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TOWN OF CARMEL
ENVIRONMENTAL CONSERVATION BOARD



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ENVIRONMENTAL CONSERVATION BOARD AGENDA

FEBRUARY 4, 2016 – 7:30 P.M.

SUBMISSION OF AN APPLICATION OR LETTER OR PERMISSION

<u>APPLICANT</u>	<u>ADDRESS</u>	<u>TAX MAP #</u>	<u>COMMENTS</u>
1. Lake Plaza Shopping Center (Proposed Stop & Shop)	983-1005 Route 6	65.10-1-45&46	Planning Board Referral (Amended Site Plan)

MISCELLANEOUS

2. Minutes – 01/21/16



January 28, 2016

Ref: 41929.00

Via Hand Delivery

Chairman Robert Laga and Members of the Town of Carmel
Environmental Conservation Board
Town of Carmel
60 McAlpin Avenue
Mahopac, New York 10541

**Re: Lake Plaza Shopping Center
983-1005 Route 6,
Mahopac, NY 10541
Tax Map #65.10-1-45 & 46
Wetland Permit Application**

Dear Chairman Laga and Environmental Conservation Board Members,

On behalf of Lake Plaza Shopping Center, LLC ("the Applicant"), VHB Engineering, Surveying and Landscape Architecture, P.C. ("VHB") submits the enclosed wetland permit application and related information set forth below in support of the Applicant's proposal as described more fully in the project narrative submitted herewith, to expand and improve the Lake Plaza Shopping Center, which is located at Route 6 and Baldwin Lane in the hamlet of Mahopac.

5 copies: Proposed Stop & Shop Wetland Permit Application package, prepared by VHB environmental scientist Erika Reeves, last revised January 28, 2016. Included within the application package are the following supporting materials:

- Wetland Permit Application Narrative, including summarized proposed project, existing conditions, natural resources assessment, proposed wetland buffer impacts, and agency consultation summary.
- Wetland Permit Application Form
- Property Deed
- Property owner letter of consent
- Site Plans, last revised December 31, 2015
- Figures 1-6 in support of the natural resource assessments

Engineers Scientists Planners Designers

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- Figure 7: FEMA/FIRM
- Summary Tables 1-3 in support of the natural resource assessment of soils, wetlands, and waters.
- USACE wetland determination data forms
- Stream data forms
- Photo log documentation of site conditions, land cover, wetlands, and waters.
- Rare, Threatened, and Endangered Species documentation, including consultation with the New York Natural Heritage Program and U.S. Fish and Wildlife Information Planning and Conservation.
- Historic and Cultural Resource documentation, including letter of no effect from the NYS Office of Parks, Recreation and Historic Preservation.
- NYS Department of Environmental Conservation consultations, including review of freshwater wetlands to date. Consultation is on-going and may require a Freshwater Wetlands permit.
- Environmental Assessment Form, as previously submitted to the Planning Board on November 30, 2015 in support of State Environmental Quality Review.
- Erosion and Sediment Control and Stormwater Pollution Prevention Plan, last revised on and submitted to the Town Planning Board on November 30, 2015.

1 original: Wetland Permit Application Form

1 original: Property owner letter of consent

1 CD: Electronic copy of all submission with all materials noted above.

Fee and Escrow: Enclosed are two checks, for the amount of \$1000 for the associated wetland permit application fee; and \$1000 for the escrow required by the Town of Carmel wetland investigator.

Please feel free to contact me at (914) 467-6607, or mwjunghans@vhb.com if you have any questions or require further information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael", written over a blue circular stamp.

Director of Land Engineering
VHB Engineering, Land Survey and Landscape Architecture PC

Town of Carmel Environmental Conservation Board
Ref: 41929.00
January 28, 2016
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CC: Hon. Harold Gary, Chairman and Members of the Planning Board
Mr. Michael Carnazza, Director of Codes Enforcement/Building Inspector
Mr. Robert Heidenberg
Mr. Pablo Medeiros
Mr. Jason Lazar
Mr. Pasquale Natale
Ms. Cynthia Hanenberg
John Canning, P.E.
Geraldine N. Tortorella, Esq.
Ms. Deborah Farr

Wetland Permit Application

Town of Carmel Environmental Conservation Board

Proposed Stop & Shop

983-1005 U.S. Route 6

Mahopac, Town of Carmel

Putnam County, New York 10541

REFERENCE NUMBER:

VHBB41929000

PREPARED FOR:

Lake Plaza Shopping Center, LLC

Heidenberg Properties Group

234 Closter Dock Road

Closter, NJ 07624

PREPARED BY:



VHB Engineering, Surveying and

Landscape Architecture, P.C.

100 Great Oaks Boulevard

Suite 1188

Albany, NY 12203

518-889-3600

January 28, 2016



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- A. Permit Application Form (*Copy only, original provided with cover letter*)
- B. Property Deed
- C. ~~Owner's Consent~~ (*Copy only, original provided with cover letter*)
- D. Site Plans: Sheets C-00 through C-20
- E. Figures
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 - Figure 2. Soils Map
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- G. USACE Wetland Determination Data Forms
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- I. Photo Log
- J. Rare, Threatened, and Endangered Species Documentation
 - J.1. NYNHP Request for Information, NYNHP No Effect Letter
 - J.2. USFWS IPaC Official Species List
- K. Cultural Resource Documentation



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- L. NYSDEC Review of Freshwater Wetlands Documentation
- M. Environmental Assessment Form *(Copy provided; original EAF submitted to the Planning Board, which has circulated a Notice of Intent to serve as Lead Agency in the SEQRA review of this action.)*
- N. Erosion & Sediment Control Plan and Stormwater Pollution Prevention Plan *(Please see separate attachment)*



1

Introduction

1.1 Proposed Project

The proposed Stop & Shop project consists of the renovation and expansion of the Lake Plaza Shopping Center located at 983-1005 Route 6, at the intersection of Route 6 and Baldwin Lane in the Hamlet of Mahopac, Town of Carmel, Putnam County, New York.

The proposed project will include the following actions:

1. Demolishing the existing 24,000 square foot supermarket and the adjacent 7,800 square foot retail space, replacing the demolished supermarket with an approximately 53,595 square foot Stop & Shop supermarket and an adjacent 3,785 square feet of retail space, adding Stop & Shop wall signs, and substituting Stop & Shop on the existing pylon sign for the Shopping Center;
2. Renovating the facade of the balance of the Shopping Center, with the exception of the Kmart building on the southern portion of the site;
3. Constructing additional parking to replace the existing fourteen parking spaces that will be eliminated and accommodate increased building area so that the existing parking ratio is maintained;
4. Upgrading the parking area, lighting and landscaping serving the entire Shopping Center; and
5. Constructing a water supply, a sanitary sewer, and stormwater water management improvements.

A new well will be added to the system to create redundancy in the existing system. The existing sanitary sewer system has capacity for the increased flows expected from the project. Only minor improvements to make the connection are required, in the



form of a slight shift of the force main to the east. Stormwater management facilities (catch basins, pipes, sand filters, detention system and similar features) have been designed in the area to be disturbed to collect, treat and transport stormwater runoff from new impervious surfaces that ultimately discharge into the off-site wetlands located south of the Property.

Substantial renovations of the front parking field are intended to improve the safety, functionality, and overall aesthetic appearance of the Center while utilizing sustainable practices. This effort will include resurfacing and restriping the parking lot, installing new islands, where appropriate, to better define the drive aisles and introduce uniformity in the layout, installing new and more LED lighting, and installing new landscaping to augment existing plantings for screening purposes (especially along Baldwin Lane) and create a more uniform appearance throughout the parking field. These improvements complement the green building practices to be employed by The Stop & Shop Supermarket Company, LLC in its new building.

A complete set of site plans for the Proposed Stop & Shop project has been provided (**Appendix D: C-00 – C-20**). VHB believes this planset includes sufficient details within the Existing Conditions (C-03), Layout and Materials (C-04), Grading and Drainage (C-05), and Erosion and Sediment Control (C-07) pages specific to the Environmental Conservation Board (ECB) wetland permit application requirements.

In addition, several figures have been prepared to assist the Environmental Conservation Board in their review as part of the Natural Resources Assessment detailed in Section 2.1 (**Appendix E: Figures 1-7**). A copy of the completed full Environmental Assessment Form (**Appendix M**) has also been provided.

1.2. Existing Conditions

The Property, commonly referred to as the Lake Plaza Shopping Center, is a "Designed Shopping Center" under the Town's Code and is improved with approximately 141,000 square feet ("S.F.") of retail space, currently anchored by a food market and Kmart, together with related parking, utilities, mechanical, drainage, sewage, and potable water systems, signage, landscaping, and lighting (collectively, the "Center").

The Center was originally approved and constructed over a course of years from the late 1970s to the early 1980s. "Phase I" of the Center, consisted of a supermarket, pharmacy, 10,440 square feet ("S.F.") of additional retail space, a free-standing photo kiosk and related improvements. "Phase II," consisted of additional retail stores, the building currently occupied by Kmart, the wastewater treatment plant that formerly



served the Center, and related improvements took place in the late 1970s and 1980. In 1981, the freestanding bank (now Key Bank) in the front portion of the Center was built.

The project site is a portion of the approximately 21 acre parcel (Section 65.10, Block 1, Lot 45) and is generally bound by U.S. Route 6 and commercial businesses to the west, Baldwin Lane to the north, scrub-shrub and forested areas paralleling Cortlandt Road to the east, undeveloped ridgeline and forested wetlands to the south.

The topography of the site undulates gradually within the Center, with the majority of the site ranging in elevation of between 630 feet to 644 feet above mean sea level (AMSL). Behind the plaza is a steep ridge, where the highest point of elevation is 729 feet AMSL at the southeast corner. The grade significantly drops from the south east corner of the parcel west towards the plaza, with slopes of 25% or more present. The slope has a more gradual decline towards the northeast (**Appendix D: C-03**).



2

Natural Resources Assessment

VHB has performed desktop analyses, field inspections, wetland delineations, water course delineations, and rare, threatened, and endangered species habitat assessments on behalf of the Applicant, Lake Plaza Shopping Center, LLC for the study area of 20.74 acres, as illustrated by "Study Area" within the site location map (**Appendix E: Figure 1**).

2.1 Soils

VHB conducted a desktop review of soils via Web Soil Survey prior to performing environmental surveys (NRCS, 2015). The VHB study area is comprised of seven soil types, including: Fluvaquents-Udifuvents complex (Ff), Paxton fine sandy loam, 8 to 15 percent slopes (PnC), Paxton fine sandy loam, 15 to 25 percent slopes (PnD), Ridgebury loam, 3 to 8 percent slopes (RdB), Ridgebury loam, 2 to 8 percent slopes, very stony (RgB), Urban Land (Uf), and Woodbridge loam (WdC).

Table 1 provides a summary of soils with soil type, landform, drainage class, hydric soil designation, and the quantity of each soil type within the site (**Appendix F: Table 1**). The hydric soils present within the study area are: Fluvaquents-Udifuvents complex, Ridgebury loam, 3 to 8 percent slopes, Ridgebury loam, 2 to 8 percent slopes, and Woodbridge loam.

A map depicting the soil units present within the study area has been provided (**Appendix E: Figure 2**).



2.2 Land Cover

A desktop review of federally and New York State mapped wetlands identified a federal wetland (USFWS, 2009) and New York State Department of Environmental Conservation (NYSDEC) regulated wetland LC-32 (Class II) present on site (NYSDEC, 2015). A map of known federal and state wetlands is provided (**Appendix E: Figure 3**). A natural resource assessment delineated four wetlands and three streams during December of 2014, as defined in Section 2.3 and 2.4.

Desktop and in-field reviews identified five primary community types present on site, including: palustrine forested wetland dominated by silver and red maples, hemlock – northern hardwood forest (upland forest), rich mesophytic forest (upland forest), upland successional scrub-shrub, open water, and urban structures and facilities (Edinger, G. J. et al, 2014). A portion of the upland successional scrub-shrub has been previously disturbed, with open areas and access road areas present. A map illustrating the land cover areas has been provided (**Appendix E: Figure 4**).

2.3 Wetlands

VHB has delineated four wetland features within the study area, including palustrine emergent and palustrine forested wetlands: Wetland 1 (W1), Wetland 1A (W1A), Wetland 2 (W2), and Wetland 3 (W3). Of these, W1 and W1A are generally in the northeast, W2 is in the southwest, and W3 at the west edge of the study area, as illustrated by the Natural Resource Series mapping (**Appendix E: Figure 5**).

2.3.1 Background

Wetlands are a subset of the "Waters of the United States" that may be subject to regulation under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). Wetlands are defined by key indicators, where under normal circumstances they support a "prevalence of vegetation typically adapted for life in saturated soil conditions." Wetland development is regulated by the CWA of 1972.



For most forms of development in New York State, the United States Army Corp of Engineers (USACE) and NYSDEC are responsible for protecting wetlands from pollutants, or activities that may result in the discharge of dredged or fill material into Waters of the United States. NYSDEC also regulates the 100 foot upland buffer of mapped NYSDEC wetlands and wetlands of at least 12.4 acres in size. They may also assert jurisdiction of wetland areas within 50 meters of a regulated area if a hydrologic connection exists. The Town of Carmel and New York City Department of Environmental Protection also regulates wetlands and watercourses, and their associated 100 foot buffer area.

