Wetland and Waterbodies Delineation Report

for

LOU GEHRIG FIELD PARKING

Town of Amherst

Erie County, New York

for

Wendel

EARTH DIMENSIONS, INC.

Soils Investigations • Wetland Delineations

April 21, 2022
EDI Project Code: **W6D93d**

REPORT SUMMARIZING
THE RESULTS OF
A WETLAND DELINEATION SURVEY OF

LOU GEHRIG FIELD PARKING

Prepared for Submission to:

U.S. ARMY CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207

AND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
270 MICHIGAN AVENUE
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REPORT DATE: April 21, 2022

EDI PROJECT CODE: W6D93d

PROJECT INFORMATION

Project Name	Lou Gehrig Field Parking
Street Address	550 Smith Road & 0 Dann Road
SBL Numbers	16.00-4-20.1 & 16.00-4-16.1
Town	Amherst
County	Erie
State	New York
Latitude/Longitude (NAD83)	43.05207°N, 78.71373°W
Investigation Area	6.02± Acres
USGS 7.5 Minute Topographical Map	Clarence Center Quadrangle
Waterway	Ransom Creek
Hydrologic Unit Code	04120104
Date of Delineation	April 19, 2022
Consultant	Earth Dimensions, Inc. 1091 Jamison Road Elma, New York 14059
Point of Contact	Scott Livingstone (716)655-1717 slivingstone@earthdimensions.com
Engineer	Wendel
Property Owner	Town of Amherst
Authority	Section 404, Article 24
Permit/Letter Being Requested	Jurisdictional Determination

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EXECUTIVE SUMMARY

The Town of Amherst has proposed improvements to existing parking lots within the Lou Gehrig Baseball Field complex located along the north side of Smith Road and Dann Road in the Town of Amherst, County of Erie, and State of New York. Wendel has retained Earth Dimensions, Inc. (EDI) to complete a wetland delineation report that would allow the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) to determine their jurisdictional authority over the investigation area, pursuant to Section 404 of the Clean Water Act and Articles 15 (Protection of Waters) and 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law.

A preliminary review of available information pertaining to vegetation, soils, and hydrology in the project area was implemented prior to conducting a field investigation at the site. Sources of information included the United States Geological Survey (USGS), Natural Resources Conservation Service (NRCS), National Wetland Inventory (NWI), and NYSDEC Freshwater Wetland maps. The NRCS and NWI maps indicate the potential for wetlands under federal jurisdiction. The NYSDEC map indicates the potential for wetland under state jurisdiction.

EDI applied methodology specified by the Corps of Engineers Wetlands Delineation Manual (January 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (January 2012) to perform a delineation of Federal jurisdictional wetlands within the site. EDI identified three (3) wetland areas totaling 0.39± acre within the investigation area. A man-made ditch is present tin the eastern portion of the site. The identification number of the wetlands, their acreage and boundary flags are as follows:

TABLE 1: WETLAND SUMMARY

Wetland Identification #	Geographic Center (NAD83)		Boundary Flag #	Total Acreage On-site	Wetland Type (Cowardin)	Wetland Type (Reschke)	Jurisdictional Determination
	Latitude	Longitude					
Wetland 1	43.05246	78.71555	W1-1 through W1-14	0.23±	PEM/SS1B	Emergent Marsh/Scrub-shrub	Jurisdictional
Wetland 2	43.05312	78.71093	W2-1 through W2-4	0.07±	PFO1B	Hardwood Swamp	Jurisdictional
Wetland 3	43.05293	78.71133	W3-1 through W3-6	0.09±	PFO1B	Hardwood Swamp	Jurisdictional
Total Wetland Acreage:				0.39±			

TABLE 2: STREAM & DRAINAGE SUMMARY

Stream Identification #	Waterway	DEC Class	Linear Feet On-site	Highwater Width (Ft)	Flow Regime	Substrate	Classification (Cowardin)	Jurisdictional Determination
Ditch 1	N/A	N/A	175 feet	1 to 2 feet	Ephemeral	Organic, silt	R4SB6	Non-Jurisdictional

SECTION I: INTRODUCTION

The Town of Amherst has proposed improvements to existing parking lots within the Lou Gehrig Baseball Field complex located along the north side of Smith Road and Dann Road in the Town of Amherst, County of Erie, and State of New York. The project has been given the name Lou Gehrig Field Parking and is located on USGS 7.5 minute quadrangle map indexed as Clarence Center (Figure 1). The field work was completed on April 19, 2022 using a Trimble Geo 7X GPS to locate wetland and drainage boundaries.

Wendel has retained Earth Dimensions, Inc. (EDI) to complete a wetland delineation study at this site. The investigation was designed to facilitate a determination of the extent of USACE and NYSDEC jurisdiction over the project area pursuant to Section 404 of the Clean Water Act and Articles 15 (Protection of Waters) and 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law.

EDI has performed a wetland delineation study at the site under guidelines specified by the *Corps of Engineers Wetlands Delineation Manual*, dated January 1987 (referred to hereafter as the Corps Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region version 2.0* (January 2012) (referred to hereafter as the Northcentral and Northeast Regional Supplement). The purpose of this report is to present EDI's methods, results, conclusions, and recommendations with respect to the Lou Gehrig Field Parking project site.

