18 Corporate Woods Boulevard 4th Floor Albany, New York 12211 Main: 877 627 3772 colliersengineering.com



Via Email October 21, 2025

Town of Washington 10 Reservoir Dr., Millbrook, NY 12545

Oak Summit Road Culvert Reconstruction - Town Wetlands Permit

Project No. 23013783G

Dear Planning Board Members,

Colliers Engineering & Design (Colliers) have attached the Town's local Wetland Permit Application regarding the Oak Summit Road Culvert Reconstruction project. This project seeks to replace the Oak Summit Road culvert, as the existing structure has reached the end of its useful life. The Oak Summit Road culvert is situated roughly 60 feet north of the intersection with Camby Road. The replacement of this structure is necessary to maintain access to Oak Summit Road from Camby Road for residents, visitors, and farm equipment. Oak Summit Road also allows vehicles to pass from NYS Route 343 to Camby Road and vehicles from a Dutchess County Department of Public Works facility on CR 95 utilize Oak Summit Road as well.

Background:

The Town of Washington's Town Board and Highway Department submitted a BridgeNY grant application in 2023 and was awarded \$1.5 million dollars for the replacement of this structure. Bridge NY is administered by the NYSDOT, and the project follows their guidelines for *Local Projects*. As such, NYSDOT is the main agency reviewing and approving the project as it goes through multiple stages from initial concept, through detailed design and construction. To date, the project has concluded *Design Approval* with the NYSDOT and is awaiting official notification to proceed into Detailed Design. It is at this stage that we can begin permitting processes with other involved agencies such as: NYSDEC, USACE, Dutchess County, and the Town of Washington's wetland permit review process.

Proposed Structure:

The proposed culvert replacement would maintain the same roadway alignment of Oak Summit Road, and install a precast, fixed frame set on cast-in-place strip footings, in the same location as the existing structure. The span (opening under the structure) will increase from 19.5-ft to 26-ft in accordance with NYSDEC requirements for increasing spans by a min. factor of 1.25. Bedrock is shallow in this area, allowing the structure to be set on the bedrock and avoid use of piles. Other improvements will include reconstruction of Oak Summit Road within the project limits, stone armoring and the inlet and outlet of the structure and required guardrail. The project will require a detour and is slated for construction in summer 2026. A Public Information Meeting was held at Town Hall on April 4, 2025. No public comments were received.

Project No. 23013783G October 21, 2025 Page 2 | 3



Wetlands:

The wetland limits for this project were derived from the Review of Environmental Resources performed by The Chazen Companies in 2015. (Appendix H) Within this study, it was found that the stream running north-south that converges prior to the Oak Summit Road culvert is a NYSDEC VB-3 regulated wetland. This wetland is located east of the culvert but is within the NYSDEC 500-foot "checkzone". This stream, also known as Sprout Creek, is a Class C(T) stream. Although the Chazen study is dated, the character of the area up to the wetland delineation boundary has been meticulously maintained by the homeowners surrounding the structure and has not changed since our resurvey in 2024. (Appendix E).

As part of this project, there will be some work within the wetlands described above but will be minimized as much as practical. It is anticipated that there will be 1174 SF of wetland disturbance and there will be 155 CY of excavation below the OHW in order to successfully install the proposed culvert.

SEQR:

The Town of Washington Town Board completed SEQR in December 2024 for use in the NYSDOT Design Approval process. A copy is attached for your records.

Draft Application:

As part of the Town's Wetland Application, the following items are included:

- A. **Survey:** Provided in Appendix E.
- B. **Plans at 50-scale or less:** Please see attached general plan and excavation sections for the Oak Summit Road culvert reconstruction in Appendix C.
- C. **Wetland Descriptions:** Wetland delineations and descriptions were provided by The Chazen Companies within their Review of Environmental Resources in Appendix H.
- D. **Soils:** Soils map/report is provided as part of the Review of Environmental Resources performed by The Chazen Companies in Appendix H.
- E. **SEQRA EAF:** Resolution attached in Appendix G.
- F. **Deeds/Easements:** There is no deed for Oak Summit Road, owned and maintained by the Town of Washington under NYS Highway Law Section 189.
- G. **Ag. District information:** Town of Washington Agricultural Data Statement is provided in Appendix B which includes three (3) owners within 500 feet of the structure that have active farming activity.
- H. **List of property owners**: Provided in Appendix F.
- I. **Application Fee & Escrow:** Considered waived for this Town sponsored project.

Project No. 23013783G October 21, 2025 Page 3 | 3



Sincerely,

Colliers Engineering & Design CT, PC

Daniel Farnan, PE, CPESC, CPSWQ Department Manager

 $https://collierseng-my.sharepoint.com/personal/daniel_farnan_collierseng_com/Documents/Desktop/Cover Letter - Oak Summit Wetlands Permit.docx - Action (Control of the Control of the Co$



Appendix A – Town of Washington Application for Wetlands and Watercourse Permit



TOWN OF WASHINGTON PLANNING BOARD

10 Reservoir Drive ● P.O Box 667 Millbrook, NY 12545 ● (845) 677-3419 EXT 112 ●

planningboard@washingtonny.org

APPLICATION FOR WETLANDS AND WATERCOURSE PERMIT PURSUANT TO ZONING CODE SECTION 396

Submit Application and four copies to:			
Zoning Administrator	T: (845) 677-3419, Ext. 112		
Town of Washington	F: (845) 677-1195		

10 Reservoir Drive <u>buildinginspector@washingtonny.org</u>

Millbrook, NY 12545

With electronic copy to:

Planning Board Secretary at T: (845) 677-3419, Ext. 112

planningboard@washingtonny.org F: (845) 677-2085

I. Applicant and Site Information

Applicant		
Name:	Town of Washington	
Address	10 Reservoir Drive, Millbrook, NY 12545	
Phone Nu	mber: <u>845-677-3419</u> Email:	: ccbriggs@washingtonny.org
Project Re	epresentative (if different from the App	olicant)
Name & T	itle: Daniel Farnan, P.E Colliers Engineering	g & Design
Address: _	18 Corporate Woods Blvd., Albany NY, 12211	
Phone Nu	mber: <u>518 807 6162</u> Email:	daniel.farnan@collierseng.com
Project Sit	te	
Project Sit	te Address (if different from Applicant's)	Oak Summit Road :
Tax Map P	Parcel Number: N/A - Public Land/Right of W	Vay
Zoning Dis	strict:LC (Land Conservation) & RL-5 (Low	Density Residential)
Overlay Di	istrict(s), if any: <u>APO Overlay</u>	
•	nd describe any agricultural and forestry oject is road corridor and Town Right of Way.	vexemptions:
Tax Map P Zoning Dis Overlay Di Identify ar	Parcel Number: N/A - Public Land/Right of Workstrict: LC (Land Conservation) & RL-5 (Low istrict(s), if any: APO Overlay and describe any agricultural and forestry	Vay Density Residential)

Applicant Name:	Town of Washington
-----------------	--------------------

II. Detailed Description of Activity

Describe the proposed activity or development, e.g., buffer disturbance, stream disturbance, filling in wetlands, etc.:

The Oak Summit Road Culvert is situated approximately 40 feet north of the intersection between Oak Summit Road and County Road 90, providing access for both residents, visitors, and farm equipment. The route also allows vehicles to pass from NYS Route 343 to Camby Road (CR 90). Vehicles from a Dutchess County Department of Public Works facility on CR 95 utilize the culvert as well. As the culvert approaches the end of its functional lifespan, the Town of Washington has proposed repairs and fortification of the structure to ensure continued service.

The proposed culvert replacement would maintain the same roadway alignment of Oak Summit Road. The proposed structure is a precast fixed frame set on cast-in-place strip footings, in the same location as the existing structure minimizing the overall stream disturbance. Bedrock was located at roughly 10 feet below existing grade. The existing bedrock would be mechanically removed for the footings that will be doweled into the existing bedrock. The new structure will feature cast-in-place wingwalls, with footings that will also be doweled into the bedrock to provide additional sliding resistance.

Describe why the proposed activity cannot be located at another site, i.e., out of the wetland, watercourse, water body or controlled area(s):

The existing culvert will need to be replaced in its current location to maintain access for local residents, visitors, and farm equipment. For the installation of the proposed structure, there will be 155 CY of excavation below Ordinary High Water, as seen in the general plan in Appendix C.

IV. Required Documents & Information

The following documents and information <u>must</u> be included with your application, unless you have received a written waiver from the Zoning Administrator:

A. A survey of the property delineating all wetlands, watercourses, water bodies and controlled areas on the site within two hundred (200) feet of the location of the regulated activity.

Prior to filing an application, the Applicant should consult with the Zoning Administrator/Building Inspector to determine whether professional delineation is required for their initial application submission.

