Soil Map Unit Name: Peotone silty clay loam (330A) | NWI classification: PEM1Cd

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	☑ 100.0%	FACW
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%	
	60	= 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: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (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	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	60 (A)		120 (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: **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
0-18+	10YR	2/1		10YR	5/6	15	C	M	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, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.592139 | Long.: -87.861938 | Datum: NAD 1983

Soil Map Unit Name: Peotone silty clay loam (330A) | 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.)
This area is located in an unvegetated agricultural field in a washout area and does not satisfy the vegetation criterion.

*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
0-15	10YR	2/1		10YR	4/6	5	C	M	Silt Loam	
				10YR	5/2	10	D	M		
15-18+	10YR	5/1		10YR	4/6	25	C	M	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 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 one secondary wetland hydrology indicators, B6, Surface Soil Cracks, is not enough to satisfy the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.592292 | Long.: -87.861745 | Datum: NAD 1983

Soil Map Unit Name: Frankfort silty clay loam (320C2) | 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.

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. Panicum dichotomiflorum	30	☑	33.3%	FACW
2. Acalypha rhomboidea	30	☑	33.3%	FACU
3. Thlaspi arvense	20	☑	22.2%	FACU
4. Brassica rapa	10	☐	11.1%	UPL
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: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	10	x 5 =	50
Column Totals:	90 (A)		310 (B)

Prevalence Index = B/A = 3.444

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: 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
0-15	10YR	2/1		10YR	5/2	5	D	M	Silty Clay Loam	
				10YR	5/6	5	C	M		
15-20+	10YR	3/2		10YR	4/6	10	C	M	Silty Clay Loam	
				10YR	5/1	10	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ 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: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.590697 | Long.: -87.858349 | Datum: NAD 1983

Soil Map Unit Name: Bryce silty clay (235A) | 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.

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. Acalypha rhomboidea	30	☑	37.5%	FACU
2. Thlaspi arvense	30	☑	37.5%	FACU
3. Brassica rapa	15	☐	18.8%	UPL
4. Ambrosia artemisiifolia	5	☐	6.3%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	80	= 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: 2 (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	65	x 4 =	260
UPL species	15	x 5 =	75
Column Totals:	80 (A)		335 (B)

Prevalence Index = B/A = 4.188

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.)
None 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: 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
0-18	10YR	2/1		10YR	4/6	10	C	M	Silty Clay Loam	
18-20+	N	2.5/							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 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: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

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

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.590496 | Long.: -87.857486 | Datum: NAD 1983

Soil Map Unit Name: Frankfort silty clay loam (320C2) | 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	35	☑ 41.2%	FACW
2. Lythrum salicaria	15	☐ 17.6%	OBL
3. Juncus torreyi	25	☑ 29.4%	FACW
4. Dipsacus laciniatus	10	☐ 11.8%	UPL
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	85	= 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	15	x 1 =	15
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	85 (A)		185 (B)

Prevalence Index = B/A = 2.176

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: 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
0-12+	10YR	4/1		10YR	5/8	20	C	M	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 F3, Depleted Matrix, 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 three secondary wetland hydrology indicators, B10, Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X14**

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.591786 | Long.: -87.858399 | Datum: NAD 1983

Soil Map Unit Name: Swygert silty clay loam (91B) | 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. Salix interior	30	☑ 60.0%	FACW
2. Cornus racemosa	20	☑ 40.0%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	50	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	40	☑ 47.1%	FACW
2. Solidago altissima	30	☑ 35.3%	FACU
3. Cirsium arvense	15	☐ 17.6%	FACU
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%	
	85	= Total Cover	
Woody Vine Stratum (Plot size: 5')			
1. Parthenocissus quinquefolia	5	☑ 100.0%	FACU
2.	0	☐ 0.0%	
	5	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	20	x 3 =	60
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	140 (A)		400 (B)

Prevalence Index = B/A = 2.857

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.)
Greater than 50% 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: **X14**

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14+	10YR 4/4						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:

Hydric soil indicators were not observed, 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, D2, Geomorphic Position, is not enough to satisfy the hydrology criterion. This area is located in a low-lying washout area.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X15**

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.592086 | Long.: -87.858629 | Datum: NAD 1983

Soil Map Unit Name: Swygert silty clay loam (91B) | 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. Salix interior	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. Phalaris arundinacea	20	☑ 66.7%	FACW
2. Phragmites australis	10	☑ 33.3%	FACW
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%	
	30	= 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: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (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	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	35 (A)		70 (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: **X15**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR	2/1		10YR	4/6	10	C	M	Silt Loam	
14-18+	10YR	4/1		10YR	4/6	5	C	M	Silty Clay Loam	
				10YR	5/1	5	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ 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 three secondary wetland hydrology indicators, B10, Drainage Patterns, D2, Geomorphic Position, and D5, FAC-neutral Test, satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X16**

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.592587 | Long.: -87.859309 | Datum: NAD 1983

Soil Map Unit Name: Swygert silty clay loam (91B) | 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.

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. Cornus racemosa	35	☑	70.0%	FAC
2. Viburnum rafinesquianum	15	☑	30.0%	UPL
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	50	= Total Cover		
Herb Stratum (Plot size: 5')				
1. Phalaris arundinacea	30	☑	37.5%	FACW
2. Dipsacus laciniatus	15	☐	18.8%	UPL
3. Solidago altissima	20	☑	25.0%	FACU
4. Galium aparine	15	☐	18.8%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	80	= Total Cover		
Woody Vine Stratum (Plot size: 5')				
1. Parthenocissus quinquefolia	5	☑	100.0%	FACU
2.	0	☐	0.0%	
	5	= 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	35	x 3 =	105
FACU species	40	x 4 =	160
UPL species	30	x 5 =	150
Column Totals:	135 (A)		475 (B)

Prevalence Index = B/A = 3.519

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: **X16**

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		10YR	4/6	5	C	M	Silt Loam	
8-14+	10YR	4/2		10YR	5/8	15	C	M	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 A11, Depleted Below 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 one secondary wetland hydrology indicator, B10, Drainage Patterns, is not enough to satisfy the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X17**

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.596515 | Long.: -87.860488 | Datum: NAD 1983

Soil Map Unit Name: Frankfort silty clay loam (320C2) | 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.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Gleditsia triacanthos	20	☑	100.0%	FACU
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. Lonicera tatarica	30	☑	50.0%	FACU
2. Cornus racemosa	20	☑	33.3%	FAC
3. Rubus occidentalis	10	☐	16.7%	UPL
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	60		= Total Cover	
Herb Stratum (Plot size: 5')				
1. Festuca pratensis	30	☑	31.6%	FACU
2. Dipsacus laciniatus	20	☑	21.1%	UPL
3. Carex tribuloides	10	☐	10.5%	OBL
4. Brassica rapa	15	☐	15.8%	UPL
5. Trifolium repens	10	☐	10.5%	FACU
6. Solidago altissima	10	☐	10.5%	FACU
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	95		= 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: 1 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	100	x 4 =	400
UPL species	45	x 5 =	225
Column Totals:	175 (A)		695 (B)

Prevalence Index = B/A = 3.971

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: X17

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	2/1		10YR	4/2	5	D	M	Silty Clay Loam	
				10YR	5/6	2	C	M		
12-18+	10YR	4/2		10YR	5/6	20	C	M	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 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 one secondary wetland hydrology indicator, D2, Geomorphic Position, is not enough to satisfy the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 23-May-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X18**

Investigator(s): AM, DJ, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.597690 | Long.: -87.859209 | Datum: NAD 1983

Soil Map Unit Name: Ozaukee silt loam (530D2) | 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. Phalaris arundinacea	30	☑ 33.3%	FACW
2. Dipsacus laciniatus	30	☑ 33.3%	UPL
3. Solidago altissima	30	☑ 33.3%	FACU
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: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	30	x 5 =	150
Column Totals:	90 (A)		330 (B)

Prevalence Index = B/A = 3.667

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.)
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: X18

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	4/3							Silt	Sediment overwash
10-24+	10YR	2/1		10YR	4/2	20	D	M	Silty Clay Loam	Native soil profile
				10YR	5/6	5	C	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ 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 F7, Depleted 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: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 22-Aug-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X19**

Investigator(s): AM, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.597469 | Long.: -87.859557 | Datum: NAD 1983

Soil Map Unit Name: Ozaukee silt loam (530C2) | 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 criterion 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. Phragmites australis	90	☑	90.0%	FACW
2. Cirsium arvense	10	☐	10.0%	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%	
	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: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (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	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		220 (B)

Prevalence Index = B/A = 2.200

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: **X19**

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 5/4						Silty Clay Loam	
8-15+	10YR 4/4						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:

Hydric soil indicators were not observed, 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 three secondary wetland hydrology indicators satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Estates at Ravinia Meadow | City/County: Orland Park/Cook | Sampling Date: 22-Aug-24

Applicant/Owner: Pulte Home Corporation | State: IL | Sampling Point: **X20**

Investigator(s): AM, CLF | Section, Township, Range: S 21 T 36N R 12E

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

Slope: 0.0% / 0.0 ° | Lat.: 41.597522 | Long.: -87.859428 | Datum: NAD 1983

Soil Map Unit Name: Ozaukee silt loam (530C2) | 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 criterion 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. Salix interior	70	☑	70.0%	FACW
2. Phalaris arundinacea	20	☑	20.0%	FACW
3. Cirsium arvense	10	☐	10.0%	FACU
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	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		220 (B)

Prevalence Index = B/A = 2.200

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 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: **X20**

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 5/4						Silty Clay Loam	
8-15+	10YR 4/4						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:

Hydric soil indicators were not observed, 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 three secondary wetland hydrology indicators satisfies the hydrology criterion.

