
Wetland Assessment Report

Oakwood Park

***1700 & 1800 Asylum Avenue
West Hartford, Connecticut***

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Wetland Assessment

This document is submitted in accordance with the Connecticut Inland Wetlands and Watercourses Act (Section 22a-36 through 22a-45 of the Connecticut General Statutes) and in accordance with the Inland Wetlands and Watercourses Regulations of the Town of West Hartford, Connecticut.

Introduction

The Applicant, WEHA Development Group East LLC respectfully seeks approval from the Town of West Hartford Inland Wetlands and Watercourses Agency (“Agency”) for a redevelopment known as Oakwood Park. This project is comprised of two adjacent parcels identified as 1700 Asylum Avenue and 1800 Asylum Avenue in West Hartford, Connecticut. The two parcels are located along the north side of Asylum Avenue and south side of Lawler Road separated by Trout Brook Drive: 1700 Asylum Avenue contains ±23.866 acres developed by a large bituminous parking field associated with the former UConn Greater Hartford Campus and municipal ballfields and 1800 Asylum Avenue contains ±33.512 acres developed with various former UConn campus, administrative buildings and associated infrastructure. The Sites are surrounded by residential development with Lawler Road to the north and the University of Saint Joseph’s campus along the eastern side of 1700 Asylum Avenue.

The following two parcels, referenced as the “Site” or “Subject Property”, have been assembled to form the Oakwood Park project.

- Map No. F6, Block No. 0181, Lot No. 1700
- Map No. F6, Block No. 0181, Lot No. 1800

Both parcels that make up Oakwood Park are Zoned R-10, a residential district.

Separate wetland permit applications have been filed by the Applicant for proposed regulated activities on the two respective parcels, 1700 Asylum Avenue and 1800 Asylum Avenue. This Wetland Assessment Report encompasses the entire Oakwood Park project with resource and regulated activity discussions distinguished on the two separate parcels to align with the separate wetland applications.

The proposed redevelopment of 1700 Asylum Avenue consists of a residential development including four (4) multi-story residential buildings (Buildings A-D) with associated parking facilities, and outdoor amenity spaces for residences.

Existing baseball fields located in the southern portion along Asylum Avenue will remain undisturbed. Driveway access will directly connect to Trout Brook Drive allowing for vehicular access from this roadway only.

The proposed redevelopment of 1800 Asylum Avenue includes a grocery store (Building 1), two (2) mixed use buildings to include restaurants, retail, and residential space (Buildings 2-4) in addition to a Spa (Building 4), assisted living building (Building 6), and town homes along Asylum Avenue (Buildings 7A-7J) and Lawler Road (Buildings 8A-8D). Access to the various facilities and amenities proposed at 1800 Asylum Avenue will be provided by an access drive that will contain signalized accesses onto both Trout Brook Drive and Asylum Avenue with a third emergency access drive from Lawler Road. The signalized access onto Trout Brook Drive will also align with the access drive to the 1700 Asylum Avenue development. The redevelopment of both parcels will also include necessary parking facilities, extension of public utilities, and the construction of new stormwater management systems.

Parking facilities and outdoor amenity spaces for the entire Oakwood Park will also be available to the project's residences, patrons, and surrounding neighborhood. The outdoor amenity spaces will include the extension of the Trout Brook trail along the frontage of 1800 Asylum Avenue along with walking trails and observation decks to enjoy the wetland and aquatic habitats throughout the property.

Historically the Site parcels were utilized for agricultural purposes until developed in 1964 when it was developed and operated by the University of Connecticut's Greater Hartford Campus until 2017. 1700 Asylum Avenue is dominated by a large vacant parking lot on the west side of St. Joseph's Brook and municipal ballfields on the east side of the brook. The 1800 Asylum Avenue parcel consists of several institutional buildings (some have been recently demolished), parking lots, numerous concrete sidewalks, large expanses of maintained lawn, and landscaping.

The 1700 Asylum Avenue parcel's wetlands are dominated by St. Joseph's Brook which is confined within an incised channel that is mostly bordered by maintained lawn and very narrow bordering forested wetlands. The lack of bordering wetlands is the result of historic agricultural usage of the property along with more recent history as a UConn campus parking lot and municipal ballfields. A broader forested wetland area (identified as Wetland 7 for the purposes of this report) is located just north and northeast of the large parking field.

Wetlands are present throughout the 1800 Asylum Avenue parcel primarily consisting of "maintained wetland lawn" or "developed wetland" type wetland area. A relatively large wetland feature (Wetland 1) is located in the far western side of this parcel characterized by maintained lawn with some scattered trees and shrubs. In addition, two man-made pond/stormwater basin features (Wetland 3)

are centrally located within the interior of the former UConn campus. East Branch Trout Brook is present in the far eastern side of this parcel immediately west of Trout Brook Drive. East Branch Trout Brook is confined within steeply incised man-made banks as the stream channel was moved in the mid-1960s with the UConn campus development. The man-made ponds discharge to the south through a culvert drop structure into an unnamed perennial channelized watercourse that is bordered by maintained lawn areas to both the east and west. This stream converges with East Branch Trout Brook in the southeast corner of the parcel where it flows east through a box culvert under Trout Brook Drive and into St. Joseph's Brook on the adjacent 1700 Asylum Avenue parcel.

Alterations to the on-Site wetlands and open water resources have occurred historically with the agricultural site use and recently with the development of the UConn Greater Hartford Campus. The relocation and channelization of streams, extensive grading and filling of wetland areas, creation of man-made wetlands and construction of two small ponds that primarily serve as stormwater basins treating runoff from the former UConn campus have occurred across both of the 1700 and 1800 Asylum Avenue parcels. These historic disturbances have significantly impacted the ecological integrity of the wetland and open water resources and resulted in the classification of "Developed Wetlands" per the Town of West Hartford Inland Wetlands and Watercourses regulations. By this definition a "Developed Wetland" is a wetland which has been disturbed, filled, and developed.

In order to accommodate the proposed redevelopment's building program, various layouts were considered to avoid and minimize impacts to wetland and watercourse resources. With the wide distribution of wetlands across the Sites, extensive developable areas suitable for a large redevelopment such as Oakwood Park without any wetland resource impacts just do not exist. As a result, outright avoidance of wetland impacts is not possible, so the design team focused on minimizing wetland impacts to the greatest degree possible and then made it a priority of the development program to incorporate various mitigation strategies to create, restore, and enhance wetland habitats. Typically, this iterative minimization design process would include prioritizing avoidance of impacts to wetland resources that are the least disturbed and those that support higher levels of wetland functions and values. Although no such high value wetland resources exist on the Subject Property, from a comparative standpoint Wetland 6 and the associated St. Joseph's Brook supports more functions and values than the site's other wetland resources. With one very minor exception to a small isolated and man-made wetland, none of the Oakwood Park buildings or parking areas will directly impact wetlands or watercourses including Wetland 6/St. Joseph's Brook.

To compensate for unavoidable direct wetland impacts and activities within the 150-foot Upland Review Area, a comprehensive mitigation plan has been designed to compensate for these unavoidable impacts with the creation of new wetlands, restoration of developed lawn wetlands, enhancements to riparian corridors, enhancements to developed lawn upland buffers, and establishment of

a wetland walking trail with interactive signage. As a result of the comprehensive mitigation plan, the project's proposed regulated activities will be properly balanced as created wetlands, restored wetlands, enhanced buffers, and enhanced riparian corridors which provide higher function and value services than those being lost. As a result, the project will not diminish the wetland resources within the Town of West Hartford either on Site or downstream of the Site and will provide an overall benefit to those resources.

Location Description

The two parcels that comprise the Site total ±57.378 acres. Located off Asylum Avenue, Trout Brook Drive, and Lawler Road in West Hartford, Connecticut, the Site is currently vacant with existing parking and infrastructure associated with the former site use, the University of Connecticut Greater Hartford Campus.

The following 2 parcels have been assembled to form the Site.

- 1700 Asylum Avenue: Map No. F6, Block No. 0181, Lot No. 1700
- 1800 Asylum Avenue: Map No. F6, Block No. 0181, Lot No. 1800

Both parcels are zoned residential (R-10) and primarily surrounded by residential development with the exception of the University of Saint Joseph, located to the east of 1700 Asylum Avenue.

The Site primarily consists of maintained lawn, impervious surfaces associated with parking areas, sidewalks and building infrastructure. Wetlands occupy significant areas across both parcels with maintained lawn wetlands in the eastern and western portions of the 1800 Asylum Avenue and a large riparian corridor with bordering forested and disturbed/developed wetlands along the eastern and northern portions of 1700 Asylum Avenue.

A Site Location Map and Existing Conditions Map (depicting existing Site and wetland conditions) are provided in the Figures Attachment. Representative photographs of the Site and nearby wetlands are provided in Attachment A.

Site Vicinity

The Sites are located along the northern side of Asylum Avenue, southern side of Lawler Road and divided by Trout Brook Drive. Lincoln Avenue borders the western side of 1800 Asylum Avenue and University of Saint Joseph borders the eastern side of 1700 Asylum Avenue.

The following is a summary of properties, and their observed uses, which about the Site.

North – Lawler Road and residential properties

East – University of Saint Joseph (1700 Asylum Avenue)

South – Asylum Avenue and residential properties

West – Lincoln Avenue and residential properties

Mapped Soil Types

Digitally available updated soil survey information was reviewed from the Natural Resources Conservation Service (“NRCS”). Soil classifications present on the Site have developed primarily in fine textured glaciolacustrine (glacial lakebed) parent material and were field verified and classified as follows:

Wetland Soils (Soil Unit #):

- Scitico soil (9)
- Shaker soil (9)
- Maybid soil (9)
- Aquents (17)

The wetland soils found on the subject property are dominated by poorly drained and very poorly drained **Scitico, Shaker, and Maybid** soils. The Scitico, Shaker, and Maybid series is a combination of three separate soil series with the Scitico and Shaker described as poorly drained soils, which were identified in the field, and the Maybid described as very poorly drained, which was not identified on the subject property. The Scitico series consists of very deep, poorly drained soils formed in silty and clayey sediments. They are nearly level to very gently sloping soils in low-lying positions of glaciolacustrine and marine terraces. Slope ranges from 0 to 5 percent. Permeability is moderate to moderately slow in the surface layer, moderately slow or slow in the upper part of the subsoil, slow or very slow in the lower part of the subsoil, and very slow in the substratum. The Shaker series consists of very deep, poorly drained soils formed in loamy over clayey sediments. They are nearly level to gently sloping soils in low-lying positions on glaciolacustrine and marine terraces. Permeability is moderately rapid in the upper loamy horizons and slow or very slow in the lower clayey horizons.

Some disturbed soils were mapped as wetland soils because they exhibited wetland characteristics and therefore were mapped as **Aquents**. Aquents is a miscellaneous soil type used to denote man-made or man-disturbed areas that are wet. These soils have an aquic soil moisture regime and can be expected to support hydrophytic vegetation. Typically, these soils occur in places where less

than 2 feet of earthen material have been placed over poorly or very poorly drained soils; areas where the natural soils have been mixed so that the natural soil layers are not identifiable; or where the soil materials have been excavated to the water table.

Upland soils (Soil Unit #):

- Brancroft silt loam (25)
- Brancroft-Urban land complex series (225)
- Udorthents-Urban land complex (306)

The majority of the upland mapped soils consist of the **Udorthent-Urban land complex series**. This series is used to describe soils that have been substantially disturbed including areas that have been excavated or filled by at least 2 feet. Paved areas and buildings are included within this soil mapping unit.

The remaining portion of upland soils present on the subject property consists of the **Brancroft and Brancroft-Urban land complex series**. The Brancroft series consists of very deep, moderately well drained and somewhat poorly drained soils formed in silty and clayey glacial lacustrine deposits. They are nearly level to moderately steep soils on slightly elevated positions of lacustrine terraces. Slope ranges from 0 to 25 percent. Permeability is moderate or moderately slow in the surface layer, moderately slow or slow in the upper part of the subsoil, slow or very slow in the lower part of the subsoil, and very slow in the substratum. The Urban land complex portion of the Brancroft series indicates disturbed areas of the mapped soils with characteristics and soil profiles similar to the previously described soil series.

These soil types were generally confirmed during wetland investigations performed during winter 2023 as noted in APT's Wetland and Watercourse Delineation Report, dated June 29, 2023 submitted under separate cover.