- If a professional delineation is required, the Applicant may hire a private wetland consultant or the Town of Washington's wetland consultant.
- If a professional delineation is not required, the NYS DEC Environmental Mapper may provide a useful tool in identifying the location of the wetlands, watercourses, water bodies and controlled areas on the property and can be accessed here: https://gisservices.dec.ny.gov/gis/erm/.

Applicant Name:	Town of Washington

B. A survey of the property, prepared by a licensed professional, surveyor or architect, at a scale no greater than one inch equals 50 feet (1"= 50') and containing contour intervals of five (5) feet or less in the regulated area, showing the area of wetlands, watercourses and water bodies directly or indirectly affected by the proposed regulated activity.**

**Information required in Section IV.A and Section IV.B may be combined in one survey.

- The requirement that a survey be prepared by a licensed professional, surveyor, or architect may be waived by the Zoning Administrator for proposed activity which is minor and limited in scope. An example of such minor activity would be the installation of a small shed in the buffer area. [Note, the Planning Board reserves the right, after initial review, to determine that such a survey is necessary.]
- C. Description of the vegetative cover of the area, including dominant species and their wetland classified status as set forth in the most recent edition of the National List of Plant Species that Occur in Wetlands, New York or the Northeast (Region 1), located at https://digitalmedia.fws.gov/digital/collection/document/id/1348/.
- D. Description of the soil types on the site as provided in Dutchess County Soil Survey, located at https://www.dutchessny.gov/Departments/Planning/Docs/nrichapfour.pdf or the USDA Web Soil Survey, located at https://websoilsurvey.sc.egov.usda.gov.
- E. Short Form Environmental Assessment Form (EAF) under SEQRA. This can be found at https://www.dec.ny.gov/docs/permits_ej_operations_pdf/seafpartone.pdf.

This Short Form EAF may also be filled out using the EAF Mapper Tool which creates the form as you go. See https://gisservices.dec.ny.gov/eafmapper. After initial review, the Planning Board may require a Long Form EAF (see below).

- F. Copy of the current deed and any easements affecting the property.
- G. If the property is located in an Agricultural District, please include a Town of Washington Agricultural Data Statement, located at https://washingtonny.org/document-center/planning-board-forms-general-information/1688-agricultural-data-statement-pdf/file.html.
- H. A list of the names and addresses of all abutting property owners.

I. Application Fee and Escrow Deposit An Application Fee and an initial Escrow Deposit for the amounts listed below must be included with this application.

Fee Type	Amount			
ESCROW FEE (DUE FOR ALL APPLICATIONS)				
Initial Escrow Deposit:	\$1,500.00			
Plus the below amount:				
Projects under \$10,000.00 in development costs	\$2,000.00			
Projects with \$10,001.00 - \$50,000.00 in development costs	\$5,000.00			
Projects over \$50,001.00 in development costs	\$10,000.00			
WETLANDS PERMIT FEE	\$600.00			

V. Additional Documents Following Planning Board's Initial Review

After an initial review of your application, the Planning Board may require additional documents and information, including but not limited to the following:

- A. Long Form EAF under SEQRA. This can be found at https://www.dec.ny.gov/docs/permits-ej-operations-pdf/feafpart1.pdf.
- B. Ground water table elevations indicating depth to ground water, direction of flow and hydrologic connections with surface water features.
- C. Applications affecting the water retention capacity, water flow, or other drainage characteristics of any wetland, watercourse or water body may require a statement of impact of the project on upstream and downstream areas giving appropriate consideration to flood and drought levels and the amount of rainfall.
- D. Where creation of a lake or pond is proposed, details of the construction of any dams, embankments, outlets or other water control devices and an analysis of the wetland hydrologic system including seasonal water fluctuation, inflow/outflow calculations and subsurface soil, geology and groundwater conditions.
- E. Locations and specifications for any proposal to drain, fill, grade, dredge and clear vegetation, including areas and quantities proposed for deposit or removal, the procedures to be used and dominant species of vegetation to be removed. A letter from the United States Army Corps of

Applicant Name: Town of Washington

Engineers stating that the wetlands and watercourses are not subject to regulation under Section 404 of the Clean Water Act, or a copy of a Section 404 Application, may also be required for certain activities set forth herein.

- F. Locations and details of any existing and proposed storm water drainage facilities, including any point discharges, artificial inlets, or other conveyances, which would discharge into regulated areas, and measures proposed to control erosion both during and after the proposed work including a schedule for installation and maintenance for such measures.
- G. An analysis of hydrologic systems located within and connected to the regulated areas and a narrative to explain how the regulated areas will be affected by the proposed action including water retention capacity, water flow and drainage characteristics, Applications for projects affecting the water retention capacity, water flow, or other drainage characteristics of any pond, lake, reservoir, natural drainage system, or wetland shall include a statement and numerical calculations of the impact of the projects on upstream and downstream areas giving appropriate consideration to other-than-normal levels of watercourses and amounts of rainfall, specifically the 100-year storm event.

Please note that if the Applicant is aware that the scope of the proposed regulated activity will necessitate provision of some or all of the above-described additional information, the Applicant may include such information with the initial application.

Signature of Applicant:

Applicant Name: Jan of Washington



TOWN OF WASHINGTON PLANNING BOARD

10 Reservoir Drive • P.O Box 667 Millbrook, NY 12545 • (845) 677-3419 EXT 112 •

planningboard@washingtonny.org

AFFIDAVIT TO BE COMPLETED BY AGENT OF OWNER

	te of New York } ss: unty of Albany }
	Daniel Farnan P.E. being duly sworn, deposes and says:
1.	That he/she is the agent named in the foregoing application for Oak Summit Road Culvert Reconstruction - Town of Washington and that he/she has
	been duly authorized by the owner in fee to make such application and that the foregoing statements contained therein are true to the best of his/her knowledge and belief.
2.	That he/she resides at18 Corporate Woods Blvdin the County of
3.	That he/she is the Engineer of Record of the within property as described in the
	foregoing application for Planning Board approval and that the statements contained therein are
	true to the best of his/her knowledge and belief.
4.	That he/she understands that the Town of Washington Planning Board intends to rely on the
	foregoing representations in making a determination to issue the requested applications and
	approvals and that under penalty of perjury he/she declares that he/she has examined this
100	affidavit and that it is true and correct.
	Jun 10-21-25
Ag	ent/Owner Agent/Owner
No	ELYSE SHAPIRO NOTARY PUBLIC, STATE OF NEW YORK Registration No. 01SH0003327

7

Qualified in Albany County Commission Expires MARCH 22, 2027



Appendix B – Town of Washington Agricultural Data Statement



TOWN OF WASHINGTON PLANNING BOARD

10 Reservoir Drive ● P.O Box 667 Millbrook, NY 12545 ● (845) 677-3419 EXT 112 ● planningboard@washingtonny.org

AGRICULTURAL DATA STATEMENT

Pursuant to New York State Town Law 283-a and NYS Agriculture and Markets Law 305-b, this Data Statement will be used to evaluate the potential impacts of a proposed development on farm operations in agricultural districts.