2.3.2 Methods

VHB Environmental Scientist, Erika Reeves, delineated wetlands and collected dataform information on December 2 and 3, 2014. The wetland delineations were conducted according to the methodology detailed in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* ("Regional Supplement") (USACE, 2012), the July 1995 *New York State Freshwater Wetlands Delineation Manual* (NYSDEC, 1995), and Chapter 89 of the Town of Carmel Town Code.

To be a wetland, this federal and state methodology requires the evidence of three criteria: a dominance of hydrophytic vegetation, hydric soils, and hydrology. On December 3, 2014, VHB collected USACE Wetland Determination data forms to document the wetland criteria observed (**Appendix G**). At the time of delineation, only W1 was within 100 feet of the project limit of disturbance. No dataforms were collected for W1A, W2, or W3; however, typical vegetation and wetland indicator notes were collected (**Appendix F: Table 2**).

The wetland areas identified and delineated qualified as local wetlands based on the definitions provided in the Chapter 89 of the Carmel Town Code, "Freshwater Wetlands." All wetlands identified are federally jurisdictional, however only those meeting 12.4 acres in size or currently mapped as a NYSDEC wetland are jurisdictional to the state. VHB is confident no other local, state, or federal wetlands exist on site based upon all three definitions.

The most recent plant list was utilized to confirm hydrophytic vegetation (Lichvar, R.W. et. al., 2014). Observations were also recorded during the delineation to describe general characteristics, determine potential functions and values, as well as, to classify



wetlands in accordance with the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, L.M. et. al., 1979), and Chapter 89 of the Town Code. Wetlands were demarcated in the field with pink "Wetland Delineation" flagging, labeled with unique flag ID codes, which include the wetland number and flag number (i.e., W1-1). Wetland flags were located in the field using a Trimble® GPS unit capable of sub-meter accuracy and post-processed using Trimble® Positions software for enhanced accuracy. A licensed land surveyor later collected the flag locations for inclusion in site plans.

2.3.3 Results

A total of four wetland areas were delineated on site, including palustrine emergent and palustrine forested wetlands. A natural resource map series (**Appendix E: Figure 5**) and table summary (**Appendix F: Table 2**) has been prepared to illustrate and characterize each wetland area.

Wetland 1 (W1) is a linear depression feature, at least partially excavated as a drainage diversion to catch surface flow from the east before it reaches the shopping plaza. This area has since developed wetland indicators and receives hydrology from surface flow and seasonal high water tables at the toe of slope. This palustrine forested wetland originates at the base of ephemeral Stream 1 (S1), flows generally northwest into intermittent Stream 2 (S2), and then continues west as a wetland fringe along Stream 2. This wetland system terminates where Stream 2 drains into an existing culvert north of the site (Flag S2-618). An additional pocket of palustrine emergent wetland fringe along Stream 2 is located to the east, labeled as Wetland 1A (W1A) near Baldwin Lane.

Wetland 2 (W2) was delineated only where directly adjacent to the Center. As noted on the Natural Resources Map, this wetland continues both to the west and south of the Site. This wetland is part of a large forested wetland system mapped as NYSDEC Wetland LC-32 beginning at the toe of slope and continuing south to Mud Pond. Although a forested system, this wetland is primarily composed of invasive species such as Common Reed (*Phragmites australis*), Purple loosestrife (*Lythrum salicaria*), and Multiflora Rose (*Rosa multiflora*) near the commercial areas.

Wetland 3 (W3) is a small isolated wetland within 100 feet of the Site. The adjacent side of Wetland 3 was delineated. The isolated wetland is contained by parking lot on the east, parking lot and commercial area to the north, a commercial building to the west and southwest, and additional parking lot areas to the south. The wetland appears to be an old detention basin that has not been maintained, and has since developed wetland criteria.



Complete wetland determination data forms were provided for W1, including both wetland and upland data points (**Appendix G**). Photos of the individual plots are included with the dataforms; additional photos of general wetland and upland views are provided in the Photo Log (**Appendix I**).

2.4 Streams

A total of three water features were delineated within the study area. S1 was determined to be ephemeral; flowing through an existing trench northwest until dispersing into W1. S2 originates from outside of the study area; east of Cortlandt Road and flows through W1A and W1 into a HDPE culvert. VHB assumed that the outlet of S2 flows through a culvert into S3 (**Appendix E: Figure 6**). S3 begins at the culvert outlet, and flows south into W2, the flagged boundary of NYSDEC regulated wetland LC-32 (Class II).

2.4.1 Background

In addition to wetlands, Waters of the United States are also regulated under the CWA. Simply stated, Waters of the U.S. are defined by waters traditionally (currently or in the past) used for interstate or foreign commerce; as well as, a tributary of, or a feature containing a "significant nexus" or connection to a traditional navigable waterway (TNW). Generally, a stream with at least intermittent or seasonal flow is considered jurisdictional under the CWA. Similar to wetlands, Waters of the U.S. are regulated under Section 404; navigable waterways are also regulated under Section 10 of the CWA. Watercourses with at least intermittent flow regime and their 100 foot buffer are regulated by the Town of Carmel and NYCDEP.

2.4.2 Methods

Waters and streams were identified and delineated in the field according to the guidance in the "Regulatory Guidance Letter: Subject – Ordinary High Water ("OHW") Identification" (USACE 2005) and Chapter 89 of the Town Code. During field work, flow regimes were classified as perennial, seasonal, intermittent, or ephemeral and are determined based on qualitative observations of in-stream hydrology at the time of



observation and existing geomorphic characteristics. Observations were made during the delineation to record stream characteristics such as channel substrate, surrounding land use, as well as, OHW measurements to complete a basic assessment of physical and habitat characteristics (**Appendix H**).

Narrow streams (generally ephemeral or small intermittent streams with channel widths of less than four feet) were delineated along the centerline. Larger streams (large intermittent to perennial streams) were surveyed with two lines, each at the top of bank (TOB). Streams were demarcated in the field using blue survey tape, labeled with unique flag ID codes which includes the stream number and flag number (i.e., S1-1). Stream flags were surveyed using the same method as the wetland flags; then located by a licensed land surveyor.

2.4.3 Results

VHB has delineated three stream features within or near the project site. Stream 1 and 2 are in the northeast corner, and Stream 3 is in the southwest corner of the the study area (**Appendix E: Figure 5**).

Stream 1 (S1) originates at the base of an ATV trail, where surface run off collects and flows downhill along an existing trench. Despite erosional conditions present in the stream, there are indications of start and stop flow; suggesting this stream to be ephemeral; flowing only in response to storm events. At the bottom of this stream (Flag S1-605) the topography flattens out along the toe-of-slope; where flow disperses into W1.

Stream 2 (S2) originates from an offsite wetland and stream drainage area to the east of Cortlandt Road. S2 then flows through an HDPE culvert under Cortlandt Road, generally flowing northwest until it continues underground via a culvert (Flag S2-618). Based on the culvert information available, VHB believes the outlet of S2 is approximately 1000 feet south west of where a 4-foot corrugated metal pipe (CMP) culvert outlet was found (**Appendix E: Figure 6**). The stream at this outlet was collected as feature Stream 3 (S3).

The beginning of S3 is impacted by unnatural straightening and multiple culvert outlets from offsite sources to the west. The 4-foot CMP culvert outlet is located slightly south, at flag S3-104. A heavy rainstorm occurred while surveying S3. The water quality of S3 was considerably degraded during and after the rain event. S3 may receive surface



runoff from multiple stormwater outlets. S3 was surveyed to the extent where W2 begins; after which the sinuosity of S3 becomes a more natural, meandering channel within the palustrine forested wetland.

2.5 Floodplains

The plaza parcel does not fall within a 100 year floodplain based upon the Flood Insurance Rate Map Panel 140 (**Appendix E: Figure 7**). The nearest floodplain shown is approximately a mile southwest of the site surrounding Lake Mahopac.

2.6 Rare, Threatened, and Endangered Species

2.6.1 Background

Federal rare, threatened, and endangered (RTE) species are protected under the Endangered Species Act (ESA), as administered by the U.S. Fish and Wildlife Service (USFWS); which mandates the protection of species federally listed, as well as, their associated habitats. It is unlawful to "take" a listed species. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Significant modification or degradation of listed species' habitats is considered "harm" under ESA regulations. Conducting due diligence assessments helps to avoid impacts to these species and prevent financial or criminal penalties under the ESA.

The NYSDEC administers the Endangered and Threatened Species regulations in New York State, under 6 NYCRR Part 182. These regulations describe requests for determination of whether an activity is subject to regulation, recover and restoration plans, and the requirements for an incidental take permit (NYSDEC, 2010). When a species is listed as threatened by the federal government it becomes threatened in New York State pursuant to regulation (6 NYCRR Part 182.2[y][2]).

In compliance with the State Environmental Quality Review (SEQR) Act, VHB has conducted a review of both federal and state-listed RTE species potentially found on Site. This review has included desktop analysis, field review, and preliminary consultations with state and federal agencies.



A desktop review was performed to determine if the site is associated with any known New York State listed RTE species. The NYSDEC Environmental Resource Mapper was utilized for a preliminary assessment; resulting in no rare plant or rare animal location recorded on site (NYSDEC, 2014). To verify, a consultation was requested of New York Natural Heritage Program (NYNHP) for the full study area on December 3, 2015 (**Appendix J**).

A desktop review was also performed for federally listed RTE by utilizing the USFWS Information, Planning, and Conservation System (IPaC) (USFWS, 2016). The federal species list was then verified via an Official Species List was updated on January 20, 2016 (**Appendix J**).

VHB has performed a habitat assessment for Bog turtle, Indiana bat, and Northern Long-eared Bat, as detailed below.

2.6.2 Bog Turtle

The Bog Turtle is known as the smallest turtle in North America, at only 4 inches long. The Bog Turtle displays a bright yellow, orange, or red patch along each side of the head. The Bog Turtle usually occurs in small populations and prefers habitats with cool, shallow, slow moving water, deep soft muck soils, and tussock-forming herbaceous vegetation. Typically, Bog Turtles are found in early successional habitats including wet meadows or open boggy areas dominated by sedges or sphagnum moss with suitable basking areas; however they have been found in forested wetlands where the hydrology and soil conditions allow. The Bog Turtle's specialized habitat is lost quickly to invasive purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*) invading and outgrowing the native sedges and moss.

Of the wetlands surveyed, only W2 (NYSDEC Wetland LC-32, Class II) provides potential habitat for Bog Turtle south of the study area. The portion of W2 delineated adjacent to the plaza is heavily shaded, and is dominated by dense stands of common reed. Based on the poor habitat directly adjacent to the plaza, no effect on potential Bog Turtles is anticipated.

2.6.3 Indiana Bat & Northern Long-eared Bat

The Indiana Bat is a species of bats heavily impacted by human disturbance and the fungal disease "white nose syndrome." The Indiana bat is approximately 2 inches in



length, weighing 0.2 - 0.3 ounces. It is found mostly in eastern United States. In the summer, the Indiana Bat has been reported to occur in 14 counties in New York State; 6 counties during the winter. Due to the population declining 56 percent from 1960 to 2000, the USFWS listed the Indiana Bat as endangered under the ESA on March 11, 1967. Under the ESA, a threatened species is likely to become endangered in the foreseeable future, while an endangered species is currently in danger of becoming extinct.

The Northern Long-eared Bat (NLEB) is another species of bats heavily impacted by "white-nose syndrome." The Northern Long-eared Bat is approximately 3 inches long with a 10 inch wingspan. It is predominately found in eastern and north central United States. NLEB is believed to occur in all 62 counties of New York State. As a result of continual declines in their populations, caused by white-nose syndrome, as well as, continued spread of the disease, the Northern Long-eared Bat received protection as a threatened species under the ESA on April 2, 2015, effective May 4, 2015; with the final 4(d) ruling just listed on January 14, 2016, effective February 16, 2016.

Both the Indiana Bat and Northern Long-eared Bat hibernate in caves and mines known as hibernaculum during the winter. During the summer months they utilize a wide variety of forest/wooded habitats for roosting, foraging, maternity, and travel corridors. These species may also travel in open areas and adjacent edges of forests, such as emergent wetlands, agricultural fields, and pastures. The wooded habitats may be dense or loose aggregates of trees with variable amounts of canopy closure, where potential roost trees (i.e., live trees and/or snags of at least 3 inches in dbh that have exfoliating bark, cracks, crevices or cavities) are present (USFWS, 2015). Additionally, Indiana Bats and NLEBs have been observed roosting in man-made structures, such as buildings, barns, bridges and bat houses. The summer habitats are typically utilized from mid-May through mid-August each year.

Based upon the land cover assessment of the study area, 6.14 ac. of upland forest and 0.48 ac of forested wetland is present within the study area (**Appendix E: Figure 4**). Both of these areas contain multiple snags, dead, and decaying trees that may provide suitable roosting habitat for either bat.

A response from NYNHP on December 31, 2015 stated that the project site is within the 4 miles of a documented hibernaculum for Northern Long-eared Bat and 11 miles of a documented maternity colony for Indiana Bats. NYNHP concluded that no significant impacts to the Northern Long-eared Bat or Indiana Bat would result if large trees would not be cut down (**Appendix J**).