APPENDIX II

REPRESENTATIVE PHOTOGRAPHS

PHOTO # 1

Date: 05/13/2024

View of Area 1 facing southwest.

PHOTO #2

Date: 05/13/2024

View of Area 1 at Data Point X07 facing northwest.

PHOTO #3

Date: 05/13/2024

View of Area 1 facing south.

PHOTO # 4

Date: 05/13/2024

View of Area 2 at Data Point X06 facing northeast.

PHOTO #5

Date: 05/13/2024

View of Area 2 facing west.

PHOTO #6

Date: 05/13/2024

View of drainage patterns observed in Area 2.

PHOTO # 7

Date: 05/13/2024

View of Area 3 facing west.

PHOTO #8

Date: 05/13/2024

View of Area 3 facing southwest.

PHOTO #9

Date: 05/13/2024

View of Area 3 facing northeast.

PHOTO # 10

Date: 05/13/2024

View of Area 4 at Data Point X09 facing south.

PHOTO #11

Date: 05/13/2024

View of Area 4 facing southwest.

PHOTO #12

Date: 05/13/2024

View of Area 4 facing west.

PHOTO # 13

Date: 05/13/2024

View of Area 5 at Data Point X15 facing south.

PHOTO #14

Date: 05/13/2024

View of Area 5 facing northwest.

PHOTO #15

Date: 05/13/2024

View of Area 5 facing south.

PHOTO # 16

Date: 05/13/2024

View of Area 6 facing southwest.

PHOTO #17

Date: 05/13/2024

View of Area 6 at Data Point X13 facing southeast.

PHOTO #18

Date: 05/13/2024

View of Area 6 facing east.

PHOTO # 19

Date: 05/13/2024

View of upland at Data Point X01 facing south.

PHOTO #20

Date: 05/13/2024

View of upland at Data Point X02 facing southwest.

PHOTO #21

Date: 05/13/2024

View of upland at Data Point X05 facing west.

PHOTO # 22

Date: 05/13/2024

View of upland at Data Point X08 facing northeast.

PHOTO #23

Date: 05/13/2024

View of upland at Data Point X10 facing southeast.

PHOTO #24

Date: 05/13/2024

View of upland at Data Point X11 facing north.

PHOTO # 25

Date: 05/13/2024

View of upland at Data Point X12 facing north.

PHOTO #26

Date: 05/13/2024

View of upland at Data Point X14 facing south.

PHOTO #27

Date: 05/13/2024

View of upland at Data Point X16 facing west.

PHOTO # 28

Date: 05/16/2024

View of upland at Data Point X17 facing west.

PHOTO #29

Date: 05/16/2024

View of upland at Data Point X18 facing northwest.

PHOTO #30

Date: 05/16/2024

View of the off-site stormwater basin north of the subject property facing northwest.

PHOTO # 31

Date: 08/22/2024

View of upland near Data Point X19, facing north.

PHOTO #32

Date: 08/22/2024

View of upland near Data Point X20, facing north.

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. On September 8, 2023, the Revised Definition of "Waters of the United States", which conforms to the 2023 U.S. Supreme Court Sackett decision, was published in the Federal Register, and became effective immediately. Under the revised definitions, the following areas qualify as "Waters of the US" subject to USACE jurisdiction:

1. Navigable waters; the territorial seas; or interstate waters;
2. Impoundments of these waters;
3. Tributaries of navigable waters, the territorial seas and interstate waters that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to navigable waters, the territorial seas, or interstate waters that are relatively permanent, standing or continuously flowing bodies of water, and with a continuous surface connection to those waters;
5. Interstate lakes or ponds not identified above that are relatively permanent, standing or continuously flowing bodies of water, and with a continuous surface connection to the waters identified in items 1-4 above;

The following areas are not jurisdictional "Waters of the United States":

1. Waste treatment systems;
2. Prior converted cropland;
3. Ditches, including roadside ditches, excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water
4. Artificially irrigated areas that would revert to dry land if irrigation ceased;
5. Artificial lakes and ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
7. Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

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.

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. On January 13, 2021, the USACE reissued and modified 12 previous NWPs, issued 4 new NWPs, and reissued general conditions and definitions. These 16 NWPs went into effect on March 15, 2021. On December 27, 2021, the USACE reissued or issued 41 NWPs which went into effect on February 25, 2022. The 57 NWPs in effect will all expire on March 14, 2026. Wetland impacts greater than 0.5 acre may require authorization under an Individual Permit (IP), which requires greater scrutiny of the proposed project by the USACE and other concerned government agencies and includes a public notice comment period available to the general public.

Cook County Requirements

On April 7, 2022, the Metropolitan Water Reclamation District (MWRD) amended the Watershed Management Ordinance (WMO) which will regulate isolated wetlands and isolated "waters" within Cook County. The WMO requires a Watershed Management Permit from MWRD or an authorized municipality for any proposed impacts to isolated wetlands, wetland buffers and/or riparian environments resulting from regulated development activities.

Isolated Wetlands

Impacts to isolated wetlands of Cook County that are equal to or exceed 0.10 acre will require compensatory mitigation based on the quality of the area. Mitigation at a ratio of 1.5:1 is required for impacts to Standard Isolated Wetlands (SIW) and mitigation at a ratio of 3:1 is required for impacts to High Quality Isolated Wetlands (HQIW).

The following isolated wetland areas are exempt from the wetland requirements of the WMO:

A) Wetlands in roadside ditches created by excavation in upland areas;

B) Wetlands created by excavation or by other unfinished development activities in upland areas;

C) Wetlands created by artificial hydrology including, but not limited to, irrigation or detention facility outlets which would revert to upland areas if irrigation were to cease;

D) Wetlands created by the construction of stormwater facilities in upland areas, provided that the facility was not created for the purpose of wetland mitigation; and

E) Wetlands created by the construction of ponds in upland areas.

Wetland delineation reports and investigations that identify isolated wetlands or waters of Cook County will require an on-site field verification by MWRD or an authorized municipality.

Buffers

Wetland buffers for isolated wetlands of Cook County shall be determined according to the functions of the wetland. Minimum isolated wetland buffer widths shall be as follows:

A) Thirty (30) feet from the boundary of standard isolated wetlands greater than or equal to one-tenth of an acre (0.10 acre) and less than one-half of an acre (0.5 acre) in area;

B) Fifty (50) feet from the boundary of standard isolated wetlands greater than or equal to one-half of an acre (0.5 acre) in area; or

C) One-hundred (100) feet from the boundary of high quality isolated wetlands.

The wetland buffer width for isolated wetlands of Cook County may be varied to a minimum of the greater of one-half the required buffer width or 30 feet, upon approval of either MWRD or an authorized municipality. Impacts to buffer areas shall be mitigated through the replacement or enhancement of impacted buffer functions.

Riparian Environments

Based on the WMO, a riparian environment is defined as:

"The vegetated area between aquatic and upland ecosystems adjacent to a waterway or body of water that provides flood management, habitat, and water quality enhancement or other amenities dependent upon the proximity to water."

Any developments involving riparian environments shall identify the boundaries of those riparian environments. The Riparian Environment Determination is as follows:

A) For any Jurisdictional Waters of the U.S. that does not qualify as a wetland, the riparian environment shall be fifty (50) feet from the Ordinary High Water Mark (OHWM).

