OHIO
HUDSON
ENGINEERING ● 1140 Terex Road ● Hudson, Ohio 44236 ● (330) 342-1770

Date: July 30, 2021

To: Nick Sugar, City Planner, Community Development

From: Nate Wonsick, P.E., Assistant City Engineer

Re: **Barlow Court Townhomes**
Engineering Preliminary Concept Review - Viewpoint #21-539

The City of Hudson Engineering Department has reviewed the concept plan for the above referenced site. Note: The City of Hudson Engineering Standards (Engineering Standards) and Land Development Code (LDC) are available online at the City of Hudson Website www.hudson.oh.us under the Engineering Dept. and Community Development Department respectively. The standards are also available in print for a fee. Please contact our office (330-342-1770) if you would like a cost for the printed version.

Other agency approvals that will be needed prior to the City of Hudson Final Engineering acceptance include:

1. Summit Soil and Water and the Ohio EPA Notice of Intent.
2. Summit County Building Standards shall review the home construction.
3. Summit County DSSS shall review and approve the sanitary sewer for this site.
4. Ohio EPA may need to review the sanitary and water systems, if applicable.
5. US Army Corp. of Engineers for any wetland disturbed areas, if applicable.

Overall Comments:

6. All street signage shall be provided by the developer.
7. The City of Hudson Engineering Standards will be reviewed as part of the improvement plan submittal of the project design. Note: Section 5 of the Engineering Standards - The storm water runoff and management shall be designed for the 25-year post-developed storm to be detained to the 1-year pre-developed storm for this site. **This means that the net stormwater runoff from this site will be reduced after the project is complete. Also, it should be noted that fencing is not required around detention or retention basins per City Codes. Currently, a detention basin is proposed for the site to manage stormwater. A detention basin would have 2 separate shallow pools of water (approximately 3 feet deep) at the inlet and outlet during dry conditions and would fill with several feet of water during heavy rain events and drain down slowly over 48 hours after the rain event.**
8. An access easement surrounding the detention basin and the outlet structure sewer to the downstream point of discharge or connection to the City sewer system will be required to be granted to the City as part of the Long Term Maintenance Agreement. It appears the outlet structure sewer is located on property owned by M7 Realty LLC.
9. Since the traffic trip generation was less than 60 (**the report states 17 trips during the peak hour**), no further traffic study is required by the developer except checking for adequate sight distance at the subdivision entrance. **The average daily traffic on this section of Barlow Road is approximately 995 vehicles per day. If there are existing**

traffic concerns in the area, engineering will forward these concerns to the Traffic Safety Committee for consideration. The Traffic Safety Committee will determine if the City will undertake any traffic studies in this area.

10. Submit a wetland delineation of the site in accordance with the LDC section 1207.03 with the next submittal.
11. A professional engineer with a current Ohio registration shall stamp, sign and date the plans for all applicable engineering work including the storm water management calculations.

If you have any questions, please contact me.

Sincerely,

Nate Wonsick, P.E.
Assistant City Engineer

C: File.

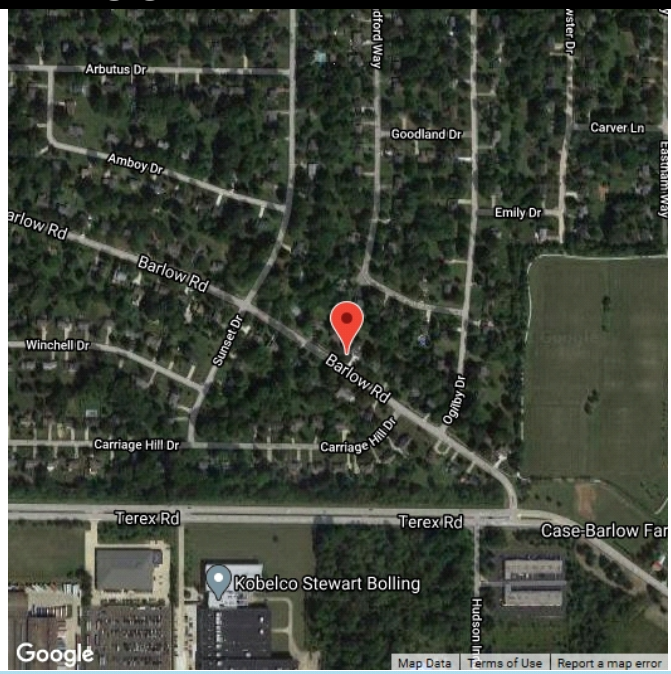
OHIO
HUDSON

Disclaimer

SPEED DATA ANALYSIS

Location

Latitude: 41.219381
Longitude: -81.430524



Analysis Time Period

Start	End
3/15/2021 11:00 AM	3/22/2021 8:37 AM

Speed Limit

25

Average Speed

22

Vehicles Analyzed

5,664

Peak Time of Violations

3/17/2021
6:00 PM

85th Percentile Speed

27

OHIO
HUDSON

Disclaimer
Site Code:
Station ID:
Location 1:
Location 2:
Latitude: 0.000000
Longitude: 0.000000

File Name: East Barlow rd
Date Printed: 8/5/2021
Start Date: 3/15/2021
End Date: 3/22/2021
GPS Accuracy: 0 ft
Location Verified: No

Summary: Using Average and Correction Factors

Average Volume	995
ADT	995
AADT	995

Average Daily Traffic Count

OHIO
HUDSON

Disclaimer
Site Code:
Station ID:
Location 1:
Location 2:
Latitude: 0.000000
Longitude: 0.000000

File Name: East Barlow rd
Date Printed: 8/5/2021
Start Date: 3/15/2021
End Date: 3/22/2021
GPS Accuracy: 0 ft
Location Verified: No

Average Daily Traffic By Day

Use	Date	Lane	Volume	x	User	x	Daily	=	ADT	x	Season	=	AADT	Channel
False	3/15/2021	Direction X, Lane 1	338		1.00		1.00		338		1.00		338	1
False	3/15/2021	Direction X, Lane 2	398		1.00		1.00		398		1.00		398	2
False	3/15/2021	Day Total	0						0				0	
True	3/16/2021	Direction X, Lane 1	481		1.00		1.00		481		1.00		481	1
True	3/16/2021	Direction X, Lane 2	535		1.00		1.00		535		1.00		535	2
True	3/16/2021	Day Total	1,016						1,016				1,016	
True	3/17/2021	Direction X, Lane 1	495		1.00		1.00		495		1.00		495	1
True	3/17/2021	Direction X, Lane 2	557		1.00		1.00		557		1.00		557	2
True	3/17/2021	Day Total	1,052						1,052				1,052	
True	3/18/2021	Direction X, Lane 1	482		1.00		1.00		482		1.00		482	1
True	3/18/2021	Direction X, Lane 2	492		1.00		1.00		492		1.00		492	2
True	3/18/2021	Day Total	974						974				974	
True	3/19/2021	Direction X, Lane 1	504		1.00		1.00		504		1.00		504	1
True	3/19/2021	Direction X, Lane 2	602		1.00		1.00		602		1.00		602	2
True	3/19/2021	Day Total	1,106						1,106				1,106	
True	3/20/2021	Direction X, Lane 1	420		1.00		1.00		420		1.00		420	1
True	3/20/2021	Direction X, Lane 2	556		1.00		1.00		556		1.00		556	2
True	3/20/2021	Day Total	976						976				976	
True	3/21/2021	Direction X, Lane 1	372		1.00		1.00		372		1.00		372	1
True	3/21/2021	Direction X, Lane 2	476		1.00		1.00		476		1.00		476	2
True	3/21/2021	Day Total	848						848				848	
False	3/22/2021	Direction X, Lane 1	40		1.00		1.00		40		1.00		40	1
False	3/22/2021	Direction X, Lane 2	61		1.00		1.00		61		1.00		61	2
False	3/22/2021	Day Total	0						0				0	

SHAWN KASSON
Fire Marshal
skasson@hudson.oh.us
(330) 342-1869

M E M O R A N D U M

DATE: July 8, 2021

TO: Nick Sugar, City Planner

FROM: Shawn Kasson, Fire Marshal SK

SUBJECT: Barlow Road Townhomes

I have reviewed the 06/17/21 revision of the preliminary site plan for the proposed Barlow Road townhomes for conditional use approval. Upon review I have the following comments:

- The fire apparatus access road throughout the site must be designed to support fire apparatus weighing 60,000 pounds. Submit calculations to support weight bearing capacity.
- The private fire hydrants must meet City of Hudson specifications.
- The fire main supplying the private fire hydrants must be sized to provide adequate fire suppression water supply (minimum 6" diameter).
- The following equipment must be protected from vehicle impact in an approved manner (6" curb with setback or bollards):
    - Private fire hydrants
    - Ground mounted electrical transformers (If provided)

Note: The scope of this review is preliminary and limited the conditional use approval. The applicant must submit detailed design plans for review and final approval.

Please contact me with any questions.

TMS Engineers, Inc.
Transportation Management Services
2112 Case Parkway South, #7 • Twinsburg, Ohio 44087
www.TMSEngineers.com

April 22, 2021

Mr. Matthew Neff, P.E.
M. Neff Consultants
14855 Broadway Avenue #100
Cleveland, Ohio 44137

Re: Proposed Residential Development
Hudson, Ohio
Trip Generation Analysis

TMS Engineers, Inc. has performed the following trip generation analysis for a residential subdivision which is to be located in the City of Hudson, Ohio. The development will be located on the south side of Barlow Road across from Argyle Drive (see **Location Map, Figure 1**). The purpose of the trip generation analyses is to estimate the traffic that will be generated by the proposed subdivision which will contain 16 single family homes. The site plan for the residential development can be seen in **Figure 2**. The following are the results of our trip generation analysis.

Trip Generation

The calculation of future driveway trips requires an estimate of traffic the development will generate after construction. The most widely accepted method of determining the amount of traffic that a proposed development will generate is to compare the proposed site with existing facilities of the same use. This estimate is typically expressed as a trip rate. In order to estimate traffic for the residential subdivisions, a trip rate was calculated using data and procedures found in the Institute of Transportation Engineers (ITE) **"Trip Generation" Manual, Tenth Edition**.

The trip generation analyses utilized the Single Family Detached Housing land use (ITE Code 210) information. A copy of the trip generation worksheet for the residential development can be seen in the attached **Figure 3**.

Proposed Trip Generation Calculations

Based on the trip generation analysis described on the previous page, the table on the next page shows the estimated generated traffic during the AM and PM peak hour for the proposed subdivision based upon the national averages considering the number of dwelling units.

ITE TRIP GENERATION		Dwelling Units	TRIP ENDS	
ITE Code	Description		Weekday Peak Hour Between 7-9 AM	Weekday Peak Hour Between 4-6 PM
210	Single Family Detached Housing	16	16	17

The previous table shows that the proposed development is expected to generate a total of 16 trips in the AM peak hour and 17 trips in the PM peak hour. It is our opinion that, when the anticipated changes in traffic volumes are at these levels, the traffic generated by the homes should not have an impact on the surrounding street network system.

This opinion is based upon the fact that traffic impact studies are recommended to be performed by the **Institute of Transportation Engineers** whenever an increase in trips in any peak hour is greater than 100 trips per hour. This recommendation is made because this is the point where a change in roadway capacity may be found and mitigation may or may not be needed. The anticipated generated volumes from this development are less than daily variations in the current volumes on the local roadway network and should not be perceived by the traveling public.