Rare Species Habitat

A review of the Connecticut Department of Energy & Environmental Protection ("DEEP") Natural Diversity Data Base ("NDDB") map, dated June 2023, for the Town of West Hartford reveals no populations of State Listed Endangered, Threatened, or Special Concern species occurring on or in the vicinity of the Site. The nearest NDDB polygon is located ± 0.6 mile to the west. Since the Site is not located within a NDDB buffer area, consultation with NDDB is not required in accordance with their review policy. Due to the historic disturbances and development both within and surrounding the identified wetland resource and its current urbanized setting, it is unlikely this wetland supports any rare species habitat. As a result, the project will not affect State-listed rare species.

Flood Hazard Areas

United States Federal Emergency Management Agency (“FEMA”) Flood Insurance Rate Maps (“FIRM”) were reviewed for the Site. The site is located within Flood Zone X (unshaded) and Flood Zone AE per FEMA Flood Insurance Rate Maps 09003C0361F and 09003C0363F, both effective Septembers 26, 2008. Based on review of the FIRMs, the majority of the Site is located within an unshaded Zone X, areas beyond the 100-year and 500-year flood hazard zones.

Replacement of existing culverts along Trout Brook Drive is currently being undertaken by the Town of West Hartford and is anticipated to be constructed in 2024. This includes the culvert heading southeast under Trout Brook Drive, under the former UConn driveway adjacent to Trout Brook Drive, and under Lindy Lane. In consultation with the Town of West Hartford’s consultant, once construction is complete the FEMA Floodplain on 1700 Asylum Avenue will be removed from the developed area, the 1800 Asylum Avenue floodplain mapping will remain. Proposed buildings will avoid encroachment into the floodplain with only a small portion of parking falling within these areas. The need for compensatory flood storage is addressed under separate cover by BL Companies.

A Flood Hazard Map provided in the Figures Attachment depicts the 100-year and 500-year Flood Zones.

Wetland Description and Evaluation

The wetlands and open water resources that occupy the subject property look very different today than they did in the past. Alterations associated with more historic agricultural uses of this property and more recent development as the former UConn Greater Hartford Campus included most notably relocation and channelization of streams, extensive grading and filling of wetland areas, creation of man-made wetlands, and construction of two small ponds. These historic development and wetland resource alteration activities have significantly impacted the ecological integrity of the wetland and stream resources that currently exist on the subject property. As a result of these historic disturbances, all of the wetland resources on the subject property are classified as “Developed Wetlands” per the Town of West Hartford Inland Wetlands and Watercourses regulations; by definition, a “Developed Wetland” is a wetland which has been disturbed, filled and developed.

Historic disturbance on both Sites is evident in aerial photography beginning between 1934 and through 1986 with the development of the UConn Greater Hartford Campus. Prior to this development the land was utilized for agricultural purposes with surrounding residential subdivisions encompassing the Sites prior to

1951. Historic aerial photographs from 1934, 1951, 1970, and 1986 are available for viewing the progression of development on the Site in the Figures Attachment.

Wetlands on the 1700 Asylum Avenue parcel are dominated by St. Joseph's Brook which is confined within an incised channel that is mostly bordered by maintained lawn and very narrow bordering forested wetlands as a result of a large parking field associated with the former UConn Campus to the west and municipal ballfields to the east. A broader forested wetland area (Wetland 6) is located just north and northeast of the large parking field.

Wetlands present on the 1800 Asylum Avenue parcel consist mostly of maintained 'wetland lawn'. A relatively large wetland feature (Wetland 1) is located in the far western side of this parcel characterized by maintained lawn with some scattered trees and shrubs. In addition, two man-made pond features (Wetland 3) are located centrally on the 1800 Asylum Avenue parcel surrounded by the former UConn Campus facilities and East Branch Trout Brook is present in the far eastern side of this parcel immediately west of Trout Brook Drive. East Branch Trout Brook is confined within steeply incised man-made banks. The man-made ponds discharge through a culvert drop structure into an unnamed perennial channelized stream that is bordered by maintained lawn areas to both the east and west, most of which are classified as "Developed Wetlands".

A full description of wetland resource areas is provided in APT's Wetland and Watercourse Delineation Report, dated June 26, 2023 provided under separate cover. A Wetland Inspection Map (depicting delineated wetlands and watercourses) are provided in the Figures Attachment.

Wetland Resource Area Delineation

APT registered soil scientists Dean Gustafson, Emily Perko, and Matthew Gustafson performed field inspections on March 6, 2023 and June 26, 2023 for the purposes of reviewing previous wetland delineations performed by others in order to establish and flag jurisdictional wetland boundaries for proposed redevelopment of this site. The wetland boundaries were delineated in accordance with both the Connecticut Inland Wetlands and Watercourses Act ("IWWA") regulations and the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (January 2012; "Corps Manual"). The results of this wetland investigation are summarized in the discussions below.

The jurisdictional wetland boundaries were officially adopted through a wetland map amendment process approved on September 6, 2023 by the Agency.

Federal and State Wetlands

The Corps Manual defines wetlands as “[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

The Connecticut IWWA defines wetlands as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. Intermittent watercourse determinations are based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus; (2) the presence of standing or flowing water for a duration longer than a particular storm incident; and (3) the presence of hydrophytic vegetation.

For descriptive purposes, a total of six (6) wetlands were identified on Site including two perennial watercourses and an intermittent stream. The Existing Wetland Resources map provided in the Figures Attachment depicts the various delineated wetland resources. The project Site Plans, provided under separate cover, also show these delineated resources along with the associated Upland Review Areas.

Wetland Evaluation

There are many methods of evaluating wetlands, all incorporating different parameters to assess these resources. This study uses methodology recommended by the Corps, *The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach* issued by the Corps, dated September 1999. This evaluation provides a qualitative approach in which wetland functions can be considered Principal, Secondary, or unlikely to be provided at a significant level. Functions and values can be Principal if they are an important physical component of a wetland ecosystem (function only), and/or are considered of special value to society, from a local, regional, and/or national perspective. The Corps recommends that wetland values and functions be determined through “best professional judgment” based on a qualitative description of the physical attributes of wetlands and the functions and values exhibited.

The basis for determination of this qualitative approach relies on over 30 years of field experience and extensive knowledge of other scientific methods used for wetland evaluation purposes.

These functions and values can be grouped into four basic categories as follows:

Biological Functions

Fish and Shellfish Habitat — This function considers the effectiveness of seasonal or permanent waterbodies associated with the wetland in question for fish and shellfish habitat.

Wildlife Habitat — This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered. Species lists of observed and potential animals should be included in the wetland assessment report.

Production Export (Nutrient) — This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.

Hydrologic Functions

Floodflow Alteration (Storage & Desynchronization) — This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.

Groundwater Recharge/Discharge — This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where groundwater can be discharged to the surface.

Water Quality Functions

Sediment/Toxicant/Pathogen Retention — This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens.

Nutrient Removal/Retention/Transformation — This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

Sediment/Shoreline Stabilization — This function relates to the effectiveness of a wetland to stabilize streambanks and shorelines against erosion.

Societal Values

Recreation (Consumptive and Non-Consumptive) — This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive recreational activities. Consumptive activities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland, whereas non-consumptive activities do not.

Educational/Scientific Value — This value considers the effectiveness of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.

Uniqueness/Heritage — This value relates to the effectiveness of the wetland or its associated waterbodies to produce certain special values. Special values may include such things as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.

Visual Quality/Aesthetics — This value relates to the visual and aesthetic qualities of the wetland.

Threatened or Endangered Species Habitat — This value relates to the effectiveness of the wetland or associated waterbodies to support threatened or endangered species.

The degree to which a wetland provides each of these functions is determined by one or more of the following factors: landscape position, substrate, hydrology, vegetation, history of disturbance, and size. Each wetland may provide one or more of the listed functions at Principal levels.

The determining factors that affect the level of function provided by a wetland can often be broken into two categories. The effectiveness of a wetland to provide a specified function is generally dependent on factors within the wetland whereas the opportunity to provide a function is often influenced by the wetland’s position in the landscape and adjacent land uses. For example, a depressed wetland with a restricted outlet may be considered highly effective in trapping sediment due to the long residence time of runoff water passing through the system. If this wetland is located in gently sloping woodland, however, there is no significant source of sediment in the runoff therefore the wetland is considered to have a small opportunity of providing this function.

Table 1 provides a summary of functions and values supported by wetlands identified on the Site.

Table 1 - Wetlands Functions and Values Summary

| Wetland I.D. Number | Groundwater Recharge/ Discharge | Floodflow Alteration | Fish & Shellfish Habitat | Sediment/Toxicant/ Pathogen Retention | Nutrient Removal/Retention/ Transformation | Production Export | Sediment/Shoreline Stabilization | Wildlife Habitat | Recreation | Educational/Scientific Value | Uniqueness/Heritage | Visual Quality/Aesthetics | Endangered Species Habitat |
|--------------------------------------|---------------------------------|----------------------|--------------------------|---------------------------------------|--|-------------------|----------------------------------|------------------|------------|------------------------------|---------------------|---------------------------|----------------------------|
| 1700 Asylum Avenue | | | | | | | | | | | | | |
| 6 | P | P | - | P | P | S | P | S | - | - | - | - | - |
| St. Joseph's Brook | P | P | S | P | P | S | P | S | - | - | - | - | - |
| 1800 Asylum Avenue | | | | | | | | | | | | | |
| 1 | P | - | - | - | S | - | - | - | - | - | - | - | - |
| 1A | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2 | P | - | - | - | S | - | - | - | - | - | - | - | - |
| 3 | S | P | S | P | - | - | S | S | S | - | - | S | - |
| 4 | P | - | - | - | S | - | - | - | - | - | - | - | - |
| 5 | P | - | - | - | S | - | - | - | - | - | - | - | - |
| East Branch Trout Brook | P | P | S | P | P | S | P | S | - | - | - | - | - |
| P = Principal Function/Value | | | | | | | | | | | | | |
| S = Secondary Function/Value | | | | | | | | | | | | | |
| - = Not a Significant Function/Value | | | | | | | | | | | | | |

Developed Lawn Wetlands 1, 1A, 2, 4 & 5 – Several of the wetlands share similar soils, hydrology, and vegetative characteristics with the most obvious physical characteristic being maintained lawn areas. These similar wetlands include Wetlands 1, 2, 4, and 5. Wetland 1A is included in this group but differs in that it was unintentionally created during relatively recent demolition activities due to impoundment of surface water that is surrounded by a former building foundation and paved walkway. Significant disturbance has occurred to these developed wetland areas both from historic agricultural use and then more prominently in the mid-1960s with the UConn campus development. The ecological integrity of these wetlands has been significantly impacted by historic and more current developments which diminishes the capacity to support

functions and values. The principal functions and values of these wetlands include:

- Groundwater discharge
- Sediment and toxicant removal

Wetland 3 – The ponds are a man-made impoundment that allows sediment and toxicant from stormwater discharges from the former campus to settle out. This open water feature also provides aesthetic value, which was likely a secondary consideration when the ponds were created during the initial campus development. The principal functions and values of this feature include:

- Flood flow alteration
- Local habituated wildlife habitat
- Sediment and toxicant removal
- Visual quality/aesthetics

Riparian Systems & Wetland 6 – The East Branch Trout Brook, St. Joseph's Brook, and the forested wetland bordering St. Joseph's Brook (Wetland 6) share similar characteristics, anthropogenic morphologies, and vegetative communities so are described here as one wetland community type that support similar functions and values. The banks of these perennial watercourses have been extensively disturbed and armored and contain minimal bordering wetland soils. Although disturbed and altered, these watercourses may provide limited habitat for warm water fisheries, particularly during seasonal high flow periods. With stormwater inputs and developed watershed contributing to these stream systems, water quality is likely impaired affecting the ability to support higher quality fisheries habitat. Similarly, these riparian systems also support lower quality wildlife habitat and are limited to those species that tolerate impaired water quality and habituated to higher levels of surrounding human activity. The principal functions and values of this feature include:

- Flood flow alteration
- Local habituated wildlife habitat
- Sediment and toxicant removal

Proposed Regulated Activities and Impact Analysis

The proposed project consists of redevelopment of 1700 Asylum Avenue including a residential development of four (4) multi-story residential buildings with associated parking facilities, and outdoor amenity spaces for residences. Existing baseball fields located in the southern portion along Asylum Avenue will remain undisturbed. Driveway access will directly connect to Trout Brook Drive allowing for vehicular access from this roadway only. For 1800 Asylum Avenue, the proposed development includes a grocery store, two (2) mixed use buildings

to include restaurants, retail, and residential space in addition to a Spa, assisted living building, and town homes. Access to the various facilities and amenities proposed at 1800 Asylum Avenue will be provided by an access drive that will contain signalized accesses onto both Trout Brook Drive and Asylum Avenue with a third emergency access drive from Lawler Road. The signalized access onto Trout Brook Drive will also align with the access drive to the 1700 Asylum Avenue development. The redevelopment of both parcels will also include necessary parking facilities, extension of public utilities, and the construction of new stormwater management systems. Outdoor amenity space will also be available to residence and surrounding community. The outdoor amenity space includes the extension of the Trout Brook trail along the frontage of 1800 Asylum Avenue and onsite walking paths throughout the property including paths through one of the developed lawn wetlands (Wetland 4).