B) For any isolated Waters that do not qualify as a wetland, the riparian environment shall be thirty (30) feet from the Ordinary High Water Mark (OHWM).

C) For any Jurisdictional Waters of the U.S. or for any Isolated Waters that does not qualify as a wetland identified as a Biologically Significant Stream (BSS), the riparian environment shall be one-

hundred (100) feet from the Ordinary High Water Mark (OHWM).

The following Isolated Waters of Cook County are not considered to be riparian environments and shall be exempt from the riparian environment requirements of the WMO:

A) Roadside ditches created by excavation for the purposes of stormwater conveyance;

B) Channels or bodies of water created by unfinished development activities; or,

C) Channels or bodies of water created by the construction of stormwater facilities for the purposes of stormwater management.

Proposed adverse impacts to a riparian environment will require approval from MWRD or an authorized municipality. Mitigation will also be required for adverse impacts or modification to the existing functions of a riparian environment.

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 8.2; NRCS, 2018). 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

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.

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.

APPENDIX V

THREATENED AND ENDANGERED SPECIES REVIEW

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: V3 Companies
Contact: Alicia Metzger
Address: 7325 Janes Ave.
Woodridge, IL 60517

Project: 72-Acre Yucaipa Parcel
Address: 159th Street, Orland Park

IDNR Project Number: 2415362
Date: 05/23/2024
Alternate Number: 240548

Description: The project proposes to develop the site with a residential subdivision.

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:

Orland Grassland INAI Site
Orland Grassland Land And Water Reserve
King Rail *(Rallus elegans)*
Short-Eared Owl *(Asio flammeus)*

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: Cook

Township, Range, Section:
36N, 12E, 21

IL Department of Natural Resources Contact
Adam Rawe
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Water Quality
1021 N Grand Ave East PO Box 19276
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.

Privacy

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
Natalie Phelps Finnie, Director

May 24, 2024

Alicia Metzger
V3 Companies
7325 Janes Ave.
Woodridge, IL 60517

RE: 72-Acre Yucaipa Parcel
Project Number(s): 2415362 [240548]
County: Cook

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.

Adam Rawe
Division of Ecosystems and Environment
217-785-5500

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Ecological Service Field Office
U.s. Fish And Wildlife Service Chicago Ecological Services Office
230 South Dearborn St., Suite 2938
Chicago, IL 60604-1507
Phone: (312) 485-9337

In Reply Refer To: 05/24/2024 18:25:40 UTC
Project Code: 2024-0095589
Project Name: 72-Acre Yucaipa Parcel

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing

determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and

their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chicago Ecological Service Field Office
U.s. Fish And Wildlife Service Chicago Ecological Services Office
230 South Dearborn St., Suite 2938
Chicago, IL 60604-1507
(312) 485-9337

PROJECT SUMMARY

Project Code: 2024-0095589
Project Name: 72-Acre Yucaipa Parcel
Project Type: Residential Construction
Project Description: The project proposes to develop the site with a residential subdivision.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.5941195,-87.85982424844104,14z

Counties: Cook County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2202	Threatened

INSECTS

NAME	STATUS
Hine's Emerald Dragonfly *Somatochlora hineana* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7877	Endangered
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:	Threatened

NAME STATUS

- Follow the guidance provided at https://www.fws.gov/midwest/endangered/section7/s7process/plants/epfos7guide.html

Species profile: https://ecos.fws.gov/ecp/species/601

Leafy Prairie-clover *Dalea foliosa* Endangered

Population:

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/5498

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: V3 Companies
Name: Alicia Metzger
Address: 7325 Janes Avenue
City: Woodridge
State: IL
Zip: 60517
Email ametzger@v3co.com
Phone: 6307296120

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Ecological Service Field Office
U.s. Fish And Wildlife Service Chicago Ecological Services Office
230 South Dearborn St., Suite 2938
Chicago, IL 60604-1507
Phone: (312) 485-9337

In Reply Refer To: 05/24/2024 18:28:42 UTC
Project code: 2024-0095589
Project Name: 72-Acre Yucaipa Parcel

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Record of project representative's no effect determination for '72-Acre Yucaipa Parcel'

Dear Alicia Metzger:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on May 24, 2024, for '72-Acre Yucaipa Parcel' (here forward, Project). This project has been assigned Project Code 2024-0095589 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* Threatened
- Eastern Prairie Fringed Orchid *Platanthera leucophaea* Threatened
- Hine's Emerald Dragonfly *Somatochlora hineana* Endangered
- Leafy Prairie-clover *Dalea foliosa* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Rufa Red Knot *Calidris canutus rufa* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/ coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Chicago Ecological Service Field Office and reference Project Code 2024-0095589 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

72-Acre Yucaipa Parcel

2. Description

The following description was provided for the project '72-Acre Yucaipa Parcel':

> The project proposes to develop the site with a residential subdivision.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.5941195,-87.85982424844104,14z

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (Myotis septentrionalis). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   Yes

PROJECT QUESTIONNAIRE

Will all project activities by completed by November 30, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: V3 Companies
Name: Alicia Metzger
Address: 7325 Janes Avenue
City: Woodridge
State: IL
Zip: 60517
Email ametzger@v3co.com
Phone: 6307296120

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

APPENDIX VI

FARMED WETLAND DETERMINATION

Project Location

N

NO FARMED WETLAND SIGNATURES OBSERVED

Legend

- Farmed Wetland Signature
- On-Site USACE Jurisdictional Wetland (6.11 acres)
- On-Site Non-USACE Jurisdictional Wetland (XX acres)
- Off-Site USACE Jurisdictional Wetland (4+ acres)
- Off-Site Non-USACE Jurisdictional Wetland (X acres)
- Off-Site Exempt Stormwater Basin

100 0 100 200 Feet

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

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PROJECT NO.: 240548
CREATED BY: AMM
DATE: 08/15/2024
SCALE: See Scale Bar

CLIENT:
Pulte Home Corporation
1900 E. Golf Road, Suite 300
Schaumburg, IL 60173

BASE LAYER:
NAIP
Aerial Imagery
(2019)

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

SITE:
Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

FIGURE: A

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APPENDIX VII

ORLAND PARK WETLAND

BOUNDARY VERIFICATION APPROVAL

Caden LaFond

From: Vince Mosca <vmosca@heyassoc.com>
Sent: Thursday, August 22, 2024 4:08 PM
To: Caden LaFond
Cc: Scott Lueken; Fabian Fondriest; Tom Slowinski; Scott Brejcha
Subject: RE: Pulte - Orland Park Wetlands
Attachments: Extracted pages from V3_WetlandWatersDelinReport_240548_08222024.pdf

Thanks Caden.

The area that I had identified in the field was slightly to the west of your data points, the “bump out” marked with the red X on the attached exhibit. However, its also mapped as non-hydric soil too. Probably formed due to the eroded materials from the south damming up the water.

The report is accepted.

Vince

Vincent J. Mosca

Vice President - Senior Principal Ecologist

Hey and Associates, Inc.