The Ohio Department of Transportation concedes that traffic studies are only necessary when the resulting trip increase is more than 60 trips in either of the peak hours. This is stated in their **State Highway Access Management Manual**. Since the proposed homes are expected to generate less than 60 trips, it is our professional opinion that the change in the amount of generated traffic will **not** have an impact on the surrounding roadway network nor require traffic analyses.

If you have any questions or need additional information, please do not hesitate to contact me.

Very truly yours,

TMS Engineers, Inc.

Andrew J Pierson P.E.
Senior Traffic Engineer

Attachments

4401 Lyman Drive
Suite C
Hilliard, OH 43026

T (614) 705-2250

www.sme-usa.com

August 5, 2021

Mr. Michael David, Esq.
Triban Investments LLC
7555 Fredle Drive, Suite 2010
Painesville, Ohio

Via Email: mdavid@knez.net

RE: Environmental Condition Assessment Report
Vacant Parcel 30-10258
Barlow Road
Hudson, Ohio
SME Project No. 087356.00.001

Dear Mr. David:

We have completed an Environmental Condition Assessment of the project site located on the south side of Barlow Road across from Argyle Drive (Property). This letter provides our interpretation of Property conditions at the time the assessment was completed, based on field observations and a review of readily available historical and regulatory records. The assessment was requested to identify recorded and readily observable environmental concerns associated with the Property.

Our scope of services included a reconnaissance of the Property, review of historical aerial photographs, city directories, Sanborn Fire Insurance Maps, and topographic maps. We also reviewed a regulatory database report for the Property and surrounding area.

This letter report comprises the following elements: 1) property description, 2) historical records review, 3) Property reconnaissance, 4) findings, opinions, and conclusions.

Based on the reviewed historical documents, it appears that the Property has not been previously developed. SME found no evidence of environmental concerns related to the Property.

PROPERTY DESCRIPTION

The Property, parcel number 30-10258, currently consists of two distinct portions: a vacant lot that is mostly brush and tree covered and a paved parking lot that is part of the commercial businesses to the west. It is 3.23 acres in size and is bordered by Barlow Road and then residences to the north, residences to the east and south, and commercial businesses to the west.

HISTORICAL REVIEW

We reviewed historical aerial photographs provided by Environmental Risk Information Services (ERIS), dated 1937 to 2019. A summary of our review is provided below.

AERIAL PHOTOGRAPH SUMMARY	
YEAR(S)	**COMMENTS**
1937 - 1959	**Property:** From 1937 to 1959, the Property consisted of farmland. **Surrounding Area:** The Property was bordered by a road to the north (Barlow Road). The area east, south and west consisted of farmland. A farmhouse was present to the east.
1962	**Property:** By 1962, the Property was no longer under cultivation. **Surrounding Area:** The surrounding area is unchanged.
1970 - 1975	**Property:** The Property appears to have had a pond constructed in the central portion and the excess soil was stockpiled to the north of it in 1970. The soil pile was not present in 1975. The western portion of the Property has been developed as part of the parking lots for the commercial businesses to the west. **Surrounding Area:** A subdivision was being built east of the Property.
1980	**Property:** The pond is no longer present and the Property is covered with vegetation. It appears the pond was filled with the excess soil that was stockpiled to the north. **Surrounding Area:** A large commercial building was present to the west in 1970 and another was added in 1975. A subdivision was being built north of Barlow Road.
1994 - 2019	**Property:** The Property is covered in vegetation. **Surrounding Area:** The surrounding area was developed with commercial buildings to the west and residential development to the north, east, and south.

SME did not identify environmental concerns based on the aerial photographs.

We reviewed historical topographic maps provided by ERIS, dated 1906 to 2016. A summary of our review is provided below.

TOPOGRAPHIC MAP SUMMARY	
YEAR(S)	**COMMENTS**
1906	**Property:** Structures were not present on the Property. Barlow Road is present to the north. **Surrounding Area:** A small structure was present to the east, along Barlow Road.
1953 - 1963	**Property:** Structures were not present on the Property. **Surrounding Area:** The small structure to the east is still present and another further south is also present. An apparent orchard occupies the property to the east.
1963 - 1970	**Property:** Structures were not present on the Property. **Surrounding Area:** The small structure to the east is still present and another further south is also present. A large structure is present to the west.

TOPOGRAPHIC MAP SUMMARY	
YEAR(S)	**COMMENTS**
1970 - 1984	**Property:** Structures were not present on the Property. **Surrounding Area:** The small structure to the east is no longer present but the other structure further south is present. A new large structure is present to the west and residential development is occurring to the north, across Barlow Road. Residential development is also occurring to the east.
1994 – 2016	**Property:** Structures were not present on the Property. **Surrounding Area:** The area is much like it is in 2021. The small structure to the east of the southern Property boundary and the orchard is no longer present.

The topographic maps do not depict any development of the Property. Environmental concerns were not identified from our review of the topographic maps.

We reviewed abstracts and copies of historical city directories provided by ERIS, dated 1970 to 2020. There is no address for the Property and as such, we conducted our search based on the Barlow Road addresses on the adjoining properties, 1438 and 1510 Barlow Road. A summary of our review is provided below.

CITY DIRECTORY SUMMARY	
YEAR(S)	**COMMENTS**
1970 - 2020	**Property:** There are no listed occupants of the Property **Surrounding Area:** The adjoining properties on Barlow Road were residences.

SME did not identify evidence of environmental concerns based our review of city directories.

ERIS reported there was no fire insurance map coverage for the Property or surrounding area. SME did not find any coverage in the Ohio Public Library Information Network.

ENVIRONMENTAL RECORD SOURCES

We retained ERIS on August 2, 2021, to query the state, federal, and tribal regulatory agency databases to identify regulated and/or environmentally impacted sites within the specified approximate minimum search distances. ERIS also queried other readily available regulatory agency databases.

The listed sites do not appear to represent an environmental condition in connection with the Property based on the status of the sites and distance from the Property. Vapor intrusion risks were not identified.

PROPERTY RECONNAISSANCE OBSERVATIONS

Mr. Dylan Leepart performed a Property reconnaissance on August 3, 2021. At that time, the Property consisted of highly vegetated land. A manhole was present in the center of the Property. Mr. Leepart observed no evidence of pools of liquid, septic systems or water supply wells.

HAZARDOUS SUBSTANCE OR PETROLEUM PRODUCT USE AND STORAGE

Mr. Leepart observed one, empty, 55-gallon drum on the western part of the Property, adjoining the parking lot. Staining or stressed vegetation was not observed near the drums and the footprint of this area is considered de-minimis; therefore, the drum does not represent an environmental condition.

USTS/ASTS
Mr. Leepart observed no evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs).

PCB-CONTAINING EQUIPMENT
Mr. Leepart observed no evidence of PCB-containing equipment such as transformers. Electrical lines and associated transformers are located across Barlow Road.

PITS, PONDS, AND LAGOONS
Mr. Leepart observed no evidence of pits, ponds, or lagoons.

WASTE GENERATION, TREATMENT, STORAGE, AND DISPOSAL
Mr. Leepart observed an area near the west Property boundary were a pile of refuse consisting of scrap metal, railroad ties, and concrete debris were present. Staining and stressed vegetation were not observed near the debris; therefore, they do not represent an environmental condition.

OTHER EXTERIOR FEATURES
Mr. Leepart observed no other features indicative of environmental concerns.

FINDINGS AND CONCLUSIONS

SME did not identify environmental concerns related to the Property. We conclude the Property can be redeveloped for residential purposes.

SME's project team conducted this assessment to identify environmental concerns in connection with the Property and to assess the relative significance of the identified concerns. The findings, opinions, conclusions, and recommendations presented in this report are based upon observations noted during the site visit, and information obtained during the performance of the scope of services on the dates indicated. In the process of obtaining the field and historical information in preparation of this report, procedures were followed that represent reasonable and accepted environmental practices and principles, in a manner consistent with that level of care and skill ordinarily exercised by members of these professions currently practicing under similar concerns. Records reviewed at various locations as identified within the text of this report, include only those records that were provided to SME by the referenced department on the date indicated. As such, the records provided to SME may not represent all records available at a given source. Appropriate inquiries were made into the past uses of the Property consistent with good commercial or customary practice. SME conducted no testing or subsurface sampling for this assessment.

Due to unknown or latent concerns on the Property, or on adjoining or nearby properties, which may become evident in the future, SME does not represent the Property is free of contamination or hazardous waste material. It should also be noted the Property concerns may change over time. Should additional surface, subsurface, chemical, or other data become available after the date of issue of this report, the findings, conclusions and recommendations contained in this report may have to be modified. SME should be retained to review the new information and adjust our opinion and recommendations accordingly.

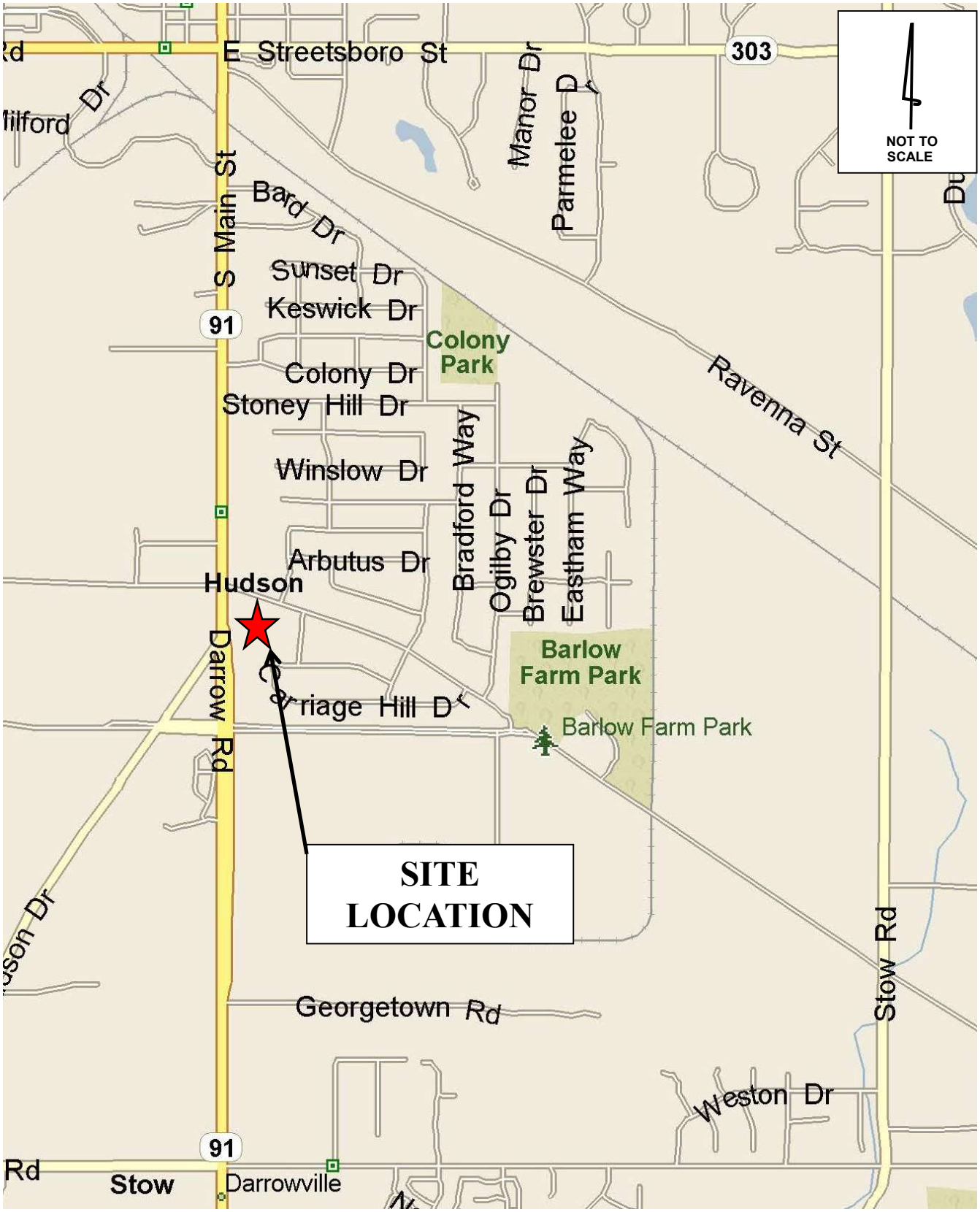
All reports, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by SME as instruments of service are the property of SME. No parties other than Triban Investments LLC and their assigned may rely upon SME's opinions, conclusions or reports unless SME has agreed to such reliance in writing. In any event, any reliance will be subject to the terms and concerns set forth in the contractual agreement under which this work was performed.