SECTION II: SITE DESCRIPTION

The Lou Gehrig Field Parking project area is comprised of two separate investigation areas totaling 6.02± acres on the north side of Smith Road and Dann Road. The western investigation area, 3.41± acres, is on the north side of Smith Road, west of the Dann Road intersection. The eastern investigation area, 2.61± acres, is on the north side of Dann Road, east of the intersection with Smith Road. The investigation area is outlined on Figure 1 and depicted on the Wetland Delineation Map included in Appendix A (Figure 6).

The natural topography of the Lou Gehrig Field Parking site is flat. The property is currently used as a baseball field complex and recreational area. Numerous baseball fields, parking areas and paved trails are present. The uplands within the investigation area consisted of existing gravel parking lot, successional old field, and mowed lawn communities. The wetland areas were found to consist of shallow emergent marsh, scrub-shrub swamp, and hardwood swamp communities. The vegetative communities of the investigation area are described according to *Ecological Communities of New York State* (Edinger et al. 2014).

The proposed project entails improving the gravel parking lots within the footprint of the existing parking areas. The parking areas are partially within the 100-foot Upland Adjacent Area to NYSDEC Freshwater Wetland CC-45.

SECTION III: PRELIMINARY DATA REVIEW

A. SUMMARY OF FINDINGS

Several sources of information may be reviewed to facilitate the completion of a wetland delineation study. In some cases, it is even possible to make a preliminary office wetland determination based upon available vegetation, soils, and hydrologic information for a project area. EDI completed a preliminary review of several data sources at the onset of this study. The results of the review are summarized as follows:

1. USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Figure 1 depicts the Lou Gehrig Field Parking project site on the Clarence Center quadrangle map. The figure depicts the flat topography of the site. No drainage features are depicted within the investigation area.

2. USFWS NATIONAL WETLANDS INVENTORY MAP

The National Wetlands Inventory (NWI) map obtained from the USFWS Wetland Mapper http://www.fws.gov/wetlands/Data/Mapper.html displays one (1) wetland type, PFO1B, near the eastern edge of the investigation area. The wetland can be decoded as:
[P] Palustrine, [FO] Forested, [1] Broad leaved-deciduous, [B] Saturated

3. NATURAL RESOURCES CONSERVATION SERVICE SOILS MAP

Figure 3 presents the project area outlined on a copy of the Erie County Soil Survey map from the National Cooperative Soil Survey. As shown on that figure, the site has the following soil types:

Soil Conservation Service Legend

Map Unit Symbol	Map Unit Name	Hydric Rating
La	Lakemont silt loam, 0 to 3% slopes	95
Od	Odessa silt loam, 0 to 3% slopes	5

Lakemont Series: The Lakemont series consists of deep, poorly drained and very poorly drained soils of lake plains. They are nearly level soils formed in very slowly permeable reddish colored clayey lacustrine sediments. Slope ranges from 0 to 3 percent. Permeability is moderately slow in the surface

and very slow in the subsoil sand substratum. Mean annual temperature is about 48°F and mean annual precipitation is about 34 inches.

Odessa Series: The Odessa series consists of very deep, somewhat poorly drained soils formed in red, clayey lacustrine deposits. These soils are in moderately low areas on lake plains and valley terraces. Slope ranges from 0 to 20 percent. Mean annual temperature is 46°F and mean annual precipitation is 39 inches.

The U.S. Department of Agriculture's National Technical Committee for Hydric Soils Criteria has developed a list of soils that often display hydric soil characteristics. Hydric soil typically forms in places of the landscape where surface water periodically collects for some time and/or where groundwater discharges sufficient to create waterlogged or anaerobic soils. Such anaerobic soils can support the growth and survival of hydrophytic vegetation that is tolerant of such conditions. The Hydric Rating indicates the proportion of map units that meets the criteria for hydric soils. Soil units are designated as "hydric," "predominantly hydric," "partially hydric," "predominantly nonhydric," or "nonhydric" depending on the hydric rating of its respective components. "Hydric" means that all components listed for a given map unit are rated as being hydric. "Predominantly hydric" means components that comprise 66 to 99 percent of the map unit are rated as hydric. "Partially hydric" means components that comprise 33 to 66 percent of the map unit are rated as hydric. "Predominantly nonhydric" means components that comprise up to 33 percent of the map unit are rated as hydric. "Nonhydric" means that none of the components are rated as hydric. Wetland hydrologic conditions, hydric soils, and hydrophytic vegetation are the three criteria of a wetland.

4. NYSDEC FRESHWATER WETLANDS MAP

The NYSDEC Freshwater Wetlands map obtained from the online NYSDEC Environmental Resource Mapper displays state jurisdictional Freshwater Wetland CC-45 within and adjacent to the investigation area.

B. RESULTS OF AGENCY INFORMATION REVIEW

The preliminary data review revealed that the Corps may have jurisdiction over wetlands at the project location. The evidence consisted of potential federally regulated wetlands on the NWI map (Figure 2) and hydric soils and soils with possible inclusions depicted within the project area as shown on the

NRCS map (Figure 3). The preliminary data review indicated that NYSDEC may have jurisdiction over wetlands on site as depicted on the NYSDEC Resource Mapper (Figure 4). Therefore, it was considered necessary to perform a field investigation at the site in order to determine the presence of federal and state protected wetlands. The methods specified in the Corps of Engineers Wetlands Delineation Manual (January 1987) and Northcentral and Northeast Regional Supplement Version 2.0 (January 2012) were employed during the field investigation. Procedures, results, and conclusions of the wetland delineation study are presented in the remainder of this report.