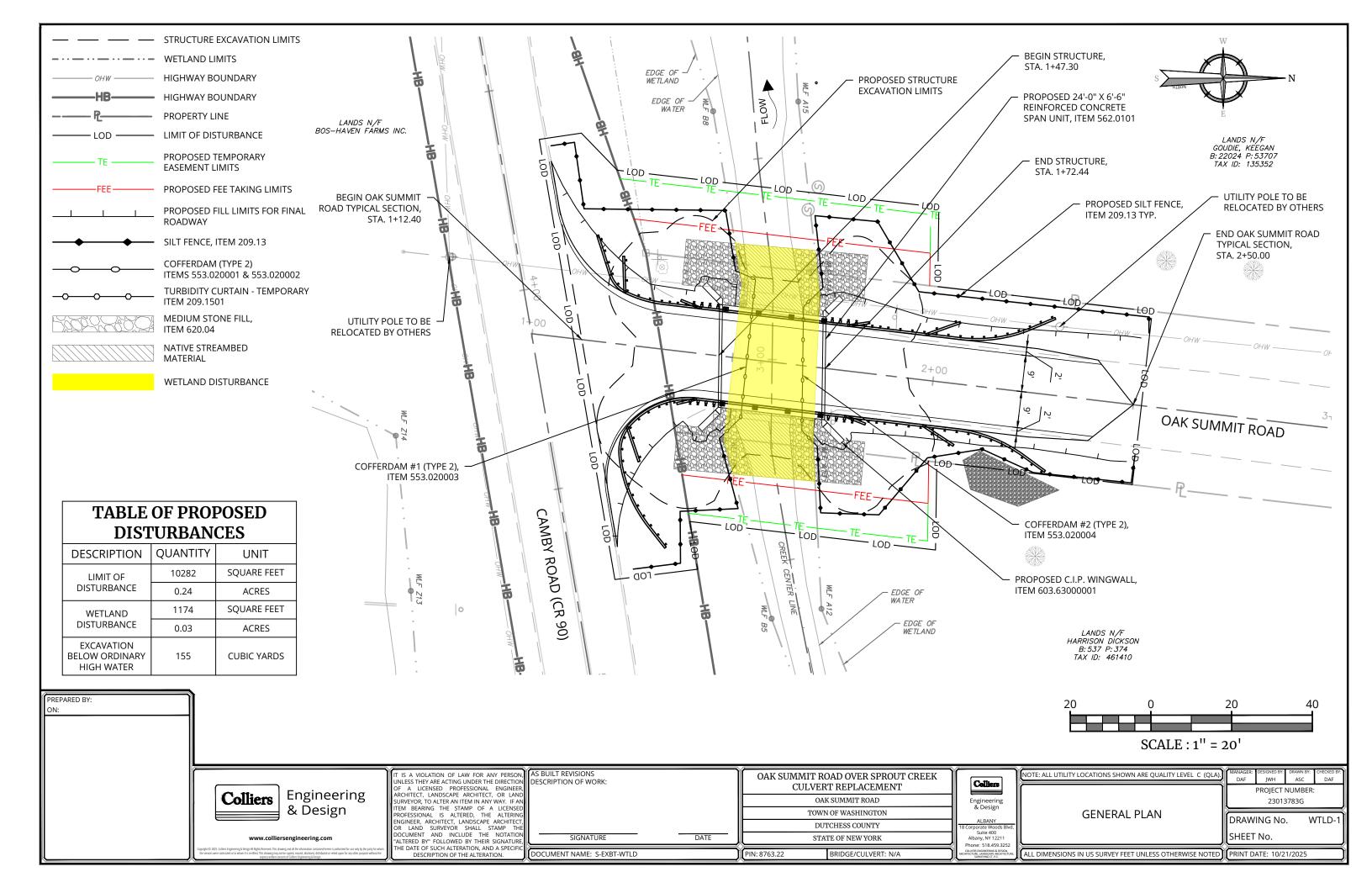
Name of Applicant(s): vastilington				
Address:10 Reservoir Drive, Millbrook, NY 12545				
Telephone: 845-677-3419 Er	mail Address: ccbriggs@washingtonny.org			
Description of Project: Oak Summit Road Culvert Reconstruction - The existing culvert on Oak Summit Road has reached the end of its useful life and will therefore need to be replaced to maintain local traffic for residents, visitors, and farm equipment.				
Tax Map Numbers of all Parcels: See attached Prop	perty owners list.			
Address of Project: Oak Summit Road				
APPROVAL REQUESTED FOR (check all that apply):				
Special Use Permit X	Preliminary Subdivision Plan			
Sketch Plan	Lot Line Revision			
Site Plan X	Final Subdivision Plan			
Is the project site located within an Agricultural District? YesX No If yes, Agricultural District Number? LC (Land Conservation) Is any portion of the project site currently actively farmed? Yes NoX Name of person farming the site: Does this person RENT or OWN the land?				
List all farm operations within 500 feet of any boundary of the project site:				
Name: Harrison D Dickson Address: 24 Oak Summit Road Washington, NY 12585	Name: Bos-Haven Farms Inc. Address: 47 Camby Road Union Vale, NY 12545			
Is parcel actively farmed? <u>Yes</u>	Is parcel actively farmed?Yes			

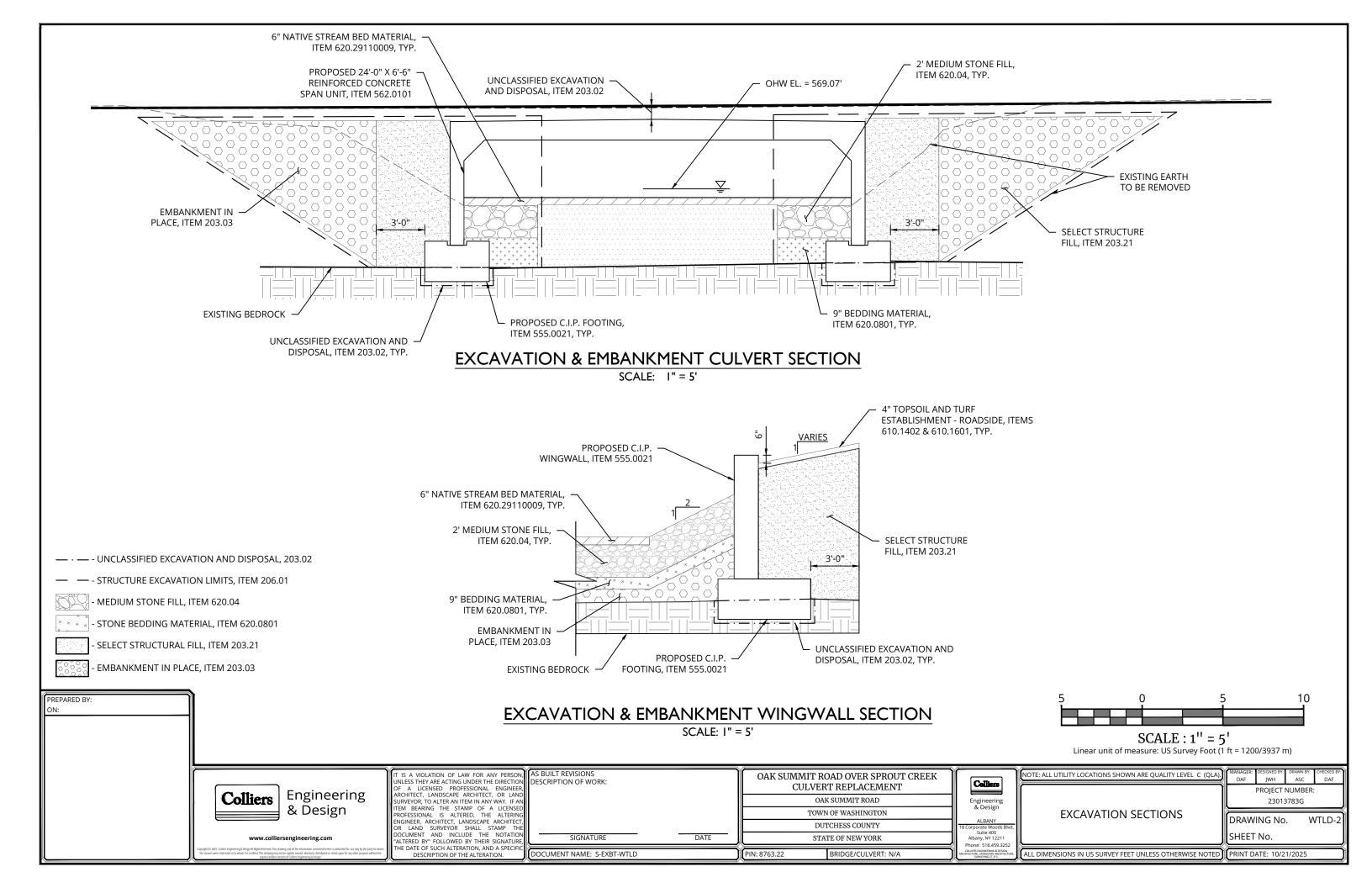
Name: Bos-Haven Farms Inc. Address: 59-87 Camby Road Washington, NY 12585	Name: Address:			
Is parcel actively farmed? <u>Yes</u>	Is parcel actively farmed?			
Name:Address:	Name:Address:			
Is parcel actively farmed?	Is parcel actively farmed?			
Attach additional sheets if necessary.				
Attach a copy of the tax map or other map showing the site of the proposed project relative to the location of farm operations identified above by marking an X on each farm parcel.				
Dated: October 21, 2025				
Signature of Applicant	Signature of Owner (if different)			
Daniel Farnan P.E Colliers Engineering & Des Agent of Applicant/Owner	ign			





Appendix C – Wetland Permit Plans







Appendix D – Photo Log





Description:
Existing Oak Summit Road Culvert Along Roadway Alignment (Looking South)



Description: Existing Oak Summit Culvert From Camby Road Intersection (Looking North)

PHOTO ID - 3



Description:
Existing Oak Summit Culvert Inlet From Camby Road Intersection (Looking East)



Description: Existing Oak Summit Culvert Inlet Along Stream Centerline (Looking West)





Description:
Existing Oak Summit Culvert Outlet Along Stream Centerline (Looking East from Downstream Culvert)



Description: Existing Land at 24 Oak Summit Road, within Land Conservation District (Looking South)

