TOWN OF BROOKLYN
PLANNING AND ZONING COMMISSION
Regular Meeting Agenda
Tuesday, November 17, 2020
6:30 p.m.

To join this hearing via the web or phone, follow the below instructions:	
Web **Go to www.webex.com** **On the top right, click Join** **Enter meeting information: 173 034 4162** **Enter meeting password: NOVbrr2020** **Click join meeting**	**Phone** **Dial 1-408-418-9388** **Enter meeting number: 173 034 4162** **You can bypass attendee number by pressing #**

I. Call to Order
II. Roll Call
III. Seating of Alternates
IV. Adoption of Minutes: Regular Meeting October 20, 2020
V. Public Commentary
VI. Unfinished Business
- **a. Reading of Legal Notice**
- **b. New Public Hearings:**
  1. **ZC 20-003** – Zone Boundary Change from RA to VC; Applicant: Ronald Sorel, Location: 94-102 Hartford Road, Approximately 4 acres on the north side of Hartford Road.
- **c. Continued Public Hearings:**
  1. **SP 20-002** – Special Permit for additional vehicle storage, Applicant: Vachon Brooklyn, LLC, 512 Providence Road, Proposed construction of two 16' wide access drives to proposed new vehicle storage lots.
- **d. Other Unfinished Business:**
  1. **SP 20-002** – Special Permit for additional vehicle storage, Applicant: Vachon Brooklyn, LLC, 512 Providence Road, Proposed construction of two 16' wide access drives to proposed new vehicle storage lots.
  2. **ZC 20-003** – Zone Boundary Change from RA to VC; Applicant: Ronald Sorel, Location: 94-102 Hartford Road, Approximately 4 acres on the north side of Hartford Road.

VII. New Business
- **a. Applications: None.**
- **b. Other New Business: None.**

VIII. Reports of Officers and Committees:
- a. Staff Reports
- b. Correspondence.
- c. Chairman's Report.

IX. Public Commentary
X. Adjourn

Michelle Sigfridson, Chairman

TOWN OF BROOKLYN
PLANNING AND ZONING COMMISSION
Regular Meeting
Wednesday, October 20, 2020
6:30 p.m.

To join this hearing via the web or phone, follow the below instructions:	
Web **Go to www.webex.com** **On the top right, click Join** **Enter meeting information: 173 976 3851** **Enter meeting password: FaLL1031MumS** **Click join meeting**	**Phone** **Dial 1-408-418-9388** **Enter meeting number: 173 976 3851** **You can bypass attendee number by pressing #**

MINUTES

I. Call to Order – Michelle Sigfridson, Chair, called the meeting to order at 6:47 p.m.

II. Roll Call – Michelle Sigfridson, Carlene Kelleher, Allen Fitzgerald, Earl Starks, Charles Sczuroski. Austin Tanner was absent with notice.

Staff Present: Jana Roberson, Director of Community Development; Rick Ives, First Selectman and ex officio Member of the PZC.

Also Present: Paul Terwilliger, P.C. Survey Associates.

III. Seating of Alternates: None.

IV. Adoption of Minutes: Regular Meeting September 15, 2020

Motion was made by C. Kelleher to approve the Minutes of the Regular Meeting of September 15, 2020. Second by A. Fitzgerald. No discussion. Motion carried unanimously by voice vote (5-0-0).

V. Public Commentary: None.

VI. Unfinished Business:

a. Reading of Legal Notice:

Jana Roberson read the Legal Notice for SP 20-002.

b. New Public Hearings:

1. **SP 20-002** – Special Permit for additional vehicle storage, Applicant: Vachon Brooklyn, LLC, 512 Providence Road, Proposed construction of two 16' wide access drives to proposed new vehicle storage lots.

   J. Roberson explained that the Agent for the Applicant, Norm Thibeault, Engineer with Killingly Engineering Associates, was unable to attend this meeting and that he had requested that the public hearing be tabled so that he may address comments from the Town Engineer. He will also be conducting some testing.

Ms. Roberson gave an update:

- Revised plans have been submitted (not included in packets to Commission Members). Landscaping was adjusted.
- A Drainage Report was submitted addressing Section 7.h. of the Zoning Regulations regarding storm water management. This information was forwarded to the Town Engineer, Syl Pauley. Ms. Roberson summarized (and read from) Mr. Pauley's letter of response which she received earlier in the day. Ms. Roberson stated that she had also shared Mr. Pauley's response with Mr. Thibeault earlier in the day. Mr. Pauley does not feel that the calculations are complete for the two detention basins shown on the plans.

Ms. Roberson explained that the Applicant does not plan on building this year and she noted the ongoing issues with the retention basins at WalMart which is in the vicinity.

There were no questions from the Commission Members.

M. Sigfridson announced that the public hearing would be tabled to the next regular meeting of November 4, 2020.

c. Continued Public Hearings: None.

d. Other Unfinished Business:

1. **SP 20-002** – Special Permit for additional vehicle storage, Applicant: Vachon Brooklyn, LLC, 512 Providence Road, Proposed construction of two 16' wide access drives to proposed new vehicle storage lots. (Public hearing scheduled for September 15, 2020.) - Tabled to the next regular meeting of November 4, 2020.

2. **SD 20-003** – 3-lot Subdivision, Applicant: David and Nancy Bell, 6 acres on the east side of Prince Hill Road (131 Prince Hill Road, Map 34, Lot 52) in the RA Zone; Proposed creation of 3 residential buildings lots, two sharing a common driveway.

   Ms. Roberson explained that the Application has been revised so there is no longer a common driveway and it is now just three residential lots.

   Paul Terwilleger, P.C. Survey Associates, represented the Applicant:

   - Mr. Terwilleger addressed the issue of Open Space: An appraisal had been done and was submitted. The property was appraised at $48,000. The open space fee would be $4,800. The fee for each of the three lots (payable at time of sale of each lot) would be $1,600.
   - Regarding preserving a stone wall on the road frontage along the driveway entrance on Lot #3: They re-assigned a retention area to preserve the wall. Revisions have made to the plan and has been submitted. He explained that it is re-grading so that the wall is preserved. He said that the designed engineer has reviewed it and signed-off on it.

Ms. Roberson displayed and orientated/described the area on the plan. She explained the revision which she said will ensure that the stone wall is not impacted and will be built/finished to the same style on either edge. She also stated that they have demonstrated that, by removing vegetation and doing minor grading, they can achieve sightlines without impacting any stone walls or boundary lines. Sight line information had been included in packets to Commission Members. She said that sight lines have been addressed on the plans with actual numbers.

There were no questions from Commission Members.

Motion was made by C. Sczuroski to approve the Subdivision application of David and Nancy Bell, identified in the files of the Brooklyn Land Use Office as SD 20-003, to create three residential lots on 6 acres on the east side of Prince Hill Rd. (Map 34, Lot 52) in the RA Zone in accordance with all final plans, documents and testimony submitted with the application and including the following conditions:

1. Prior to the endorsement by the Commission of the Final Subdivision Plan(s) for filing in the office of the Town Clerk:
    a. The Inland Wetlands and Watercourses Commission approval with conditions and the Planning and Zoning Commission approval with conditions must be included on the final recorded subdivision plans. Draft final approved plans shall be printed on paper and submitted to town staff for review prior to printing on archival material. The final approved plans bearing the seal and signature of the appropriate professionals and signed by Commission Chairs shall be recorded in the office of the Town Clerk.
    b. All boundary pins and monuments shall be set and field verified by the surveyor.
2. At the time of sale of any building lot, a payment in lieu of open space dedication shall be paid by the applicant to the Town in the amount of $1,600 per lot in accordance with the requirements of CT General Statutes 8-25 and Brooklyn Subdivision Regulation Sec. 8. An open space lien may be placed on the building lots to ensure that the fee-in-lieu of open space is paid at the time of sale.
3. Prior to the issuance of a Zoning Permit on any lot:
    a. The developer shall notify the Zoning Enforcement Office and Town Planner at least seven days in advance of any site work to schedule a pre-construction meeting.
    b. Driveway permits must be obtained from the Road Foreman in accordance with the adopted policy concerning driveways.
    c. The applicant and/or individual lot developers shall minimize impacts to natural features both on private lots and in the Town of Brooklyn r.o.w. to the greatest extent possible. This shall include but is not limited to the preservation of stonewalls, the protection of mature trees lining any public road, and the minimization of clearing and grading.
    d. No stonewalls, mature trees, or ledge within the r.o.w. shall be removed or modified unless necessary for safety. The responsibility of clearing, grubbing, blasting, and earthmoving with the Town of Brooklyn r.o.w. shall be the responsibility of the individual lot developer.
    e. Any cutting of trees greater than 30" d.b.h. for sightlines shall require prior approval by the Town of Brooklyn Tree Warden upon finding that the removal of trees is unavoidable to guarantee adequate driveway sightlines.
4. Stonewalls must be finished on the edges prior to the issuance of a Certificate of Zoning Compliance on any lot containing a stone wall.

Second by C. Kelleher. No discussion.

Roll Call Vote: C. Kelleher – yes; E. Starks – yes; A. Fitzgerald – yes; C. Sczuroski - yes; M. Sigfridson – yes. Motion carried unanimously (5-0-0).

VII. New Business:

a. Applications:

1. ZC 20-003 – Zone Boundary Change from RA to VC; Applicant: Ronald Sorel, Location: 94-102 Hartford Road, Approximately 4 acres on the north side of Hartford Road.

There was no one present to represent the Applicant. Ms. Roberson gave an overview of the proposal:

- Aerial photos had been submitted and were included in packets to Commission Members.
- The Applicant is seeking a zone change for his own parcel (102 Hartford Road) as well as his neighbor's.
- On the edge of the Village Center Zone Boundary.
- The lots are in the RA Zone, but the driveway is in the VCZ (to the left of the Sorel's Garage driveway). The two parcels are to the rear and cannot be seen from the road.
- The Applicant would like to develop a portion of his lot (build another house). It was thought that the parcel was in the VCZ, but upon investigating, it was found that it is in the RA Zone.
- Because of the way the driveway is layed out and because it is a shared driveway, if Mr. Sorel's lot were changed, but not his neighbor's, the neighbor's lot would be a donut hole in the VCZ (only 1/2 acre in size). Ms. Roberson has not heard from the neighbor yet, but assumes that they are in agreement with the proposal.

<u>QUESTIONS FROM THE COMMISSION:</u>

A. Fitzgerald asked if it is the group home property. Ms. Roberson explained that it is not. The two parcels are 94 and 102 Hartford Road and the western-most entrance to Sorel's is their driveway. She will make the location clear for the public hearing.

Motion was made by C. Kelleher to schedule a public hearing on ZC 20-003 – A proposal to change the zoning designation for 94-102 Hartford Road (Assessor's Map 24, Lots 32-33) from RA to VC, for the regular meeting of the Planning and Zoning Commission to be held on November 17, 2020 at 6:30 p.m. via Webex meeting. Second by E. Starks. No discussion. Roll Call Vote: E. Starks – yes; A. Fitzgerald – yes; C. Sczuroski - yes; C. Kelleher – yes; M. Sigfridson – yes. Motion carried unanimously (5-0-0).

b. Other New Business: None.

VIII. Reports of Officers and Committees:

a. Staff Reports
Margaret Washburn's Report was included in packets to Commission Members. There was no discussion.

b. Budget Update
J. Roberson explained the newly-generated budget report. Ms. Roberson will learn how to generate the reports herself so that the reports to Commission Members will more accurately show the revenues/expenditures of the Commission.

c. Correspondence.
Connecticut Federation of Planning and Zoning Agencies newsletter (synopsis of local caselaw).

d. Chairman's Report.
M. Sigfridson commented on the upcoming forum (Zoom Conference) on Economic, Environmental and Racial Despairities In Land Use to be held on October 29th which she and Ms. Roberson are registered to attend. There was discussion.

IX. Public Commentary

There was discussion regarding the Saveway gas station/car wash.