26575 W. Commerce Drive, Suite 601

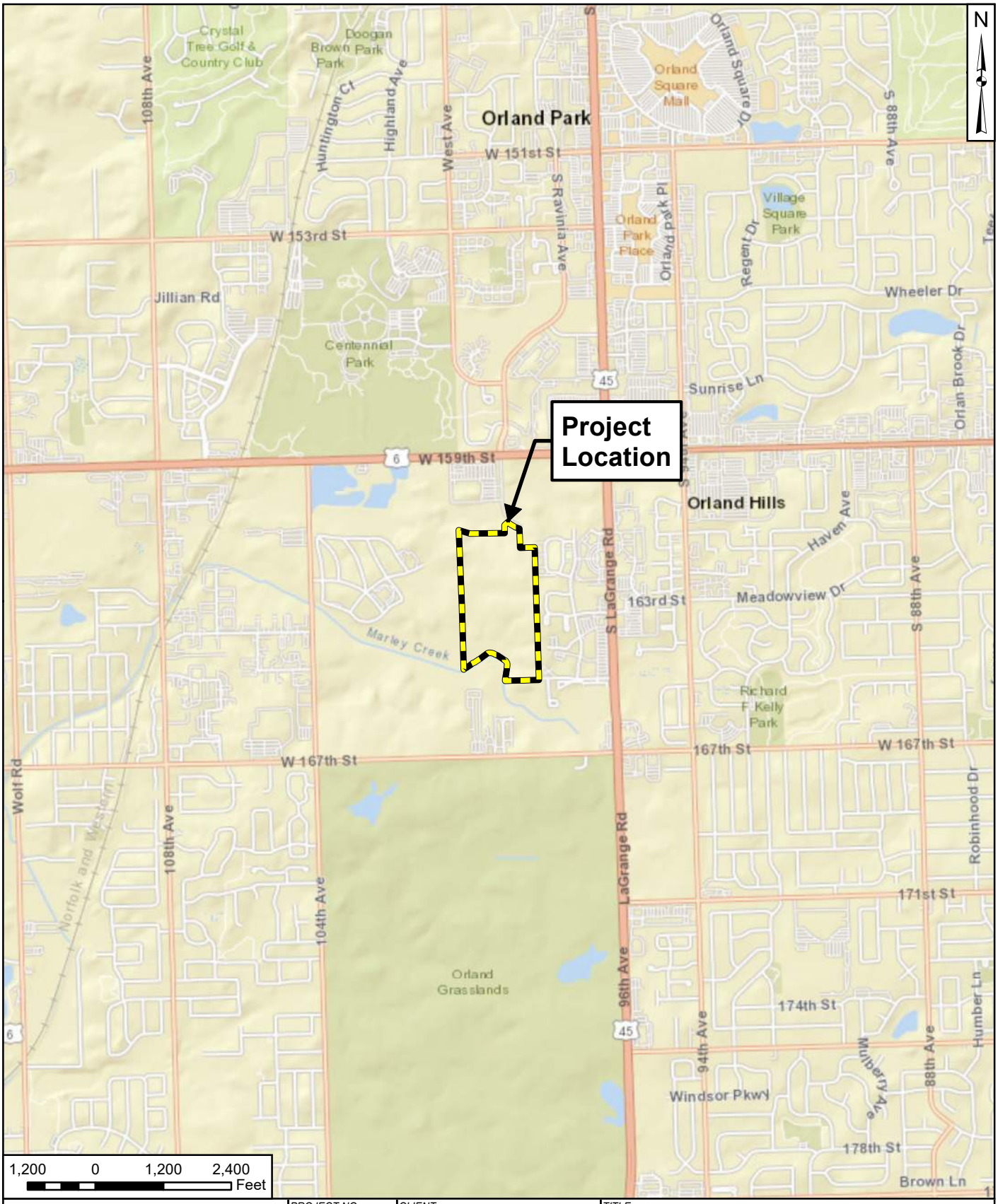
Volo, Illinois 60073

847.740.0888 Ext. 120

847.404.3303 (Mobile)

heyassoc.com

FIGURES



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630.724.9200 phone
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PROJECT NO.: 240548	CLIENT: Pulte Home Corporation 1900 E. Golf Road, Suite 300 Schaumburg, IL 60173	TITLE: **PROJECT LOCATION**	
CREATED BY: AMM			
DATE: 08/15/2024	BASE LAYER: ESRI World Street Map	SITE: Estates at Ravinia Meadow Orland Park, Cook County, Illinois	FIGURE: 1
SCALE: See Scale Bar			

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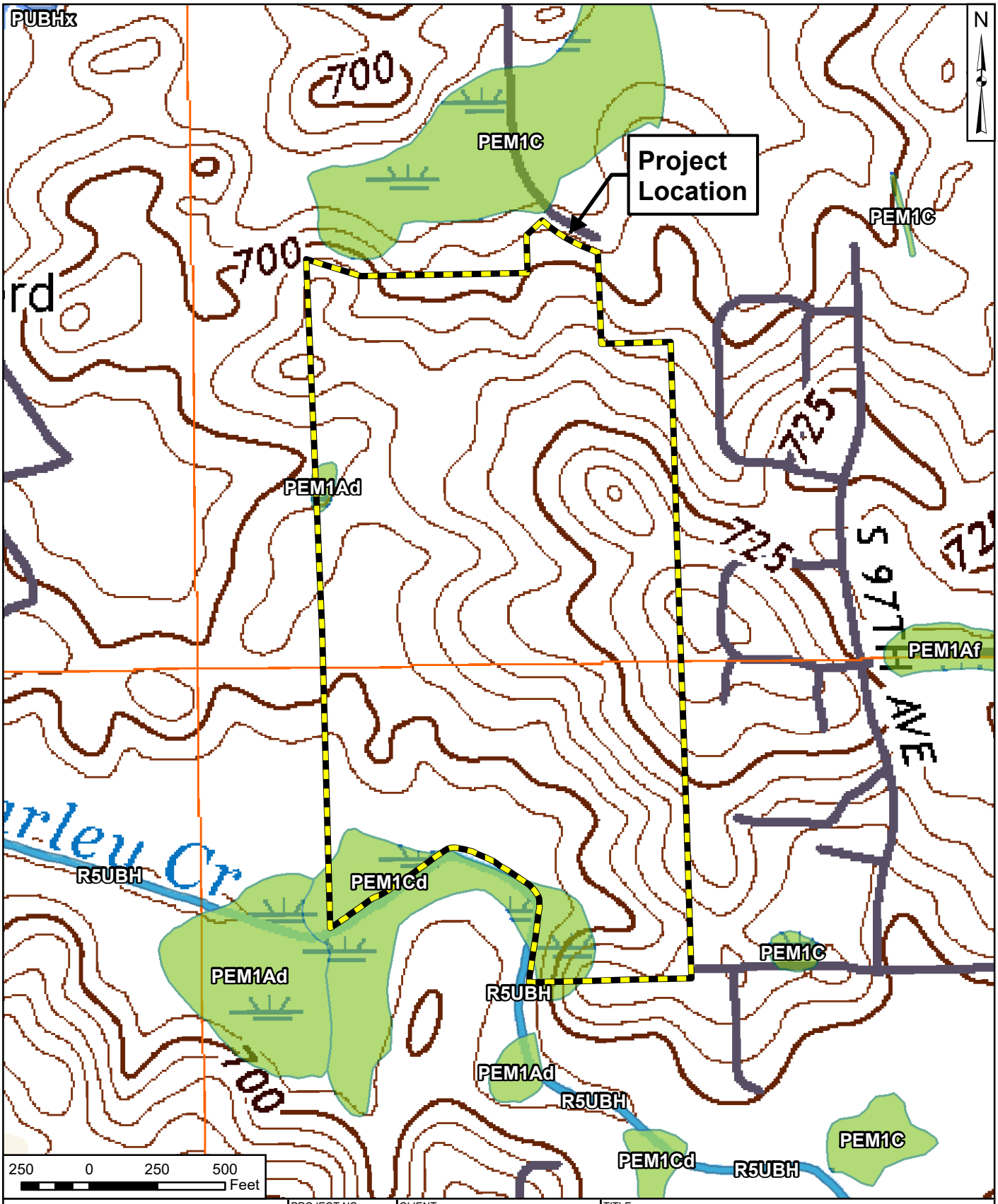

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 240548 CREATED BY: AMM	CLIENT: Pulte Home Corporation 1900 E. Golf Road, Suite 300 Schaumburg, IL 60173	TITLE: **NATIONAL WETLANDS INVENTORY (NWI)**
	DATE: 08/15/2024	BASE LAYER: USGS Topographic Map Tinley Park Quadrangle (2021)	SITE: Estates at Ravinia Meadow Orland Park, Cook County, Illinois
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		FIGURE: 2