SECTION IV: FIELD INVESTIGATION PROCEDURES

WETLANDS:

Step 1

EDI applied methodology specified by the 1987 Corps of Engineers Wetlands Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region to perform a delineation of Federal jurisdictional wetlands within the site. EDI used the Level 2 Routine Determination method (on-site inspection necessary) since insufficient information was available for making a determination for the entire project area. This methodology is consistent with Part IV, Section D of the Corps Manual.

Step 2

EDI's initial evaluation of the project area revealed that no atypical situations existed. If an atypical situation had existed, EDI would have used methodology outlined in Part IV, Section F of the Corps manual and/or Section 5 of the Northcentral and Northeast Supplement.

Step 3

EDI made the determination that normal environmental conditions were present, as the area was not lacking hydrophytic vegetation or hydrologic indicators due to annual, seasonal or long-term fluctuations in precipitation, surface water, or groundwater levels. The Northcentral and Northeast Supplement defines the growing season as beginning when one of the following indicators of biological activity are evident in a given year: (1) above-ground growth and development of vascular plants and/or (2) soil temperature measured at 12" below ground surface reaches 41ºF. The end of the growing season is defined as the point at which deciduous species lose their leaves or the last herbaceous plants cease flowering and their leaves become dry or brown, whichever comes latest.

Step 4

In order to accurately identify the limits of various vegetative communities and extent of wetlands on-site, a routine determination method was used. As depicted in Appendix A and included in Appendix B, three (3) data points were used to characterize the site.

Step 5

The plant community inhabiting each observation point was characterized in accordance with methods specified in the Northcentral and Northeast Regional Supplement. Dominant plant species were identified within four vegetative strata (i.e. herb, sapling/shrub, tree and liana (woody vines) at each sampling point. The Northcentral and Northeast Regional Supplement defines the vegetative strata in the following manner:

Herb – A non-woody individual of a macrophytic species. Seedlings of woody plants (including vines) that are less than 3.28 feet in height are considered to be herbs.

Sapling/Shrub – A layer of vegetation composed of woody plants < 3.0 inches in diameter at breast height but greater than 3.28 feet in height, exclusive of woody vines.

Tree – A woody plant > 3.0 inches in diameter at breast height, regardless of height (exclusive of woody vines)

Liana – A layer of vegetation in forested plant communities that consist of woody vines greater than 3.28 feet in height.

As outlined in the manual, the quadrant sizes used for the vegetative strata were (i) a 3.28-foot radius for herbs; (ii) a ten-foot radius for saplings/shrubs and woody vines; and (iii) a 30-foot radius for trees. Dominant plant species were estimated using aerial coverage methods. Dominant species are defined in the Corps Manual as the most abundant plant species that when ranked in descending order of abundance and cumulatively totaled immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species comprising 20 percent or more of the total dominance measure.

The wetland indicator status (OBL, FACW, FAC, FACU, or UPL) listed for each identified species by the U.S. Fish and Wildlife Service in the National List of Plant Species that Occur in Wetlands: Northeast (Region 1) was recorded. The U.S. Fish and Wildlife wetland indicator status listings are defined as follows:

OBL – Plants that occur almost always (estimated probability >99 percent) in wetlands under natural conditions, but which may also occur rarely (estimated probability < 1 percent) in nonwetlands.

FACW – Plants that occur usually (estimated probability >67 percent to 99 percent) in wetlands, but also occur (estimated probability 1 percent to 33 percent) in nonwetlands.

FAC – Plants with a similar likelihood (estimated probability 33 percent to 67 percent) of occurring in both wetlands and nonwetlands.

FACU – Plants that occur sometimes (estimated probability 1 percent to <33 percent) in wetlands but occur more often (estimated probability >67 percent to 99 percent) in nonwetlands.

UPL – Plants that occur rarely (estimated probability < 1 percent) in wetlands but occur almost always (estimated probability >99 percent) in nonwetlands under natural conditions.

The plant community data was summarized on the data forms provided in the Northcentral and Northeast Regional Supplement included in this report as Appendix B.

Step 6

Plant data from each observation point were tested against the hydrophytic vegetation criterion specified in the Corps Manual and Northcentral and Northeast Regional Supplement. The Northcentral and Northeast Regional Supplement identifies a four-tiered approach for making a determination of whether or not the hydrophytic vegetation criteria is met for a sample plot. Indicator 1 (Rapid Test for Hydrophytic Vegetation) was first applied to determine if all dominant species across all strata are rated OBL and/or FACW. If Indicator 1 did not meet the hydrophytic vegetation criteria, Indicator 2 was then applied (dominance test); if greater than 50% of all plant species across all strata were rated OBL, FACW, or FAC, the hydrophytic vegetation criteria was considered met. In rare cases, when Indicators 1 and 2 did not meet the hydrophytic vegetation criteria but soils and hydrology criteria were met, Indicators 3 (Prevalence Index) and 4 (Morphological Adaptations) were used to make a final determination. All observation points that met the hydrophytic vegetation criterion were considered potential wetlands. Soils were then characterized.