X. Adjourn

Motion was made by A. Fitzgerald to adjourn at 7:49 p.m. Second by E. Starks. Motion carried unanimously by voice vote (5-0-0).

Respectfully submitted,

J.S. Perreault
Recording Secretary

PLANNING AND ZONING COMMISSION

REQUEST FOR CHANGE
IN
ZONING BOUNDARY

RECEIVED
OCT 0 6 2020

Date 10-6-20

FEE $ 250.00
State Fee $ 60.00

Application # ZC 20-003

Check # 1004

Public Hearing Date_____ Commission Action_____
Effective Date_____

Name of Applicant Ronald Sorel Phone 860-208-8833

Mailing Address PO Box 795 Brooklyn Ct 06234

Applicants Interest in the Property OWNER

Property Owner Ronald Sorel Phone 860-208-8833

Mailing Address PO Box 795 Brooklyn Ct 06234

MAP 24 LOT 33 LOT SIZE_____
MAP 24 LOT 32 LOT SIZE_____
MAP _____ LOT_____ LOT SIZE_____
More lots , repeat above on separate sheet

ZONE: R10___ R30___ RA___ VCD___ NC___ RB___ PC___ I___

REQUEST CHANGE: FROM RA TO VC
REQUEST CHANGE: FROM_____ TO_____
REQUEST CHANGE: FROM_____ TO_____
More changes , repeat above on separate sheet

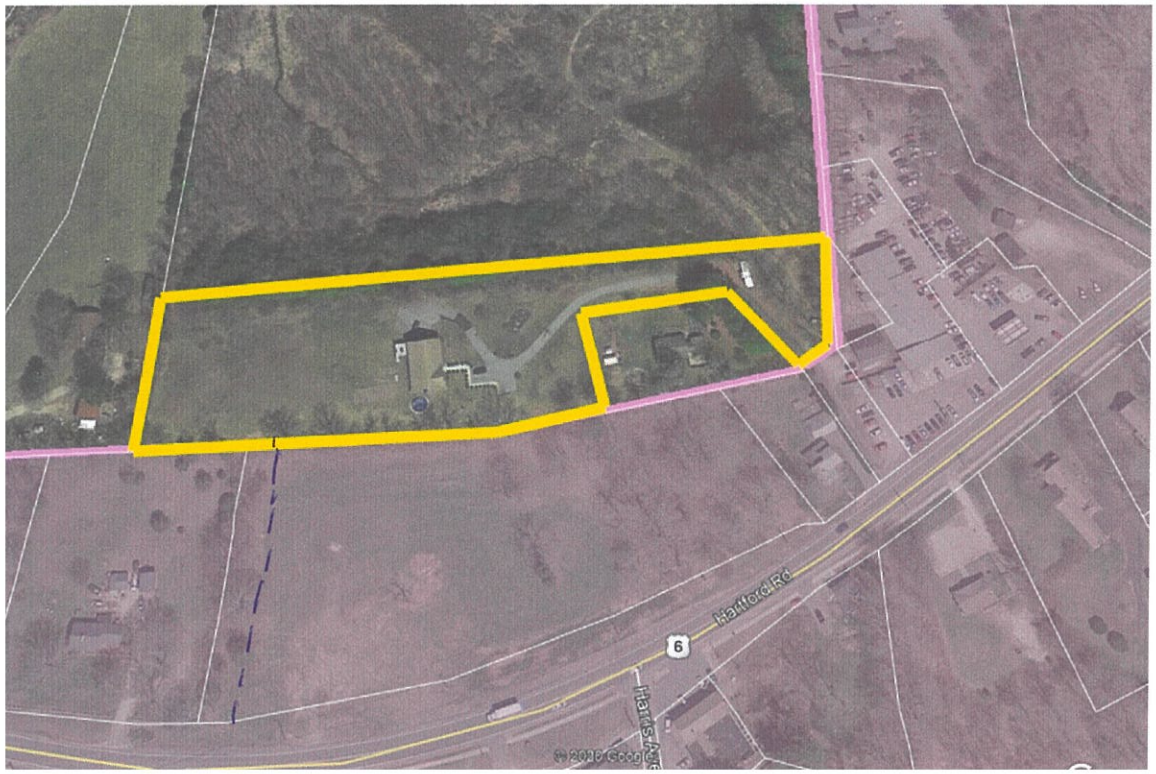
REASON FOR REQUEST: See attached with MAPS

Note: A petition may be filed at the Hearing by 20% or more of the area lots included in such a change within 500 ft of the property under Section 16.5 of the Zoning Regulations

Hello,

Originally I thought my property was zoned Village. I am requesting a zone change because I want to give my son land to build a house. If my land can be changed to Village zone, I will be able to give him a house lot. I would also request a Right of way to Rt 6 as shown on map.

Thank You,
Ron Sorel



The village gone goes right around my property.

RECEIVED
JUL 28 2020
By_____

PLANNING AND ZONING COMMISSION
TOWN OF BROOKLYN
CONECTICUT

Received Date _____ Application #SP 20-002
Check # _____

APPLICATION FOR SPECIAL PERMIT

Name of Applicant VACHON BROOKLYN, LLC Phone 401-692-1459
Mailing Address 957 WASHINGTON ST, ATTLEBORO, MA 02703 Phone _____

Name of Engineer/Surveyor KILLINGLY ENGINEERING ASSOCIATES
Address PO BOX 421 KILLINGLY CT 06241
Contact Person NORMAND THIBEAULT, JR Phone 779-7299 Fax ——

Name of Attorney N/A
Address _____
Phone _____ Fax _____

Property location/address 512 PROVIDENCE ROAD (RTE. 6)
Map# 41 Lot# 13A&14 Zone PC Total Acres 10.526
Sewage Disposal: Private _____ Public X Existing X Proposed _____
Water: Private _____ Public X Existing X Proposed _____

Proposed Activity CONSTRUCTION OF (2) 16' WIDE ACCESS DRIVES TO ACCESS PROPOSED NEW VEHICLE STORAGE LOTS.

Compliance with Article 4, Site Plan Requirements

Is parcel located within 500 feet of an adjoining Town? NO

The following shall accompany the application when required:

Fee $_____ State Fee ($60.00) _____ 3 copies of plans_____ Sanitary Report_____
4.5.5 Application/ Report of Decision from the Inland Wetlands Commission
4.5.5 Applications filed with other Agencies
12.1 Erosion and Sediment Control Plans

The owner and applicant hereby grant the Brooklyn Planning and Zoning Commission, the Board of Selectman, Authorized Agents of the Planning and Zoning Commission or Board of Selectman, permission to enter the property to which the application is requested for the purpose of inspection and enforcement of the Zoning regulations and the Subdivision regulations of the Town of Brooklyn

Applicant: _____ Date 7/28/20

Owner: _____ Date 7/28/20

*Note: All consulting fees shall be paid by the applicant

PLANNING AND ZONING COMMISSION
TOWN OF BROOKLYN
CONECTICUT

Received Date _____ Application #SPR_____
Action Date_____ Check#_____

APPLICATION FOR SITE PLAN REVIEW

Name of Applicant VACHON BROOKLYN, LLC Phone 401-692-1459
Mailing Address 957 WASHINGTON ST, ATTLEBORO, MA 02703 Phone_____
Name of Owner SAME Phone_____
Mailing Address_____ Phone_____

Name of Engineer/Surveyor KILLINGLY ENGINEERING ASSOCIATES
Address PO BOX 421 KILLINGLY CT 06241
Contact Person NORMAND THIBEAULT, JR. Phone 779-7299 Fax ——

Property location/address PROVIDENCE ROAD (RTE. 6)
Map # 41 Lot # 13A #14 Zone PC Total Acres 10.1520

Proposed Activity CONSTRUCTION OF (2) 16' WIDE ACCESS DRIVES TO ACCESS PROPOSED NEW VEHICLE STORAGE LOTS

Change of Use: Yes____ No X If Yes, Previous Use_____
Area of Proposed Structure(s) or Expansion 2.69 AC

Utilities - Septic: On Site_____ Municipal X Existing X Proposed_____
Water: Private_____ Public X Existing X Proposed_____

Compliance with Article 4, Site Plan Requirements

The following shall accompany the application when required:

Fee$_____ **State Fee ($60.00)** _____ 3 copies of plans_____ Sanitary Report_____
4.5.5 Application/ Report of Decision from the Inland Wetlands Commission
4.5.5 Applications filed with other Agencies
12.1 Erosion and Sediment Control Plans
See also Site Plan Review Worksheet

Variances obtained_____Date_____

The owner and applicant hereby grant the Brooklyn Planning and Zoning Commission, the Board of Selectman, Authorized Agents of the Planning and Zoning Commission or Board of Selectman, permission to enter the property to which the application is requested for the purpose of inspection and enforcement of the Zoning regulations and the Subdivision regulations of the Town of Brooklyn

Applicant: _____ Date 7/24/20

Owner: _____ Date 7/24/20

* Note: Any consulting fees will be paid by the applicant

LIST OF AJACENT LAND OWNERS INCLUDING ACROSS THE STREET as of 7/28/2020 GIS

Vachon Brooklyn, LLC
Vachon Chevrolet
Providence Road (Route 6)
Brooklyn, CT

Job No. 19129

MAP//LOT	NAME
41/ / 13	ALDIN ASSOCIATES LIMITED PARTNERSHIP 77 STERLING ROAD EAST HARTFORD, CT 06108
41/ / 12	JEWETT CITY SAVINGS BANK PO BOX 335 JEWETT CITY, CT 06351-0335
41/ / 10A	CONNECTICUT LIGHT & POWER CO PO BOX 270 HARTFORD, CT 06141-2335
42/ / 22-106	MORGAN THE PATRICIA A REVOCABLE TRUST 49 WESTVIEW DR BROOKLYN, CT 06234
42/ / 22	MARQUIS GARY W & MICHELLE D 43 WESTVIEW DR BROOKLYN, CT 06234
41/ / 15	KCTT PROPERTIES LLC C/O KENNETH CARDINAL 520 PROVIDENCE RD BROOKLYN, CT 06234
41/ / 108	CASEY BRIAN & ETHIER EILEEN 9 ALLEN HILL RD BROOKLYN, CT 06234-0156
41/ / 109	CASEY BRIAN M 9 ALLEN HILL RD BROOKLYN, CT 06234-0156

Joseph R. Theroux
~ Certified Forester/ Soil Scientist ~
Phone 860-428-7992~ Fax 860-376-6842
P.O. Box 32, Voluntown, CT. 06384
Forestry Services ~ Wetland Impact Assessments
Wetland Delineations and Permitting ~ E&S/Site Monitoring
Wetland Function & Value Assessments

3/5/20

Killingly Engineering Associates
P.O. Box 421
Dayville, CT. 06241

Re: Wetland function/value and impact assessment report for proposed parking expansion for Vachon Chevrolet, Providence Road, Brooklyn, Connecticut.

Dear Mr. Glaude,

At your request, I have reviewed the site plans entitled: "PROPOSED PARKING EXPANSION, "VACHON CHEVROLET" PROVIDENCE ROAD (ROUTE 6) BROOKLYN CONNECTICUT, dated 1/7/2020 and the above referenced property for the purposes of assessing the wetland functions and values and potential impacts to the inland wetlands and watercourses in proximity to the proposed parking area expansion.

The wetland function and value assessment was conducted on 2/26/20.

Existing Conditions

The property composed by two separate lots is 10.52 acres in size and is located on the north side of Providence Road, (Route 6), in Brooklyn, CT.

The southeast portion of the site is occupied by the car dealership with both paved and gravel parking areas. The remaining portion of the property is occupied by a large palustrine forested/scrub-shrub wetland & watercourse complex and adjacent forested uplands.

Upland Review Areas

The 125 foot upland review area around the delineated forested/scrub-shrub wetland/watercourse is vegetated in the overstory with a mix of white pine and mixed hardwoods in the sawtimber and polewood size classes. The mixed hardwoods include white and scarlet oaks, and red maple.

The understory is comprised of polewood and saplings in these species as well as shrub species such as highbush blueberry. Herbaceous vegetation includes hay scented ferns and miscellaneous grasses.