If you have any questions concerning this report, or if additional services are required, please contact us.
Sincerely,

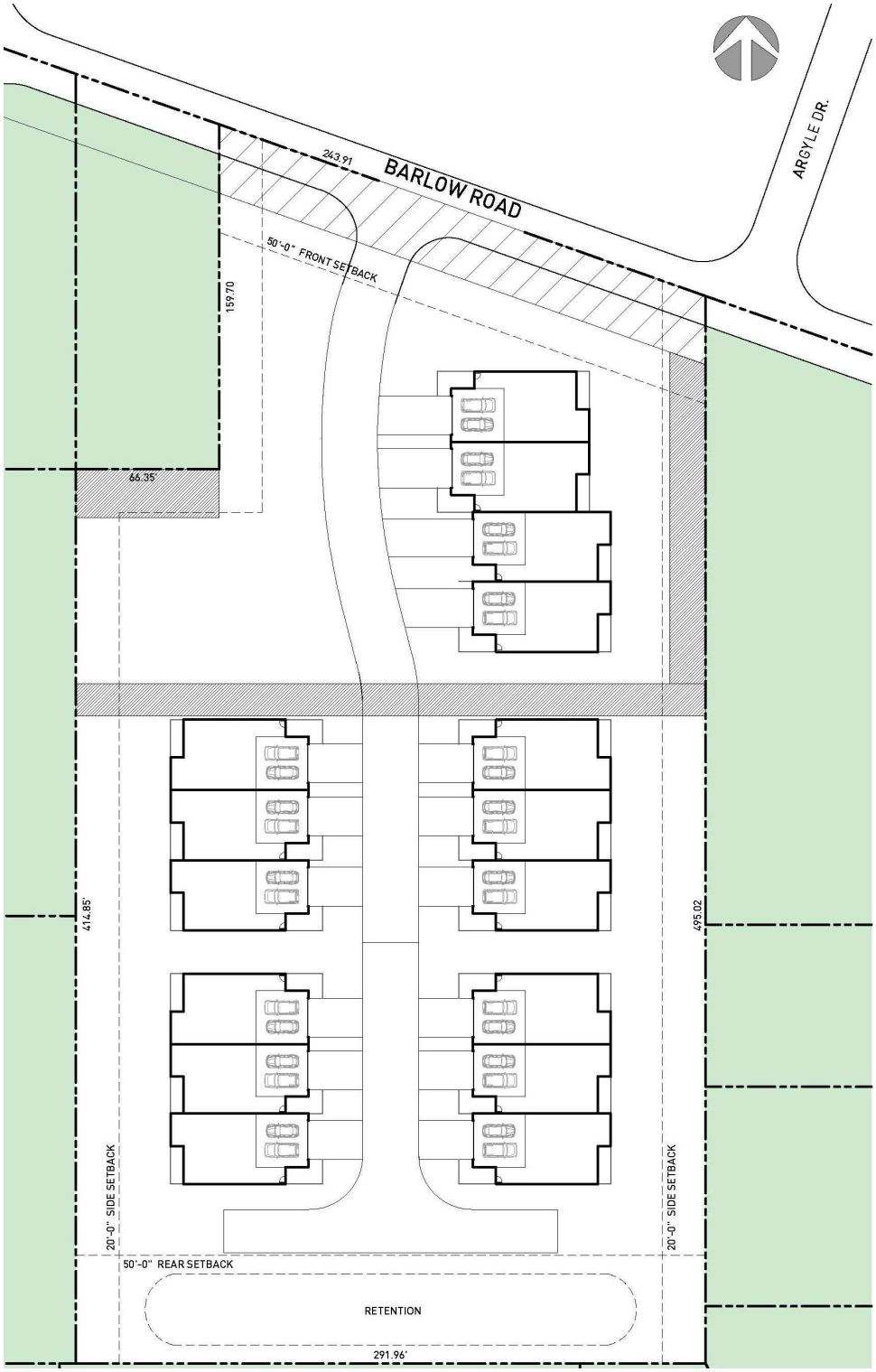
SME

Keith Egan, CP
Chief Consultant

Colin O. Flaherty, CP, CPG, PG
Senior Consultant



TMS Engineers, Inc. Transportation Management Services 2112 Case Parkway S., Unit 7, Twinsburg, Ohio 44087 www.TMSEngineers.com	Residential Development Hudson, Ohio Trip Generation Analysis	Location Map	Figure 1 Attachment



NOT TO SCALE

TMS Engineers, Inc.
Transportation Management Services
2112 Case Parkway S., Unit 7, Twinsburg, Ohio 44087
www.TMSEngineers.com

Residential Development
Hudson, Ohio
Trip Generation Analysis

Site Plan

Figure 2

Attachment

Single Family Detached Housing

ITE Code = 210

Date: 4/22/2021

Trip Generation based on: Dwelling Units

Size of Analysis Area: 16 Units

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Average Weekday 2-way Volume	12.04	3.70	1.00	193
Weekday Peak Hour of Adjacent Street Traffic				
7-9 AM Peak Hour Enter	0.25	0.00	1.00	4
7-9 AM Peak Hour Exit	0.76	0.00	1.00	12
7-9 AM Peak Hour Total	1.01	0.90	1.00	16
4-6 PM Peak Hour Enter	0.69	0.00	1.00	11
4-6 PM Peak Hour Exit	0.40	0.00	1.00	6
4-6 PM Peak Hour Total	1.09	1.05	1.00	17

The above rates were calculated from the equations shown below:

Average Weekday 2-way Volume: $Ln(T) = 0.92\ Ln(X) + 2.71$

Peak Hour of Adjacent Street Traffic

7-9 AM Peak Hour Total: $T = 0.71(X) + 4.80$ — Enter 0.25, Exit 0.75

4-6 PM Peak Hour Total: $Ln(T) = 0.96 Ln(X) + 0.20$ — Enter 0.63, Exit 0.37

Source: **Institute of Transportation Engineers**
Trip Generation Manual, 10th Edition, September 2017

WETLAND DELINEATION

PARCEL NUMBER 3010258
CITY OF HUDSON, SUMMIT COUNTY, OHIO

July 2021

Prepared for:

Triban Investment, LLC

c/o B.R. Knez construction, Inc.

7555 Fredle Drive, Suite 210
Concord Township, Ohio 44077

Prepared by:

HZW Environmental Consultants

6105 Heisley Road ♦ Mentor, Ohio 44060
440-357-1260 ♦ Fax 440-357-1510

TABLE OF CONTENTS

APPENDICES

TABLES

CJB:bdl\H21244-01
Appendices
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WETLAND DELINEATION

Parcel Number 3010258
City of Hudson, Summit County, Ohio
(H21244-01)

1.0 INTRODUCTION

On June 22, 2021, HZW Environmental Consultants, LLC (HZW) conducted a wetland delineation of Parcel Number 3010258, located in the city of Hudson, Summit County, Ohio (herein referred to as the "Study Area"). This study was conducted in accordance with HZW's agreement with Triban Investment, LLC, c/o B.R. Knez Construction, Inc. (herein referred to as the "Client").

1.1 Purpose

The primary purpose of this wetland delineation was to identify areas within the boundaries of the Study Area that meet the three (3) criteria of a wetland: hydrophytic vegetation, hydric soils and wetland hydrology and any other areas (streams, ponds, etc.) that are considered "waters of the United States" and "waters of the State of Ohio."

1.2 Methods of Investigation

All investigative methods and field procedures were performed in accordance with the guidelines established in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (ERDC/EL TR-12-1; January 2012) and the 1987 Army Corps of Engineers (Corps) Manual, Technical Report Y-87-1, Field Guide for Wetland Delineation (1987 Manual). As required by the 1987 Manual, available reference materials were reviewed for the Study Area. These references included, but were not limited to, the 2021 city of Hudson, Ohio, National Wetlands Inventory (NWI) map published online by the United States Fish and Wildlife Service; the 2016 Hudson, Ohio, United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle Map; the Web Soil Survey of Summit County, Ohio (Soil Survey) issued in 2020 by the United States Department of Agriculture (USDA); and a list of hydric soils published by the Natural Resource Conservation Service (NRCS) for Summit County.

The site investigation methods followed the "Areas Equal to or less than 5 Acres in Size," as described in Section D - Subsection 2 of the 1987 Manual. As a new plant community or change in hydrology was observed, a data point was established (designated "DP1" through "DP4"). At each data point, field conditions were evaluated and recorded to determine the presence or absence of hydrophytic vegetation, hydric soil conditions, and wetland hydrology. In addition, a photographic log was prepared for the Study Area during the site investigation activities. At any data point exhibiting all three (3) wetland criteria, the wetland area was assigned a letter designation (e.g., Wetland A) and the delineated boundary of the wetland area was flagged with consecutively numbered, pink and black striped field flagging. The location of each flag was mapped using a Trimble® GeoXH Global Positioning System (GPS) unit. A discussion of the three (3) evaluation criteria of a wetland is presented below.

Hydrophytic Vegetation

Hydrophytic vegetation is the community of macrophytes that occur in areas where inundation or soil saturation is either permanent or of sufficient frequency and duration to exert a controlling influence on the plant species present. Hydrophytic vegetation is present when the plant community is dominated by species that can tolerate prolonged inundation or soil saturation during the growing season. Hydrophytic vegetation is determined by the wetland indicator status (Reed, 1998, or current approved list) of species that make up the plant community. Species in the facultative categories (FACW, FAC, and FACU) are recognized as occurring in both wetlands and non-wetlands to varying degrees. In general, wetlands are dominated mainly by species rated OBL, FACW, and FAC.

The dominant vegetation, representing the major landscape or vegetation units, was determined for each of the four strata (tree, sapling/shrub, herbaceous, and vine) within one or more sampling plots established in representative locations within each unit. Plot size is determined by the type of vegetation present in accordance with the following table.