3

Proposed Project Impacts

3.1 Wetlands and Waters

The proposed project primarily exists within a footprint of previously developed areas associated with the Lake Plaza Shopping Center. No direct impacts or disturbance will occur in wetlands or streams identified near the site.

The project will include work within the regulated 100-foot upland buffer of features W1, W2, and W3, as noted below:

- W1: 6690 sf of disturbance within the buffer to replace existing parking area with proposed driveway leading to the back of proposed building, to construction of proposed wall, sewer, and drainage system.
- W2: 22,145 sf of disturbance within the buffer to resurface the existing parking lot and provide landscape islands.
- W3: 7,392 sf of disturbance to resurface the existing parking lot and provide landscape islands.

At the northeast corner of the proposed Stop & Shop, 500 sf of impervious area will be added to allow for the site improvements. However, 500 sf of the existing impervious parking lot will be removed; resulting in a net zero increase of impervious area (**Appendix D: C-04**).

Consultations with NYSDEC have been performed regarding disturbance within the 100 foot buffer of LC-32 (**Appendix L**).



In summary, the project will have no net increase of impervious area within the 100 foot wetland buffer. In addition, proposed landscape islands within the parking lot will decrease the impervious areas adjacent to and within the 100 foot buffers of W2 and W3.

An Erosion and Sediment Control plan (Appendix D: C-07) has been developed and a Stormwater Pollution and Prevention Plan has been prepared (**Appendix N**). Based on the no net increase of impervious area within the 100 foot wetland buffer and the protections in place during construction, no impacts to the adjacent wetland or stream areas are anticipated.

3.2 Rare, Threatened, and Endangered Species

Potential habitat exists for Northern Long-eared Bat, Indiana Bat, and Bog Turtle. Based upon consultation with NYNHP, no impacts to either bat species are anticipated unless large tree removal is necessary. If large trees will need to be removed, further consultation with NYSDEC and USFWS may be necessary regarding bat species.

No impacts to Bog Turtles are anticipated based on their restrictive habitat needs. The Bog Turtle, if present, would be limited to areas within NYSDEC Wetland LC-32, delineated as W2. Furthermore, no net increase in impervious area, drive aisles, or parking areas is proposed near W2.

3.2 Historic and Cultural Resources

In accordance with the New York State Historic Preservation Act of 1980, VHB conducted a consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) to determine if the proposed Stop and Shop would have an effect on historic or cultural resources. OPRHP issued a letter on January 4, 2016 stating the project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places (**Appendix K**).



4

Summary of Conclusions

On behalf of Lake Plaza Shopping Center, LLC, and in support of the Project, VHB conducted an environmental site assessment of wetlands, waterbodies, and RTE species during the December 2014.

VHB delineated four wetland features and three stream features within the study area. At this time, only disturbance within the 100 foot buffer of wetland areas is proposed. No net increase of impervious area within the 100 foot buffer is proposed.

VHB reviewed the site for Northern Long-eared Bat, Indiana Bat, and Bog Turtle habitat in compliance with SEQR. No direct impacts are anticipated to any of the three protected species based upon current project plans and recent consultation with NYNHP; however, if large tree removal is required, further consultations with NYSDEC and USFWS may be necessary to protect the bat species.

A consultation with OPRHP was performed in December 2015. No impacts to historic or cultural resources are anticipated.



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Appendix A

Permit Application Form

(Copy only, original provided with cover letter)

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ROBERT LAGA
Chairman

ANTHONY DUSOVIC
Vice Chair

ROSE TROMBETTA
Secretary

DAVID KLOTZLE
Wetland Inspector

TOWN OF CARMEL
ENVIRONMENTAL CONSERVATION BOARD



60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 - Ext. 190
www.ci.carmel.ny.us

BOARD MEMBERS

Edward Barnett
Marc Pekowsky
Vincent Turano
Nicholas Fannin
John Starace

APPLICATION FOR WETLAND PERMIT OR LETTER OF PERMISSION

Name of Applicant: Lake Plaza Shopping Center, LLC

Address of Applicant: 234 Closter Dock Road Email: pmedeiros@heidenbergproperties.com
Closter, NJ 07624

Telephone: 201-768-1300 Name and Address of Owner if different from Applicant:

Mahopac Drive In Theatre, Inc., P.O. Box 738, Mahopac, NY 10541

Property Address: 983-1005 Route 6, Mahopac Tax Map # 65.10-1-45

Agency Submitting Application if Applicable: N/A

Location of Wetland: Northeast, west and southwest edge of site. See application materials submitted herewith.

Size of Work Section & Specific Location: Total of 36,227 sf of disturbance within 100 foot buffers of W1, W2, W3.

Will Project Utilize State Owned Lands? If Yes, Specify: No No direct impact.

Type and extent of work (feet of new channel, yards of material to be removed, draining, dredging, filling, etc). A brief description of the regulated activity (attach supporting details).

See project narrative submitted herewith.

Proposed Start Date: 09/01/2016 Anticipated Completion Date: 09/01/2017 Fee Paid \$ 1,000.00

CERTIFICATION

I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief, false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law. As a condition to the issuance of a permit, the applicant accepts full legal responsibility for all damage, direct or indirect, or whatever nature, and by whomever suffered, arising out of the project described here-in and agrees to indemnify and save harmless the Town of Carmel from suits, actions, damages and costs of every name and description resulting from the said project.
Lake Plaza Shopping Center, LLC

By: [Signature]
SIGNATURE
Robert Heidenberg, Authorized Signatory

1/30/2016
DATE

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Appendix B

Property Deed

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Noted N.Y. D. & C. 1-1-1968

Begin and End Third with Conveyance against Tenant (Auto-Indemnified Conveyance) (Single Sheet)

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

TS.
22.04

THIS INDENTURE, made the 16th day of February, nineteen hundred and seventy-seven BETWEEN ALVARO CASAGRANDE, also known as Elvaro Casagrande, residing at no street number, Bucksnow Road, Mahopac, Town of Carmel, Putnam County, New York, individually and as executor of the Estate of Louis J. Casagrande, deceased,

party of the first part, and MAHOPAC DRIVE IN THEATRE, INC., a domestic corporation of the State of New York, having its principal place of business at U.S. Route 6, Mahopac, New York

party of the second part,

WITNESSETH, that the party of the first part, in consideration of ten dollars and other valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, abutting, lying and being within at Lake Casse, Mahopac, Town of Carmel, Putnam County, New York, being more fully shown and described on a certain map entitled "Subdivision Map of Lake Casse 'Six', Town of Carmel, Putnam County, New York" filed in the office of the Clerk of the County of Putnam, New York, on September 30, 1968, Map No. 724-J, and known thereon as Parcel B and Parcel C.

TOGETHER with the right to use Lake Casse for boating, bathing and fishing in common with others.

YET, FURTHER with all right, title and interest, if any, of the party of the first part in and to any, interests and such abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires. IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

Jim. Lark

Alvaro Casagrande L.S.

LIBER 741 375

STATE OF NEW YORK, COUNTY OF Putnam
On the 16th day of February 1977, before me
personally came
ALVARO CASAGRANDE

to me known to be the individual described in and who
executed the foregoing instrument and acknowledged that
he executed the same

Joseph M. Costello

JOSEPH M. COSTELLO
Notary Public for Putnam County
Qualified in Putnam County
Term Expires June 30, 1977

STATE OF NEW YORK, COUNTY OF Putnam
On the day of 1977, before me
personally came
to me known, who, being by me duly sworn, did depose and
say that the results of the

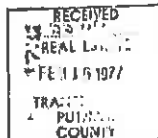
that he is the
of the corporation described
in and which executed the foregoing instrument; that he
knows the seal of said corporation, that the seal affixed
to said instrument is such corporate seal; that it was so
affixed by order of the board of directors of said corpora-
tion, and that he signed his name therein by like order

STATE OF NEW YORK, COUNTY OF Putnam
On the day of 1977, before me
personally came
741 376

to me known to be the individual described in and who
executed the foregoing instrument, and acknowledged that
he executed the same

STATE OF NEW YORK, COUNTY OF Putnam
On the day of 1977, before me
personally came
the undersigned witnesses to the foregoing instrument, with
whom I am personally acquainted, who, being by me duly
sworn, did depose and say that he resides at No.

that he knows
to be the individual
described in and who executed the foregoing instrument,
that he, said undersigned witness, was present and saw
execute the same; and that he, said witness,
at the same time subscribed his name as witness thereto



NOTARY PUBLIC
101
KAROLYN TOWN of Carmel, County of Putnam

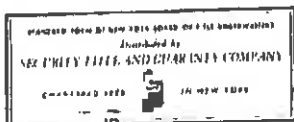
Burgum and White Clerk

ADDRESSES CHANGING FREQUENTLY

Box No.

ALVARO CASAGRANDE

to
NORPAC DRIVE IN THEATRE, INC



RETURN BY MAIL TO

Ryder, Costello, Miller & Garcia
Box
29 No

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

Recorded in the Clerk's Office of
the County of Putnam on the
16 day of February 1977
at 9 hours and 7 minutes AM
in Book No. 74 of Series
on page 375 and compared
Joseph M. Costello
Clerk



Appendix C

Owner's Consent

(Copy only, original provided with cover letter)

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Mahopac Drive-In Theatre Inc.
40 Shallow Stream Road
Carmel, New York 10512

January 21, 2016

Hon. Robert Laga, Chairman
and Members of the Environmental Conservation Board
Town of Carmel
60 McAlpin Avenue
Mahopac, New York 10541

Re: *Application of Lake Plaza Shopping Center, LLC for a
Wetland Permit for the Mahopac Plaza Shopping Center
983-1005 Route 6, Route 6 and Baldwin Lane
Tax Identification Number: Section 65.10, Block 1, Lot 45
Owner's Authorization*

Dear Chairman Laga and Members of the Board:

Mahopac Drive-In Theatre, Inc. is the owner of the property that is the subject of the above-referenced application. As owner, Mahopac Drive-In Theatre, Inc. hereby authorizes Lake Plaza Shopping Center, LLC ("Lake Plaza"), the ground lessee of the subject property, to apply to the Town of Carmel Environmental Conservation Board for a wetland permit and other related approvals in connection with the proposed grocery store expansion and related improvements on the subject property. We further authorize Lake Plaza to take such other actions, appear before and seek approval from such other Town bodies and officers of the Town of Carmel, including but not limited to, the Town's Zoning Board of Appeals and Planning Board, as is necessary or desirable in connection with seeking such approval. Finally, we consent to Lake Plaza's application(s) with the understanding and on the condition that Lake Plaza will be responsible for all costs and expenses associated with the application and the Town's review thereof.

Very truly yours,


Mahopac Drive-In Theatre, Inc.

By: 

John D. Gilmore, President

Sworn to before me this
26 day of Jan, 2016.


Notary Public

SUSAN J. NUNZIATA
Notary Public, State of New York
Registration no. 01NU6078143
Qualified in Putnam County
Commission Expires July 22, 2018 

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Appendix D

Please see separate attachment for the
Site Plans: Sheets C-00 through C-20

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Issued for	Site Plan Approval
Date Issued	November 30, 2015
Date Issued	November 30, 2015
Latest Issue	December 31, 2015

483-1005 Route 6
(Route 6 & Baldwin Lane)
Town of Carmel, Madison
County, New York
14851

Owner/Applicant
Lake Plaza Shopping Center, LLC
Heidenberg Properties Group
234 Closter Dock Rd
Closter, NJ 07624