Step 7

The Corps Manual specifies that soils need not be characterized (and are assumed hydric soils) at sampling points meeting the hydrophytic vegetation criterion if: (i) all dominant plant species have an indicator status of OBL, or (ii) all dominant species have an indicator status of OBL and/or FACW, and the wetland boundary is abrupt (at least one dominant OBL species must be present). All observation points sampled during this field investigation were examined directly for soil and hydrologic characteristics.

Step 8

At observation points requiring a soil evaluation, soil borings were performed by an EDI Soil Scientist using methods specified in the Northcentral and Northeast Regional Supplement. Soil pits were dug using a tile spade. Testpits were generally dug to a depth of 20 inches below ground surface. Soils were examined for any of the hydric soil indicators, as outlined in the Field Indicators of Hydric Soils in the United States. A determination was made as to whether or not the hydric soil criterion was met. Soils data was recorded on the data forms included in Appendix B of this report.

Step 9

EDI's Soil Scientist examined hydrologic indicators using methods specified by the Northcentral and Northeast Regional Supplement at each observation point. The wetland hydrology criterion was met if: (i) one or more primary field indicators was materially present, (ii) available hydrologic records provided necessary evidence, or (iii) two or more secondary indicators were present. Results were recorded on data forms taken from the Corps Manual and are included in this report as Appendix B.

Step 10

A wetland determination was made for every observation point. If a sample plot met the hydrophytic vegetation, hydric soil, and wetland hydrology criteria, the area was considered to be wetland.

Step 11

Based on the results of the transected data, wetland boundaries were established for each identified wetland using survey ribbon labeled “wetland delineation” and numbered consecutively along each wetland boundary. As outlined in the Corps Manual, the placement of flags was based on the limits of areas where all three parameters were met. Wetland flags were labeled W1-1 through W1-14, W2-1 through W2-4 and W3-1 through W3-6.

STREAMS & DRAINAGES:

The federally regulated Ordinary High Water (OHW) mark of streams within the Project area were delineated utilizing the definitional criteria as presented in Title 33, Code of Federal Regulations, Part 328, and the USACE Regulatory Guidance Letter 05-05 – Guidance on Ordinary

High Water Mark Identification. Each stream is categorized in regard to its flow regime as perennial, intermittent, or ephemeral, as defined by the USACE. The Ordinary High Water (OHW) mark for each stream is surveyed using the Trimble Geo 7X GPS. Each stream is assigned a letter designation, and survey points are numbered consecutively. Substrate characteristics and water depth are noted. Streams classified as AA, A, B, C, C(t), C(ts) and D in the State of New York are regulated by NYSDEC under Article 15 Use and Protection of Waters. Streams are given classifications which designate the level of protection afforded to each waterbody. Class AA and A are assigned to sources of drinking water. Class B streams are best suited for swimming and other contact recreation, but not drinking water. Class C streams identify waters that support fishing and non-contact activities. A classification with (t) designated a stream with the potential to support trout populations. A classification of (ts) identifies waters that may support trout spawning. Class D waters are the lowest classification and are often highly imperiled.

SECTION V: RESULTS AND CONCLUSIONS

Earth Dimensions, Inc. (EDI) has completed a wetland delineation study at the Lou Gehrig Field Parking site located in the Town of Amherst, County of Erie, and State of New York. A field investigation was conducted by a Soil Scientist and a Wetland Ecologist from EDI. The wetland delineation study identified three (3) wetlands totaling 0.39± acre present within the Lou Gehrig Field Parking site. In addition, a 175-foot portion of a man-made ditch was identified. No waterbodies were identified within the investigation area.

Figure 5 depicts the vegetative communities as they existed at the time of the investigation. The uplands within the investigation area were comprised of gravel parking areas, successional old field, and mowed lawn communities. The wetland areas were found to consist of shallow emergent marsh, scrub-shrub swamp, and hardwood swamp communities. The vegetative communities of the investigation area are described according to Ecological Communities of New York State (Edinger et al. 2014).

The successional old field community was dominated by the following species: Canada goldenrod (*Solidago canadensis*) and Fuller's teasel (*Dipsacus fullonum*). This community is adjacent to Wetland W1 and has not been mowed for a few seasons.

No data was taken in the mowed lawn community; however, species present are consistent with descriptions provided by Reschke. This community also includes portions of the existing baseball fields.

Wetland W1 is a 0.23± acre emergent marsh/scrub-shrub swamp dominated by pussy willow (*Salix discolor*), narrowleaf cattail (*Typha angustifolia*) and common rush (*Juncus effusus*). The community is predominantly emergent with scattered shrubs and saplings beginning to dominate. Soils within wetland W1 are mapped as Odessa silt loam and had a topsoil color of 7.5YR3/1 and a subsoil color of 7.5YR5/1 with 5% 7.5YR5/8 mottles. The texture is silty clay loam and silty clay. This soil fits the NRCS F3 indicator (Depleted Matrix). Hydrology indicators present in Wetland W1 included surface water (A1), saturation (A3) and Water-Stained Leaves (B9). It is EDI's professional opinion that Wetland W1 is Federally jurisdictional under the currently applicable post-Rapanos Rule due to a

significant nexus to a traditionally navigable water. It is also EDI's professional opinion that wetland W1 is connected to NYSDEC Freshwater Wetland CC-45 and is jurisdictional under Article 24.