Trees	30-foot radius	Herb	5-foot radius
Saplings/shrubs	15-foot radius	Woody Vines	30-foot radius

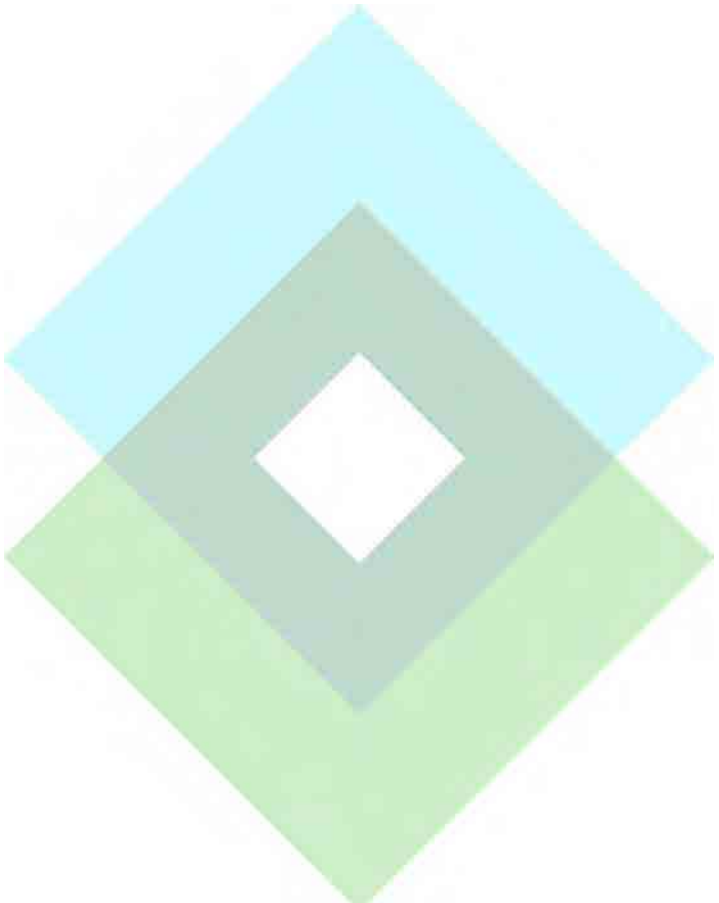
In general, percent cover for all species was estimated to determine abundance (dominance). For species determined to be dominant, the appropriate indicator status was assigned. If all dominant species across all strata were listed as OBL and/or FACW, the plot was determined to exhibit hydrophytic vegetation and a detailed comparison of all dominant species was not necessary to make this determination. If the plot is not dominated solely by OBL and FACW species across all strata, dominant species within all strata were then added to determine the percentage of wetland vegetation for each sample point. The hydrophytic vegetation criterion was determined to be met if greater than 50 percent of the dominant vegetation across all strata was indicative of hydrophytic vegetation.

Hydric Soils

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 of the soil profile. To determine the extent of hydric soils in the Study Area, soil samples were obtained at each data point or at a point proximal to a data point that best represents the estimated boundary of hydric/non-hydric soils based on other field observations. A standard Munsell soil color chart was used to determine the hue, value, and chroma of each soil sample. Soil samples were taken at a sufficient depth such that soil conditions immediately below the A horizon or at a depth of ten (10) inches, whichever is shallowest, can be observed. Criteria established by the National Technical Committee for Hydric Soils (1991 and 2006) were used to determine hydric soils. Hydric soil indicators including redox depletions (gley), low chroma colors with redox concentrations (mottles), histosols (organic matter accumulation - muck/peat), histic epipedons (organic soil over low chroma mineral soils), sulfidic odor, listing on a local hydric soils list, and listing on a national hydric soil list, are used to determine the presence of hydric soils.

Wetland Hydrology

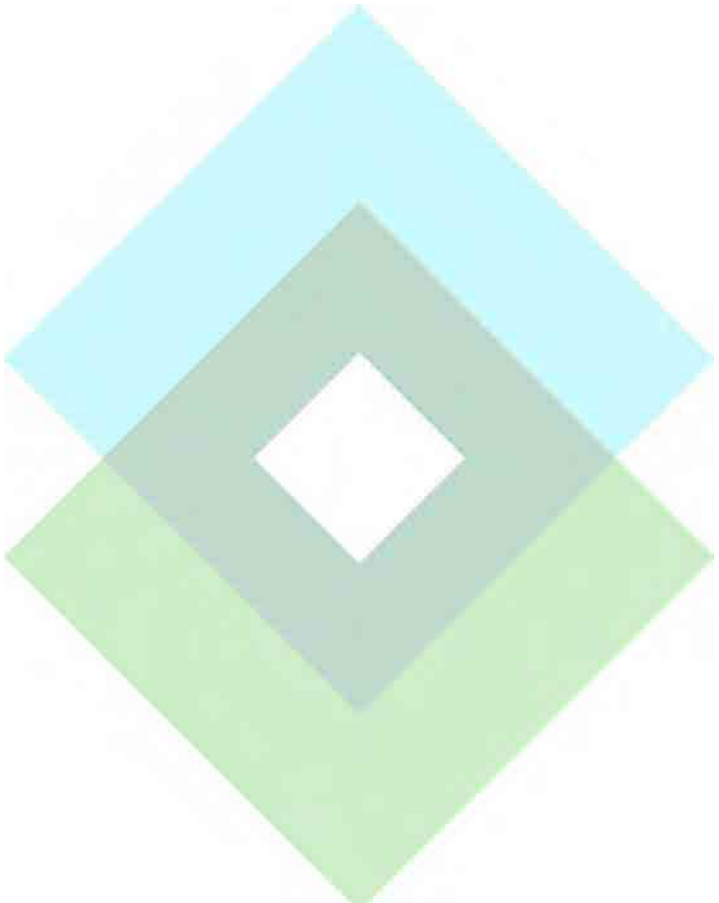
Wetland hydrology indicators are used in combination with indicators of hydrophytic vegetation and hydric soils to determine whether an area is a wetland. Typically, vegetation and soils provide strong evidence that wetland hydrology is also present. Hydrology indicators provide evidence that the site has a *continuing* wetland hydrologic regime and confirm that an episode of inundation or soil saturation occurred recently. Hydrology indicators may provide little additional information about the timing, duration, or frequency of such events. Each data point was examined for the presence of primary and secondary hydrological indicators that indicate surface water or soil saturation, evidence of recent inundation, evidence of current or recent soil saturation, and other on-site conditions or data.



2.0 SITE DESCRIPTION

On June 22, 2021, Benjamin Latoche and Chris Biro, certified wetland delineators with HZW, conducted a field investigation of the Study Area. The Study Area consists of Parcel Number 3010258, which is 3.2 acres in size and is located in the city of, Hudson, Summit County, Ohio. Currently, the Study Area consists almost entirely of undeveloped forest. The western portion of the Study Area is an active parking lot. The Study Area is surrounded by Barlow Road to the north, residential properties to the east and south, and an automotive repair shop and office building with shared parking lots to the west. A site map depicting the location of the Study Area is included as **Figure 1** in **Appendix A**.

The Study Area is located within the Cuyahoga River watershed (HUC 8: 04110002). The Study Area is situated within the Erie/Ontario Drift and Lake Plain ecoregion.



3.0 FINDINGS

The findings of the background resources reviewed and field investigation conducted as part of the delineation activities are discussed separately.

3.1 Background Research

3.1.1 2021 City of Hudson, Ohio, National Wetlands Inventory (NWI) map

No aquatic features are shown within the boundaries of the Study Area on the NWI map.

3.1.2 2016 Hudson, Ohio, USGS 7.5 Minute Topographic Quadrangle Map

The Hudson, Ohio, USGS 7.5-minute topographic quadrangle map indicates that the Study Area is situated at approximately 1,090 feet above National Geodetic Vertical Datum with essentially flat topography. No aquatic resources are depicted within the boundaries of the Study Area on the topographic map. This is in agreement with the NWI map. The portion of the Hudson, Ohio, topographic quadrangle map depicting the Study Area is presented as **Figure 2** in **Appendix A**.

3.1.3 2020 Soil Survey of Summit County

The Soil Survey shows that the Study Area is underlain by three (3) soil types:

ElB **Ellsworth silt loam, 2 to 6 percent slopes.** This deep, gently sloping moderately well drained soil is on knolls and side slopes parallel to drainageways. Included in mapping, particularly in less sloping areas where water from surrounding slopes accumulates, are small areas of the wetter, somewhat-poorly drained Mahoning soils. Runoff is medium. This soil is mapped in the southeastern corner of the Study Area.

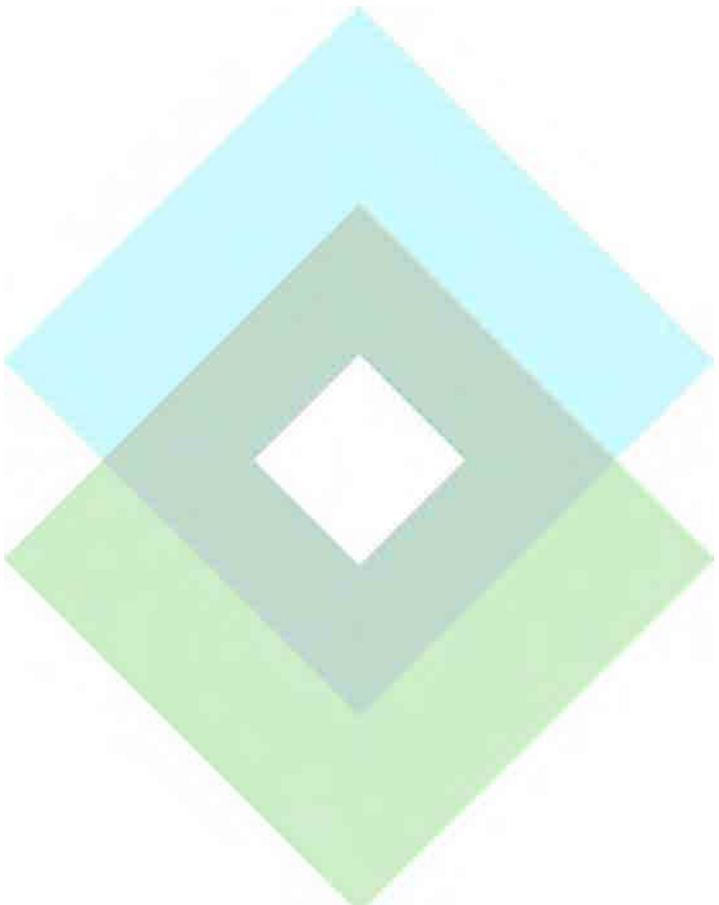
MgA **Mahoning silt loam, 0 to 2 percent slopes.** This soil is in areas between drainageways. Included in mapping are a few spots poorly drained Trumbull soils. Runoff is slow to ponded. Permeability is slow. This soil unit is mapped in the northern half of the Study Area

MgB **Mahoning silt loam, 2 to 6 percent slopes.** This soil is in convex areas on uplands. Included in mapping are a few spots of moderately eroded Mahoning silt loam. Also included, particularly where slopes are 4 to 6 percent, are spots of better drained Ellsworth soils. Runoff is medium to rapid. Permeability is slow. This soil unit is mapped in the southern half of the Study Area.

No aquatic resources are depicted within the boundaries of the Study Area on the Soil Survey. This is in agreement with the NWI and Soil Survey maps.

3.1.4 Hydric Soils List for Summit County

According to the list of hydric soils for Summit County, the three (3) soil types depicted on the Soil Survey as underlying the Study Area, ElB, MgA, and MgB are considered non-hydric with minor hydric components.



3.2 Field Investigation

3.2.1 Wetland Areas Delineated

Field investigation data gathered on June 22, 2021, identified one (1) area within the boundaries of the Study Area that is classified as a wetland based on the presence of the three (3) wetland criteria (wetland hydrology, hydric soils, and hydrophytic vegetation). This area is designated by HZW as "Wetland A". The location of this wetland and the location of the wetland data point (designated "DP1") established during delineation activities is indicated on the aquatic resources map presented as **Figure 3A** in **Appendix A**. A map depicting the aquatic resources overlaying an aerial photograph is presented as **Figure 3B** in **Appendix A**. The photographic log prepared for the Study Area during the field investigation activities is included as **Appendix B**. The wetland determination data forms prepared for the Study Area are included as **Appendix C**. The quality of this wetland was evaluated by HZW using the Ohio Rapid Assessment Method Version 5.0 (ORAM). The ORAM data forms are included as **Appendix D.** A description of the wetland area identified within the boundaries of the Study Area is provided in **Table 1**, below.