65.10-1-45
65.10-1-45
65.10-1-46
65.10-1-46

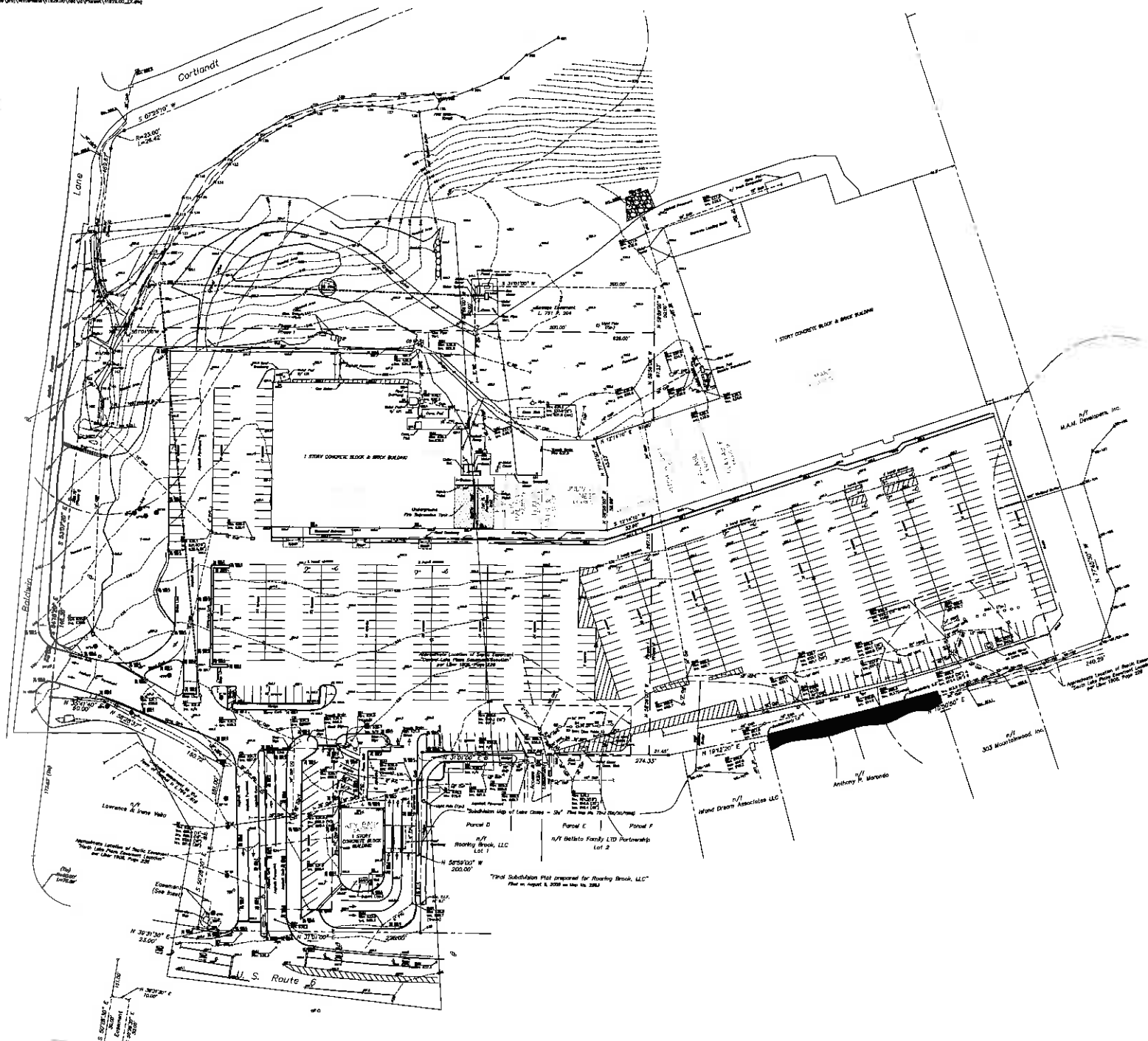


No.	Drawing Title	Last Issued
C-01	Drawing Title	December 31, 20
C-02	Legend And General Notes	December 31, 20
C-03	Abutment List and Map	December 31, 20
C-04	Existing Conditions Plan	December 31, 20
C-05	Layout and Materials Plan	December 31, 20
C-06	Grading and Drainage Plan	December 31, 20
C-07	Utility Plan	December 31, 20
C-08	Erosion and Sediment Control Plans	December 31, 20
C-09	Delivery Truck and Pedestrian Maneuvering Plan	December 31, 20
C-10	Fire Truck Maneuvering Plan	December 31, 20
C-11	Passenger Car Maneuvering Plan	December 31, 20
C-12	Site Details 1	December 31, 20
C-13	Site Details 2	December 31, 20
C-14	Site Details 3	December 31, 20
C-15	Site Details 4	December 31, 20
C-16	Site Details 5	December 31, 20
C-17	Site Lighting Photometric Plan	December 31, 20
C-18	Site Lighting Plan Details 1	December 31, 20
C-19	Site Lighting Plan Details 2	December 31, 20
C-20	Planting Plan and Notes	December 31, 20
C-21	Planting Detail and Notes	December 31, 20
C-22	Sign Line Single Plan	December 31, 20
C-23	Sign Line Multiple Plan	December 31, 20



500-Foot Abutter's List

[illegible]500-Root Abutter's Map
500-Root Abutter's Map



Michael W. Jungbauer
U.S. Professional Engineer
NY Lic. No. 672072



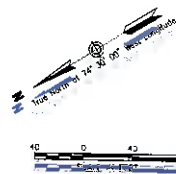
Parking Requirements:			
RETAIL	184,300 SF	1 SPACES / 360	512 SPACES
WARE	4,500 SF	1 SPACES / 360	12 SPACES
TOTAL PARKING REQUIRED			524 SPACES

[illegible]

Sign Summary				Date
MP	TC	Swath	Wid	Hgt
Number				
03-1		24'	14'	
04-1		30'	20'	
07-1		12'	16'	
07-2		11'	19'	
09-1		12'	16'	

[illegible]

Michael W. Jungblut
U.S. Postal Service
NY, NY 10005
42929-00



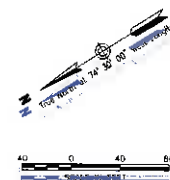
Proposed Stop & Shop
983-1005 Route 6
Town of Carmel, Mahopac, New York, 10541
Town of Carmel, Mahopac, New York, 10541

Not Approved for Construction

Not Approved for Construction


$$C=0$$

Michael W. Murphy
U.S. Postal Service
2010-04-10 10:12
41929.00



Proposed Stop & Shop
983-1005 Route 6
Town of Carmel, Mahopac, New York, 10541
Town of Carmel, Mahopac, New York, 10541



Michael W. Aughinus
 44, Pittsburgh, Pa.
 207-444-0172

E-06

Serial 7

Printed on 4/19/93
 43 329 00

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[illegible][illegible]

Proposed Stop & Shop
983-2005 Route 6
Town of Carmel; Mahopac, New York, 10541
Town of Carmel, Mahopac, New York, 10541

Not Approved for Construction



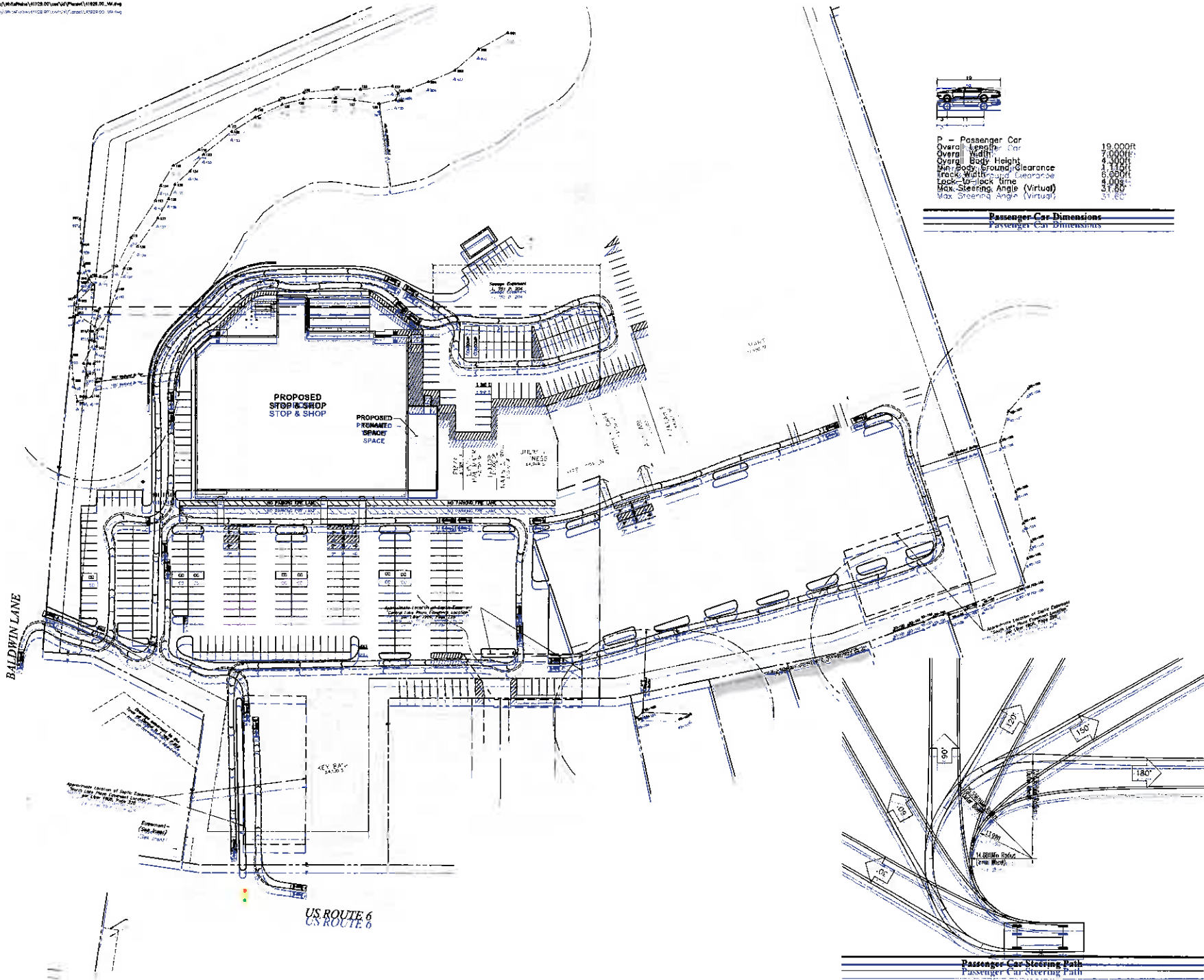
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8

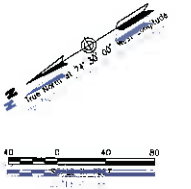
Approved by: **Michael W. Jungblut**
 U.S. Department of Justice
 Office of Inspector General
 27 September 2012

Page: **81923.00**
81923.00



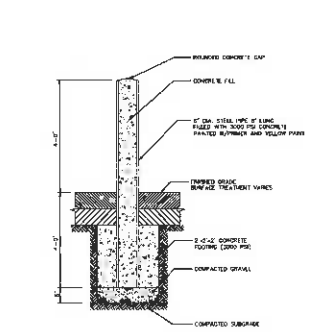
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Overall Length	7.00ft
Overall Width	4.00ft
Overall Body Height	1.00ft
Overall Body Ground Clearance	6.00ft
Track Width	4.00s
Lock-to-lock time	31.60°
Max. Steering Angle (Virtual)	

Passenger Car Dimensions
 Passenger Car Dimensions

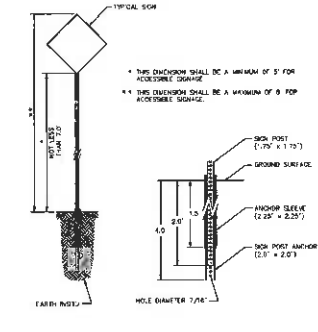


Tax Parcels
 65.10-1-46
 65.10-1-46
Proposed Stop & Shop
 983-2005 Route 6
 Town of Carmel, Mahopac, New York, 10541
 Planning Board Resolution 12/20/2015
 Planning Board Resolution 12/20/2015

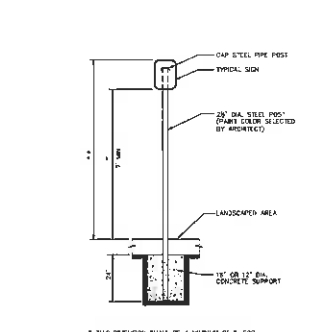
Site Plan Approval November 30, 2015
 Site Plan Approval November 30, 2015
 Not Approved for Construction



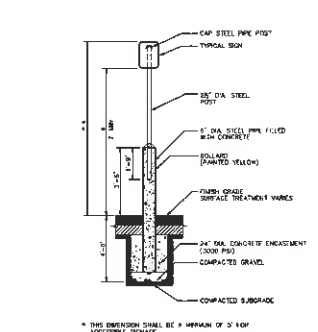
Bollard 4/10
N.T.S. Source: VHB 10.2/10



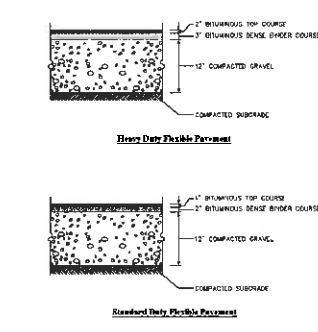
Sign Post - Type 'B' 10/10
N.T.S. Source: VHB 10.2/10



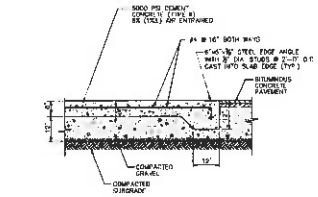
Sign Post - Type 'A' 4/10
N.T.S. Source: VHB 10.2/10



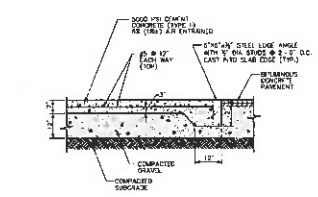
Bollard Mounted Sign 4/10
N.T.S. Source: VHB 10.2/10



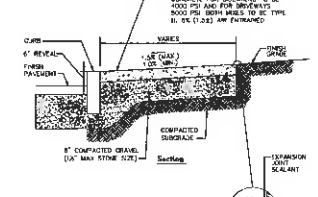
Blumous Concrete Pavement Section 10/11
N.T.S. Source: VHB 10.2/10



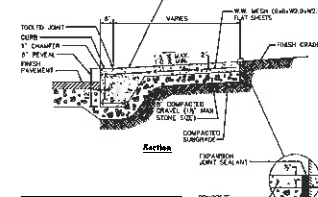
Loading Dock Pad 4/10
N.T.S. Source: VHB 10.2/10