Wetlands

A palustrine forested/scrub-shrub wetland/watercourse was delineated in the central portion of the property. (See wetland delineation report). The wetland was inundated on the date of the delineation, (11/14/19) and the assessment, (2/26/20).

This area has formed due to the presence of a perched or seasonal ground water table that provides the hydrology to allow it to remain inundated throughout the year.

The wetland/watercourse is vegetated around its perimeter with scarlet oaks, white pine and red maple in the sawtimber size classes.

The majority of this wetland/watercourse is densely vegetated with red maple saplings and typical wetland shrub species such as highbush blueberry, speckled alder, sweet pepperbush, winterberry and spicebush.

Herbaceous vegetation included sphagnum moss, sensitive & cinnamon ferns, sedges, rushes, skunk cabbage, tussock sedges and misc. grasses. Floating duckweed was also noted in one area.

Wildlife tracks/sign found and directly observed in and adjacent to the wetland/watercourse included mammals and bird species such as: white tailed deer, eastern coyote, red tailed fox, raccoon gray & red squirrels, red tailed hawk, American crow, red wing blackbird, and numerous songbird species.

Due to the time of year, no amphibians or reptiles were observed although undoubtedly the main wetland/watercourse serves as habitat for numerous species.

A small depressed area containing wetland soils was also delineated in the northeast portion of the property, (delineated by the "C" series flags). This area was most likely a historic excavation, in which these wetland soils have formed due to prolonged wetness.

The perimeter of this area is vegetated in the overstory with red maple sawtimber and polewood, and the understory is comprised of shrubs such as highbush blueberry, and speckled alder. Herbaceous vegetation included sensitive and cinnamon ferns. Sedges were found within the inundated portion of the wetland.

It is my opinion that this small wetland may possibly serve as vernal habitat, although no wood frogs, salamanders or egg masses were found on the date of the assessment, (2/25/20).

Wetland Functions and Values

The forested/scrub-shrub wetland/watercourse, and the small wetland were inspected to determine wetland functions and values utilizing the Army Corps. Of Engineers methodology as outlined in "The Highway Methodology Workbook Supplement".

This methodology recognizes 8 separate wetland functions: groundwater recharge/discharge, floodflow alteration/storage, fish/shellfish habitat, sediment/toxicant/pathogen retention, nutrient removal/retention/transformation, production export, sediment/shoreline stabilization and wildlife habitat. The 4 wetland values include: recreational value, educational/scientific value, uniqueness/heritage value and threatened/endangered species habitat.

For each wetland function or value to be determined, 2 to 31 different considerations/or qualifiers are considered as rationale to apply or eliminate that specific function or value.

Palustrine forested/scrub-shrub wetland/watercourse functions:

The following is a list of the wetland functions exhibited by this wetland/watercourse and their descriptions:

Floodflow alteration: the large wetland/watercourse exhibits flood storage potential due to the flat topography, and valuable properties, structures and resources are located adjacent to the wetland.

Ground water recharge and discharge: Ground water recharge function is possible due to the perched water table being trapped and slowly infiltrating during dry season. This is a primary function of this wetland.

Sediment/toxicant retention: herbaceous vegetation, shrubs and flat topography in the wetlands can effectively trap sediments/toxicants from surface flows from the adjacent topography and gravel parking areas.

Nutrient removal/retention: herbaceous and shrub vegetation in the wetlands can effectively trap and utilize potential nutrients before reaching watercourses. Nitrogen fixing bacteria in wetland soils also trap nitrogen. Although with no current sources of nutrients present, this wetland has little opportunity to provide this function.

Production export: numerous tree, shrub and herbaceous plant species in the wetlands provide food, berries and seeds for wildlife. Amphibians provide food for birds and mammals.

Sediment and shoreline stabilization: Roots from herbaceous grasses and plants, shrub species and trees found in wetlands bind and stabilize soils which helps prevent erosion along steeper edges of wetlands. Although with no significant currents or shoreline waves, this wetland/watercourse has little opportunity to provide this function.

Wildlife habitat: Numerous amphibians, reptile, mammal, and bird species inhabit this wetland. The wetland and upland riparian zones adjacent to the wetland serve as wildlife habitat. Wildlife habitat is another primary function of this wetland.

This wetland did not exhibit the wetland functions of fish habitat due to the lack of significant deep water habitat areas capable of sustaining fish.

Palustrine forested Scrub-shrub Wetland/Watercourse Values

The following wetland values were exhibited by this wetland/watercourse:

Educational/scientific value: this wetland/watercourse is relatively undisturbed, contains multiple wetland classes, and is considered as valuable wildlife habitat, although with no public access on this property, this wetland has little opportunity to provide this value.

Uniqueness/heritage value: this wetland/watercourse serves an important role in the ecological system of the area, it is a typical wetland class for the area, and serves as valuable wildlife habitat.

Visual/aesthetic value: the wetland/watercourse is visible from multiple viewing locations, it contains a diversity of vegetation that turns vibrant colors during different seasons, it is considered valuable wildlife habitat, and is not significantly disturbed.

This wetland/watercourse did not exhibit the value of threatened/endangered species habitat as the site was not shown within the shaded areas on the current natural diversity database maps.

"C Series" Wetland Functions:

The following is a list of the wetland functions exhibited by this wetland and their descriptions:

Ground water recharge and discharge: Ground water recharge function is possible due to the perched water table being trapped and slowly infiltrating during dry season. This is a primary function of this wetland.

Wildlife habitat: It is possible that amphibians, reptile, mammal, and bird species inhabit this wetland. The wetland and upland riparian zones adjacent to the wetland serve as wildlife habitat.

This wetland did not exhibit the wetland functions of floodflow alteration, sediment/toxicant retention, nutrient removal/retention, production export, sediment & shoreline stabilization and fish habitat due to the lack of floodwater storage capacity, its small area, lack of dense vegetation, lack of significant deep water habitat areas capable of sustaining fish, and it is not associated with stream flows or a large body of water.

"C Series" Wetland Values

The following wetland values were exhibited by this wetland:

Educational/scientific value: this wetland is relatively undisturbed, and is considered as wildlife habitat, although with no public access on this property, this wetland has little opportunity to provide this value.

Uniqueness/heritage value: this wetland serves an important role in the ecological system of the area, it is a typical wetland class for the area, and serves as wildlife habitat.

This wetland did not exhibit the visual/aesthetic value as it is not visible to the public, and does not contain vegetation that turn vibrant colors. It does not exhibit the value of threatened/endangered species habitat as the site was not shown within the shaded areas on the current natural diversity database maps.

Potential wetland impacts

The project plans and site were reviewed to assess the potential impacts to the wetlands from the proposed parking area expansion.

On the two parcels, an expansion of the existing parking areas is proposed, one area in the northern portion of both of the lots, and one in the southern portion of lot 13A.

Northern parking area:

In order to access the uplands in the northern portion of the parcels, a 1,860 square foot direct wetland disturbance is proposed for the 12 foot wide paved access drive. This will consist of excavation and installation of two 30 inch diameter class IV concrete pipes which will be filled along the bottom with native soil material.

Within the majority of the 125 foot upland review area and remaining uplands, the 12 foot wide access drive and a 340 foot long by 60 foot wide paved parking area is proposed with a storm water treatment basin located to the south of the parking area. In the bottom of the storm water basin, a 2,850 square foot wetland mitigation is also proposed. This area is designed to have a wet bottom which will fluctuate with the existing water table and will be seeded in with New England Wetmix.

The clearing limits and E&S measures shown on the plans vary from approx. 40 feet in width to immediately adjacent to the wetlands.

The topsoil stockpile is shown a reasonable distance from the wetlands and silt fencing is shown along the southern side.

Southern parking area:

In order to access the proposed 112 foot long by 44 foot wide paved parking area, a 1,250 square foot direct wetland disturbance is proposed for the construction of the access road.

To the north of the paved parking area, a storm water treatment basin is shown, and in the bottom of the basin a 1,150 square foot wetland mitigation is proposed. This area is also designed to have a wet bottom which will fluctuate with the existing water table and will be seeded in with New England Wetmix.

Also shown on the project plans are proposed plantings of common spicebush and sweetgale shrubs along the northern edge of the storm water treatment basin, to help revegetate and stabilize the side slopes.

The clearing limits and E&S measures on the plans for the most part are depicted immediately adjacent to the wetlands.

No topsoil stockpile is shown for this small construction area so I would assume that the topsoil will be hauled off site, or stored elsewhere on site, preferably with silt fencing around the perimeter.

E&S Measures:

The submitted project plans show the proposed E&S measures around the perimeter of the clearing limits adjacent to the wetlands as silt fencing and/or staked hay bales.

It would be my recommendation that the E&S measures be installed as soon as possible after the initial timber cutting and before the stumping and topsoil removal operation. It is during this phase where the most likely opportunity will occur for erosion and sedimentation. In some areas the slopes adjacent to the wetlands are steep, and the excavation, filling and grading are proposed directly adjacent to the wetlands.

Along the clearing limits adjacent to the wetlands, I would recommend either super silt fencing or silt fencing backed by staked hay bales should be proposed and implemented. This silt fencing will also prevent reptiles and amphibians from entering the excavation areas.

I would recommend that the storm water basins be constructed first before the remaining areas so they can serve as temporary sediment basins until the parking areas are constructed.

I would also recommend that E&S inspections be conducted on a frequent basis during the land clearing/stumping/topsoil stripping phases, and prior to significant storm events.

Direct wetland impacts:

The combined direct wetland disturbance for both of the wetland crossings totals 3,110 square feet. In this area all the specifically listed wetland functions and values for each wetland will be negated.

It is my opinion however, that the proposed 4,000 square foot wetland mitigation will compensate for this loss.

Potential short term impacts:

The potential short term impacts associated with the land clearing, stumping, top soil stripping and construction would be limited to potential sediment discharges during significant storm events.

Provided that the proposed/recommended E&S measures/inspections are correctly implemented and maintained throughout the project timeframe, the disturbance directly

adjacent to the wetlands will not significantly impact the wetlands or their existing functions due to erosion and sedimentation. Once the top soils are removed, the well-drained, sandy/gravelly soils will allow for good infiltration of storm water runoff until the construction is complete.

The quick and permanent establishment of vegetation in the disturbed areas is crucial to the prevention of erosion. To minimize the potential for these impacts, E&S control measures have been incorporated into the project plans on sheet 5 of 5.

Potential long term impacts:

Wetland hydrology

I see no direct or long term impacts to the wetland hydrology as a result of the proposed access roads, parking areas or storm water treatment basins. As the access drives and parking areas are paved, storm water runoff will be an input to the existing hydrology, through some minor overland flow, but mostly through the storm water basins, as ground water recharge or as direct discharge during significant storm events after treatment.

Water quality:

Due to the incorporation of the paved parking surfaces, stone water quality trenches, storm water treatment basins, and some direct infiltration of storm water in the well-drained, sandy, gravelly soils, I see no significant or adverse impacts to the existing water quality of the wetlands from storm water discharges.

Adjacent upland wildlife habitat

Potential long term impacts to the upland habitat from the project would include the loss of a significant portion of the URA serving as riparian zones and upland wildlife habitat adjacent to the wetlands. This intrusion will force wildlife into the narrow vegetated corridor in and around the wetlands during and after the construction timeframe, and into other areas where the uplands are not disturbed. However, because this vegetated wildlife corridor is not proposed to be totally cleared and still exists in minimal widths in some areas, the wetlands and adjacent riparian zone will still provide for some wetland function and wildlife habitat.

It is my opinion that the proposed 4,000 square foot wetland mitigation will help compensate for these impacts to the upland/riparian habitat.

In summary, the design of the project implements features intended to minimize or eliminate potential impacts to the wetlands such as storm water runoff, significant loss of wetland habitat, and erosion and sedimentation associated with construction activities.

I feel these proposed measures are adequate to protect the wetlands provided that the recommended erosion and sedimentation control features are implemented and maintained throughout the excavation and reclamation timeframe.