Wetland W2 is a 0.07± acre hardwood swamp dominated by pin oak (*Quercus palustris*), American elm (*Ulmus americana*), creeping Jenny (*Lysimachia nummularia*), reed canarygrass (*Phalaris arundinacea*) and upright sedge (*Carex stricta*). Soils within wetland W2 are mapped as Lakemont silt loam and had a topsoil color of 7.5YR3/1 and a subsoil color of 7.5YR5/1 with 15% 7.5YR5/8 mottles. The texture is silt loam and silty clay loam. This soil fits the NRCS F3 indicator (Depleted Matrix). Hydrology indicators present in Wetland W1 included surface water (A1), high water table (A2), saturation (A3) and Water-Stained Leaves (B9). It is EDI's professional opinion that Wetland W2 is Federally jurisdictional under the currently applicable post-Rapanos Rule due to a significant nexus to a traditionally navigable water. It is also EDI's professional opinion that wetland W2 is connected to NYSDEC Freshwater Wetland CC-45 and is jurisdictional under Article 24.

Wetland W3 is a 0.09± acre hardwood swamp dominated by pin oak (*Quercus palustris*). It is EDI's professional opinion that Wetland W3 is Federally jurisdictional under the currently applicable post-Rapanos Rule due to a significant nexus to a traditionally navigable water. It is also EDI's professional opinion that wetland W3 is connected to NYSDEC Freshwater Wetland CC-45 and is jurisdictional under Article 24.

Ditch 1 is a man-made ditch approximately 2 feet deep with 1 to 2 inches of standing water. There was no directional flow during the field visit. The ditch was nearly fully vegetated with grasses and had a dense layer of detritus (leaves). Ditch 1 is assumed to be non-jurisdictional under Section 404 and Article 24.

A map which depicts the site boundaries and the location of all observation points established during the field survey is included as Figure 6 in Appendix A of this report. Data forms are included as Appendix B. Appendix C includes representative photographs of the project area. Appendix D notes the references used during the preparation of this report and during the field investigation. Appendix E provides the names, addresses and phone numbers of the survey personnel involved in the wetland delineation study.

SECTION VI: RECOMMENDATIONS

Three (3) wetland areas and one (1) ditch were identified during the course of a field investigation based upon the three parameter technique (vegetation, soils, and hydrology) outlined in the Corps Manual and Northcentral and Northeast Regional Supplement. It is EDI's professional opinion that all three wetland areas are regulated by the USACE under Section 404 of the Clean Water Act. It is also EDI's opinion that all three wetlands are part of Freshwater Wetland CC-45 and would be regulated by NYSDEC under Article 24 of the New York Conservation Law. USACE and NYSDEC approach their regulatory analyses by first considering avoidance of wetlands and minimization of wetland losses. EDI recommends the following:

(1) Submit this report to USACE and NYSDEC with a request for a wetland boundary confirmation and jurisdictional determination.

(2) If no impacts are proposed to federal or state regulated wetlands or state regulated 100-foot adjacent area based on the outcome of the jurisdictional determination, it is the professional opinion of EDI that the project may proceed without the need for Section 404 or Article 24 Permits.

(3) If any NYSDEC regulated upland adjacent area or federal or state jurisdictional wetland impacts are proposed, it is EDI's recommendation that a Joint Application for Permit and supporting documentation be submitted to the USACE and NYSDEC with a request for a Section 404 Permit, Section 401 Water Quality Certification, and/or an Article 24 Permit.