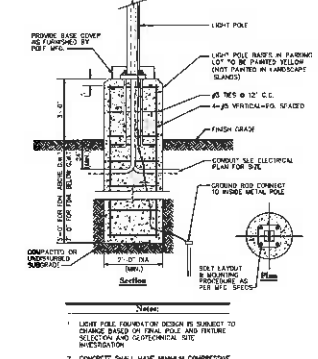
Compactor Pad 4/10
N.T.S. Source: VHB 10.2/10



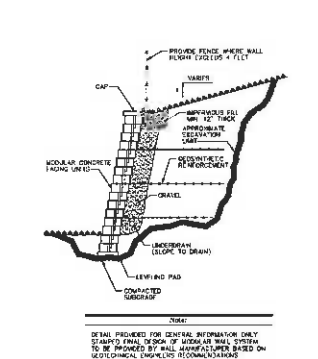
Concrete Sidewalk 4/11
N.T.S. Source: VHB 10.2/10



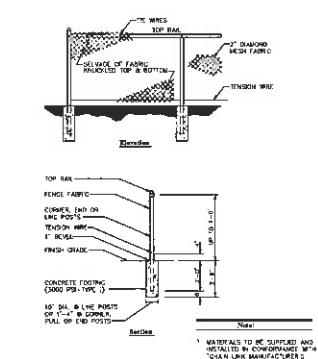
Monolithic Concrete Curb (MCC) & Sidewalk 10/11
N.T.S. Source: VHB 10.2/10



Light Pole 4/11
N.T.S. Source: VHB 10.2/10



Modular Retaining Wall 6/08
N.T.S. Source: VHB 10.2/10



Chain Link Fence up to 4' 4/08
N.T.S. Source: VHB 10.2/10

The Parcel
45 10-1-45
45 10-1-46

Proposed Stop & Shop
983-1005 Route 6
Town of Carmel, Mahopac, New York, 10541

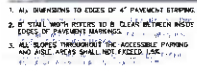
Site Plan Approval November 30, 2015

Not Approved for Construction

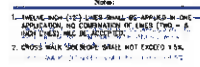
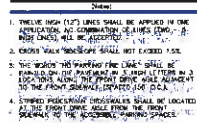
C-10

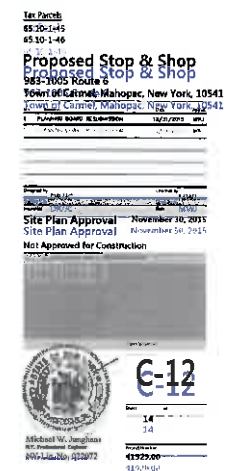
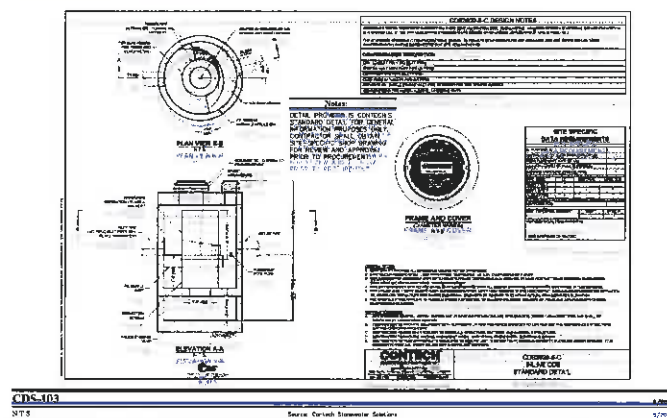
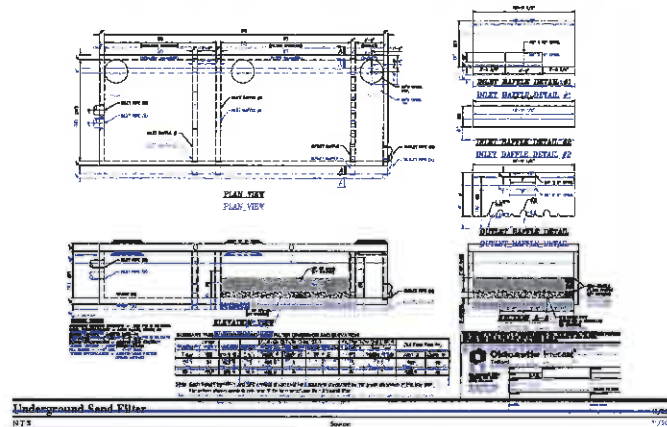
Michael W. Janghous
NY Lic. No. 072072

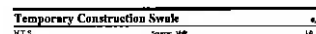
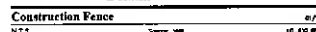
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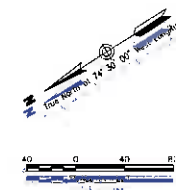
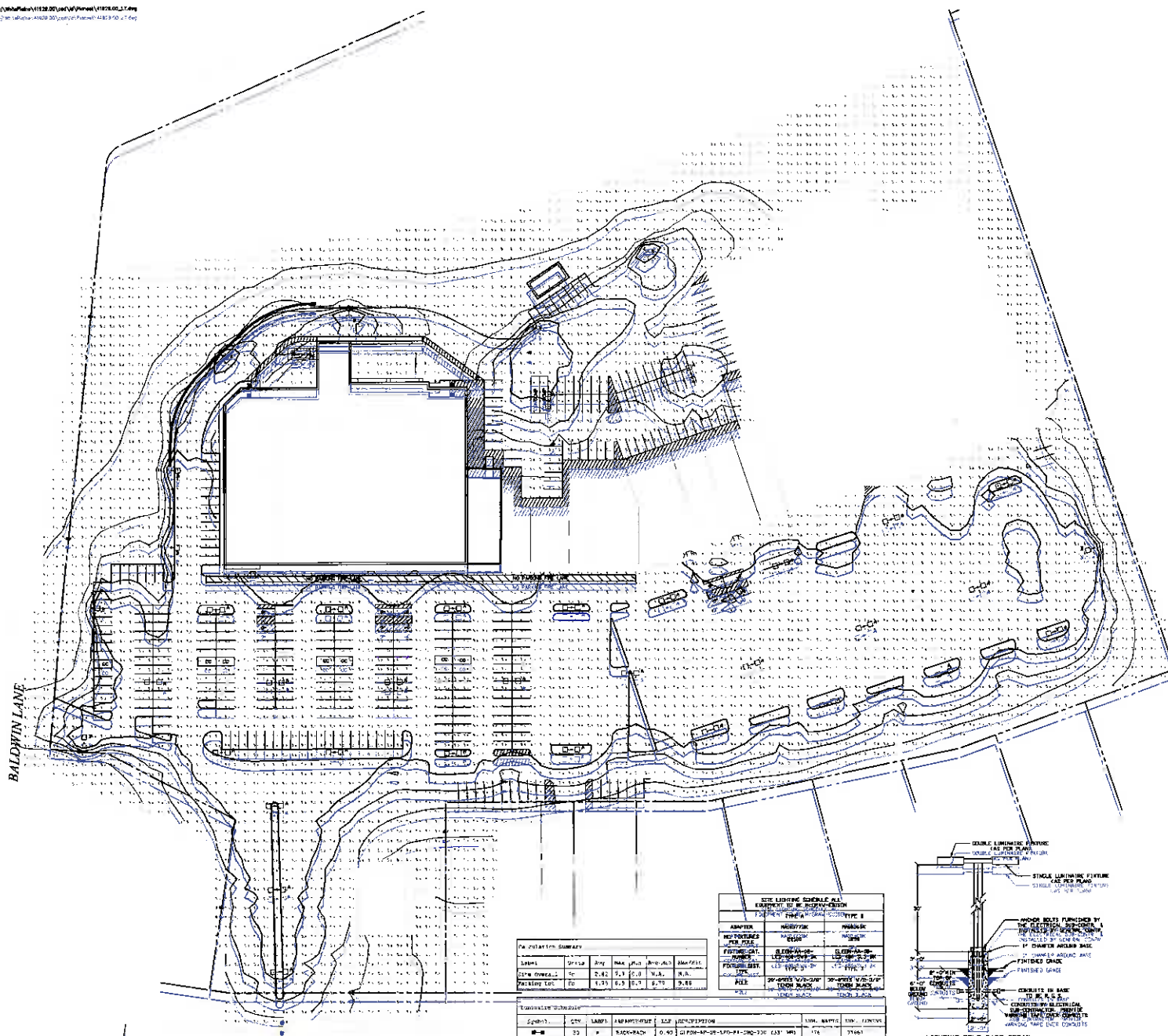
[illegible]

- Notes:
1. ALL PART SHALL BE REINFORCING TRAFFIC PART, MEETING THE REQUIREMENTS OF THE AASHTO TYPE II PART, SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
 2. SYMBOLS & PAINTING STATES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITY ACT.
 3. NO SURFES THROUGHOUT THE ACCESSIBLE PAINTING AND MARK AREAS SHALL NOT EXCEED 150R.









Tax Parcels
65-10-1-45
65-10-1-46

Proposed Stop & Shop

983-1005 Route 6
Town of Carmel, Mahopac, New York, 10541
Town of Carmel, Mahopac, New York, 10541

No.	Project	Date	Page
1	PLANNING BOARD RESOLUTION	12/28/2015	40

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Site Plan Approval November 30, 2015

November 30, 2015

Not Approved for Construction

1. *Journal of the American Medical Association*, 1997; 277: 1033-1038.

2001

1000

1000

1000

C 1E

6-15

0-15

Age (months)	Male (%)	Female (%)
0	~10	~8
3	~15	~12
6	~20	~15
9	~25	~18
12	~30	~22

17

Michael W. Jungkunz

Professional Review
\$1129.00

41329.00	41329.00
41329.00	41329.00


(continued)

Top Periods
6/5/2013-1/5
6/5/13-1/4/14

Proposed Stop & Shop
Proposed Stop & Shop
Town of Carmel, Mahopac, New York, 10541
Long Rd Carmel, Mahopac, New York, 10541

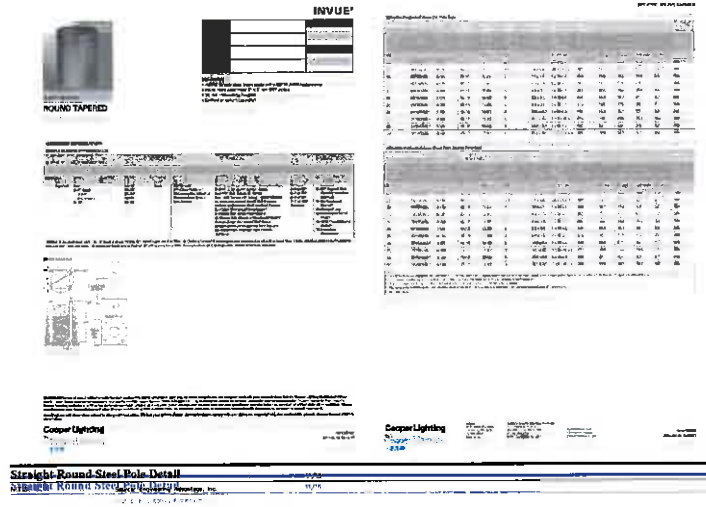
Site Plan Approval November 30, 2013
Site Plan Approval November 30, 2013

Not Approved for Construction

 €-16
18
18

Michael W. Zarubka
At, Town of Carmel
10000 Mahopac
Carmel, NY 10541

Page 1 of 1
4/13/2014 10:00 AM



vhb
 Engineering, Surveying &
 Landscape Architecture PC
 50 Main Street
 Suite 100
 White Plains, NY 10606
 P: 914 962 6600
 F: 914 962 3755
 E: info@vhb.com

EA
 ENGINEERING ASSOCIATES, INC.
 100 Main Street, 20th Floor
 New York, NY 10038
 P: 212 693 7500
 F: 212 693 7501
 E: info@ea.com

Tax Parcel
 65-10-3-45
 65-10-1-46

Proposed Stop & Shop
 983-1005 Route 6
 Town of Carmel/Mahopac, New York, 10541
 Long of Carmel, Mahopac, New York, 10541

PLANNING BOARD MEETING
 11/17/2015 10:00 AM
 11/17/2015 10:00 AM

Site Plan Approval
 November 18, 2015
 November 18, 2015

Not Approved for Construction

€-17

Michael W. Anglin
 100 Main Street
 New York, NY 10038
 41925 00
 41925 00



Seeding Notes:

1. READ ORANGE NOTES, ALL OUTLINED LANDSCAPE ARTS NOT PLANTED OR MULCHED SHALL BE RESEED WITH THE FOLLOWING SEEDS:

SEEDS BY SPECIES	
SEED BULBUS TUL	55.0% BULBULUS TUL TALL PERM
PO BOX 812	33.0% PERM TALL PERM
804541, PO 11215	12.0% PERM TALL PERM
PO BOX 812	0.0% PERM TALL PERM
804541, PO 11215	0.0% PERM TALL PERM

2. APPROXIMATE TOTAL SEEDS: 100.0% PERM TALL PERM

ing Notes

1. PROVIDE COMPLETE MAINTENANCE OF ALL PLANTS THROUGHOUT THE PERIOD OF CONTRACT OR UPON THE COMPLETION OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE PERIOD FOR THE CONTRACT OR UPON THE COMPLETION OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE PERIOD FOR THE CONTRACT OR UPON THE COMPLETION OF THE CONTRACT.