Table 1 - Summary of On-Site Wetlands

Wetland	Type	Data Point	Photograph	Acres	ORAM Score (Category)
A	Forested	DP1	1, 2, 3, 4, 5	0.18	44.5 (Modified 2)

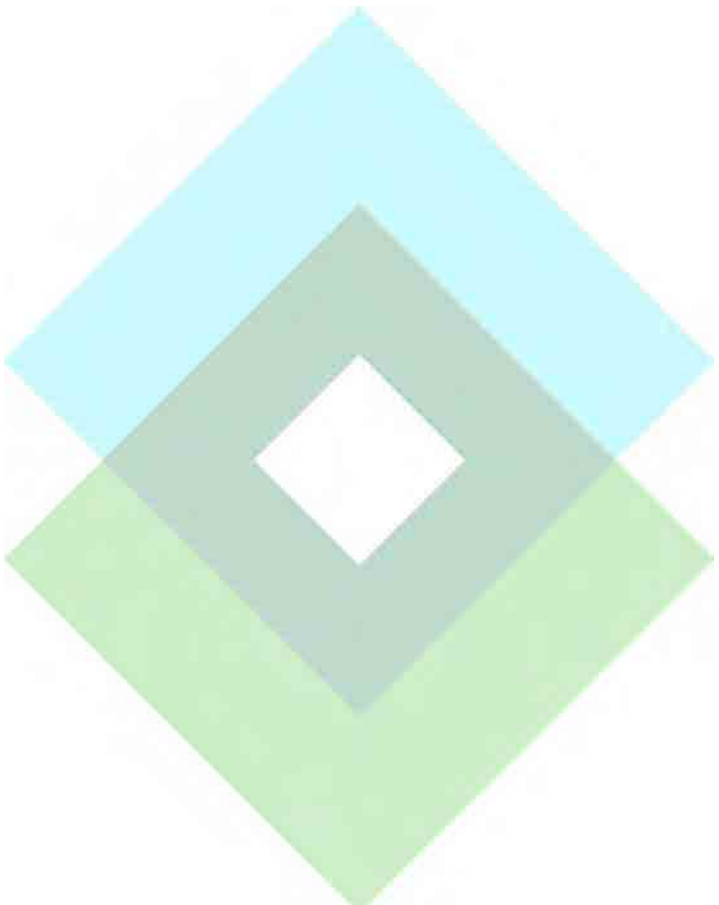
3.2.2 Non-Wetland Areas

The data collected at the remaining data points, DP2, DP3, and DP4, did not meet all of the criteria of a wetland; therefore, these areas are considered non-wetland. Refer to the aquatic resources map presented as **Figure 3A** in **Appendix A** for the location of DP2, DP3, and DP4, and the wetland determination data forms included as **Appendix C** for more detailed information regarding the hydrology, soils, and vegetation found at the non-wetland data points.

4.0 CONCLUSIONS

In summary, one (1) area within the Study Area was identified as containing hydrophytic vegetation, hydric soil, and wetland hydrology, and, therefore, is considered a wetland. Upon completion of the wetland delineation, the location and configuration of the wetland located within the Study Area were mapped using a Trimble® GeoXH GPS unit, which has an accuracy of less than one (1) meter.

The Corps will make the final determination regarding jurisdiction of the identified aquatic resources during the affirmation process.



5.0 DISCUSSION OF FUTURE PERMITTING SCENARIOS

Based on the United States Supreme Court ruling (No. 99-1178), issued on January 9, 2001, it is HZW's understanding that those wetlands that are non-navigable, isolated, and intrastate may no longer be included in the Corps' jurisdiction. In order to inform the Client of all available scenarios pertaining to the development of the Study Area, discussions presented in this report are based on the wetland delineation activities being conducted in accordance with the 1987 Manual and the Regional Supplement, which evaluate wetland characteristics irrespective of whether the wetland area is considered to be non-isolated (federally-regulated) or isolated (state-regulated). Currently, the Corps is making jurisdictional determinations.

For most Nationwide Permits (NWP), if the impacts associated with the activity/development do not exceed 300 linear feet of stream channel and 0.50 of an acre of non-isolated wetlands, coverage under an NWP is appropriate. (Note: all stream impacts must be converted to an acreage and added to the non-isolated wetland impacts; the total impact to all "waters of the U.S." must be under 0.50 of an acre to qualify for this coverage.) A pre-construction notification (NWP application) is required for coverage under most NWPs and compensatory mitigation is generally required.

If future development would impact greater than 0.50 of an acre of waters of the United States and/or exceed the 300 linear foot threshold for stream impacts, a Section 404 Individual Permit from the Corps and a Section 401 Water Quality Certification from the Ohio EPA would be required prior to initiating construction activities. The Corps and Ohio EPA will likely require mitigation for all wetland and stream impacts.

For those wetlands that are only within the jurisdiction of the Ohio EPA, regulations have been developed as House Bill 231. Currently, if less than 0.50 of an acre of isolated wetland impacts are proposed, a General Isolated Wetland Permit (Level 1 Review) will be required prior to impacting those wetlands. Isolated wetland impacts over 0.50 of an acre will require a more detailed permitting process with the Ohio EPA. Compensatory mitigation will be required for any amount of isolated wetland impact.

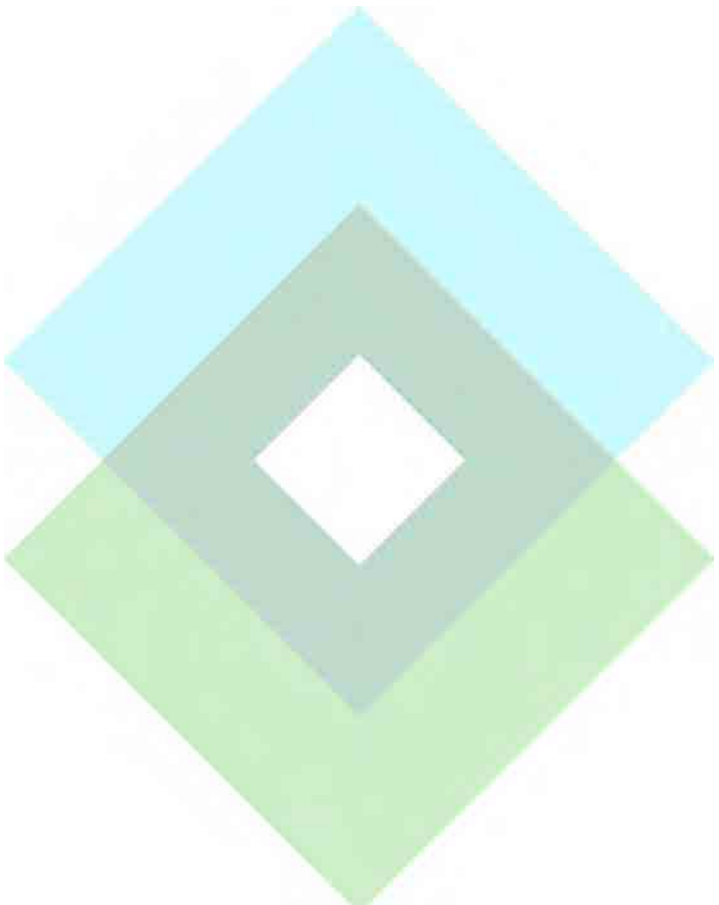
6.0 RECOMMENDATIONS

Based on the findings presented above, HZW presents the following recommendations for consideration at the Study Area:

1. Submit one (1) copy of this wetland delineation report to the Corps for affirmation of the boundary of the wetlands and jurisdictional determination of the aquatic resources located within the Study Area. Presently, the Corps is the agency responsible for conducting wetland affirmations and is providing written jurisdictional determinations.

2. Should impacts be anticipated to the wetlands and/or streams identified on site following a jurisdictional determination, obtain the appropriate permit from the Corps and/or Ohio EPA prior to impacting these areas.

Note: *Should the Corps desire to conduct a field affirmation, additional regulated waters may be identified within the boundaries of the Study Area based on differing field conditions than present during the time this delineation study was conducted.*



7.0 REFERENCES

A bibliography of references reviewed as part of this delineation is presented below.

7.1 Bibliography

1. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed [6/30/21]

2. U. S. Fish and Wildlife Service. 2021. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands [6/30/21]

3. *Topographic Map*, United States Geological Survey; 2016 Hudson, Ohio, USGS 7.5 Minute Topographic Quadrangle.

4. *Field Guide for Wetland Delineation*, United States Army Corps of Engineers, Technical Report Y-87-1, 1987.

5. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, United States Army Corps of Engineers, ERDC/EL TR-12-01, 2012.

6. *List of Hydric Soils for Summit County*, Natural Resource Conservation Service.

7. *National List of Plant Species That Occur in Wetlands: Ohio*, Reed, Porter B., Jr., United States Fish and Wildlife Service, Saint Petersburg, 1988.

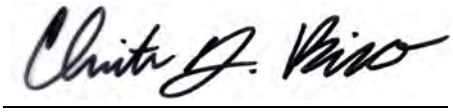
8. *Hydric Soils of the United States*, National Technical Committee for Hydric Soils, United States Department of Agriculture, Soil Conservation Service, Washington, 1991.

9. Mack, John J. 2001. Ohio Rapid Assessment Method for Wetlands v. 5.0, User's Manual and Scoring Forms. Ohio EPA Technical Report WET/2001-1. Ohio Environmental Protection Agency, Division of Surface Water, 401/Wetland Ecology Unit, Columbus, Ohio.

8.0 QUALIFICATIONS

This wetland delineation was conducted on June 22, 2021, by HZW's certified wetland delineators, Benjamin Latoche and Chris Biro. Data collection and report writing were completed by Benjamin Latoche and, Chris Biro. The signatures of the environmental professionals responsible for the preparation of this report are provided below.