The construction of the proposed 4,000 square foot wetland mitigation will assist in the remaining wetlands ability to provide the same wetland functions and values they currently provide.

If you have any questions concerning the site assessment or this report, please feel free to contact me.

Sincerely,

Joseph R. Theroux
Certified Forester and Soil Scientist
Member SSSSNE, NSCSS, SSSA

March 23, 2020

Ms. Jana Roberson, AICP
Director of Community Development / Town Planner
Town of Brooklyn
5 Wolf Den Road
P.O. Box 356
Brooklyn, CT 06234

SUBJECT: Proposed Parking Expansion
Vachon Chevrolet
Assessor's Map 41, Lot Nos. 13A & 14
Providence Road (Route 6)
Brooklyn, Connecticut

Dear Ms. Roberson:

As you requested, I have reviewed the devloper's consulting engineer's plans for the above captioned project. A copy of my comments are enclosed pertaining to my review of the plans, consisting of five sheets, entitled "Proposed Parking Expansion, 'Vachon Chevrolet', Providence Road (Route 6), Brooklyn, Connecticut, Prepared for Vachon Brooklyn, LLC.," which were created by Killingly Engineering Associates, dated January 2020 with revision date of March 10, 2020.

If you should have any questions, please do not hesitate to email me at syl.pauley@neccog.com.

Sincerely,

Syl Pauley, Jr., P.E.
NECCOG Regional Engineer

SP/s
cc: File
JRLtr_ProposedParkingExpansionVachonChevrolet_Xmit 03202020 Review Cmts.doc

NORTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

ENGINEERING PLAN REVIEW
PERTAINING TO
PROPOSED PARKING EXPANSION
VACHON CHEVROLET
(ASSESSOR'S MAP 41, LOTS 13A & 14)
PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CT

(March 20, 2020)

The comments contained herein pertain to my review of plans, consisting of five sheets, entitled "Proposed Parking Expansion, 'Vachon Chevrolet', Providence Road (Route 6), Brooklyn, Connecticut, Prepared for Vachon Brooklyn, LLC.," prepared by Killingly Engineering Associates, dated January 2020 with revision date of March 10, 2020.

SHEET 2 OF 5 – EXISTING CONDITIONS

1. The northing and eastling coordinates should be noted for CGS Random Points B9262 and B9264. It would also be helpful to include a large scale diagram as to where these points are relative to the project.

SHEET 3 OF 5 – SITE DEVELOPMENT PLAN NO. 1

1. A construction entrance symbol is drawn at the entrance to the new "paved vehicle storage area." However, a note should be included to indicate that this will be removed at the time the first course of paving is installed for the vehicle storage area. Additionally, it would be helpful for this explanation to be included in Note 17 under "Development Schedule/Sequence of Operations" that appears on Sheet 5 of 5 of the plan set.
2. The note "Silt Fence Backed with Staked Haybales or Wood Chip Berms" should read the same as the note on Sheet 4 of 5, "Provide Super Silt Fence, Silt Fence Backed with Staked Haybales, or Silt Fence Backed with Wood Chip Berms at Clearing Limits," for consistency.

SHEET 4 OF 5 – SITE DEVELOPMENT PLAN NO. 2

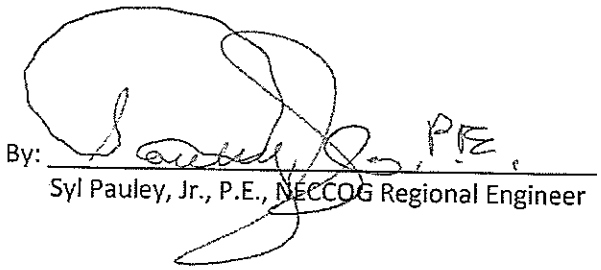
1. Proposed slopes in the detention basin range from 1:1 to 3:1. It is recommended that slope be uniform and that no slopes be steeper than 3:1 to reduce the tendency of soil erosion
2. Pedestal lighting, with dual light fixtures, is shown at three (3) locations in the middle of the proposed vehicle parking area. No description of the lighting assembly (pedestal height, pedestal base, full cutoff design, wattage, etc.) can be found in the plans under review. This is important since there is a house on adjacent Lot No. 22 that is not too distant from the north property line in the vicinity of the proposed construction on the Vachon property. It should also be noted that the

majority of the visual/sound barrier created by the existing mature forest in this area between the house and the proposed development is going to be removed, only to be replaced by young plantings that will take many years to reestablish the buffer. Therefore, has the impact of lighting and noise on the adjacent residence been evaluated to determine if there will be any significant impact to it?

3. How will snow removal be handled in this area so as not to impact the adjacent wetlands (salt or other ice removal chemicals) and proposed landscaping?
4. It is unclear on how the "island" in the middle of the proposed parking area is going to be constructed, i.e., raised island with landscaping; raised island paved with no landscaping; flush with whatever in between; etc.? Can this area be used as a rain garden to mitigate some of the runoff from the pavement?
5. Is there any consideration to provide some form of "tall" landscaping in the center island, considering how much impervious pavement is being proposed?
6. As an aid to construction, it would be helpful to include a cross-section profile from the detention basin outlet structure to just beyond the level spreader.

SHEET 5 OF 5 – DETAIL SHEET

1. In the "Stormwater Basin Outlet Detail," a smooth outer wall PVC pipe may be less susceptible to upheaval or degradation (breakage) by icing conditions than a corrugated type of pipe. It is recommended that this be evaluated by the designer. Furthermore, over time, ultraviolet rays in sunlight degrades unprotected plastic pipe, which causes it to lose structural integrity and stability. Considering this, concrete may be a better choice.
2. In the "Stone Berm" detail, what specific type of filter fabric should be used to minimize sediment transport and at the same time allow the efficient transmission of water toward the outlet structure? This should be specified in the detail. Also, what are the conditions as to when the berm should be replaced to function as designed due to sediment build up?
3. It is recommended that the "Silt Fence – Backed with Haybales" detail title be modified to read "Super Silt Fence (Silt Fence Backed with Haybales or Wood Chip Berms)."
4. In the "Chain Link Fence Detail" the gauge of the fence fabric and size of the selvage should be specified and also what type of material it is manufactured from (galvanized steel, PVC coated steel, etc.). The same goes for the posts and hardware, too, and depth of bury/concrete anchorage for the posts.
5. In the "Stone Berm" detail, will CONNDOT crushed stone M.01.01 #3 remain stable at a 2:1 angle of repose?
6. In the "Slope Stabilization Detail" it is recommended that the slope be 3:1 or flatter, **NOT** 2:1 or steeper, as shown.
7. In the "Bituminous Lip Curb" detail it is recommended that the curb be formed on the binder course (locked in) for better stability/longevity, which should provide more resistance to deformation by snowplowing operations or other vehicle impacts.



By: _____
Syl Pauley, Jr., P.E., NECCOG Regional Engineer

Killingly Engineering Associates
Civil Engineering & Surveying
P.O. Box 421 Killingly, CT 06241
Phone: 860-779-7299
www.killinglyengineering.com

March 30, 2020

Ms. Jana Roberson, AICP
Director of Community Development/Town Planner
Town of Brooklyn Department of Planning
Clifford B. Green Memorial Center
69 South Main Street
Brooklyn, CT 06234

RE: Proposed Parking Expansion
Vachon Chevrolet

Dear Ms. Roberson;

In response to NECCOG review comment on the aforementioned project, we offer the following:

Sheet 2 of 5 – Existing Conditions

1. The CGS random points referenced on the survey plan were used to establish the horizontal location of the project and have no bearing on the design. These points are not located adjacent to the site and we do not see the need or purpose of providing coordinates or creating a large-scale diagram of their locations at the expense of our client. Additionally, the Town of Brooklyn's regulations do not require such information.

Sheet 3 of 5 – Site Development Plan No. 1

1. A note has been added to the plan to direct the contractor to remove the anti-tracking construction entrance prior to installing the first course of pavement. This has also been noted on sheet 5 of 5 in the development schedule/sequence of operations.
2. The note "silt fence backed with staked haybales or wood chip berms" has been modified to read the same on all sheets.

Sheet 4 of 5 – Site Development Plan No. 2

1. Slopes in the detention basin have been modified so that they do not exceed 2:1 (center berm only). We have also noted that jute netting shall be installed to stabilized the basin after topsoil and seed have been applied. The center berm is designed to extend detention time in the basin and we do not anticipate erosive conditions once stabilized.
2. A detail for the lighting fixture with the make and model number has been added to the plans. We have also enclosed a cut sheet for the lighting as well. The chosen fixtures will be mounted no higher than 12' and are dark sky compliant. In addition, the landscaping proposed between the parking and the residences to the north will provide a very good vegetated buffer; cut sheets for the chosen plantings is included with this submission. Currently, the existing pine trees do not provide any visual buffer. As with most larger pine trees, there are minimal branches at the bottoms of the trees up to 20' or more. With regard to noise, this area will be utilized to store inventory and will not be accessed by the general public unless accompanied by a sales representative.
3. Snow will be stockpiled at the top of the slope adjacent to the proposed stormwater basin. Sheet 5 of the plans specify that no salt or chemical applications for snow removal shall be used.

4. The island in the center of the site will be depressed. We will incorporate rain garden plantings into the island to promote stormwater treatment and infiltration.
5. As the center island will be utilized in the capacity of a rain garden, we do feel that taller vegetation would be appropriate.
6. A cross section of the basin outlet has been added to the plans as requested.

Sheet 5 of 5 – Detail Sheet

1. The manufacturer of ADS N-12 HDPE pipe states a life expectancy of 100 years. For the upright outlet structure, the base will be embedded in concrete to anchor it in place to prevent upheaval and the depth of bury for the outlet pipe will for the most part be installed below frost level. We have utilized this design and application for dozens of projects throughout the years and we are not aware of any failures for this application. Additionally, the installation of the outlet pipe and structure in this location does not present any structural constraints (i.e. it is not an installation subject to traffic). It is our professional opinion that HDPE pipe is sufficient for this application.
2. For the stone berm, specifications for the filter fabric have been called out and conditions for maintenance are defined.
3. The silt fence detail has been modified to read "super silt fence" as requested.
4. The detail for the fence installation has been modified as requested. In addition, neighbors who attended the public hearing for wetlands requested an 8' fence in lieu of a 6' fence which has been accommodated.
5. In our experience, the 2:1 angle of repose for the DOT #3 stone is stable. Section 5-10-12 of the 2002 CT Guidelines for Soil and Erosion Control ("the *2002 Guidelines*") specify slopes no steeper than 1:1 and heights no greater than 3'.
6. We have modified the slope stabilization detail to call for application on slopes 2:1 or flatter per 5-4-10 of the 2002 Guidelines.
7. Bituminous curb installation detail has been modified accordingly as requested.

We trust that the plans as modified address the March 23rd review comments. Please feel free to contact us if there are any further questions or concerns.

Sincerely;

Normand Thibeault, Jr., P.E.

VIPER S
OPTICS
STRIKE
SMALL VIPER LUMINAIRE

Cat.#	
Job	Type

BEACON design . performance . technology

Approvals

SPECIFICATIONS

Intended Use:

The Beacon Viper luminaire is available with a wide choice of different LED Wattage configurations and optical distributions designed to replace HID lighting up to 400W MH or HPS.

Construction:

- Manufactured with die cast aluminum.
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements.
- External hardware is corrosion resistant.
- One piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- Two-piece silicone and micro-cellular polyurethane foam gasket ensures a weather-proof seal around each individual LED.

Electrical:

- 100V through 277V, 50 Hz to 60 Hz (UNV), or 347V or 480V input.
- Power factor is ≥.90 at full load.
- Dimming drivers are standard, but CD must be selected in options to obtain external wiring leads for dimming controls
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher.
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- Fixture electrical compartment shall contain all LED driver components
- Surge protection - 20kA.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices.
- Lifeshield™ Circuit - protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range. Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.).

Installation:

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included.

