FEASIBILITY STUDY
FOR
NEW ATHLETIC FIELDS
AT
CHESTER ACADEMY

Submitted to:
Chester Union Free School District
64 Hambletonian Avenue
Chester, NY 10918

Attention: Ms. Catherine O'Hara, Superintendent

LAN Job #4.1283.20
May 6, 2025

LAN ASSOCIATES | Engineering, Planning, Architecture, Surveying LLP

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LAN ASSOCIATES | Engineering, Planning, Architecture, Surveying LLP

Contributors

- Matthew Milnamow, AIA, Vice President – LAN Associates
- Danielle Farrell, AIA, Assistant Vice President – LAN Associates
- Bob Kernan, Associate Principal – The LA Group

Premise

In October 2022, with the assistance of Mr. Jim Osborne and Ms. Roberta Greene, the Chester Union Free School District performed an informal audit of the school district's athletic facilities. The purpose of the audit was to examine all practice and competitive spaces utilized by the Chester UFSD for athletics to assess the quality, deficiencies, concerns and gain a comprehensive understanding of the existing athletic facilities. (Refer to Chester Union Free School District – Athletic Facilities Informal Audit Survey, dated 11/1/22 has been included as Attachment No. 1).

In review of the audit, LAN notes the following takeaways:

- The school district owns, maintains, and competes on baseball and softball fields located at Maple Avenue. The fields at Maple Avenue are located ~1.2 miles away from the Chester Academy which creates logistical challenges.
- The school district does not have a running track or football field to support their sports programs and must rent facilities to host contests for their "home" football games and track and field meets. These contests do not provide any home field advantage for the Chester student athletes.
- The school district leases a municipal field at Chester Commons Park for the use of their football program. The Chester Commons field is located ~2.5 miles away from the Chester Academy which creates logistical challenges. The Chester Commons field is in extremely poor condition with several other deficiencies noted. Historically, the athletic field lighting at Chester Commons Park has been problematic and unreliable.
- The cost of renting facilities and transporting athletes to host official "home" contests at various locations is significant.

Contributors to the audit recommended engaging an architectural firm to help develop a comprehensive building project to bring as many sports as possible to a facility owned by Chester UFSD. The audit suggests investigating the development of land adjacent to Chester Academy, including land behind the upper parking lot, east side of the upper parking lot, and west side of the upper athletic fields, and/or the acquisition of adjacent property. The audit recommends constructing a multi-purpose synthetic turf field that could accommodate soccer, football, and lacrosse for all levels. The ideal facility would include a track around the field with at least 6 lanes for competition purposes and lighting for game field area, track, and back spectator area (safety).

Around May 2023, the Town of Chester agreed to transfer ownership of a ~18 acre property (Section 2, Block 2, Lot 21) adjacent to the Chester Academy on Hambletonian Avenue to the Chester UFSD.

Project Summary

After obtaining ~18 acres of undeveloped land adjacent to the Chester Academy on Hambletonian Avenue from the Town of Chester, the Chester UFSD retained LAN Associates to explore the development of the property for the purpose of creating new athletic fields and facilities. If the property is suitable for development, it would be advantageous for the school district to relocate some or consolidate all of their athletic facilities to the newly acquired property adjacent to the Chester Academy. Due to the raw nature of the newly acquired land, the school district asked LAN to evaluate the site's usefulness to construct a new athletic facility and for assistance with evaluating the potential environmental impacts associated with the site development.

Process

LAN met with stakeholders from Chester UFSD to discuss the goals and area of focus for the development of the property, including construction of an athletic facility and additional athletic fields. LAN was directed to study both the newly acquired woodlands and the existing baseball field sites.

LAN recruited a team of design professionals to perform the due diligence necessary to evaluate the potential environmental impact of the land disturbance and determine the feasibility/ practicality of the development potential. LAN's team of consultants, design professionals, and subject matter experts evaluated the site conditions for the potential construction of a new athletic facility.

LAN and The LA Group evaluated the feasibility of developing a new multi-use artificial turf field within an 8-lane track at both the newly acquired woodland parcel and the existing baseball field site. For each location, conceptual site design options were created, and cost estimates were developed to support budgeting and long-term planning.

Program/Scope of Work

Chester UFSD requested that the design include the following amenities/facilities at the new and/or existing property of the Chester Academy:

1. Multi-use synthetic turf field within the perimeter of an 8-lane track.
2. Steeplechase, pole vault, long jump/triple jump, and high jump events in 'D' zones.
3. Field House (with Locker Rooms, Public Restrooms, Storage Space and Space for the Treatment of Athletes).
4. Grandstand/bleachers with a seating capacity for ~800 visitors.
5. Press box.
6. LED athletic field lighting, multi-sport scoreboard, PA and sound system for athletic facility.

SITE EVALUATION

LAN retained The LA Group to provide forensic, planning and engineering services for this feasibility study. The LA Group reviewed New York State DEC online resources, available GIS data, record surveys, and aerial imagery to gain an understanding of the sites and develop base maps. They assessed the general character of each site and surrounding land uses to understand how the proposed project would fit within the broader community context. An analysis of site opportunities and constraints was conducted for each location, including topography, existing vegetation, wetlands, rock outcrops, and solar orientation. Additionally, potential environmental impacts were evaluated to identify potential environmental concerns with the proposed project and determine mitigation strategies if needed.

Woodland Site Evaluation

The site is predominantly forested around the perimeter of the property but does contain a large meadow-like area with scattered trees. It Is bordered on the west by the Heritage Trail, a residential neighborhood to the east, additional woodlands to the north, and the southern boundary is characterized by a mix of wooded areas, storm basins and wetlands. A portion of the southern property is planned to be conveyed to the Town of Chester for their use, as part of a broader collaboration between the District and the Town.

Site opportunities for this site include its proximity to the Chester Elementary School and Chester Academy which provides potential for shared use and connectivity between campuses. The site also benefits from existing access to nearby parking lots and multiple utility connections, reducing the need for extensive new infrastructure resulting in efficient and economic development. The forested areas on the site can also serve as a valuable visual and physical buffer between the proposed development and adjacent properties. This natural screening can help maintain privacy for neighboring landowners, reduce potential noise impacts, and preserve the overall aesthetic character of the area. Rock outcroppings were also observed within this area providing insight into potential underlaying soil conditions. Additionally, the site's physical characteristics and constraints naturally support a north–south solar orientation for the athletic field layout.

Site topography presents the most significant design constraint as the land slopes upward approximately 100' feet from west to east. Leveling the site for the new improvements will require an extensive amount of earthwork, slope stabilization, and construction of multiple retaining walls. The steep terrain will present walk construction and accessibility issues that may substantially increase the complexity and cost of the project.

Other limiting site factors include:

- Proposed land area to be conveyed to the Town of Chester:
  Much of the land within this area is undevelopable due to the presence of a large wetland and drainage basin. Additionally, two (2) abandoned drilled wells, reportedly to be maintained by the Town, are subject to a 200-foot protective buffer which could restrict development. Additionally, it appears that all stormwater runoff uphill of the property eventually drains to an existing culvert located beneath Hambletonian Avenue. Based on our assessment, stormwater generated by the proposed project will also need to be directed to this culvert to maintain existing drainage

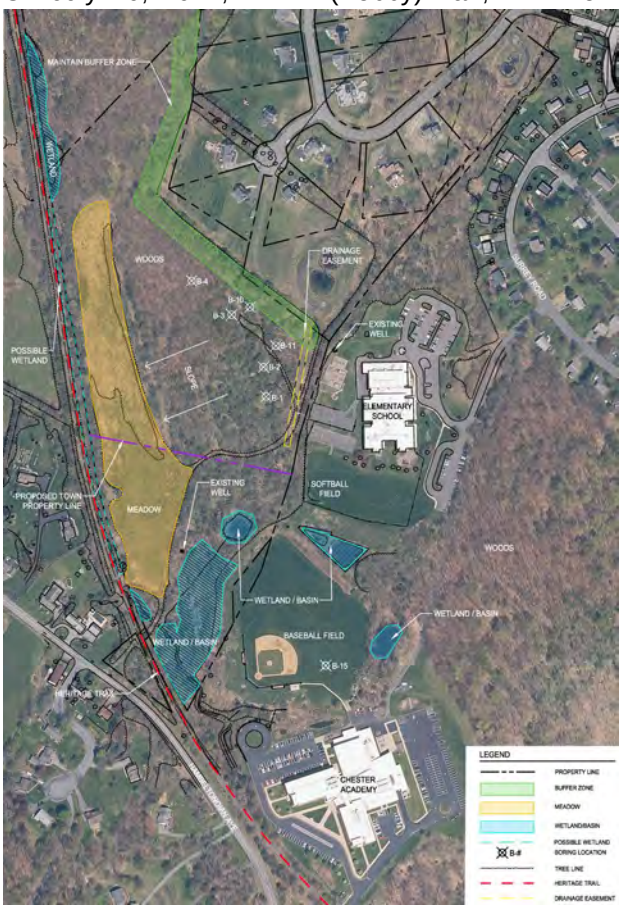
patterns. To facilitate proper conveyance and ensure legal access, it is likely that a drainage easement across the adjacent Town-owned property will be required.

- Wetlands:

  Per the New York State Department of Environmental Conservation (NYSDEC) Mapper and survey, the site contains National Wetland Inventory (NWI) and Army Corps Wetlands (ACOE); however, NYSDEC wetlands are not identified. New NYSDEC wetland regulations were issued December 31st, 2024, that requires a notification and possible site inspection with NYSDEC to verify the presence of wetlands on the project site. The LA Group has proactively notified NYSDEC accordingly and are waiting for their response to confirm if a site inspection is needed.

- Poor soil:

  LAN retained JHB Engineering ("JHB") to perform a geotechnical investigation. The geotechnical investigation evaluated the subsurface conditions at the locations of potential site development. On July 10, 2024, Mr. Xi (Bobby) Fan, P.E. from JHB started the investigation at the newly acquired property. JHB performed seven (7) soil borings and one (1) infiltration test to assess the percolation rate of the soil for preliminary stormwater design. JHB reports encountering glacial till with frequent presence of boulders. In most borings (3 out of 4), JHB encountered auger refusals and started to core what they thought was possible bedrock, but cored through boulders after 2-3 feet. Therefore, the removal of large boulders should be anticipated during site development. Furthermore, the on-site soils were deemed unsuitable for use as backfill materials under paved, synthetic turf, and green areas due to their relatively high fine content and anticipated high runoff potential. Therefore, site development will require importing material for backfill. These factors should be considered when estimating the cost of construction. Additionally, the poor soils will pose significant challenges for stormwater management design, as large detention basins will likely be required to meet regulatory standards.

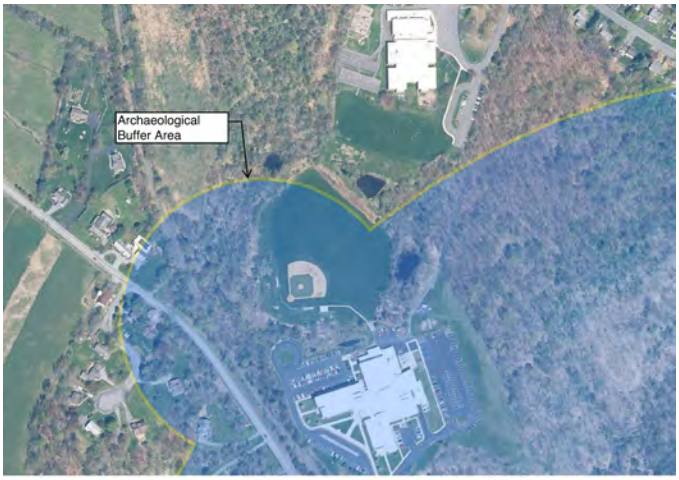


(Refer to Geotechnical Subsurface Investigation prepared by JHB Engineering, PLLC, dated 7/31/24 as Attachment No. 2).

- Drainage Easement:

  The site contains a drainage easement between the elementary school and project site. We believe that this easement was provided to convey stormwater from the neighboring residential community storm basin to the wetland/basin to the south. The LA Group has contacted the Town

Clerk and submitted a FOIL request to obtain information related to this easement and are waiting for a response.

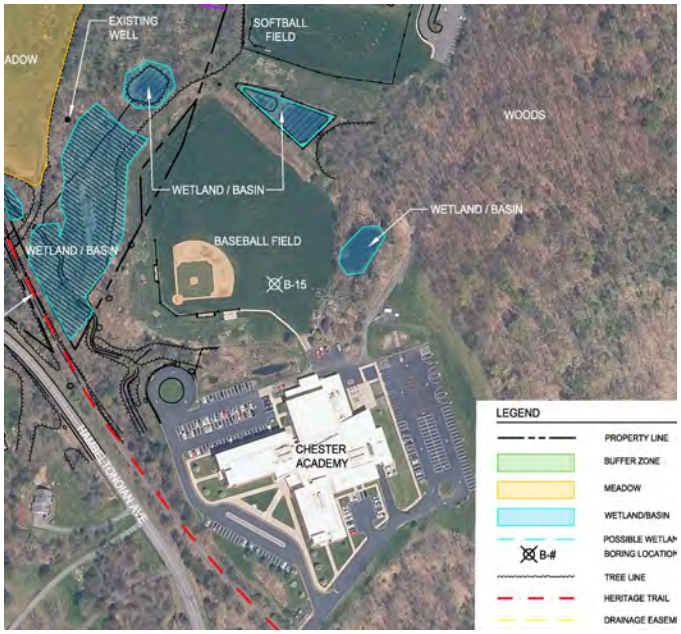


According to the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), the site is located within an Archaeological Buffer Area. As a result, we recommend that the project be submitted to OPRHP for review.

Discussions with the district indicate that existing on-site utilities are available to support the proposed development. An 8-inch water main currently serves the elementary school and is reported to provide adequate pressure and flow to accommodate the project's demands. It is anticipated that the project will require the installation of a backflow preventer and water meter in accordance with New York State Department of Health (NYSDOH) regulations. The elementary school is connected to a public sanitary sewer system with no reported issues. It is expected that sanitary flows generated by the new facility will be directed to this public system. Due to elevation differences between the proposed development area and the existing sewer infrastructure, a sanitary pump station and associated force main are likely to be required to convey wastewater.

LAN retained Edgewood Environmental Consulting, LLC ("Edgewood") to perform a habitat assessment for the property including research concerning target species including bird, mammal, reptile, amphibian, aquatic, and plant species and identify existing threatened, endangered, and species of special concern. On May 17, 2024, Mr. Michael Fishman from Edgewood visited the newly acquired property to observe, identify, and document plants and animals of significance that were determined to possibly be present using environmental resource maps. Mr. Fishman notes the site is not a potential habitat for the Bog Turtle. Mr Fishman notes the site is a potential bat habitat, but Edgewood felt there is ample fragmented habitat interspersed to provide sufficient forest cover for the roosting, migration, and hibernation of bats. LAN coordinated with Edgewood to minimize the chance of disturbing habitats during a geotechnical investigation that may be suitable for endangered species. Mr. Fishman suggested using a small track-mounted drill rig to avoid disturbing bats that may inhabit trees near the proposed drilling locations.
(Refer to Biodiversity Survey Report prepared by Edgewood, dated 9/24/24 as Attachment No. 3).

Existing Baseball Field Site Evaluation



The site is located between the Chester Academy and Chester Elementary School on a flat area of land that is surrounded by steeply sloped woodlands. Multiple drainage basins and wetlands are located at the bottom of the sloped areas and appear to be a part of the campus stormwater management system.

The site's proximity to the Academy facilities and its relatively flat topography present significant opportunities, as the existing plateau provides an optimal location for the development of an athletic complex while minimizing the extent of required earthwork and associated construction costs.

Access to the field is available from the rear of the Academy, with connectivity from either parking lot and a sidewalk that leads up to the field level.

The surrounding slopes, drainage basins, and wetlands present significant site constraints by limiting opportunities for expansion. As a result, the available area is inadequate to accommodate a full-sized track and field complex, but other field options can be considered.

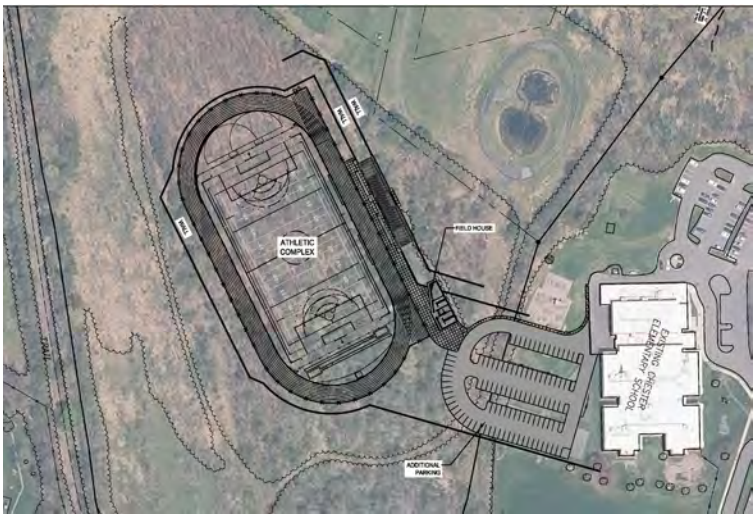
JHB also performed geotechnical investigation for this site. One (1) Soil boring and one (1) infiltration test was performed to evaluate the soil conditions and assess the percolation rate of the soil for preliminary stormwater design. JHB reports that the soil mainly consists of fill materials overlying native sands that are conducive for construction and stormwater management. (Refer to Geotechnical Subsurface Investigation prepared by JHB Engineering, PLLC, dated 7/31/24 as Attachment No. 2).

According to the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), the site is located within an Archaeological Buffer Area. Although it was previously disturbed, the project would also need to be submitted to OPRHP for review.

Water could be provided to this site by tapping an 8" inch water line that runs through the field and would require a backflow preventor and meter. Chester Academy has a public sewer with no reported issues, and the intent would be to connect new sewer flows to the existing service.

Master Planning & Conceptual Design

Woodland Site Original Concept Plan 'A'

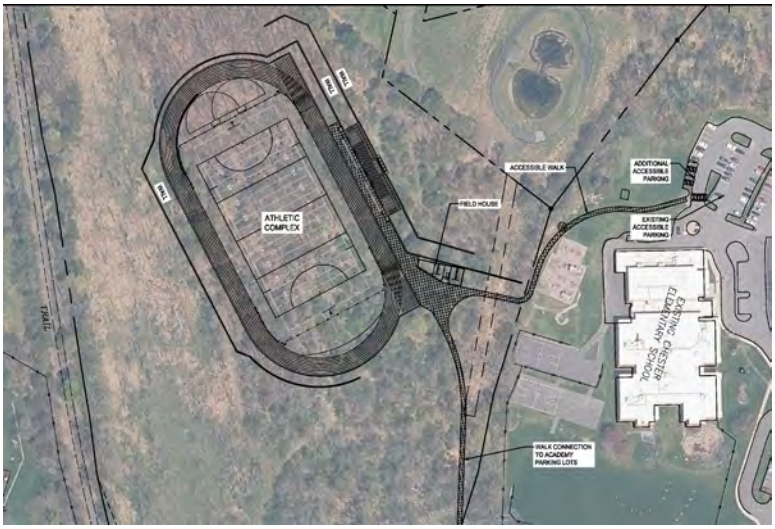


Using the data gained during the site analysis, initial concepts were developed to include the desired program elements. In all the initial concepts, the track and field complex is orientated in the recommended north-south direction and positioned to avoid the site constraints previously identified. To accommodate the athletic complex on the site's steep terrain, extensive retaining wall systems are proposed. The walls allow for flattening of the grade to create a level surface necessary for the athletic complex. The walls on the uphill side of the complex are placed to cut into the slope and on the downhill side, substantial retaining walls are proposed to hold back the earth and provide structural support for the complex. Various wall heights and configurations were explored to provide efficient use of space and reduce the amount of disturbance. The grandstand is located on the uphill side of the complex and can be designed to be built into the slope creating a more natural and cohesive aesthetic with the surrounding environment. Although not fully developed, we envision that the field house will be located on the east side of the site and help define the sense of arrival at the venue. This design works at a conceptual level; however, we are concerned location of the complex requires a signification amount of clearing and disturbance to the north and diminish the natural tree buffer to the residential neighborhoods.

In the initial design concepts, primary access to the athletic complex was envisioned to include a new parking lot situated between Chester Elementary School and the proposed complex. Walkways would lead pedestrians from the parking lot directly to the entrance of the complex. However, after further discussions with the district, it was determined that additional parking in this area was not desirable due to concerns about increased traffic within the adjacent residential neighborhood and the potential for

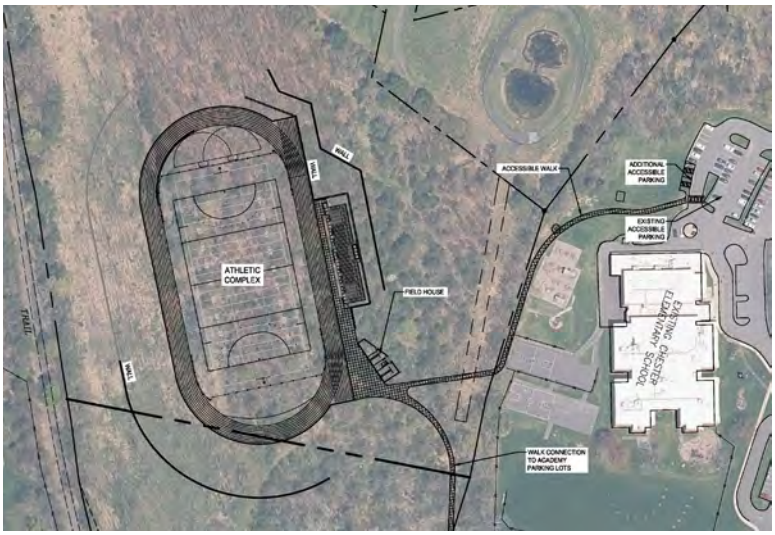
conflicts with other school functions, so the district encouraged the design team to further explore options for removing the parking lot as well as providing access from Chester Academy.

Woodland Site Revised Concept Plan 'B'



Subsequently, the proposed parking lot at the elementary school was removed, resulting in a reduction for infrastructure costs related to the new parking lot and dispersing vehicular traffic and parking amongst multiple areas. A new walk was added from Chester Elementary School from the parking lot, around the existing playground, and to the entrance of the facility. This approach will also serve as the accessible route to meet ADA requirements. However, creating an accessible walk from Chester Academy to the facility is not feasible due to the over 100' grade change between the sites. Instead, this walk/ trail will lead pedestrians from the academy parking lots, up to and around the baseball field, through the woods, and to the facility entrance.

Woodland Site Revised Concept Plan 'C'



Concept 'C' was developed to preserve more of the vegetative buffer to the north of the property. To achieve this the entire complex was moved approximately 150' feet south and slightly rotated to align the track and field with the existing contours. This adjustment reduces the impact to the north, but the limit of disturbance extends further south and onto the proposed Town property. This highlights the potential constraints and design limitations that the current configuration of the proposed Town property line could have on the project.

Baseball Field Site Concept Plans

Concept 'A'

Concept 'B'

Various options were evaluated to maximize space and multi-sport utilization within the site constraints. As previously noted, the desired track complex does not fit within this site. However, the site can support the development of a multipurpose synthetic turf field designated for baseball, softball, soccer, and football including associated grandstands and field house.

To achieve this, in each concept the layout overlaps the different sporting fields, allowing them to fit within the available footprint. While this design maximizes sporting events, it does mean that events will need to be scheduled at different times.

Both concepts provide the same program elements:

- Multipurpose synthetic turf field
- Field house
- Grandstand with press box
- Walks

The main differences between the concepts are the location and orientation for each of the program elements. When comparing the designs, Concept B has multiple advantages including:

- Desirable north-south solar orientation for the soccer and football field.
- Less disturbance.
- Least amount of retaining walls.
- Concession facility is closer to the Academy and therefore closer to utility connections.

Architectural Design:

LAN met with stakeholders to develop program requirements for the structures. The multi-purpose athletic field should be designed to include a field house, press box, and grandstands or bleachers.

The field house will provide spaces for concessions, athletic training, locker rooms, public restrooms, mechanical/electrical space, and storage. The field house will likely be located closer to Chester

Elementary School. Based on LAN's prior experience in designing the field house for Goshen High School, LAN believes the field house for the new athletic facility will require a slightly smaller footprint of ~5,500 s.f.

The press box will likely be purchased as a manufactured building and delivered to the site. The press box should provide standard separation between the home and visitor coaches. The press box could be designed to provide access to a viewing platform, less than 500 s.f., on top of the press box for filming interscholastic competitions.

The grandstands or bleachers should be located on the uphill side of the new athletic field to take advantage of the paths to the facility and the natural topography of the site. The school district requires grandstands or bleachers with a seating capacity of ~800 spectators, which is large enough to accommodate a graduation ceremony.

LAN has not developed architectural floor plans of the field house, grandstands, or press box yet.

Power Analysis:

LAN reviewed historical power consumption provided by the school district using 12 months of utility invoices. LAN evaluated the historical load data and existing electrical infrastructure constructed at the Chester Academy and Chester Elementary School. Based on the electrical use and size of electrical service at each school, there is adequate spare capacity to provide power to support the construction of the new athletic facility from either school. Based on the shortest distance to the proposed development area, it would be less costly to trench the electrical service from Chester Elementary School to the new athletic facility.

Cost Estimating & Budgeting

The design team provided Chester UFSD with an order-of-magnitude budget recommendation consisting of anticipated construction costs and "soft costs" expected for the implementation the project. The budget recommendation will enable the stakeholders to evaluate funding sources and the impact of the tax levy on the Community. (Refer to Attachment No. 4 for the Budget Recommendation)

Chester UFSD evaluated funding for this future capital project through the combination of several funding sources, such as transfer to capital, building aid, and increase to the tax levy, which requires public approval as part of a referendum. (Refer to Attachment No. 5 for Chester UFSD funding documents)

Summary

This report provides a comprehensive summary of the due diligence activities undertaken to conduct a preliminary assessment of both the feasibility and the potential costs associated with developing the subject property. The findings presented herein are intended to support the school district in making an informed decision regarding the next steps in the site development process. Should the district choose to advance the project based on this initial evaluation, LAN recommends conducting a thorough analysis of the project's environmental impacts in order to ensure full compliance with the requirements set forth by the State Environmental Quality Review Act (SEQRA).

Next Steps - Planning a Referendum

While considerable progress has been made in assessing the feasibility of building a new athletic facility on the recently acquired property of Chester UFSD, several key steps remain before a bond referendum can be held.

Environmental Evaluation & SEQR

The State Environmental Quality Review Act ("SEQRA" or "SEQR") requires all local, regional, and state government agencies to equally examine the environmental impacts along with the social and economic considerations for a certain project, or action, during their discretionary review. Agencies must follow the multi-step SEQR Decision Process, which requires them to assess the environmental significance of all actions they have the power to approve, fund, or directly assume. To help a lead agency determine significance, environmental impact assessments have been standardized through the Environmental Assessment Form ("EAF"). The EAF helps a lead agency to make their SEQR Determination, which will inform their decision to require or prepare an Environmental Impact Statement (EIS) and whether to hold a public hearing on the proposed action.