The following section summarizes development activities classified as “regulated activities” as defined by the Agency’s regulations and for which permit applications have been submitted to the Agency; separate applications have been filed for 1700 Asylum Avenue and 1800 Asylum Avenue. This section addresses the criteria of sections 7.5 and 7.6, by providing a detailed science-based discussion of the regulated activities and the project’s impacts to the functions and values they support.

All proposed activities in and around wetlands, including the 150-foot Upland Review Area to wetlands are depicted graphically on the Regulated Activities Map provided in the Figures Attachment. Details of the proposed regulated activities are also shown on the project Site Plans, prepared by BL Companies, and submitted under separate cover.

The fundamental concept of wetland impact analysis is based on the precept that wetland impacts should first be avoided where possible. Secondly, if practicable alternatives do not exist to avoid wetland impacts, then impacts should be minimized. Thirdly, unavoidable wetland impacts should be mitigated.

The proposed Facility redevelopments have been designed to the extent possible to avoid impact to wetland resource areas and minimize development in the 150-foot Upland Review Areas while satisfying the building program needs of Oakwood Park. Due to the extent of wetlands located throughout both 1700 Asylum Avenue and 1800 Asylum Avenue and the resulting 150-foot Upland Review Areas that dominate both parcels, complete avoidance of direct wetland impacts and encroachment into the Upland Review Area is not possible. Any reasonable redevelopment program of these properties would result in some level of regulated activities.

Direct Wetland Impacts

1700 Asylum Avenue

The proposed redevelopment of 1700 Asylum Avenue consists of a residential development including four (4) multi-story residential buildings (Buildings A-D) with associated parking facilities, and outdoor amenity spaces for residences.

Redevelopment of the existing large, paved parking field will in large part avoid direct impacts to Wetland 6/St. Joseph's Brook. However, in order to accommodate one outfall from the stormwater management system's discharge of treated stormwater, direct impact (both temporary and permanent) would occur. During the alternatives analysis process, which included extensive discussions with town staff and the town's peer reviewer, a total of four stormwater outfalls were eliminated from the previous redevelopment plan that was submitted to the town on June 30, 2023. Also, buffer areas to Wetland 6/St. Joseph's Brook have significantly expanded during this review period.

Direct permanent and temporary wetland impacts would be associated with the following resource areas on 1700 Asylum Avenue:

- Wetland 6: STRC-21 (aligned with existing stormwater outfall into a man-made drainage ditch)

1800 Asylum Avenue

The proposed redevelopment of 1800 Asylum Avenue includes a grocery store (Building 1), two (2) mixed use buildings to include restaurants, retail, and residential space (Buildings 2-4) in addition to a Spa (Building 4), assisted living building (Building 6), and town homes along Asylum Avenue (Buildings 7A-7J) and Lawler Road (Buildings 8A-8D).

Redevelopment of the former UConn campus minimizes but does not avoid direct impacts to all wetlands on this parcel. Wetland 1A, a small, isolated, and man-made wetland will be filled in association with Building 5's parking area on the 1800 Asylum Avenue parcel. In order to accommodate outfalls from the stormwater management system's discharge of treated stormwater and provide a sidewalk along Asylum Avenue on the 1800 Asylum Avenue parcel, direct impacts (both temporary and permanent) to Wetlands 1, 3, 4 will occur. In addition, the existing pedestrian bridge that spans over Wetland 3 requires replacement resulting in some minor direct impacts associated with the bridge's new footings, which will be placed within areas currently disturbed by the existing bridge.

Providing public access to Oakwood Park and improving social values to the Site's wetland resources in the form of pedestrian walkways (Wetland 4), wooden viewing platforms (placed just outside of wetland areas), and sidewalk along Asylum Avenue (Wetland 1), an important focus of the project's public amenities incorporated into the overall wetland mitigation program, will result in additional

direct wetland impacts (both temporary and permanent). During the alternatives analysis process, which included extensive discussions with town staff and the town's peer reviewer, a total of four stormwater outfalls were eliminated from the previous redevelopment plan. Also, the wetland trail originally included Wetlands 1 and 2 but has now been eliminated based on review comments and will no longer impact those wetlands. The wetland trail along the west side of Wetland 4 was shifted to the wetland edge to avoid habitat fragmentation and significantly reduced in length, viewing platforms were moved from within Wetland 4 to adjacent areas in the uplands. These effect of all these changes has resulted in a significant reduction of wetland impacts.

With the understanding that there is an important benefit to Oakwood Park and the surrounding neighborhood by allowing the public to engage physically with wetland and watercourse resources, there is a concerted effort to design these elements with low-impact design considerations and minimizing direct impacts. This wetland trail is now focused to developed areas of Wetland 4 and along Trout Brook in areas currently maintained as lawn. Eight foot wide walking paths will consist of a hardened stone dust surface to allow for easy accessibility while avoiding/minimizing any hydraulic impact to the underlying wetland soils. These paths would all occur within existing developed maintained lawn wetland areas and therefore would not impact any woody or mature wetland vegetation. In addition, a box culvert would be installed at the southeastern end of Wetland 4 to clear span over the outlet stream to allow for public access from Trout Brook Drive to both the wetland trail through Wetland 4 and the Trout Brook trail. The box culvert would provide a span of the current stream bank 1.2x the existing bank with and would be embedded at least one foot below the stream channel bottom. This stream crossing design satisfies the Army Corps of Engineers New England District Stream Crossing Best Management Practices which also follows guidance from CTDEEP Fisheries Division.

The walking paths within both the east and west portions of Wetland 4 have been adjusted from the previously submitted plan to pull certain sections out of lawn wetland areas and move towards the outer limits of the wetland or into areas less sensitive (e.g., farther removed from the unnamed perennial stream system). These adjustments will minimize edge effects to wetland areas sensitive to such encroachments while allowing the public to engage with this wetland habitat, which will be enhanced with various native tree, shrub, and meadow plantings. As previously discussed, the walking trail proposed in Wetland 1 has now been eliminated. In addition, previously proposed wooden viewing platforms that were proposed in wetlands along the trail have been moved outside of wetlands in nearby developed uplands to still allow for viewing of Wetland 4 and its enhancements.

Direct permanent and temporary wetland impacts would be associated with the following resource areas on 1800 Asylum Avenue:

- Wetland 1: Asylum Avenue sidewalk and STRC-843
- Wetland 1A: Building 5 parking
- Wetland 3: bridge replacement, STRC-845 replacement, and STRC-935
- Wetland 4: STRC-826, walking paths, and box culvert for Trout Brook trail
- Wetland 5: grading associated with adjacent wetland creation area

A summary of all of Oakwood Park’s direct wetland impacts, both temporary and permanent, is provided in Table 2 below.

Table 2 - Regulated Wetland Activities

| Wetland I.D. | Regulated Activity Type | | Location |
|---------------------------|-------------------------|---------------------|--|
| | Permanent (SF) | Temporary (SF) | |
| 1700 Asylum Avenue | | | |
| 6 | 0 | 0 | --- |
| St. Joseph's Brook | 116 | 639 | STRC-21 |
| TOTAL | <u>116</u> | <u>639</u> | --- |
| 1800 Asylum Avenue | | | |
| 1 | 4 | 110 | STRC-843 |
| | 317 | 263 | Sidewalk |
| 1A | 640 | 0 | Bld. 5 parking |
| 2 | 0 | 0 | --- |
| 3 | 333 | 467 | Bridge Replacement |
| | 49 | 301 | STRC-845 Replacement |
| | 1 | 92 | STRC-935 |
| 4 | 0 | 952 | STRC-826 grading |
| | 1,976 | 2,299 | box culvert & wetland trail southeast crossing |
| | 311 | 259 | wetland trail west crossing |
| 5 | 0 | 287 | wetland creation area grading |
| East Branch Trout Brook | 0 | 0 | --- |
| TOTAL | <u>3,631</u> | <u>5,030</u> | |

As discussed in the wetland evaluation section of this report, all of the wetland and watercourse features on both 1700 Asylum Avenue and 1800 Asylum Avenue have been compromised by historic agricultural activity and more recent development of the Site. This has resulted in these wetland resource areas supporting limited functions and values. Put into context with the proposed regulated activities, Oakwood Park would not result in a significant diminishment of wetland functions and values due to the compromised state of these resources. The wetland trail and associated components represent the bulk of the project's total direct permanent wetland impacts, accounting for $\pm 72\%$ of the total. Considering the social benefits of providing an interactive wetland trail such as educating the public on the importance of wetland habitats and the various functions and values they provide to the community; such impacts would not degrade the developed lawn wetland areas but would result in an improvement to those functions and values. The second largest type of permanent wetland impact is associated with outfalls from the stormwater management system. These impacts are largely dictated by the need to provide outfall locations that allow for the properly controlled discharge of highly renovated stormwater runoff into various locations of the receiving wetland and watercourse systems. The principal intent of these discharge locations is to maintain existing hydrology inputs to the various wetland and stream systems to avoid hydrology alternations and avoid the creation of erosion and sedimentation at those outfall locations.

150-foot Wetland Upland Review Area Activities

Avoidance of activities in the 150-foot Upland Review Area is not possible due to the location and extent of wetland and watercourse resources that occur on both 1700 Asylum Avenue and 1800 Asylum Avenue. In total, the project will result in ± 20.97 acres of activities within the 150-foot wetland Upland Review Area. The majority of this upland review area currently consists of developed and disturbed areas with a significant proportion consisting of existing impervious surfaces (e.g., buildings, parking areas, concrete walkways). Overall, the Upland Review Areas impacted by the proposed project on both 1700 Asylum Avenue and 1800 Asylum Avenue do not contain significant areas of mature vegetated areas and are typically characterized by either maintained lawn or landscaped areas that do not support benefits typically associated with high functioning wetland buffers. Typical services provided by wetland buffers include water quality renovation and wildlife habitat, which have been limited due to the existing development and extensive anthropogenic changes to both the buffers and associated wetland resource areas on both parcels. As a result, the proposed project would not result in a significant degradation to the current limited functions supported by the Upland Review Area. To improve Upland Review Area functions, enhancement of some existing developed lawn upland buffers with plantings of native trees, shrubs, and meadow species has been incorporated into the project's comprehensive wetland mitigation plan. Various stormwater

management features located in the Upland Review Area would improve the water quality renovation function, in particular.

Table 3 summarizes the upland review area activities organized by the two properties.

Table 3 - 150-foot Wetland Upland Review Area Activities

| Area of Activity within URA (Acres) | | | Description |
|--|---------------------|---------------------|---|
| Total Area | Existing Impervious | Proposed Impervious | |
| 1700 Asylum Avenue | | | |
| 6.8 | 3.85 | 4.05 | URA activities predominately occur within existing developed and disturbed areas, approximately half of which consist of existing impervious surfaces (e.g., parking field). Stormwater management system will provide proper treatment of stormwater runoff including the $\pm 5.1\%$ increase in impervious surface the proposed project represents. |
| 1800 Asylum Avenue | | | |
| 14.17 | 3.38 | 8.39 | URA activities predominately occur within existing developed and disturbed areas, approximately a quarter of which consist of existing impervious surfaces (e.g., buildings, parking, concrete walkways). Stormwater management system will provide proper treatment of stormwater runoff including the $\pm 148.3\%$ increase in impervious surface the proposed project represents. |

Floodplain Impacts

The project is not expected to significantly affect the 100-year flood zone located on the 1700 Asylum Avenue and 1800 Asylum Avenue parcels. Once the town culvert project is complete, it is anticipated the flood zone on 1700 Asylum Avenue will be eliminated. The flood zone on 1800 Asylum Avenue will still remain (although the limits could potentially reduce slightly) and the proposed buildings avoid the current flood zone with only a small portion of parking located within the 100-year flood zone.

BL Companies will work with the Town of West Hartford Engineering Department on the progress of the Trout Brook culvert project. Compensatory flood storage will be designed by BL Companies should the culvert project reveal a need for it. For the purposes of this analysis, we assume that should compensatory flood storage be required it will be designed in accordance with Town of West Hartford standards to adequately replace displacement associated with the proposed

project and therefore the proposed development will not adversely affect flood hazard zones or downstream resources.