LOU GEHRIG FIELD PARKING

APPENDIX A - FIGURES

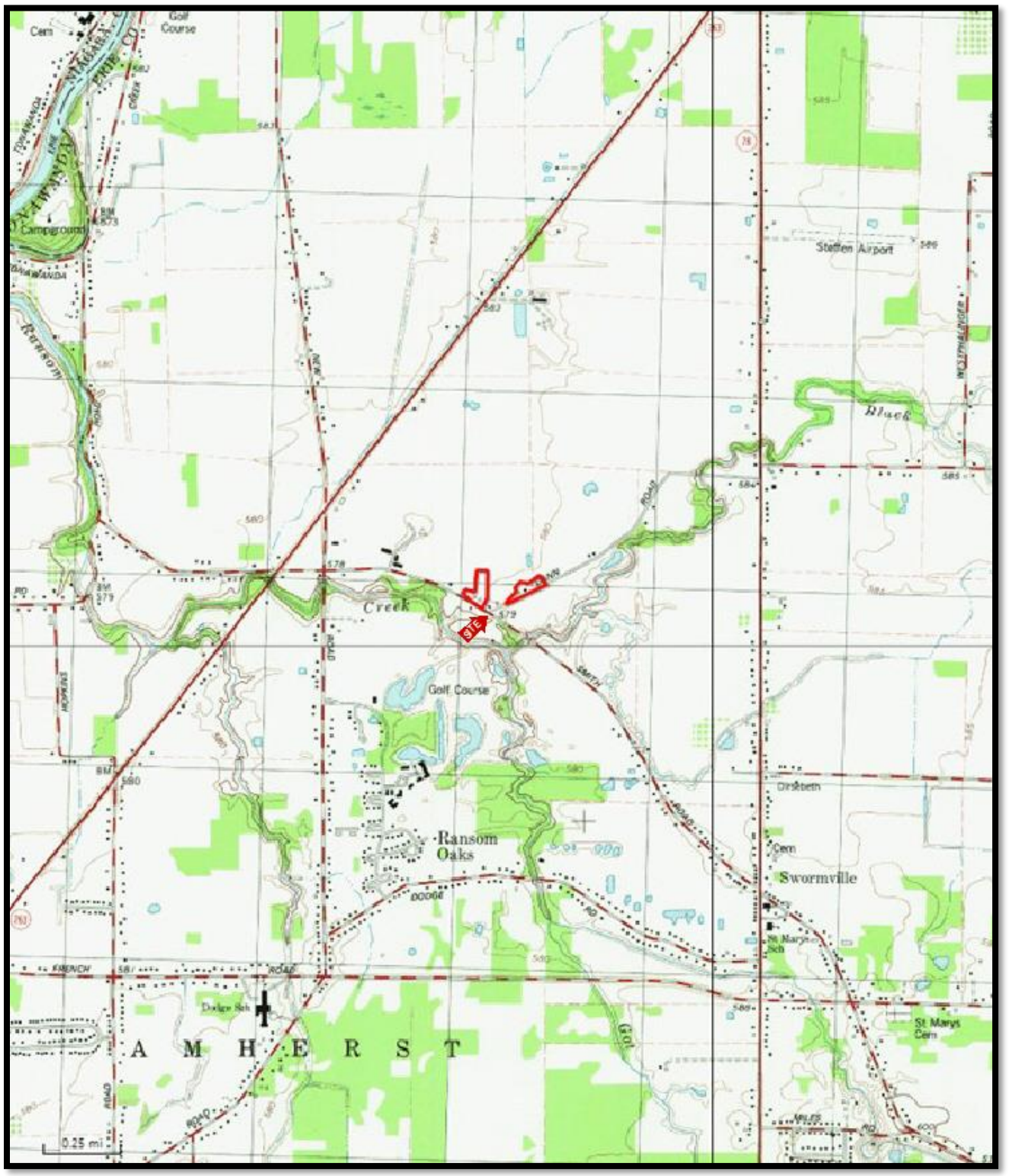

FIGURE 1: USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Clarence Center Quadrangle / U.S. Geological Survey

Lou Gehrig Field Parking

Town of Amherst, Erie County, New York

FIGURE 2: NATIONAL WETLANDS INVENTORY MAP

http://www.fws.gov/wetlands/data/mapper.HTML (Visited 4/21/22)

Lou Gehrig Field Parking

Town of Amherst, Erie County, New York

FIGURE 3: NRCS ERIE COUNTY SOIL SURVEY MAP

http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (Visited 4/21/22)

Lou Gehrig Field Parking

Town of Amherst, Erie County, New York

FIGURE 4: NYSDEC ENVIRONMENTAL RESOURCE MAPPER

http://www.dec.ny.gov/imsmaps/ERM/viewer.htm (Visited 4/21/22)

Lou Gehrig Field Parking

Town of Amherst, Erie County, New York

Figure 5 - General Vegetation Map

Town of Amherst Erie County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma, NY 14059
(716) 655-1717 | www.earthdimensions.com

Lou Gehrig Field Parking

LEGEND

- Limits of Investigation
- Community Boundary
- W1-1 Wetland Boundary Flag
- Wetland Area
- OF Successional Old Field
- ML Mowed Lawn
- EM Emergent/Scrub-shrub
- HS Hardwood Swamp

Scale: 0 100′ 200′

Map Date: April 21, 2022/ TJS for EDI
Revised:

Base Map Provided By: Trimble Geo 7X

File Name: Delineation map.dwg

EDI Project Code: W6D93d

Figure 6 - Wetland Delineation Map

Town of Amherst Erie County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma, NY 14059
(716) 655-1717 | www.earthdimensions.com

Lou Gehrig Field Parking

LEGEND

- Limits of Investigation
- Drainages
- W1-1 Wetland Boundary Flag
- Wetland Area
- NYSDEC 100-foot Buffer
- P1 Photo Location
- D1 Data Point Location

Scale: 0 100′ 200′
Map Date: April 21, 2022/ TJS for EDI Revised:
Base Map Provided By: Trimble Geo 7X
File Name: Delineation map.dwg
EDI Project Code: W6D93d