In our experience, SEQR approval must be obtained prior to hosting a public referendum. The school district will need to evaluate the environmental impact of the project. The school district will need to circulate a Notice of Intent to be Lead Agency for the Board of Education to adopt a resolution and assume the role of Lead Agency. The LA Group will prepare Parts 1 and 2 of a Long Environmental Assessment Form. During our site evaluation, we may discover conditions that warrant other studies to be performed. If required, these studies would be summarized in preparation of Part 3 of the Long EAF. If the Board of Education finds the studies to be adequate and no significant environmental impacts have been identified, the Board of Education can pass a "negative declaration" (aka; "Neg Dec") stating that in the Board of Education's evaluation of the Action, the Board of Education does not feel the Action will have an adverse impact on the environment and conclude the SEQR process.

This project will likely involve the physical alteration of >(10) acres of property, and given the topography of the site, it is possible the design requires construction on slopes of 15% or greater. These benchmarks are defined by the NYS DEC in section 617 of the SEQR handbook as thresholds that classify the construction as a "Type I Action" that require greater scrutiny by the Lead Agency and warrant the preparation of a Full Environmental Assessment Form to evaluate the impact of the proposed Action. A geotechnical investigation is required to determine if the proposed Action will disturb land with a high water table, to determine if the soil conditions are stable to support modifying the slope of the property, and to determine if there is concealed bedrock. These are just a few examples that need to be investigated to evaluate the environmental impact of the proposed project by the Lead Agency. Through this site evaluation process, we may discover conditions that may influence the proposed solution, location or features, and need to be mitigated as part of the design.

According to the Office of Parks Recreation and Historic Preservation (aka; "SHPO") mapper, the project site is located in an archaeological buffer area and some level of exploration may be required. It also appears the school district performed a Phase 1A and 1B archeological survey for the school site prior to construction of the Chester Academy and Chester Elementary School, so we believe that SHPO will likely require the same level of assessment for the new property. LAN would need to retain an archaeological consultant to provide an archaeological assessment of the property, and if through analyzing the site, we believe the construction may impact possible buried historic structures or other historically significant cultural resources, the archaeological consultant would need to prepare a Phase IA Documentary Study.

NYSED Coordination & Guidance: A site development project does not typically require a preliminary submission, and it's possible the NYSED will not provide any feedback regarding the project's eligibility of building aid. On behalf of the district, LAN could file a preliminary submission with the NYSED directly to the assigned project manager, "as soon as the final decision is made by the district as to what may be built and well before the district plans to put the resolution before the voters".

Professional Cost Estimating: Due to the significance of this project, LAN recommends obtaining an independent third-party cost estimate from a professional to validate the budget suggested by LAN for the entire project. The cost estimator should have experience with the local market and construction factors in the K-12 sector. Ideally, the cost estimator could provide recommendations for value engineering and scaling.

Construction Management Services: LAN recommends hiring a construction manager to provide advice related to budgeting, phasing, scheduling, value engineering, and site logistics. A construction manager could be retained to also provide cost estimates for the work.

Community Engagement & Public Relations: Passing a bond referendum requires community outreach and support. An athletic and recreational facility will be used by the Public, and for this reason, they should be designed with the feedback and support of the community. The school district should begin a public relations campaign to inform the community of the need, solicit feedback, and build consensus for support of the project. We encourage Chester UFSD to consider hosting interactive public forums using live polling to galvanize activists in support of the project.

Milestone Schedule:

The following project milestone schedule provides key milestone dates that should be discussed to advance the vision to a referendum by mid-December. LAN will work with the District to meet these important milestones with the understanding that LAN has no control over cooperation and expediency of review by the authorities having jurisdiction.

Tentative Referendum Dates: (Aggressive) November 2025 (Budget Vote) or (Conservative) May 2026

Notes: Schedule will need to be adjusted based on the authorization date of this proposal.

Chester Union Free School District – Athletic Facilities Informal Audit

November 1, 2022

The purpose the informal audit is to examine all practice and competitive spaces utilized by the Chester UFSD athletic department teams and assess quality, deficiencies, short-comings, safety concerns, etc. in order to gain a comprehensive understanding of baseline facility appropriateness to-date. The informal audit is intended for the Superintendents use, to be shared with others at her discretion. There were no costs or fees associated with this informal audit.

There are essentially 11 venues utilized by Chester UFSD teams for either practice or competitive purposes. Six (6) are located on grounds or in facilities owned by the District, and five (5) located at facilities owned/operated by an outside entity.

District-owned venues and sport affiliations are as follows:

Maple Ave. Gym: B/G Modified Basketball, occasional B/G JV & Var. Basketball practices, off-season Wrestling, off-season/rainy day baseball and softball practices

Maple Ave. Fields: V & Mod. A Football practices, B. Var. Soccer, B. Mod. Soccer, JV & Mod. Baseball, Var., JV & Mod. Softball

Academy Fields: G. Var., JV & Mod. Soccer, B. Mod. Soccer, B. Var. Baseball

Elementary Fields: B. Mod. Soccer, G. JV Lax (to add Var.)

Academy Gym: G. Var., JV & Mod. Volleyball, G. Var., JV & Mod. Basketball, B. Var., JV & Mod. Basketball, B & G Wrestling, G & B Var. Outdoor Track practices

Academy Cafeteria: B & G Wrestling practices

Outside-owned facilities and sport affiliations are as follows:

Washingtonville HS: B & G Outdoor Track & Field

West Point: B & G Indoor Track & Field

Carpenter Field: JV & Mod. Baseball, Var., JV & Mod. Softball (all occasional and subject to availability)

The Rock: Var., JV & Mod. Baseball, Var., JV & Mod. Softball (all occasional and subject to availability)

Chester Commons: Var. & Mod. Football, Var., JV & Mod. G. Soccer, Var., JV & Mod. B. Soccer, G. JV Lax (to add Var)

Maple Ave. Gym/Locker room:

Offers appropriate second gym facility for upper-level basketball practices and modified games

Provides restroom facilities for baseball, softball and soccer venues

Provides indoor shelter for emergency needs during outdoor contests on Maple Ave. fields

Provides space for rainy day practices for outdoor sports such as softball, baseball, etc.

Provides space for off-season team work-outs when available and not being utilized by in-season teams

Locker room not conducive to storage of football practice gear (ex. small size lockers do not fit shoulder pads & helmets)

Limited toilets for larger team use

Limited end line space on basketball court (NFHS rules state 3 feet minimum) to conduct Var/JV basketball contests

Baskets on court end lines are not retractable making side-by-side volleyball courts unavailable for game use

Maple Ave. Outdoor Fields:

Slope of field area requires ongoing B & G manpower hours to address water pooling, wash-out areas that result in loss of clay, etc.

Anticipated new scoreboard - positive addition

Foul ball issues on baseball field with north end neighbors

Maximum length of field for football practices is only 70 yards, shared by two teams

Only one end zone/goal post area for red zone practice situation and PAT / field goal kicker practice split with two teams

Easy access to all fields for emergency vehicles

Limited formal spectator seating

Proximity to building allows shelter for student-athletes in the event of emergency or inclement weather

Academy Outdoor Fields:

Good facility for both baseball and soccer contests

Limited formal spectator seating

Scoreboard visible to both fields

Additional cap/netting needed on backstop to minimize loss of baseballs

Proximate to Academy for emergency safety planning purposes (inclement weather)

Easy access for emergency vehicles, increased signage needed to direct emergency responders to field

Ample parking available

Waste from wildlife (Geese) significant on entire field area

Elementary Fields:

Size constraints of land available makes layout of fields challenging

Requires shuttle buses for student-athletes to get to facility

No storage onsite

Academy Gym:

This is the most up-to-date facility and is conducive to all sport contests and practices.

Recent updating of championship banners has enhanced the environment in celebration of prior student-athlete's accomplishments.

With limited end line clearance, a dual volleyball match (side-by-side courts) cannot be played in this facility, however, practices can be configured in this manner.

Seating meets student body/spectator needs

Ample parking available

Sound system, scoreboard, public address system all appropriate for competition venue

Emergency Action Plan follows building plan

Carpenter Field, The Rock and Chester Commons:

Each site requires transportation of both student-athletes as well as equipment.

Off-site locations are not conducive to student body support as spectators must travel.

All sites are subject to availability and schedules must be developed in conjunction with many entities including: club teams, town teams, other school districts, etc. This results in uneven scheduling without any real 'home' venue for many teams. Complicating the scheduling of contests, any weather cancellation requiring a rescheduled game poses difficulty as other groups are already scheduled in.

Rental and transportation costs are incurred when using each of these 'home' facilities.

Chester Commons:

The Chester Commons field is in extremely poor condition with uneven surface area, old equipment along the back side of the field, and goal posts that do not meet NFHS specifications.

There are limited toilet facilities for teams with one 'port-a-potty' near the field. Additional facilities are located up a wooded hill where no back-lighting exists, making this unsafe during night games. One facility for two entire teams is not realistic, especially given the number of student-athletes on each team.

There is no back lighting at this facility making supervision a challenge.

Students must be bussed to the facility, and in order to ensure shelter in emergency situations, such as inclement weather, wildlife sighting, etc. a bus must stay at the facility for the entire contest.

Reliability of lights has been an issue at this facility, sometimes resulting in the need for make-up games. This is cost prohibitive for both the home and away teams. (Official's payment, additional transportation costs, supervision costs, etc.)

Limited cell service and no emergency phones at this facility.

Limited public address capabilities at this facility.

There is ample parking and seating capacity for spectators.

At the time of this audit, we were unable to evaluate the quality of field lines/dimensions or goals for Lacrosse as it is currently out of season.

Carpenter Field:

Fields are in very good condition and appropriate for most levels of baseball and softball.

Field time is limited during Little League season (must be off fields early).

Must compete for field space with other non-school teams

The Rock:

This is an excellent facility for softball and baseball contests.

Because of the venue's popularity with other local districts and teams, only official games are typically played at this venue, thus essentially making the contest an 'away' one for Chester student-athletes.

There are significant costs incurred with both facility rental, insurance and transportation when using this facility.

Must compete with other teams/entities when scheduling time at this facility

Washingtonville HS and West Point:

Both facilities require transportation for student-athletes and all contests are essentially 'away'.

West Point is the only local option for indoor track and field and is the site of most Section IX events

- For Chester student-athletes, current practice spaces for both indoor and outdoor track and field are essentially created from any available space and give limited 'game time' experience to relay teams, hurdlers, etc.
- Without appropriate and safe practice areas, student athletes are limited in field event participation (disc, shot, javelin, hammer)

Thoughts and possible solutions, short and long term:

Short Term:

Explore Capelli's facilities as an alternative to the Chester Commons. This would need to be done early in order to ensure the best availability, cost negotiations, and time slots for Chester teams.

Research goose issue to find possible mitigation solutions for Academy fields

Cap/fence baseball areas at both the Academy and Maple Ave. to address errant baseballs, spectator safety, neighbor concerns, etc.

Renovate Maple Ave. locker rooms to accommodate team storage/changing areas as opposed to current configuration of classroom changing areas. Add additional toilet facilities

Replace fixed baskets on the north and south ends of the Maple Ave. gym to retractable ones to allow for more flexible volleyball space.

Emergency Action Plans for every facility, either on or off campus, should be developed immediately.

Long Term Suggestions:

Engage and architectural firm to help develop a comprehensive building project to bring as many sports as possible onto a Chester owned facility. Partial cost off-set by transportation savings, rental fees, etc.

Investigate available land adjacent to Chester Academy, including land behind current upper parking lot, east side of upper parking lot, and west side of upper athletic fields.

Capital Project priority should include a multipurpose synthetic field that could accommodate soccer, football and lacrosse for all levels. Such a multipurpose facility would allow for two contests per day, thus reducing number of different facilities needed on a daily basis for both spring and fall seasons.

An ideal facility should include a track around the field with at least 6 lanes for competition purposes and lighting for game field area, track and back spectator area (safety).

- Multi-use facilities result in fewer rescheduled events and require less daily maintenance.
- A multi-use facility as described would also lend itself to graduations, ceremonies, field-days, etc.
- On campus events would allow for greater student body participation with more visibility of programs

This Informal Athletic Audit was performed by Jim Osborne and Roberta Greene during a site visit on October 24, 2022. Our thanks to high school principal, John Flannagan and Director of Facilities, Matt DeRosa who accompanied us as we visited facilities. This document is by no means a comprehensive analysis of each facility; that work would require the services of a licensed professional engineer and/or architect.

Jim Osborne is a former Athletic Administrator in Orange County, subsequently serving as the Orange-Ulster BOCES OCIAA Athletic Coordinator. Jim is a past president of the New York State Public High School Athletic Association (NYSPHSAA) and continues to serve as secretary for the Section IX Athletic Council.

Roberta Greene (Robbie) is a former Athletic Administrator in Orange County as well as a former superintendent. Since 1996 she has served as the female Section IX representative to the New York State Public High School Athletic Association (NYSPHSAA), a role she continues to hold today. As a NYSPHSAA Executive Committee member, she is also a member of the Handbook Committee, Investment Committee and Compensation Committee for NYSPHSAA. Robbie currently serves as the Executive Director of the Mid-Hudson School Study Council.

REPORT

GEOTECHNICAL SUBSURFACE INVESTIGATION

Feasibility Study of Development of An Athletic Complex

Chester Union Free School District

64 Hambletonian Avenue

Chester, Orange County, NY 10918

Prepared for

LAN Associates
252 Main Street
Goshen, NY 10924

Prepared by

JHB Engineering PLLC
400 Rella Boulevard, Suite 165
Montebello, NY 10901

JHB Project No.: PM04

July 31, 2024

TABLE OF CONTENTS

SECTION 1 PROJECT BACKGROUND

JHB Engineering PLLC has performed a subsurface investigation for a proposed athletic complex at the existing Chester Union Free School District site. This report presents our findings from the recently completed subsurface investigation in regard to the feasibility study of the development of the athletic complex.

1.1 Project Site Descriptions

The project site is located at 2 Herbert Drive and 64 Hambletonian Avenue, Chester, Orange County, New York 10918. The project location is illustrated in Figure 1 attached herein.

The ground surface at the project site at the Chester Elementary School located at 2 Herbert Drive is generally hilly and heavily wooded. The ground surface at the project site at the Chester Academy at 64 Hambletonian Avenue is at the existing baseball field and is relatively flat and covered with natural grass turf.

1.2 Objectives and Scope of Work

The objectives of this geotechnical investigation were to evaluate the subsurface conditions at the locations of proposed improvements at the Chester Union Free School District. The following scope of work was performed in accordance with JHB Engineering's proposal dated May 1, 2024:

a) Reviewed available regional geology information.
b) Retained a drilling subcontractor to perform a total of seven (7) soil test borings.
c) Observed and documented soil conditions at seven (7) soil test borings;
d) Administered an in-situ infiltration test at one (1) location;
e) Provided full-time inspection by geotechnical engineers of the soil drilling and sampling operations, and the infiltration testing.
f) Prepared this report that includes the following:
    - A subsurface exploration location plan showing the approximate locations of the test borings and infiltration test;
    - A description of the test boring procedures;
    - An overview of the general site and geologic conditions;
    - A detailed description of the encountered subsurface conditions;
    - Appendices that include test boring logs, and results from the in-situ infiltration testing.

SECTION 2 SUBSURFACE INVESTIGATION AND CONDITIONS

This section summarizes the subsurface investigation program, encountered soil conditions, and observed groundwater conditions.

2.1 Geotechnical Subsurface Investigation

A geotechnical subsurface investigation was performed involving the mobilization of equipment and crews to perform a total of seven (7) soil borings, as well as one (1) in-situ infiltration test. The boring and in-situ infiltration test locations are shown in Figure 2.

The subsurface investigation program was carried out from July 10th to 19th, 2024. An all-terrain vehicle (ATV) mounted drill rig was utilized to advance the borings using 4-inch outside diameter hollow stem augers (HAS). Soil samples were obtained using techniques and equipment in general accordance with the American Society for Testing and Materials (ASTM) Standard Specification D1586 - Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils. The SPT generally consists of driving a 2-inch outside diameter split spoon sampler with repeated blows of a 140-pound safety hammer free falling a distance of 30-inches. The standard penetration resistance, or N-value, is determined as the number of blows required to advance the sampler the middle 12-inch of a 24-inch sampler penetration unless sampler refusal occurred. SPT sampler refusal is defined herein as having more than 50 blows per foot (bpf) in 6 inch or less of the spoon sampler penetration. The SPT was generally performed at 5-foot vertical intervals, unless refusal was encountered. Rock corings were attempted at different depths in several borings. The recovered split-spoon samples were placed in protective glass containers and labeled with the project number, boring number, sample number, SPT blow counts, and sampling depth. The soil samples obtained from the borings were visually classified by a Geotechnical Engineer on site in accordance with the Unified Soil Classification System (USCS).

One (1) in-situ infiltration testing was also performed, in general accordance with corresponding guidelines established by the New York State Department of Environmental Conservation (NYS DEC).

The subsurface investigation was inspected on a full-time basis by geotechnical engineers representing JHB Engineering. The encountered subsurface conditions are described in the next section.

2.2 Subsurface Conditions West of Elementary School

This section focuses on the subsurface conditions in the area immediately west of the existing Chester Elementary School.

2.2.1 Encountered Subsurface Conditions

A total of six (6) exploratory test borings (boring number B-1 through B-4, B-10, and B-11) were performed in an area that is to the west of the existing Chester Elementary School playground. The boring locations are indicated in the attached Figure 2. Based on the results obtained from the recently conducted subsurface exploration program, the area west of the existing elementary school is largely overlain by glacial till soils containing frequent boulders and cobbles.

Details of the encountered subsurface conditions are described below, as well as in the boring logs included in Appendix I of this report.

The glacial till soils predominantly consist of brown or gray coarse to fine sand and coarse to fine gravel with relatively high content of fines (silt and clayey silt). The SPT N values in the glacial till materials ranged from 9 bpf to sampler refusal indicating dense to very dense conditions for soils deeper than 5 feet below the existing ground surface.

Based on observations of drilling operations, boulders and cobbles are frequently present throughout the project area.

Based on the relatively high fine contents and high density, soils in the area west of the elementary school are believed to be USDA Hydrologic Soil Group C or Group D.

2.2.2 Observed Groundwater Conditions

Groundwater was not encountered at any of the three borings at the time of this subsurface investigation except for at boring B-3 where the groundwater was measured to be at an approximate depth of 47 feet (elevation of 510 feet). However, it should be noted that groundwater level changes due to seasonal precipitation. Perched water is also likely present at shallower depths at the remainder of the project site.

2.3 Subsurface Conditions at Existing Athletic Field

One (1) soil boring (B-15) was performed at the existing baseball field at the Chester Academy. Boring B-15 location is shown in Figure 2 was 10 feet deep. The subsurface conditions at B-15 location mainly consist of fill materials overlying native sand soils. The fill materials were encountered from the existing ground

surface to an approximate depth of 4 feet. The fill materials mainly consist of brown coarse to fine sand with trace amount of coarse to fine gravel and estimated 20 to 35 percent, by weight, of silt. The SPT N values in the fill materials ranged from 17 to 20 bpf, indicating a medium dense condition.

Native sand soils were encountered underlying the fill materials to a depth of 10 feet below the existing ground surface at B-15 location. The native sand soils mainly consist of brown coarse to fine sand with about 10 to 20 percent, by weight of coarse to fine gravel, and 20 to 35 percent of silt. The SPT N values in the native sand soils ranged from 27 to 61 bpf indicating a dense to very dense condition.

Groundwater was not encountered at boring B-15 location.

Soils at boring B-15 location are deemed to be USDA Hydrologic Soil Group C.

2.4 In-situ Infiltration Testing

In-situ infiltration testing was performed at one (1) location along the southern portion of the existing baseball field. The in-situ infiltration testing was performed in general accordance with corresponding guidelines established by the New York State Department of Environmental Conservation (NYS DEC).

The in-situ infiltration test was performed at a location approximately 7 feet west of boring B-15 and at an approximate depth of 3 feet below the existing ground.

The in-situ infiltration test generally involved excavation and installation of a 4-inch inside diameter PVC casing to an approximate depth of 3 feet below the existing ground surface. The infiltration test hole was then presoaked overnight for at least 24 hours prior to the commencement of the infiltration testing.

Results from the in-situ infiltration test are included in Appendix II of this report.

The calculated average in-situ infiltration rate is 0.175 inch per hour.

SECTION 3 OTHER GEOTECHNICAL CONSIDERATIONS AND RECOMMENDATIONS

It is recommended that the following considerations and recommendations be incorporated in the design and construction of the proposed athletic complex:

3.1 Additional Subsurface Exploration and Geotechnical Analyses

Additional subsurface exploration and geotechnical engineering evaluations and analyses will need to be performed once design of the proposed structures and improvements of the athletic complex are further developed.

3.2 Suitability of Reuse of On-site Existing Soils

On-site soils are deemed to be not suitable for use as backfill materials directly under paved, synthetic turf and green areas, due to their relatively high fine content and anticipated high runoff potential. Using on-site soils as backfill material will likely encounter difficulties during compaction especially when water content of the soils is high. Imported control fill should be used to establish finish subgrade beneath the proposed athletic complex.

SECTION 4 LIMITATIONS

Results, conclusions and recommendations contained in this report are applicable for the exclusive use by LAN Associates for the specific project of the feasibility study of the development of an athletic complex at the existing Chester Union Free School District located at 2 Herbert Drive and 64 Hambletonian Avenue, Chester, Orange County, New York 10918. In the event that any changes in the design or location of the proposed structures are planned, the conclusions and recommendations contained in this report shall not be considered valid unless reviewed and verified in writing by JHB Engineering.

The conclusions and recommendations contained in this report are intended for the feasibility study purposes only. Contractors and others involved in the construction of this project are advised to make an independent assessment of the soil, bedrock and groundwater conditions for the purpose of establishing quantities, schedules and construction techniques.

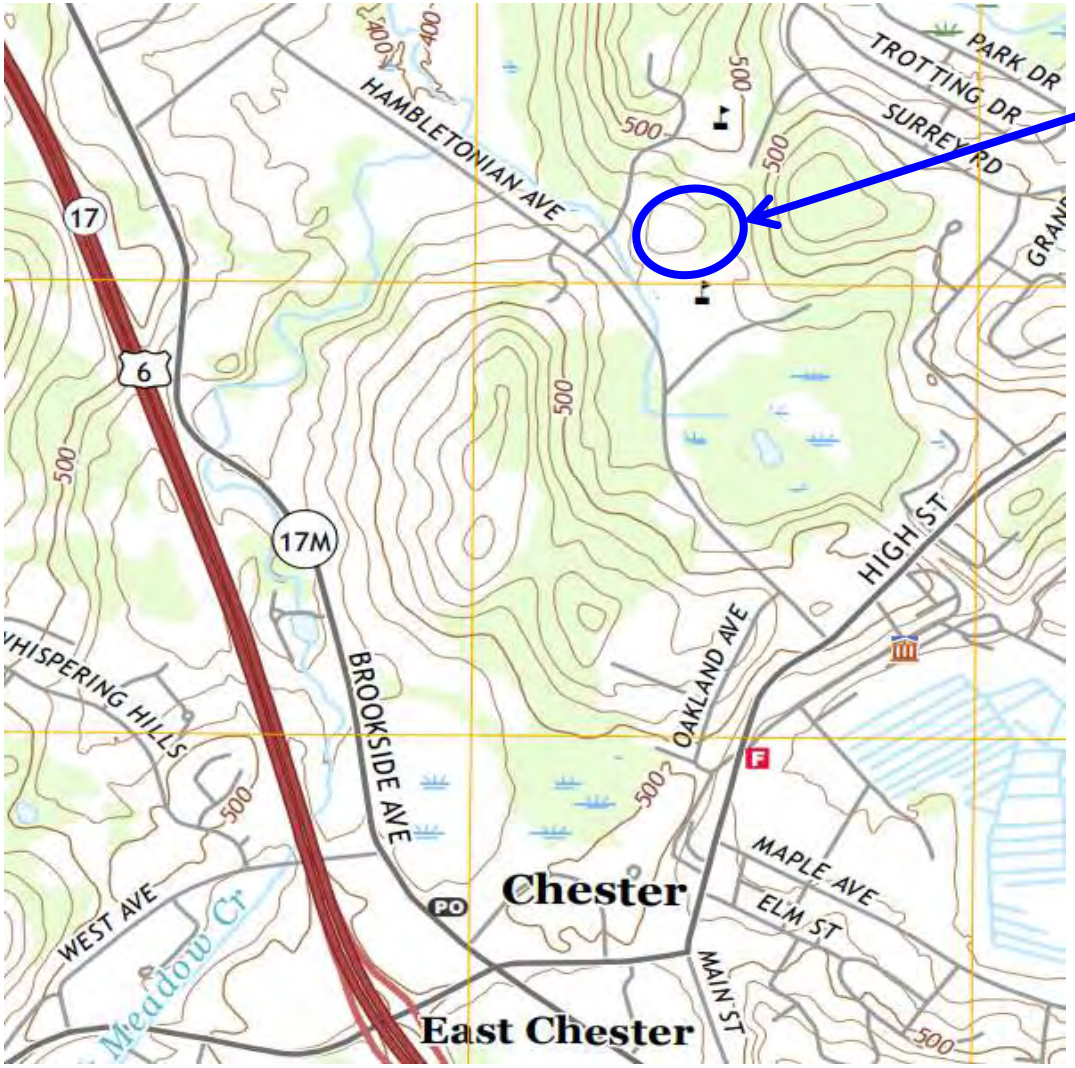
This report has been prepared in accordance with the standard of care commonly used as state-of-the-practice in the profession. No other warranties are either expressed or implied. Any and all contents contained in this report shall not be considered valid until the preparer of this report is fully compensated for the services rendered in preparation of this report.