Finish:

- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

Certifications/Ratings:

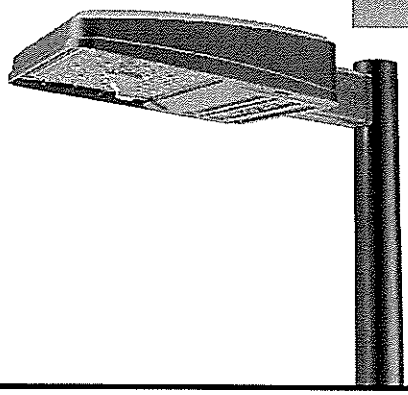
- Certified to UL 1598, UL 8750 and CSA C22.2 No.250.0
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://www.beaconproducts.com/products/vipersmall

Warranty:

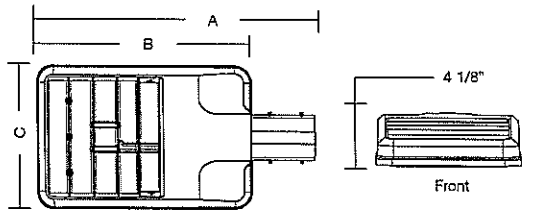
Five year limited warranty for more information visit: www.hubbelllighting.com/resources/warranty

PRODUCT IMAGE(S)

Turtle Friendly

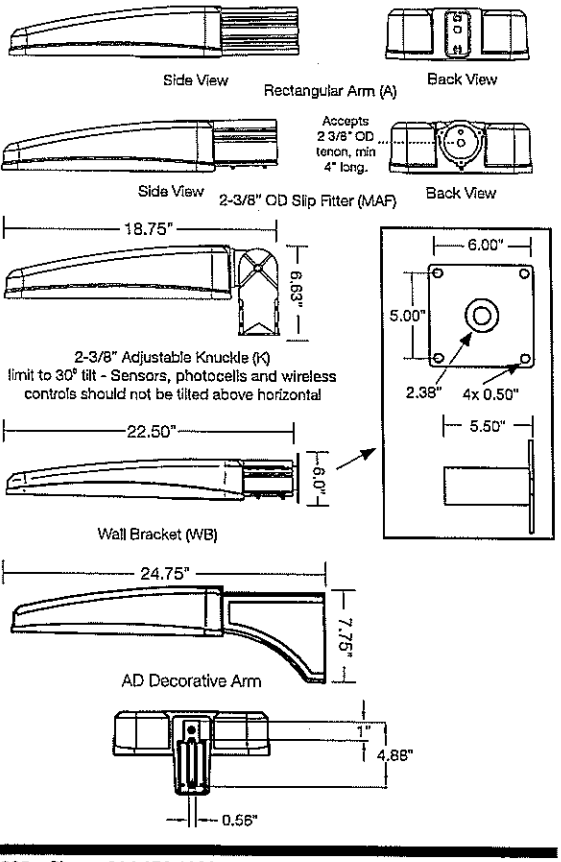


DIMENSIONS



A	B	C	Weight:	EPA
21.75" (552 mm)	16.75" (425 mm)	11.25" (286 mm)	15.0 lbs (6.8 kg)	.67 ft²

MOUNTING OPTIONS



CERTIFICATIONS/LISTINGS

C SP US

ida DARK SKY APPROVED 2014

*3000K and warmer CCTs only

HUBBELL Lighting

ORDERING INFORMATION ORDERING EXAMPLE: VPS/24L-45/AM/4W/UNV/A/DBT/BC

VPS | | | | | | | | | | |

SERIES
VPS Viper

LED ENGINE
24L-45 45W, LED array
36L-65 65W, LED array
48L-85 80W, LED array
60L-105 105W, LED array

CCT
AM Amber

ROTATION
Leave blank for no rotation
L[1] Optic rotation left
R[1] Optic rotation right

DISTRIBUTION
FR Type 1/Front Row
2 Type 2
3 Type 3
4F (formerly 4) Type 4
4W Type 4 Wide
5QM Type 5QM
5R Type 5R (rectangular)
5W Type 5W (round wide)
TC Tennis Court

VOLTAGE
UNV 120-277V
120 120V
208 208V
240 240V
277 277V
347 347V
480 480V

COLOR
BLT Black Matte Textured
BLS Black Gloss Smooth
DBT Dark Bronze Matte Textured
DBS Dark Bronze Gloss Smooth
GTT Graphite Matte Textured
LGS Light Grey Gloss Smooth
PSS Platinum Silver Smooth
WHT White Matte Textured
WHS White Gloss Smooth
VGT Verde Green Textured

COLOR OPTION
CC Custom Color

OPTIONS
CD Continuous Dimming
F Fusing
BSP Bird Spikes
BC Backshield (available for FR, 2, 3, 4, 4W Optics)
TB Terminal Block

CONTROL OPTIONS
7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)
7PR-SC 7-Pin Receptacle w/Shorting Cap
7PR-TL 7-Pin Receptacle w/Twist Lock photo control

HOUSE SIDE SHIELD ACCESSORIES
HSS/VP-S/90-FB/XXX 90° shield front or back
HSS/VP-S/90-LR/XXX 90° shield left or right
HSS/VP-S/270-FB/XXX 270° shield front or back
HSS/VP-S/270-LR/XXX 270° shield left or right
HSS/VP-S/360/XXX Full shield

(Replace XXX with notation for desired finish color)
(Refer to page 5 for shield images)

MOUNTING
A Rectangular Arm (formerly RA) for square or round pole
MAF Mast Arm Fitter (formerly SF2) for 2-3/8" OD horizontal arm
K Knuckle (formerly PK2) limit to 45° tilt or 2-3/8" OD horizontal arm or vertical tenon
WB Wall Bracket
AD Universal Arm for square pole
AD3 Universal Arm for 2.4"-4.1" round pole
AD4 Universal Arm for 4.2" -5.3" round pole
AD5 Universal Arm for 5.5" -5.9" round pole
AD6 Universal Arm for 6.0"-6.5" round pole

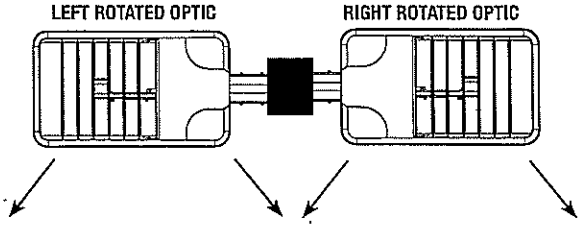
MOUNTING ACCESSORIES
VPL-AD-RPA3 2.4"-4.1" Round Pole Adapter for AD arm
VPL-AD-RPA4 4.2"-5.3" Round Pole Adapter for AD arm
VPL-AD-RPA5 5.5"-5.9" Round Pole Adapter for AD arm
VPL-AD-RPA6 6.0"-6.5" Round Pole Adapter for AD arm

[1] Only available with 1A, 2, 3, 4, 4W and 5R distributions

PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.hubbell-automation.com/products/sitesync/ or contact Hubbell Lighting tech support at 864-678-1000.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VPS/24L-55/4K7/3/UNV/A/DBT/SWP/ SiteSync only
VPS/24L-55/4K7/3/UNV/A/DBT/SWPM-40F/ SiteSync with Motion Control



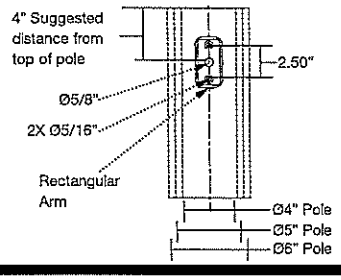
PERFORMANCE DATA

# LED'S	SYSTEM WATTS	DISTRIBUTION TYPE	AMB amber 590nm (std.) LUMENS	LPW'	B	U	G
24	45W	FR	1238	28	0	0	0
		2	1194	27	0	0	0
		3	1171	26	0	0	1
		4	1152	26	0	0	0
		4W	1127	25	0	0	1
		5QM	1173	26	1	0	0
		5R	1181	26	1	0	1
		5W	1260	28	1	0	0
		TC	1204	27	0	0	0
36	65W	FR	1857	29	0	0	0
		2	1791	28	0	0	0
		3	1757	27	0	0	1
		4	1728	27	0	0	1
		4W	1690	26	0	0	1
		5QM	1759	27	1	0	0
		5R	1771	27	1	0	1
		5W	1726	27	1	0	0
48	85W	FR	2476	29	0	0	0
		2	2389	28	1	0	1
		3	2343	28	0	0	1
		4	2304	27	0	0	1
		4W	2254	27	0	0	1
		5QM	2346	28	1	0	0
		5R	2362	28	1	0	1
		5W	2301	27	2	0	1
		TC	2408	28	0	0	0
60	105W	FR	3095	29	1	0	0
		2	2986	28	1	0	1
		3	2927	27	1	0	2
		4	2880	27	0	0	1
		4W	2817	26	0	0	1
		5QM	2933	27	1	0	0
		5R	2953	28	2	0	2
		5W	2879	27	2	0	1
		TC	3011	28	0	0	1

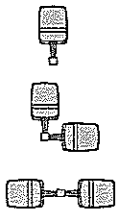
# LED'S	SYSTEM WATTS	DISTRIBUTION TYPE	AMB amber 590nm (std.) LUMENS	LPW'	B	U	G
24	45W	FR-BC	1064	24	0	0	0
		2-BC	880	20	0	0	0
		3-BC	802	18	0	0	0
		4-BC	887	20	0	0	0
		4W-BC	2014	45	0	0	1
		TC-BC	930	21	0	0	0
36	65W	FR-BC	1596	25	0	0	0
		2-BC	1320	20	0	0	0
		3-BC	1202	18	0	0	0
		4-BC	1330	20	0	0	0
		4W-BC	2014	31	0	0	1
		TC-BC	1396	21	0	0	0
48	85W	FR-BC	2128	25	0	0	0
		2-BC	1761	21	0	0	0
		3-BC	1603	19	0	0	1
		4-BC	1774	21	0	0	1
		4W-BC	1450	17	0	0	0
		TC-BC	1861	22	0	0	0
		5R	2362	28	1	0	1
60	105W	FR-BC	2661	25	0	0	0
		2-BC	2201	21	0	0	0
		3-BC	2004	19	0	0	1
		4-BC	2217	21	0	0	1
		4W-BC	1813	17	0	0	1
		TC-BC	2326	22	0	0	0
		5R	2953	28	2	0	2

DRILL PATTERN

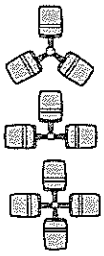
RECTANGULAR ARM (A)
Compatible with Pole drill pattern B3



EPA



Config.	EPA
1	.67
2 @ 90°	1.06
2 @ 180°	1.34



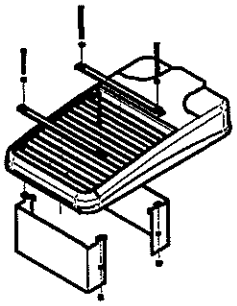
Config.	EPA
3 @ 120°	1.68
3 @ 90°	1.73
4 @ 90°	2.12

TENON TOP POLE BRACKET ACCESSORIES (Order Separately)

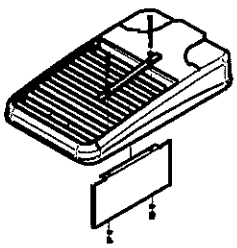
(2 3/8" OD tenon)

Catalog Number	Description
SETAVP-XX	Square tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
RETAVP-XX	Round tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
TETAVP-XX	Hexagonal tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
SETA2XX	Square tenon adapter (4 at 90°) for AD - Universal Arm mounting option only
RETA2XX	Round tenon adapter (4 at 90°) for AD3 - Universal Arm mounting option only
TETA2XX	Hexagonal tenon adapter (3 at 120°) for AD - Universal Arm mounting option only

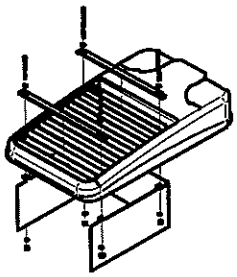
HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES