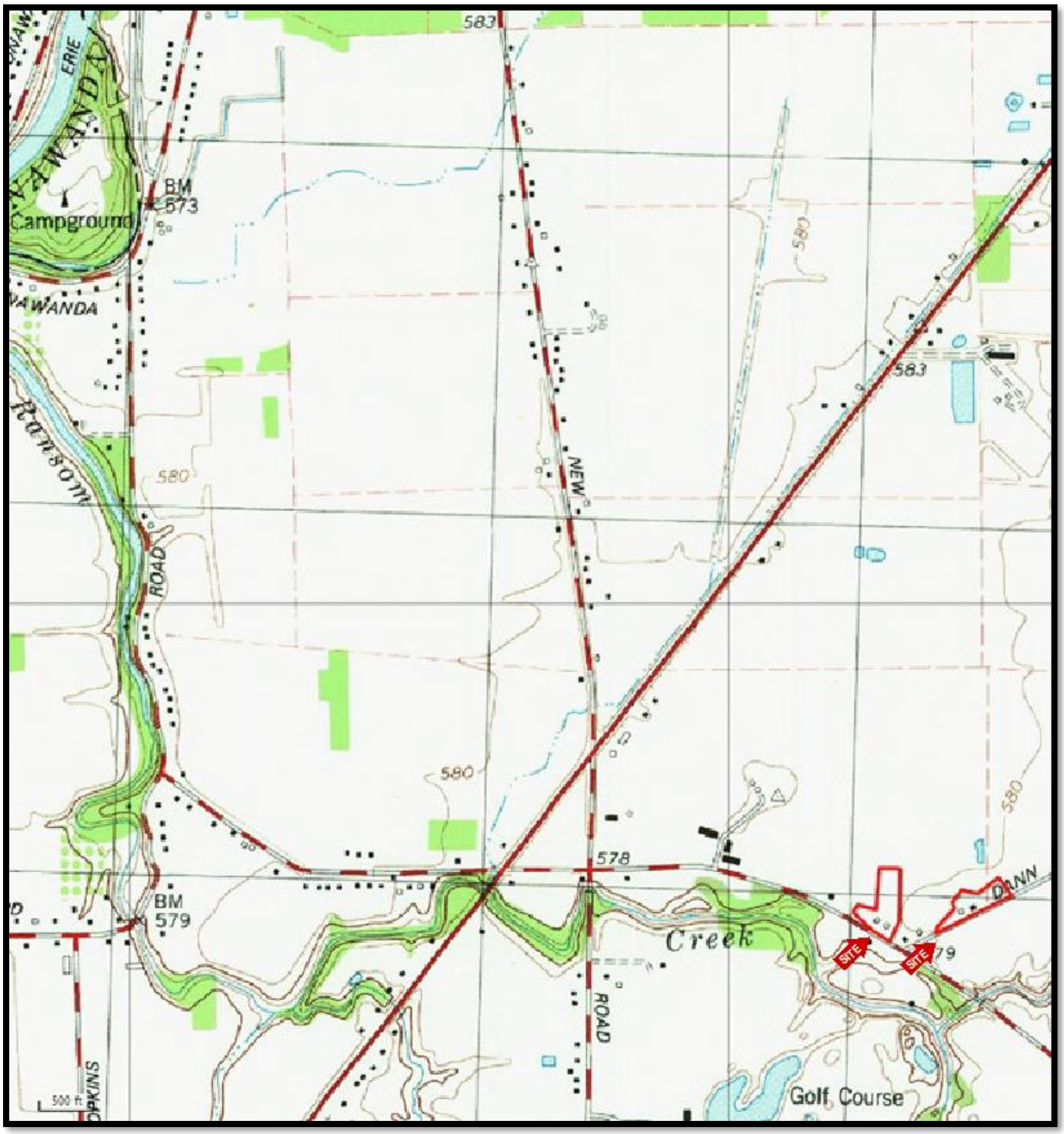

FIGURE 7: DRAINAGE MAP

Clarence Center Quadrangle / U.S. Geological Survey

Lou Gehrig Field Parking

Town of Amherst, Erie County, New York

FIGURE 8: SITE AERIAL PHOTOGRAPH

http://gis2.erie.gov/HTML5/ErieCountyNY/PublicLaunchPage.aspx (Visited 4/21/22)

Lou Gehrig Field Parking

Town of Amherst, Erie County, New York

LOU GEHRIG FIELD PARKING

APPENDIX B – DATA SHEETS

Project Code: W6D93d

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site Lou Gehrig Field Parking Expansion Town/County: Amherst/Erie County Sampling Date: April 19, 2022

Applicant/Owner: Town of Amherst State: New York Sampling Point: D1

Investigator(s): Scott Livingstone & Tom Somerville Section, Township, Range: 16.00-4-20.1

Landform (hillslope, terrace, etc.): LAKE PLAIN Local relief (concave, convex, none): CONCAVE Slope (%): 2-1

Subregion (LRR or MLRA) LRRL Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: ODESSA SILT LOAM, 0-3% SLOPES NWI classification: PEM

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

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

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID: W1

Remarks: (Explain alternative procedures here or in a separate report.)

* W1-1 -> W1-14 (OPEN)

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No X	Depth (inches): 0-2" (SOIL)
Water Table Present?	Yes ___	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): Surface

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Project Code: W6D93d

VEGETATION : Use scientific names of plants. Sampling Point: D1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Salix discolor	35	Y	FACW
2. Quercus palustris	7	N	FACW
3. Cornus amomum	5	N	FACW
4. Lonicera tatarica	2	N	FACU
5.			
6.			
7.			
	49 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Typha angustifolia	30	Y	OBL
2. Juncus effusus	18	Y	OBL
3. Agrostis stolonifera	10	N	FACW
4. Lythrum Salicaria	9	N	FACW
5. Phalaris arundinacea	5	N	FACW
6. Poa palustris	5	N	FACW
7. Dipsacus fullonum	2	N	FACU
8.			
9.			
10.			
11.			
12.			
	79 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	= 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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 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.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Emergent Marsh / Scrub-Shrub