Fan Xi, NYS PE License No. 085224

FX/SS/hcf

FIGURES

PROJECT LOCATION MAP



NOTES:

1. LOCATION MAP IS BASED ON USGS MAP FOR "WARWICK, NY" DATED 2019.
2. PROJECT LOCATION IS APPROXIMATE.

PROJECT LOCATION MAP

JHB Engineering PLLC
VISION • MEANS • RESULTS
Geotechnical / Civil Engineers
400 Rella Blvd., Suite 165
Montebello, NY 10901
Tel.: (845) 533-0215
WWW.JHBGEO.COM

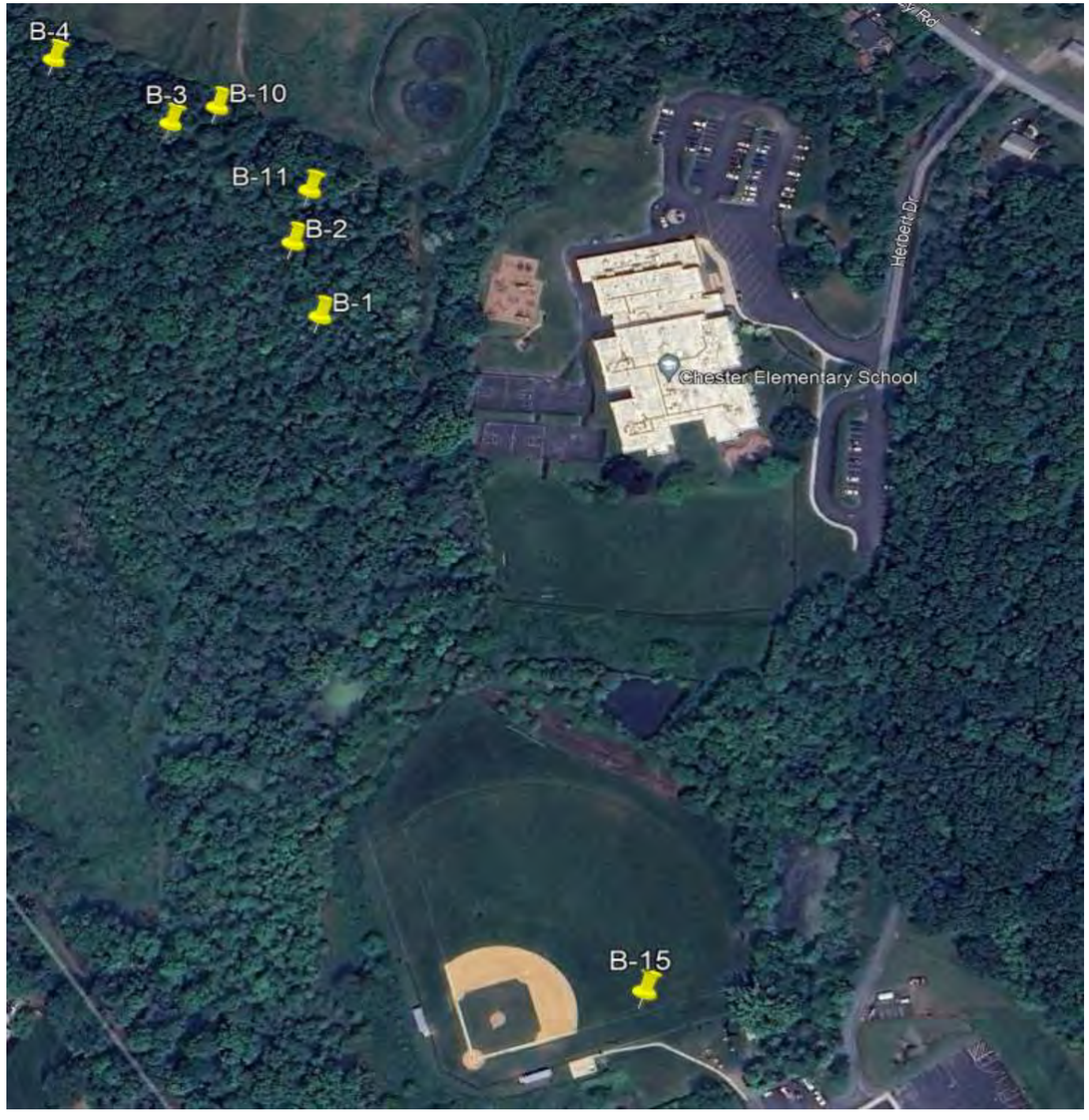
Project: **Feasibility Study for the Development of An Athletic Complex**

Location: **Chester Union Free District**
64 Hambletonian Avenue, Chester, NY 10918

DRAWING NO. :	FIGURE		1
PROJ. NO. :	PM04	**DRAWN BY:**	HF
SCALE :	Not To Scale	**DATE:**	7/19/2024

BORING LOCATION PLAN

N



LEGEND:

B-15 Approximate location and designation of soil borings.

NOTES:

1. Boring location plan is prepared based on measured GPS coordinates and Google Earth Pro™.
2. Boring locations are approximate.

BORING LOCATION PLAN	
JHB Engineering PLLC *VISION • MEANS • RESULTS* **Geotechnical / Civil Engineers** 400 Rella Boulevard Suite 165 Montebello, NY 10901 Tel.: (845) 533-0215 WWW.JHBGEO.COM	***Project:*** Feasibilty Study for the Development of An Athletic Complex ***Location:*** Chester Union Free School District 64 Hambletonian Avenue Chester, NY 10918 **DRAWING NO. :** FIGURE 2 **PROJ. NO. :** PM04 **DRAWN BY:** HCF **SCALE :** NTS **DATE:** *7/19/2024*

APPENDIX I

BORING LOGS

Project Name: ***Chester Union Free School District***	**BORING No. B-1**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue, Chester, NY 10918***	Sheet **1** of **1**	www.jhbgeo.com (845) 533-0215
Project No. ***PM04***		

Date Started: **7/17/2024** Date Finished: **7/17/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft):

Surface EL (ft): **541** Vertical Datum: **See Notes** Weather: **Cloudy**

Groundwater Depth (ft): **NE** Temp. (°F): **82**

GW Measure Date/Time: Coordinates: **41.37278889 N, 74.27822778 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	**0'** TO **27.5**
Mud Rotary :		TO
Casing :		TO
Rock Core :	***NQ***	TO

Depth (feet)	Sample Data: Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	Elevation (ft.)	N-Value (blows/ft)	Remarks (drilling fluid, casing, drill rig actions, etc.)
1	S-1	**50+**	3 50/3"	NR					No recovery		50+	Boulder @ ~9"
2												Augered through a boulder
3												
4												
5												
6	S-2	**69**	17 31 38 30	14		M	SM		Bwn-Gy c-f SAND, little c-f Gravel, little Silt		69	
7												Rattling @ 7 - 8' with Auger
8												
9												
10												
11	S-3	**46**	15 23 23 21	11		M	SM		Gy c-f SAND, some c-f Gravel, little Silt		46	
12												
13												Rattling from 12' - 14'
14												
15												
16	S-4	**29**	10 14 15 13	6		M	SM		Gy c-f SAND, little c-f Gravel, some Silt (Glacial till)		29	
17												
18												
19												
20												
21	S-5	**52**	13 28 24 20	18		M	SM		Gy c-f SAND, little c-f Gravel, some Silt (Glacial till)		52	
22												
23										517.5		
24												Auger rattling @ ~23' - 24'
25												
26	S-6	**50+**	50/2"	1		M	GP		Gy c-f GRAVEL, trace c-f Sand, trace Silt, possible Boulder		50+	Boulder cored through from 25.5 ft - 26.5 ft
27	S-7	**50+**	19 50/5"							513.5	50+	Auger refusal @ 25.5 ft
28									End bore @ 27.5 ft			
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												

N-Value (blows/ft) scale: 20 40 60

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: ***Chester Union Free School District***	**BORING No. B-2/2A**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue, Chester, NY 10918***	Sheet **1** of **2**	www.jhbgeo.com (845) 533-0215
Project No. ***PM04***		

Date Started: **7/16/2024** Date Finished: **7/16/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft):

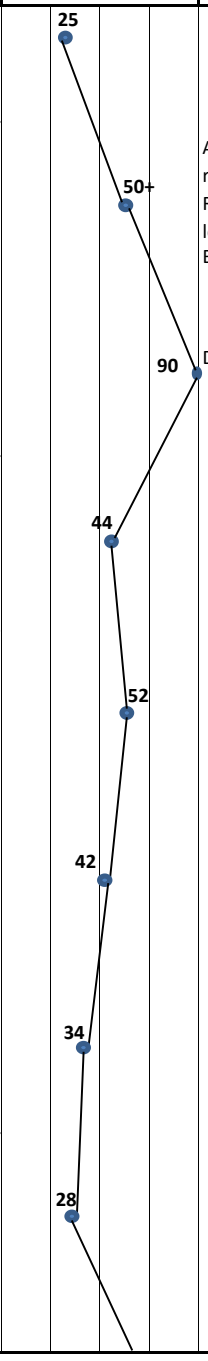
Surface EL (ft): **539** Vertical Datum: Weather: **Sunny**

Groundwater Depth (ft): **NE** Temp. (°F): **94**

GW Measure Date/Time: **7/17/24 @ 8:15 AM** Coordinates: **41.3731 N, 74.27827222 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	**0'** TO **50'**
Mud Rotary :	***2⅝"***	**5'** TO **10'**
Casing :		TO
Rock Core :		TO

Depth (feet)	Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	Elevation (ft.)
1	S-1	**25**	8 10 15 20	18		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt (First 4" topsoil)	
3										535.5
5	S-2	**50+**	50/2"	1		M	GM		Gy-Bwn c-f GRAVEL, trace c-f Sand, little Silt	
10	S-3	**90+**	27 40 50/5"	9		M	GP		Gy c-f GRAVEL, trace c-f Sand, trace Silt (Glacial till)	
13										525.5
15	S-4	**44**	13 23 21 25	20		M	SM		Gy c-f SAND, little c-f Gravel, some Silt (Glacial till)	
18										520.5
20	S-5	**52**	20 20 32 29	0					No recovery	
23										515.5
25	S-6	**42**	16 19 23 16	1		M	GM		Gy c-f GRAVEL, little c-f Sand, little Silt (Glacial till)	
30	S-7	**34**	13 16 18 21	18		W	GM		Gy c-f GRAVEL, little c-f Sand, little Silt (Glacial till)	
33										505.5
35	S-8	**28**	13 14 14 16	17		W	GM		Gy c-f SAND, little c-f Gravel, little Silt	
40										



Remarks (drilling fluid, casing, drill rig actions, etc.)

Auger rattling @ 4 ft, Auger refusal
Relocated B-2 ~4 ft from old location to avoid boulder (B-2A)
Boulder confirmed from 6' - 7'

Drilled down to 10 ft

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: *Chester Union Free School District* Project Location: *64 Hambletonian Avenue, Chester, NY 10918* Project No. ***PM04***	**BORING No. B-2/2A** Sheet **2** of **2**	**JHB ENGINEERING PLLC** geotechnical engineers www.jhbgeo.com (845) 533-0215

Depth (feet)	Sample Data: Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)
41	S-9	**61**	22 25 36 31	4		M	SM		Bwn-Gy c-f SAND, little c-f Gravel, little Silt (Glacial till)
42									
43									
44									
45	S-10	**50+**	3 4 11 50/5"	14		M	SM		SAME
46									
47									
48									
49									
50	S-11	**40**	10 17 23 30	24		M	SM		Bwn-Gy c-f SAND, little c-f Gravel, some Silt 487
51									
52									End of Bore at 52 feet
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									
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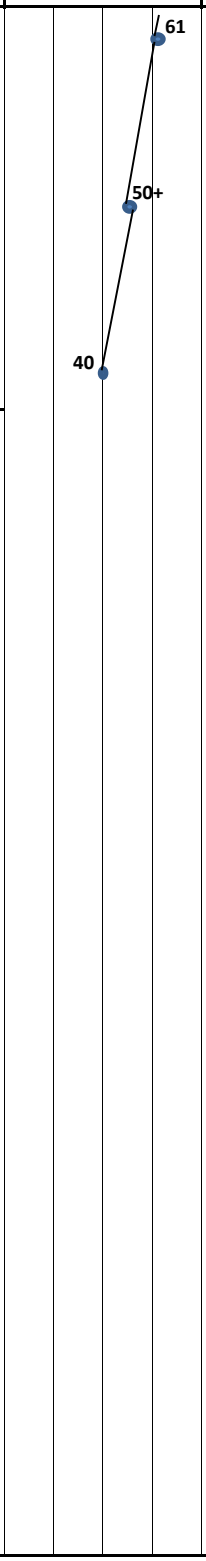

Remarks (drilling fluid, casing, drill rig actions, etc.)

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: ***Chester Union Free School District***	**BORING No. B-3**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue, Chester, NY 10918***	Sheet **1** of **2**	www.jhbgeo.com (845) 533-0215
Project No. ***PM04***		

Date Started: **7/12/2024** Date Finished: **7/15/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft): **NE**

Surface EL (ft): **557** Vertical Datum: Weather: **Sunny**

Groundwater Depth (ft): **47 ft 3"** Temp. (°F): **92**

GW Measure Date/Time: **7/15/24 @ 2:37 PM** Coordinates: **41.37369444 N, 74.27871389 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	**0'** TO **50'**
Mud Rotary :		TO
Casing :		TO
Rock Core :		TO

Depth (feet)	Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	Elevation (ft.)	N-Value (blows/ft)	Remarks (drilling fluid, casing, drill rig actions, etc.)
1	S-1	**9**	2 1 8 20	9		M	SM		Top soil first 2" Bwn c-f SAND, trace c-f Gravel, some Silt		9	
2												
3												
4										553		
5												
6	S-2	**55**	14 19 36 50	18		M	GM		Bwn-Gy c-f GRAVEL, little c-f Sand, little Silt (Glacial till at last 2")		55	
7												
8										548.5		
9												
10												
11	S-3	**50+**	50/5"	0					No recovery		50+	
12												
13										543.5		
14												
15												
16	S-4	**50+**	21 50/5"	10		M	SM		Gy-Bwn c-f SAND, little c-f Gravel, some Silt		50+	Spoon bouncing @ 16 ft 11 inches
17												
18										538.5		Auger rattling from ~17' to 19 ft, possible boulder
19												
20												
21	S-5	**84+**	25 34 50/5"	5		M	GP		Gy c-f GRAVEL, trace c-f Sand, trace Silt		84+	
22												
23												
24												
25												
26	S-6	**61**	40 33 28 44	16		W	GM		Gy c-f GRAVEL, little c-f Sand, little Silt (Glacial till)		61	Encountered water btwn 25' - 26' then dry
27												
28												
29												
30												
31	S-7	**81**	39 46 35 39	18		W	GM		Gy c-f GRAVEL, little c-f Sand, little Silt (Glacial till)		81	Wet from 30' - 31'
32												
33												
34												
35												
36	S-8	**63**	41 28 35 37	17		W	GM		Gy c-f GRAVEL, little c-f Sand, little Silt (Glacial till)		63	
37												
38												
39												
40												

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: *Chester Union Free School District*	**BORING No. B-3**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: *64 Hambletonian Avenue, Chester, NY 10918*	Sheet **2** of **2**	www.jhbgeo.com (845) 533-0215
Project No. ***PM04***		

Depth (feet)	Sample Data: Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	N-Value (blows/ft) 20 40 60	Remarks (drilling fluid, casing, drill rig actions, etc.)
41	S-9	**45**	18 22 23 26	18		W	GP		Gy c-f GRAVEL, trace c-f Sand, trace Silt (Glacial till)	45	
42											
43											
44											
45											
46	S-10	**76**	19 32 44 43	18		W	GP		SAME	76	
47											
48											
49											
50											
51	S-11	**75**	27 37 38 23	4		W	GP		SAME	75	
52									End of Bore		
53											
54											
55											
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
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74											
75											
76											
77											
78											
79											
80											
81											
82											
83											
84											
85											

505

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: ***Chester Union Free School District***	**BORING No. B-4**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue, Chester, NY 10918***	Sheet **1** of **1**	www.jhbgeo.com (845) 533-0215
Project No. ***PM04***		

Date Started: **7/11/2024** Date Finished: **7/12/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft): **NE**

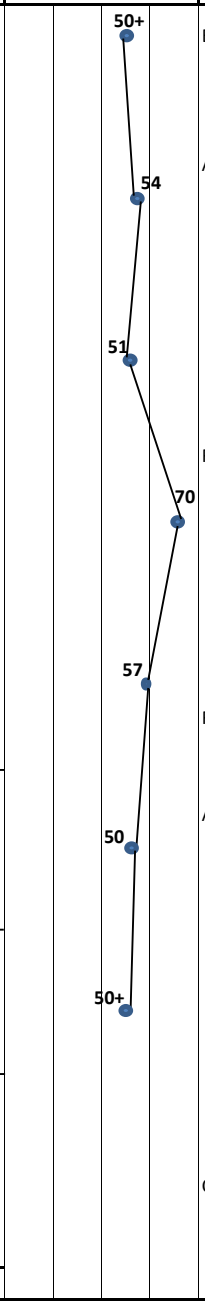
Surface EL (ft): **552** Vertical Datum: Weather: **Sunny**

Groundwater Depth (ft): **NE** Temp. (°F): **87**

GW Measure Date/Time: Coordinates: **41.37408333 N, 74.27920278 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	**0'** TO **34'**
Mud Rotary :		TO
Casing :		TO
Rock Core :	***NQ***	**34'** TO **39'**

Depth (feet)	Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	Elevation (ft.)
1	S-1	**50+**	3 5 9 50+	10		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt [first 2" Top soil]	
2										
3										
4										
5										
6	S-2	**54**	17 24 30 27	24		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt	
7										
8										
9										
10										
11	S-3	**51**	20 26 25 34	18		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt	
12										
13										
14										
15										
16	S-4	**70**	14 33 37 50	24		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt	
17										
18										
19										
20										
21	S-5	**57**	25 25 32 45	24		M	SM		Gy c-f SAND, little c-f Gravel, little Silt, (Glacial till)	
22										
23										528.5
24										
25										
26	S-6	**50+**	50/5"	5		M	GM		Gy c-f GRAVEL, little c-f Sand, little Silt, (Glacial till)	
27										
28										523.5
29										
30										
31	S-7	**50+**	15 50/5"	6		M	SM		Gy c-f SAND, little c-f Gravel, little Silt, (Glacial till)	
32										
33										519
34										
35		6:42							Encountered boulder from 34' - 36'	
36	C-1	4:17								
37		1:21							Glacial till 36' - 37.5'	
38		2:50								
39		4:24							Boulder 37.5' - 39'	513
40									End of bore @ 39 ft	



Remarks (drilling fluid, casing, drill rig actions, etc.)
Encountered boulder @ 1'6"
Auger refusal @ ~4.5 ft
Rattling @ 13' with auger
Rattling @ 22 ft, possible boulder
Another boulder at 24 ft
Cored through boulders

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: ***Chester Union Free School District***	**BORING No. B-10**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue, Chester, NY 10918***		www.jhbgeo.com (845) 533-0215
Project No. ***PM04***	Sheet **1** of **1**	

Date Started: **7/10/2024** Date Finished: **7/11/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft): **NE**

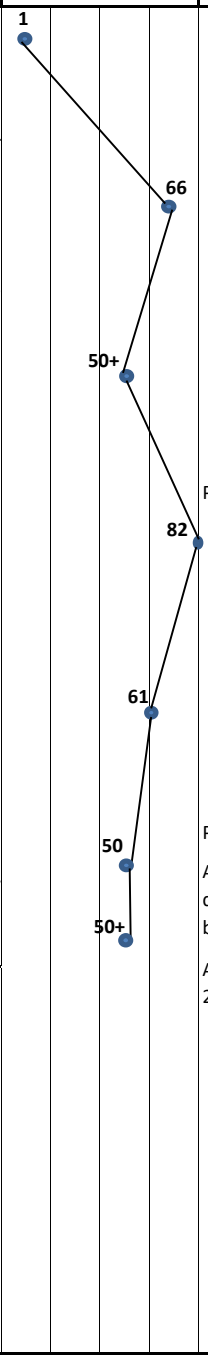
Surface EL (ft): **559** Vertical Datum: **See Notes** Weather: **Sunny**

Groundwater Depth (ft): **NE** Temp. (°F): **92**

GW Measure Date/Time: Coordinates: **41.37372222 N, 74.27848056 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	**0'** TO **25'**
Mud Rotary :		TO
Casing :		TO
Rock Core :		TO

Depth (feet)	Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	Elevation (ft.)
1	S-1	**11**	4 4 7 8	15		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt [Top soil]	
4										554
6	S-2	**66**	49 30 36 34	2		M	GW		Gy c GRAVEL, trace c-f Sand, trace Silt	
8										550.5
11	S-3	**50+**	50/5"	0					No recovery	
13										545.5
16	S-4	**82**	16 37 45 50	24		M	GM		Gy c-f GRAVEL, little c-f Sand, little Silt, (Glacial till)	
21	S-5	**61**	22 25 36 39	21		M	GM		Gy c-f GRAVEL, little c-f Sand, little Silt, (Glacial till)	
25	S-6	**50+**	50/5"	2		M	GM		Gy c-f GRAVEL, trace c-f Sand, trace Silt, Glacial till	533
26	C-1	**1:52**							Boulder	
28	S-7	**50+**	19 29 50/5"	13		W	GM		Gy c-f GRAVEL, trace c-f Sand, trace Silt, (Glacial till)	530.5
28.5									End of Borehole @ 28.5 ft	



Remarks (drilling fluid, casing, drill rig actions, etc.)

Power auger rattling @ ~14'

Possible boulder or cobble

After rock coring from 26' - 27', driller and I confirm encountering boulder at S-6 sample to ~27'.

Auger refusal (possible boulder) @ 28 ft 6 inches

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: ***Chester Union Free School District***	**BORING No. B-11**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue Chester, NY 10918***		www.jhbgeo.com (845) 533-0215
Project No. ***PM04***	Sheet **1** of **1**	

Date Started: **7/10/2024** Date Finished: **7/10/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft): **NE**

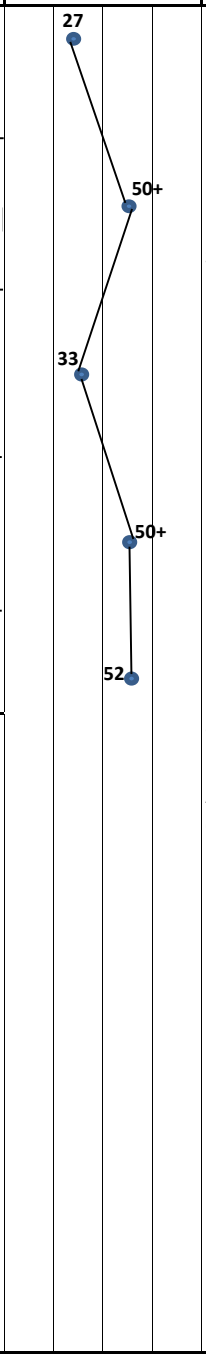
Surface EL (ft): **545** Vertical Datum: Weather: **Sunny**

Groundwater Depth (ft): **6 ft 7" - core water present, 5'7" @ 11:36** Temp. (°F): **90**

GW Measure Date/Time: **7/10/24 @ 11:14 AM** Coordinates: **41.37330278 N, 74.27814167 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	**0'** TO **20'**
Mud Rotary :		TO
Casing :		TO
Rock Core :		TO

Depth (feet)	Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)	Elevation (ft.)
1	S-1	**27**	4 11 16 12	21		M	SM		Bwn c-f SAND, trace c-f Gravel, some Silt	
2										
3										
4										541
5										
6	S-2	**50+**	16 26 43 50/3"	11		M	GM		Bwn-Gy c-f GRAVEL, trace c-f Sand, some Silt	
7										
8										536.5
9										
10										
11	S-3	**33**	16 17 16 20	17		M	SM		Bwn-Gy c-f SAND, trace C-f Gravel, little Silt	
12										
13										531.5
14										
15										
16	S-4	**50+**	9 8 23 50/2"	19		W	SC		First 1ft: Bwn c-f SAND, little C-f Gravel, some Silt 16' - 16'6": Bwn Silty Clay 16'6" - 17': Gy c-f GRAVEL, little c-f Sand, little Silt	
17										
18	C-1	**2:57 4:13**								527
19										
20	S-5	**52**	21 24 28 28	10.5		W	GM		Gy c-f GRAVEL, trace c-f Sand, trace Silt, Glacial till	524
21									End of Borehole @ 21 ft	
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										



Remarks (drilling fluid, casing, drill rig actions, etc.)

Spoon refusal @ 6 ft 9 inches

Rattling when power auger from 12-15'

Hammer bouncing @ 16 ft 8 inches
possible boulder or rock

From 17' - 19', rock core through boulder.

Encountered hardpan when augering to 20'

Moved ~10 feet NW of B-11. Augered to refusal at ~21 feet deep.

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

Project Name: ***Chester Union Free School District***	**BORING No. B-15**	**JHB ENGINEERING PLLC** geotechnical engineers
Project Location: ***64 Hambletonian Avenue Chester, NY 10918***	Sheet **1** of **1**	www.jhbgeo.com (845) 533-0215
Project No. ***PM04***		

Date Started: **7/18/2024** Date Finished: **7/18/2024** Inspector: **SS** Driller: **Jim Casson**

Drill Rig Model: **D-50** Sampler: **2" O.D. Split Spoon** Hammer Wt/Drop: **140lb/30"**

Hammer Type: **Automatic** Depth to Bedrock (ft): **NE**

Surface EL (ft): **475** Vertical Datum: Weather: **Sunny**

Groundwater Depth (ft): **NE** Temp. (°F): **74**

GW Measure Date/Time: Coordinates: **41.37002778 N, 74.27750833 W**

DRILLING METHOD	DIA.	DEPTH (ft.)
Power Auger :	***4" O.D.***	TO
Mud Rotary :		TO
Casing :		TO
Rock Core :		TO

Depth (feet)	Type-Number	N or Min/FT	Pen. Resist. (blows/6 in)	Recovery (in)	RQD (%)	Moisture	USCS Symbol	Graphic Symbol	MATERIAL DESCRIPTION (Strata Changes are Inferred)
1	S-1	**20**	2 8 12 5	24		M	SM		Bwn c-f SAND, trace c-f Gravel, some Silt [FILL]
2									
3	S-2	**17**	3 5 12 15	9		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt [FILL] 471
4									
5	S-3	**61**	17 45 16 13	17		M	SM		Bwn c-f SAND, little c-f Gravel, some Silt
6									
7	S-4	**27**	5 12 15 20	12		M	SM		SAME
8									
9	S-5	**27**	13 14 13 14	24		M	SM		SAME 465
10									End of Bore at 10 ft
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
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36									
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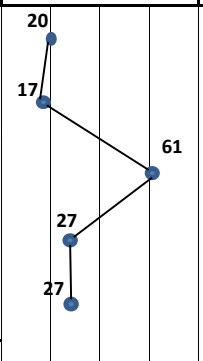
38									
39									
40									



Remarks (drilling fluid, casing, drill rig actions, etc.)

Notes: Coordinates and surface elevation at boring location were measured using a handheld GPS App.

JHB ENGINEERING PLLC
GEOTECHNICAL ENGINEERS

FIELD SOIL CLASSIFICATION SYSTEM

JHB Engineering PLLC (JHB) uses the following definitions, abbreviations, and terminologies to classify and correlates soil and rock samples in the field.

UNIFIED CLASSIFICATION: The soil samples are described by major constituents, minor constituents, with modifiers, color, odors, moisture and density/consistency.

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS):

COARSE GRAINED SOILS

GW	.....	Well graded gravel
GP	.....	Poorly graded gravel
GM	.....	Silty gravel
GC	.....	Clayey gravel
SW	.....	Well graded sand
SP	.....	Poorly graded sand
SM	.....	Silty sand
SC	.....	Clayey sand

FINE GRAINED SOILS

ML	.....	Silts of low plasticity
CL	.....	Clays of low plasticity
OL	.....	Organic silt/clay of low plasticity
MH	.....	Silts of high plasticity
CH	.....	Clays of high plasticity
OH	.....	Organic silt/clay of high plasticity
PT	.....	Peat and highly organic soils

SOIL PARTICLE SIZE IDENTIFICATION

Boulder	.....	12 inch diameter or greater
Cobbles	.....	3 to 12 inch diameter
Gravel	.....	Coarse--- 1 1/2 to 3 inch
		Medium--- 3/4 to 1 1/2 inch
		Fine--- 4.75 mm to 3/4 inch
Sand	.....	Coarse---2.0 to 4.75 mm
		Medium--- 0.425 to 2.0 mm
		Fine--- 0.075 to 0.425 mm
Silt & Clay	.....	Smaller than 0.075mm

Proportion		Percentage by Weight
trace	.....	1-10
little	.....	11-20
some	.....	21-35
and	.....	36-50

Moisture	
M	moist
W	wet
D	dry

COHESIVE SOIL

(Finer than No. 200 Sieve)

Description	Plasticity Index	Plasticity
Silt	0 - 1	none
Clayey Silt	2 - 5	slight
Silt & Clay	6 - 10	low
Clay & Silt	11 - 20	medium
Silty Clay	21 - 40	high
Clay	> 40	very high

SAMPLE NOTATION:

S	Split Spoon Soil Sample
U	Undisturbed Tube Sample (Shelby tube)
C	Core Sample
B	Bulk Soil Sample

FIELD MEASUREMENT

TV	Tovane
PPT	Pocket Penetrometer Test
SPT	Standard Penetration Test
CPT	Cone Pentration Test

ADDITIONAL CLASSIFICATIONS: New York City Building Code soil classifications are given in brackets at the end of each description of material, if applicable. See Section 1802.3 and Table 1804.1 of the 2014 New York City Building Code for further details.