Stormwater Runoff Impacts

The project has been designed in compliance with DEEP's guidance and recommendations contained in the *2004 Connecticut Stormwater Quality Manual* ("SQM"). A primary goal of the SQM is to provide a comprehensive framework for the long-term protection of natural resources in and around the Site from degradation as a result of stormwater discharges. Another goal of the SQM is to ensure that long-term post-development stormwater quality is protected and that there will be no erosion caused by the development. Details of this analysis are provided in the Stormwater Management Memorandums, prepared as separate reports for 1700 Asylum Avenue and 1800 Asylum Avenue by BL Companies, submitted under separate cover and summarized below.

The proposed stormwater management system has been designed to match existing drainage patterns, provide water quality improvements, and mitigate peak flow discharge post development. These goals will be achieved by incorporating Best Management Practices (BMPs), which includes both structural and non-structural practices; and by considering the overall impacts to the receiving waters. In accordance with the Town of West Hartford Ordinance the pre- vs. post- analysis shows that the expected discharge from the Site, for both 1700 Asylum Avenue and 1800 Asylum Avenue, will match or be reduced in the post developed condition. The proposed conditions drainage patterns maintain the same general discharge locations as under the existing conditions for the various sub-watersheds that are associated with wetland locations to ensure the hydrology of the surrounding wetlands are not adversely affected.

The project has incorporated surface water quality features such as rain gardens to allow for stormwater attenuation and treatment within bioengineered soils and native vegetation. A reduction in the building program from the previous proposal has also resulted in expansion/addition of vegetated areas and increase of buffer widths to nearby wetland and watercourse resources that allow for additional attenuation and treatment of stormwater runoff.

1700 Asylum Avenue

The existing large, paved parking lot does not currently provide any appreciable treatment of stormwater runoff, either from a volume or quality renovation standpoint. The stormwater management system onsite currently discharges to several different locations including Lawler Road (North), Trout Brook Drive (West), and St Joseph's Brook (South/East).

1800 Asylum Avenue

In the existing condition, the majority of the site has gentle slopes that convey stormwater runoff to an existing stormwater management system onsite that primarily consists of two constructed stormwater ponds (Wetland 3). The site also discharges to East Branch Trout Brook, Trout Brook Drive, and Asylum Avenue.

Project Alternatives Analysis

The following section provides a discussion of the alternatives that were considered during the design process and the final preferred alternative that seeks to reduce impacts to wetlands to comply with the Agency's Regulations section 7.6.e while satisfying the development goals of the proposed Facility. The purpose for an analysis of impacts to wetland and watercourse resources is to determine the degree of impacts and whether there are any feasible and prudent alternatives to the proposed action.

Feasible is defined as able to be constructed consistent with sound engineering principles and *prudent* is defined as economically and otherwise reasonable in light of the social benefits to be derived from the proposed activity. Cost may be considered, however, a mere showing of expense will not necessarily mean an alternative is imprudent.

Alternative Design Analysis

No Build Alternative

One alternative is a "no build" alternative. The Site has remained vacant for several years and the former UConn buildings are in a state of demolition and disrepair. With frontage and good access to Asylum Avenue and Trout Brook Drive, the Site is highly desirable from a commercial and residential use standpoint. In analysis of this "no build" alternative at the Site, the facility could conceivably be located in another location in West Hartford. However, this could result in placing the proposed Facility in a less desirable site which could conflict with surround land uses. The Site is appropriate for the mixed-use residential with commercial amenity uses as proposed by Oakwood Park. An alternative location could also potentially result in greater overall impact to ecological resources, possibly including to higher functioning valuable wetland and watercourse areas. Therefore, the "no build" alternative is not considered to be a prudent alternative.

Alternative Layouts

The Applicant considered several alternative layouts for the Site. Alternatives were considered if they satisfied the principal goals of Oakwood Park while avoiding and minimizing impacts to wetlands and watercourses. Effective development of the Site for any financially feasible purpose is not possible without impacting some wetlands and upland review areas since they encompass a significant portion of the developable upland area due to the extent and distribution of wetland resources on the Site. Therefore, the principal goals with respect to activities regulated by the Agency were to avoid and minimize direct impacts to higher quality wetland resources when feasible.

Several alternative site designs were evaluated, starting with layouts that were rated as having higher preference since they provided for larger building size and layouts more closely resembling the typical mixed-use community development prototype, a progression of alternatives that minimized/avoided direct wetland impacts then minimized activities within the upland review areas. Alternative layouts included different building layouts, parking fields, number of parking spaces, width of travel lanes and orientations. For the purposes of this discussion, four alternative concept plans are provided in Attachment B. A summary of these alternatives is provided below and included in Table 4.

Concept Plan 1 (CP-1; Sketch Plan SK-34) resulted in increased direct wetland impacts with a total of $\pm 27,359$ SF greater than the preferred plan. This concept plan would result to direct impacts to Wetlands 1, 2, 3, 4, 5, 6, and St. Joseph's Brook from building and parking development elements. Limited buffers from the proposed development to wetland resource areas were provided by this concept in order to accommodate the layout of this plan.

Concept Plan 2 (CP-2; Sketch Plan SK-36) alternative building layouts and parking lot configuration resulted in $\pm 25,745$ SF of wetland impacts greater than the preferred plan. Wetland impacts were avoided in Wetlands 3 and 5 with this plan. This concept plan would still result to direct impacts to Wetlands 1, 2, 4, 6, and St. Joseph's Brook from building and parking development elements. Limited buffers from the proposed development to wetland resource areas were provided by this concept in order to accommodate the layout of this plan.

The April 2023 Plan reconfigured building sizes and location resulting in $\pm 17,130$ SF of direct wetland impacts greater than the preferred plan. This concept plan would still result to direct impacts to Wetlands 1, 2, 3, 4, 5, 6, Trout Brook, and St. Joseph's Brook primarily associated with stormwater discharges, wetland trail, and viewing platforms; most of the building and parking development elements avoided significant wetland impacts. Distances from the proposed development to wetland areas were also minimized with this concept in order to accommodate the layout of this plan.

The June 2023 Plan reconfigured building sizes and location resulting in ±19,557 SF of direct wetland impacts greater than the preferred plan. This concept plan would still result to direct impacts to Wetlands 1, 2, 3, 4, 5, 6, Trout Brook, and St. Joseph's Brook primarily associated with stormwater discharges, wetland trail, and viewing platforms; most of the building and parking development elements avoided significant wetland impacts. There was a slight increase in direct wetland impacts from the April Plan to the June Plan that was primarily attributable to an increase in the width of the wetland trail to eight feet. Limited buffers from the proposed development to wetland resource areas were provided by this concept in order to accommodate the layout of this plan.

With the wide distribution of wetlands across the Site, extensive areas suitable for a large development such as Oakwood Park without any wetland resource impacts just do not exist. As a result, outright avoidance of wetland impacts is not possible, so the design team focused on minimizing wetland impacts to the greatest degree possible and providing functional and meaningful buffers. Through this iterative minimization design process, as discussed above with the four alternative plans, attention was weighted heavier to avoidance of wetland resources with minimal anthropogenic changes that supported higher levels of wetland functions and values. The largest developable area that could support the proposed building program on the Site is located in the central portion of 1800 Asylum Avenue, the site of the former UConn campus development, and the west-central portion 1700 Asylum Avenue associated with existing large parking field.

The preferred alternative meets the project purpose and maintains a financially viable project while providing for the minimum building sizes and minimum number of parking spaces required for the redevelopment. Significant reduction in the overall building program and resulting significant reduction in wetland impacts was achieved with the preferred alternative. In fact, a ±79% reduction in wetland impacts was achieved from the first alternative to the preferred alternative. In general, the existing impervious and developed/disturbed limits were maintained with the preferred alternative development footprint on both 1700 Asylum Avenue and 1800 Asylum Avenue. This allowed for the existing mature vegetated buffers to generally remain undisturbed by the preferred alternative's limit of disturbance and provided opportunities to enhance existing maintained lawn buffers with planting of native trees, shrubs, and herbaceous plants to improve buffer functions. With this preferred alternative, any further reduction of building or parking field areas would not result in a functionally or financially viable project and would not substantially change the currently proposed regulated activities. Therefore, the preferred alternative is considered the most prudent and feasible alternative.

Table 4 - Regulated Activities Associated with Alternative Layouts

| Alternative | Area of Regulated Activity | |
|-----------------------|----------------------------|-----------------------|
| | Direct Impacts (SF) | 150' URA Impacts (AC) |
| CP-1/SK-34 | ±43,983 | ±24.32 |
| CP-2/SK-35 | ±42,369 | ±23.95 |
| April 2023 Plan | ±33,754 | ±23.0 |
| June 2023 Plan | ±36,181 | ±23.4 |
| October 2023 Plan | ±17,379 | ±21.15 |
| Preferred Alternative | ±9,416 | ±20.97 |

Mitigation Measures

To compensate for unavoidable direct wetland impacts and activities within the 150-foot Upland Review Area, a comprehensive mitigation plan has been designed to compensate for these unavoidable impacts with the creation of new wetlands, restoration of developed lawn wetlands, enhancements to riparian corridors, enhancement of developed lawn buffers, and establishment of a wetland walking trail with interactive signage. As a result of the comprehensive mitigation plan, the project's proposed regulated activities will be properly balanced as created wetlands, restored wetlands, enhanced riparian corridors, and enhanced buffers provide higher function and value services than those being lost. As a result, the project will not diminish the wetland resources within the Town of West Hartford either on Site or downstream of the Site.

A suite of mitigation measures is proposed to prevent short- and long-term direct and indirect impacts to wetland resource areas and compensate for unavoidable regulated activities associated with the project. Complete details including construction sequence notes and planting schedules for the various wetland mitigation elements are contained in the Wetland Mitigation Plan sheets of the separately submitted project Site Plans prepared by BL Companies. A summary of proposed mitigation measures is provided in the following sections.

Wetland Mitigation Objectives (Goals & Purpose)

The principal goal of the Oakwood Park Wetland Mitigation Plan seeks to restore ecological functions and services by improving wetland habitats and adjacent buffers. This goal will be realized by increasing habitat for various wildlife through the replacement of low functioning maintained lawn and removal of invasive non-native plants with a variety of native wetland plants and creation of a diversity of wetland and buffer habitat types; improving water quality

functions; and to provide and enhance public access for compatible recreational and educational opportunities.

The wetland mitigation objectives are as follows:

1. Restore, enhance, and create wetland habitats:
 - a. That support a natural range of habitat formations and functions, including multiple habitat types to create a locally important wetland ecosystem;
 - b. That are self-sustaining by allowing for adaptation to human activity, minimizing the need for active management, and reducing impacts of invasive species through the provision of large, contiguous areas of diverse wetland habitats with transitional areas;
 - c. That sustain multiple levels of biodiversity by strategically preserving, restoring, enhancing, and developing multiple habitats (including a variety of wetland types) and incorporating and enhancing transitional habitat connections to the wetlands (e.g., buffers) to support diverse native flora and fauna; and,
 - d. That contributes to the biodiversity and health of wetland resources in the Town of West Hartford.
2. Develop and enhance wildlife dependent uses and secondary compatible on-site public access for recreation and educational activities by:
 - a. Providing a system of entries, gathering spaces, and walking trails with interpretation and learning opportunities focused on the natural resources and cultural context of the restored and enhanced wetland habitats.

Wetland Mitigation Plan

Careful consideration has been given to devising a comprehensive mitigation plan that enhances various wetland functions and values, particularly water quality and wildlife habitat benefits, through creating, enhancing, and restoring wetlands and buffers on the Site.

The proposed wetland mitigation plan is graphically depicted on the Wetland Mitigation Plan provided in the Figures Attachment. Complete details of this comprehensive mitigation plan are provided in the Wetland Mitigation Plan sheets on the project Site Plans provided under separate cover, including planting schedules, construction sequencing notes, construction monitoring of all phases by a wetland scientist, a five-year long-term post construction monitoring of the mitigation areas by a wetland scientist, and success standards to be

evaluated during the five year monitoring period. A summary of this extensive mitigation plan is provided below.

Wetland Creation Areas

Wetland creation areas are proposed connecting Wetland 1 and Wetland 2 within an existing area of maintained lawn. Additional creation areas are proposed to expand Wetlands 5 and the Wetland 6/St. Joseph's Brook riparian corridor. These wetland creation areas are designed to support a wide variety of important functions and values including biological functions (focus on wildlife habitat), hydrologic functions (focus on groundwater recharge), water quality functions, and societal values (aesthetics, and education). The new wetland areas will generally be constructed within moderately well drained soils adjacent to existing wetland areas to encounter the locally shallow groundwater table to establish wetland hydrology. The wetland creation areas will be planted with a variety of native wetland trees, shrubs and herbaceous species to provide a greater diversity (both structurally and species) to what currently is supported within the adjacent wetland areas. A summary of the specific wetland creation areas and proposed treatments are provided in Table 5 below.