PHOTO ID - 7



Description: Existing Land at 24 Oak Summit Road, within Land Conservation District (Looking East)

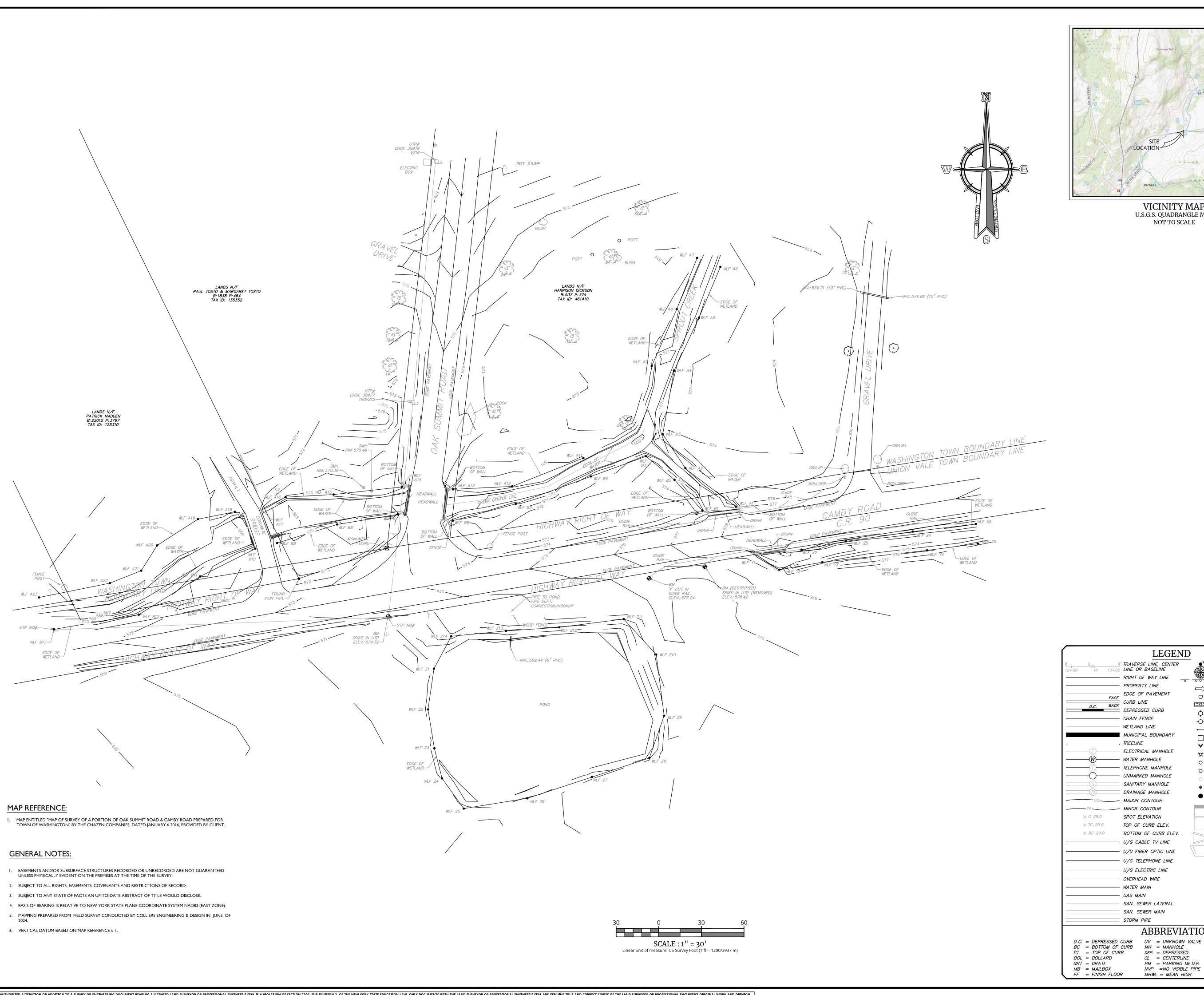


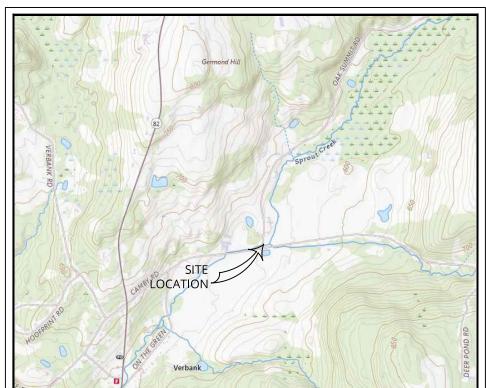
Description:
Existing Excavated Pond at 47 Camby Road (Looking South)





Appendix E – Survey





VICINITY MAP U.S.G.S. QUADRANGLE MAP NOT TO SCALE

LEGEND

ABBREVIATIONS

MH = MANHOLE

DEP. = DEPRESSED

CL = CENTERLINE

MHWL = MEAN HIGH

PM = PARKING METER

NVP =NO VISIBLE PIPE

WETLAND MARKER

ROADWAY SIGNS

□

 TRAFFIC FLOW

-O- UTILITY POLE

FIRE HYDRANT

OWV WATER VALVE

OGV GAS VALVE

TRANSFORMER

∀ FDC FIRE DEPT. CONNECTION

OCO SANITARY CLEANOUT

⊕ CONCRETE MONUMENT

CAPPED REBAR/IRON PIPE

STORM CATCH BASIN

FLARED END SECTION

WATERLINE

STORM DRAIN INLET

GUY WIRE

MAILBOX TRAFFIC SIGNAL POLE POLE MOUNTED LIGHT



Engineering & Design

www.colliersengineering.com

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	REV	DATE	DESCRIPTION
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PROTECT YOURSELF

ALL STATES REQUIRE

NOTIFICATION OF

EXCAVATORS, DESIGNERS, OR

ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

DUTCHESS COUNTY DEPARTMENT OF PUBLIC WORKS

TOPOGRAPHIC SURVEY

OAK SUMMIT BRIDGE

OAK SUMMIT ROAD TOWN OF WASHINGTON DUTCHESS COUNTY, N.Y.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVE MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION.



Gordon R. Matson NEW YORK LICENSED LAND SURVEYOR LICENSE NUMBER: 050570 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A. #: 0017608

Colliers	18
ngineering & Design	ARCI

8 Corporate Woods Blvd. Suite 400 Albany, NY 12211 Phone: 518.459.3252 COLLIERS ENGINEERING & DESIGN, CHITECTURE, LANDSCAPE ARCHITECTURI SURVEYING CT, P.C.

ALBANY

JC/ LL.	DIVIVIOL.		
AS SHOWN	DZ		
DESIGNED BY:	REVIEWED BY:		
XXX	BDL		
DATE ISSUED: PROJECT NUMBER			
10/21/25	23013783G		

SHEET NAME:

TOPOGRAPHIC SURVEY

DRAWING NUMBER:

MLWL= MEAN LOW **WATERLINE** TW = TOP OF WALLBW = BOTTOM WALL



Appendix F – List of Adjacent Property Owners

Owner	Owner Mailing Address	Parcel Location	Tax Parcel ID
Harrison D Dickson	3396 Riner Road	24 Oak Summit Road	135889-6763-00-461410
	Christiansburg, VA 24073		
Keegan Goudie	23 Oak Summit Road	23 Oak Summit Road	135889-6763-00-135352
	Washington, NY 12585		
Patrick Madden	115 Camby Road	115 Camby Road	135889-6763-00-125310
	Washington, NY 12585		
Bos-Haven Farms Inc.	89 Oak Summit Road	47 Camby Road	135400-6763-00-113166
	Washington, NY 12585		



Appendix G – SEQRA Resolution

RESOLUTION 12-24-#10 OF THE TOWN OF WASHINGTON APPROVING THE OAK SUMMIT ROAD CULVERT REPLACEMENT PROJECT

Councilmember Bob Audia offered the following resolution, which was seconded by Councilmember Joe Rochfort:

WHEREAS, the existing culvert on Oak Summit Road (the Culvert), approximately 40 feet north of the intersection of Oak Summit Road and Camby Road (Co. Rte. 90); and

WHEREAS, conditions have been observed, and a Justification Report provided, by Colliers Engineering on the Town's behalf, which the Town Board finds justifies the replacement of the existing Culvert (the Project); and

WHEREAS, the Town Board has considered the classification of the Project in light of the proscriptions of the State Environmental Quality Review Act (SEQRA); and

WHEREAS, the Town Board desires to authorize the Project;

NOW, THEREFORE, BE IT RESOLVED, that:

- The Town Board of the Town of Washington deems the Project a Type II Action under SEQRA;
- 2. Authorizes the Town Clerk and Town Engineer to take such steps as are necessary and proper to facilitate the Town Board's approval of a bid to conduct the work necessary to complete the Project.