ABBREVIATIONS

Color		Size	
Bwn	brown	c	coarse grained
Gy	gray	m	medium grained
Blk	black	f	fine grained
Wh	white	**Other**	
Rd	red	NR	no recovery
Yw	yellow	WOC	weight of casing
Or	orange	WOR	weight of rod
Tan	tan	WOH	weight of hammer
Lt	light	EOB	end of boring
Dk	dark	BGS	below existing ground surface
		NE	not encountered

APPENDIX II

IN-SITU INFILTRATION TESTING RESULTS

Project No.:	**PM04**	**Test No.**	**B- 15**
Project Name:	**Chester Union Free School District**		
Project Location:	**64 Hambletonian Avenue Chester, NY 1091**	Sheet **1** of **1**	

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Date Started: **7/17/2024**	Date Finished: **7/19/2024**	Inspector: **SS**	Location: ***see location plan***	Equipment: **Diedrich D-50 Drill Rig**	
Contractor: **General Borings, Inc.**			Weather: **Rain/Sunny**	Temp. (°F) **90**	Surface EL (ft): ***462***
Depth Reference: **TOC (Top of Casing)**	Depth to Test Bottom (ft): **5**		Reference Above Ground (ft): **2**		Vertical Datum: ***See Notes***

Time (hour-minute)	**Depth to Water Level (in)**	**Duration (hour)**	**Water Level Drop (in)**	***Calculated Infiltration Rate (in/hour)***	**Remarks**
start: 7:50 AM	0.0	1.0	0.2	0.2	Pre-soak started at 3:09 PM on 7/17/24
end: 8:50 AM	0.2				
start: 8:50 AM	0.0	1.0	0.2	0.2	PERC test started on 7/19/2024.
end: 9:50 AM	0.2				
start: 9:50 AM	0.0	1.0	0.1	0.1	
end: 10:50 AM	0.1				
start: 10:50 AM	0.0	1.0	0.2	0.2	
end: 11:50 AM	0.2				
start:					
end:					
start:					
end:					
start:					
end:					
start:					
end:					
start:					
end:					

Calculated Average Infiltration Rate, F_c = **0.175** (inch/hour)

Notes: PERC test location was approximately 7 feet west of boring B-15 on the first base line.

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DBE & MBE CERTIFIED

July 31, 2024

Biodiversity Survey Report

Chester Academy Athletic Fields, 64 Hambletonian Road,
Town of Chester, Orange County, NY

Prepared for

LAN Associates and Chester Union Free School District

24 September 2024

Edgewood Environmental Consulting, LLC

Thinking outside.

Document details	The details entered below are automatically shown on the cover and the main page footer. PLEASE NOTE: This table must NOT be removed from this document.
Document title	Biodiversity Survey Report
Document subtitle	Chester Academy Athletic Fields, 64 Hambletonian Road, Town of Chester, Orange County, NY
Project No.	2024-012
Date	24 September 2024
Version	1.0
Author	Michael S. Fishman
Client Name	LAN Associates

Document history

				Edgewood approval to issue		
Version	Revision	Author	Reviewed by	Name	Date	Comments
Draft	1.0	MSF	JPSF	MSF	09/23/24	Released for Client Review

Biodiversity Survey Report

Chester Academy Athletic Fields, 64 Hambletonian Road, Town of Chester, Orange County, NY

Edgewood Environmental Consulting, LLC
Consulting · Research · Education
5 Edgewood Parkway
Fayetteville, NY 13066
(315) 456-8731

CONTENTS

LIST OF TABLES

FIGURES

APPENDICES

ACRONYMS AND ABBREVIATIONS

Name	Description
Ac	Acre
AMSL	Above mean sea level
Cm	Centimeter
DBH	Diameter at Breast Height
EAF	Environmental Assessment Form
ERM	Environmental Resource Mapper
GPS	Global Positioning System
In	Inches
IPaC	Information for Planning and Consultation
LLC	Limited Liability Corporation
M	Meter
MBTA	Migratory Bird Treaty Act
NY	New York
NYNHP	New York Natural Heritage Program
NYSDEC	New York State Department of Environmental Conservation
NYSECL	New York State Environmental Conservation Law
SEQRA	State Environmental Quality Review Act
UFSD	Union Free School District
U.S.	United States
USA	United States of America
USFWS	United States Fish & Wildlife Service
WGS84	World Geodetic System 1984 (geodetic datum)

1. INTRODUCTION

The Chester Union Free School District (UFSD) is planning to develop new athletic fields at the Chester Academy (Project), proposed in a naturally vegetated and wooded parcel located immediately west of the Chester Elementary School, east of the Orange Heritage Trail, and south of Ridgefield Drive, in the Town of Chester, Orange County, NY. Planning for this development requires appropriate environmental due diligence to determine if the property contains any regulated or sensitive environmental elements which could influence how the property is developed. Therefore, Edgewood Environmental Consulting, LLC (Edgewood) was retained by LAN Associates to inventory biodiversity and natural resources on the site and to determine whether the site may support threatened or endangered species.

Edgewood completed a desktop data review to discover any published data on site conditions and natural resources on the site. Edgewood then visited the site on 17 May 2024 to identify and map ecological communities, assess potential habitats for listed threatened and endangered species, and identify plant and animal species on the site. Multiple methods were used to survey the site for wildlife, because multiple survey methods increase probability of detection of wildlife species.

This report summarizes the methods used in this study and the findings of the desktop data review and field survey. The data and observations presented in this report provide baseline information for assessing potential environmental impacts of proposed changes in land use on the site.

2. SITE LOCATION

The Study Site was a ±19-ac parcel located immediately east of the Orange Heritage Trail, south of the cul-de-sac of Ridgefield Drive, and immediately west of Chester Elementary School, Town of Chester, Orange County, New York (Study Site). The Study Site centroid coordinates were 41.373542°N, 74.279556°°W (WGS84 datum, NY State Plane projection). Reference is made to the Site Location Map in ***Figure 1*****.**

3. METHODS

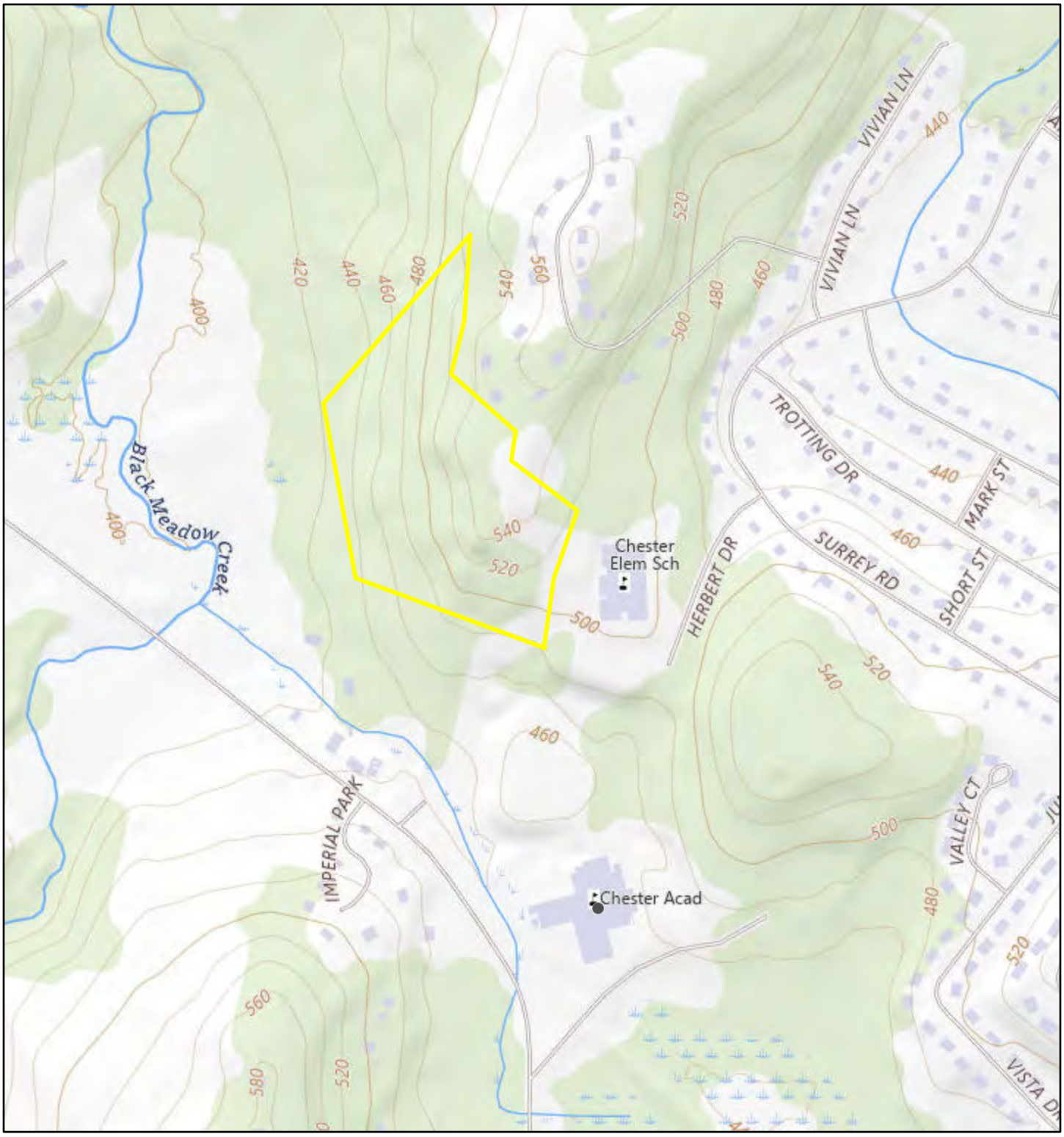
3.1 Desktop Data Review

Edgewood reviewed a variety of data from online sources to determine site conditions, topography, drainage, soils, and ecological communities, wetlands, as well as known records of listed threatened or endangered, or otherwise protected species on or near the Study Site. The data review was organized by Landscape and Soils, Wetlands and Waters, and Protected Species. These data provided a foundation of information about the Study Site and informed the planning and execution of field reconnaissance to ground truth site conditions. Desktop and online data sources that were reviewed included:

- U.S. Geologic Survey Topographic Maps
    - Landscape topography, slopes, watercourses, and landscape features
- Aerial orthophotos (Google Earth Pro)
    - Ecological cover types, buildings, landscape features

Figure 1.

Figure 1. Site Location Map



Legend

Project Site Boundary

N

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Chester UFSD Flora & Fauna Survey
Town of Chester, Orange County, NY
41.373488°N, 74.279420°W (WGS84)

Edgewood Environmental Consulting, LLC

- U.S. Fish and Wildlife Service's (USFWS) Critical Habitat Mapper
    - Map of designated critical habitats for listed threatened and endangered species
- USFWS's Information for Planning and Consultation
    - Known or modeled occurrence of threatened or endangered species
- NYSDEC's Environmental Resource Mapper (ERM) and Environmental Assessment Form (EAF) Mapper
    - Occurrences of listed threatened/endangered species and other resources

3.2 Field Survey

Edgewood visited the site 17 May 2024 to identify and map the approximate extents of ecological community types (habitats), assess potential habitats for listed species, and to catalog plant and animal species observed by direct observation.

3.2.1 Ecological Communities

Ecological communities, or habitat types, were identified and classified according to names and descriptions in, *Ecological Communities of New York State, Second Edition* (Edinger, *et al*., 2014). In certain cases, forested ecological communities were separated by age class, as structural differences among age classes may differentiate habitat suitability for particular wildlife species, including some listed species. Extent of each ecological community was visually estimated in the field for mapping. ***Figure 2. Ecological Communities Map*** illustrates the approximate spatial distribution and extent of each of the ecological communities classified.

3.2.2 Listed and Candidate Species Assessments

Edgewood assessed the Study Site for general habitat characteristics for listed and candidate species identified in the IPaC Resource List (***Appendix A***) and ERM and EAF Maps (***Appendices B*** and ***C***, respectively). This assessment included a federal protocol Phase 1 Habitat Survey for Indiana bat (Myotis sodalis; endangered), northern long-eared bat (*Myotis septentrionalis*; endangered), and tricolored bat (*Perimyotis subflavus*; proposed endangered), but only a general characterization of potential habitats for bog turtle (*Glyptemys muhlenbergii*; threatened), monarch butterfly (*Danaus plexippus*; candidate), and small whorled pogonia (*Isotria medeoloides*; threatened).

3.2.2.1 Indiana Bat, Northern Long-eared Bat, and Tricolored Bat

Bat habitat on the Study Site was assessed in a two-step process consisting of desktop data review and field reconnaissance. Desktop data review included reviewing online data sources for information about bat species occurrences on or near the Study Site, and reviewing remote sensing imagery (Google Earth Pro, Google, LLC, Mountain View, CA, USA) to preliminarily identify habitat types and distribution on the Study Site. Google Earth was also used to identify and measure distances to the nearest public forested lands (parks, wildlife management areas, etc.), and potential forest habitat connective corridors among adjacent habitat areas.

Edgewood also reviewed online data resources and prior published records regarding bat occurrences on the Study Site. These included the USFWS's online Information for Planning and Consultation (IPaC) system (***Appendix A***) and the New York State Department of Environmental Conservation's (NYSDEC) online Environmental Resource Mapper (***Appendix B***) and Environmental Assessment Form (EAF) Mapper (***Appendix D***).

The desktop data review was followed by field reconnaissance, in which habitats on the Study Site were identified, classified per Edinger, *et al.* (2014). Ground level photographs were taken of representative habitats on the Study Site, as well as habitat features that indicated potential bat habitat resources. Indiana Bat Habitat Assessment Data Sheets (also applicable to northern long-eared bats and tricolored bats) were completed to document the assessment, and are provided in ***Appendix E***. Observations and ocular estimates were made of habitat characteristics at multiple spatial scales, including vegetation cover types on and adjacent to the Study Site, connective corridors to adjacent and regional habitat patches, wetland and water resources onsite, percent canopy cover, distribution of tree size classes, dominant tree species, and cover density by canopy level.

3.2.2.2 Bog Turtle

Bog turtles are typically found in shallow, slow-moving, spring-fed or cool water wetlands with deep mucky soils and tussock-forming vegetation. These areas may be early successional habitats, such as wet meadows and fens, or may include shrub swamps or even forested sites, with herbaceous understory that is typically dominated by sedges or *Sphagnum* mosses (Klemens and PA Field Office USFWS, 2001).

Bog Turtle habitat assessments were preliminary in nature and although they were based on the Phase I Habitat Assessment criteria outlined in, *Guidelines for Bog Turtle Surveys for the Northern Population Range* (hereafter, *Guidelines*; USFWS, 2020), they were not a fully federal protocol-compliant Bog Turtle habitat assessment. The intent of this assessment was to determine if general wetland conditions existed on the Study Site that might justify a more in-depth habitat evaluation.

Edgewood's preliminary Bog Turtle habitat assessment included searching for the three basic habitat criteria that define Bog Turtle Habitat: wetlands that exhibited suitable hydrology (shallow, cool-water inundation), suitable soils (soft, mucky soils), and suitable vegetation (tussock-forming groundcovers, such as tussock sedge (*Carex stricta*), or mosses, as described in the *Guidelines*.

3.2.2.3 Monarch Butterfly

Monarch Butterflies rely on early successional habitats for foraging and migration, and rely strongly on Common Milkweed (*Asclepias syriaca*) for breeding and metamorphosis, although other milkweed species may be used as well. Therefore, Edgewood searched early successional habitats for patches of milkweed plants, especially Common Milkweed.

3.2.2.4 Small Whorled Pogonia

Small whorled pogonia is typically found in mid-successional mixed woods with trees 40-75 years old and 8-18 inches diameter at breast height (DBH). Maple, oak, beech, and white pine are common tree species where this plant is found, and its habitat may have some shrubs, but they are usually sparse. They are known from adjacent counties in NY, but are not known to have occurred proximal to the Study Site.

Edgewood searched for mid-successional hardwood or mixed hardwood and evergreen forest stands with open understory and sparse groundcovers, and searched for signs of this species, as it would have been in bloom during our site visit.

3.2.3 General Flora and Fauna Surveys

Flora and fauna were observed by random walk encounter surveys that documented direct observations of species, as well as wildlife sign (tracks, droppings, or other signs left behind by animals). Multiple method surveys are considered more likely to detect more species than single method surveys.

4. FINDINGS

4.1 Desktop Data Review

4.1.1 Landscape and Habitats

4.1.1.1 U.S. Geologic Survey Topographic Maps

Review of the U.S. Geologic Survey (USGS) Topographic Maps (***Figure 1. Site Location Map***) revealed topographic elevations, slopes and drainage patterns. The northeast boundary of the parcel was located at an elevation of 545 feet above mean sea level (AMSL), but sloped down to the west and south to a low elevation of about 420 feet AMSL, along the Orange Heritage Trail. The eastern half of the site was level to gently sloped (0 to 5% slope to the south), but the western half was more steeply sloped (~12%) down to the west.

Surface runoff on the Study Site would flow to the west, southwest, and south, but no water bodies or watercourses were mapped on the Study Site. The nearest watercourse shown on the maps was Black Meadow Creek, located about 0.1 mile to the west.

4.1.1.2 Aerial Orthophotos

Review of aerial orthophotos (***Figure 2. Ecological Communities Map***) indicated six ecological communities on the Study Site:

- Mowed Grass Lawn
- Mature Successional Northern Hardwoods
- Successional Shrublands
- Unpaved Roads/Paths
- Vernal Pool
- Young Successional Northern Hardwood Forest

The mature successional northern hardwood forest occupied about the northern 2/3 of the Study Site, bisected by an unpaved road and a long strip of successional shrubland that ran up the western side of the site. The young successional northern hardwoods, with a dense understory and mixture with early-successional evergreens, such as eastern redcedar (*Juniperus virginiana*), occupied the southeastern corner of the Study Site. This community was dissected by a network of unpaved roads. This younger growth area and network of unpaved roads indicates a disturbance of this part of the site, possibly as a gravel mine or borrow area for construction of the adjacent school, based on its soils and topography. Mowed grass lawn occurred along the middle of the northern border of the site, adjacent to residences along the cul-de-sac of Ridgefield Drive.

Figure 2.

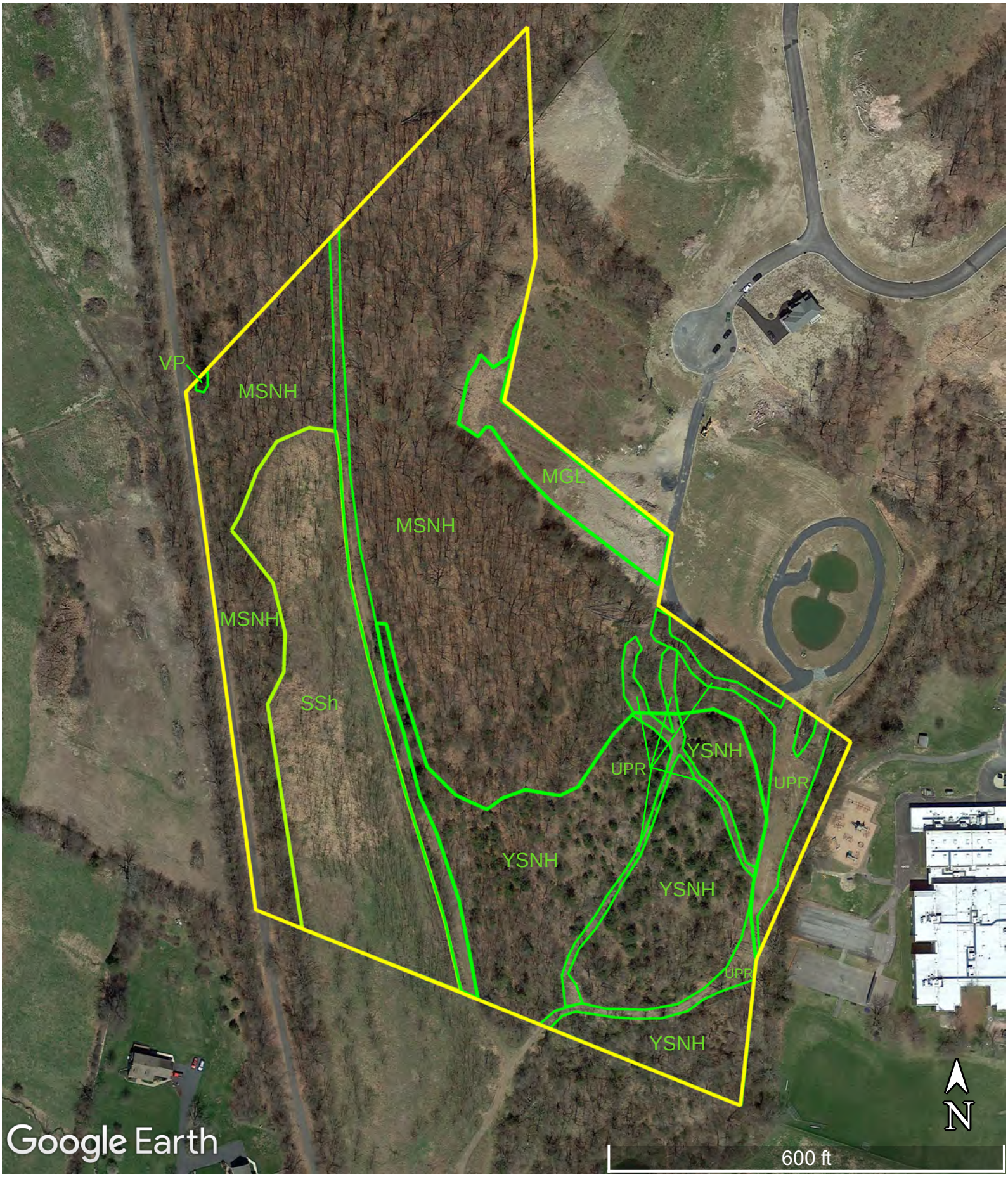


Figure 2. Ecological Communities Map
Chester UFSD Athletic Fields
Chester, Orange County, NY

Edgewood Environmental Consulting, LLC

Legend

- Study Site Boundary
- Ecological Community Boundary

Ecological Communities

- MGL - Mowed Grass Lawn
- MSNH - Mature Successional Northern Hardwoods
- SSh - Successional Shrublands
- UPR - Unpaved Road/Path
- VP - Vernal Pool
- YSNH - Young Successional Northern Hardwoods

4.1.1.3 Threatened or Endangered Species Critical Habitats

The USFWS's online Critical Habitat Mapper indicates designated critical habitats for federally-listed threatened and endangered species. Critical habitats are specific ecological communities or habitat types that have been determined to be critical for survival of certain threatened or endangered species. Not all listed threatened or endangered species have designated critical habitats, however. Edgewood reviewed the Critical Habitat Mapper for the Study Site (***Figure 3. Critical Habitat Map***), and found that there are no critical habitats mapped on or near the Study Site.

4.1.2 Protected Species

4.1.2.1 USFWS Information for Planning and Consultation (IPaC) System

The USFWS online Information for Planning and Consultation (IPaC) System identifies federally listed or candidate threatened and endangered species and other federally protected species, that either occur or may occur, based on habitat modeling, on or near a selected location. It is used as a preliminary indicator of what species may occur on a given site, if appropriate habitat is present.

The IPaC Resource List (***Appendix A***) for the Study Site indicated the following listed or candidate species as being possible occurrences in the region:

- Indiana Bat (*Myotis sodalis*) – endangered
- Northern Long-eared Bat (*Myotis septentrionalis*) – endangered
- Tricolored Bat (*Perimyotis subflavus*) – proposed endangered
- Bog Turtle (*Glyptemys muhlenbergii*) – threatened
- Monarch Butterfly (*Danaus plexippus*) – candidate
- Small Whorled Pogonia (*Isotria medeoloides*) - threatened

In addition, ***Appendix A*** also indicated potential occurrence of Bald Eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act (BGEPA). Bald Eagles have increased in number in recent years throughout New York, establishing new nesting sites throughout the state.

The IPaC Resource List also identified 8 other species of migratory birds that are protected under the Migratory Bird Treaty Act (MBTA), that are also considered to be Birds of Conservation Concern (BCC). BCCs are non-game migratory birds, "that without additional conservation action are likely to become candidates for listing under the Endangered Species Act (ESA). Listing on the BCC list is based on conservation assessments by the USFWS that include population abundance and trends, threats to breeding and non-breeding grounds, and size of breeding and non-breeding ranges.

The list of BCC birds provided in the IPaC Resource List included:

- Black-billed Cuckoo (*Coccyzus erythropthalmus*)
- Black-capped Chickadee (*Poecile atricapillus practicus*)
- Bobolink (*Dolichonyx orizivorus*)
- Canada Warbler (*Cardellina canadensis*)

Figure 3.

Figure 3.

Critical Habitat for Threatened & Endangered Species [USFWS]

Final Polygon Features

Final Linear Features

Proposed Polygon Features

Proposed Linear Features

Study Site Boundary

*No Critical Habitats for listed species are indicated on this map.

Chester UFSD Athletic Field Biodiversity Survey
Town of Chester, Orange County, New York

N

600ft

New York State, Maxar

Edgewood Environmental Consulting, LLC

https://fws.maps.arcgis.com/home/webmap/print.html

- Chimney Swift (*Chaetura palagica*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Rusty Blackbird (*Euphagus carolinus*)
- Wood Thrush (*Hylocichla mustelina*)

It is important to note that not all of these species necessarily occur on the Study Site, but rather the Study Site falls within their general geographic range. The Study Site has potential habitat for some of these species (*e.g.*, Red-headed Woodpecker, Canada Warbler, Wood Thrush), but does not have suitable or sufficient habitat to support some others (*e.g.*, Bobolink, Chimney Swift).