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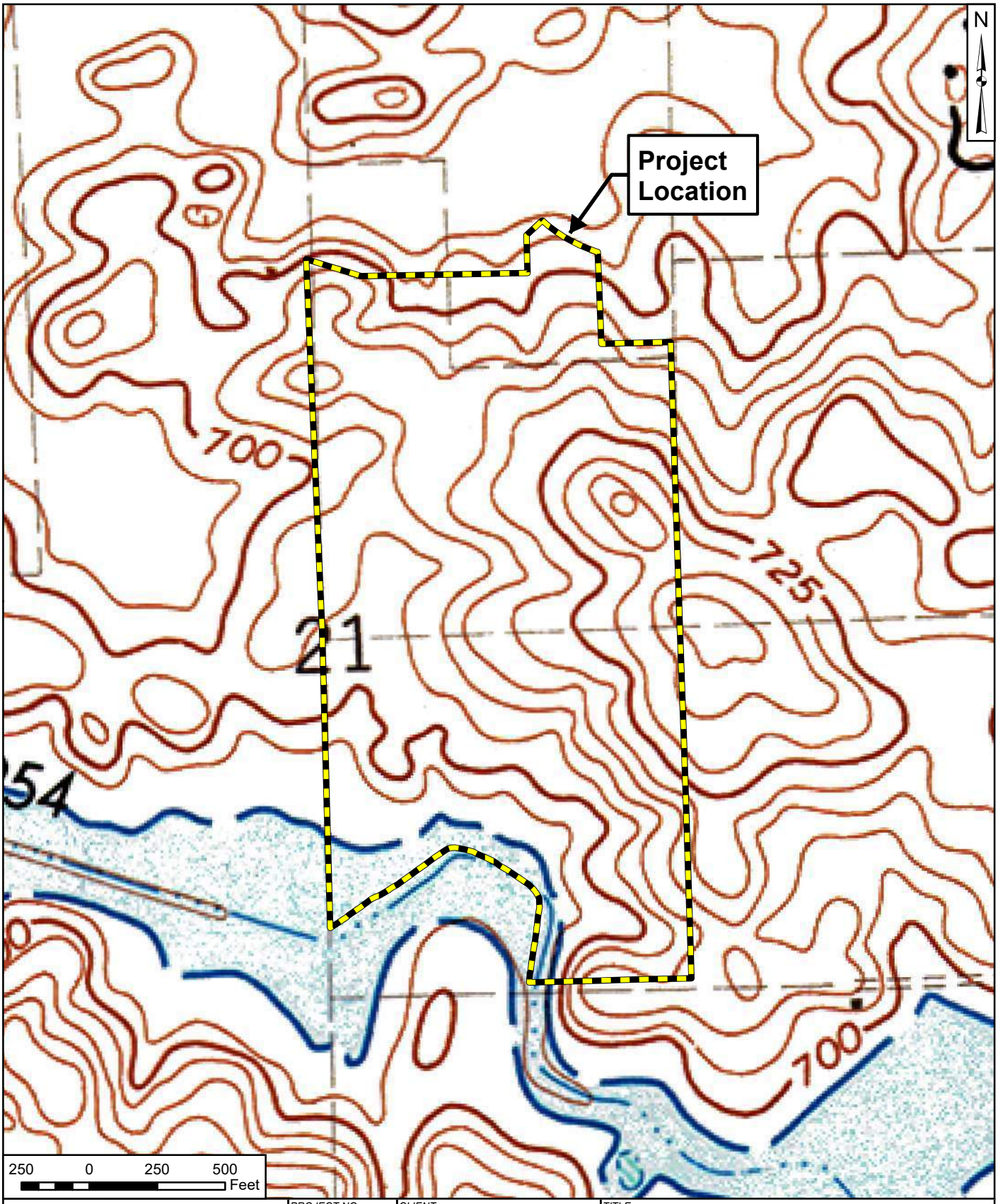

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 240548 CREATED BY: AMM	CLIENT: Pulte Home Corporation 1900 E. Golf Road, Suite 300 Schaumburg, IL 60173	TITLE: **USGS HYDROLOGIC ATLAS**
	DATE: 08/15/2024	BASE LAYER: USGS Hydrologic Atlas Tinley Park Quadrangle (1965)	SITE: Estates at Ravinia Meadow Orland Park, Cook County, Illinois — FIGURE: 3
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		

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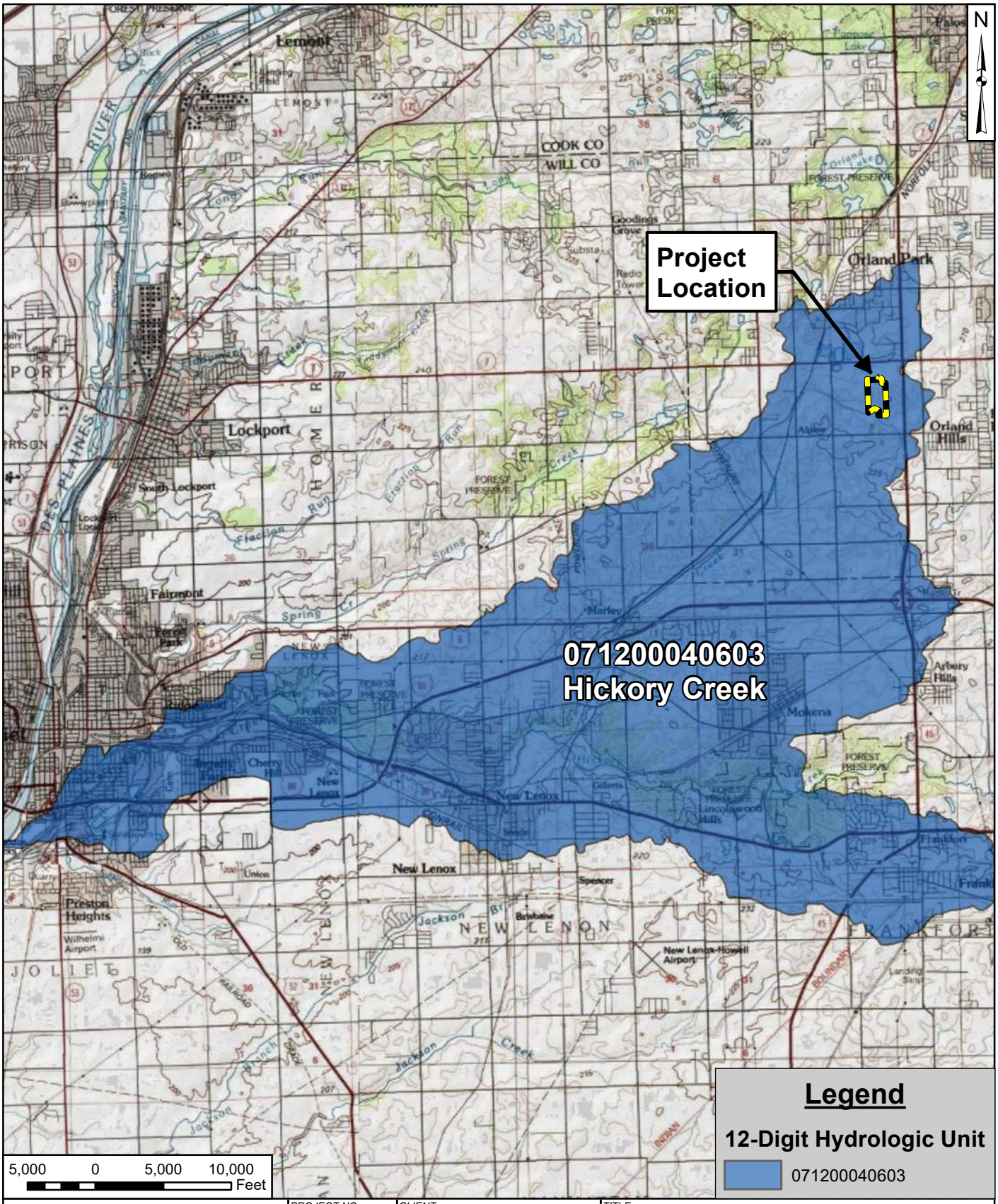

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PROJECT NO.: 240548	CLIENT: Pulte Home Corporation 1900 E. Golf Road, Suite 300 Schaumburg, IL 60173	TITLE: **12-DIGIT HYDROLOGIC UNIT CODE (HUC)**	
CREATED BY: AMM			
DATE: 08/15/2024	BASE LAYER: ESRI USA Topographic Map	SITE: Estates at Ravinia Meadow Orland Park, Cook County, Illinois	FIGURE: 4
SCALE: See Scale Bar			