Benjamin Latoche
Project Manager

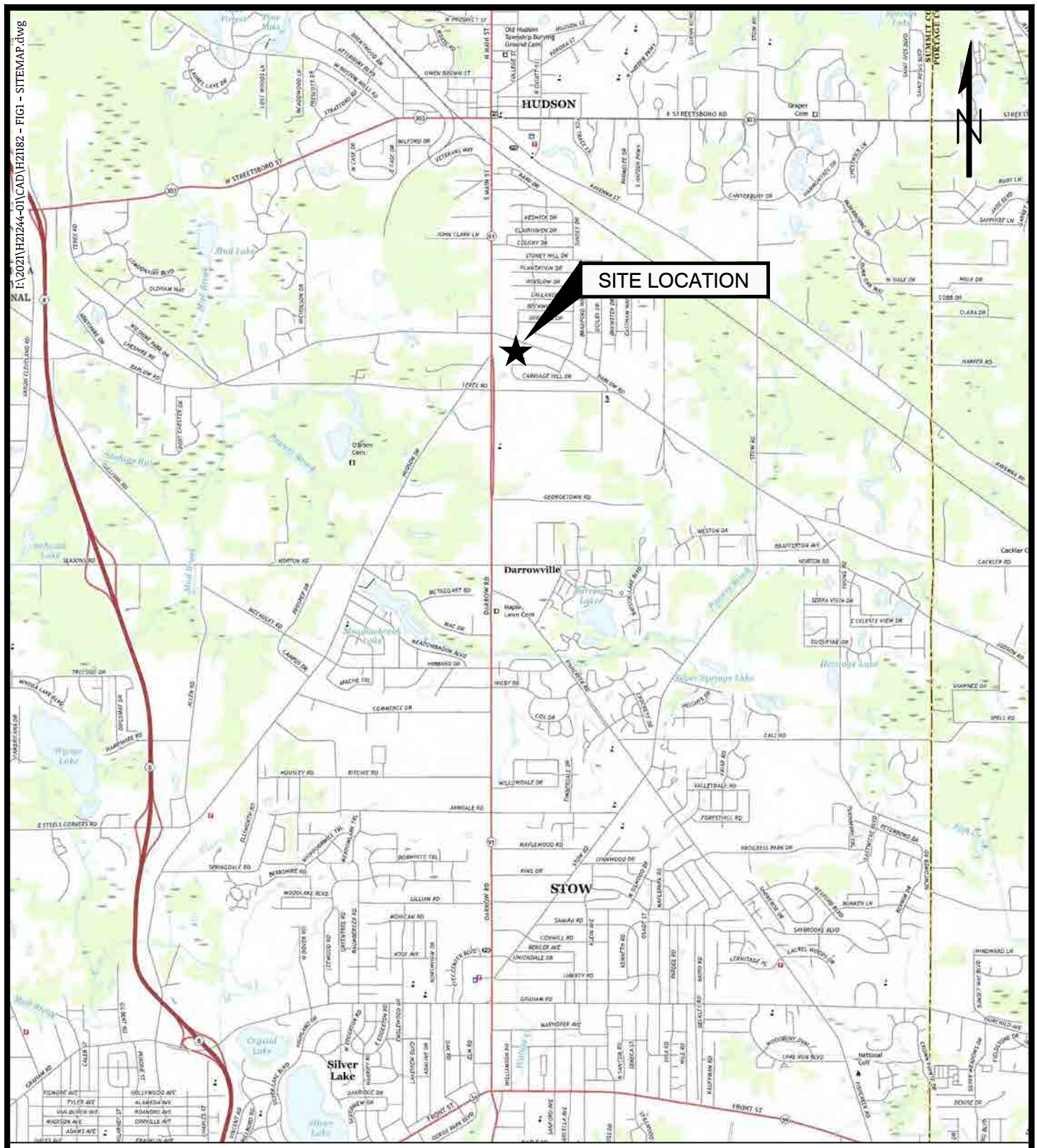


Christopher Biro
Environmental Scientist

APPENDIX A

FIGURES 1-3

Figure 1 – Site Location Map
Figure 2 – USGS Topographic Map
Figure 3A – Aquatic Resources Map- White
Figure 3B – Aquatic Resources Map- Aerial



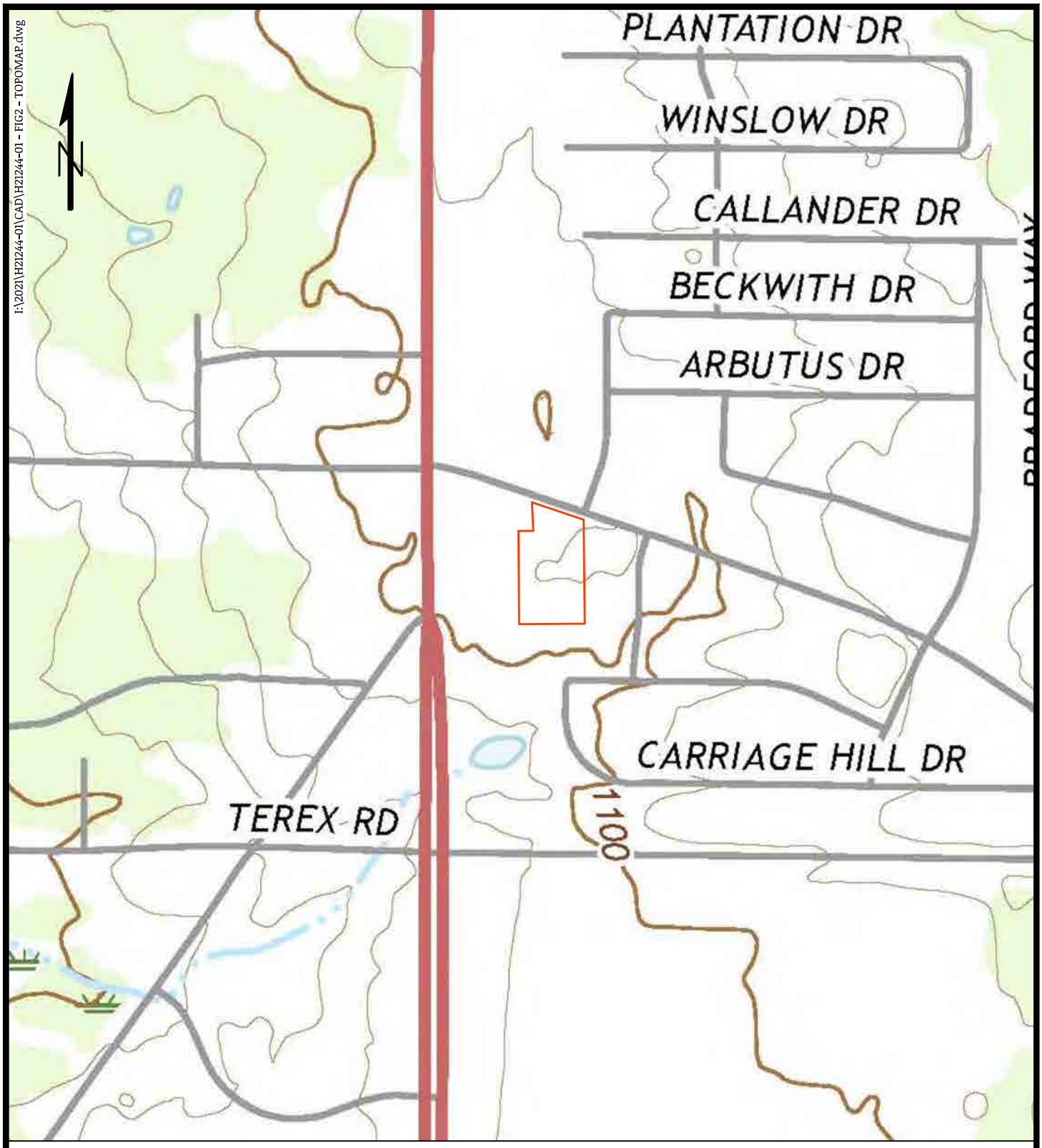
Scale: 1" = 4,000'