HSS/VP-S/90-FB/XXX
90° shield front or back
(2 shields shown)



HSS/VP-S/90-LR/XXX
90° shield left or right
(1 shield shown in left orientation)



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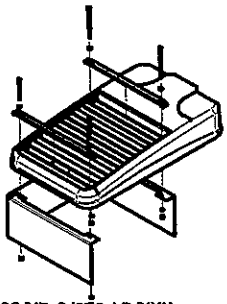

HSS/VP-S/270-LR/XXX
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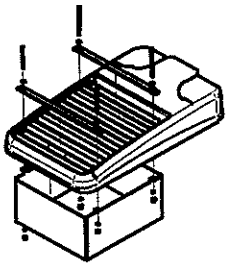
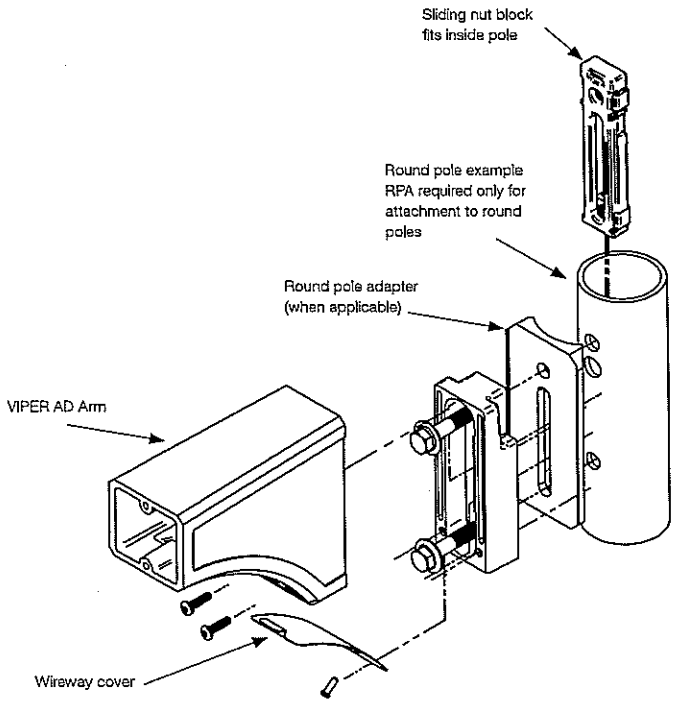
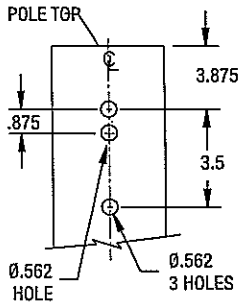


HSS/VP-S/360/XXX
Full shield (1 shown)

AD ARM MOUNTING INSTRUCTIONS



DECORATIVE ARM (AD)
Compatible with pole drill pattern S2



Brooklyn Inland Wetlands
Commission
P.O. Box 356
Brooklyn, Connecticut 06234

9489 0090 0027 6215 9002 16

June 10, 2020

CERTIFIED#

Vachon Brooklyn, LLC
957 Washington Street
Attleboro, MA 02703

RE: Notice of Decision – 021120B Vachon Brooklyn, LLC, 512 Providence Road, Map 41, Lot 13A/14, PC Zone; Construction of (2) 16 ft. wide access driveways to access proposed new vehicle storage lots. Drive to the larger of the two proposed marking areas will be in an area historically used for an agricultural crossing.

Dear Vachon Brooklyn, LLC:

At the June 9, 2020 Inland Wetlands and Watercourses Commission meeting application 021120B Vachon Brooklyn, LLC, 512 Providence Road, Map 41, Lot 13A/14, PC Zone; Construction of (2) 16 ft. wide access driveways to access proposed new vehicle storage lots. Drive to the larger of the two proposed marking areas will be in an area historically used for an agricultural crossing was approved with the following conditions:

1. The detention basins shall be constructed, stabilized, and seeded before the parking lots are constructed.

2. Install the sediment/erosion controls as shown on the approved plans and call the Wetlands Officer at 860-779-3411, extension 31, for an inspection prior to starting any earth disturbance activities. Written approval of the sediment/erosion controls must be given by the Wetlands Enforcement Officer prior to starting any earth disturbance activities.

3. Only new vehicles stored in back lot, no used vehicles or employee parking.

4. Contractor to eradicate invasive species during construction.

5. Standard Conditions.

A legal notice of this approval will be published in the Villager Newspaper on Friday June 19, 2020. Please note that this action of the Brooklyn Inland Wetlands and Watercourses Commission may be appealed for fifteen-day period following the publication of the legal notice.

If you have any questions, please call Margaret Washburn at 860-779-3411 Extension 31.

Signed,

Margaret Washburn

Margaret Washburn
Wetlands Agent

MW/acl
CC: File, Killingly Engineering

BROOKLYN INLAND WETLANDS AND WATERCOURSES COMMISSION
STANDARD CONDITIONS FOR IWWC PERMITS 12/13/16

APPLICANT: READ CAREFULLY

IWWC Permit Document. A copy of the IWWC approval motion and the conditions stated herein shall constitute the IWWC permit for the approved activity when the permit document is signed and dated by the IWWC Agent.

Notice of Start and Finish. Permittee shall notify the IWWC agent **at least 48 hours** before the approved activity commences and within 72 hours after completion of the activity.

Permit Duration. This permit is valid for a period in accordance with Section 11.6 of the Brooklyn Inland Wetlands and Watercourses Regulations and the Connecticut General Statutes. Any request to renew or extend the expiration date of a permit can be granted only as authorized by the IWWC Regulations. Expired permits may not be renewed.

Erosion and Sedimentation Controls. Permittee is responsible for implementing the approved erosion and sediment control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan. The permittee shall inspect the erosion controls weekly and after rains and repair deficiencies within twenty-four hours. The IWWC and its staff may require additional erosion if needed to prevent erosion and sedimentation. Restabilization of the site shall take place as soon as possible.

Stockpile locations. During construction, piles of fill, erodible material and debris shall not be created within regulated areas. The locations of debris and other stockpiled materials shall be shown on the submitted plans. Any material excavated at the site shall be disposed of at upland or off-site locations reviewed and approved by staff.

Permit Transfer. The permittee shall not transfer this permit without the written permission of the IWWC.

Work in Watercourse to Occur During Low Flow. Work within a watercourse is limited to periods of low flow. Low flow periods normally occur between August and October. Upon request of permittee, wetlands staff can determine if the activity can occur at other times following an on-site field investigation.

Scope of Permit. This permit is for the approved activity ONLY. Additional activity may require an additional permit. Note that if an approval or permit is granted by another agency and

(1) the approved activity will affect wetlands and/or watercourses; and/or

(2) the activity occurs within 125 feet of flagged boundaries and 175 feet from watercourses;

and such activities have not been addressed by this permit, then the applicant shall resubmit the application for further consideration by the Inland Wetlands and Watercourses Commission before any work begins.

Ongoing Compliance with Permit. The permittee shall comply at all times with the permit.

Other Approvals May be Required. Other permits may be required from Town, state or federal agencies. An Army Corps of Engineers permit may be required: U.S. Army Corps of Engineers, 424 Trapelo Rd., Waltham, MA 02254 1-800-362-4367.

DRAINAGE REPORT

Prepared for

VACHON BROOKLYN, LLC
PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CT

March 2020
Revised to November 2020

Prepared for

Proposed Parking Expansion

Prepared by

Killingly Engineering Associates
Civil Engineering & Surveying

Normand Thibeault Jr., P.E.
CT License #22834

Introduction

Plainfield Garages & Storage, LLC has submitted a proposal to the Town of Brooklyn to construct two paved vehicle parking areas for Vachon Chevrolet with access from Providence Road (Route 6) in Brooklyn. The site has been utilized for numerous automobile sales facilities for many years and currently has a small show room for up to 4 vehicle and outdoor display area for over 100 vehicles. The new proposed parking will be utilized to provide more vehicle inventory on site and will not be typical ñdisplayò as the public will have to be escorted to these areas by sales associates. No customer access will be permitted by vehicle.

Summary

According to the USDA-SCS Soil Survey, the area of disturbance consists Merrimac fine sandy loams and Hinckley loamy sands. Previous excavation on the property appears to verify that these descriptions are accurate. These soils are associated with hydrologic soil group A and are considered excessively drained. All of the stormwater from the developed and undeveloped areas of the site sheet flow to a centrally located wetlands system that is substantially flat. The proposed drainage design will maintain the existing drainage patterns for post development condition.

The existing paved vehicle display area will remain and a small paved area will be constructed on the south side of the wetlands system. Drainage from this area will sheet flow to a water quality basin before discharging to the wetlands; this basin is not designed to provide detention. The larger proposed vehicle display area is proposed to be constructed on the north side of the wetlands and a large stormwater basin is proposed to be constructed. This will be a vegetated wet basin with a bermed center to allow for longer retention time in the basin and water quality treatment. Discharge from the basin is minimized by installation of a tiered outlet structure and weir overflow that will ultimately drain to the existing wetland if it is ever required.

The calculations utilized HydroCAD® Stormwater Modeling System, a computer model, to analyze pre-and post-development drainage conditions, and to aid in the design of the stormwater detention system. The model used the Soil Conservation Service TR-20 method with a Type III 24-hour rainfall to calculate the runoff. The 2 through 100-year frequency storms were analyzed to evaluate peak runoff for pre-and post-construction conditions to an existing isolated wetland pocket, sheet flow off site, and to the central wetland. Table 1 summarizes our findings for pre and post construction flows to the isolated wetland pocket:

Table 1. Existing & Proposed Peak Flows to Wetland Pocket

Design Storm	Depth (in)	Existing peak	Proposed peak	Difference
2-Year	3.36	0.00 CFS	0.00 CFS	0.00 CFS
5-Year	4.28	0.00 CFS	0.00 CFS	0.00 CFS
10-Year	5.08	0.00 CFS	0.00 CFS	0.00 CFS
25-Year	6.08	0.01 CFS	0.01 CFS	0.00 CFS
50-Year	6.86	0.02 CFS	0.02 CFS	0.00 CFS
100-Year	7.69	0.05 CFS	0.04 CFS	-0.01 CFS

This wetland pocket is the result of historical excavation into the water table and the drainage areas to that pocket is limited. All or most of the rainfall for all design storms infiltrates into the

excessively drained soils around the perimeter of the excavation. The water level in this area fluctuates seasonally with the groundwater table.

Drainage from the existing paved parking area will not be altered and will continue to flow off site as it does presently (drainage area 4S). Pre and post construction drainage are identical for sheet flow off site to the east.

The large centrally positioned wetland system that extends off site to both the east and west provides natural attenuation. It appears that the relatively flat nature of the wetlands and surrounding terrain on the parcel and abutting properties results in more of a leveling effect than runoff. The smaller stormwater basin at on the south side of the wetlands is designed to provide the required water quality volume (WGV) for the paved surface that is proposed to be constructed. The larger basin on the northern side of the wetlands will serve to treat the required WQV as well as limit the rate of discharge to the wetlands. Table 2 shows the existing and proposed peak to the wetland system.

Table 2. Summary of Drainage to Wetlands

Design Storm	Depth (in)	Existing peak	Proposed peak	Difference
2-Year	3.36	6.61 CFS	6.61 CFS	0.00 CFS
5-Year	4.28	9.00 CFS	9.06 CFS	+0.06 CFS
10-Year	5.08	11.00 CFS	11.24 CFS	+0.24 CFS
25-Year	6.08	13.74 CFS	13.74 CFS	+0.00 CFS
50-Year	6.86	15.77 CFS	15.77 CFS	+0.00 CFS
100-Year	7.69	17.92 CFS	17.92 CFS	+0.00 CFS

These proposed peaks are the rates discharged to the wetlands system. Table 3 summarizes flows over the existing driveway crossing at the eastern end of the wetlands vs. flows through the pipes that will be installed at that point.