4.1.2.2 NYSDEC Environmental Resources Mapper and NY Natural Heritage Program

The NYSDEC's online Environmental Resource Mapper (ERM, ***Appendix B***) provides information on occurrences of regulated or potentially sensitive natural resources within New York State. The resources it identifies include:

- Unique Geologic Features
- Waterbody Classifications for Rivers, Streams, and Lakes
- Waterbody Inventory/Priority Waterbodies List
- State-regulated Wetlands and associated 500-foot Wetland Check Zones
- Significant Natural Communities
- Mussel Screening Ponds and Streams
- Rare Plants and Animals, including state-listed species
- Base Flood Elevations

Of all of these elements, NYSDEC's ERM only indicated the presence of rare plants or animals, identified as "Bats Listed as Endangered or Threatened". Indications of rare plants or animals on the ERM generally require contacting the New York Natural Heritage Program (NYNHP) to obtain detailed information about records of listed species and their proximity to a specific location. An inquiry to NYNHP yielded a response letter dated 2 July 2024 (***Appendix C***) that indicated that a winter hibernation site for Northern Long-eared Bats was known within 4 miles of the Study Site, and that these bats could travel up to 5 miles or more from documented locations. The letter also stated that, "The main impact of concern for bats is the removal of potential roost trees."

4.1.2.3 NYSDEC Environmental Assessment Form Mapper

The NYSDEC's online Environmental Assessment Form (EAF) Mapper is a tool designed to assist environmental assessors in completing the State Environmental Quality Review Act (SEQRA) Environmental Assessment Form (EAF). It provides a summary of regulated or sensitive environmental elements that range from coastal resources, to spill/remediation history, cultural resources, agricultural resources, and many of the natural resource elements identified by the ERM. The EAF Mapper Summary Report (***Appendix D***) indicated that the Study Site was near a known record of Northern Long-eared Bat occurrence. This was further support for conducting a field assessment of potential bat habitat on the Study Site.

4.2 Field Survey

Edgewood visited the Study Site on 17 May 2024. Ecological communities were characterized and mapped and plants and animals were observed, identified, and documented.

4.2.1 Ecological Communities

Edgewood identified 6 distinct ecological communities on the Study Site. Ecological communities were classified according to *Ecological Communities of New York State, Second Edition* (Edinger, *et al*., 2014). The locations and approximate extent of ecological communities on the Site are illustrated in ***Figure 2. Ecological Communities Map***. The ecological cover types identified on the Site are listed below, with abbreviations that were used to label them in Figure 11:

1. Successional Northern Hardwoods – Mature (MSNH)
2. Successional Northern Hardwoods – Young (YSNH)
3. Vernal Pool (VP)
4. Successional Shrubland (SSh)
5. Mowed Grass Lawn (MGL)
6. Unpaved Road/Path (UPR)
7. Each of these ecological communities is illustrated in photos, below:

Successional Northern Hardwoods – Mature

Successional Northern Hardwoods – Young

Vernal Pool

Successional Shrubland

Mowed Grass Lawn

Unpaved Road/Path

None of these ecological communities is rare or unusual in New York. The site contained 1 vernal pool, located in the mature forested northwest corner of the Study Site, adjacent to the Orange Heritage Trail. No amphibian egg masses were observed in vernal pool at the time of the site visit

Land cover types and use adjacent to the Study Site included mature hardwood forest and low-density, suburban private residences to the north, Chester Elementary School and its associated playground and playing fields to the east, young-growth successional forest and successional shrublands to the south, and the Orange Heritage Trail and pastureland to the west.

4.2.2 Listed & Candidate Species Habitats

Neither USFWS's nor NYSDEC's online resources indicated any existing records of known occurrences of the following species on or near the Study Site, but they all occur within this general range, and potential habitat assessment is the first step toward determining whether the site could potentially support these species.

4.2.2.1 Indiana Bat, Northern Long-eared Bat, and Tricolored Bat Potential Habitat

Review of aerial orthophotography revealed that the Study Site was surrounded to the north, northwest, southwest, south, and southeast by extensive privately owned forested habitat, providing potential travel corridors for listed bat species in virtually all directions. Indiana Bats are known to travel longer distances to avoid crossing large open habitats, although the exact size of such open habitats that restricts their movement is unclear (Murray and Kurta, 2004). The only potential barriers to regional movement were large open field areas located to the

northeast, west, and southwest, but hedgerows across some of these fields could provide protective travel corridors to cross these fields.

Forested public and private lands within 5 miles of the Project Site provide potential habitat for bats and may also provide habitat stepping stones across the landscape, allowing bats to migrate from winter hibernation sites and commute to nearby potential foraging or roost sites. Bats may travel up to 5 miles in foraging bouts, so they could use connected forested lands, or bats on those lands could potentially use the Project Site. Therefore, the habitat assessment included a review of aerial photos and maps to identify forested public lands within 5 miles of the Project Site. Such forested lands are summarized in **Table 1**.

Table 1. Forested public lands within 5 miles of the Study Site.

Public Land Name	Direction	Distance (mi)
Goosepond Mountain State Park	Southeast	1.78 mi
Chester Commons Park	South-southeast	1.82 mi
Good Time Park	West-northwest	2.55 mi

There is ample fragmented forested habitat interspersed with residential, commercial, and institutional development within 5 miles of the Project Site. Bats likely have sufficient forest cover in the local landscape to move to and from the site under forest cover from the north, east, south, and west.

Edgewood's assessment of ecological communities on the site (see Section 4.2.1 and ***Figure 2***) revealed that most of the Study Site was forested with hardwood forest. Mature forest stands contained large trees up to about 30 inches diameter at breast height (DBH), occasional snags (standing dead trees) and dead branches that exhibited exfoliating bark or cracks and crevices that provided potential roost structure for *Myotis* species bats. Open water on the site was limited, but the vernal pool in the northwest corner of the site could provide an important water resource for bats.

Listed bat species tend to prefer to remain under the protective cover of tree canopies, so generally prefer to remain within forested areas, or close to forested edges if they venture into shrubby or old field habitats. Indiana bats tend to avoid flying across large open areas, but will fly along edge habitats, close to forest cover. Northern Long-eared Bats are considered a forest interior species, and are not typically found in or near open field habitats. Approximately 8.39 acres of the property were considered unsuitable potential habitat for listed bat species, including mowed grass lawn (0.64 acre), successional shrubland (2.99 acres), and the young-growth successional forest in the southern end of the site (4.76 acres). The balance of the site (±10.6 acres) was mature successional hardwood forest that was considered potential habitat for all of the listed bat species. Potential bat habitat areas are shown in ***Figure 4. Potential Listed Bat Habitat Map.***

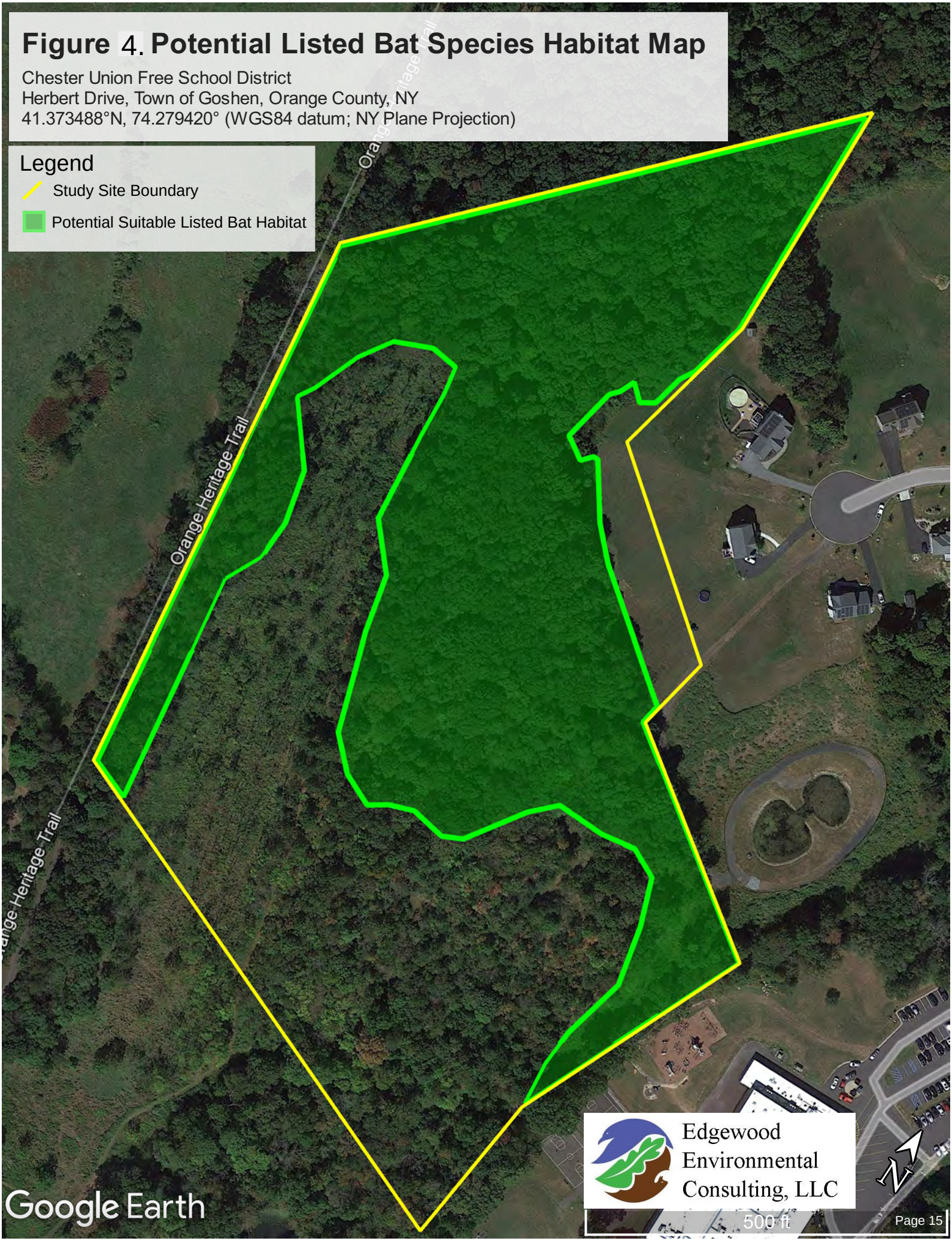
4.2.2.2 Bog Turtle Potential Habitat

The only wetland habitat identified on the Study Site during the site visit was the vernal pool located along the northwest border of the Study Site. This wetland did not exhibit any of the requisite habitat characteristics required by Bog Turtles, and had no connection to offsite

Figure 4

Figure 4. Potential Listed Bat Species Habitat Map

Chester Union Free School District
Herbert Drive, Town of Goshen, Orange County, NY
41.373488°N, 74.279420° (WGS84 datum; NY Plane Projection)



wetlands. Therefore, Edgewood concluded that the Study Site did not contain any potential Bog Turtle habitat.

4.2.2.3 Monarch Butterfly Potential Habitat

Monarch Butterflies may use a variety of early successional habitats for migration and foraging, but rely strongly on Common Milkweed (*Asclepias syriaca*) for breeding and development in the Northeast U.S. They may use other milkweed species, but tend to show a preference for and have greater breeding success on Common Milkweed. No Monarch Butterflies were observed on the Study Site during this survey, but it was likely too early in the year to observe them.

Patches of Common Milkweed were observed in the successional shrubland habitat on the site. These patches of the Monarch's preferred host plant provide food and potential breeding and larval development habitat for this species.

Monarch Butterflies are only a candidate species at this time, so are not protected under the Endangered Species Act. No specific action is required to protect their potential habitat at this time. ***Figure 5. Potential Monarch Butterfly Habitat Map.***

4.2.2.4 Small Whorled Pogonia

The mature successional hardwood forest habitat with open understory and sparse groundcover on the site provided potential habitat for Small Whorled Pogonia. This habitat occupied about the northern 2/3 of the Study Site (see ***Figure 6. Potential Small Whorled Pogonia Habitat Map***), and was located mostly on sloped forest land. Although an informal visual search for this plant was conducted in this habitat area at a time of year when this plant is typically evident and possibly in bloom, no individuals of this species were observed. Clearing of its potential habitat may require formal presence/probable absence surveys to confirm its likely absence.

4.2.3 Vegetation/Flora

Edgewood identified 81 species of plants and fungi on the Study Site. These species are all listed in ***Appendix F. Plants and Fungi List***. This list is not a complete list of all plant species present on the site, but rather is a sample of plants that were evident and identifiable in mid-Spring. A more exhaustive plant list would require sampling throughout the growing season to account for plant species that appear, bloom, and are identifiable only in other parts of the growing season.

The plants identified on the site were common species, typical of the cover types found in the region, and typical of successional natural communities. No rare or listed plant species were identified during this survey, however the ferns that were identified onsite are protected under NYSECL §9-1503 (Lands and Forests), as they are considered exploitably vulnerable native plants. A number of invasive plant species were detected on the Study Site, which are noted as such in ***Appendix F***. No listed plant species were detected during the site visit, despite visual searches for Small Whorled Pogonia.

4.2.4 Wildlife/Fauna

Edgewood identified 34 species of wildlife, including 20 avian species, 5 mammalian species, 1 reptile, 3 amphibians, and 5 insects. These species are all listed by taxa in ***Appendix G. Site Wildlife Species Observed***. Due to the limited sampling period (one day), this list is necessarily incomplete, however, DeGraaf and Yamasaki (2001) provide a predictive matrix of wildlife species based on habitat types that can help to predict what wildlife species could

Figure 5

Figure 5. Potential Monarch Butterfly Habitat Map

Chester Union Free School District
Herbert Drive, Town of Goshen, Orange County, NY
41.373488°N, 74.279420° (WGS84 datum; NY Plane Projection)

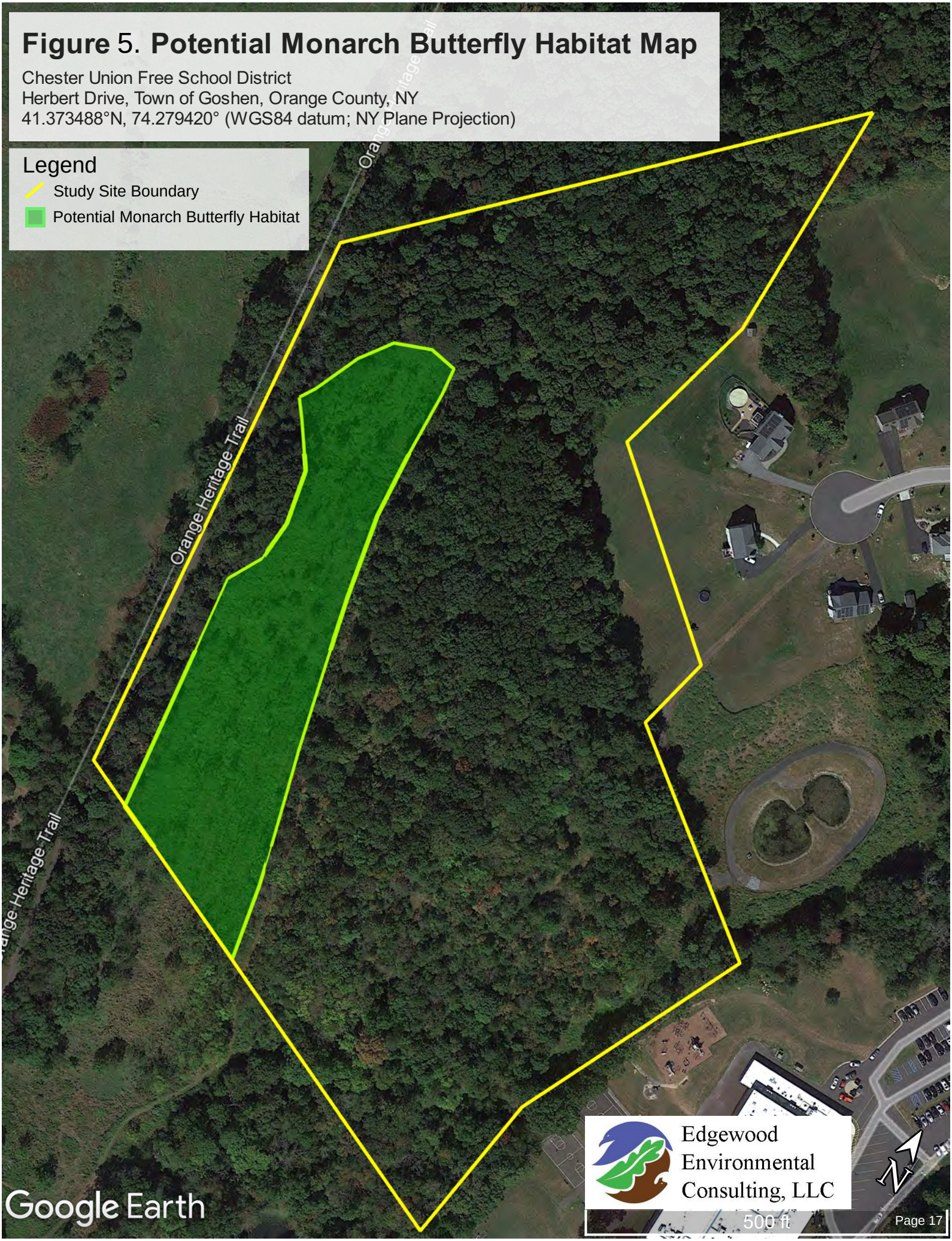
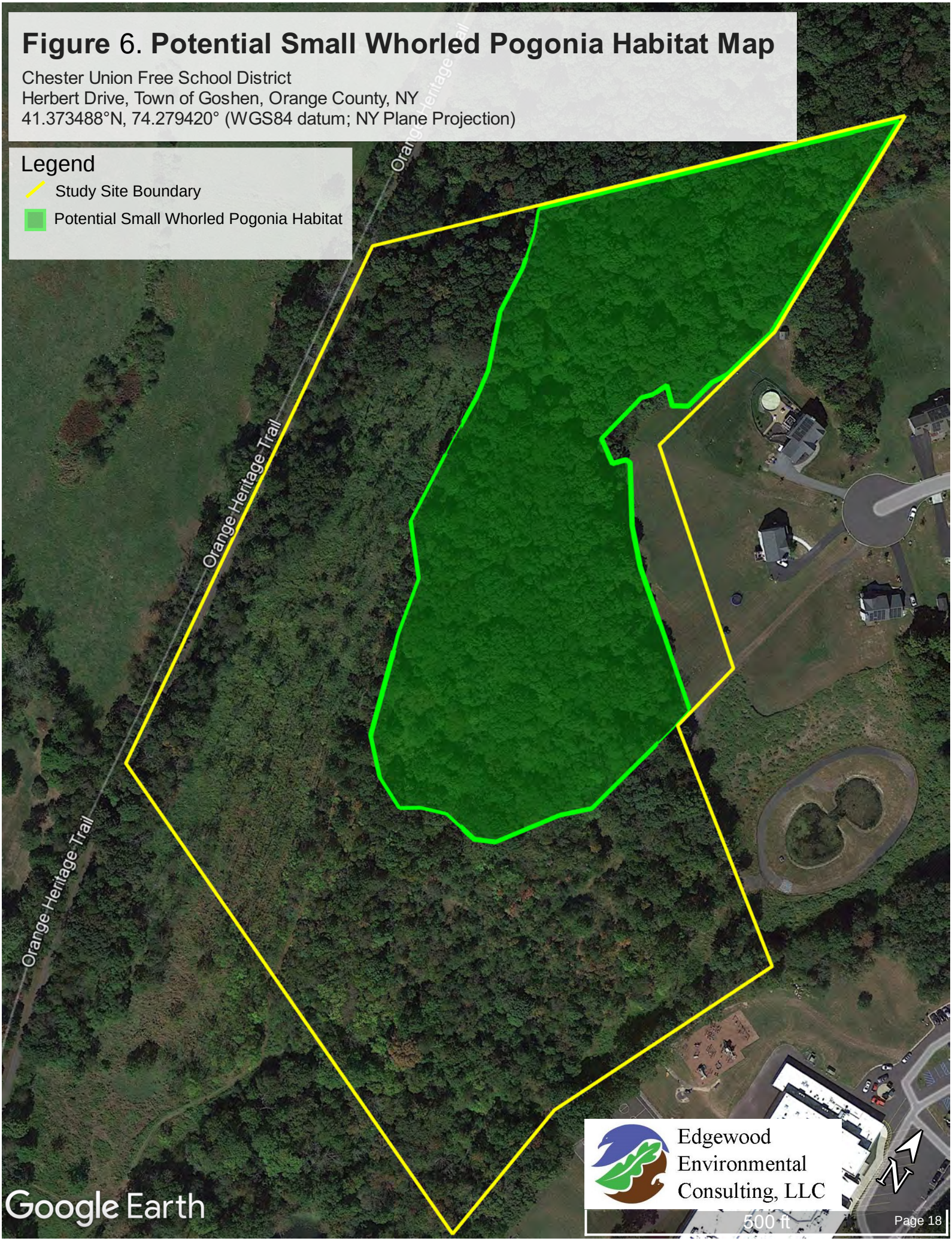


Figure 6

Figure 6. Potential Small Whorled Pogonia Habitat Map

Chester Union Free School District
Herbert Drive, Town of Goshen, Orange County, NY
41.373488°N, 74.279420° (WGS84 datum; NY Plane Projection)



potentially occur on the Study Site. ***Appendix H. Predicted Wildlife Species List*** is based on DeGraaf and Yamasaki's matrix, and provides a list of *possible* wildlife species that *could* occur on the Study Site. It is important to note that not all potential habitat is occupied, however, so it is not likely that all of the predicted species occur on the site. No listed wildlife species were observed or otherwise detected on the site, although the site contains potential habitat for listed bat species and the candidate species, Monarch Butterfly.

5. CONCLUSIONS

This biodiversity survey of the Study Site included:

- Identification and mapping of ecological communities
- Review of public records of listed and candidate threatened and endangered species and critical habitats, and habitat assessments for listed species that are known to occur in the region
- Multiple method surveys of plants and wildlife evident in the spring season.

Findings of each of these study elements are summarized below.

5.1 Ecological Communities

Edgewood identified 6 ecological communities on the site, all of which are relatively common natural communities in New York. Two of the communities (mature successional northern hardwoods and young successional northern hardwoods) are really just two age classes of the same community. The young successional northern hardwoods and the successional shrubland portions of the site indicate land disturbance, which may have been associated with construction of the adjacent Chester Elementary School or adjacent residential area. No ecologically significant natural communities were identified on the Study Site.

5.2 Listed and Candidate Species

Review of federal and state records indicated that endangered Indiana Bat and Northern Long-eared Bat, proposed endangered Tricolored Bat, threatened Bog Turtle, candidate species Monarch Butterfly, threatened Small Whorled Pogonia, and state-threatened and federally protected Bald Eagle are all known or modeled to occur in the local region. There are no known records of any of these species on or immediately adjacent to the Study Site, although there is a record of a known Northern Long-eared Bat hibernation site located about 4 miles away. No listed species were observed or detected during the site visit.

Potential habitat exists on the Study Site for the three listed/proposed bat species in the mature forested areas of the site. There is little wetland habitat on the site, and none that is likely to support bog turtle, nor is there suitable potential habitat for Bald Eagle. The successional shrubland area on the site provides potential habitat for Monarch Butterfly, and the open understory and sparse groundcover beneath the mature successional northern hardwood habitat on the site provides potential habitat for Small Whorled Pogonia.

Edgewood recommends that any proposed tree clearing on the site be conducted in winter months (November 1 through March 31) to avoid potential incidental take of listed bat species. If clearing cannot be confined to winter months, then presence/probable absence surveys for bats may be necessary to determine whether any listed bat species actually occupy the site, and whether the proposed athletic field development would adversely affect these species. Small

Whorled Pogonia was not observed on the site, despite visual searches in potential habitat, and Edgewood considers it unlikely that this species occurs on the Study Site.

5.3 Plant and Wildlife Diversity

Vegetation and wildlife surveys conducted on the Study Site identified 81 species of plants and fungi, and 34 species of wildlife, including 20 avian species, 5 mammalian species, 1 reptile, 3 amphibians, and 5 insects. These observations represent a sampling of species diversity at a particular time of year (mid-spring), and does not represent a complete or exhaustive list of all species that occur on the site year-round. A predictive wildlife species matrix in Appendix G provides a more complete list of wildlife species that could possibly occur on the site, based on the ecological communities identified onsite.

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APPENDIX A IPAC RESOURCE LIST

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Orange County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699
fw5es_nyfo@fws.gov

3817 Luker Road
Cortland, NY 13045-9385

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Reptiles

NAME	STATUS
Bog Turtle Glyptemys muhlenbergii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6962	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Small Whorled Pogonia Isotria medeoloides No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1890	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

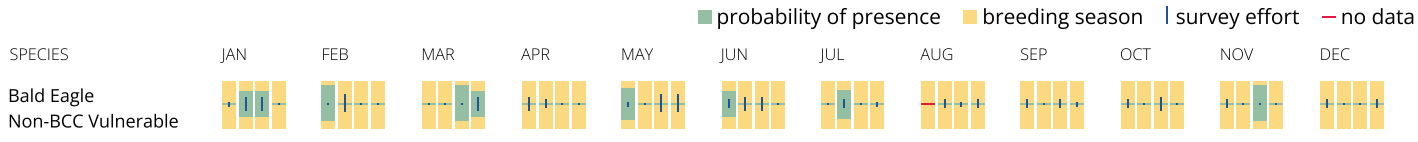
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Black-capped Chickadee Poecile atricapillus practicus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Jul 31
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

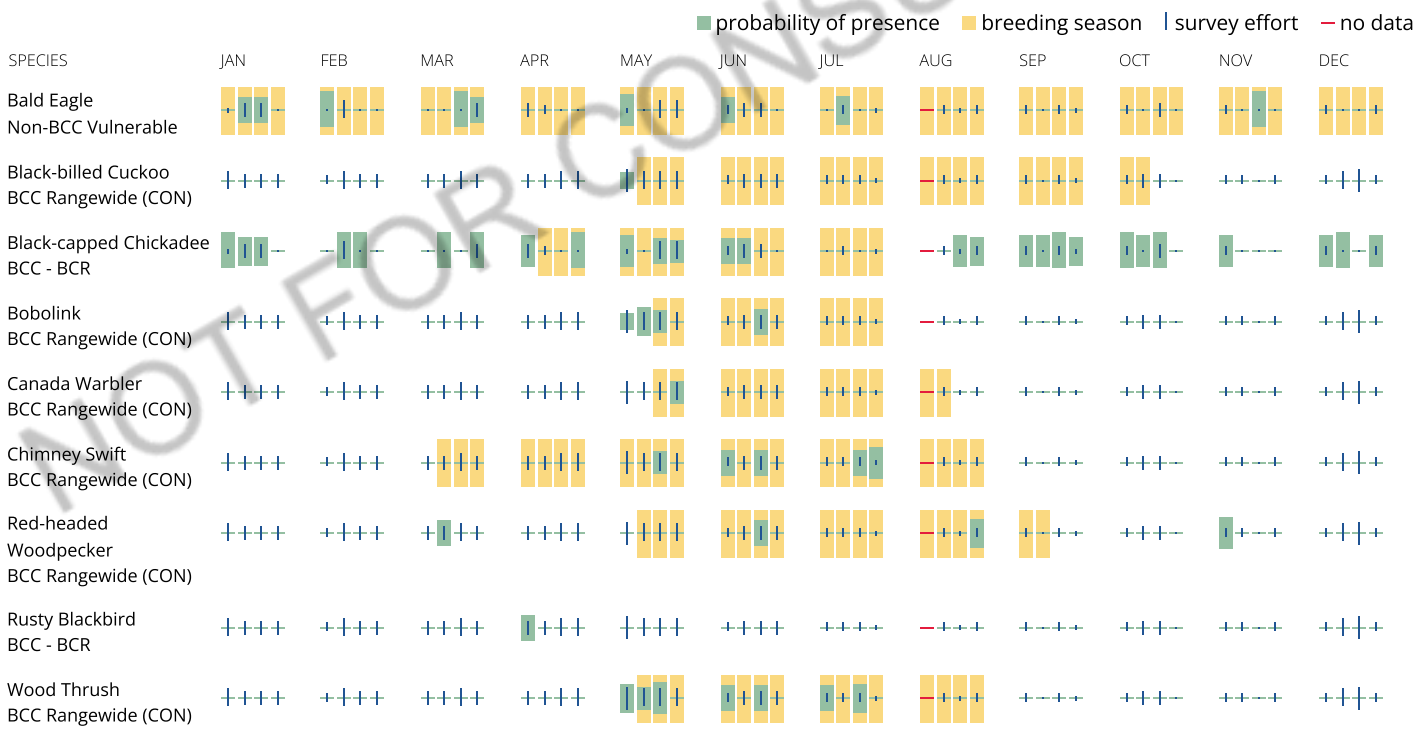
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is

the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX B ENVIRONMENTAL RESOURCE MAPPER

Environmental Resource Mapper

The coordinates of the point you clicked on are:

UTM 18	**Easting:**	560307.3595474476	**Northing:**	4580420.150400084
Longitude/Latitude	**Longitude:**	-74.27884471848392	**Latitude:**	41.37304750149663

The approximate address of the point you clicked on is:
10918, Chester, New York

County: Orange
Town: Chester
USGS Quad: WARWICK

Rare Plants and Rare Animals

This location is in the vicinity of Bats Listed as Endangered or Threatened -- Contact NYSDEC Regional Office

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

Print Preview

APPENDIX C NYNHP LETTER

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

July 2, 2024

Michael S. Fishman
Edgewood Environmental Consulting, LLC
5 Edgewood Parkway
Fayetteville, NY 13066

Re: Chester UFSD Development
County: Orange Town/City: Chester

Dear Michael S. Fishman:

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 the project site.

