

September 27, 2022

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**NDDB DETERMINATION NUMBER:** 202109516

**Project:** Stone Ridge Business Park, 21 Gurley Road in Waterford, CT

**Expiration:** September 27, 2024

I have reviewed Natural Diversity Data Base (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) documented nearby the proposed project area.

| Scientific Name                    | Common Name          | State Status |
|------------------------------------|----------------------|--------------|
| <b>Vertebrate Animal</b>           |                      |              |
| <i>Opheodrys vernalis</i>          | Smooth green snake   | SC           |
| <i>Thamnophis sauritus</i>         | Eastern ribbon snake | SC           |
| <i>Terrapene carolina carolina</i> | Eastern box turtle   | SC           |
| <i>Icteria virens</i>              | Yellow-breasted chat | E            |
| <i>Toxostoma rufum</i>             | Brown thrasher       | SC           |

We concur with your revised site plan and your protection measures (attached) to minimize impacts to these species.

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Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated in the NDDB as it becomes available.

Please contact me if you have any questions ([shannon.kearney@ct.gov](mailto:shannon.kearney@ct.gov)). Thank you for consulting with the Natural Diversity Data Base and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney  
Wildlife Biologist

Attachments: (1) Species Protection Plan

# CLA Engineers, Inc.

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September 22, 2022

Ms. Karen Zyko  
Environmental Analyst  
CTDEEP  
79 Elm Street  
Hartford, CT 06106-5127

RE: Project: Preliminary Assessment of Stone Ridge Business Park, 21  
Gurley Rd in Waterford, CT NDDDB Preliminary Assessment No.:  
202109516

GSD 60

Dear Ms. Zyko

CLA has been engaged in re-design of the above referenced project in order to minimize the potential for impact to State Listed Species that were cited in your Preliminary Assessment letter of September 14, 2021. To review, that letter indicated that there were extant populations of the following species in the vicinity of the site:

| Scientific Name                    | Common Name          | State Status |
|------------------------------------|----------------------|--------------|
| <b>Vertebrate Animal</b>           |                      |              |
| <i>Opheodrys vernalis</i>          | Smooth green snake   | SC           |
| <i>Thamnophis sauritus</i>         | Eastern ribbon snake | SC           |
| <i>Terrapene carolina carolina</i> | Eastern box turtle   | SC           |
| <i>Icteria virens</i>              | Yellow-breasted chat | E            |
| <i>Toxostoma rufum</i>             | Brown thrasher       | SC           |

That letter also indicated that “If you do not intend to do site surveys to determine the presence or absence of state-listed species, then you should presume species are present and let us know how you will protect the state-listed species from being impacted by this project. You may submit these best management practices or protection plans with your new request for an NDDDB review” As site surveys have not been undertaken, this letter documents the design revisions, best management practices (BMPs) and protection plans that have been undertaken in order to minimize the potential for impacts to the protected species. The design revisions are protective of potential habitat while

the BMPs and protection plans will minimize the potential for disturbance during construction. Habitat descriptions from CTDEEP publications are excerpted for each species to provide context for the design revisions, BMPs and protection plans. CLA performed on-site review to determine which portions of the site are likely to be used by the various protected species.

### **Smooth green snake**

“Smooth greensnakes favor moist, open habitats, such as old fields, meadows, pastures, fens, coastal grasslands, and edges of wetlands. Occasionally, this snake may inhabit sparsely forested areas with scattered shrubs and trees, such as mountaintop balds. Rural, undisturbed locations appear to be preferred, but smooth greensnakes have been found in urban and suburban areas as well. Greensnakes can be found basking on rocks, logs, or other debris. Sometimes, this snake may be absent from seemingly suitable habitat” (1) (2)

Based on CLA’s field review of the site, the most likely smooth green snake habitat is the early successional old field habitat indicated on Figure 1. Note that this area also includes wetland edge.

### **Eastern (common) ribbon snake**

“The ribbonsnake seldom ventures from shallow aquatic habitats, and favors open, grassy, or shrubby areas bordering ponds, streams, and wooded swamps. It may also be found in wet woodlands. Winter dens are underground, usually at higher elevations and sometimes near trap rock systems.

This snake feeds on a variety of aquatic creatures, mainly amphibians such as frogs, toads, salamanders, and tadpoles. It also will consume small fish and some invertebrates. In turn, this snake is preyed upon by birds, mammals, fish, and large amphibians.”