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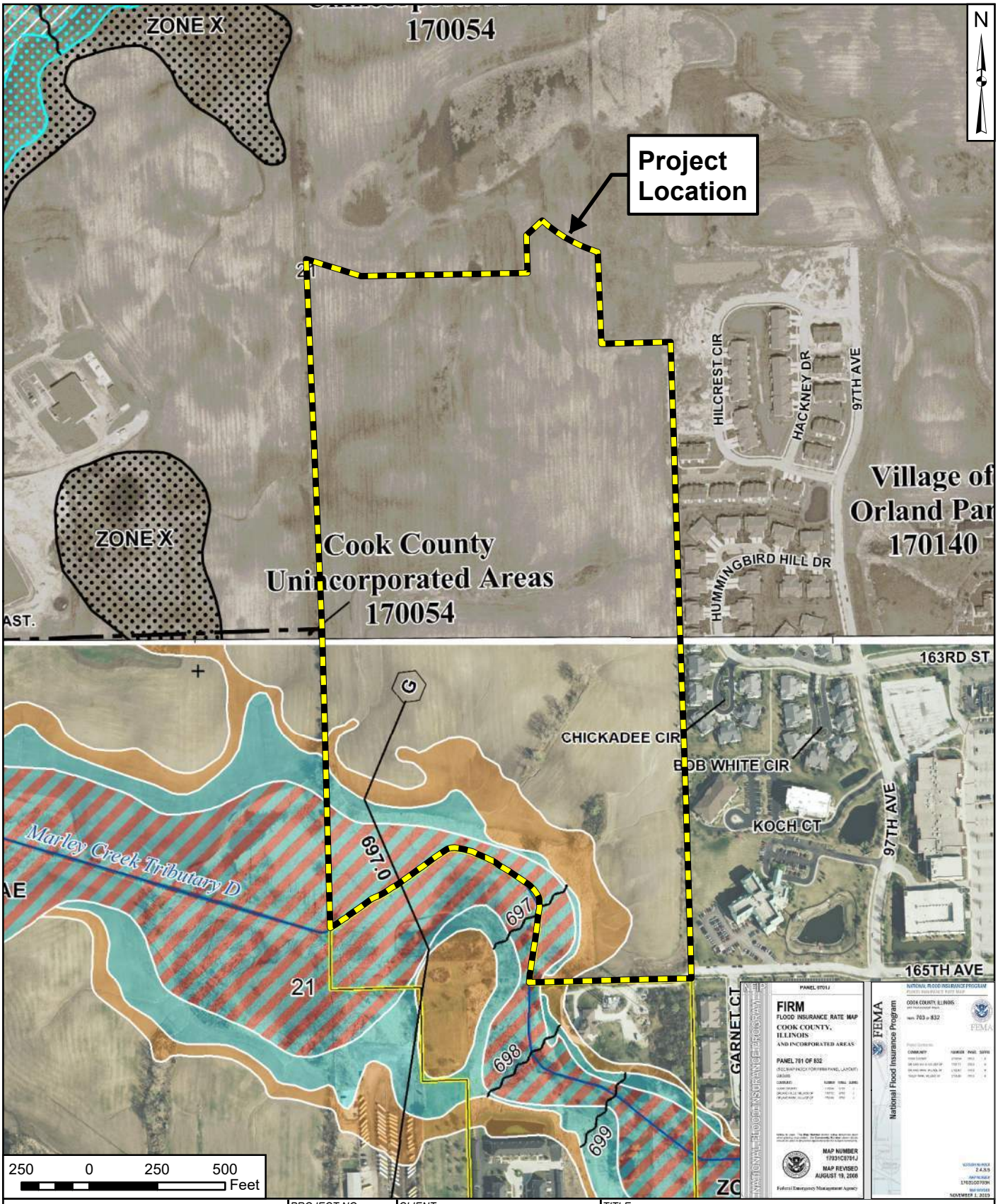

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 240548	CLIENT: Pulte Home Corporation 1900 E. Golf Road, Suite 300 Schaumburg, IL 60173	TITLE: **FEMA FLOOD INSURANCE RATE MAP (FIRM)**
	CREATED BY: AMM		
	DATE: 08/15/2024	BASE LAYER: FEMA FIRM Panels 17031C0701J and 17031C0703K	SITE: Estates at Ravinia Meadow Orland Park, Cook County, Illinois
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		FIGURE: 5

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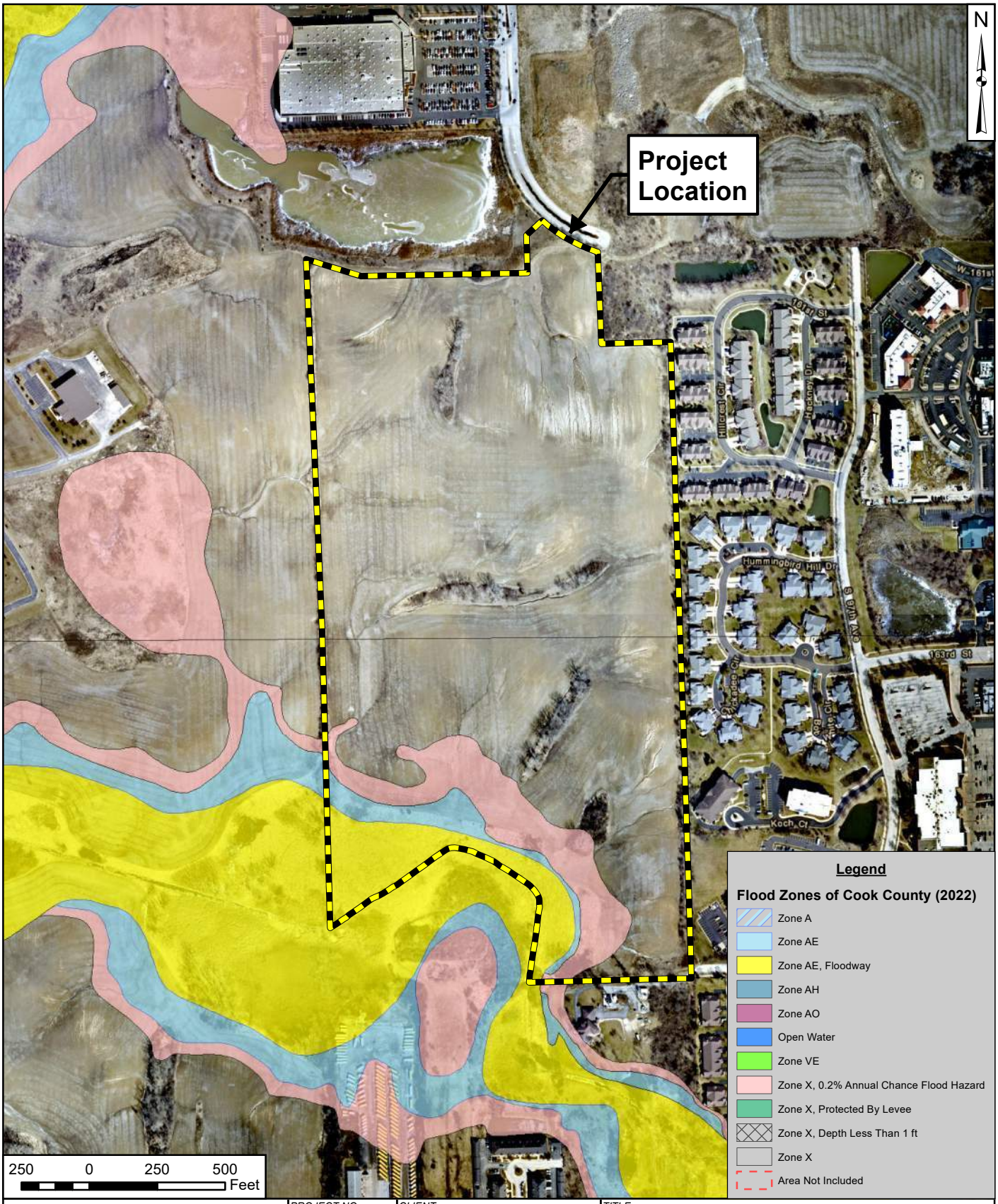

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PROJECT NO.:	240548
CREATED BY:	AMM
DATE:	08/15/2024
SCALE:	See Scale Bar

CLIENT:
Pulte Home Corporation
1900 E. Golf Road, Suite 300
Schaumburg, IL 60173

BASE LAYER:
Cook County
Aerial Imagery
(2023)

TITLE:
FLOOD ZONES OF COOK COUNTY, ILLINOIS (2022)