True Protection

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TRUNK GUARDS AND BRANCH GUARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL TREES TO REMAIN.

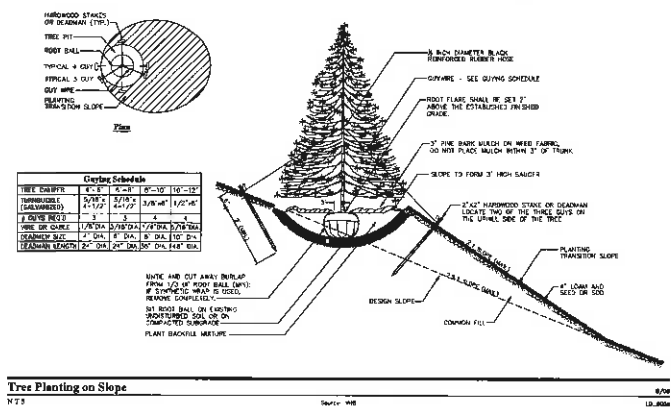
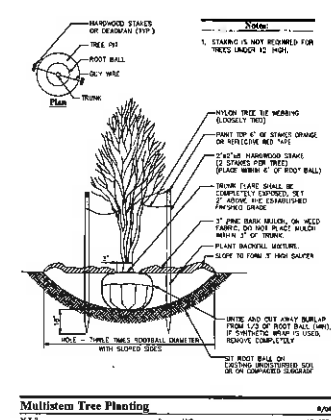
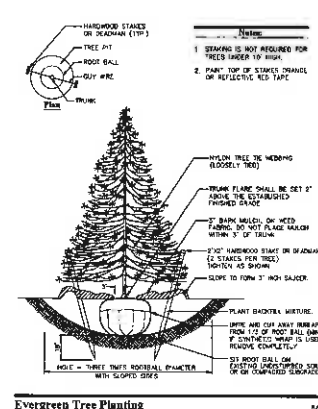
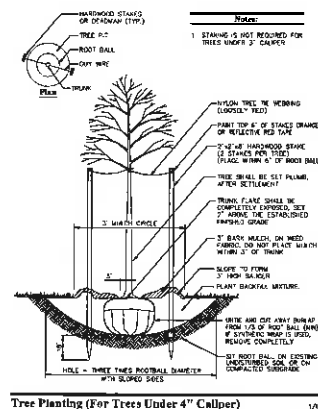
2. CONTRACTOR SHALL NOT OPERATE VEHICLES WITHIN THE TREE PROTECTION ZONE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL TREES TO REMAIN.

3. DAMAGE TO EXISTING TREES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

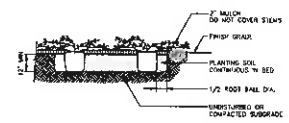
Edge of Woods Clearing

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TRUNK GUARDS AND BRANCH GUARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL TREES TO REMAIN.



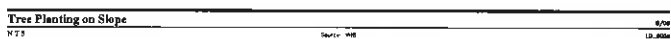
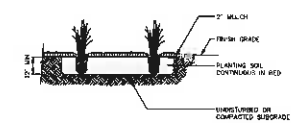


PLANT SPACING (A)	POB SPACING (B)
8 IN. O.C.	5 IN. O.C.
8 IN. D.C.	7 IN. O.C.
10 IN. O.C.	8 1/2 IN. O.C.
12 IN. O.C.	10 1/2 IN. O.C.
15 IN. D.C.	13 IN. O.C.
18 IN. O.C.	16 IN. O.C.
24 IN. O.C.	20 IN. O.C.



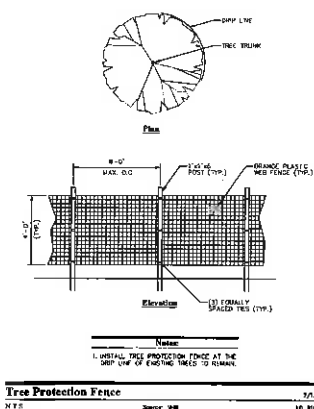
PLANT SPACING (A')	POM SPACING (A')
8 N. G.C.	3 N. G.C.
8 N. G.C.	7 N. G.C.
12 N. G.C.	8-1/2 N. G.C.
12 N. G.C.	10-1/2 N. G.C.
12 N. G.C.	12 N. G.C.
12 N. G.C.	16 N. G.C.
24 N. G.C.	21 N. G.C.
30 N. G.C.	26 N. G.C.
30 N. G.C.	30 N. G.C.
40 N. G.C.	42 N. G.C.
54 N. G.C.	48 N. G.C.

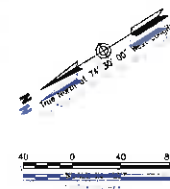
ROW SPACING ("F")	COLUMN SPACING ("G")
6 IN. O.C.	5 IN. O.C.
8 IN. O.C.	7 IN. O.C.
10 IN. O.C.	8-1/2 IN. O.C.
12 IN. O.C.	10-1/2 IN. O.C.
15 IN. O.C.	13 IN. O.C.
18 IN. O.C.	16 IN. O.C.



Ground Cover Planting		8/7/11
NT5	Source: MHR	1/5, 6/11

Ground Cover and Shrub Spacing Chart

Perennial Plug Planting 11/20



Page Number
41923.00
61923.00

General Notes

1. SIGN SHALL BE ON THE EAST SIDE OF THE ROAD, 10' FROM THE CURB, 10' FROM THE FACE OF THE ROAD, 10' FROM THE FACE OF THE HIGHWAY AND 10' FROM THE FACE OF THE HIGHWAY.

2. THE FOLLOWING DESIGN SPEEDS ARE USED: DESIGN SPEED = POSTED SPEED + 10 MPH. BALANCE (10' = 30 MPH + 10 MPH = 40 MPH).

3. THE FOLLOWING DESIGN SPEEDS ARE USED: DESIGN SPEED = POSTED SPEED + 10 MPH. BALANCE (10' = 30 MPH + 10 MPH = 40 MPH).



Appendix E: Figures

Figure 1. Site Location

Figure 2. Soils Map

Figure 3. Federal and State Mapped Wetlands

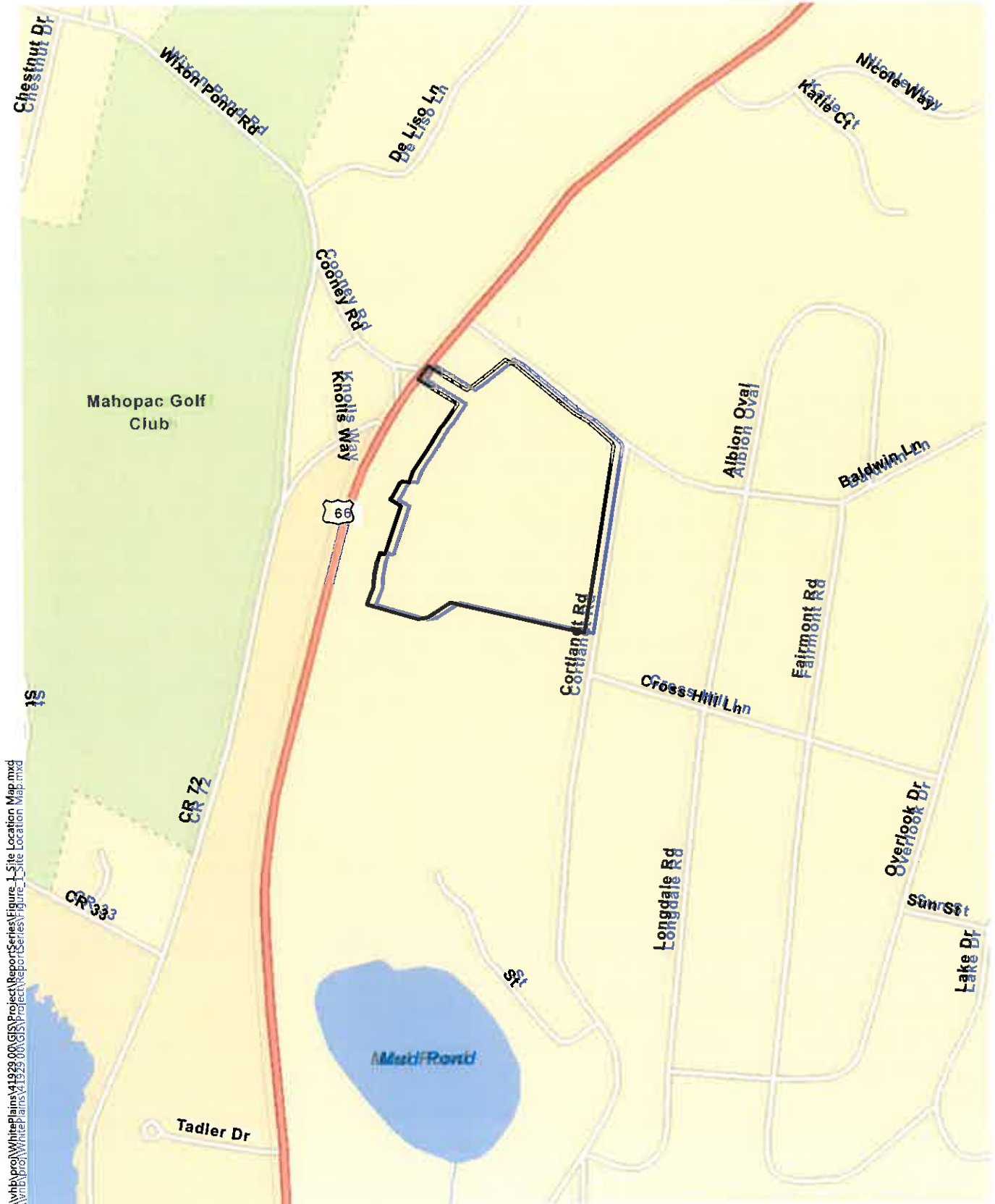
Figure 4. Land Cover

Figure 5. Natural Resource Map

Figure 6: Flow Map

Figure 7. FEMA/FIRM

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\\vib\proj\White Plains\41923.00\GIS\Project\ReportSeries\Figure_1_Site Location Map.mxd
 \\vib\proj\White Plains\41923.00\GIS\Project\ReportSeries\Figure_1_Site Location Map.mxd



0 0 205 410 820 Feet



Study Area (VHB)

Proposed Stop & Shop

98331005 Route 66 - Route 68 Baldwin Lane
 Mahopac, Town of Carmel
 Putnam County, New York 10541

Site Location

Sourced from Esri 2013

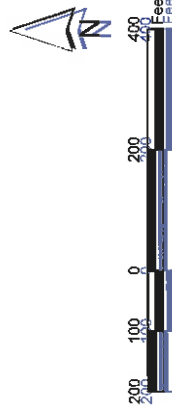
Proposed Stop & Shop
 983-1005 Route 6
 Route 6 & Baldwin Lane
 Mahopac, Town of Carmel
 Putnam County, New York 10541

Figure 2 - Soils Map

January 28, 2016

Legend

- Study Area (VHB)
- Soil Boundary (NRES)



Sources: Background - NYS Online (2013)
 Soils from NRES
 Soils from NRES



Source: Aerial Imagery from Google Earth Pro, 2015. Soils from NRES, 2013. VHB is not responsible for the accuracy of the data provided by the sources listed above.