Within four miles of the project site is a documented winter hibernaculum of **Northern long-eared bat** (*Myotis septentrionalis*, state and federally listed as Endangered). The bats may travel five miles or more from documented locations. The main impact of concern for bats is the removal of potential roost trees. For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov.

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.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the Permits staff at the NYSDEC Region 3 Office as described above.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

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APPENDIX D ENVIRONMENTAL ASSESSMENT FORM MAPPER SUMMARY

EAF Mapper Summary Report

Thursday, May 16, 2024 5:32 PM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Northern Long-eared Bat
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

APPENDIX E BAT HABITAT ASSESSMENT DATA SHEETS

M.S. Fishman 2024 JOURNAL Page ____

Endangered Bat Phase 1 Summer Habitat Assessment Page 1 of 4

Date: 17 May **Time In:** 10:30 **Out:** 14:30 (EDT) EST

Position: 41.37385° N 74.27939 W **Datum:** WGS84 **Site #** 1

Elev: ____ ft. / m

Location: Chester Academy Proposed Athletic Field Site W/o Chester Elementary School, E/o Orange Heritage Trail, S/o Ridgefield Dr., Chester, Orange Co., NY

Observers: MSF

Brief Project Description: Proposed athletic fields for school

Project Area Total Acres: ±19ac **Forested Acres:** ±15.4 **Open Acres:** ±3.6

Proposed Trees (ac) Cleared: Unknown **Partially Cleared:** **Preserved:**

Landscape Within 5 Mile Radius:

Contains Connective Forested Corridors? (Y) N ☐ See Aerial Photo

Direction(s) of Corridors (circle all that apply): (N) NE E (SE) (S) SW W NW

Adjacent Land Uses (circle all that apply):

Undeveloped: (Forested) (Shrubland) Open/Successional Open/Agricultural Water

Developed: (Residential) Commercial Industrial Parkland Road (Other) School

Other (describe): School

Proximity to Forested Public Land or Preserve (miles): 5 **Direction: N S E W**

Goosepond Mtn. State Park SE 1.78 mi

Chester Commons Park SSE 1.82 mi

Good Time Park WNW 2.55 mi

Sample Site Description: Mature successional northern hardwood forest dominated by sugar maple and red oak, with open understory and minimal to no groundcover

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Endangered Bat Phase 1 Summer Habitat Assessment Page 2 of 4

Date: 17 MAY **Location:** Chester UFSD Athletic Field Site **Site #:** 1

Vegetation Cover Types:
Successional Northern Hardwoods - Mature
Successional Northern Hardwoods - Young
Successional Shrubland Vernal Pool
Mowed Lawn Unpaved Road

Forest Resources at Sample Site:

Dominant Species of Mature Trees:
Red Oak - n=7
Black Cherry, n=8
Shagbark Hickory n=4

# of Trees in 30m Circle: 27 **% Trees w/Exfoliating Bark:** ~11% **# of Snags:** 4%

Clutter/% Closure:
Canopy (>20m): 0-20% Midstory (7-20m): 0-20% Understory (<7m): 20-40%

Size Dist. of Live Trees (%): N=26 /Estimated
Small (8-20cm): (3-8 in): 15 Medium (20-40 cm): (8+-16 in): 7 Large (40+cm): (>16 in): 5

Water Resources at Sample Site: Width (m/ft) Intermit/Perennial Bat Accessible

Streams: none

	Area (ac/ha)	Vernal/Perennial	Bat Accessible
Pools/Ponds/Wetlands: Vernal pool	<0.1 ac.	vernal	yes

Is this habitat potentially suitable for Indiana Bat? (Y) N
Northern Long-Eared Bats? (Y) N
Tricolored Bat? (Y) N

Photo #s: ____
(Edge, Interior, Understory, Canopy, Snags, Live, Roosts, Water bodies)

Roosting Habitat: Potential roost trees in mature forest

Foraging Habitat: Unpaved logging roads, edges, understory

Transit Habitat: Unpaved roads, edges, understory

Hibernaculum: N/A

Endangered Bat Species Habitat Assessment Page 3 of 4
Forest Habitat Sampling Data

Date: 17 May Site: Chester UFSD Sample Pt. 1

Location: 41.37385 °N 74.27939 °W Datum: WGS 84

Condition: L=Live; S=Snag; B=Dead Branches; **Bark:** EF=Exfoliating; SM=Smooth; AB=Absent; **Position:** CA=Canopy >50'; SC=Sub-Canopy 20'-50'; US=Understory <20'

Species	DBH	Cond.	Bark	Position	PRT	Photo
1 Quercus palustris	20	L, B	S	C	Y	
2 Prunus serotina	9	L	S	C	N	
3 Quercus rubra	22	L, B	S	C	Y	
4 " "	16	L, B	S	C	Y	
5 Fagus grandifolia	7	L	S	SC	N	
6 Carya ovata	6	L	S	SC	N	
7 " "	7	L	S	SC	N	
8 " "	8	L	S	SC	N	
9 Q. rubra	18	L	S	C	N	
10 Q rubra	16	L	S	C	N	
11 P. serotina	5	L	S	SC	N	
12 P. serotina	4	L	S	SC	N	
13 Q. palustris	8	L	S	SC	N	
14 C. ovata	6	L	S	SC	N	
15 Q. alba	36	L, B	EF	C	Y	1581
16 Q. rubra	8	L	S	SC	N	
17 Q. rubra	10	L	S	C	N	
18 P. serotina	8	L	S	SC	N	
19 Q rubra	15	L, B	S	C	Y	1582
20 Q alba	32	L, B	EF	C	Y	1582
21 P. serotina	10	L	S	C	N	
22 P. serotina	6	L	S	SC	N	
23 P. serotina	5	L	S	SC	N	
24 Q palustris	9	L	S	C	N	
25 P. serotina	8	L	EF	SC	N	
26 Acer saccharum	6	L	S	SC	N	
27 Acer saccharum	4	L	S	SC	N	
28						
29						
30						

Endangered Bat Species Habitat Assessment Page 4 of 4
Forest Habitat Sampling Data

Date: 17 May Site: Chester UFSD Sample Pt. 1

Condition: L=Live; S=Snag; B=Dead Branches; **Bark:** EF=Exfoliating; SM=Smooth; AB=Absent; **Position:** CA=Canopy >50'; SC=Sub-Canopy 20'-50'; US=Understory <20'

Species	DBH	Cond	Bark	Position	PRT	Photo
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

Dominant Tree Spp.: Prunus serotina, Quercus rubra

Dominant/PRT Spp. DBH Mean: 11.4 in Mode: 8 in.
Quercus rubra

Exfoliating Bark: n= 3 / 11 % **Snags**: n= 0 / 0 %

Size Classes (DBH):
3-8": n= 15 / 55 %; 8+-16": n= 7 / 26 %; >16": 5 / 19 %

Notes: Young growth forest dominated by Rhamnus cathartica, Acer negundo, and Juniperus virginiana - <6" DBH, - Non habitat

Photograph: 1	Mature Successional Northern Hardwood Forest with open understory and sparse groundcover – potential habitat for listed bat species and small whorled pogonia.

Photograph: 2	Young Successional Northern Hardwood Forest with dense understory and groundcover; DBH of trees <6 inches: Not potential bat habitat.

Photograph: 3	Successional Shrubland habitat – not potential bat habitat

Photograph: 4	Mowed Lawn - not potential bat habitat

APPENDIX F PLANTS AND FUNGI LIST

APPENDIX F
Chester UFSD Athletic Fields Site
PLANTS and FUNGI LIST

Town of Chester, Orange County, NY

COMMON NAME	BOTANICAL/SCIENTIFIC NAME	INDICATOR[1] STATUS
FERNS (and allies), CLUBMOSSES & HORSETAILS IDENTIFIED ON SITE		
FERNS AND ALLIES		
Hayscented Fern	Dennstaedtia punctilobula	FACU
Sensitive Fern	Onoclea sensibilis	FACW
Woodfern, Spinulose	Dryopteris carthusiana	FACW
GRASSES, RUSHES & SEDGES IDENTIFIED ON SITE		
GRASSES		
Bluegrass, Canada	Poa compressa	FACU
Deer Tongue, Panic Grass	Dichanthelium clandestinum	FAC
Japanese Stiltgrass - INVASIVE	Microstegium vimineum (Eulalia vimineum)	----
Orchard Grass	Dactylis glomerata	FACU
Sweet Vernalgrass	Anthoxanthum odoratum	FACU
RUSHES		
Path Rush	Juncus tenuis	FAC
Soft Rush	Juncus effusus	FACW
SEDGES		
Broadleaf Sedge	Carex platyphylla	NI
Tussock Sedge	Carex stricta	OBL

1 Wetland indicator status was based on the system used in the National List of Plant Species That Occur in Wetlands (USFWS, 2012): OBL=Obligate Wetland - estimated 99% probability of occurrence in wetlands; FACW=Facultative Wetland – estimated 67-99% probability of occurrence in wetlands; FAC=Facultative – equally likely to occur in wetlands and uplands (34-67% probability); FACU=Facultative Upland – estimated 67-99% occurrence in uplands (1-33% probability in wetlands); UPL=estimated 99% probability of occurrence in uplands (1% probability in wetlands); NI=Non indicator species-insufficient data to determine indicator status. Plus (+) after a status designation indicates a tendency toward being found in wetland; minus (-) indicates a tendency toward uplands.

COMMON NAME	BOTANICAL/SCIENTIFIC NAME	INDICATOR STATUS
WILDFLOWERS AND OTHER FORBS IDENTIFIED ON SITE		
Agrimony	Agrimonia spp.	FACU/UPL
Birdsfoot Trefoil	Lotus corniculatus	FACU
Burdock, Common	Arctium minus	UPL
Buttercup	Ranunculus spp.	----
Catnip	Nepeta cataria	FACU
Celandine	Chelidonium majus	FAC
Cinquefoil, Dwarf	Potentilla canadensis	NI
Cleavers - INVASIVE	Galium aparine	FACU
Dandelion	Taraxacum officinale	FACU
Dock, Curled	Rumex crispus	FACU
Fleabane, Daisy (Lesser)	Erigeron strigosus	FACU
Garlic Mustard - INVASIVE	Alliaria petiolata	FACU
Geranium, Wild	Geranium maculatum	FACU
Gill-Over-The-Ground/Ground Ivy	Glechoma hederacea	FACU
Goldenrod, Canada	Solidago canadensis	FACU
Indian Hemp (Dogbane)	Apocynum cannabinum	FACU
Jack-In-The-Pulpit	Arisaema triphyllum	FACW
Jewelweed	Impatiens capensis	FACW
Milkweed, Common	Asclepias syriaca	UPL
Mugwort	Artemisia vulgaris	UPL
Mullein, Giant (Common)	Verbascum thapsus	UPL
Mustard, Tower (Rockcress)	Turritis glabra	NI
Onion, Meadow	Allium canadense	FACU
Queen Anne's Lace (Wild Carrot)	Daucus carota	UPL
Skunk Cabbage	Symplocarpus foetidus	OBL
Smartweed, Lady's Thumb	Persicaria maculosa	FACW
Speedwell, Corn	Veronica arvensis	FACU
Speedwell, Germander	Veronica chamaedrys	UPL
Swallow Wort, Black - INVASIVE	Cynanchum louiseae	NI
Thistle, Canada	Cirsium arvense	FACU
Vetch, Common	Vicia sativa	FACU
Violet, Northern Blue	Viola septentrionalis	FACU
Water Purslane	Ludwigia palustris	OBL
Wood Sorrel (Yellow)	Oxalis stricta	UPL
Yarrow	Achillea millefolium	FACU
SHRUBS AND VINES IDENTIFIED ON SITE		
Barberry, Japanese – INVASIVE	Berberis thunbergii	FACU
Bittersweet, Asiatic - INVASIVE	Celastrus orbiculata	FAC

COMMON NAME	BOTANICAL/SCIENTIFIC NAME	INDICATOR STATUS
Buckthorn, Common - INVASIVE	Rhamnus cathartica	UPL
Grape, Summer Wild	Vitis aestivalis	FACU
Honeysuckle, Amur	Lonicera maackii	NI
Honeysuckle, Japanese	Lonicera japonica	FAC
Honeysuckle, Tartarian	Lonicera tatarica	FACU
Olive, Autumn	Elaeagnus umbellata	UPL
Poison Ivy	Toxicodendron radicans	FAC
Privet - INVASIVE	Ligustrum vulgare	FACU
Rose, Multiflora - INVASIVE	Rosa multiflora	FACU
Rose, Swamp	Rosa palustris	OBL
Viburnum, Blackhaw	Viburnum prunifolium	FACU
Virginia Creeper	Parthenocissus quinquefolia	FACU
TREES IDENTIFIED ON SITE		
Birch, Gray	Betula populifolia	FAC
Box Elder (Ash-leaved Maple)	Acer negundo	FAC
Cedar, Eastern Red	Juniperus virginiana	FACU
Cherry, Black	Prunus serotina	FACU
Elm, American	Ulmus americana	FACW
Hickory, Shagbark	Carya ovata	FACU
Locust, Black	Robinia pseudoacacia	FACU
Locust, Honey	Gleditsia triacanthos	FAC
Maple, Red Maple (Swamp Maple)	Acer rubrum	FAC
Maple, Sugar Maple	Acer saccharum	FACU
Mulberry, Red	Morus rubra	FACU
Oak, Black	Quercus velutina	UPL
Oak, Pin	Quercus palustris	FACW
Oak, Red	Quercus rubra (borealis)	FACU
Oak, White	Quercus alba	FACU
Tree of Heaven	Ailanthus altissima	UPL
Walnut, Black	Juglans nigra	FACU
FUNGI and LICHENS		
Common Brown Cup	Peziza phyllogena	NI
Dryad's Saddle	Cerioporus (Polyporus) squamosus	
Golden Oyster Mushroom	Pleurotus citrinopileatus	

---end of list---

APPENDIX G SITE WILDLIFE SPECIES OBSERVED

APPENDIX G

SITE WILDLIFE SPECIES OBSERVED ON 17 MAY 2024
Chester UFSD Athletic Field Site
Town of Chester, Orange County, NY

This list includes wildlife species that were observed directly or by sign during the site visit on 17 May 2024.

BIRDS

Eastern Wild Turkey
Red-bellied Woodpecker
Downy Woodpecker
Northern Flicker
Eastern Wood-Pewee
Blue Jay
Tufted Titmouse
White-breasted Nuthatch
House Wren
Winter Wren
American Robin
Gray Catbird
Red-eyed Vireo
Yellow Warbler
Ovenbird
Northern Cardinal
Field Sparrow
Song Sparrow
Indigo Bunting
American Goldfinch

MAMMALS

Eastern Chipmunk
Coyote
Gray Squirrel
White-tailed Deer
Eastern Cottontail

REPTILES

Eastern Garter Snake

AMPHIBIANS

Green Frog
Gray Tree Frog
Wood Frog (larvae)

INSECTS

Cabbage White
Pearl Crescent
Sponge Moth (larvae)
Bumble Bee
Carpenter Ant
--end of list---

APPENDIX H PREDICTED WILDLIFE SPECIES LIST

Appendix H: Predictive Wildlife List
from DeGraaf Yamasaki (2001).

Species	Northern Red Oak	Red Maple	Northern Hardwoods	Pond	Shrub Old Field	Grass
Jefferson Salamander - Ambystoma Jeffersonianum		B-W	W	B-NB		
Blue-spotted Salamander - Ambystoma laterale		W	W	B		
Spotted Salamander - Ambystoma maculatum	W	B-W	W	B		
Redback Salamander - Plethodon cinereus	B-W	B-W	B-W			
Slimy Salamander - Plethodon g. glutinosus		B-W	B-W			
Northern Two-lined Salamander - Eurycea b. bislineata	B-W	B-W	B-W			
Eastern American Toad - Bufo a. americanus	W	W	W	B	NB	NB
Northern Spring Peeper - Hyla c. crucifer	W	W	W	B		
Gray Treefrog - Hyla versicolor	W	W	W	B		
Green Frog - Rana clamitans melanota		W		B-NB		
Wood Frog - Rana sylvatica	W	W	W	B		
Pickerel Frog - Rana palustris	B	B-W	B	B-NB		
Common Snapping Turtle - Chelydra s. serpentina		W		NB	B	B
Eastern Box Turtle - Terrapene c. carolina	B-W	B-W	B-W		B-NB	B-NB
Northern Water Snake - Nerodia s. sipedon		B-W		B		
Northern Brown Snake - Storeria d. dekayi	B-W	B-W	B-W		B-NB	B-NB
Eastern Garter Snake - Thamnophis s. sirtalis	B-W	B-W	B-W		B-NB	B-NB
Northern Black Racer - Coluber c. constrictor	B-W	B-W	B-W		B-NB	B-NB
Black Rat Snake - Elaphe o. obsoleta	B-W	B-W			B-NB	
Eastern Milk Snake - Lampropeltis t. triangulum	B-W	B-W	B-W			B-NB
Wood Duck - Aix sponsa		B-BF		B-BF		
Hooded Merganser - Lophodytes cucullatus	B	B-BF	B	B-BF-W-WF		
Turkey Vulture - Cathartes aura	B-BF-W-WF	W	B-BF-W-WF			BF-W-WF
Sharp-shinned Hawk - Accipiter striatus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-WF	BF-WF
Cooper's Hawk - Accipiter cooperii	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-WF	BF-WF
Red-shouldered Hawk - Buteo lineatus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Broad-winged Hawk - Buteo platypterus	B-BF	B-BF	B-BF			BF
Red-tailed Hawk - Buteo jamaicensis	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-WF	BF-WF
American Kestrel - Falco sparverius	BF-WF	BF-WF	BF-WF		W-WF	BF-W-WF
Merlin - Falco columbarius					WF	WF
Peregrine Falcon - Falco peregrinus	BF	BF	BF			
Wild Turkey - Meleagris gallopavo	B-BF-W-WF	-W-WF	B-BF-W-WF		BF-WF	BF-WF
Rock Dove - Columba livia						BF-WF
Mourning Dove - Zenaida macroura	BF-W-WF	W-WF	BF-W-WF		BF	BF-WF
Black-billed Cuckoo - Coccyzus erythropthalmus	B-BF		B-BF		B-BF	
Yellow-billed Cuckoo - Coccyzus americanus	B-BF	B-BF	B-BF		B-BF	
Eastern Screech Owl - Otus asio	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-WF	BF-WF
Great Horned Owl - Bubo virginianus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-WF	BF-WF
Barred Owl - Strix varia	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF	BF-WF
Long-eared Owl - Asio otus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF	BF-WF

Appendix H: Predictive Wildlife List
from DeGraaf Yamasaki (2001).

Species	Northern Red Oak	Red Maple	Northern Hardwoods	Pond	Shrub Old Field	Grass
Northern Saw-whet Owl - Aegolius acadicus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			BF-WF
Whip-poor-will - Caprimulgus vociferus	B-BF	B-BF	B-BF		BF	BF
Chimmney Swift - Chaetura pelagica					BF	BF
Ruby-throated Hummingbird - Archilochus colubris	B-BF	B-BF	B-BF		B-BF	
Belted Kingfisher - Cerycle alcyon				B-BF-WF		
Red-headed Woodpecker - Melanerpes erythrocephalus	B-BF-W-WF	B-BF-W-WF				
Red-bellied Woodpecker - Melanerpes carolinus	B-BF-W-WF	B-BF-W-WF				
Yellowed-bellied Sapsucker - Sphyrapicus varius	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Downy Woodpecker - Picoides pubescens	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Hairy Woodpecker - Picoides villosus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Northern Flicker - Colaptes auratus	B-BF	B-BF	B-BF			BF-WF
Pileated Woodpecker - Dryocopus pileatus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Olive-sided Flycatcher - Contopus borealis		B-BF		B-BF		
Eastern Wood Pewee - Contopus virens	B-BF	B-BF	B-BF			
Willow Flycatcher - Empidonax traillii	B-BF	B-BF	B-BF		B-BF	
Least Flycatcher - Empidonax minimus	B-BF	B-BF	B-BF			
Eastern Phoebe - Sayornis phoebe	B-BF	B-BF	B-BF			
Great Crested Flycatcher - Myiarchus crinitus	B-BF	B-BF	B-BF			
Eastern Kingbird - Tyrannus tyrannus	B-BF	B-BF	B-BF		BF	BF
Tree Swallow - Tachycineta bicolor	BF	B-BF	BF	BF	BF	BF
Blue Jay - Cyanocitta cristata	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
American Crow - Corvus brachyrhynchos	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF	BF-WF
Fish Crow - Corvus brachyrynchos				B-BF		
Common Raven - Corvus corax	B-BF-W-WF	BF-WF	B-BF-W-WF			
Black-capped Chickadee - Parus articapillus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		WF	
Tufted Titmouse - Parus bicolor	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
White-breasted Nuthatch - Sitta carolinensus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Brown Creeper - Certhia americana	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Carolina Wren - Thryothorus ludovicianus	B-BF-W-WF	B-BF-W-WF			B-BF	
House Wren - Troglodytes aedon	B-BF	B-BF	B-BF		B-BF	
Winter Wren - Troglodytes troglodytes	W-WF	B-BF-W-WF	B-BF-W-WF			
Blue-gray Gnatcatcher - Polioptila caerulea	B-BF	B-BF	B-BF		B-BF	
Veery - Catharus fuscescens	B-BF	B-BF	B-BF		B-BF	
Hermit Thrush - Catharus guttatus	B-BF	B-BF-W-WF	B-BF		B-BF	
Wood Thrush - Hylocichla mustelina	B-BF	B-BF	B-BF			
American Robin - Turdus migratorious	B-BF	B-BF-W-WF	B-BF			BF
Gray Catbird - Dumetella carolinensus	B-BF	B-BF	B-BF		B-BF	
Northern Mockingbird - Mimus polyglottos		B-BF-W-WF			B-BF-W-WF	
Brown Thrasher - Toxostoma rufum	B-BF	B-BF	B-BF		B-BF-W-WF	
Cedar Waxwing - Bombycilla cedrorum	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	

Appendix H: Predictive Wildlife List
from DeGraaf Yamasaki (2001).

Species	Northern Red Oak	Red Maple	Northern Hardwoods	Pond	Shrub Old Field	Grass
European Starling - Sturnus vulgaris	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			WF
Solitary Vireo - Vireo solitarius	B-BF	B-BF	B-BF			
Yellow-throated Vireo - Vireo flavifrons	B-BF	B-BF	B-BF			
Warbling Vireo - Vireo gilvus	B-BF	B-BF	B-BF			
Philadelphia Vireo - Vireo philadelphicus	B-BF	B-BF	B-BF		B-BF	
Red-eyed Vireo - Vireo olivaceus	B-BF	B-BF-				
Northern Parula - Parula americana	B-BF	B-BF	B-BF			
Yellow Warbler - Dendroica petechia	B-BF	B-BF	B-BF		B-BF	
Chestnut-sided Warbler - Dendroica pensylvanica		B-BF	B-BF		B-BF	
Yellow-rumped Warbler - Dendroica coronata	B-BF	B-BF	B-BF		B-BF	
Black-throated Green Warbler - Dendroica virens	B-BF	B-BF	B-BF			
Blackburnian Warbler - Dendroica fusca	B-BF		B-BF			
Prairie Warbler - Dendroica discolor	B0BF		B-BF		B-BF	
Bay-breasted Warbler - Dendroica castanea					B-BF	
Blackpoll Warbler - Dendroica striata			B-BF			
Black-and-White Warbler - Mniotilta varia	B-BF	B-BF	B-BF			
American Redstart - Setophaga ruticilla	B-BF	B-BF	B-BF			
Worm-eating Warbler - Helmitheros vermivorus	B-BF		B-BF			
Ovenbird - Seiurus aurocapillus	B-BF	B-BF	B-BF			
Mourning Warbler - Oporonis philadelphia	B-BF	B-BF	B-BF		B-BF	
Common Yellowthroat - Geothlypis trichas	B-BF	B-BF	B-BF	B-BF	B-BF	BF
Hooded Warbler - Wilsonia citrina	B-BF	B-BF	B-BF		B-BF	
Wilson's Warbler - Wilsonia pusilla	B-BF		B-BF			
Canada Warbler - Wilsonia canadensis	B-BF	B-BF	B-BF			
Scarlet Tanager - Piranga olivacea	B-BF	B-BF	B-BF			
Northern Cardinal - Cardinalis cardinalis	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	
Rose-breasted Grosbeak - Pheucticus ludovicianus	B-BF	B-BF	B-BF		B-BF	
Indigo Bunting - Passerina cyanea	B-BF	B-BF	B-BF		B-BF	BF
American Tree Sparrow - Spizella arborea	W-WF	W-WF	W-WF		W-WF	WF
Chipping Sparrow - Spizella passerina	B-BF	B-BF	B-BF			B-BF
Field Sparrow - Spizella pusilla	B-BF	B-BF-W-WF	B-BF		B-BF-W-WF	B-BF-W-WF
Song Sparrow - Melospiza melodia	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	B-BF-W-WF
White-throated Sparrow - Zonotrichia albicollis	W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	WF
Dark-eyed Junco - Junco hyemalis	B-BF-W-WF	W-WF	B-BF-W-WF		B-BF-W-WF	WF
Brown-headed Cowbird - molothrus ater	B-BF	B-BF-W-WF	B-BF		B	BF-WF
Northern Oriole - Icetrus galbula	B-BF	B-BF	B-BF			
Purple Finch - Carpodacus purpureus	WF	W-WF	BF-W-WF			
American Goldfinch - Carduelis tristis	B-BF-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	
House Sparrow - Passer domesticus					BF	BF-WF
Virginia Opossum - Didelphis virginiana	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-W-WF	W-WF

Appendix H: Predictive Wildlife List
from DeGraaf Yamasaki (2001).