PEM/SS2B

Hydrophytic Vegetation Present? Yes X No ___

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

Photo # P1 **Direction of Photo** East

- mixed shrubs & herbaceous layer
- numerous dead ash trees & saplings

Wetland W1

Project Code: W6D93d

SOIL

Sampling Point: D1

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
0-7	7.5YR 3/1	100					Si CL	
7-16	7.5YR 5/1	95	7.5YR 5/8	5	C	M	Si C	

[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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ 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: NONE

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

Project Code: W6D93d

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site Lou Gehrig Field Parking Expansion Town/County: Amherst/Erie County Sampling Date: April 19, 2022

Applicant/Owner: Town of Amherst State: New York Sampling Point: DP2

Investigator(s): Scott Livingstone & Tom Somerville Section, Township, Range: 16.00-4-20.1

Landform (hillslope, terrace, etc.): Fill PAD Local relief (concave, convex, none): NONE Slope (%): 2

Subregion (LRR or MLRA) LRRL Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: OdC81A SILT LOAM, 0-3% SLOPES NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	If yes, optional Wetland Site ID: N/A
Wetland Hydrology Present?	Yes _____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND SUCCESSIONAL FIELD/FILL PAD

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): N/A
Water Table Present?	Yes _____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Project Code: W6D93d

VEGETATION : Use scientific names of plants. Sampling Point: D2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Solidago canadensis	35	Y	FACU
2. Dipsacus fullonum	15	Y	FACU
3. Phalaris arundinacea	10	N	FACW
4. Poa pratensis	10	N	FACU
5. Poa compressa	10	N	FACU
6. Alliaria petiolata	8	N	FACU
7. Daucus carota	2	N	FACU
8.			
9.			
10.			
11.			
12.			
	90 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	–	x 1 =	–
FACW species	10	x 2 =	20
FAC species	–	x 3 =	–
FACU species	80	x 4 =	320
UPL species	–	x 5 =	–
Column Totals:	90 (A)		340 (B)

Prevalence Index = B/A = 3.77

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.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: S. Old field / mowed

Hydrophytic Vegetation Present? Yes ____ No X

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

Photo # P2 **Direction of Photo** East

- partially mowed upland field
- numerous dead ash saplings

Project Code: W6D93d

SOIL

Sampling Point: A2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 4/2	100					S-L	Fill

[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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ 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: NONE

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

Remarks:

Project Code: W6D93d

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site Lou Gehrig Field Parking Expansion Town/County: Amherst/Erie County Sampling Date: April 19, 2022

Applicant/Owner: Town of Amherst State: New York Sampling Point: DS

Investigator(s): Scott Livingstone & Tom Somerville Section, Township, Range: 16.00-4-20.1

Landform (hillslope, terrace, etc.): LAKE Plain Local relief (concave, convex, none): NONE Slope (%): 0

Subregion (LRR or MLRA) LRRL Lat: Long: Datum: NAD83

Soil Map Unit Name: LAKEMONT SILT LOAM, 0-3% NW I classification: PFO

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

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

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: W2

Remarks: (Explain alternative procedures here or in a separate report.)

• W2-1 -> W2-4 (OPEN)

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No X	Depth (inches): 0-2" (75%)
Water Table Present?	Yes X	No ____	Depth (inches): Surface
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): Surface

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Project Code: W6D93d

VEGETATION : Use scientific names of plants. Sampling Point: D3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus palustris	75	Y	FACW
2. Ulmus americana	8	N	FACW
3.			
4.			
5.			
6.			
7.			
	83 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Quercus palustris	15	Y	FACW
2. Ulmus americana	8	Y	FACW
3. Cornus amomum	6	N	FACW
4. Fraxinus pennsylvanica	5	N	FACW
5.			
6.			
7.			
	34 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Lysimachia nummularia	12	Y	FACW
2. Phalaris arundinacea	10	Y	FACW
3. Carex stricta	9	Y	OBL
4. Symphyotrichum sp.	3	N	NI
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	34 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 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.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Hardwood Swamp PFO7B

Hydrophytic Vegetation Present? Yes X No ___

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

Photo # P4 **Direction of Photo** Northeast

Wetland W2

Project Code: W6D93d

SOIL

Sampling Point: D3

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	7.5YR 3/1	100					SiL	
6-16	7.5YR 5/1	85	7.5YR 5/8	15	C	M	SiCL	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ 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: NONE

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

LOU GEHRIG FIELD PARKING

APPENDIX C - SITE PHOTOGRAPHS

Photo 1: Facing east. Depicts the emergent marsh/scrub-shrub swamp community of wetland W1 at data point D1.

Photo 2: Facing east. Depicts the successional old field and mowed lawn communities at data point D2.

Photo 3: Facing north. Depicts the existing parking area in the western investigation area.

Photo 4: Facing northeast. Depicts the hardwood swamp community of wetland W2 at data point D3.

Photo 5: Facing east. Depicts the hardwood swamp community of wetland W3.

Photo 6: Facing west. Depicts the existing parking area in the eastern investigation area.

LOU GEHRIG FIELD PARKING

APPENDIX D - REFERENCES

INFORMATIONAL REFERENCES
USED BY EARTH DIMENSIONS INC.

Andrus, R.E. 1980. Sphagnaceae (Peat Moss Family) of New York State. Contributions to a Flora of New York State III, R.S. Mitchell (Ed.), Bulletin No. 442, New York State Museum, Albany, New York. 89 pp.

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