Proposed Stop & Shop
 983-1005 Route 6
 Route 6 & Baldwin Lane
 Mahopac, Town of Carmel
 Putnam County, New York 10541

Figure 3
Federal and State Mapped Wetlands

January 28, 2016

Legend

- Study Area (VHB)
- Streams (NHD)
- Wetlands (NWH)
- Wetlands (NYSDEC)
- 10' Contour
- 2' Contour

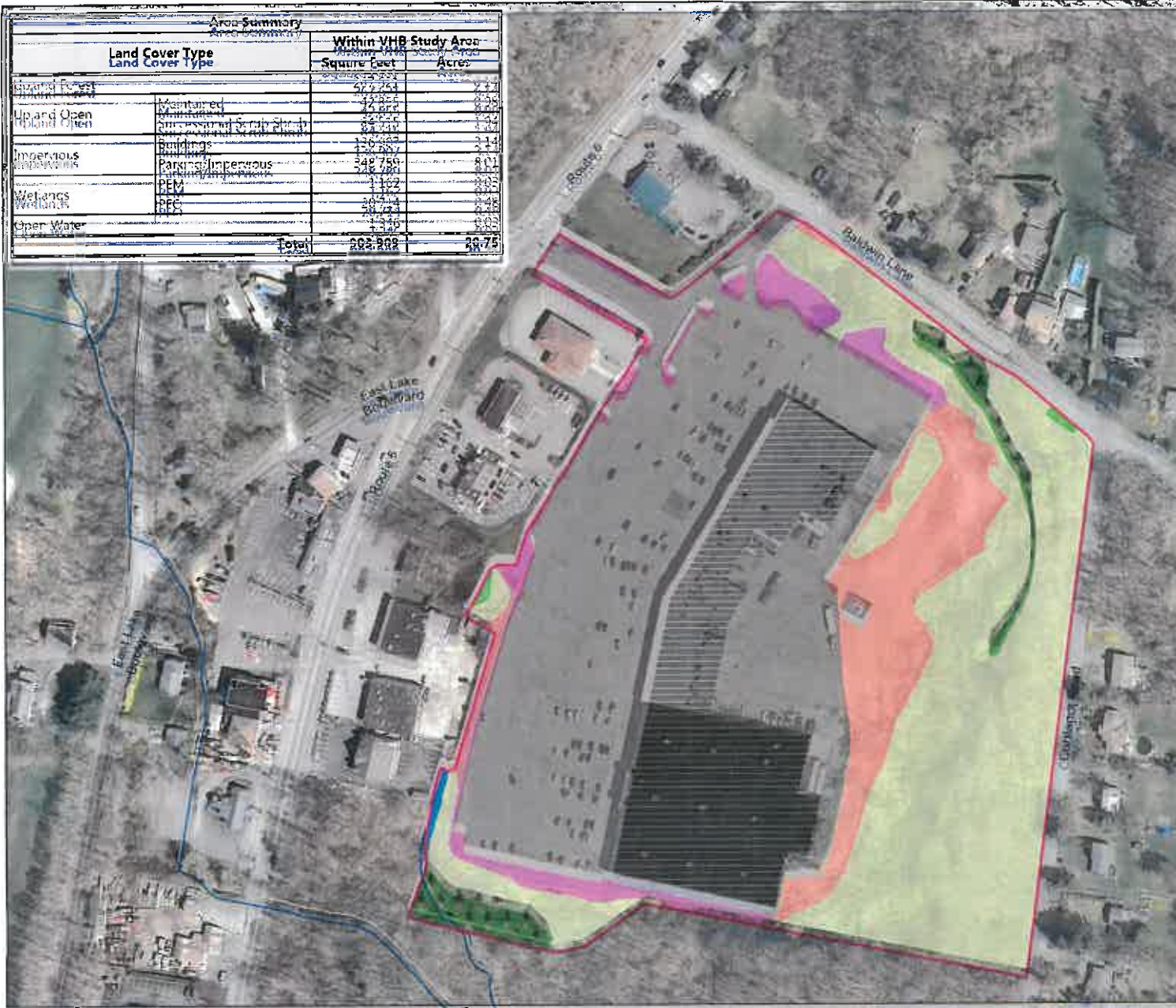


Sources: Background - NYS Orthos (2013);
 Wetlands by NYSDEC (1998) and contours from
 NYS GIS Center (2013); Wetlands by US
 Wildlife Service (2003) from CUGIS.



With regard to the proposed Stop & Shop, the wetlands are located to the south of the proposed site. The wetlands are located to the south of the proposed site. The wetlands are located to the south of the proposed site.

Area Summary		Within VHB Study Area	
Land Cover Type		Square Feet	Acres
Forest		579,264	8.24
Upland Forest		579,264	8.24
Upland Open		45,687	0.66
Upland Open		45,687	0.66
Impervious		128,263	1.84
Impervious		128,263	1.84
Wetlands		38,723	0.56
Wetlands		38,723	0.56
Open Water		4,340	0.06
		4,340	0.06
		208,202	3.02
		208,202	3.02



**Proposed Stop & Shop
983-1005 Route 6
Route 6 & Baldwin Lane
Mahopac, Town of Carmel
Putnam County, New York 10541**

Figure 4 - Land Cover
January 28, 2016
January 28, 2016



Sources: Background - NYS Orthos (2013); Land Cover by VHB (2016).



**Proposed Stop & Shop
983-1005 Route 6
Route 6 & Baldwin Lane
Mahopac, Town of Carmel
Putnam County, New York 10541**

**Figure 5
Natural Resources Series - Index Map**

January 28, 2016
January 28, 2016



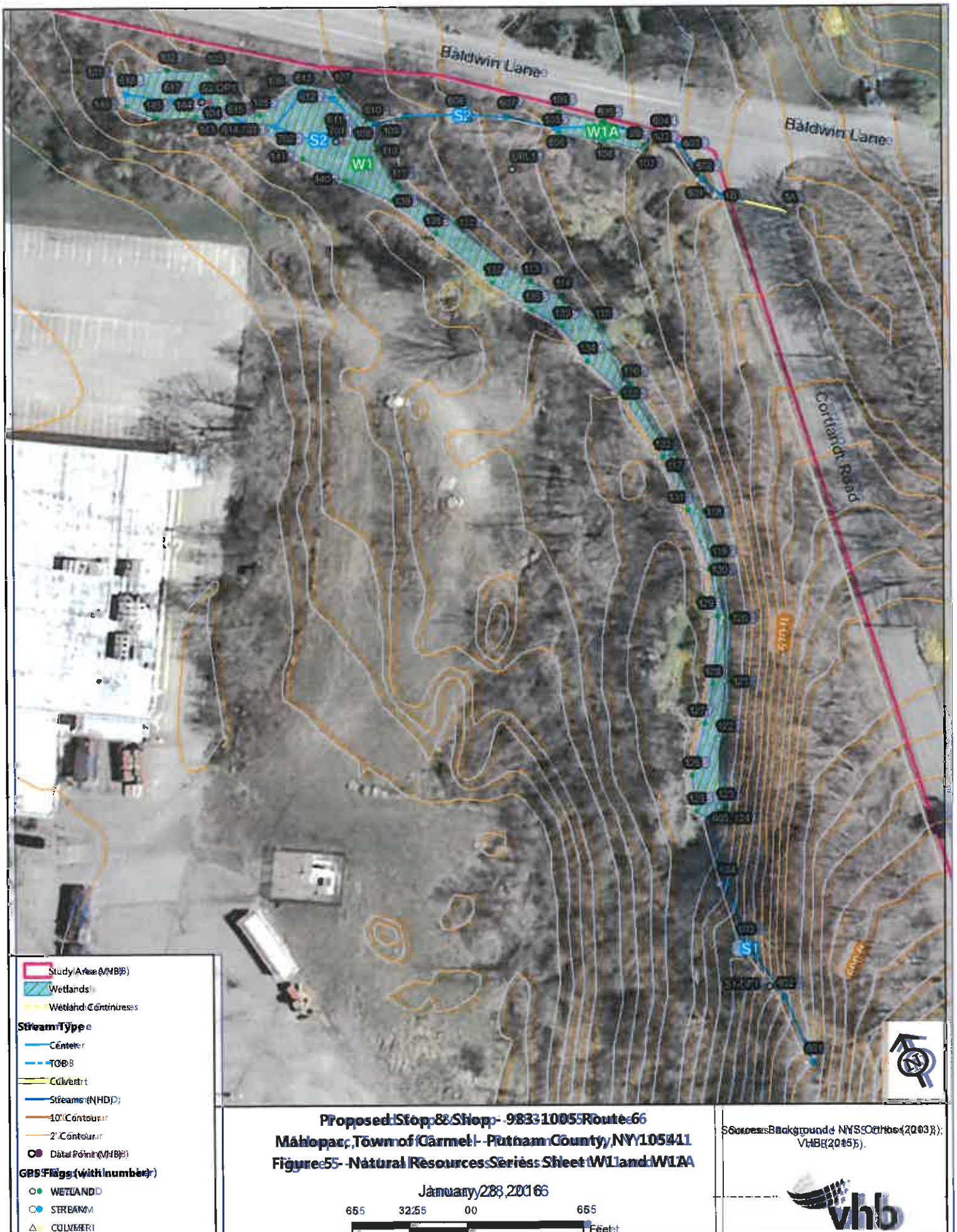
- | | |
|---|--|
| Study Area (VHB) | VHB GPS Flags (with number) |
| — Streams (NHD) | ● WETLAND |
| — 10' Contour | ● STREAM |
| — 2' Contour | ▲ CULVERT |
| Culvert | |
| Wetland Continues | |
| Wetlands | |
| Stream Type | |
| — Center | |
| - - - TOB | |
| ● Data Point (VHB) | |
| — 10' Contour | |
| — 2' Contour | |

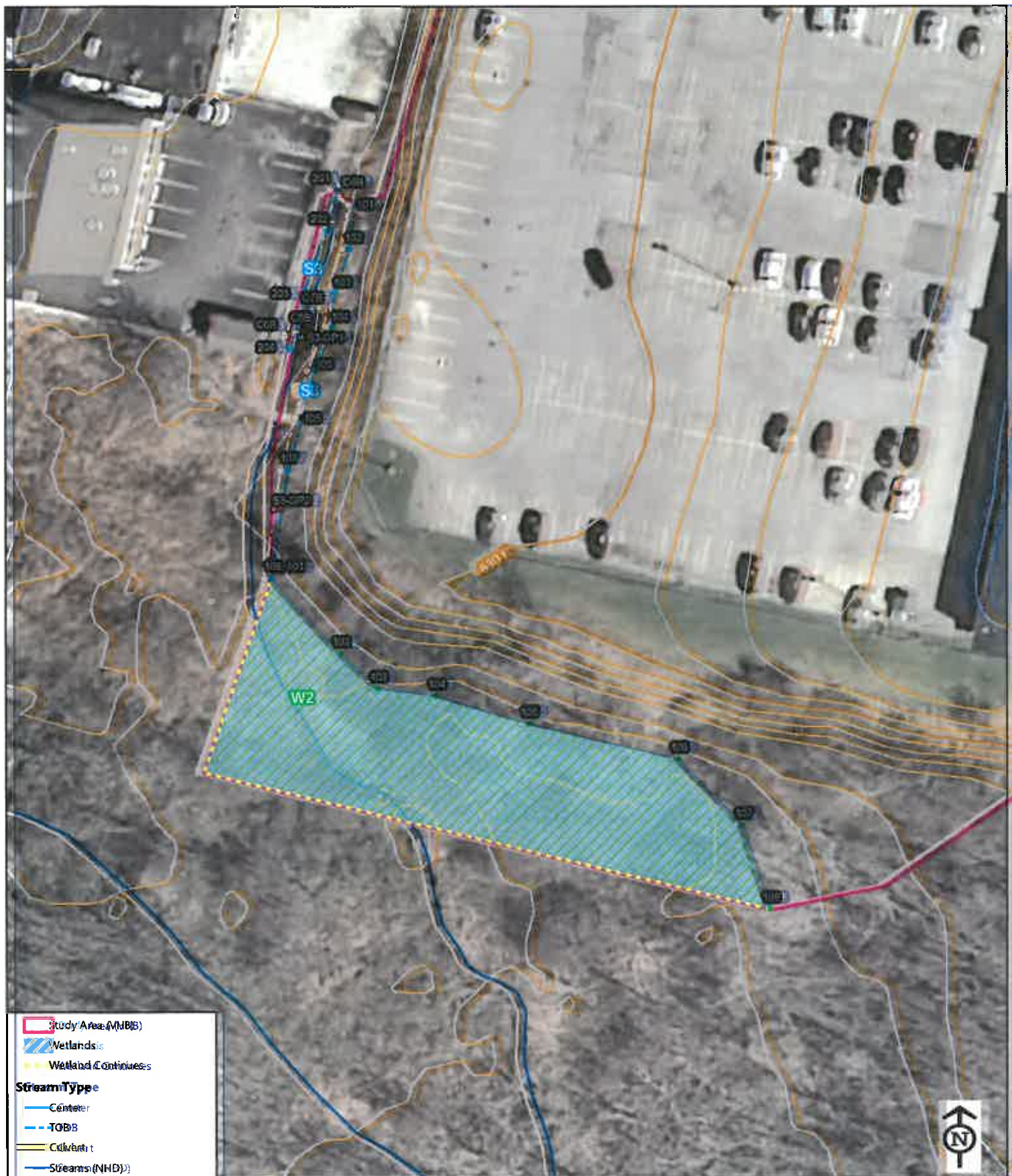
0 75 150 300
Feet
Feet



Sources: Background -
Solgreen; Background -
NYS Orthos (2013).