Species	Northern Red Oak	Red Maple	Northern Hardwoods	Pond	Shrub Old Field	Grass
Eastern Mole - Scalopus aquaticus	B-BF-W-WF	B-BF-W-WF			B-BF-W-WF	B-BF-W-WF
Little Brown Myotis - Myotis lucifugus	B-BF-W	B-BF-W	B-BF-W	BF	BF	BF
Northern Long-earee Myotis - Myotis septentrionalis	B-BF-W	B-BF-W	B-BF-W	BF	BF	BF
Indiana Mytotis - Myotis sodalis	B-BF-W	B-BF-W	B-BF-W	BF	BF	BF
Small-footed Myotis - Myotis leibii				BF	BF	BF
Silver-haired Bat - Lasionycteris noctivagans	B-BF	B-BF	B-BF	BF	BF	BF
Eastern Pipistrelle - Pipistrellus subflavus	B-BF-W	B-BF-W	B-BF-W	BF	BF	BF
Big Brown Bat - Eptesticus fuscus	B-BF	B-BF	B-BF	BF	BF	BF
Red Bat - Lasiurus borealis	B-BF	B-BF	B-BF	BF	BF	BF
Hoary Bat - Lasiurus cinereus	BF	BF	B-BF	BF	BF	BF
Eastern Cottontail - Sylvilagus floridanus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	B-BF
Eastern Chipmunk - Tamias striatus	B-BF-W	B-BF-W	B-BF-W		B-BF-W	B-BF-W
Woodchuck - Marmota monax	B-BF-W	B-BF-W	B-BF-W		B-BF-W	B-BF-W
Gray Squirrel - Sciurus carolinensis	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Red Squirrel - Tamiasciurus hudsonicus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Southern Flying Squirrel - Glaucomys volans	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF			
Deer Mouse - Peromyscus maniculatus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	
White-footed Mouse - Peromyscus leucopus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	B-BF-W-WF
Meadow Vole - Microtus pennsylvanicus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	B-BF-W-WF
Meadow Jumping Mouse - Zapus hudsonius	B-BF-W	B-BF-W	B-BF-W		B-BF-W	B-BF-W
Woodland Jumping Mouse - Napaeozapus insignis	B-BF-W	B-BF-W	B-BF-W		B-BF-W	
Coyote - Canis latrans	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	BF-WF
Red Fox - Vulpes vulpes	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	BF-WF
Gray Fox - Urocyon cinereoargenteus	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		BF-WF	
Raccoon - Procyon lotor	B-BF-W	B-BF-W-WF	B-BF-W		BF	BF
Long-tailed Weasel - Mustela frenata	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W-WF	BF-WF
Mink - Mustela vison	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		
Striped Skunk - Mephitis mephitis	B-BF-W-WF	B-BF-W-WF	B-BF-W-WF		B-BF-W	B-BF
White-tailed Deer - Odocoileus virginianus	B-BF-WF	B-BF-WF	B-BF-W-WF		B-BF-WF	BF

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Chester UFSD - Concept Estimate

Date: December 6th 2024

	Woods Concept		Baseball Concept A	Baseball Concept B
	Low Range	**High Range**	**Approximate**	**Approximate**
Earthwork, Clear, Grub, Cut, Import, Export, Resoration Storm Water Allowance Retaining Wall				
Subtotal	**$3,000,000**	**$5,000,000**	**$603,600**	**$543,600**
Synthetic Turf, Track and Amenities	$3,300,000	$3,300,000	$2,348,900	$2,358,900
1,000 Reduced to 500 Seat Grandstands and Pressbox	$1,200,000	$1,500,000	$700,000	$700,000
Field Lights	$700,000	$800,000	$1,010,000	$1,010,000
Parking Lot	$500,000	$700,000	$0	$0
Parking Lot Signage and Striping	$12,000	$15,000	$0	$0
Parking Lot Lights	$40,000	$50,000	$0	$0
Concrete Walks	$150,000	$200,000	$200,000	$200,000
Subtotal	**$5,902,000**	**$6,565,000**	**$4,258,900**	**$4,268,900**
Water Service from School	$37,000	$55,000	$40,000	$40,000
Sanitary Service from School	$30,000	$40,000	$40,000	$40,000
Data from School	$25,000	$40,000	$30,000	$30,000
Subtotal	**$92,000**	**$135,000**	**$110,000**	**$110,000**
Concession Stand, Locker Rooms & Bathrooms 6,500 SF and Gateway Entrace	$3,575,000	$4,875,000	$3,520,000	$3,520,000
New Playground			$0	$0
New Basketball Courts if required			$0	$0
Subtotal	**$3,575,000**	**$4,875,000**	**$3,520,000**	**$3,520,000**
Subtotal	$12,569,000	$16,575,000	$8,492,500	$8,442,500
18% Soft Costs	$2,262,420	$2,983,500	$1,528,650	$1,519,650
27% Contingencies	$3,393,630.0	$4,475,250.0	$2,292,975	$2,279,475
Grand Total	**$18,225,050**	**$24,033,750**	**$12,314,125**	**$12,241,625**

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
WOODS CONCEPT

Assumptions:

- Amount
  - Woods Concept $24,033,750
  - Capital Reserve $4,100,000
  - Amount to Finance $19,933,750
- Timing
  1. Voter approval Winter 2025
  2. SED submission Spring/Summer 2026
  3. SED approval Winter 2026
  4. Construction start Summer 2027
  5. Construction completion Summer 2028
  6. SA-139 is filed no later than 10/1/2027
  7. Final cost reports submitted to SED no later than 12/31/2028
  8. First full year of building aid 2028-29
- Financing:
  9. Bond Anticipation Notes issued 5 years: June 2027-31 Estimated @ 4.00%.
  10. Serial Bonds issued June 2032 Mature June 2033-2043. Estimated at 4.15%.
- Building Aid
  - Building Aid Ratio 65.60%
  - Percent of Project Aidable 28.91%
- District Valuations
  - Total Assessed Value 2024-2025 $503,182,101
  - Total Full Value 2024-2025 $1,277,746,870

(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*
Fiscal Year Ending June 30th	*Actual Bonds Outstanding*	*Actual Current Building aid*	*Actual Current Local Share*	*Estimated BAN Principal*	*Estimated BAN Interest*	*Estimated Bond Prin & Int*	*Less: Est. State Aid Amortization Payments**	*Estimated Local Share For This Project*	*TOTAL Local Share New Project & Prior Projects*	*Tax Increase Per $100,000 FV*
2025	1,644,050	1,104,861	539,189						539,189	
2026	1,643,300	1,104,861	538,439						538,439	
2027	1,639,550	1,104,861	534,689						534,689	
2028	1,637,800	1,104,861	532,939		400,000			400,000	932,939	31.17
2029	1,642,800	1,104,861	537,939	160,000	797,350		415,327	542,023	1,079,961	42.67
2030	1,639,050	1,104,861	534,189	338,750	790,950		415,327	714,373	1,248,561	55.87
2031	1,637,700	1,104,861	532,839	355,000	777,400		415,327	717,073	1,249,911	55.98
2032		1,104,861	(1,104,861)	1,875,000	763,200		415,327	2,222,873	1,118,011	45.65
2033		686,931	(686,931)			1,979,008	415,327	1,563,680	876,749	26.77
2034		168,288	(168,288)			1,981,510	415,327	1,566,183	1,397,894	67.56
2035		67,576	(67,576)			1,981,730	415,327	1,566,403	1,498,827	75.46
2036		67,576	(67,576)			1,979,668	415,327	1,564,340	1,496,764	75.29
2037		67,576	(67,576)			1,980,323	415,327	1,564,995	1,497,419	75.35
2038		67,576	(67,576)			1,978,488	415,327	1,563,160	1,495,584	75.20
2039		33,788	(33,788)			1,979,163	415,327	1,563,835	1,530,047	77.90
2040						1,982,140	415,327	1,566,813	1,566,813	80.78
2041						1,977,213	415,327	1,561,885	1,561,885	80.39
2042						1,979,588	415,327	1,564,260	1,564,260	80.58
2043						1,978,850	415,327	1,563,523	1,563,523	80.52
TOTALS	11,484,250	9,998,202		2,728,750	3,528,900	21,777,678	6,229,911	21,805,417		

Average Annual Tax Impact per $100,000 FV:	63.11
Average Monthly Tax Impact per $100,000 FV:	5.26
Maximum Annual Tax Impact per $100,000 FV:	80.78
Maximum Monthly Tax Impact per $100,000 FV:	6.73

Notes: - Bond Percentage is preliminary/estimated and may change based on actual scope of work performed. District needs to verify addition aidability with NYSED.
- Bond Percentage may be impacted by the Multi-Year Maximum Cost Allowance. Scope should be developed with consideration of the Maximum Cost Allowances and and possible overages which will impact the bond percentage/aidability of the projects.

* **- The timing of the receipt of building aid is based on the submission of the Certificate of Substantial Completion and the Final Cost Report which are estimated.**

FISCAL ADVISORS & MARKETING, INC.

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
BASEBALL B

Assumptions:

- Amount
  - Woods Concept $12,241,625
  - Capital Reserve $4,100,000
  - Amount to Finance $8,141,625
- Timing
  1. Voter approval Winter 2025
  2. SED submission Spring/Summer 2026
  3. SED approval Winter 2026
  4. Construction start Summer 2027
  5. Construction completion Summer 2028
  6. SA-139 is filed no later than 10/1/2027
  7. Final cost reports submitted to SED no later than 12/31/2028
  8. First full year of building aid 2028-29
- Financing:
  9. Bond Anticipation Notes issued 5 years: June 2027-31 Estimated @ 4.00%.
  10. Serial Bonds issued June 2032 Mature June 2033-2043. Estimated at 4.15%.
- Building Aid
  - Building Aid Ratio 65.60%
  - Percent of Project Aidable 56.73%
- District Valuations
  - Total Assessed Value 2024-2025 $503,182,101
  - Total Full Value 2024-2025 $1,277,746,870

(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*
Fiscal Year Ending June 30th	*Actual Bonds Outstanding*	*Actual Current Building aid*	*Actual Current Local Share*	*Estimated BAN Principal*	*Estimated BAN Interest*	*Estimated Bond Prin & Int*	*Less: Est. State Aid Amortization Payments**	*Estimated Local Share For This Project*	*TOTAL Local Share New Project & Prior Projects*	*Tax Increase Per $100,000 FV*
2025	1,644,050	1,104,861	539,189						539,189	
2026	1,643,300	1,104,861	538,439						538,439	
2027	1,639,550	1,104,861	534,689						534,689	
2028	1,637,800	1,104,861	532,939		325,665			325,665	858,604	25.35
2029	1,642,800	1,104,861	537,939	126,625	325,665		415,327	36,963	574,901	3.15
2030	1,639,050	1,104,861	534,189	135,000	320,600		415,327	40,273	574,461	3.11
2031	1,637,700	1,104,861	532,839	145,000	315,200		415,327	44,873	577,711	3.37
2032		1,104,861	(1,104,861)	1,250,000	309,400		415,327	1,144,073	39,211	(38.78)
2033		686,931	(686,931)			711,678	415,327	296,350	(390,581)	(72.41)
2034		168,288	(168,288)			712,795	415,327	297,468	129,179	(31.74)
2035		67,576	(67,576)			713,083	415,327	297,755	230,179	(23.83)
2036		67,576	(67,576)			712,540	415,327	297,213	229,637	(23.87)
2037		67,576	(67,576)			711,168	415,327	295,840	228,264	(23.98)
2038		67,576	(67,576)			708,965	415,327	293,638	226,062	(24.15)
2039		33,788	(33,788)			710,933	415,327	295,605	261,817	(21.36)
2040						711,863	415,327	296,535	296,535	(18.64)
2041						711,755	415,327	296,428	296,428	(18.65)
2042						710,610	415,327	295,283	295,283	(18.74)
2043						713,428	415,327	298,100	298,100	(18.52)
TOTALS	11,484,250	9,998,202		1,656,625	1,596,530	7,828,815	6,229,911	4,852,059		

Average Annual Tax Impact per $100,000 FV:	(18.74)
Average Monthly Tax Impact per $100,000 FV:	(1.56)
Maximum Annual Tax Impact per $100,000 FV:	25.35
Maximum Monthly Tax Impact per $100,000 FV:	2.11

Notes:
- Bond Percentage is preliminary/estimated and may change based on actual scope of work performed. District needs to verify addition aidability with NYSED.
- Bond Percentage may be impacted by the Multi-Year Maximum Cost Allowance. Scope should be developed with consideration of the Maximum Cost Allowances and and possible overages which will impact the bond percentage/aidability of the projects.

*** - The timing of the receipt of building aid is based on the submission of the Certificate of Substantial Completion and the Final Cost Report which are estimated.**

FISCAL ADVISORS & MARKETING, INC.

Chester UFSD
Outstanding Bonds

Year Ending June 30:	Series 2021 Principal 4/15	Series 2021 Interest 10/15 & 4/15	Principal	Interest	Total	Cummulative % Princ. Paid
		214,525.00				
2025	1,215,000.00	214,525.00	**1,215,000.00**	**429,050.00**	**1,644,050.00**	**12.35%**
	-	184,150.00				
2026	1,275,000.00	184,150.00	**1,275,000.00**	**368,300.00**	**1,643,300.00**	**25.32%**
	-	152,275.00				
2027	1,335,000.00	152,275.00	**1,335,000.00**	**304,550.00**	**1,639,550.00**	**38.89%**
	-	118,900.00				
2028	1,400,000.00	118,900.00	**1,400,000.00**	**237,800.00**	**1,637,800.00**	**53.13%**
	-	83,900.00				
2029	1,475,000.00	83,900.00	**1,475,000.00**	**167,800.00**	**1,642,800.00**	**68.12%**
	-	47,025.00				
2030	1,545,000.00	47,025.00	**1,545,000.00**	**94,050.00**	**1,639,050.00**	**83.83%**
	-	23,850.00				
2031	1,590,000.00	23,850.00	**1,590,000.00**	**47,700.00**	**1,637,700.00**	**100.00%**
	9,835,000.00	1,649,250.00	**9,835,000.00**	**1,649,250.00**	**11,484,250.00**	

FISCAL ADVISORS & MARKETING, INC.

Chester UFSD
Current Building Aid

Project #	Building	Authorization Date	TYPE	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
0001-008	Elementary School	5/19/2015	BLD4	176,342	176,342	176,342	176,342	176,342	176,342	176,342	176,342	176,342	88,171					
0002-008	High School	5/19/2015	BLD 4	130,708	130,708	130,708	130,708	130,708	130,708	130,708	130,708	130,708	65,354					
0009-001	New Middle/High School	6/27/2000	BLD 10	1,274,178	1,274,178	1,274,178	1,274,178	1,274,178	1,274,178	1,274,178	1,274,178	637,089						
0009-006	Chester Academy	5/17/2022	BLD4	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	103,012	51,506
Total BLD 4 & 10				1,684,240	1,684,240	1,684,240	1,684,240	1,684,240	1,684,240	1,684,240	1,684,240	1,047,151	256,537	103,012	103,012	103,012	103,012	51,506
BLD4 & 10 Ratio				65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%	65.60%
BLD4 & 10 Total Prospective Aid				1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	686,931	168,288	67,576	67,576	67,576	67,576	33,788
TOTAL BUILDING AID				1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	1,104,861	686,931	168,288	67,576	67,576	67,576	67,576	33,788

FISCAL ADVISORS & MARKETING, INC.

Chester UFSD
Capital Project Financing - Wods Concept

Amount	$19,933,750
Total BANS Issued	$19,933,750
Estimated BAN Interest Rate	4.00% (current market + .25%)
Estimated Bond Interest Rate	4.15% (current market + 1.00%)

	BAN 1	10,000,000	BAN 2	19,933,750	BAN 3	19,773,750	BAN 4	19,435,000	BAN 5	19,080,000	**TOTAL BANS**		BOND 1	17,205,000			
	New Money	10,000,000	New Money	9,933,750	New Money	-	New Money	-	New Money	-			Series 2031				
	Issue Date	6/15/27	Issue Date	6/15/28	Issue Date	6/15/29	Issue Date	6/15/30	Issue Date	6/15/31			Issue Date	6/15/32			
Fiscal Year	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total
2026 - 27																	
2027 - 28		400,000									-	400,000			-	400,000	400,000
2028 - 29			160,000	797,350							160,000	797,350			160,000	797,350	957,350
2029 - 30					338,750	790,950					338,750	790,950			338,750	790,950	1,129,700
2030 - 31							355,000	777,400			355,000	777,400			355,000	777,400	1,132,400
2031 - 32									1,875,000	763,200	1,875,000	763,200			1,875,000	763,200	2,638,200
2032 - 33													1,265,000	714,008	1,265,000	714,008	1,979,008
2033 - 34													1,320,000	661,510	1,320,000	661,510	1,981,510
2034 - 35													1,375,000	606,730	1,375,000	606,730	1,981,730
2035 - 36													1,430,000	549,668	1,430,000	549,668	1,979,668
2036 - 37													1,490,000	490,323	1,490,000	490,323	1,980,323
2037 - 38													1,550,000	428,488	1,550,000	428,488	1,978,488
2038 - 39													1,615,000	364,163	1,615,000	364,163	1,979,163
2039 - 40													1,685,000	297,140	1,685,000	297,140	1,982,140
2040 - 41													1,750,000	227,213	1,750,000	227,213	1,977,213
2041 - 42													1,825,000	154,588	1,825,000	154,588	1,979,588
2042 - 43													1,900,000	78,850	1,900,000	78,850	1,978,850
2043 - 44															-	-	-
2044 - 45															-	-	-
2045 - 46															-	-	-
2046 - 47															-	-	-
2047 - 48															-	-	-
2048 - 49															-	-	-
2049 - 50															-	-	-
2050 - 51																	
2051 - 52																	
	-	400,000	160,000	797,350	338,750	790,950	355,000	777,400	1,875,000	763,200	2,728,750	3,528,900	17,205,000	4,572,678	19,933,750	8,101,578	28,035,328

FISCAL ADVISORS & MARKETING, INC.

Chester UFSD
Capital Project Financing - Baseball B

Amount	$8,141,625	
Total BANS Issued	$8,141,625	
Estimated BAN Interest Rate	4.00%	(current market + .25%)
Estimated Bond Interest Rate	4.15%	(current market + 1.00%)

	BAN 1	8,141,625	BAN 2	8,141,625	BAN 3	8,015,000	BAN 4	7,880,000	BAN 5	7,735,000	**TOTAL BANS**		BOND 1	6,485,000			
	New Money	8,141,625	New Money	-	New Money	-	New Money	-	New Money	-			Series 2031				
	Issue Date	6/15/27	Issue Date	6/15/28	Issue Date	6/15/29	Issue Date	6/15/30	Issue Date	6/15/31			Issue Date	6/15/32			
Fiscal Year	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total
2025 - 26																	
2026 - 27		325,665									-	325,665			-	325,665	325,665
2027 - 28			126,625	325,665							126,625	325,665			126,625	325,665	452,290
2028 - 29					135,000	320,600					135,000	320,600			135,000	320,600	455,600
2029 - 30							145,000	315,200			145,000	315,200			145,000	315,200	460,200
2030 - 31									1,250,000	309,400	1,250,000	309,400			1,250,000	309,400	1,559,400
2031 - 32													455,000	256,678	455,000	256,678	711,678
2032 - 33													475,000	237,795	475,000	237,795	712,795
2033 - 34													495,000	218,083	495,000	218,083	713,083
2034 - 35													515,000	197,540	515,000	197,540	712,540
2035 - 36													535,000	176,168	535,000	176,168	711,168
2036 - 37													555,000	153,965	555,000	153,965	708,965
2037 - 38													580,000	130,933	580,000	130,933	710,933
2038 - 39													605,000	106,863	605,000	106,863	711,863
2039 - 40													630,000	81,755	630,000	81,755	711,755
2040 - 41													655,000	55,610	655,000	55,610	710,610
2041 - 42													685,000	28,428	685,000	28,428	713,428
2042 - 43															-	-	-
2043 - 44															-	-	-
2044 - 45															-	-	-
2045 - 46															-	-	-
2046 - 47															-	-	-
2047 - 48															-	-	-
2048 - 49															-	-	-
2049 - 50																	
2050 - 51																	
	-	325,665	126,625	325,665	135,000	320,600	145,000	315,200	1,250,000	309,400	1,656,625	1,596,530	6,185,000	1,643,815	7,841,625	3,240,345	11,081,970

FISCAL ADVISORS & MARKETING, INC.

Chester UFSD

Estimated Aid Calculation By Building

SED Approval Date>>>		Woods Concept Chester Academy X-XXX-XXX 12/01/26	Baseball B Chester Academy X-XXX-XXX 12/01/26	Building 3 Building 3 0-004 12/01/26	Building 4 Building 4 0-005 12/01/26	Building 5 Building 5 0-006 12/01/26	Totals
Fiscal Year	Aid Ratio	15.0	15.0	15.0	15.0	15.0	
2028 - 2029	65.6%	415,327	415,327	$ 0	0	$ 0	$ 830,655
2029 - 2030	65.6%	415,327	415,327	0	0	0	830,655
2030 - 2031	65.6%	415,327	415,327	0	0	0	830,655
2031 - 2032	65.6%	415,327	415,327	0	0	0	830,655
2032 - 2033	65.6%	415,327	415,327	0	0	0	830,655
2033 - 2034	65.6%	415,327	415,327	0	0	0	830,655
2034 - 2035	65.6%	415,327	415,327	0	0	0	830,655
2035 - 2036	65.6%	415,327	415,327	0	0	0	830,655
2036 - 2037	65.6%	415,327	415,327	0	0	0	830,655
2037 - 2038	65.6%	415,327	415,327	0	0	0	830,655
2038 - 2039	65.6%	415,327	415,327	0	0	0	830,655
2039 - 2040	65.6%	415,327	415,327	0	0	0	830,655
2040 - 2041	65.6%	415,327	415,327	0	0	0	830,655
2041 - 2042	65.6%	415,327	415,327	0	0	0	830,655
2042 - 2043	65.6%	415,327	415,327	0	0	0	830,655
		$ 6,229,911	$ 6,229,911	$ 0	$ 0	$ 0	$ 12,459,821

FISCAL ADVISORS & MARKETING, INC.

Chester UFSD
Estimated Aid Calculation By Building

			Woods Concept Chester Academy X-XXX-XXX	Baseball B Chester Academy X-XXX-XXX
1	Commissioner's (SED) Approval Date		*12/01/26*	*12/01/26*
2	Earliest Aid Eligibility Date (CAD + 18 months)		06/01/28	06/01/28
3	Construction Contracts Signed		05/01/27	05/01/27
4	SA-139 Receipt Date		10/01/27	10/01/27
5	Final Cost Report Receipt Date		12/01/28	12/01/28
6	First Fiscal Year in Which Aid May be Received		2028-29	2028-29
7	Amount of Aid in First Year		Full Payment	Full Payment
8	Amount Reported - New Construction (30 Years)		$ 0	$ 0
9	Amount Reported - Additions (20 Years)		0	0
10	Amount Reported - Reconstruction (15 Years)		24,043,750	12,251,625
11	Total Actual Project Cost		$ 24,043,750	$ 12,251,625
12	Less: Budgetary Appropriations		0	0
13	Less: Smart Schools		0	0
14	Net Amount to Borrow		$ 24,043,750	$ 12,251,625
15	**Amount Allowed for New Construction (30 Years)**	*	$ 0	$ 0
16	**Amount Allowed for Additions (20 Years)**	*	0	0
17	**Amount Allowed for Reconstruction (15 Years)**	0.97	6,950,144	6,950,144
18	**Total Cost Eligible for Amortization**		$ 6,950,144	$ 6,950,144
19	Estimated Bond Percentage by Building		28.906%	56.728%
20	Estimated Composite Bond Percentage		38.298%	38.298%
21	Total Cost Eligible for Amortization		$ 6,950,144	$ 6,950,144
22	Assumed Capitalized Interest		263,074	263,074
23	Total Amount to be Amortized		$ 7,213,218	$ 7,213,218
24	State's Assumed PPU		15.0	15.0
25	State's Assumed Interest Rate		3.750%	3.750%
26	Full Year's "Assumed Debt Service"		$ 633,121	$ 633,121
27	Half Year's "Assumed Debt Service"		316,561	316,561
28	Building Aid Ratio (Tier 4) - Prelim 2025-26		65.6%	65.6%
29	Full Year's Aid		$ 415,327	$ 415,327
30	Half Year's Aid		207,664	207,664
31	Aid Receivable in First Year		$ 415,327	$ 415,327

* Note: This may be less than the amount reported if the contract amounts are over the maximum cost allowanc

FISCAL ADVISORS & MARKETING, INC.

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
SUMMARY OF OPTIONS

	Woods Concept Low	Woods Concept Middle	Woods Concept High	Baseball B
Amount	$ 18,225,050	$ 22,629,400	$ 24,033,750	$ 12,241,625
Capital Reserve	$ 4,100,000	$ 4,100,000	$ 4,100,000	$ 4,100,000
Amount Financed	$ 14,125,050	$ 18,529,400	$ 19,933,750	$ 8,141,625
% of Project Aidable	38.14%	30.71%	28.91%	56.73%
Avg Annual Tax Impact per $100,000 FV	$24.01	$54.35	$64.20	-$17.52
Avg Monthly Tax Impact per $100,000 F Full Value	$2.00	$4.53	$5.35	-$1.46
Avg Annual Tax Impact $ 340,000 Full Value	$81.62	$184.78	$218.27	-$59.58
Avg Monthly Tax Impact $ 340,000 Full Value	$6.80	$15.40	$18.19	-$4.97

All figures are estimated at this time.

Tax impact depends upon the amount and timing of building aid which cannot be determined until aidability is confirmed by NYSED.

FISCAL ADVISORS & MARKETING, INC.