0 *4,000* *8,000*

HZW Environmental Consultants

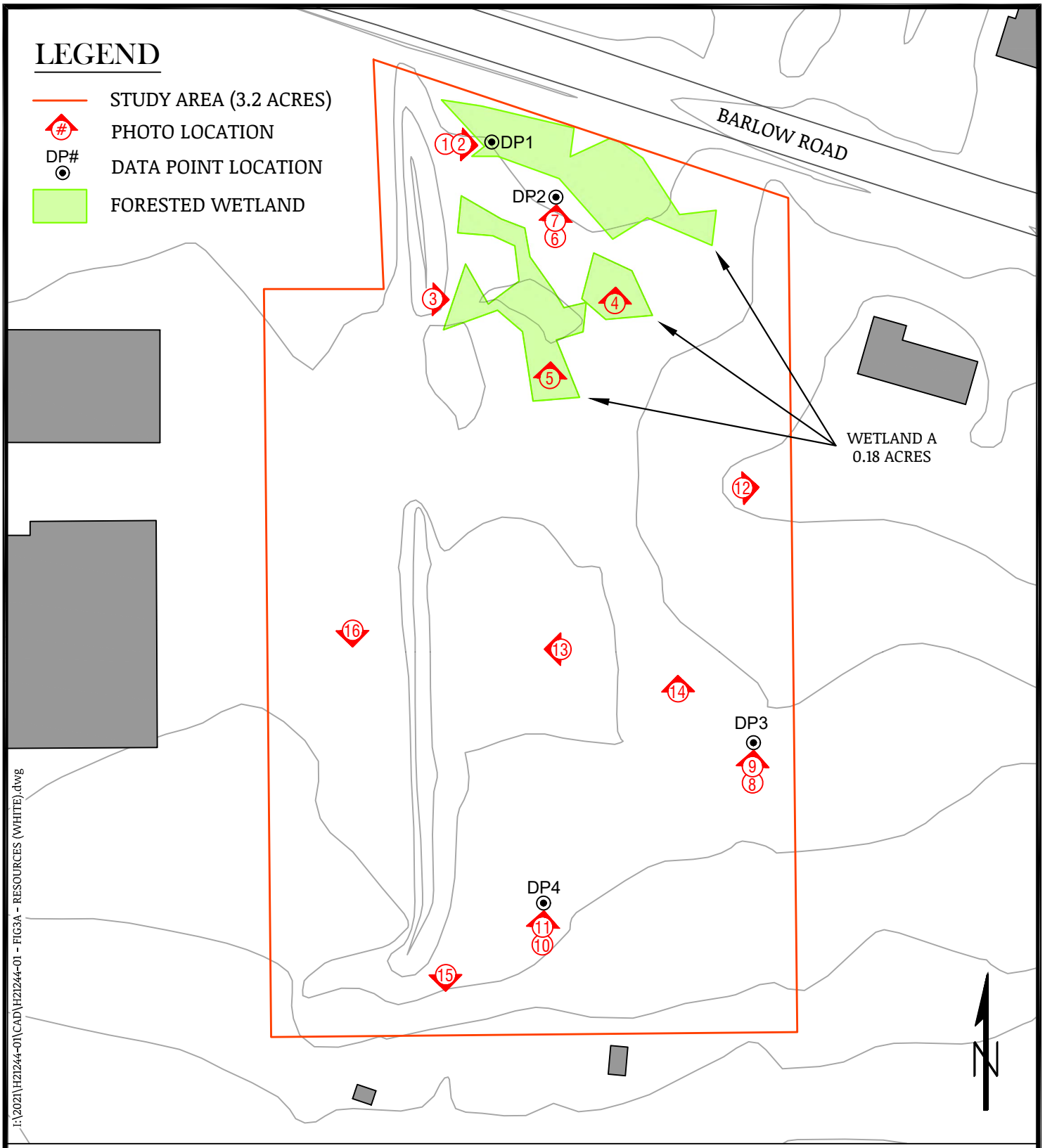
FIGURE 1

SITE LOCATION MAP
PARCEL NUMBER 3010258
CITY OF HUDSON, SUMMIT COUNTY, OHIO



HZW Environmental Consultants

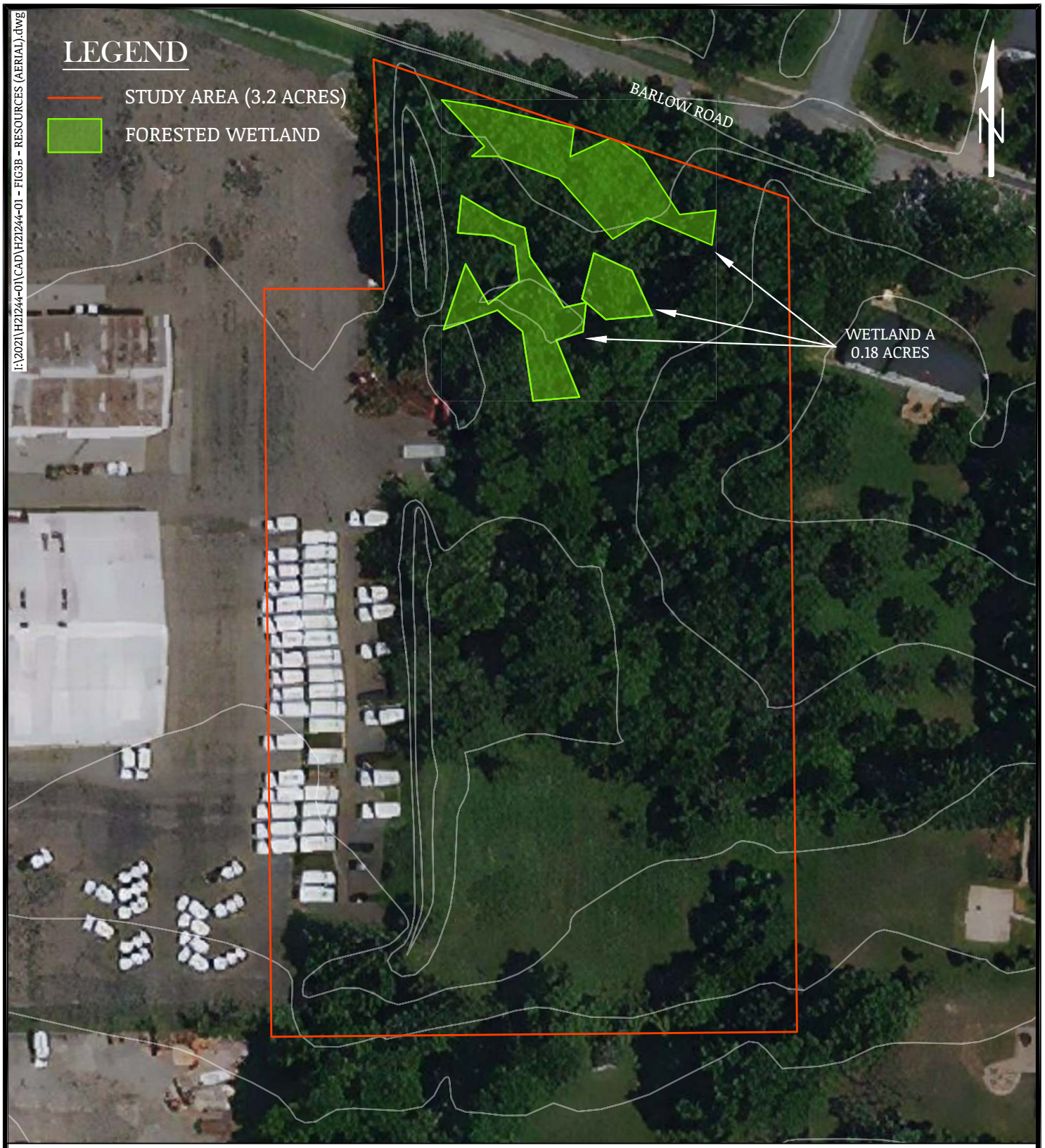
FIGURE 2
TOPOGRAPHIC MAP
NUMBER 3010258
CITY OF HUDSON, SUMMIT COUNTY, OHIO



HZW Environmental Consultants

FIGURE 3A

AQUATIC RESOURCES MAP (WHITE)
PARCEL NUMBER 3010258
CITY OF HUDSON, SUMMIT COUNTY, OHIO



Scale: 1" = 75'

0 *75* *150*

HZW Environmental Consultants

FIGURE 3B

AQUATIC RESOURCES MAP (AERIAL)
PARCEL NUMBER 3010258
CITY OF HUDSON, SUMMIT COUNTY, OHIO

APPENDIX B

PHOTOGRAPHIC LOG

Photograph 1
View of soil profile at Data Point 1 (Wetland A).

Photograph 2
View facing east depicting site conditions at Data Point 1 (Wetland A).

Photograph 3
View of Wetland A facing east.

Photograph 4
View of Wetland A facing north.

Photograph 5
View of Wetland A facing north.

Photograph 6
View of soil profile at Data Point 2 (non-wetland).

Photograph 7
View facing north depicting site conditions at Data Point 2 (non-wetland).

Photograph 8
View of soil profile at Data Point 3 (non-wetland).

Photograph 9
View facing north depicting site conditions at Data point 3 (non-wetland).

Photograph 10
View of soil profile at Data Point 4 (non-wetland).

Photograph 11
View facing north depicting site conditions at Data Point 4 (non-wetland).

Photograph 12
View of the Study Area facing east.

Photograph 13
View of the Study Area facing west.

Photograph 14
View of the Study Area facing north.

Photograph 15
View of the Study Area facing south.

Photograph 16
View of the Study Area facing south.

APPENDIX C

WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Parcel Number 3010258 City/County: Hudson / Summit Sampling Date: 6-22-21

Applicant/Owner: Triban Investment,LLC c/o B.R. Knez Construction, Inc. State: OH Sampling Point: DP1

Investigator(s): BDL / CJB Section, Township, Range:

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %:

Subregion (LRR or MLRA): LRR R Lat: 41.221533° Long: -81.438452° Datum: NAD1983

Soil Map Unit Name: NWI classification:

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**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland A

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

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

Field Observations:

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

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

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	70	Yes	FACW
2. *Acer saccharinum*	20	Yes	FACW
3. *Ulmus americana*	10	No	FACW
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Fraxinus pennsylvanica*	12	Yes	FACW
2. *Frangula alnus*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	22	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Toxicodendron radicans*	20	Yes	FAC
2. *Glyceria striata*	20	Yes	OBL
3. *Scirpus atrovirens*	20	Yes	OBL
4. *Parthenocissus quinquefolia*	10	No	FACU
5. *Potentilla simplex*	10	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	=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: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (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	40	x 1 =	40
FACW species	112	x 2 =	224
FAC species	30	x 3 =	90
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	202 (A)		434 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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 or equal to 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.

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

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

SOIL

Sampling Point DP1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Loamy/Clayey	
6-20	10YR 5/2	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)

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**)
- ___ 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 (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Parcel Number 3010258 City/County: Hudson / Summit Sampling Date: 6-22-21

Applicant/Owner: Triban Investment,LLC c/o B.R. Knez Construction, Inc. State: OH Sampling Point: DP2

Investigator(s): BDL / CJB Section, Township, Range:

Landform (hillside, terrace, etc.): Mound Local relief (concave, convex, none): Convex Slope %:

Subregion (LRR or MLRA): LRR R Lat: 41.221491° Long: -81.438384° Datum: NAD1983

Soil Map Unit Name: NWI classification:

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**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

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

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 Water 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)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP2

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	75	Yes	FAC
2. *Ulmus americana*	25	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Lonicera morrowii*	10	Yes	FACU
2. *Frangula alnus*	15	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	25	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Geum canadense*	5	No	FAC
2. *Toxicodendron radicans*	10	Yes	FAC
3. *Glyceria striata*	10	Yes	OBL
4. *Fraxinus pennsylvanica*	5	No	FACW
5. *Fragaria X ananassa*	5	No	UPL
6. *Solidago rugosa*	15	Yes	FAC
7. *Poa palustris*	10	Yes	FACW
8. *Rosa multiflora*	5	No	FACU
9.			
10.			
11.			
12.			
	65	=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: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	40	x 2 =	80
FAC species	120	x 3 =	360
FACU species	15	x 4 =	60
UPL species	5	x 5 =	25
Column Totals:	190 (A)		535 (B)

Prevalence Index = B/A = 2.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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 or equal to 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.

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

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

SOIL

Sampling Point DP2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 5/2	100					Loamy/Clayey	
8-20	10YR 5/1	80	10YR 7/4	10	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 5/8	10	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)

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**)
- ___ 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 (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Parcel Number 3010258 City/County: Hudson / Summit Sampling Date: 6-22-21

Applicant/Owner: Triban Investment,LLC c/o B.R. Knez Construction, Inc. State: OH Sampling Point: DP3

Investigator(s): BDL / CJB Section, Township, Range:

Landform (hillside, terrace, etc.): Plain Local relief (concave, convex, none): None Slope %:

Subregion (LRR or MLRA): LRR R Lat: 41.220688° Long: -81.438024° Datum: NAD1983

Soil Map Unit Name: NWI classification:

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**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

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

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

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

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP3

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	90	Yes	FACU
2. *Fraxinus pennsylvanica*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Fraxinus pennsylvanica*	10	Yes	FACW
2. *Rosa multiflora*	5	Yes	FACU
3. *Ligustrum vulgare*	10	Yes	FACU
4.			
5.			
6.			
7.			
	25	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Geum canadense*	15	No	FAC
2. *Toxicodendron radicans*	1	No	FAC
3. *Glyceria striata*	50	Yes	OBL
4. *Fraxinus pennsylvanica*	10	No	FACW
5. *Parthenocissus quinquefolia*	5	No	FACU
6. *Carex scoparia*	5	No	FACW
7. *Rubus pensilvanicus*	10	No	FACU
8.			
9.			
10.			
11.			
12.			
	96	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Vitis aestivalis*	20	Yes	FACU
2.			
3.			
4.			
	20	=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: 6 (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	50	x 1 =	50
FACW species	35	x 2 =	70
FAC species	16	x 3 =	48
FACU species	140	x 4 =	560
UPL species	0	x 5 =	0
Column Totals:	241 (A)		728 (B)

Prevalence Index = B/A = 3.02

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 or equal to 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.

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

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

SOIL Sampling Point DP3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/3	100					Loamy/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)

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**)
- ___ 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 (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Parcel Number 3010258 City/County: Hudson / Summit Sampling Date: 6-22-21

Applicant/Owner: Triban Investment,LLC c/o B.R. Knez Construction, Inc. State: OH Sampling Point: DP4

Investigator(s): BDL / CJB Section, Township, Range:

Landform (hillside, terrace, etc.): Mound Local relief (concave, convex, none): Convex Slope %:

Subregion (LRR or MLRA): LRR R Lat: 41.220484°° Long: -81.438430° Datum: NAD1983

Soil Map Unit Name: NWI classification:

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**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

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

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 Water 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)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP4

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. *Phalaris arundinacea*	90	Yes	FACW
2. *Cirsium arvense*	4	No	FACU
3. *Equisetum hyemale*	5	No	FAC
4. *Phytolacca americana*	1	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =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: 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	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		215 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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 or equal to 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.