- Study Area (VHB)**
- Wetlands
 - Wetland Continues
- Stream Type**
- Center
 - TOBB
 - Culvert
 - Streams (NHD)
 - 10' Contour
 - 2' Contour
 - Data Point (VHB)
- GPS Flags (with number)**
- WETLAND
 - STREAM
 - CULVERT

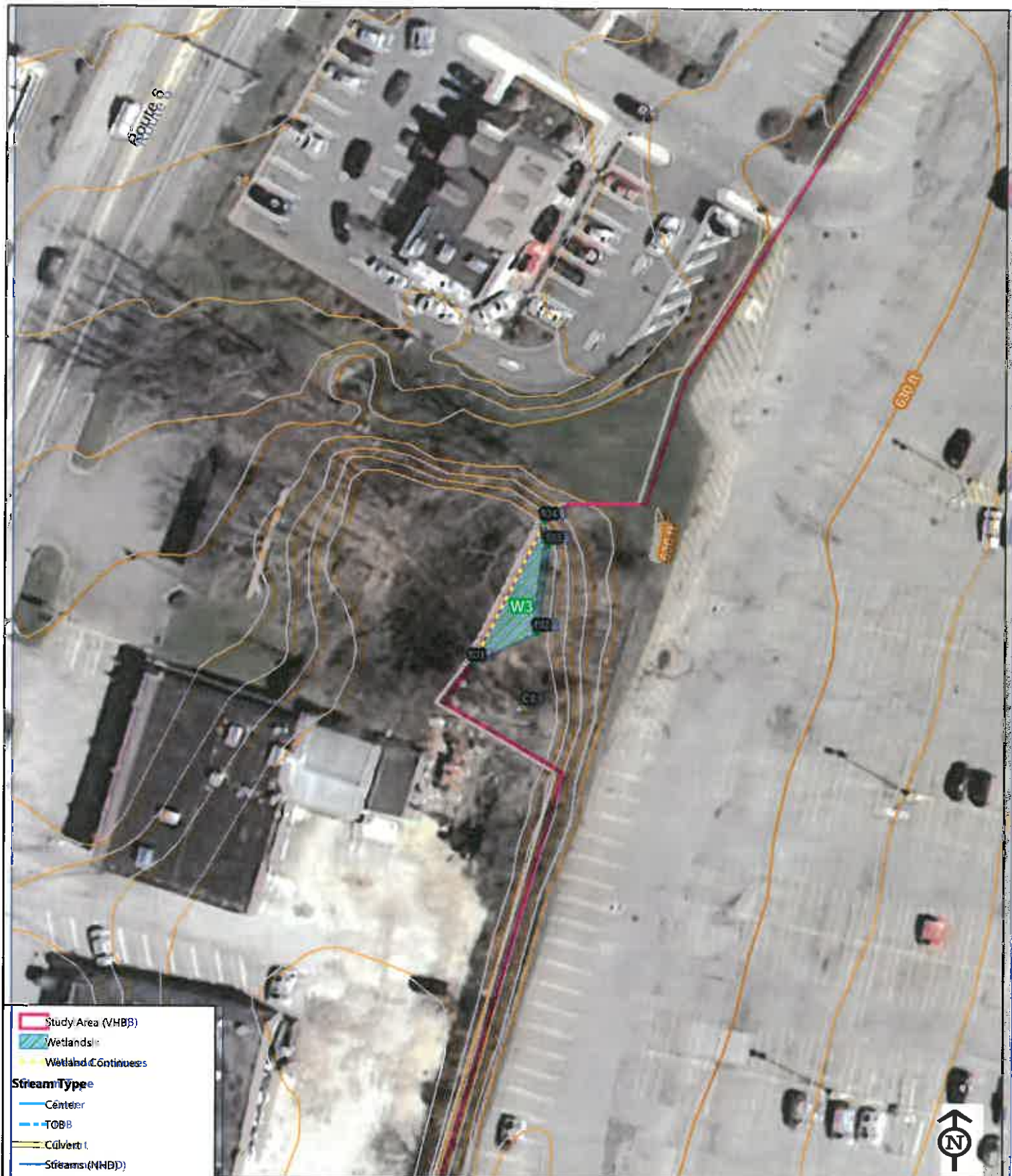
Proposed Stop & Shop - 98331005 Route 66
Mahopac, Town of Carmel - Putnam County, NY 10541
Figure 55 - Natural Resources Series Sheet W2

January 28, 2016

500 250 00 500
 Feet

Source: Background NYS Ortho (2014);
 VHB (2015).





- Study Area (VHBB)
- Wetlands
- Wetland Continues

Stream Type

- Center
- TOBB
- Culvert
- Streams (NHBD)
- 10' Contour
- 2' Contour
- Data Point (VHBB)

GPS Flags (with number)

- WETLAND
- STREAM
- △ CULVERT

Proposed Stop & Shop - 9833 1005 Route 66
Mahopac, Town of Carmel - Putnam County, NY 10541
Figure 55 - Natural Resources Series Sheet W33

January 28, 2016

500 250 00 500
 Feet

Sources: Background: NYS Ortho (2004);
 VHBB (2015).





**Proposed Stop & Shop
983-1005 Route 6
Route 6 & Baldwin Lane
Mahopac, Town of Carmel
Putnam County, New York 10541**

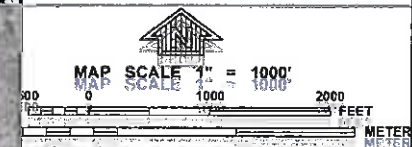
Figure 6 - Flow Map
January 28, 2016

-
- Study Area (VHB)
 Wetlands (VHB)
 Wetland Continues
 Stream Type (VHB)
 Center
 Top-of-Bank
 Streams (NHD)
 Culvert (VHB)
 Existing Stormwater Drainage
 Assumed Flow Connection Between A & B
 10' Contour
 2' Contour



Sources: Background - NYS Ortho
(2013): Exact location of flow connection
between points A & B unknown. Streams
(NHD) from USGS (2014): Putnam County
contours from NYS GIS Clearinghouse.
Stormwater drainage features from site
Engineering, Survey & Landscape Architecture
PC's Preliminary Lake Plaza Survey (6/24/15).
PC's Preliminary Lake Plaza Survey (6/24/15).





PANEL 0140E
PANEL 0140E

FIRM
FLOOD INSURANCE RATE MAP
FLOOD INSURANCE RATE MAP


PUTNAM COUNTY,
NEW YORK
(CITY OF RINDEN)
(CITY OF RINDEN)

PANEL 140 OF 256
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	FEET	PANEL	SHEET
CARMEL, TOWN OF	00000	0140E	1
NEW YORK, TOWN OF	00001	0140E	2

Notice to User: The Map Number shown herein should be used when placing maps, signs, etc. Community Number shown above should be used on individual local orders for the subject community.

 **MAP NUMBER**
36079C0140E

EFFECTIVE DATE
MARCH 4, 2015

Federal Emergency Management Agency
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM ONLINE. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Appendix F: Tables

Table 1: Summary of Soils

Table 2: Summary of Delineated Wetlands

Table 3: Summary of Delineated Streams

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Lake Plaza Shopping Center, LLC; Heidenberg Properties Group
Proposed Stop & Shop
983-1005 U.S. Route 6, Mahopac, Town of Carmel, Putnam County, New York
Prepared by VHB; Project 41929.00



Table 1: Summary of Soils
January 28, 2016

Soil Unit Symbol	Soil Type	Landform	Slope (%)	Drainage Class	Hydric Soil ¹	Soil Areas		
						Within VHB Study Area		
						(Sq. Ft.)	(Ac.)	Percent (%)
Ff	Fluvaquents-Udifulvents complex, frequently flooded	Flood plains	0-3	Poorly drained	Yes	8,601	0.20	1%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	Drumlins, ground moraines, hills	8-15	Well drained	No	21,318	0.49	2%
PnD	Paxton fine sandy loam, 15 to 25 percent slopes	Drumlins, ground moraines, hills	15-25	Well drained	No	115,805	2.66	13%
RdB	Ridgebury loam, 3 to 8 percent slopes	Hills, till plains, drumlinoid ridges	3-8	Somewhat poorly drained	Yes	1,414	0.03	0%
RgB	Ridgebury loam, 2 to 8 percent slopes, very stony	Hills, till plains, drumlinoid ridges	2-8	Somewhat poorly drained	Yes	1,060	0.02	0%
Uf	Urban land	N/A	N/A	N/A	No	729,084	16.74	81%
WdC	Woodbridge loam, 8 to 15 percent slopes	Drumlins, ground moraines, hills	8-15	Moderately well drained	Yes	26,611	0.61	3%
Total						903,893	20.75	100%

¹ Hydric Soil rating from USDA NRCS Soil Survey Geographic Database for Albany County, New York (soil survey area version 4/10/2015).

² VHB Study Area extends beyond project parcel boundary to the south and west; however it does not include the Key Bank portion of the property. Thus, the study area total of 20.75 acres is less than the parcel size of ~21 acres.

Lake Plaza Shopping Center, LLC; Heidenberg Properties Group
Proposed Stop & Shop
983-1005 U.S. Route 6, Mahopac, Town of Carmel, Putnam County, New York
Prepared by VHB; Project 41929.00
Table 2: Summary of Delineated Wetlands
January 28, 2016



VHB Wetland ID	Location		USACE Data Form	Delineated Area ¹		Cowardin Classification ²	Freshwater Wetland Type ³	NYSDEC Classification	Typical Vegetation ⁴	Wetland Indicator Comments
	Latitude	Longitude		(Sq. Ft.)	(Ac.)					
W1	41.39167	-73.720532	W1-WET1 and UPL1	9,030	0.21	PFO1B	Deciduous Swamp	N/A	<i>Acer rubrum</i> ; <i>Salix nigra</i> ; <i>Phalaris arundinacea</i> ; <i>Celastrus orbiculatus</i>	Saturated at surface; high water table at surface; surface water at 3 inches deep; water-stained leaves; drainage patterns; geomorphic position; microtopographical relief present. Hydric soils.
W1A	41.391798	-73.720098	N/A	531	0.01	PEM5B	Emergent Marsh	N/A	<i>Polygonum cuspidatum</i> ; <i>Rosa multiflora</i> ; <i>Berberis thunbergii</i> ; <i>Mitella nuda</i>	Saturated at surface; surface water present; small fringing PEM along S2. Hydric soils.
W2	41.389679	-73.723504	N/A	11,685	0.27	PFO1C/1E	Deciduous Swamp	LC-32, Class II	<i>Acer rubrum</i> ; <i>Fraxinus pennsylvanica</i> ; <i>Salix sp.</i> ; <i>Cornus sericea</i> ; <i>Phragmites australis</i> ; <i>Lythrum salicaria</i>	Surface water present. Saturated at surface with high water table in areas not inundated. Water-stained leaves; drainage patterns present. Hydric soils.
W3 ⁵	41.39109	-73.723433	N/A	630	0.01	PEM5B	Emergent Marsh	N/A	<i>Fraxinus pennsylvanica</i> ⁶ ; <i>Cornus sericea</i> ; <i>Phragmites australis</i>	Surface water and saturation; hydric soils.
Total Area of Wetlands within VHB Study Area				21,876	0.50					

NOTES:

¹ Delineated Area is the approximate, VHB GPS-surveyed limits of the identified wetland boundary; wetland areas displayed in **bold** continue outside of the Study Area.

² Classification follows Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitat of the United States. U.S. Fish and Wildlife Service. FWS/OBD-79/31. 103pp.

³ Freshwater Wetland Covertypes follow those described in Section 578.3 of the of the New York State Adirondack Park Agency Rules and Regulations (Last Revised: September 20, 2011).

⁴ Species nomenclature follows the USDA Plants Database (USDA - NRCS 2014) <http://plants.usda.gov/java/>.

⁵ Wetland 3 (W3) appears to be an old retention basin that has not been maintained. It has since developed wetland indicators.

⁶ Tree stratum rooted outside of Wetland 3 (W3) boundary; however tree canopy cover exists over the wetland area.



VHB Stream ID ¹	USGS Stream/Water Name	Location		Average Ordinary High Water (OHW-width or elevation) ²	Length of Delineated Stream Channel Within Jurisdictional Determination Area	Approximate Area of Delineated Stream Within Jurisdictional Determination Area ³		Flow Regime (Perennial, Intermittent, Ephemeral and Ditch) ⁴	Surface Water Classification ⁵	Cowardin Classification ⁶	Comments
		Latitude	Longitude			(Square Feet)	(Acres)				
S1	(unnamed)	41.39057	-73.720565	2	151	302	0.007	Ephemeral	D	Ephemeral	This is an ephemeral stream originating from the ridge on the easternmost portion of the parcel. It disperses into W1.
S2	(unnamed)	41.391946	-73.720427	4	376	1504	0.035	Intermittent	D	Intermittent	S2 enters the parcel from a culvert under Cordlandt Road. It generally flows northwest, then west, through W1A and W1 until it enters a culvert system; and eventually daylights as S3. While S2 may receive some groundwater discharge from W1, it had few indications of year round flow.
S3	(unnamed)	41.390199	-73.723715	8	110	880	0.020	Intermittent	D	Perennial	S3 primarily flows from a culvert system near the southwest portion of the parcel. The stream receives multiple stormwater discharges, and continues south into W2 (NYSDEC Wetland LC-32). Based upon field observations, W2 hydrology, and Cowardin classifications; S3 was determined to be a perennial stream.
Total Length and Area of Stream Channel or Other Waters within VHB Study Area					637	2,686	0.062				

NOTES:

¹ VHB's Stream ID refers to unique ID designated in the field.

² U.S. Army Corps of Engineers (USACE). 2005. "Regulatory Guidance Letter. Subject: Ordinary High Water Mark Identification." No. 05-05.

³ Approximate area of delineated streams within the study area is calculated from the average OHW time the length of delineated stream channel within the study area.

⁴ Stream flow regime determined based on qualitative observations of in stream hydrology indicators and geomorphic characteristic and are subject to professional judgment.

⁵ Surface waters classifications were made pursuant to 6NYCRR, Chapter X, Article 2, Parts 701 (classification and standards definitions), where Class refers to the water quality classification based on existing (or best expected use); and Standard refers to standards of quality established for Class A, B, and C surface waters. Class D waters also refer to intermittent streams (See: <http://www.dec.ny.gov/imsmaps/ERM/streamsRiversLakesPonds.htm>).

⁶ Classification follows Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitat of the United States. U.S. Fish and Wildlife Service. FWS/OBD-79/31. 103pp.

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