The foregoing resolution was duly put to a vote which resulted as follows:

Supervisor Ciferri: Y

Councilmember Audia: Y

Councilmember Murphy: Y

Councilmember Rochfort: Y

Councilmember Giles: Y

DATED: Millbrook, New York

Dated: December, 12 2024

Chrissy Briggs

CHRISSY BRIGGS, Town Clerk Town of Washington



Appendix H – Review of Environmental Resources Present at the Oak Summit Road Culvert by The Chazen Companies



Engineers Land Surveyors Planners Environmental and Safety Professionals Landscape Architects 375 Bay Road Queensbury, NY 12804 P: (518) 812-0513 F: (518) 812-2205

www.chazencompanies.com

Hudson Valley Office

North Country Office

(845) 454-3980

Capital District Office

(518) 273-0055

May 22, 2015 Revised June 9, 2015

Mr. Gary Ciferri, Supervisor Town of Washington 10 Reservoir Drive P.O. Box 667 Millbrook, NY 12545

Re:

Review of Environmental Resources Present at the Oak Summit Road Culvert site located in the Town of Washington, Dutchess County, New York

Job# 81512.00

Dear Mr. Ciferri:

This letter report discusses the existing environmental conditions, and regulatory issues regarding the culvert repair/replacement project located at Oak Summit Road, in the Town of Washington, Dutchess County, NY. A desktop review was completed of the environmental resources present at the project site using online mapping resources. On April 21, 2015, Jenna Sanford of the Chazen Companies visited the culvert location in the Town of Washington to conduct a brief field investigation of potential endangered and threatened species habitat and the wetlands and watercourses present on and in the vicinity of the project site. The results of the desktop review and field investigation are discussed below, in addition to regulatory concerns and the next steps involved.

Existing Site Conditions at Oak Summit Road

Online Mapping Resource Desktop Review

The purpose of the background online mapping review is to identify any endangered, threatened and special concern species with potential habitat on or in the vicinity of the project site, and to identify the location of aquatic resources and various habitat features (e.g., steep slopes, woods, wetlands, etc.) present at the project site and in the surrounding area. To begin the review of this project site, the following online mapping resources were examined:

- United States Geologic Service (USGS) topographic maps (Attachment A);
- Natural Resource Conservation Service (NRCS) Dutchess County Soil Survey (Attachment B);
- New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (Figure 1);

- United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Mapping (Figure 2);
- USFWS Environmental Conservation Online System (ECOS) Information, Planning and Conservation (IPaC) Initial Project Scoping Official Species List (Attachment C); and
- Town of Washington, Dutchess County, NY, Wetlands & Watercourses Map (Attachment E)

<u>Web Soil Survey</u>: The USDA Natural Resource Conservation Service (NRCS) Web Soil Survey was reviewed for the approximate locations of soil types mapped in the project area. According to the Web Soil Survey, the *Pawling silt loam (Pg)* soil type underlies the location of the Oak Summit Road culvert. This soil type is predominantly non-hydric, containing approximately 5% hydric soil components. The NRCS Web Soil Survey Map is provided in Attachment B.

Mapped Wetlands and Streams: The USFWS National Wetlands Inventory (NWI) Mapping and the NYSDEC Environmental Resource Mapper were reviewed for the approximate locations of wetlands and streams previously mapped by these regulatory agencies. The NYSDEC mapping is a regulatory map and used by the NYSDEC to show the approximate location of wetlands under NYSDEC jurisdiction. The USFWS NWI map is not a regulatory map but rather a tool for identifying the location of the potential wetlands in the field.

The NYSDEC Environmental Resource Mapper indicates the presence of a regulated wetland (NYSDEC VB-3) and a Class/Standard C(T) stream in the immediate vicinity of the project site. The wetland is located to the east of Oak Summit road and it is noted that the NYSDEC's 500-foot "check-zone" includes the project site location. The Class/Standard C(T) stream, known as Sprout Creek, flows through the culvert beneath Oak Summit Road.

Figure 1. NYSDEC Environmental Resource Mapper

| Contract Medic Service Strategies | Contract Service Service

The USFWS NWI Map indicates that there are no federally regulated waters immediately adjacent to the project location (within approximately 100 linear feet). There are three excavated ponds (PUBHx) and one seasonally flooded/saturated persistent emergent palustrine (PEM1E) wetland within the general vicinity of the project site (within approximately 1000 linear feet).



Figure 2. USFWS National Wetlands Inventory Map

<u>Endangered and Threatened Species</u>: The USFWS Environmental Conservation Online System (ECOS) Information, Planning and Conservation (IPaC) Initial Project Scoping provides a federal-record based online mapping tool used to identify endangered, threatened and rare species with potential habitat in the vicinity of the project location. The NYSDEC Environmental Resource Mapper provides state-record based information on areas with potential for rare plant and animal species and/or significant natural communities.

Federal Record Review — To determine the potential endangered, threatened and rare species that may occur in the vicinity of the Project Site, Chazen obtained an official list of species from the United States Fish and Wildlife Service (USFWS) Information Planning and Conservation System (IPaC) website¹. The USFWS Official Species List identified the endangered Dwarf wedgemussel (Alasmidonta heterodon) and Indiana bat (Myotis sodalis), the threatened northern long-eared bat (Myotis septentrionalis) and bog turtle (Clemmys muhlenbergii), and the New England cottontail (Sylvilagus transitionalis), a candidate for listing, as species of concern for the Oak Summit Road culvert location. No "critical habitat" for any of the other above-mentioned species or any other species has been designated by the USFWS within the Project Site. A copy of the USFWS Official Species List is provided in Attachment C.

State Record Review — A review of the online NYSDEC Environmental Resource Mapper indicates that there are no records for endangered, threatened, or rare species, or significant natural communities, in the vicinity of the project site. Chazen subsequently submitted an inquiry to the New York Natural Heritage Program (NYNHP) requesting information regarding known occurrences of endangered and threatened species at and in the vicinity of the project site. A response letter was obtained from the NYNHP dated May 18, 2015, which identified no records of rare or state-listed plant or animal species, or significant natural communities, located at or in the vicinity of the project site. A copy of the NYNHP request letter and response are provided in Attachment D.

¹ http://ecos.fws.gov/ipac/ (accessed on 04/29/2015).

The current regulatory status and suitable habitat requirements for the potential endangered, threatened and rare species identified above are provided below in Table 1.

Table 1 – Suitable Habitat Requirements for Potential Endangered, Threatened & Special Concern Species

Species Name	Regulatory Status	Preferred Habitat
Dwarf wedgemussel (Alasmidonta heterodon)	Federally and State- listed Endangered	In New York, dwarf wedgemussels live embedded in fine sediments that have accumulated between cobbles in slow to moderate current and relatively shallow water (40 cm) in small cool water rivers and similar habitat in larger rivers (Stayer and Jirka 1997). Generally these are identified as "confined river," which is defined as the aquatic community of relatively large, fast flowing sections of streams with a moderate to gentle gradient. The only two known populations in New York State occur in the upper Delaware River in Sullivan and Delaware Counties and one of its downstream tributaries, the lower Neversink River in Orange County. In 2007 it was also confirmed in Dutchess County; however it is not listed as occurring in the Town of Washington ²
Indiana bat ^a (<i>Myotis sodalis</i>)	Federally and State- listed Endangered	Suitable summertime roosting habitat is characterized by wooded areas with trees that have sun exposure for at least half of the day, are ≥ 5 in. diameter at breast height (dbh), and exhibit specific physical traits (e.g., exfoliating bark, crevices, dead limbs, snags). Hibernation sites include caves and mines with stable temperatures and relatively high humidity (usually above 74%) for overwintering. Suitable foraging habitat includes riparian/floodplain forests, upland forests, as well as open fields and pastures with scattered trees.
Northern long- eared bat ^a (Myotis septentrionalis)	Federally and State- listed Threatened	The reproductive habits of this bat are not well known. It is believed that they behave similarly to the Indiana bat, with the females congregating in maternity colonies in the spring, often using trees with cavities, crevices, and loose bark for daytime roosts. They may also roost in buildings and behind shutters. They are associated with mature interior forest and may prefer foraging on forested ridges and hillsides.
Bog turtle ^a (Clemmys [Glyptemys] muhlenbergii)	Federally- listed Threatened; State-listed Endangered	Usually found in association with fens, which are wetlands dominated by herbaceous vegetation and that receive calcareous groundwater discharge through seepage and small streams (rivulets). Other habitats include open-canopy wet meadows, cow pastures, shrub swamps and forested wetlands with emergent wetland openings. As with fens, these wetlands usually have small rivulets fed by groundwater, deep muck soils and emergent vegetation with exposure to the sun, especially with abundant sedges.
New England Cottontail ^a (Sylvilagus transitionalis)	Candidate Species for Federal Listing; State-listed Special Concern	In southeastern New York, most ideal habitat consists of patchy and isolated areas that have been disturbed and are reverting to a successional vegetative community; this includes abandoned agricultural fields and margins or hedgerows of existing fields. Their habitat has also been described as early successional vegetation with "masses and tangles of saplings, weeds, vines, and shrubs," including shrubby swamps. Habitats with close proximity to water are preferred. This species is identified as occurring in the Town of Washington. ³

² http://www.dec.ny.gov/natureexplorer/app/location/town/results.9.