The wetland mitigation to permanent direct wetland impact ratio for both 1700 Asylum Avenue and 1800 Asylum Avenue is 2.1:1 for just the wetland creation areas. When you consider the significant areas of wetland enhancement, another recognized form of wetland mitigation, the mitigation to impact ratio increases to 50:1. The proposed wetland buffer enhancements are not considered in these calculations.

Wetland Enhancements and Restoration

As previously discussed, wetlands particularly within 1800 Asylum Avenue consist of maintained lawn, limiting their functions and values. Full restoration of Wetland 1 and partial restoration of Wetland 4 is proposed with the focus on improving wildlife habitat, water quality and societal values. Along East Branch Trout Brook, St. Joseph's Brook, and the watercourse within Wetland 4 enhancement of the bordering vegetated riparian zones are also proposed. Native trees, shrubs, and herbaceous species will be planted throughout enhancement and restoration areas to improve a multitude of functions and values. A summary of the specific wetland restoration and enhancement areas and proposed treatments are provided in Table 4 below.

Wetland Buffer Enhancements

Reductions in the scope and density of the proposed development as a consequence of iterative design analysis to further minimize and avoid wetland and buffer impacts has allowed for meaningful buffers to remain. These areas which are mainly developed upland lawn will be enhanced between the proposed development and Wetlands 1, 3, 4, 5, Trout Brook, and Wetland 6/St. Joseph's

Brook. These improvements not only directly improve the buffer functions but also enhance the adjacent wetland and watercourse functions and values. These buffer areas will be planted with dense native trees, shrubs, and meadow species that will create a very diverse vegetative habitat (both structurally and species diversity) that will significantly improve buffer functions such as water quality, wildlife habitat, and aesthetics.

Restoration of Temporary Wetland Impact Areas

Several of the proposed permanent wetland impact activities, which primarily includes stormwater outfalls and wetland trails, have associated temporary wetland impacts. All temporary wetland impacts will be restored with reuse of excavated wetland soils and replacement of appropriate soil horizons with a focus on replacing wetland topsoil. These temporary wetland impact areas will then be seeded with a native New England wetland seed mix to restore wet meadow habitat, which is the predominate wetland habitat type in these impact areas. Areas that contain woody wetland species (e.g., trees and shrubs) will include plantings of appropriate native tree and shrub species.

Table 5 - Wetland Mitigation Areas

| Wetland ID Association | Area of Wetland Mitigation (SF) | Mitigation Type | Description |
|---------------------------|---------------------------------|---------------------------|--|
| 1700 Asylum Avenue | | | |
| 6/St. Joseph's Brook | 6,390 | Creation Area | Expands Wetland 6 bordering St. Joseph's Brook |
| 6/St. Joseph's Brook | 59,100 | Riparian Enhancement Area | Removal of woody invasives and planting with native shrubs and seed mix to improve riparian corridor functions |
| 6/St. Joseph's Brook | 78,050 | Buffer Enhancement Area | Improve functions/values through conversion of maintained lawn along west bank of brook to naturally vegetated buffer areas with native trees, shrubs, and meadow habitats |
| Total | <u>143,540</u> | | Wetland mitigation program for 1700 Asylum Avenue provides significant compensation for <u>116 SF</u> of direct permanent wetland impact. Wetland mitigation/direct impact ratio: <u>55:1</u> . With enhancement areas: <u>564:1</u> (ratios excludes Buffer Enhancement Area) |
| 1800 Asylum Avenue | | | |
| 1 | 8,130 | Creation Area | Provides connection between Wetlands 1 and 2 |
| 1 | 149,540 | Restoration Area | Restores maintained lawn to wetland meadow habitat with native wetland seed mix and plantings of native shrubs & trees to improve wetland functions/values. |
| 1 | 12,598 | Buffer Enhancement Area | Improve functions/values through conversion of maintained lawn along east side of Wetland 1 to naturally vegetated buffer areas with native trees, shrubs, and meadow habitats. |
| 4 | 125,860 | Restoration Area | Restores maintained lawn to wetland meadow habitat with native wetland seed mix and select plantings of native shrubs & trees to improve wetland functions/values. |
| 4 | 37,092 | Buffer Enhancement Area | Improve functions/values through conversion of maintained lawn to naturally vegetated buffer areas with native trees, shrubs, and meadow habitats. |
| 5 | 3,360 | Creation Area | Expands area of Wetland 5 |
| East Branch Trout Brook | 82,770 | Enhancement Area | Removal of woody invasives and planting with native shrubs and seed mix to improve riparian corridor functions |
| East Branch Trout Brook | 5,000 | Buffer Enhancement Area | Improve functions/values through conversion of maintained lawn to naturally vegetated buffer areas with native trees, shrubs, and meadow habitats. |
| Total | <u>424,350</u> | | Wetland mitigation program provides significant compensation for <u>3,631 SF</u> of permanent wetland impact. Wetland mitigation/direct impact ratio: <u>3.16</u> . With restoration & enhancement areas: <u>43:1</u> . (ratios excludes Buffer Enhancement Area) |

Oakwood Park Interactive Wetland Walking Trail

An interactive walking trail and public use park is proposed with the establishment of a wetland trail through Wetland and along Wetlands 3, 5, and East Branch Trout Brook, providing interconnection to surrounding residential communities. This trail network will consist of an eight foot wide stone dust and mowed paths through wetland areas including overlooks of scenic areas on elevated viewing platforms, which have now been moved outside of wetland areas but are still positioned in viewing proximity. The proposed wetland trail in the eastern portion of Wetland 4 will only consist of a mowed path through the enhanced wetland meadow habitat. Interactive signs highlighting wetland features are also proposed throughout, providing residents with educational value and a deeper connection to and understanding of the landscape. Trail head signage and interactive sign locations will note points of interest at various locations. Signs would include a QR code that would include unique information about various wetland topics to educate the public on the importance of these habitats. Examples of possible wetland sign kiosks are provided below:

- *Constructed Wetlands Kiosk*

In front of you is a constructed wetland complex consisting of wet meadow habitat. Constructed wetland systems such as these replace wetlands that were displaced during the Oakwood Park development, improving wetland functions such as water quality and wildlife habitat.

- *Wetland Functions & Values Kiosk*

Wetlands provide a wide variety of unique functions and values that no other ecosystem can. Societal benefits and ecological functions can include natural water quality improvement through sediment retention and nutrient removal, flood storage, biodiversity, and aesthetic appreciation, to name just a few. Wetlands support a rich food web that includes high levels of organic and inorganic nutrients that in turn feed microbes, small aquatic invertebrates which serve as food for numerous species of amphibians, fish, shellfish, reptiles, birds and mammals.

- *East Branch Trout Brook*

The East Branch Trout Brook is a tributary of Trout Brook and the Park River that ultimately drains to the Connecticut River. The Brook drains a 1.4 square-mile watershed and flows through the central portion of West Hartford including through, beneath and around residential areas and Oakwood Park. This watercourse is an important riparian corridor that supports a variety of wildlife.

- Rain Garden Kiosk*

This basin was constructed to treat stormwater generated by Oakwood Park's impervious surfaces. To ensure sufficient water quality renovation and to protect nearby wetlands and East Branch Trout Brook, the stormwater passes through a vegetated basin with engineered soils to remove and treat sediment and other suspended solids prior to discharging to East Branch Trout Brook.

Wetland Protection Plan

As a result of the proposed development's location in the vicinity of wetland and watercourse habitats, the following BMPs are provided to avoid unintentional impact to these sensitive habitats during construction activities. Complete details of the recommended BMPs are summarized below and provided in full detail in Attachment C, which would be incorporated into the construction drawings upon permit approval to ensure the Contractor is fully aware of the project's environmentally sensitive setting.

A wetland scientist from APT experienced in compliance monitoring of construction activities will serve as the Environmental Monitor for this project to ensure that the following BMPs are implemented properly. The proposed wetland protection program consists of several components including: isolation of the development perimeter; periodic inspection and maintenance of erosion controls and isolation structures; herpetofauna sweeps; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and reporting.

Proper installation and maintenance of erosion and sedimentation controls in accordance with 2002 Connecticut Guidelines For Soil Erosion and Sediment Control. Best Management Practices ("BMPs") are proposed during construction in a subsequent section to further avoid/minimize the potential for impacts to wetland resources. BMPs were developed to avoid unintentional impact to wetlands and species within these resources during construction activities. APT recommends establishing a wetland protection program consisting of contractor awareness training prior to initiation of construction activities. This plan would identify the potentially sensitive nature of the project, what species might be encountered and what to do if they are present. In addition, the wetland protection program would include an initial inspection of the silt fence erosion and sedimentation controls that will serve double duty as a restrictive barrier to possible species dispersal into the construction site. Provided the wetland protection program is properly implemented during construction, it is APT's opinion that potential short-term impacts to nearby wetland resources would not occur.

Erosion and Sedimentation Controls

An Erosion & Sediment Control Plan has been designed by BL Companies in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. A variety of erosion and sedimentation controls will be employed to minimize erosion and transport of sediment to wetland resource areas during the earthwork and construction phases of the project. These controls were developed to avoid temporary impacts to wetland resource areas and represent an important element of the project to avoid and minimize wetland impacts. Details of the erosion and sedimentation controls are provided in the separately attached project Site Plans prepared by BL Companies. A general summary of the erosion and sedimentation control plan is provided below.

The Erosion & Sediment Control Plan calls for the use of the latest erosion and sediment control measures in order to minimize and control disturbance during construction and provide a stable site under finished conditions. These measures may include, but are not limited to the following, depending on site conditions experienced during construction:

- Stabilized construction entrance
- Temporary sediment traps/basins
- Geotextile silt fence
- Staked compost filter socks
- Temporary soil stockpile areas
- Temporary water diversion swales
- Temporary seeding of exposed soils
- Stone check dams
- Water bars with compost filter socks
- Erosion control blankets

The BMPs identified in this plan and discussed below include, but are not limited to, providing measures to minimize exposed soil areas through carefully thought out sequencing and temporary stabilization, placement of sediment and erosion controls suitable for the type of work and environment and appropriate Site restoration and rehabilitation techniques as soon as practicable.

The following general measures will be employed to minimize impacts to the jurisdictional resource areas:

- The Contractor will be required to maintain a reserve supply of erosion control BMPs on-site for use as required;
- Protective measures will be inspected regularly and after significant precipitation events and repaired, as necessary;
- Erosion control measures shall remain in place until soils are clearly stabilized – either by erosion control blankets, or by robust, growing vegetation. Once soils are stable, erosion controls shall be removed and properly disposed; and
- Erosion controls shall be removed and properly disposed following plant colonization of disturbed soils.

Summary

The Applicant, WEHA Development Group East LLC, proposes to construct a cohesive and dynamic mixed-use development known as Oakwood Park comprised of two adjacent parcels identified as 1700 Asylum Avenue and 1800 Asylum Avenue. The proposed redevelopment of 1700 Asylum Avenue consists of a residential development including four (4) multi-story residential buildings with associated parking facilities, and outdoor amenity spaces for residences. The proposed redevelopment of 1800 Asylum Avenue includes a grocery store, two (2) mixed use buildings to include restaurants, retail, and residential space in addition to a Spa, assisted living building, and town homes.