Based on CLA’s field review of the site, the most likely eastern ribbon snake habitat is shown on Figure 2. These areas include shallow aquatic habitat and their bordering grassy and shrubby areas.

### **Eastern box turtle**

In Connecticut, this terrestrial turtle inhabits a variety of habitats, including woodlands, field edges, thickets, marshes, bogs, and stream banks. Typically, however, box turtles are found in well-drained forest bottomlands and open deciduous forests. They will use wetland areas at various times during the season. During the hottest part of a summer day, they will wander to find springs and seepages where they can burrow into the moist soil. Activity is restricted to mornings and evenings during summer, with little to no nighttime activity, except for egg-laying females. Box turtles have a limited home range where they spend their entire life, ranging from 0.5 to 10 acres (usually less than 2 acres)

Based on CLA’s field review of the site, the most likely eastern box turtle habitat is the combination of small stream/wetland/early successional field shown on Figure 3. This areas includes field edges, thickets, wetlands and areas of sandy soil suitable for egg laying.

### **Yellow breasted chat**

**Habitat:** According to the CTDEEP website, Yellow breasted chat use woodland edges; dense thickets, especially of briars and brambles; shrubby old fields, stream thickets and swamp margins (5). Per the Connecticut Breeding Bird Atlas, their habitat is shrubby land and dense second growth thickets (7). They are commonly found in dense tangles of blackberry, poison ivy and honeysuckle in Virginia. Chat territory near Haley Farm State Park, Groton, was dominated by Asiatic bittersweet, arrow-wood and multiflora rose (7).

Based on CLA's field review of the site, the most likely yellow breasted chat habitat is shown on Figure 4. Note that is area includes dense thickets, woodland edge, a shrubby old field, stream thickets and swamp margins.

### **Brown thrasher**

In Connecticut, brown thrashers are most often found in heavy thickets and vine tangles where they feed and nest. They do most of their foraging on the ground, frequently under the cover of shrubs and vines (6). Per the Connecticut Breeding Bird Atlas, brown thrashers nest in thickets, brushy hillsides and woodland edges (7).

Based on CLA's field review of the site, the most likely brown thrasher habitat is shown on Figure 4. Note that is area includes dense thickets, vine tangles, a shrubby old field, stream thickets and woodland edges.

### **Site redesign and protective measures**

Based on CTDEEP's PA and feedback from Town of Waterford staff, CLA re-designed the site, eliminating two of the proposed buildings. Please refer to attached Figures 5 and 6 for a comparison of the two. The elimination of the two buildings leaves additional potential habitat for both avian species and eastern ribbon snake.

As shown on Figure 6, a significant portion of the site (12.4 acres out of 22) will be left intact with the existing vegetative cover undisturbed. After construction, 5.0 acres of the disturbed area will be re-planted, leaving a developed area of 4.6 acres. The plans now specifically call for no disturbance of vegetation within a minimum of 50 feet of all inland wetlands. This overall minimization of the building footprint and maintenance of native vegetation also serves to protect habitat for each of the identified species.

Several best management practices were also added to the plans to minimize the potential for impacts to protected species during construction. The text as excerpted from the plans is provided below.

## PROTECTED SPECIES PROVISIONS

EASTERN BOX TURTLE (TERRAPENE CAROLINA CAROLINA), SMOOTH GREEN SNAKE (OPHEODRYS VERNALIS) AND EASTERN RIBBON SNAKE (THAMNOPHIS SAURITUS), ALL STATE LISTED SPECIES OF SPECIAL CONCERN, HAVE BEEN FOUND IN THE VICINITY OF THE PROPERTY. BOX TURTLES ARE TERRESTRIAL SPECIES THAT ARE FACULTATIVE USERS OF WETLANDS AND LAY EGGS IN SPRING TIME IN SANDY AND GRAVELLY SUBSTRATES. SMOOTH GREENSNAKES FAVOR MOIST, OPEN HABITATS, SUCH AS OLD FIELDS, MEADOWS, PASTURES, FENS, COASTAL GRASSLANDS, AND EDGES OF WETLANDS. THE EASTERN RIBBON SNAKE USES SHALLOW AQUATIC HABITATS, AND FAVORS OPEN, GRASSY, OR SHRUBBY AREAS BORDERING PONDS, STREAMS, AND WOODED SWAMPS. (<https://portal.ct.gov/DEEP/Wildlife/>)