³ Ibid.

Field Investigation of Site Conditions at Oak Summit Road

On April 21, 2015, a site visit and field investigation of the environmental resources present on and in the vicinity of the project site was conducted by Jenna Sanford of the Chazen Companies. The area surrounding the Oak Summit Road bridge was assessed for the presence of aquatic resources, sensitive ecological communities, and potential habitat for endangered and threatened plant and animal species. Photographs of the project site are included in Attachment F. The results of the field investigation are discussed below. Our field review focused on the location of the stream north of Camby Road.

After the field review, and based on conversations with Mr. George Cronk, P.E., of Chazen, one of the design options being considered is to create a high flow relief channel along the south side of Camby Road, through a culvert under an existing farm road, and connect that high flow channel back into Sprout Creek on the south side of Camby Road. See Figure 3 below. The existing secondary tributary is shown in light blue. The relief channel is shown in darker blue. A high flow bypass structure (see red dot) will be installed on the south side of Camby Road near the existing culvert under Camby Road. Discussions below regarding this portion of the site (south of Camby Road) are based on resource mapping and photographs taken in the field by Mr. Cronk.

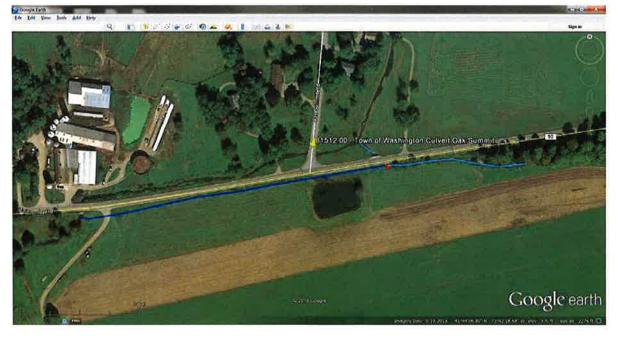


Figure 3 – Alternative High Flow Relief Channel

Wetlands and Streams

North Side Camby Road: The mapped aquatic resources present on the project site north of Camby Road include one NYSDEC mapped stream and one NYSDEC mapped wetland. The well-defined southwestward-flowing stream, known as Sprout Creek, is classified by the NYSDEC as a Standard/Class C(T) stream which passes beneath the Oak Summit Road bridge. The bridge is a three-sided span with an open natural stream bottom and concrete wingwalls on either side of the bridge supporting the span.

The NYSDEC mapped VB-3 wetland associated with the NYSDEC Class C(T) stream is mapped on the east side of Oak Summit Road. However, it was not observed in the immediate vicinity of the project. No wetland characteristics were observed in or adjacent to the relatively well-defined stream channel which was bordered by areas of mowed lawn.

South Side Camby Road: A tributary stream to Sprout Creek flows from east to west along the south side of Camby Road to a location approximately 190 feet east of the intersection with Oak Summit Road. At a location approximately 140 feet east of Oak Summit Road, the existing tributary stream heads north through a culvert under Camby Road and enters Sprout Creek. On the south side of Camby Road, NWI and aerial photograph mapping indicates the presence of a farm pond (PUBHx — palustrine unconsolidated bottom permanently flooded, excavated). That pond lies within a 500 foot check zone for the NYSDEC wetland mapped north of Camby Road and east of Oak Summit Road. Soil mapping (Attachment B), shows the area south of Camby Road as containing Pawling silt loam (Pg), a soil that contains 5% hydric (wetland soil) inclusions. Photographs of this area show a mowed hay field with some locations that appear to have wetland characteristics; certainly the areas shown in Attachment F, Photos 13-16 appear to have aquatic/wetland characteristics.

<u>Endangered and Threatened Species</u>: It is not likely that the dwarf wedgemussel (*Alasmidonta heterodon*), bog turtle (*Clemmys muhlenbergii*), or New England cottontail (*Sylvilagus transitionalis*) would occur on the project site or be affected by the proposed project, as suitable habitat for these species is not available on or in the vicinity of the project site.

The environmental features present in the vicinity of the project site provide a minimal amount of potentially suitable habitat for the endangered Indiana bat (*Myotis sodalis*) and the threatened northern long-eared bat (*Myotis septentrionalis*). Suitable summer roosting habitat available on the project site includes one large weeping willow tree and several smaller trees all greater than 3" dbh, with cracks, crevices and exfoliating bark.

In order to minimize impacts to the protected Indiana and northern long-eared bats, a minimal amount of tree clearing should take place during construction. To avoid incidental take of these species, removal of trees greater than 3" dbh should take place between October 31 and March 31, when the bats are in their winter hibernacula.

Alternative Designs

Based on conversations with George Cronk, it is my understanding that three alternative designs are being reviewed, which are discussed in greater detail in the associated engineering design report for this project:

1. Replacement of the Oak Summit culvert with a much larger opening, likely then falling into the category of a bridge span, to accept all expected high flows in this area. Adverse impacts from this design include potential adverse downstream impacts (increased flooding) to the two driveways on the north side of Camby Road, west of Oak Summit Road before Sprout Creek crosses under Camby Road and heads south. See Attachment F, Photo 7 which shows the first driveway crossing located west of the Oak Summit culvert. Another drawback is that this is the most expensive alternative to construct. In addition, it would take approximately 90 days to construct, resulting in a 15-minute detour around this crossing for any travelers using this road for that period of time.

- 2. Replacement of the Oak Summit culvert with a three sided box culvert with a somewhat larger opening than currently exists, and installing a high flow bypass culvert on the tributary stream south of Camby Road as shown in Figure 3. This bypass flow would pass through culver that would need to be installed under an existing farm road. The drawback of this alternative is that it would take approximately 90 days to construct, due to the need to construct foundation footers. This results in a 15-minute detour around this crossing for any travelers using this road for that period of time. It is also more expensive than the preferred alternative, the four sided box culvert.
- 3. Similar alternative as #2, but replace the Oak Summit culvert with a four sided box culvert with a somewhat larger hydraulic opening than currently exists, and embed the bottom of the box to depths requested by regulatory agencies, but at a minimum 20% per the Nationwide Permit conditions guidance for the New York District Corps of Engineers. The same high bypass flow channel on the south side of Camby Road would be created. The drawback of this alternative is that it technically does not maintain an open bottom channel, however, practically, the stream channel could be recreated in the bottom of the embedded box. The benefit are that it would take approximately 30 days to construct (since foundation footers are not required), resulting in a significant reduction in time when detours around this stream crossing would be in place. It is also the least expensive of the alternatives.

Regulatory Issues

This regulatory issues discussion is provided in two parts. The first section discusses work at the Oak Summit Road culvert conveying the Sprout Kill. The second discussion is regarding the high flow bypass channel south of Camby Road.

<u>Oak Summit Road Culvert:</u> There are certain regulatory issues that are constant, regardless of which alternative design is chosen.

- The watercourse identified by the NYSDEC as a Standard/Class C(T) Stream is protected under 6NYCRR §608, Article 15, Use and Protection of Waters. The proposed project will require an Article 15, Use and Protection of Waters permit for impacts to the NYSDEC regulated stream associated with any culvert/bridge design chosen.
- The proposed project will require a permit from the US Army Corps of Engineers for impacts to the stream occurring during the repair/replacement of the bridge. Either NWP 3, Maintenance, or NWP 14, Linear Transportation Projects, will be required for this project.
- The Town of Washington's Zoning Code §396 Wetlands & Watercourses Law regulates aquatic resources identified by the Town of Washington Wetlands & Watercourses Map. According to this map, which is included in Attachment E, a town-regulated stream and wetland area are present in the vicinity of the proposed project site. The proposed activity appears to fall under the classification of a "Pre-Existing Lawful Activity" under Section VII, or of an "Exempt Activity" under Section VI, Item G, "Ordinary maintenance or repair of existing structures." A review of the project plans by the Town of Washington may be necessary to determine whether the proposed activity will be exempt or will require a wetlands permit from the town.
- Clearing of any vegetation greater than 3" dbh will likely be subject to timing restrictions; if any permits are required from the US Army Corps of Engineers, a Section 7 consultation with the USFWS will be included in the permit application package.