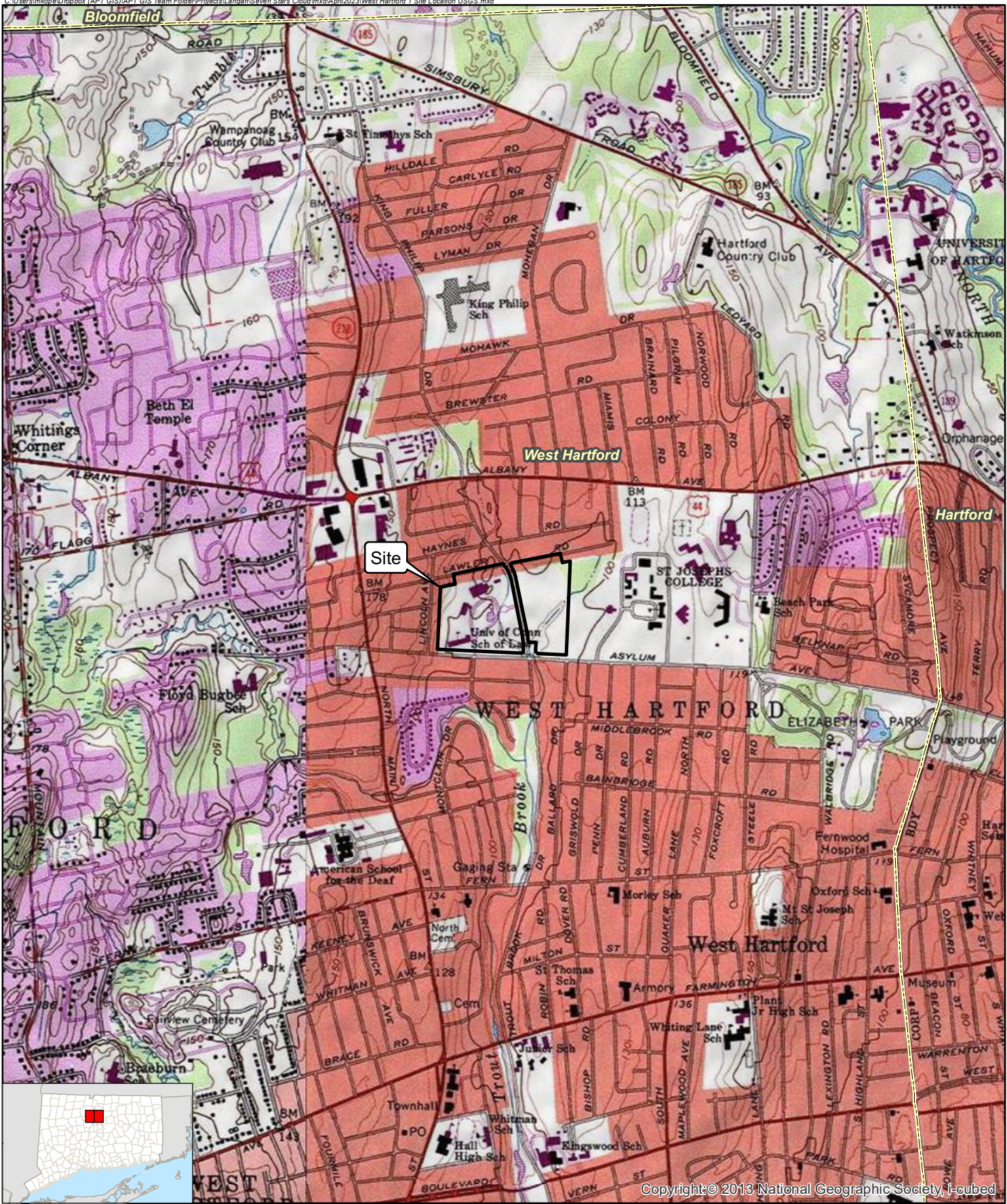
With the wide distribution of wetlands across the Sites, extensive developable areas suitable for a large redevelopment such as Oakwood Park without any wetland resource impacts just do not exist. As a result, outright avoidance of wetland impacts is not possible, so the design team focused on minimizing wetland impacts and maximizing buffers to the greatest degree possible and then made it a priority of the development program to incorporate various mitigation strategies to create, restore, and enhance wetland habitats while max.



To compensate for unavoidable direct wetland impacts and activities within the 150-foot Upland Review Area, a comprehensive and extensive mitigation plan has been designed to compensate for these unavoidable impacts with the creation of new wetlands, restoration of developed lawn wetlands, restoration of developed lawn upland buffers, enhancements to riparian corridors, and establishment of a wetland walking trail with interactive signage. As a result of the wide-ranging mitigation plan, the project's proposed regulated activities will be properly balanced as created wetlands, restored wetlands, and enhanced riparian corridors provide higher function and value services than those being lost. As a result, the project will not diminish the wetland resources within the Town of West Hartford either on Site or downstream of the Site and will provide an overall benefit to those resources.

It is APT's opinion that the proposed project is adequately protective of regulated resources and in accord with the purposes and criteria of the Town of West Hartford Inland Wetlands and Watercourses Agency Regulations.

Figures

- ▶ Site Location Map
- ▶ Existing Conditions Map
- ▶ Flood Hazard Map
- ▶ Historic Aerial Photographs
 - 1934
 - 1951
 - 1970
 - 1986
- ▶ Regulated Activities Map
- ▶ Wetland Mitigation Map

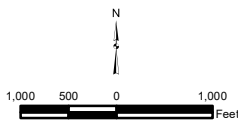


- Legend**
-  Site
 -  Municipal Boundary

Site Location Map

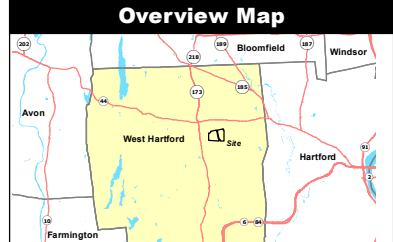
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut

Map Notes:
 Base Map Source: USGS 7.5 Minute Topographic
 Quadrangle Map, Avon, CT (1984) and Hartford North, CT (1992)
 Map Scale: 1:24,000
 Map Date: June 30, 2023



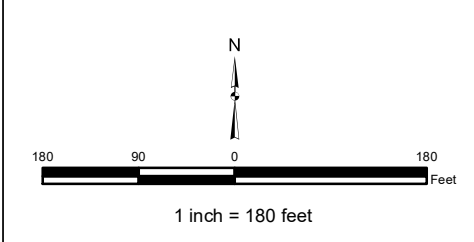
Copyright © 2013 National Geographic Society, I-cubed





Legend



- Subject Property/Proposed Site
- Approximate Parcel Boundary
- Stream
- Delineated Wetland Boundary
- Approximate Wetland Area

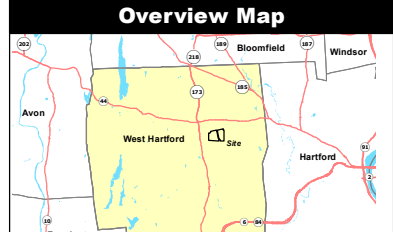
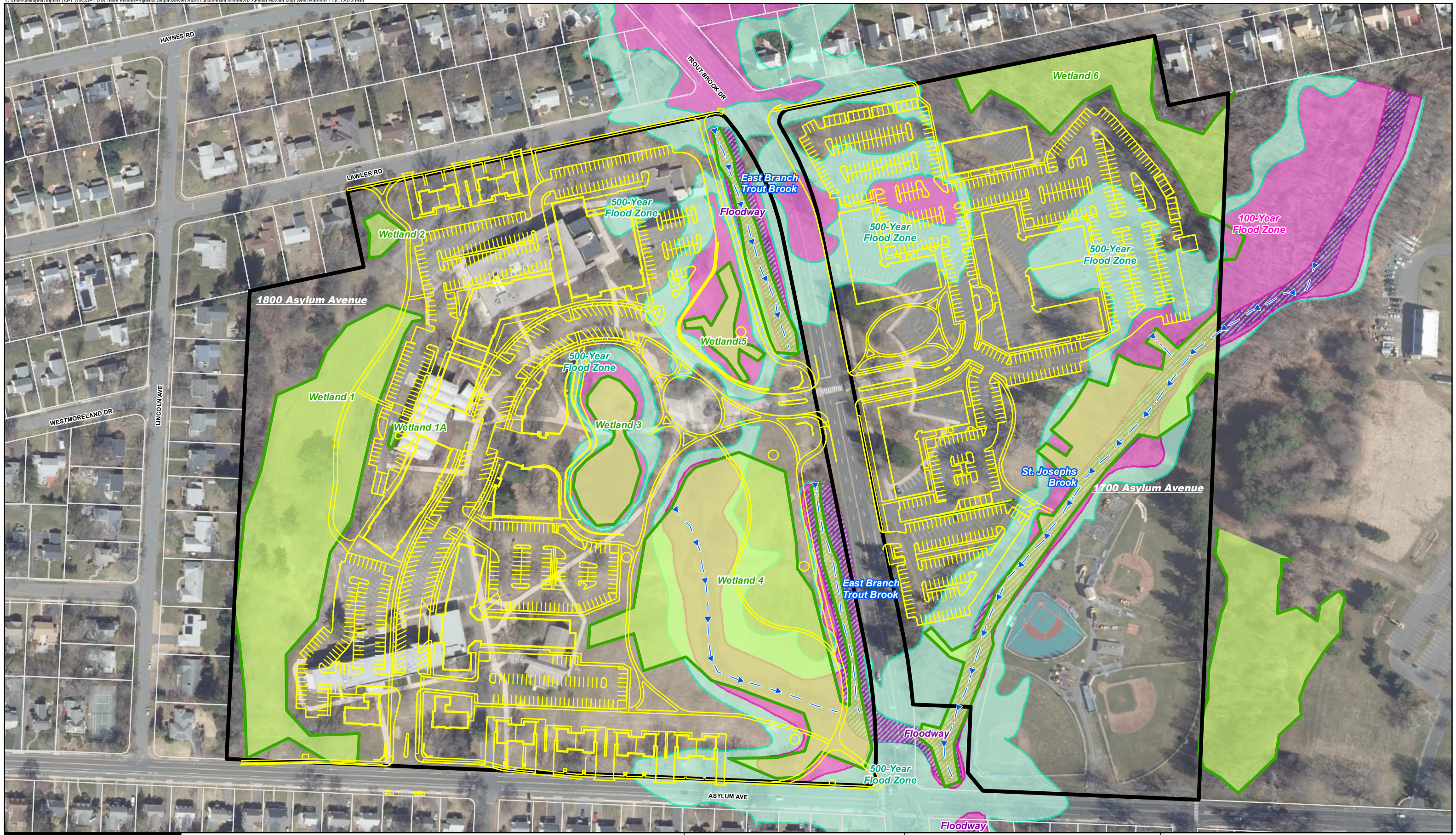


Map Sources
 Ortho Base Map: State of Connecticut 2019 aerial imagery (CTECO Map Service)
 Base Map Layers: CTDEEP's data library (<http://www.ct.gov/deep>)
 On-Site Natural Resources compiled by All Points Technology Corporation
 Parcel boundaries are approximate, CT OPM

Map Date: June 30, 2023

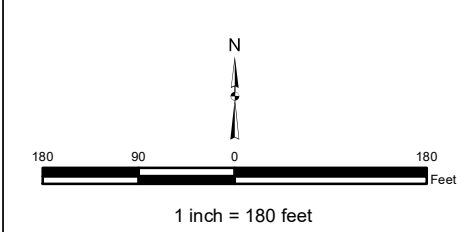
Existing Conditions
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



Legend

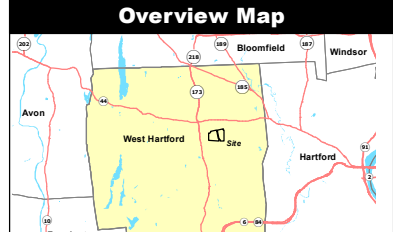
- Subject Property/Proposed Site
- Approximate Parcel Boundary
- Proposed Development Footprint
- Stream
- Delineated Wetland Boundary
- Approximate Wetland Area
- 100-Year Flood Zone
- 500-Year Flood Zone
- Floodway



Map Sources
 Ortho Base Map: State of Connecticut 2019 aerial imagery (CTECO Map Service)
 Base Map Layers: CTDEEP's data library (<http://www.ct.gov/deep>)
 Flood Zones obtained from FEMA Flood Map Service Center
 On-Site Natural Resources compiled by All Points Technology Corporation
 Parcel boundaries are approximate, CT OPM

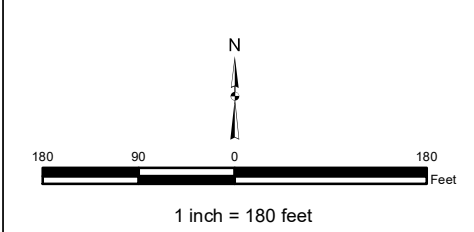
Map Date: October 19, 2023

Flood Hazard Map
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



Legend

| | | |
|--------------------------------|-----------------------------|-------------------------------|
| Subject Property/Proposed Site | Wetland Flag | Stream |
| Approximate Parcel Boundary | 150' Upland Review Area | Parking Area Leak Off Channel |
| Proposed Development Footprint | Delineated Wetland Boundary | Concrete Weir |
| Pedestrian Bridge | Approximate Wetland Area | |
| Culvert | | |
| Soil Boring Location | | |



Map Sources
 Ortho Base Map: State of Connecticut 2019 aerial imagery (CTECO Map Service)
 Base Map Layers: CTDEEP's data library (<http://www.ct.gov/deep>)
 On-Site Natural Resources compiled by All Points Technology Corporation
 Parcel boundaries are approximate, CT OPM
 Map Date: October 19, 2023