SITE:
Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

FIGURE:
6

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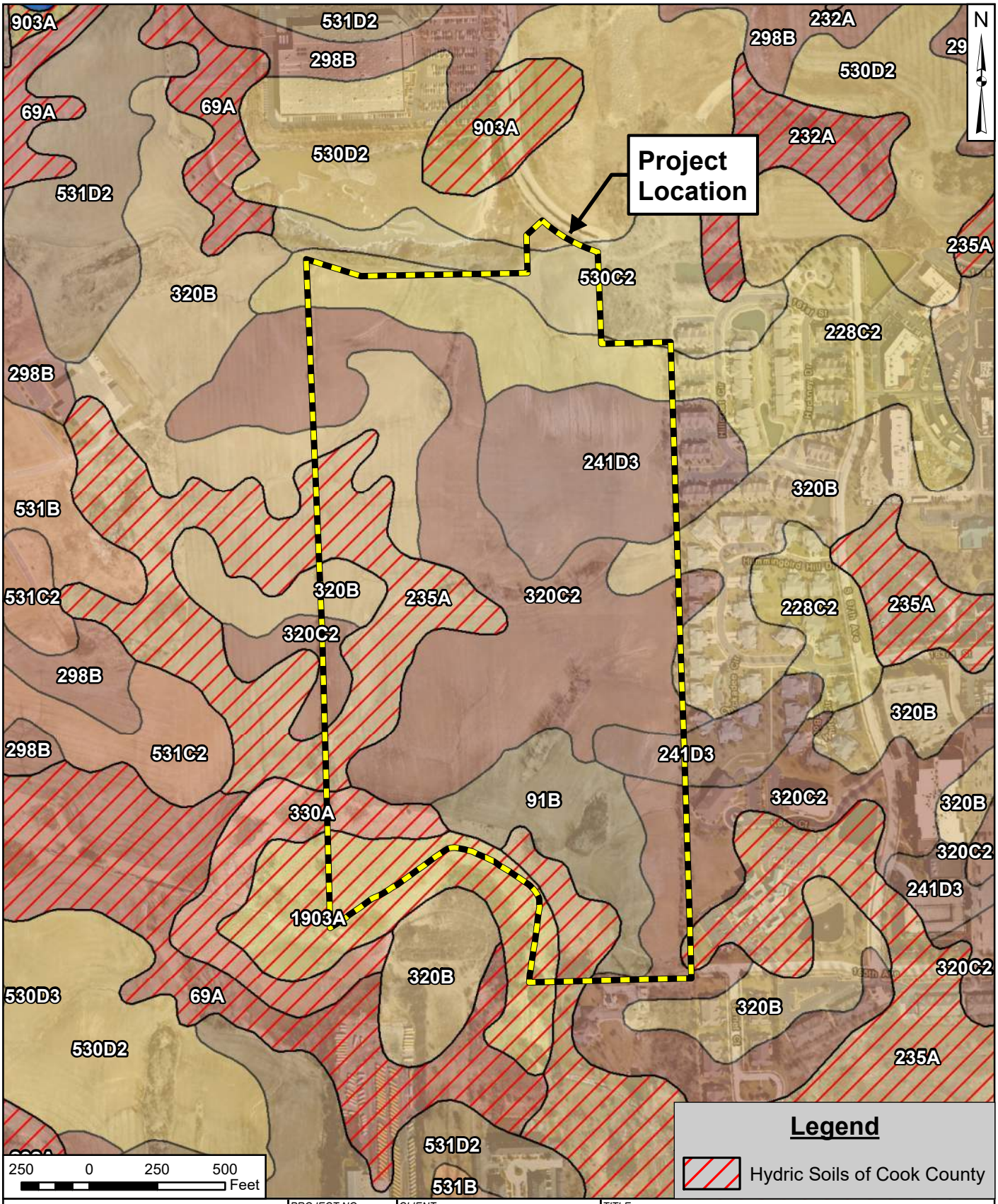

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"The Vision To Transform with Excellence"

PROJECT NO.: 240548

CREATED BY: AMM

DATE: 08/15/2024

SCALE: See Scale Bar

CLIENT: Pulte Home Corporation
1900 E. Golf Road, Suite 300
Schaumburg, IL 60173

BASE LAYER: Cook County Aerial Imagery (2023)

TITLE: **SOIL SURVEY OF COOK COUNTY, ILLINOIS**

SITE: Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

FIGURE: 7

J:\2024\240548\NR\Wetland\FIG7soil240548.mxd

Legend

- Data Points
- Project Location
- On-Site USACE Jurisdictional Wetland (6.11 acres)
- Off-Site USACE Jurisdictional Wetland (>11.00 acres)
- On-Site Non-USACE Jurisdictional Wetland (0.64 acres)
- Off-Site Non-USACE Jurisdictional Wetland (0.02 acres)
- Off-Site Exempt Stormwater Basin

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PROJECT NO.: 240548	CLIENT: Pulte Home Corporation, 1900 E. Golf Road, Suite 300, Schaumburg, IL 60173	TITLE: **WETLAND & WATERS DELINEATION**	
CREATED BY: AMM			
DATE: 08/22/2024	BASE LAYER: Cook County Aerial Imagery (2023)	SITE: Estates at Ravinia Meadow, Orland Park, Cook County, Illinois	FIGURE: 8
SCALE: See Scale Bar			

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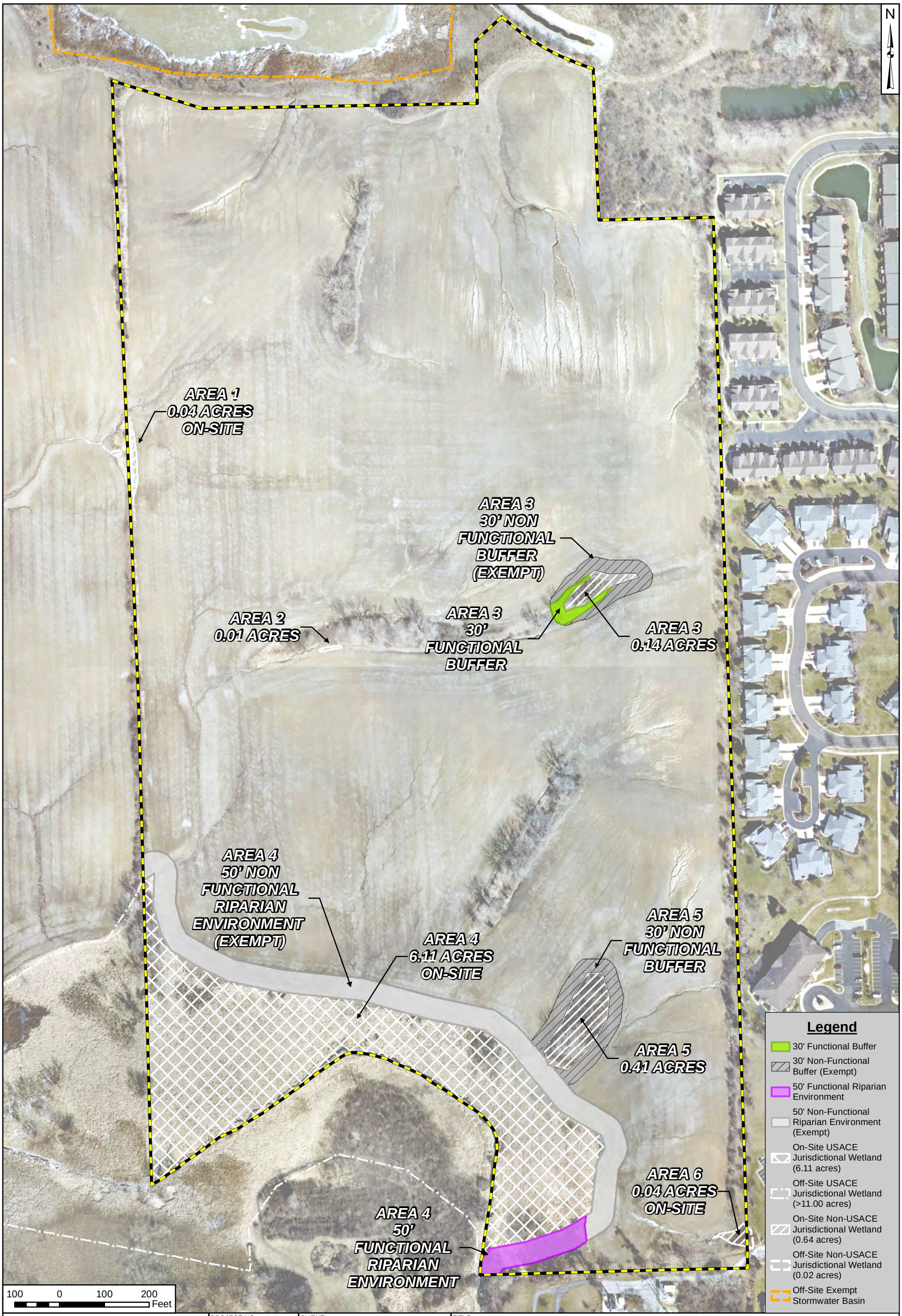
APPENDIX D

EXHIBITS AND ENGINEERING PLANS



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PROJECT NO.: 240548

CREATED BY: AMM

DATE: 11/08/2024

SCALE: See Scale Bar

CLIENT:
Pulte Home Corporation
1900 E. Golf Road, Suite 300
Schaumburg, IL 60173

BASE LAYER:
Cook County
Aerial Imagery
(2023)