Regarding Alternatives 1, 2 or 3, the Corps of Engineers, in consultation with the NYSDEC and NYSDOT adopted guidelines associated with culvert design and replacement under the Nationwide Permit program, and incorporated those guidelines into the 2012 Corps Nationwide Permit Public Notice⁴. In general, the Corps and NYSDEC will want to see the natural stream bottom maintained for hydraulic connectivity and aquatic species movement, and they may want to see a slightly larger opening to accommodate bank-full flows. The following is more detailed guidance from the Corps Public Notice about culvert replacement:

- Appropriate engineering is required to ensure structures are sized and designed to provide adequate capacity (to pass various flood flows) and stability (bed, bed forms, footings and abutments).
- Site specific information (i.e., stream bed slope, type and size of stream bed materials, stream type, existing natural or man-made barriers) should be assessed to determine appropriate culvert design and to ensure management of water flows and aquatic life movement.
- Before replacing a culvert with a larger structure, it is essential that the replacement be evaluated for its impact on: downstream flooding, upstream and downstream habitat, potential for erosion and headcutting and stream stability. (This guidance would seem to eliminate Alternative 1 above).
- The dimension, pattern and profile of the stream above and below the stream crossing should not be permanently modified by changing the width or depth of the stream channel.
- Either a bottomless culvert or bridge must be used where practicable. If the bridge cannot be spanned, the culvert must be installed with its bottom buried (embedded) below the grade of the stream bed where practicable. An embedment depth of a minimum of 20 percent of the culvert vertical rise through the length of the culvert is recommended, and that the culvert bed slope be constant to the slope of the stream channel.
- Bank-full flows should be accommodated through maintenance of the bank-full channel cross sectional dimensions within the culvert. Bank-full width is the top width of the stream at the stage where a stream begins to top its banks and spread into the floodplain. It is recommended that the minimum culvert width included a minimum of 1.25 times the width of the stream channel at the ordinary high water or a 2 year storm.
- A Pre-Construction Notice to the Corps is required when spanning the waterway and embedding is not practicable; or where embedding depths cannot be met; or if bank-full flow cannot be accommodated; or where less than the recommended minimum culvert width is proposed. In such a case, the PCN needs to discuss which requirements will not be met, the reason, and provide calculations for the culvert design.
- The Corps and NYSDEC will want to see the open bottom nature of this crossing maintained for hydraulic connectivity and aquatic species movement.

<u>High-Flow Bypass Channel south of Cumby Road</u>: The second regulatory review is associated with the placement of a high-flow by-pass channel from the tributary, which would be located parallel to the south side of Cumby Road.

⁴ US Army Corps of Engineers NY District. 2012. "Public Notice, Final Regional Conditions, Water Quality Certification and Coastal Zone Concurrence for Nationwide permits in the State of New York." May 30, 2012. See http://www.nan.usace.army.mil/Portals/37/docs/regulatory/geninfo/natp/NWP_PN-30May12.pdf. See Public Notice pages 3-5 (Nationwide permit 3); pages 16-17 (Nationwide permit 14) and pages 61- 63 for a discussion of culvert design and replacement, and associated requirements/guidance.

- The tributary watercourse that would have a high flow bypass is identified by the NYSDEC as a Standard/Class C(T) Stream, and is therefore protected under 6NYCRR §608, Article 15, Use and Protection of Waters. The proposed project will require an Article 15, Use and Protection of Waters permit for impacts to this NYSDEC regulated stream associated with installing a high flow bypass structure. The discharge of dredged or fill material associated with installing a high flow by pass structure would also need a permit from the Corps. If the bypass structure were a precast concrete device, and then riprap was placed around the device, it is possible that this could be authorized under Nationwide permit 13. Additional information regarding the design would be needed.
- The regulatory requirements (federal, state, local) of installing the bypass channel in the agricultural fields will be dependent upon the extent of wetlands. It appears that there may be wetlands in the vicinity of the project route, for example, in the overflow area of the pond. The Dutchess Soil and Water Conservation District should be contacted by the landowner/farmer on this property to determine if the agricultural fields have been classified (i.e., farmed uplands, prior converted croplands, farmed wetlands), and if so, the actually classification or mapping, as this will inform the need for and the extent of any wetland delineation.
- The outlet of the overflow drainage would be into Sprout Creek on the south side of Camby Road. Sprout Creek in this location is also Class/Standard C(T), and so the outlet structure and any associated riprap would need permits from the Corps of Engineers (Nationwide Permit 13 for riprap), the NYSDEC (Article 15, Use and Protection of Waters Stream Disturbance Permit) and a local wetland permit from the Town of Washington.
- If the excavation of the overflow drainage channel is located in native soil outside of the road shoulder, sign off from the State Historic Preservation Office will be required since work is proposed in an undisturbed agricultural field next to a stream.
- There do not appear to be any endangered species issues associated with the proposed overflow channel as the location is in mowed agricultural fields adjacent to a roadway.

Thank you for the opportunity to conduct this assessment for you. If you have any questions regarding this report, please do not hesitate to contact me at 518-824-1934 or bbeall@chazencompanies.com

Sincerely,

B. B. Bell

Barbara B. Beall, PWS, LEED®AP
Director, Natural Resource Services

BBB/js Encl.

cc: George Cronk, P.E., The Chazen Companies

ATTACHMENTS

Attachment A – Site Location Topographic Map

Attachment B - NRCS Dutchess County Soil Survey Map

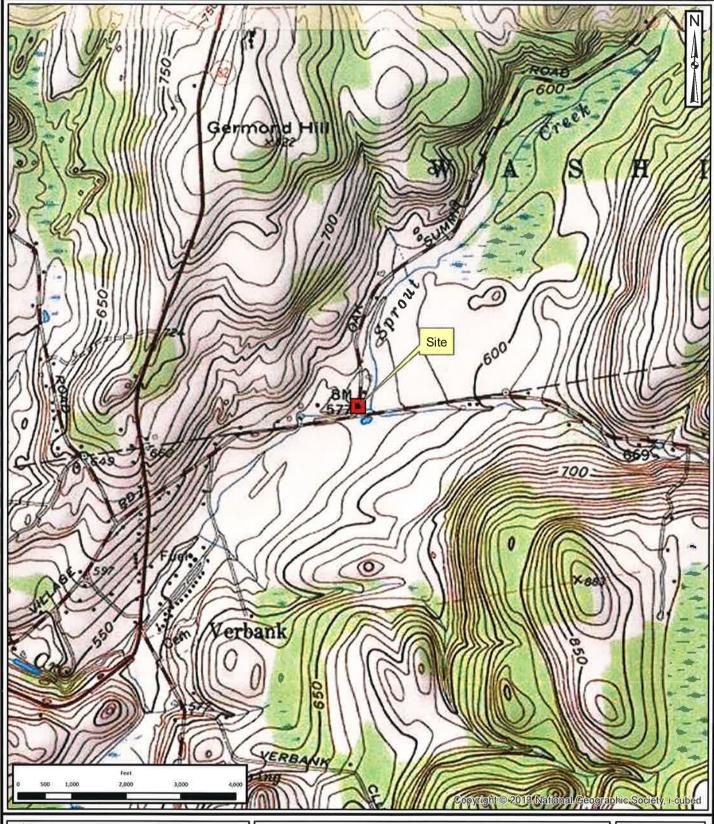
Attachment C – USFWS Official Species List

Attachment D - NYNHP Correspondence

Attachment E – Town of Washington Wetlands & Watercourses Map

Attachment F - Photographs of the Project Site

Attachment A Site Location Topographic Map





Dutchess County Office: 21 Fox Street, Poughkeepsie, NY 12601 Phone: (845) 454-3980