Wetland Inspection Map
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



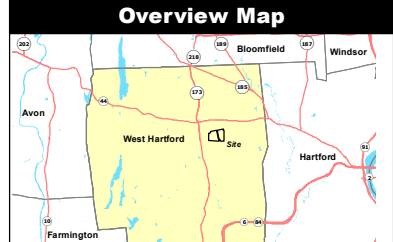



APPROXIMATE LOCATION OF TROUT BROOK DRIVE

CHAMPION WHITE OAK TREE

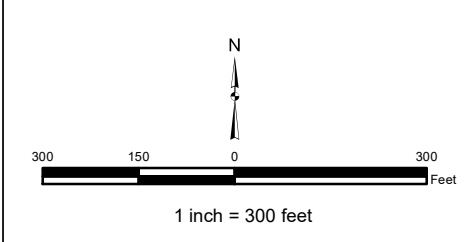
EAST BRANCH TROUT BROOK

ST. JOSEPHS BROOK



Legend

- Subject Property



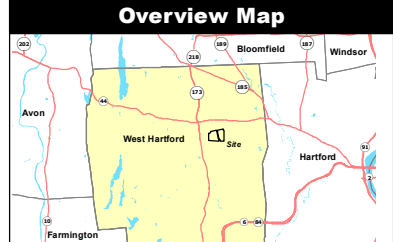
Map Sources
 Ortho Base Map: Fairchild Aerial Survey 1934
 Subject property boundary and approximate location of Trout Brook Drive digitized by APT
 Map Date: June 30, 2023

1934 Aerial Photograph
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



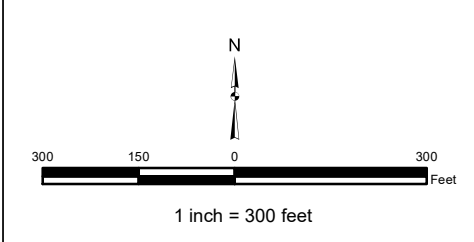
APPROXIMATE LOCATION OF TROUT BROOK DRIVE

CHAMPION WHITE OAK TREE



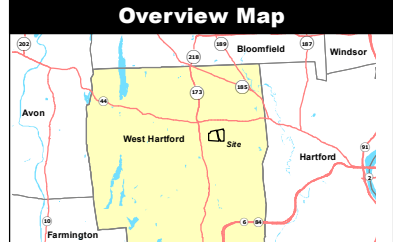
Legend

- Subject Property



Map Sources
 Ortho Base Map: 1951 Aerial Photograph
 Subject property boundary and approximate location of Trout Brook Drive digitized by APT
 Map Date: June 30, 2023

1951 Aerial Photograph
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



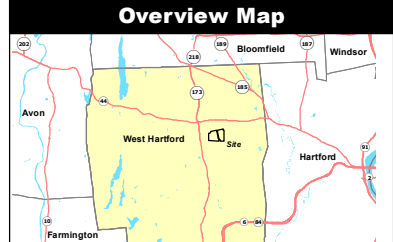
Legend

- Subject Property

Map Sources
 Ortho Base Map: 1970 Aerial Photograph
 Subject property boundary digitized by APT
 Map Date: June 30, 2023

1 inch = 300 feet

1970 Aerial Photograph
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



Legend

- Subject Property

Map Sources
 Ortho Base Map: 1986 Aerial Photograph
 Subject property boundary digitized by APT
 Map Date: June 30, 2023

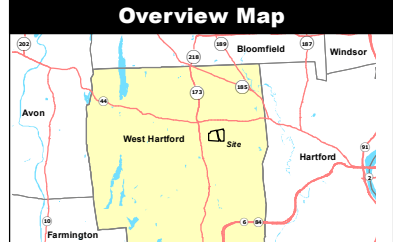
300 150 0 300 Feet

1 inch = 300 feet

1986 Aerial Photograph
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut

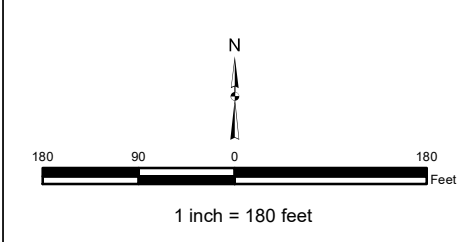
OAKWOOD PARK

ALL-POINTS TECHNOLOGY CORPORATION



Legend

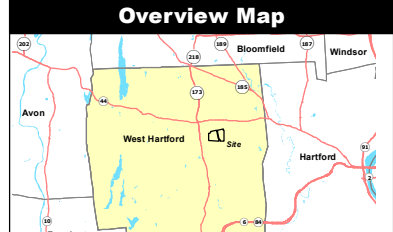
- Subject Property/Proposed Site
- Wetland Impact Areas
- Approximate Parcel Boundary
- Proposed Development Footprint
- Stream
- Delineated Wetland Boundary
- Approximate Wetland Area



Map Sources
 Ortho Base Map: State of Connecticut 2019 aerial imagery (CTECO Map Service)
 Base Map Layers: CTDEEP's data library (<http://www.ct.gov/deep>)
 On-Site Natural Resources compiled by All Points Technology Corporation
 Parcel boundaries are approximate, CT OPM

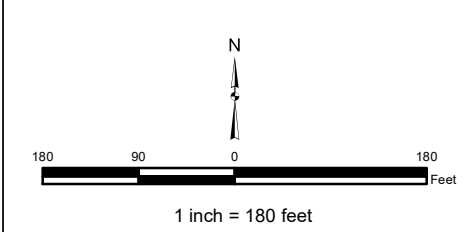
Map Date: October 20, 2023

Regulated Activities Map
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut



Legend

| | |
|--------------------------------|---------------------------------|
| Subject Property/Proposed Site | Wetland Mitigation Areas |
| Approximate Parcel Boundary | Buffer Enhancement Area |
| Proposed Development Footprint | Riparian Enhancement |
| Stream | Wetland Creation |
| 150' Upland Review Area | Wetland Restoration Area |
| Delineated Wetland Boundary | |



Map Sources
 Ortho Base Map: State of Connecticut 2019 aerial imagery (CTECO Map Service)
 Base Map Layers: CTDEEP's data library (<http://www.ct.gov/deep>)
 On-Site Natural Resources compiled by All Points Technology Corporation
 Parcel boundaries are approximate, CT OPM

Map Date: October 20, 2023

Wetland Mitigation Map
Oakwood Park
 1700 and 1800 Asylum Avenue
 West Hartford, Connecticut

Attachment A

Photographic Documentation



Photo 1: View of Wetland 1 southeast end looking east with Asylum Avenue in right side of photo.



Photo 2: View of Wetland 1 looking south with Asylum Avenue in background.



Photo 3: View of Wetland 1 north end looking south.



Photo 4: View of Wetland 1A (cattails) looking northwest.



Photo 5: View of Wetland 2 looking south.



Photo 6: View of Wetland 3 north pond (cattails) looking west.



Photo 7: View of Wetland 3 south pond looking southwest.



Photo 8: View of Wetland 4 far west end looking west.



Photo 9: View of Wetland 4 watercourse looking east.



Photo 10: View of Wetland 5 looking north.



Photo 11: View of East Branch Trout Brook looking north,
Trout Brook Drive in right side of photo.



Photo 12: View of East Branch Trout Brook looking east, Trout Brook Drive in background.



Photo 13: View of Wetland 6 & St. Joseph Brook (in woods) looking east.



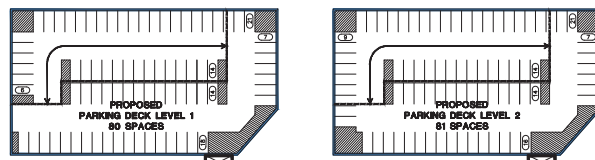
Photo 14: View of Wetland 6 north end (in woods) looking northeast from parking lot.

Attachment B
Alternative Site Plans

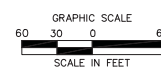
PARKING INFORMATION - COMMERCIAL SIDE

| ITEM # | ITEM | REQUIREMENTS | PROVIDED | VARIANCE |
|--------|--|--|---------------------------------------|----------|
| 1 | MINIMUM REQUIRED | MINIMUM REQUIRED | PROVIDED | NO |
| 2 | PARKING REQUIRED | MINIMUM REQUIRED: 240 SPACES RECOMMENDED: 240 SPACES MINIMUM REQUIRED: 40 SPACES RECOMMENDED: 40 SPACES MINIMUM REQUIRED: 167 SPACES RECOMMENDED: 167 SPACES LATER TOTAL REQUIRED SPACES: 437 TOTAL SPACES | 240 SPACES 40 SPACES 167 SPACES | NO |
| 3 | MINIMUM HANDICAPPED PARKING SPACES REQUIRED | 23 SPACES | 36 SPACES | NO |
| 4 | MINIMUM PARKING OVERHEADS | 8 FEET x 16 FEET | 8 FEET x 16 FEET | NO |
| 5 | MINIMUM ASSE WITH | 24 FEET x 30 FEET | 24 FEET x 30 FEET | NO |
| 6 | MINIMUM LOADING SPACE | SPACES SHALL BE 12 FEET BY 40 FEET 1. APPROXIMATELY 10 FEET FROM CURB 2. APPROXIMATELY 10 FEET FROM ADJACENT DRIVEWAY 3. APPROXIMATELY 10 FEET FROM DRIVEWAY TOTAL REQUIRED: 4 | 7 SPACES | NO |
| 7 | MINIMUM FRONT NETWORK HEATING RESERVE DISTRICT | 10 FEET, PLUS TYPE A SIDEWALK | 10 FEET PLUS TYPE A SIDEWALK | NO |
| 8 | MINIMUM SIDE NETWORK HEATING RESERVE DISTRICT | TYPE A SIDEWALK, PLUS 10 FEET FROM CURB OR 10 FEET FROM DRIVEWAY | 10 FEET PLUS TYPE A SIDEWALK | NO |
| 9 | MINIMUM REAR NETWORK HEATING RESERVE DISTRICT | TYPE A SIDEWALK, PLUS 10 FEET FROM CURB OR 10 FEET FROM DRIVEWAY | N/A | NO |

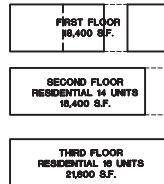
DETAIL C - WET LAB GARAGE



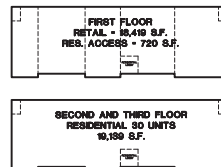
WETLANDS FILL: ±4,250.9 S.F. ON COMMERCIAL SIDE.
±732.5 S.F. ON RESIDENTIAL SIDE.
TOTAL WETLAND FILLING: ±4,983.4 S.F.
DRAINAGE STRC IMPACT: ±10,500 S.F.
WETLAND TRAIL IMPACT: ±27,500 S.F.



DETAIL A - RETAIL / RES.



DETAIL B - RETAIL / RES.



PUBLIC USE AREA = ±16.9 Acres

Architecture
Engineering
Environmental
Land Surveying

355 Research Parkway
Meriden, CT 06450
(203) 630-1404
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
1700 & 1800 ASYLUM AVE
WEST HARTFORD, CT

| REV. | NO. | DATE | DESC. |
|------|-----|------|-------|
| | | | |

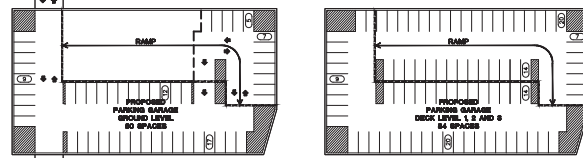
Designed: J.G.M.
Drawn: J.M.B.
Reviewed: Scale: 1"=40'
Project No.: 2100543
Date: 10/07/2022
CAD File: AC2100543.DWG
Title: COLOR SKETCH PLAN