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

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

SOIL Sampling Point DP4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	100					Loamy/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)

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**)
- ___ 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 (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

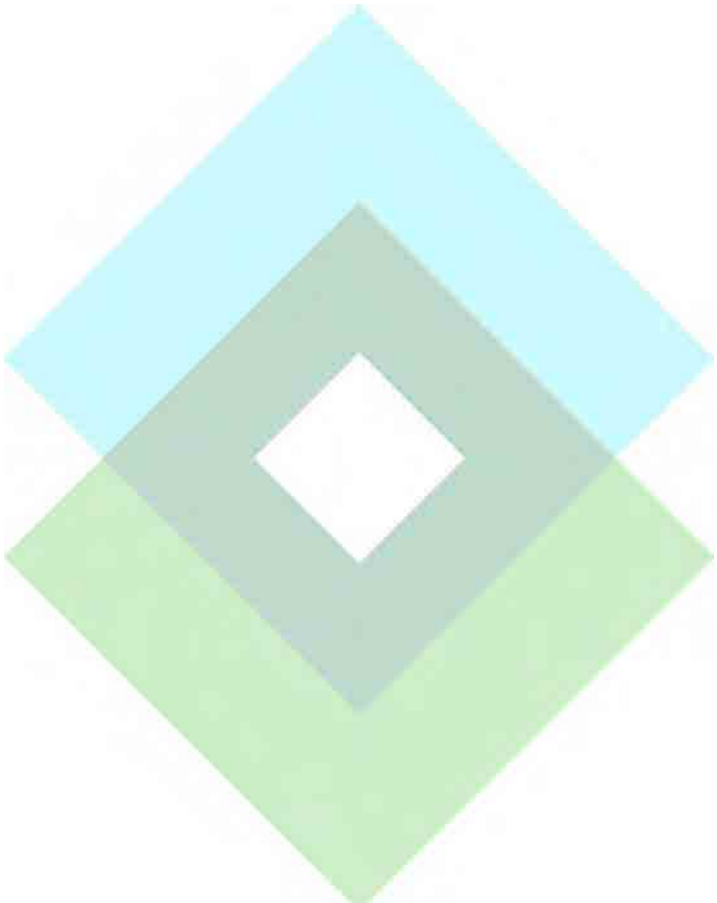
Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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

APPENDIX D

ORAM DATA FORMS



Background Information

Name:	Benjamin Latoche / Chris Biro
Date:	6/22/21
Affiliation:	HZW Environmental Consultants, LLC
Address:	6105 Heisley Road
Phone Number:	440-357-1260
e-mail address:	blatoche@hzwenv.com, cbiro@hzwenv.com
Name of Wetland:	**Wetland A**
Vegetation Communit(ies):	Forested
HGM Class(es):	Depression (I)

Location of Wetland include map, address, north arrow, landmarks, distances, roads, etc.

See Report.

Lat/Lon or UTM Coordinate	41.221512°, -81.438270°
USGS Quad Name	Hudson
County	Summit
City	Hudson
Section and Subsection	
Hydrologic Unit Code	04110002
Site Visit	Yes
National Wetland Inventory Map	Yes
Ohio Wetland Inventory Map	No
Soil Survey	Yes
Delineation Report/Map	Yes

Name: Wetland A	
Wetland Size (acres, hectares)	0.18 ac

Sketch (include north arrow, relationship with other surface waters, vegetation zones, etc.

See Report.

Comments, Narrative Discussion, Justification of Category Changes

Final Score:	**44.5**	**Category**	Modified 2

Scoring Boundaries Worksheet

INSTRUCTIONS: The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small and isolated from surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Unit if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a mitigation site, conservation site, etc.	Yes	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or other parts of a single wetland.	Yes	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Yes	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Yes	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	N/A	
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes, or rivers, or for dual classifications.	Yes	

Narrative Rating

INSTRUCTIONS: Answer each of the following questions. Questions 1, 2, 3, and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/odnr/dnap/. The remaining questions are designed to be answered primarily from the results of the field visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical and biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Reynoldsburg Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle One	
1	**Critical Habitat**. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001 of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	**Threatened or Endangered Species**. Is the wetland known to contain an individual of, or documented occurrences of federally or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland. Go to Question 4	NO Go to Question 4
4	**Significant Breeding or Concentration Area**. Does the wetland contain documented regionally significant breeding or non breeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland. Go to Question 5	NO Go to Question 5
5	**Category 1 Wetlands**. Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundunacea*, *Lythrum salicaria*, or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland. Go to Question 6	NO Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) <25%?	YES Wetland is a Category 3 wetland. Go to Question 7	NO Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral pH (5.5-9.0) and with one more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland. Go to Question 8a	NO Go to Question 8a

#	Question	Circle One	
8a	**"Old Growth Forest."** Is the wetland a forested wetland and the forest is characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b
8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9d	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 9d
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native plant species can also be present?	YES Wetland is a Category 3 wetland. Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings).** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies.** Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1? Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio, Erie County, and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, etc.).	YES Wetland should be evaluated for possible Category 3 status. Go to Question 6	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp.	fen species	bog species	Oak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrotis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrotis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnum frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthun grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginanum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinos			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

ORAM v. 5.0 Field Form Quantitative Rating

Site: Wetland A	Rater(s): BDL/CJB	Date: 6/22/2021

1	0
max 6 pts.	Subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

	>50 acres (>20.2ha) (6 pts)
	25 to <50 acres (10.1 to <20.2ha) (5 pts)
	10 to <25 acres (4 to <10.1ha) (4 pts)
	3 to <10 acres (1.2 to <4ha) (3 pts)
	0.3 to <3 acres (0.12 to <1.2ha) (2 pts)
1	0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
	<0.1 acres (<0.04ha) (0 pts)

8	9
max 14 pts.	Subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

	WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
4	MEDIUM. Buffers average 25m to<50m (82 to <164ft) around wetland perimeter (4)
	NARROW. Buffers average 10m to <25 m (32 to <82ft) around wetland perimeter. (1)
	VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter. (0)

2b. Intensity of surrounding land use. Select one or double check and average.

	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
5	LOW. Old field (>10 years), shrubland, young second growth forest. (5)
3	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
	HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

14.5	23.5
max 30 pts.	Subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

	High pH groundwater (5)
	Other groundwater (3)
1	Precipitation (1)
3	Seasonal/Intermittent surface water (3)
	Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

	100 year floodplain (1)
	Between stream/lake and other human use. (1)
	Part of wetland/upland (e.g. forest) complex (1)
	Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

	>0.7 (>27.6in) (3)
	0.4 to 0.7m (15.7 to 27.6in) (2)
1	<0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score 1 or dbl chk.

	Semi- to permanently inundated/saturated (4)
	Regularly inundated/saturated (3)
	Seasonally inundated (2)
1	Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrological regime. Score one or double check and average.

12	None or none apparent (12)
7	Recovered (7)
	Recovering (3)
	Recent or no recovery (1)

Check all disturbances observed

	Ditch		point source (nonstormwater)
	Tile	X	filling/grading
	Dike		road bed/RR track
	Weir		Dredging
X	stormwater input		other:

15	38.5
max 20 pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

4	None or none apparent (4)
3	Recovered (3)
	Recovering (2)
	Recent or no recovery (1)

4b. Habitat Development. Select only one and assign score.

	Excellent (7)
	Very good (6)
	Good (5)
4	Moderately good (4)
	Fair (3)
	Poor to fair (2)
	Poor (1)

4c. Habitat alteration. Score one or double check and average.

9	None or none apparent (9)
6	Recovered (6)
	Recovering (3)
	Recent or no recovery (1)

Check all disturbances observed

X	Mowing		Shrub/sapling removal
	Grazing		Herbaceous/aquatic bed removal
	Clearcutting		Sedimentation
	selective cutting		Dredging
	woody debris removal		Farming
	toxic pollutants		Nutrient enrichment

38.5
Subtotal this page

Site: Wetland A	Rater(s): BDL/CJB	Date: 6/22/2021

38.5
Subtotal first page

0	38.5
max 10 pts.	Subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

	Bog (10)
	Fen (10)
	Old growth forest (10)
	Mature forested wetland (5)
	Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
	Lake Erie coastal/tributary wetland-restricted hydrology (5)
	Lake Plain Sand Prairies (Oak Openings) (10)
	Relict Wet Prairies (10)
	Known occurrence state/federal threatened endangered species (10)
	Significant migratory songbird/water fowl habitat or usage (10)
	Category 1 Wetland. See Question 1 Qualitative Rating (-10)

6	44.5
max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

	Aquatic Bed
0	Emergent
1	Shrub
2	Forest
	Mudflats
	Open water
	Other:

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

6b. horizontal (plan view) interspersion
Select only one.

	High (5)
	Moderately high (4)
	Moderate (3)
	Moderately low (2)
1	Low (1)
	None (0)

Narrative Description of Vegetation Community

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity, and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants.
Refer to Table 1 ORAM long form for List. Add or deduct points for coverage

	Extensive >75% cover (-5)
	Moderate 25-75% cover (-3)
-1	Sparse 5-25% cover (-1)
	Nearly absent <5% cover (0)
	Absent (1)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Microtopography.
Score all present using 0 to 3 scale.

1	Vegetated hummucks/tussucks
1	Coarse woody debris >15cm (6in)
0	Standing dead >25cm (10in) dbh
1	Amphibian breeding pools

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest qualities
3	Present in moderate or greater amounts and of highest qualities

44.5 GRAND TOTAL (max 100 pts) **CATEGORY: Modified 2**

Refer to the most recent ORAM Score Calibration Report for scoring breakpoints b/w wetland categories at the following address:
http://www.epa.state.oh.us/dsw/401/401.html
last revised 1 February 2001 jjm

ORAM Summary Worksheet

		Circle answer or insert score	
Narrative Rating	Question 1. Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3: may be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3: may be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted	YES (NO)	If yes, Category 3.
	Question 9e. Lake Erie Wetlands – Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3: may be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3.
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3: may be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
	Metric 2. Buffers and surrounding land use	8	
	Metric 3. Hydrology	14.5	
	Metric 4. Habitat	15	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	44.5	Category based on score breakpoints Modified 2

Complete Wetland Categorization Worksheet

Wetland A

Wetland Categorization Worksheet

Choices	Circle one		
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	Yes Wetland is categorized as a Category 3 wetland	(No)	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM.
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	Yes Wetland should be evaluated for possible Category 3 status	(No)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to: Narrative Rating Nos. 5	Yes Wetland is categorized as a Category 1 wetland	(No)	Is quantitative rating score *greater* than the Category 2 scoring threshold (*including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland ha been under-categorized by the ORAM.
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	(Yes) Wetland is assigned to the appropriate category based on the scoring range.	No	If the score of the wetland is located within the scoring range of a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall within the "*gray zone*" for Category 1 or 2 or Category 2 or 3 wetlands?	Yes Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria.	(No)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of the non-rapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC Rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate* OR *superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method ?	Yes Wetland was under-categorized by this method. A written justification for recategoricization should be provided on Background Information Form	(No) Wetland is assigned to category as determined by the ORAM.	A wetland may be under-categorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categoricization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one	Category 1	(Category 2)	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Wetland A

Tree calculations for landscaping requirements

WEST PROPERTY LINE

West Bufferyard Length = 414.85 lf
West Bufferyard Width = +/-27.2' (25' width minimum required)

Bufferyard Required = D (at 25' width)	Required	Proposed
4 Canopy per 100 lf	17	0
8 Understory per 100 lf	33	10
8 Evergreen Trees per 100 lf	33	56
18 Shrubs per 100 lf	75	34
	83	**67**
Tree Credit Utilized		16

EAST PROPERTY LINE

East Bufferyard Length = 463.28 lf
East Bufferyard Width =+/-40' (15' width minimum required)

Bufferyard Required = C (at 40' width)	Required	Proposed
2 Canopy/Evergreen per 100 lf	9	15
4 Understory per 100 lf	19	6
5 Shrubs per 100 lf	23	23
	28	**21**
Tree Credit Utilized		7

SOUTH PROPERTY LINE

South Bufferyard Length = 291.96 lf
South Bufferyard Width = 60.22' (15' width minimum required)

Bufferyard Required = B (at 60' width)	Required	Proposed
2 Canopy/Evergreen per 100 lf	6	15
4 Understory per 100 lf	12	0
5 ShrubS per 100 lf	15	15
	18	**15**
Tree Credit Utilized		3

RESIDENTIAL LANDSCAPE REQUIREMENTS

Total number of units = 16 attached townhomes

Front Yard Bufferyard Plantings	Required	Proposed
2 Trees (minimum 1" DBH) per unit	32	3
Tree Credit Utilized		29

FRONT YARD/FRONT SETBACKS

Front Yard length = 242.78 lf

Front Yard Bufferyard Plantings	Required	Proposed
4 Small per 100 lf	10	0
2 Large or Medium per 100 lf	5	4
	15	**4**
Tree Credit Utilized		11