Capital District Office: 547 River Street, Troy, NY 12180 Phone: (518) 273-0035

ENGINEER ENGINEER LAND SERVEYORS Worth Country Office:
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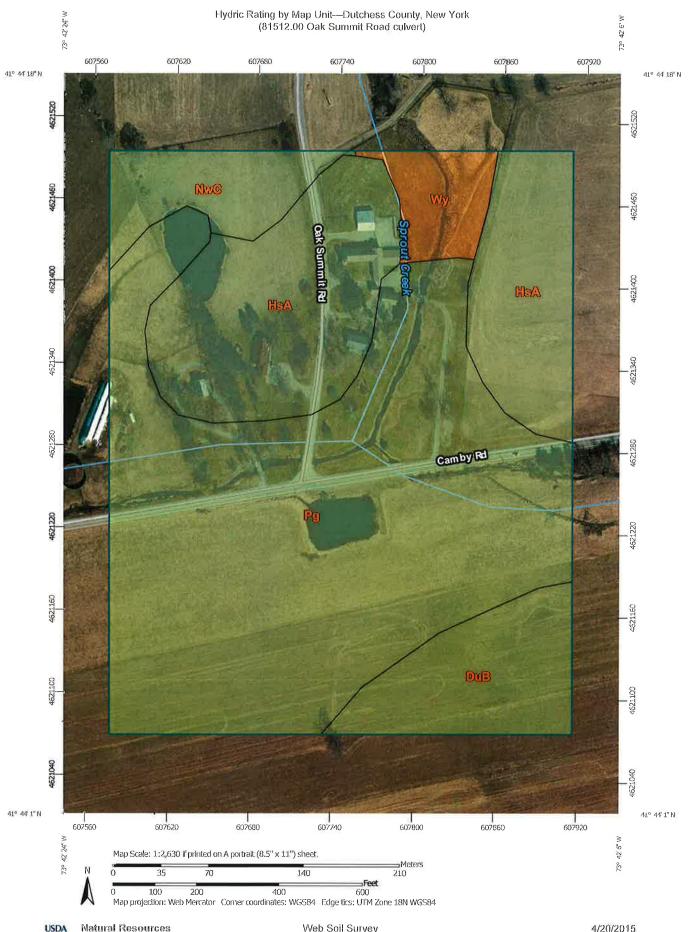
Town of Washington Culvert Replacement

Site Location Topographic Map

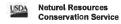
Oak Summit Road Town of Washington, Dutchess County, NY

Drawn	JMS			
Date:	04/20/2015	04/20/2015		
Scale	1:20,000			
Project	81512.00			
Figure	1			

> Attachment B NRCS Dutchess County Soil Survey Map



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mepped at 1:24,000. Area of Interest (AOI) Transportation Area of Intarest (AOI) Ralls Werning: Soil Map may not be valid at this scale Solis Interstate Highways Enlergement of maps beyond the scale of mapping can cause Soil Rating Polygons US Routes misunderstanding of the detail of mapping and accuracy of soil line Hydrlc (100%) placement. The maps do not show the smell areas of contrasting Major Roads Hydric (66 to 99%) soils thet could have been shown at a more detailed scale, Local Roads Hydric (33 to 65%) Please rely on the bar scale on each mep sheet for map Background Hydric (1 to 32%) measurements. Aerial Photography 303 Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usde.gov Coordinate System: Web Mercator (EPSG:3857) 184 Not Hydric (0%) Not rated or not available Soil Rating Lines Meps from the Web Soil Survey ere besed on the Web Mercetor projection, which preserves direction and shape but distorts Hydric (100%) distence end eree. A projection that preserves eree, such as the Hydric (66 to 99%) Albers equal-erea conic projection, should be used if more accurate calculations of distance or area are required. Hydric (33 to 66%) Hydric (1 to 32%) This product is generated from the USDA-NRCS certified data as of the version dete(s) listed below. Not Hydric (0%) Soil Survey Area: Dutchess County, New York Survey Area Dete: Version 11, Sep 15, 2014 Not rated or not available P . P Soil Rating Points Soil map units are labeled (as space allows) for map scales 1:50,000 Hydric (100%) or larger. Hydric (66 to 99%) Date(s) aerial imeges were photogrephed: Mer 26, 2011—Apr 16, Ŀ Hydric (33 to 65%) 2012 Hydric (1 to 32%) The orthophoto or other bese map on which the soil lines were compiled end digitized probably differs from the background æ Not Hydric (0%) imegery displayed on these meps. As e result, some minor shifting Not rated or not available of map unit boundaries may be evident, Water Features Streams and Canals



Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Dutchess County, New York (NY027)					
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI	
DuB	Dutchess silt loam, 3 to 8 percent slopes	1	3.2	8.9%	
HsA	Hoosic gravelly loam, nearly level	5	9.3	26.1%	
NwC	Nassau-Cardigan complex, rolling, very rocky	1	2.1	5.9%	
Pg	Pawling silt loam	5	19.8	55.4%	
Wy	Wayland silt loam	88	1.4	3.8%	
Totals for Area of Interest		35.8	100.0%		

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Attachment C USFWS Official Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New York Ecological Services Field Office 3817 LUKER ROAD CORTLAND, NY 13045

PHONE: (607)753-9334 FAX: (607)753-9699 URL: www.fws.gov/northeast/nyfo/es/section7.htm



April 29, 2015

Consultation Code: 05E1NY00-2015-SLI-0789

Event Code: 05E1NY00-2015-E-02227

Project Name: 81512.00 Oak Summit Road Culvert

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

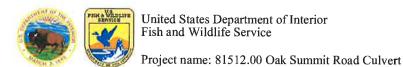
Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (

http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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

Attachment



Official Species List

Provided by:

New York Ecological Services Field Office 3817 LUKER ROAD CORTLAND, NY 13045 (607) 753-9334

http://www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Code: 05E1NY00-2015-SLI-0789

Event Code: 05E1NY00-2015-E-02227

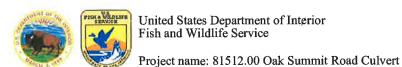
Project Type: Bridge Construction / Maintenance

Project Name: 81512.00 Oak Summit Road Culvert

Project Description: This project involves the repair/replacement of the culvert/bridge crossing

Oak Summit Road in the Town of Washington, Dutchss County, New York.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

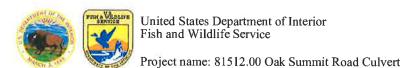


Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7054252 41.736492, -73.7038373 41.736492, -73.7038373 41.7355151, -73.7054252 41.7355153, -73.7054252 41.736492)))

Project Counties: Dutchess, NY



Endangered Species Act Species List

There are a total of 5 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats** within your project area section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Clams	Status	Has Critical Habitat	Condition(s)
Dwarf wedgemussel (Alasmidonta heterodon) Population: Entire	Endangered		
Mammals			
Indiana bat (Myotis sodalis) Population: Entire	Endangered		
New England Cottontail (Sylvilagus transitionalis)	Candidate		
Northern long-eared Bat (Myotis septentrionalis)	Threatened		
Reptiles			
Bog Turtle (Clemmys muhlenbergii) Population: northern	Threatened		



United States Department of Interior Fish and Wildlife Service

Project name: 81512.00 Oak Summit Road Culvert

Critical habitats that lie within your project area

There are no critical habitats within your project area.

> Attachment D NYNHP Correspondence

New York State Department of Environmental Conservation Division of Fish, Wildlife & Marine Resources New York Natural Heritage Program

625 Broadway, 5th Floor, Albany, New York 12233-4757

Phone: (518) 402-8935 • Fax: (518) 402-8925

Website: www.dec.ny.gov



Joe Martens Commissioner

May 18, 2015

Jenna Sanford The Chazen Companies 375 Bay Road, Suite 200 Queensbury, NY 12804

Re: Replacement of culvert at Oak Summit Road (TCC Job # 81512.00)

Town/City: Washington.

County: Dutchess.

Dear Jenna Sanford:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities, at your site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nich Como

Nicholas Conrad

Information Resources Coordinator

New York Natural Heritage Program

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> Attachment E Town of Washington Wetlands & Watercourses Map

TOWN OF WASHINGTON Dutchess County, New York

Wetlands Map

Legend

Roads

-- Streams

Water Bodies

DEC Wetlands

NWI Wetlands

FEMA Floodplains

Hydric Soils

Tax Parcels

Municipalities



DATA SOURCES

Roads: Dutchess County Real Property Tax Service Agency, December 2009

Streams and Waterbodies: National Hydrography Dataset, U.S. Geological Survey, 2009

DEC Wetlands: NYS DEC regulated wetlands, 2006

NWI Wetlands: National Wetlands Inventory, U.S. Fish & Wildlife Service, 2009

FEMA Floodplains: U.S. Federal Emergency Management Agency, 1996; Zone A*: An area inundated by 100-year flooding, for which no BFEs have been determined; Zone AE: An area inundated by 100-year flooding, for which BFEs have been determined; Zone X (500-year): An area inundated by 500-year flooding, or an areainundated by 100-year flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile, or an area protected by levees from 100-year flooding. (*All floodplains in T. of Washington Zone A)

Hydric Soils: USDA Natural Resource Conservation Service, 1998

Tax Parcels: Dutchess County Real Property Tax Service Agency, July 2010

Municipal Boundaries: Dutchess County Real Property Tax Service Agency, July 2008

Map projection: State Plane, New York East, FIPS Zone 3101, Datum NAD83, Feet

GIS Lab, Environment Program Map prepared September, 2010

WARNING: This map is not a substitute for land surveys or legal documents. No accuracy or completeness guarantee is implied or intended.



CCEDC provides equal program and employment opportunities.

The programs provided by this agency are partially funded by monies received from the County of Dutchess.