Sheet No. **SK-34**

PARKING INFORMATION - COMMERCIAL SIDE

| ITEM # | ITEM | REQUIREMENTS | PROPOSED | VARIANCE |
|--------|--|--|---|----------|
| 1 | MINIMUM SIZE | MINIMUM REQUIRED | AS SHOWN | NO |
| 2 | PARKING REQUIRED | <p>PER 2008 REGULATIONS 2.1.1.1 AND 2.1.1.2, ALL DEVELOPMENT SHALL PROVIDE SUFFICIENT PARKING SPACES AND PARKING STRUCTURES TO ACCOMMODATE ALL VEHICLES AND TRAILERS OF THE DEVELOPMENT. THE FOLLOWING TABLES SET FORTH THE MINIMUM REQUIRED PARKING SPACES FOR DEVELOPMENTS OF THE FOLLOWING TYPES:</p> <p>REGULATIONS 2.1.1.1.1 AND 2.1.1.1.2 - 100 + 100 = 200 SPACES PER 100,000 S.F. OF GROSS FLOOR AREA</p> <p>REGULATIONS 2.1.1.1.3 AND 2.1.1.1.4 - 100 + 100 = 200 SPACES PER 100,000 S.F. OF GROSS FLOOR AREA</p> <p>REGULATIONS 2.1.1.1.5 AND 2.1.1.1.6 - 100 + 100 = 200 SPACES PER 100,000 S.F. OF GROSS FLOOR AREA</p> <p>REGULATIONS 2.1.1.1.7 AND 2.1.1.1.8 - 100 + 100 = 200 SPACES PER 100,000 S.F. OF GROSS FLOOR AREA</p> <p>REGULATIONS 2.1.1.1.9 AND 2.1.1.1.10 - 100 + 100 = 200 SPACES PER 100,000 S.F. OF GROSS FLOOR AREA</p> | <p>338 SPACES</p> <p>148 SPACES</p> <p>148 SPACES</p> <p>148 SPACES</p> | NO |
| 3 | MINIMUM HANDICAPPED PARKING SPACES REQUIRED | 2% SPACES | 2% SPACES | NO |
| 4 | MINIMUM PARKING DIMENSIONS | 9 FEET X 20 FEET | 9 FEET X 18 FEET | NO |
| 5 | MINIMUM AISLE WIDTH | 24 FEET - 30 FEET | 24 FEET - 30 FEET | NO |
| 6 | MINIMUM LOADING SPACE | <p>SPACES SHALL BE 10 FEET BY 10 FEET</p> <p>2 FEET CLEARANCE FROM CURB</p> <p>1 ADDITIONAL FEET CLEARANCE FROM CURB</p> <p>1 ADDITIONAL FEET CLEARANCE FROM CURB</p> | 7 SPACES | NO |
| 7 | MINIMUM FRONT SETBACK HEALTHY RESIDENCE DISTRICT | 10 FEET FROM TYPE 1 & 2 BUILDINGS | 10 FEET (SEE DETAIL) | NO |
| 8 | MINIMUM SIDE SETBACK HEALTHY RESIDENCE DISTRICT | TYPE 2 BUILDINGS 10 FEET FROM DRIVE OR WALL | 10 FEET (SEE DETAIL) | NO |
| 9 | MINIMUM REAR SETBACK HEALTHY RESIDENCE DISTRICT | TYPE 2 BUILDINGS 10 FEET FROM DRIVE OR WALL (AT LEAST 10 FEET FROM A WALL) | N/A | NO |

PARKING STRUCTURE



WETLANDS FILL:
 COMMERCIAL SIDE = ±1,327.5 S.F. (AREAS A, B AND C)
 RESIDENTIAL SIDE = ±3,041.6 S.F. (AREAS D, E AND F)
 TOTAL WETLAND FILLING: ±4,369.1 S.F.
 DRAINAGE STRC IMPACT: ±10,500 S.F.
 WETLAND TRAIL IMPACT: ±27,500 S.F.



DEVELOPMENT PROGRAM

| | |
|-------------------------|--|
| TOTAL SITE: | ±15.24 |
| TOTAL NO. UNITS: | 392 DU |
| 1 BEDROOM (870 S.F.): | 137 DU (35%) |
| 2 BEDROOM (1,270 S.F.): | 255 DU (65%) |
| AVERAGE UNIT SIZE: | 1,130 S.F. |
| BUILDING HEIGHT: | 5 STORIES |
| BUILDINGS: | A, B, C, D & E |
| PARKING SPACES: | 588 SPACES REQ. (BY TOWN) 647 PREFERRED 1 SP./BEDROOM (BY DEVELOPER) 623 SPACES PROVIDED |



Architecture
 Engineering
 Surveying
BL
 355 Research Parkway
 Meriden, CT 06450
 (203) 630-1404
 (203) 630-2615 Fax

PROPOSED DEVELOPMENT
 1700 & 1800 ASYLUM AVE
 WEST HARTFORD, CT

REVISED: No. Date Desc.
 J.G.M.
 J.M.B.
 1"-40'
 2100543
 02/17/2023
 SK21005433A

SKETCH PLAN

Sheet No. **SK-36**

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KEY MAP



100 Constitution Plaza
10th Floor
Hartford, CT 06103
(860) 249-2200



**RESIDENTIAL
DEVELOPMENT
1700 ASYLUM AVE
WEST HARTFORD, CONNECTICUT**

REVISIONS
No. 1
Date 01/26/2023
Disc. REVISED FOR TOWNHOUSES

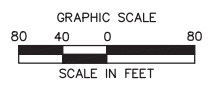
Designed S.E.C.
Drawn G.A.W.
Reviewed J.A.B.
Scale 1" = 80'
Project No. 2100543
Date 03/24/2023
CAD File: C210054301

Title
OVERALL SITE PLAN

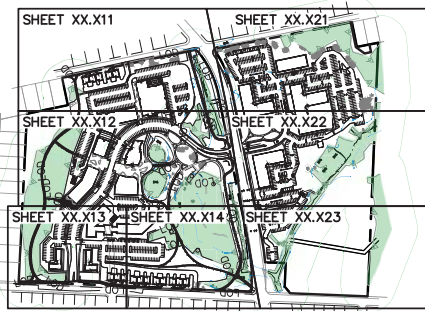
Sheet No.

C1.020

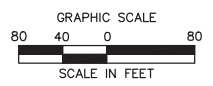
FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



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KEY MAP



FOR PERMITTING PURPOSES ONLY
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100 Constitution Plaza
10th Floor
Hartford, CT 06103
(860) 249-2200



RESIDENTIAL
DEVELOPMENT
1700 ASYLUM AVE
WEST HARTFORD, CONNECTICUT

| REVISIONS | |
|-----------|------|
| No. | Date |
| | |
| | |
| | |

Designed: S.E.C.
 Drawn: G.A.W.
 Reviewed: J.A.B.
 Scale: 1" = 80'
 Project No.: 2100543
 Date: 06/30/2023
 CAD File: C210054301
 Title: OVERALL SITE PLAN
 Sheet No.:

C1.020

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KEY MAP



100 Constitution Plaza
10th Floor
Hartford, CT 06103
(860) 249-2200



**RESIDENTIAL
DEVELOPMENT
1700 ASYLUM AVE
WEST HARTFORD, CONNECTICUT**

REVISIONS

| No. | Date | DESC. |
|-----|------------|---------------------------|
| 1 | 08/21/2023 | REVISED PER TOWN COMMENTS |
| 2 | 10/13/2023 | REVISED PER TOWN COMMENTS |

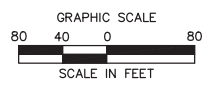
Designed: S.E.C.
Drawn: G.A.W.
Reviewed: J.A.B.
Scale: 1" = 80'
Project No.: 2100543
Date: 06/30/2023
CAD File: C210054301

OVERALL SITE PLAN

Sheet No.

C1.020

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



10/14/2023 1:52:37 PM LOCAL C:\PROJECTS\1700ASYLUM\DWG\C210054301.DWG C:\BDD\BDD\BDD.BAC
© 2023 B. COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF B. COMPANIES.

Attachment C

Wetland Protection Program

ENVIRONMENTAL NOTES - RESOURCES PROTECTION MEASURES

WETLAND PROTECTION PROGRAM

As a result of the project's location in the vicinity of sensitive wetland resources including East Branch Trout Brook and St. Josephs Brook and their floodplains, the following Wetland Protection Program shall be implemented by the Contractor to avoid unintentional impacts to these sensitive aquatic resources during construction activities.

It is of the utmost importance that the Contractor complies with the requirement for the installation of protective measures and the education of its employees and subcontractors performing work on the project site. The protection measures shall be implemented and maintained throughout the duration of construction activities and until construction is complete and permanent stabilization of site soils has occurred.

All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly and will provide an education session on the project's proximity to sensitive resources prior to the start of construction activities and typical amphibians and reptiles associated with these habitats that may be encountered during construction. The Contractor shall contact Dean Gustafson, Senior Biologist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 552-2033 or via email at dgustafson@allpointstech.com.

This resources protection program consists of several components including: education of all contractors and sub-contractors prior to initiation of work on the site; installation of erosion controls; petroleum materials storage and spill prevention; protective measures; rare species protection measures; herbicide, pesticide, and salt restrictions; and, reporting.

1. Contractor Education:

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT to emphasize the environmentally sensitive nature of the project, the various wetland resources, and the requirement to diligently follow the Protective Measures as described in sections below.
- b. The Contractor will be provided with cell phone and email contacts for APT personnel to immediately report any releases or impacts to nearby wetland resource areas. Educational poster materials of the environmentally sensitive nature of the work area will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.
- c. If any wildlife is encountered, the Contractor shall immediately modify work activities to avoid any disturbance to the species, and contact the Environmental Monitor.

2. Erosion and Sedimentation Controls/Isolation Barriers

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds, and small mammals, but particularly

snakes. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.

- b. Installation of sedimentation and erosion controls, required for erosion control compliance, shall be performed by the Contractor in accordance with the permit-approved project site plans following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation and document barriers have been satisfactorily installed. The construction zone will also be swept for wildlife that may be trapped by the erosion controls. The intent of the barrier is to segregate the majority of the work zone and isolate it from nearby sensitive wetland resources.
- c. The Contractor is responsible for daily inspections of the sedimentation and erosion controls for tears or breeches and accumulation levels of sediment, particularly following storm events that generate a discharge, as defined by and in accordance with applicable local, state and federal regulations. The Contractor shall notify the APT Environmental Monitor within 24 hours of any breeches of the sedimentation and erosion controls and any sediment releases beyond the perimeter controls that impact wetlands, watercourses or within 100 feet of wetlands and watercourses. The APT Environmental Monitor will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to their function as isolation measures for the protection of rare species. Such inspections will generally occur once per month. The frequency of monitoring may increase depending upon site conditions, level of construction activities in proximity to sensitive receptors, or at the request of the permittee. If the Compliance Monitor is notified by the Contractor of a sediment release, an inspection will be scheduled specifically to investigate and evaluate possible impacts to wetland and/or watercourse resources.
- d. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations and permit conditions.
- e. The extent of the sedimentation and erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending the controls as directed by the APT Environmental Monitor or other regulatory agencies.
- f. No equipment, vehicles or construction materials shall be stored outside of the sedimentation and erosion controls.
- g. All sedimentation and erosion controls shall be removed within 30 days of completion of work and permanent stabilization of site soils.

3. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil,

hydraulic fluid, etc.) spill due to the project's location in proximity to wetland resources.

- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.
- c. Servicing of machinery shall not occur within 100 feet of wetlands or watercourses.
- d. At a minimum, the following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.
 - i. Petroleum and Hazardous Materials Storage and Refueling
 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands. If refueling within 100 feet from wetlands is required, it shall take place on an impervious pad with secondary containment designed to contain fuels.
 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands and at least 1 foot above the 100-year floodplain.
 - ii. Initial Spill Response Procedures
 1. Stop operations and shut off equipment.
 2. Remove any sources of spark or flame.
 3. Contain the source of the spill.
 4. Determine the approximate volume of the spill.
 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby wetlands.
 6. Ensure that fellow workers are notified of the spill.
 - iii. Spill Clean Up & Containment
 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
 3. Isolate and eliminate the spill source.
 4. Contact appropriate local, state and/or federal agencies, as necessary.
 5. Contact a disposal company to properly dispose of contaminated materials.
 - iv. Reporting
 1. Complete an incident report.
 2. Submit a completed incident report to local, state and federal agencies, as necessary, including the Town of West Hartford Planner.

4. Herbicide, Pesticide, and Salt Restrictions

- a. The use of herbicides and pesticides at the Facility shall be minimized. If herbicides and/or pesticides are required at the Facility, their use will be used in accordance with current Integrated Pest Management ("IPM") principles with particular attention to avoid/minimize overspray since the facility is located within 100 feet of wetland resources. No applications of herbicides or pesticides are allowed within actual wetland or watercourse resources.
- b. Maintenance of the facility during the winter months shall minimize the application of chloride-based deicers salt. Use of more environmentally friendly alternatives is encouraged.

5. Reporting

- a. Compliance Monitoring Reports (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to the Permittee and its Contractor for compliance verification of these protection measures. These reports are not to be used to document compliance with any other permit agency approval conditions (i.e., DEEP Stormwater Permit monitoring, etc.). Any non-compliance observations of erosion control measures or evidence of erosion or sediment release will be immediately reported to the Permittee and its Contractor and included in the reports along with any observations of wildlife.
- b. Following completion of the construction project, APT will provide a final Compliance Monitoring Report to the Permittee documenting implementation of the resource protection program and monitoring observations. The Permittee is responsible for providing a copy of the final Compliance Monitoring Report to the Town of West Hartford Planner for compliance verification.
- c. Although encounters with rare species are not anticipated, any observations will be reported to CTDEEP by APT on the appropriate special animal reporting form, with photo-documentation (if possible) and with specific information on the location and disposition of the animal.