1. THE THREE SPECIES ARE ARE PROTECTED BY LAW. NO TURTLES OR SNAKES SHALL BE REMOVED FROM THE SITE.
2. NON DISTURBANCES AREAS (MINIMUM 50 FOOT WIDE WETLAND BUFFERS) HAVE BEEN INDICATED ON THE PLANS. THESE AREAS SHALL BE LEFT UNDISTURBED.
3. CONSTRUCTION CONSIDERATIONS
  - A. ALL CONSTRUCTION PERSONNEL SHALL BE APPRISED OF THE SPECIES DESCRIPTION, POSSIBLE PRESENCE OF THE TURTLES AND SNAKES, AND PROCEDURES TO FOLLOW IF THEY ARE FOUND AT THE SITE.
  - B. NOVEMBER 1 - MARCH 31 (DORMANT SEASON): UPLAND LAND DISTURBANCE AS OUTLINED ON THE PLANS MAY BE PERFORMED WITHOUT RISK TO THE TURTLES AND SNAKES.
  - C. APRIL 1 - OCTOBER 31: EXCLUSIONARY PRACTICES SHALL BE UTILIZED TO PREVENT TURTLE AND SNAKE ACCESS INTO CONSTRUCTION AREAS.
  - D. SILT FENCE SHALL BE INSTALLED ALONG THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE CONSTRUCTION DETAILS.
  - E. SILT FENCE SHALL BE INSPECTED BI-WEEKLY AND AFTER MAJOR WEATHER EVENTS TO SECURE GAPS OR OPENINGS AT GROUND LEVEL THAT MAY LET TURTLES AND SNAKES PASS THROUGH.
  - F. PRIOR TO DISTURBANCE FOR THE LOT DEVELOPMENT THE PROPOSED WORK AREA SHALL BE SEARCHED FOR TURTLES AND SNAKES. ALL TURTLES AND SNAKES OCCURRING WITHIN THE WORK AREA SHALL BE RELOCATED TO SUITABLE HABITAT OUTSIDE OF THE DISTURBANCE AREA UNDER SUPERVISION BY A PROFESSIONAL FAMILIAR WITH THE HABITAT REQUIREMENTS AND BEHAVIOR OF THE SPECIES.
  - G. THE CONTRACTOR SHALL SEARCH THE WORK AREA FOR TURTLES AND SNAKES EACH MORNING PRIOR TO STARTING ANY WORK.

- H. ANY TURTLES AND SNAKES ENCOUNTERED IN THE IMMEDIATE WORK AREA SHALL BE CAREFULLY MOVED TO AN ADJACENT AREA OUTSIDE OF THE EXCLUDED AREA. FENCING SHALL BE INSPECTED TO IDENTIFY AND REPAIR THE ACCESS POINT.
- I. SILT FENCE SHALL BE REMOVED IMMEDIATELY AFTER THE SITE IS STABILIZED.

### **Summary**

CLA notes that it is not possible to develop this site without some loss of potential habitat. However, given that large percentage of the land and existing cover to be maintained, this development strikes a good balance that will not jeopardize the listed species.

Sincerely,

*Robert C Russo*

Robert C. Russo  
CSS  
Biologist  
Soil Scientist

## References

- (1) Klemens, Michael W. Amphibians and Reptiles of Connecticut and Adjacent Regions (State Geological and Natural History Survey of Connecticut - Bulletin No. 112)
- (2) <https://portal.ct.gov/DEEP/Wildlife/Fact-Sheets/Smooth-Greensnake>
- (3) <https://portal.ct.gov/DEEP/Wildlife/Fact-Sheets/Common-Ribbonsnake>
- (4) <https://portal.ct.gov/DEEP/Wildlife/Fact-Sheets/Eastern-Box-Turtle>
- (5) <https://portal.ct.gov/DEEP/Wildlife/Fact-Sheets/Yellow-breasted-Chat>
- (6) Connecticut Wildlife, Volume 35, Number 4 July/August 2015 pp. 12-13 CTDEEP

(7) Bevier, Louis K. The Atlas of Breeding birds of Connecticut CTEP Bulletin 113

Figure 1 Potential Smooth Green Snake Habitat



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Figure 2 Potential Eastern Ribbon Snake Habitat



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Figure 3 Potential Box Turtle Habitat



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Figure 3 Potential Box Turtle Habitat



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Figure 4 Potential Brown Thrasher and Yellow Breasted Chat Habitat



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