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
WOODS CONCEPT LOW

Assumptions:

- Amount
  - Woods Concept Low Range $18,225,050
  - Capital Reserve $4,100,000
  - Amount to Finance $14,125,050
- Timing
  1. Voter approval Winter 2025
  2. SED submission Spring/Summer 2026
  3. SED approval Winter 2026
  4. Construction start Summer 2027
  5. Construction completion Summer 2028
  6. SA-139 is filed no later than 10/1/2027
  7. Final cost reports submitted to SED no later than 12/31/2028
  8. First full year of building aid 2028-29
- Financing:
  9. Bond Anticipation Notes issued 5 years: June 2027-31 Estimated @ 4.00%.
  10. Serial Bonds issued June 2032 Mature June 2033-2043. Estimated at 4.15%.
- Building Aid
  - Building Aid Ratio 65.60%
  - Percent of Project Aidable 38.14%
- District Valuations
  - Total Assessed Value 2024-2025 $503,182,101
  - Total Full Value 2024-2025 $1,277,746,870

(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Fiscal Year Ending June 30th	***Actual Bonds Outstanding***	***Actual Current Building aid***	***Actual Current Local Share***	***Estimated BAN Principal***	***Estimated BAN Interest***	***Estimated Addl BAN Principal***	***Estimated Bond Prin & Int***	***Less: Est. State Aid Amortization Payments****	***Estimated Local Share For This Project***	***TOTAL Local Share New Project & Prior Projects***	***Tax Increase Per $100,000 FV***
2025	1,644,050	1,104,861	539,189							539,189	
2026	1,643,300	1,104,861	538,439							538,439	
2027	1,639,550	1,104,861	534,689							534,689	
2028	1,637,800	1,104,861	532,939		400,000				400,000	932,939	31.17
2029	1,642,800	1,104,861	537,939	160,000	565,002			415,327	309,675	847,613	24.49
2030	1,639,050	1,104,861	534,189	240,050	558,602			415,327	383,325	917,513	29.96
2031	1,637,700	1,104,861	532,839	255,000	549,000			415,327	388,673	921,511	30.27
2032		1,104,861	(1,104,861)	270,000	538,800	1,600,000		415,327	1,993,473	888,611	27.70
2033		686,931	(686,931)				1,336,400	415,327	921,073	234,142	(23.52)
2034		168,288	(168,288)				1,335,918	415,327	920,590	752,302	17.03
2035		67,576	(67,576)				1,333,983	415,327	918,655	851,079	24.76
2036		67,576	(67,576)				1,335,595	415,327	920,268	852,692	24.89
2037		67,576	(67,576)				1,335,548	415,327	920,220	852,644	24.88
2038		67,576	(67,576)				1,333,840	415,327	918,513	850,937	24.75
2039		33,788	(33,788)				1,335,473	415,327	920,145	886,357	27.52
2040							1,335,238	415,327	919,910	919,910	30.15
2041							1,333,135	415,327	917,808	917,808	29.98
2042							1,334,165	415,327	918,838	918,838	30.06
2043							1,333,120	415,327	917,793	917,793	29.98
TOTALS	11,484,250	9,998,202		925,050	2,611,404		14,682,413	6,229,911	13,588,956		

Average Annual Tax Impact per $100,000 FV:	24.01
Average Monthly Tax Impact per $100,000 FV:	2.00
Maximum Annual Tax Impact per $100,000 FV:	31.17
Maximum Monthly Tax Impact per $100,000 FV:	2.60

Notes: - Bond Percentage is preliminary/estimated and may change based on actual scope of work performed. District needs to verify addition aidability with NYSED.
- Bond Percentage may be impacted by the Multi-Year Maximum Cost Allowance. Scope should be developed with consideration of the Maximum Cost Allowances and and possible overages which will impact the bond percentage/aidability of the projects.

* **- The timing of the receipt of building aid is based on the submission of the Certificate of Substantial Completion and the Final Cost Report which are estimated.**

FISCAL ADVISORS & MARKETING, INC.

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
WOODS CONCEPT MIDDLE

Assumptions:

- Amount
  - Woods Concept $22,629,400
  - Capital Reserve $4,100,000
  - Amount to Finance $18,529,400
- Timing
  1. Voter approval Winter 2025
  2. SED submission Spring/Summer 2026
  3. SED approval Winter 2026
  4. Construction start Summer 2027
  5. Construction completion Summer 2028
  6. SA-139 is filed no later than 10/1/2027
  7. Final cost reports submitted to SED no later than 12/31/2028
  8. First full year of building aid 2028-29
- Financing:
  9. Bond Anticipation Notes issued 5 years: June 2027-31 Estimated @ 4.00%.
  10. Serial Bonds issued June 2032 Mature June 2033-2043. Estimated at 4.15%.
- Building Aid
  - Building Aid Ratio 65.60%
  - Percent of Project Aidable 30.71%
- District Valuations
  - Total Assessed Value 2024-2025 $503,182,101
  - Total Full Value 2024-2025 $1,277,746,870

(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Fiscal Year Ending June 30th	***Actual Bonds Outstanding***	***Actual Current Building aid***	***Actual Current Local Share***	***Estimated BAN Principal***	***Estimated BAN Interest***	***Estimated Addl BAN Principal***	***Estimated Bond Prin & Int***	***Less: Est. State Aid Amortization Payments****	***Estimated Local Share For This Project***	***TOTAL Local Share New Project & Prior Projects***	***Tax Increase Per $100,000 FV***
2025	1,644,050	1,104,861	539,189							539,189	
2026	1,643,300	1,104,861	538,439							538,439	
2027	1,639,550	1,104,861	534,689							534,689	
2028	1,637,800	1,104,861	532,939		400,000				400,000	932,939	31.17
2029	1,642,800	1,104,861	537,939	164,400	741,176			415,327	490,249	1,028,187	38.62
2030	1,639,050	1,104,861	534,189	315,000	734,600			415,327	634,273	1,168,461	49.60
2031	1,637,700	1,104,861	532,839	330,000	722,000			415,327	636,673	1,169,511	49.68
2032		1,104,861	(1,104,861)	345,000	708,800	1,630,000		415,327	2,268,473	1,163,611	49.22
2033		686,931	(686,931)				1,813,418	415,327	1,398,090	711,159	13.81
2034		168,288	(168,288)				1,810,278	415,327	1,394,950	1,226,662	54.16
2035		67,576	(67,576)				1,810,270	415,327	1,394,943	1,327,367	62.04
2036		67,576	(67,576)				1,813,188	415,327	1,397,860	1,330,284	62.27
2037		67,576	(67,576)				1,808,823	415,327	1,393,495	1,325,919	61.92
2038		67,576	(67,576)				1,812,383	415,327	1,397,055	1,329,479	62.20
2039		33,788	(33,788)				1,813,453	415,327	1,398,125	1,364,337	64.93
2040							1,812,033	415,327	1,396,705	1,396,705	67.46
2041							1,813,123	415,327	1,397,795	1,397,795	67.55
2042							1,811,515	415,327	1,396,188	1,396,188	67.42
2043							1,812,210	415,327	1,396,883	1,396,883	67.48
TOTALS	11,484,250	9,998,202		1,154,400	3,306,576		19,930,690	6,229,911	19,791,755		

Average Annual Tax Impact per $100,000 FV:	54.35
Average Monthly Tax Impact per $100,000 FV:	4.53
Maximum Annual Tax Impact per $100,000 FV:	67.55
Maximum Monthly Tax Impact per $100,000 FV:	5.63

Notes: - Bond Percentage is preliminary/estimated and may change based on actual scope of work performed. District needs to verify addition aidability with NYSED.
- Bond Percentage may be impacted by the Multi-Year Maximum Cost Allowance. Scope should be developed with consideration of the Maximum Cost Allowances and and possible overages which will impact the bond percentage/aidability of the projects.

* **- The timing of the receipt of building aid is based on the submission of the Certificate of Substantial Completion and the Final Cost Report which are estimated.**

FISCAL ADVISORS & MARKETING, INC.

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
WOODS CONCEPT

Assumptions:

- Amount
  - Woods Concept $24,033,750
  - Capital Reserve $4,100,000
  - Amount to Finance $19,933,750
- Timing
  1. Voter approval Winter 2025
  2. SED submission Spring/Summer 2026
  3. SED approval Winter 2026
  4. Construction start Summer 2027
  5. Construction completion Summer 2028
  6. SA-139 is filed no later than 10/1/2027
  7. Final cost reports submitted to SED no later than 12/31/2028
  8. First full year of building aid 2028-29
- Financing:
  9. Bond Anticipation Notes issued 5 years: June 2027-31 Estimated @ 4.00%.
  10. Serial Bonds issued June 2032 Mature June 2033-2043. Estimated at 4.15%.
- Building Aid
  - Building Aid Ratio 65.60%
  - Percent of Project Aidable 28.91%
- District Valuations
  - Total Assessed Value 2024-2025 $503,182,101
  - Total Full Value 2024-2025 $1,277,746,870

(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Fiscal Year Ending June 30th	***Actual Bonds Outstanding***	***Actual Current Building aid***	***Actual Current Local Share***	***Estimated BAN Principal***	***Estimated BAN Interest***	***Estimated Addl BAN Principal***	***Estimated Bond Prin & Int***	***Less: Est. State Aid Amortization Payments****	***Estimated Local Share For This Project***	***TOTAL Local Share New Project & Prior Projects***	***Tax Increase Per $100,000 FV***
2025	1,644,050	1,104,861	539,189							539,189	
2026	1,643,300	1,104,861	538,439							538,439	
2027	1,639,550	1,104,861	534,689							534,689	
2028	1,637,800	1,104,861	532,939		400,000				400,000	932,939	31.17
2029	1,642,800	1,104,861	537,939	160,000	797,350			415,327	542,023	1,079,961	42.67
2030	1,639,050	1,104,861	534,189	338,750	790,950			415,327	714,373	1,248,561	55.87
2031	1,637,700	1,104,861	532,839	355,000	777,400			415,327	717,073	1,249,911	55.98
2032		1,104,861	(1,104,861)	375,000	763,200	1,500,000		415,327	2,222,873	1,118,011	45.65
2033		686,931	(686,931)				1,979,008	415,327	1,563,680	876,749	26.77
2034		168,288	(168,288)				1,981,510	415,327	1,566,183	1,397,894	67.56
2035		67,576	(67,576)				1,981,730	415,327	1,566,403	1,498,827	75.46
2036		67,576	(67,576)				1,979,668	415,327	1,564,340	1,496,764	75.29
2037		67,576	(67,576)				1,980,323	415,327	1,564,995	1,497,419	75.35
2038		67,576	(67,576)				1,978,488	415,327	1,563,160	1,495,584	75.20
2039		33,788	(33,788)				1,979,163	415,327	1,563,835	1,530,047	77.90
2040							1,982,140	415,327	1,566,813	1,566,813	80.78
2041							1,977,213	415,327	1,561,885	1,561,885	80.39
2042							1,979,588	415,327	1,564,260	1,564,260	80.58
2043							1,978,850	415,327	1,563,523	1,563,523	80.52
TOTALS	11,484,250	9,998,202		1,228,750	3,528,900		21,777,678	6,229,911	21,805,417		

Average Annual Tax Impact per $100,000 FV:	64.20
Average Monthly Tax Impact per $100,000 FV:	5.35
Maximum Annual Tax Impact per $100,000 FV:	80.78
Maximum Monthly Tax Impact per $100,000 FV:	6.73

Notes: - Bond Percentage is preliminary/estimated and may change based on actual scope of work performed. District needs to verify addition aidability with NYSED.
- Bond Percentage may be impacted by the Multi-Year Maximum Cost Allowance. Scope should be developed with consideration of the Maximum Cost Allowances and and possible overages which will impact the bond percentage/aidability of the projects.

* **- The timing of the receipt of building aid is based on the submission of the Certificate of Substantial Completion and the Final Cost Report which are estimated.**

FISCAL ADVISORS & MARKETING, INC.

CHESTER UNION FREE SCHOOL DISTRICT
Proposed Capital Project Summary
BASEBALL B

Assumptions:

- Amount
  - Woods Concept $12,241,625
  - Capital Reserve $4,100,000
  - Amount to Finance $8,141,625
- Timing
  1. Voter approval Winter 2025
  2. SED submission Spring/Summer 2026
  3. SED approval Winter 2026
  4. Construction start Summer 2027
  5. Construction completion Summer 2028
  6. SA-139 is filed no later than 10/1/2027
  7. Final cost reports submitted to SED no later than 12/31/2028
  8. First full year of building aid 2028-29
- Financing:
  9. Bond Anticipation Notes issued 5 years: June 2027-31 Estimated @ 4.00%.
  10. Serial Bonds issued June 2032 Mature June 2033-2043. Estimated at 4.15%.
- Building Aid
  - Building Aid Ratio 65.60%
  - Percent of Project Aidable 56.73%
- District Valuations
  - Total Assessed Value 2024-2025 $503,182,101
  - Total Full Value 2024-2025 $1,277,746,870

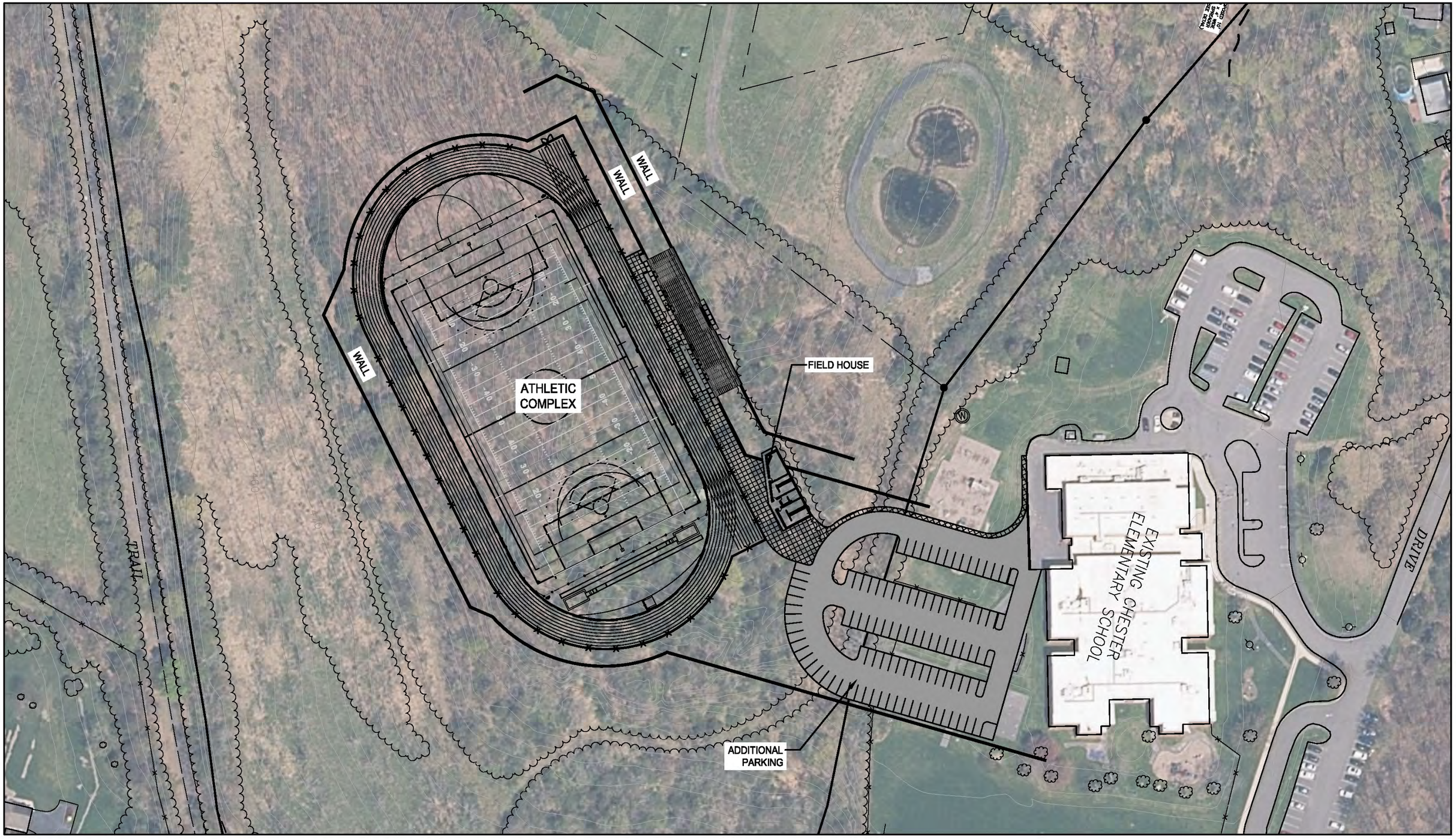
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Fiscal Year Ending June 30th	***Actual Bonds Outstanding***	***Actual Current Building aid***	***Actual Current Local Share***	***Estimated BAN Principal***	***Estimated BAN Interest***	***Estimated Addl BAN Principal***	***Estimated Bond Prin & Int***	***Less: Est. State Aid Amortization Payments****	***Estimated Local Share For This Project***	***TOTAL Local Share New Project & Prior Projects***	***Tax Increase Per $100,000 FV***
2025	1,644,050	1,104,861	539,189							539,189	
2026	1,643,300	1,104,861	538,439							538,439	
2027	1,639,550	1,104,861	534,689							534,689	
2028	1,637,800	1,104,861	532,939		325,665				325,665	858,604	25.35
2029	1,642,800	1,104,861	537,939	126,625	325,665			415,327	36,963	574,901	3.15
2030	1,639,050	1,104,861	534,189	135,000	320,600			415,327	40,273	574,461	3.11
2031	1,637,700	1,104,861	532,839	145,000	315,200			415,327	44,873	577,711	3.37
2032		1,104,861	(1,104,861)	150,000	309,400	1,600,000		415,327	1,644,073	539,211	0.35
2033		686,931	(686,931)				688,378	415,327	273,050	(413,881)	(74.24)
2034		168,288	(168,288)				690,118	415,327	274,790	106,502	(33.51)
2035		67,576	(67,576)				691,028	415,327	275,700	208,124	(25.56)
2036		67,576	(67,576)				686,108	415,327	270,780	203,204	(25.94)
2037		67,576	(67,576)				690,565	415,327	275,238	207,662	(25.59)
2038		67,576	(67,576)				688,985	415,327	273,658	206,082	(25.72)
2039		33,788	(33,788)				686,575	415,327	271,248	237,460	(23.26)
2040							688,335	415,327	273,008	273,008	(20.48)
2041							689,058	415,327	273,730	273,730	(20.42)
2042							688,743	415,327	273,415	273,415	(20.45)
2043							687,390	415,327	272,063	272,063	(20.55)
TOTALS	11,484,250	9,998,202		556,625	1,596,530		7,575,280	6,229,911	5,098,524		

Average Annual Tax Impact per $100,000 FV:	(17.52)
Average Monthly Tax Impact per $100,000 FV:	(1.46)
Maximum Annual Tax Impact per $100,000 FV:	25.35
Maximum Monthly Tax Impact per $100,000 FV:	2.11

Notes: - Bond Percentage is preliminary/estimated and may change based on actual scope of work performed. District needs to verify addition aidability with NYSED.
- Bond Percentage may be impacted by the Multi-Year Maximum Cost Allowance. Scope should be developed with consideration of the Maximum Cost Allowances and and possible overages which will impact the bond percentage/aidability of the projects.

* **- The timing of the receipt of building aid is based on the submission of the Certificate of Substantial Completion and the Final Cost Report which are estimated.**

FISCAL ADVISORS & MARKETING, INC.

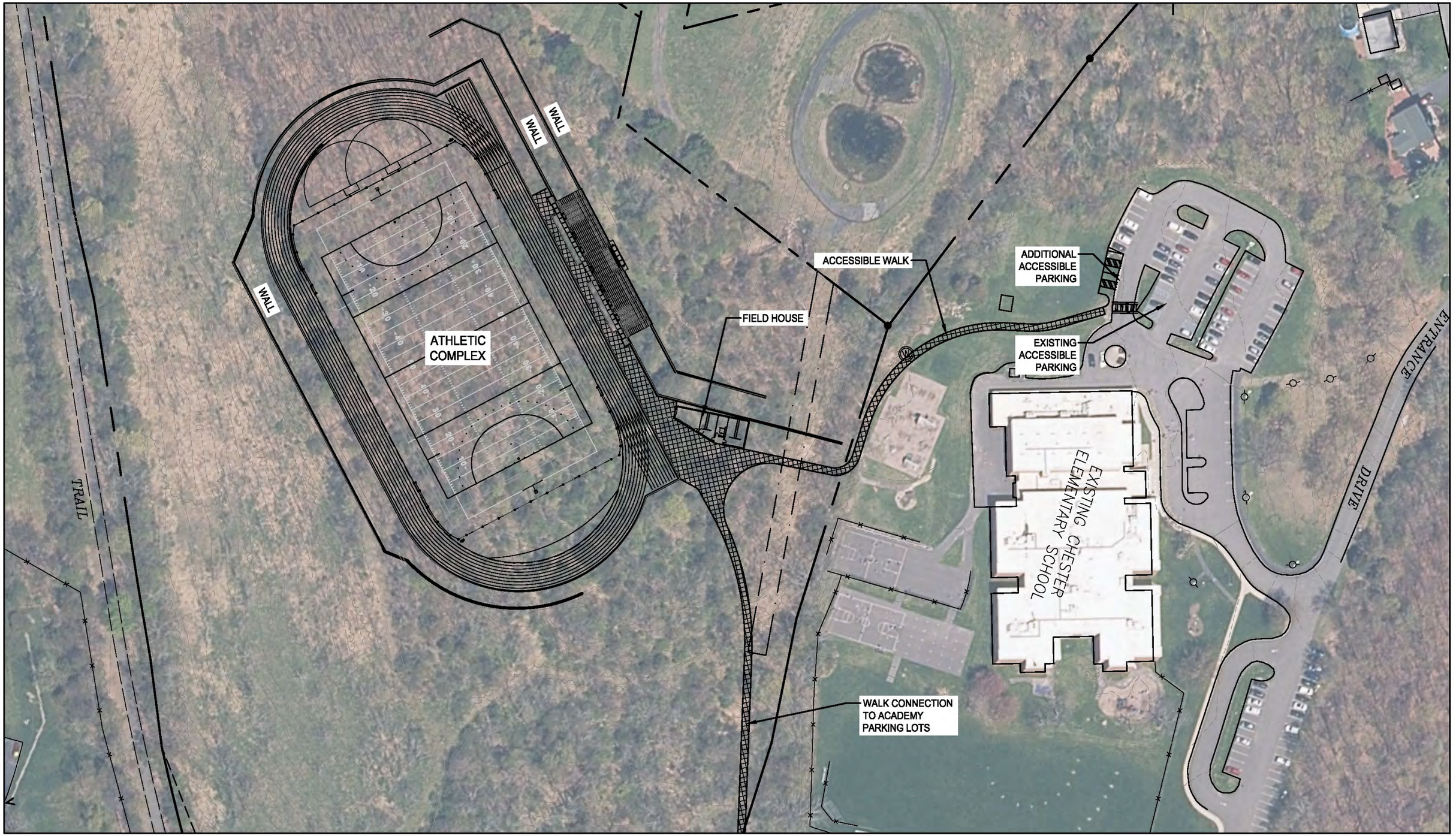


CHESTER UNION FREE SCHOOL DISTRICT

Woodland Site Original Concept Plan 'A'

SCALE: 1" = 100'-0"
DATE: 09.14.2024

The LA GROUP LAN ASSOCIATES

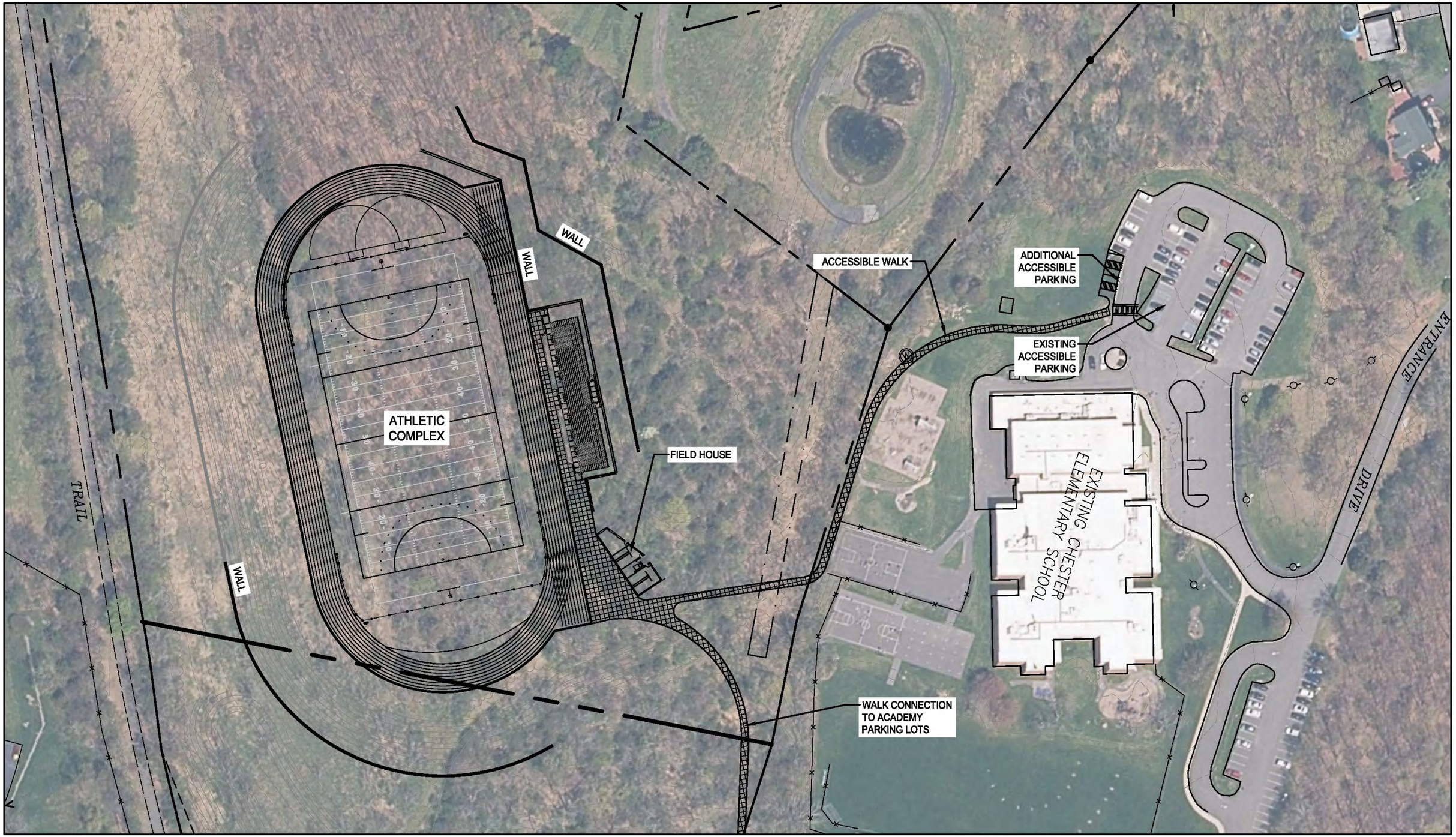


CHESTER UNION FREE SCHOOL DISTRICT

Woodland Site Original Concept Plan 'B'

SCALE: 1" = 100'-0"
DATE: 04.29.2025

The LA GROUP LAN ASSOCIATES



CHESTER UNION FREE SCHOOL DISTRICT

Woodland Site Original Concept Plan 'C'

SCALE: 1" = 100'-0"

DATE: 04.29.2025

The LA GROUP LAN ASSOCIATES

CHESTER UNION FREE SCHOOL DISTRICT

Existing Baseball Field Concept Plan A

SCALE: 1" = 100'-0"
DATE: 11.07.2024

The LA GROUP LAN ASSOCIATES

CHESTER UNION FREE SCHOOL DISTRICT

Existing Baseball Field Concept Plan B

SCALE: 1" = 100'-0"
DATE: 11.07.2024

The LA GROUP LAN ASSOCIATES