Table 3. Summary of Drainage from Wetlands East

Design Storm	Depth (in)	Existing peak	Proposed peak	Difference
2-Year	3.36	0.00 CFS	0.00 CFS	0.00 CFS
5-Year	4.28	0.00 CFS	0.05 CFS	+0.05 CFS
10-Year	5.08	0.04 CFS	0.16 CFS	+0.12 CFS
25-Year	6.08	0.25 CFS	0.36 CFS	+0.11 CFS
50-Year	6.86	0.48 CFS	0.55 CFS	+0.07 CFS
100-Year	7.69	0.81 CFS	0.78 CFS	+0.03 CFS

As the computations demonstrate, the increases in flow rates through the proposed pipes is negligible and as previously stated, it appears that the wetlands on the site and off the site fluctuate to retain a level surface throughout the entire system.

In addition to addressing pre and post construction peak runoff rates from the property to the wetlands and adjacent property, the design considers stormwater treatment and water quality for the project. The detention/water quality basin accounts for Water Quality Volume (WQV) in accordance with the parameters set forth in the 2004 CTDEEP Stormwater Quality Guidelines. Following are computations per provisions required by Section 7.H.4 of the Town of Brooklyn Zoning Regulations and Sections 7.4, 7.5 & 7.6 of the 2004 State of CT Stormwater Quality Manual for Pollutant Reduction.

Section 7.4.1 Water Quality Volume

Basin 1 (South)

WQV = (1ò) (R)(A)/12

R= 0.05 + 0.009(I) I = % Impervious = 45.3% (Total Drainage Area)

R = 0.05 + 0.009(45.3) = 0.4577

A = 13,500 s.f. = 0.31 acres

WQV = (1ò) (0.4577) (.31)/12 = 0.0116 ac-ft

506 c.f.

Basin provides 2,230 c.f. to elevation 485.0

Basin 2 (North) Water Quality Volume (WQV)

WQV = (1ò) (R)(A)/12

R= 0.05 + 0.009(I) I = % Impervious = 40.1% (Total Drainage Area)

R = 0.05 + 0.009(40.1) = 0.411

A = 105,609 s.f. = 2.42 acres

WQV = (1ò) (2.42) (.411)/12 = 0.083 ac-ft

3,671 c.f.

Basin provides 3,785 c.f. to elevation 485.0

Section 7.4.2 Water Quality Volume

This section is utilized for treatment mechanisms such as grass swales or proprietary treatment devices and not an appropriate for application this design.

Section 7.5.1 Groundwater Recharge Volume (GRV)

Intended to maintain pre-development and groundwater recharge volumes by capturing and infiltrating stormwater runoff.

GRV = (D)(A)(I) / 12

D = Depth of runoff to be recharged per table 7-4 of the CSQM based upon soil type
A = Site Area in acres
I = Percent Impervious (or net increase in impervious)

Parking Area 1 - South

D = 0.10 (Hydrologic Soil Group ñCò)
A = 0.31 Acres
I = 45.3% (0.0453)

GRV = 0.1 x 0.31 x 0.453 / 12 = 0.014 ac-ft
= 612 c.f.

Assuming that the bottom 1ô of the basin will remain ñwetò, the area of the basin from elevations 484.0 to 485.0 will be available to provide the opportunity infiltrate the required groundwater recharge volume. The NRCS Soil Survey indicates soils in this area are Timaqua and Nachaug with a Saturated Hydraulic conductivity of approximately 53 micrometers per second which calculates to 7.5 inches per hour. The percolation rate measured in this area was 6.7 inches (about 9 inches per hour). For the purposes of the computations, we utilized a conservative infiltration rate of 3.5 inches per hour which provides 0.026 acre-feet (1,132 cubic feet) of infiltration for a 2-year storm.

Parking Area 2 - North

D = 0.40 (Hydrologic Soil Group ñAò)
A = 1.16 Acres
I = 50.5% (0.505)
0.4 x 1.16 x 0.505 / 12 = 0.232 ac-ft
= 10,106 c.f.

Assuming that the bottom 1ô of the basin will remain ñwetò, the volume of the basin from elevations 485.0 to 489.0 is 23,697 cubic feet and will provide the opportunity infiltrate the required groundwater recharge volume. Killingly Engineering conducted 2 percolation tests in the area of the basin and both indicated infiltration rates of less than 1 minute per inch. According to the NRCS Web Soil Survey, the soils in the area of the center island in the parking area are Merrimac Fine Sandy Loams and the basin will be constructed in Hinkley Loamy Sand. NRCS soil survey lists they hydraulic conductivity for these soils at 100 micrometers per second which translates to 14.2 inches per hour. Although the measured rate of the percolation test was less than 1 minute per inch, we conservatively utilized the soil survey rate. Following is a summary of the amount of water infiltrated for each design storm:

Table 4. Summary of Infiltration Volume

Design Storm	Depth (in)	Infiltration Volume (Ac-ft)	Infiltration Volume (Cubic ft.)
2-Year	3.36	0.112	1,519 CF
5-Year	4.28	0.175	7,263 CF
10-Year	5.08	0.230	10,018 CF
25-Year	6.08	0.308	13,417 CF
50-Year	6.86	0.367	15,986 CF
100-Year	7.69	0.430	18,731 CF

For the 2-year and 5-year design storms, the total amount of runoff generated and conveyed to the proposed stormwater basin is less than the required infiltration and the 10-year storm is almost exactly the requirement. The 25-year through 100-year storms will far exceed the infiltration requirements.

Section 7.5.2 Runoff Capture Volume (RCV)

Not applicable for this application. This method is typically utilized to capture ñcleanò stormwater from surfaces such as rooftops and infiltrate it into the soil.

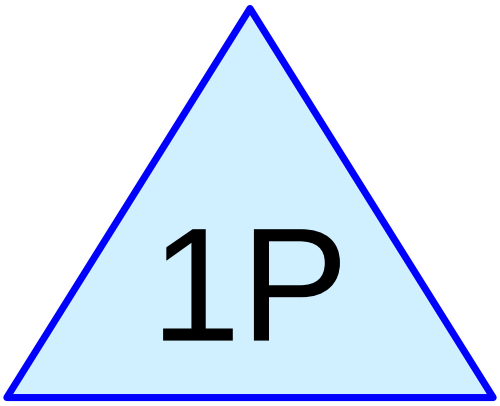
Section 7.6 Peak Flow Control

Summary of Peak Flow to Wetlands

Design Storm	Depth (in)	Existing peak	Proposed peak	Difference
10-Year	5.08	11.00 CFS	11.24 CFS	+0.24 CFS
25-Year	6.08	13.74 CFS	13.74 CFS	+0.00 CFS
100-Year	7.69	17.92 CFS	17.92 CFS	+0.00 CFS

As shown above and in table 2 previously in this report, the peak flows will be attenuated for all but the 10-year design storm. The increase is slightly over 2%; typically increases of 5% or less are within acceptable limits provided there are not critical downstream flooding issues. We are not aware of that condition in the area of this project.

HYDROCAD CALCULATIONS



Stormwater Basin

Subcat Reach Pond Link

Routing Diagram for Proposed Drainage
Prepared by Killingly Engineering Associates, LLC, Printed 11/9/2020

Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 1.16" for 2-Year event
Inflow = 1.48 cfs @ 12.10 hrs, Volume= 0.112 af
Outflow = 1.37 cfs @ 12.14 hrs, Volume= 0.112 af, Atten= 7%, Lag= 2.2 min
Discarded = 1.37 cfs @ 12.14 hrs, Volume= 0.112 af
Primary = 0.00 cfs @ 12.14 hrs, Volume= 0.000 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.03' @ 12.14 hrs Surf.Area= 4,777 sf Storage= 166 cf

Plug-Flow detention time= 2.0 min calculated for 0.112 af (100% of inflow)
Center-of-Mass det. time= 1.7 min (859.9 - 858.2)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

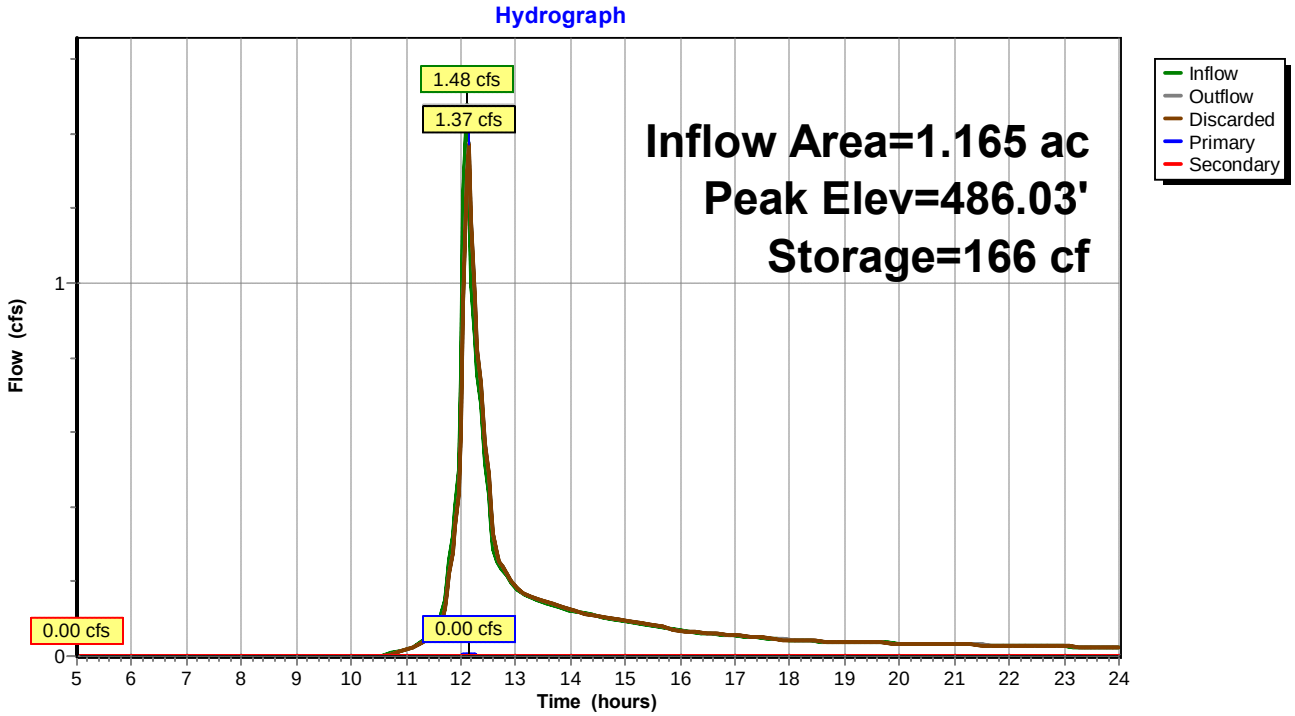
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=1.57 cfs @ 12.14 hrs HW=486.03' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 1.57 cfs)

Primary OutFlow Max=0.00 cfs @ 12.14 hrs HW=486.03' (Free Discharge)
└**1=Culvert** (Passes 0.00 cfs of 0.01 cfs potential flow)
  └**2=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.63 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin



Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 1.81" for 5-Year event
Inflow = 2.38 cfs @ 12.10 hrs, Volume= 0.176 af
Outflow = 1.61 cfs @ 12.20 hrs, Volume= 0.176 af, Atten= 32%, Lag= 6.0 min
Discarded = 1.59 cfs @ 12.20 hrs, Volume= 0.175 af
Primary = 0.02 cfs @ 12.20 hrs, Volume= 0.001 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.09' @ 12.20 hrs Surf.Area= 4,848 sf Storage= 442 cf

Plug-Flow detention time= 2.4 min calculated for 0.176 af (100% of inflow)
Center-of-Mass det. time= 2.1 min (846.9 - 844.8)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