TITLE:

EXISTING CONDITIONS

SITE:
Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

FIGURE: A

J:\2024\240548\NR\Wetland\Permit\FIGAexcond240548.mxd

N

AREA 1
0.04 ACRES
DIRECT
IMPACTS

AREA 3
0.01 ACRES
DIRECT
IMPACTS

AREA 2
0.01 ACRES
INDIRECT
IMPACTS

AREA 3
0.13 ACRES
INDIRECT
IMPACTS

AREA 5
0.41 ACRES
INDIRECT
IMPACTS

AREA 4
6.11 ACRES
ON-SITE

AREA 4
50'
FUNCTIONAL
RIPARIAN
ENVIRONMENT
0.15 ACRES
RESTORATION

AREA 6
0.04 ACRES
DIRECT
IMPACTS

Legend

- 50' Functional Riparian Environment Disturbance (0.15 acres)
- 50' Non-Functional Riparian Environment (Exempt)
- 50' Functional Riparian Environment
- On-Site USACE Jurisdictional Wetland (6.11 acres)
- Off-Site USACE Jurisdictional Wetland (>11.00 acres)
- On-Site Non-USACE Jurisdictional Wetland (0.64 acres)
- Off-Site Non-USACE Jurisdictional Wetland (0.02 acres)
- Off-Site Exempt Stormwater Basin

150 0 150 300 Feet

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

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

PROJECT NO.: 240548
CREATED BY: AMM
DATE: 11/08/2024
SCALE: See Scale Bar

CLIENT:
Pulte Home Corporation
1900 E. Golf Road, Suite 300
Schaumburg, IL 60173

BASE LAYER:
Cook County
Aerial Imagery
(2023)

TITLE:

PROPOSED CONDITIONS

SITE:
Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

FIGURE: B

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N

TO BE DETERMINED WILL BE SUBMITTED DURING FINAL REVIEW

AREA 4
6.11 ACRES
ON-SITE

AREA 4
50' FUNCTIONAL RIPARIAN ENVIRONMENT
0.15 ACRES
RESTORATION

TO BE DETERMINED WILL BE SUBMITTED DURING FINAL REVIEW

Legend

- 50' Functional Riparian Environment Restoration (0.15 acres)
- 50' Functional Riparian Environment
- On-Site USACE Jurisdictional Wetland (6.11 acres)
- Off-Site USACE Jurisdictional Wetland (>11.00 acres)
- Off-Site Non-USACE Jurisdictional Wetland (0.02 acres)
- Off-Site Exempt Stormwater Basin

150 0 150 300 Feet

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Schaumburg, IL 60173

BASE LAYER:
Cook County
Aerial Imagery
(2023)

TITLE:

PLANTING PLAN

SITE:
Estates at Ravinia Meadow
Orland Park, Cook County, Illinois

FIGURE: C

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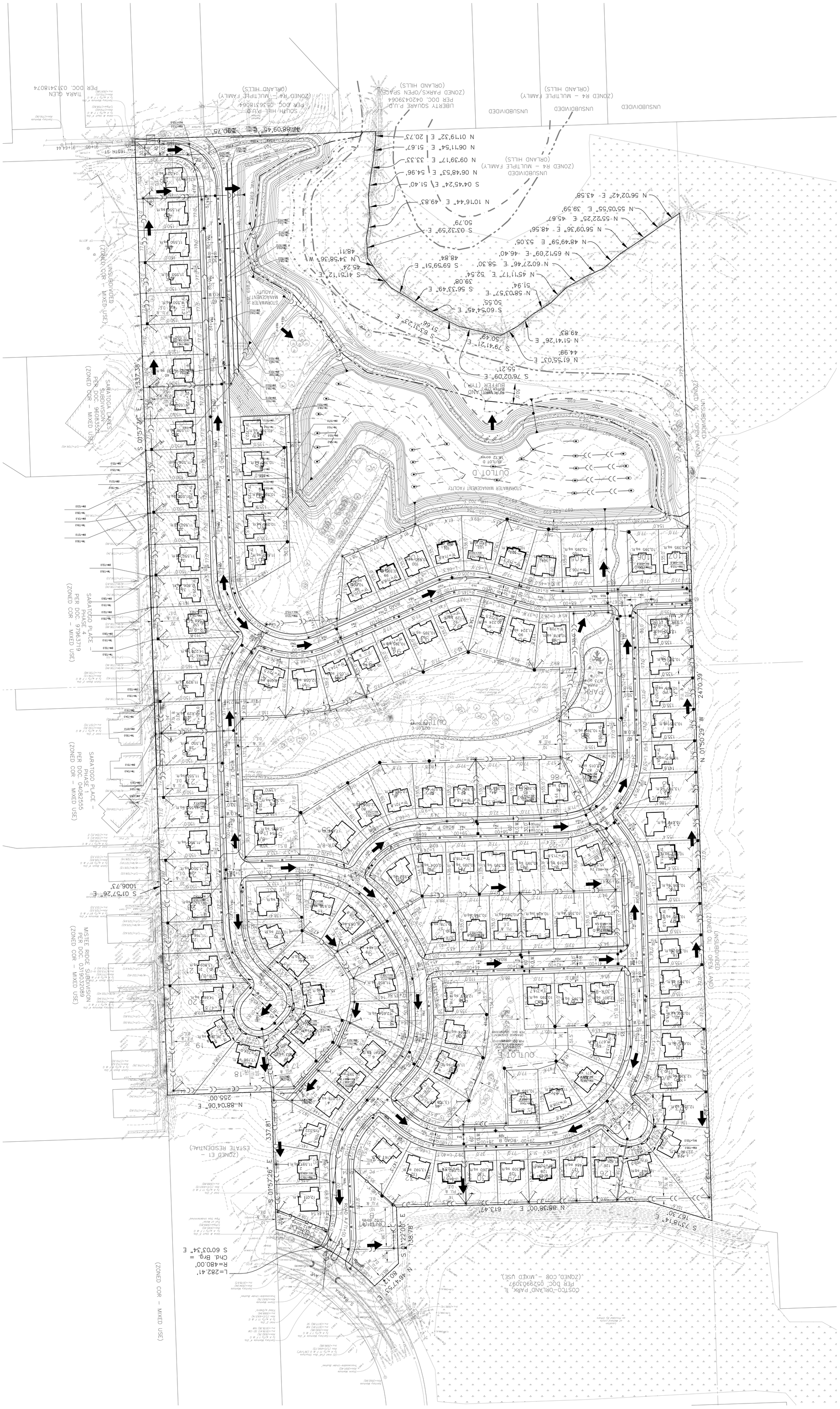
S 01°57'26" E 1337.38'
N 01°50'29" W 2470.39'
S 01°57'26" E 1006.73'
N 88°04'06" E 255.00'
337.81'
S 01°57'26" E 337.81'
N 88°09'45" E 590.75'
N 88°38'00" E 613.47'
S 71°18'14" E 167.30'
S 01°22'00" E 138.78'
N 46°47'55" W 80.14'
L=282.41'
R=480.00'
Chd. Brg. = S 60°03'34" E
SARATOGA LAKES SUBDIVISION PER DOC. 9608352 (ZONED COR – MIXED USE)
SARATOGA PLACE – PHASE 4 PER DOC. 9796371 (ZONED COR – MIXED USE)
SARATOGA PLACE – PHASE 1 PER DOC. 04082555 (ZONED COR – MIXED USE)
MISTEE RIDGE SUBDIVISION PER DOC. 0319032089 (ZONED COR – MIXED USE)
(ZONED COR – MIXED USE)
(ZONED E1 – ESTATE RESIDENTIAL)
(ZONED OL – OPEN LAND)
UNSUBDIVIDED
(ZONED R4 – MULTIPLE FAMILY) (ORLAND HILLS)
(ZONED PARKS/OPEN SPACE) (ORLAND HILLS)
LIBERTY SQUARE P.U.D PER DOC. 0420439064
SOUTH HILL P.U.D PER DOC. 0536318064
TIARA GLEN PER DOC. 0313418074
185TH ST
OUTLOT D 16.72 acres
OUTLOT C 5.29 acres
STORMWATER MANAGEMENT FACILITY
PARK 0.73 acres
50' LANDSCAPE BUFFER (TYP.)
ROAD A
ROAD B
ROAD C
ROAD D
ROAD E
ROAD F
COSTCO–"ORLAND PARK, IL" PER DOC. 0529903097 (ZONED COR – MIXED USE)