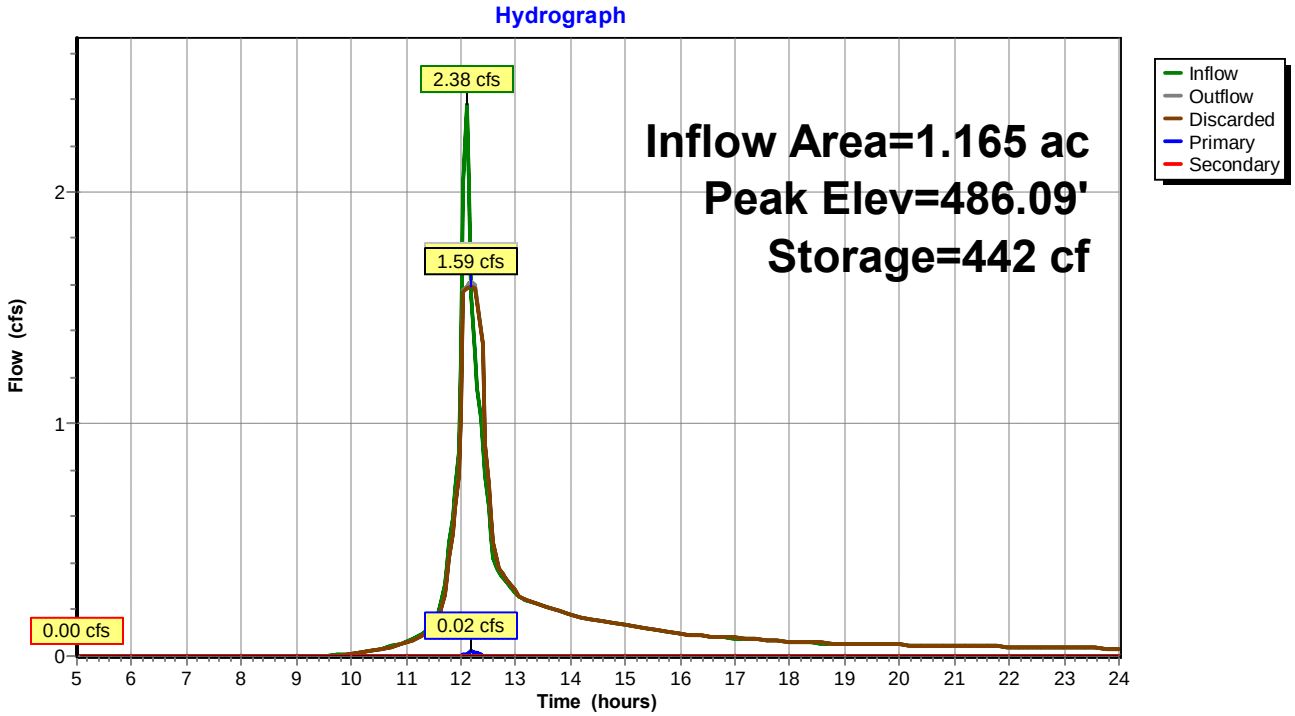
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=1.59 cfs @ 12.20 hrs HW=486.09' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 1.59 cfs)

Primary OutFlow Max=0.02 cfs @ 12.20 hrs HW=486.09' (Free Discharge)
└**1=Culvert** (Passes 0.02 cfs of 0.04 cfs potential flow)
  └**2=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.02 cfs @ 1.03 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin



Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 2.40" for 10-Year event
Inflow = 3.18 cfs @ 12.10 hrs, Volume= 0.233 af
Outflow = 1.71 cfs @ 12.26 hrs, Volume= 0.233 af, Atten= 46%, Lag= 9.5 min
Discarded = 1.63 cfs @ 12.26 hrs, Volume= 0.230 af
Primary = 0.08 cfs @ 12.26 hrs, Volume= 0.003 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.19' @ 12.26 hrs Surf.Area= 4,970 sf Storage= 936 cf

Plug-Flow detention time= 3.6 min calculated for 0.232 af (100% of inflow)
Center-of-Mass det. time= 3.3 min (839.9 - 836.6)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

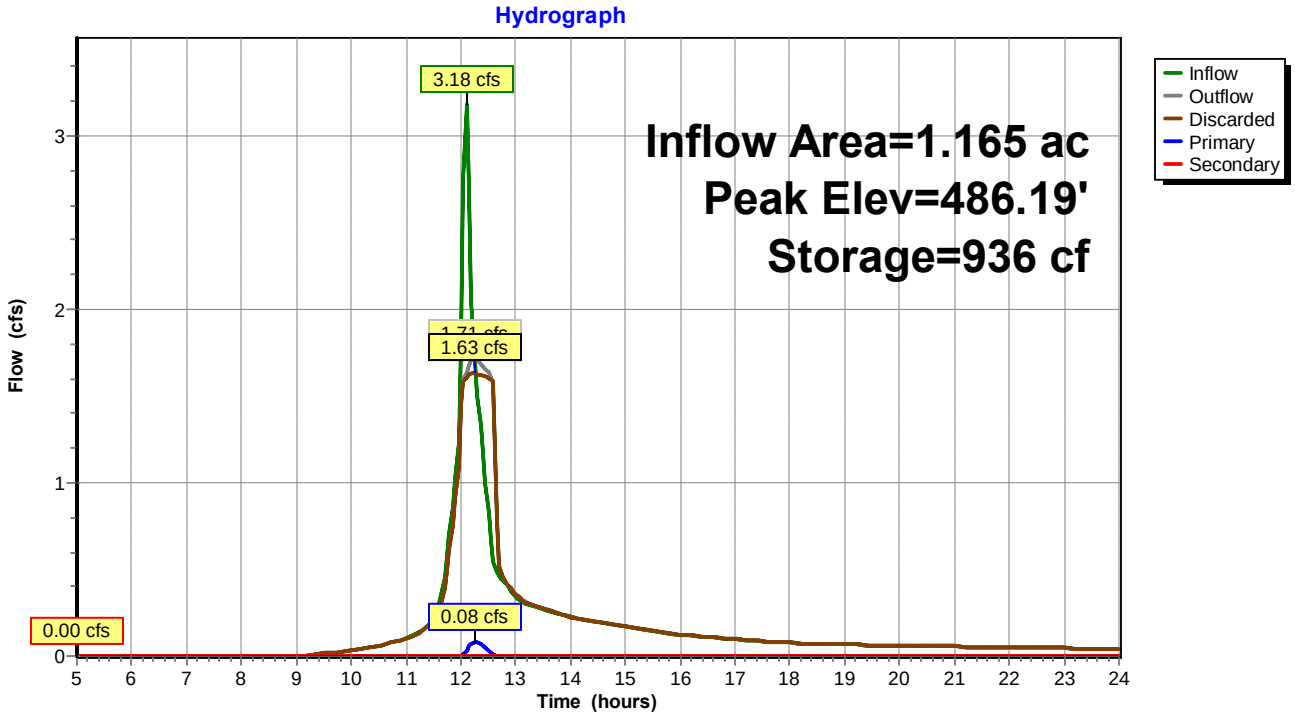
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=1.63 cfs @ 12.26 hrs HW=486.19' (Free Discharge)
↑—**4=Exfiltration** (Exfiltration Controls 1.63 cfs)

Primary OutFlow Max=0.08 cfs @ 12.26 hrs HW=486.19' (Free Discharge)
↑—**1=Culvert** (Passes 0.08 cfs of 0.16 cfs potential flow)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)
—**5=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.49 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
↑—**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin



Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 3.27" for 25-Year event
Inflow = 4.35 cfs @ 12.10 hrs, Volume= 0.317 af
Outflow = 1.89 cfs @ 12.32 hrs, Volume= 0.317 af, Atten= 57%, Lag= 13.6 min
Discarded = 1.70 cfs @ 12.32 hrs, Volume= 0.308 af
Primary = 0.19 cfs @ 12.32 hrs, Volume= 0.009 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.36' @ 12.32 hrs Surf.Area= 5,180 sf Storage= 1,806 cf

Plug-Flow detention time= 5.8 min calculated for 0.316 af (100% of inflow)
Center-of-Mass det. time= 5.5 min (833.2 - 827.7)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

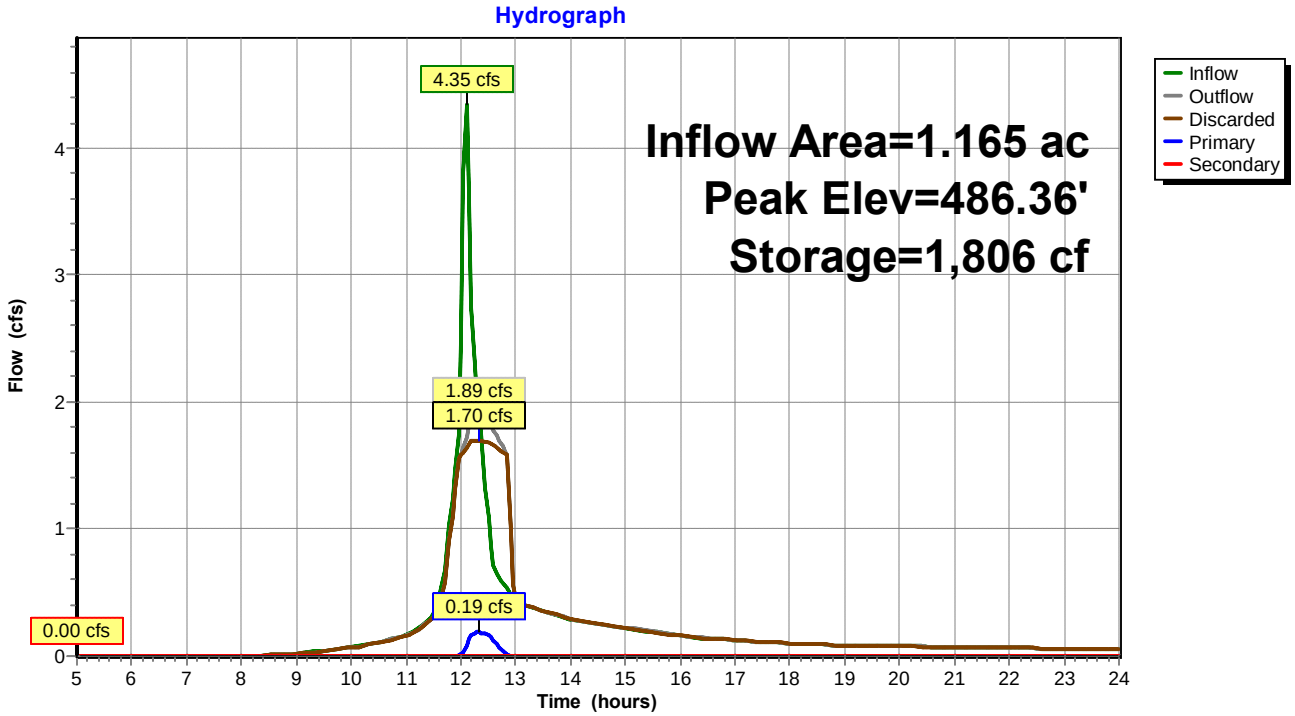
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=1.70 cfs @ 12.32 hrs HW=486.36' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 1.70 cfs)

Primary OutFlow Max=0.19 cfs @ 12.32 hrs HW=486.36' (Free Discharge)
└**1=Culvert** (Passes 0.19 cfs of 0.53 cfs potential flow)
  └**2=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.19 cfs @ 2.13 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin



Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 3.93" for 50-Year event
Inflow = 5.23 cfs @ 12.10 hrs, Volume= 0.382 af
Outflow = 2.01 cfs @ 12.37 hrs, Volume= 0.382 af, Atten= 62%, Lag= 16.2 min
Discarded = 1.76 cfs @ 12.37 hrs, Volume= 0.367 af
Primary = 0.25 cfs @ 12.37 hrs, Volume= 0.015 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.51' @ 12.37 hrs Surf.Area= 5,363 sf Storage= 2,600 cf

Plug-Flow detention time= 7.7 min calculated for 0.382 af (100% of inflow)
Center-of-Mass det. time= 7.4 min (829.8 - 822.4)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

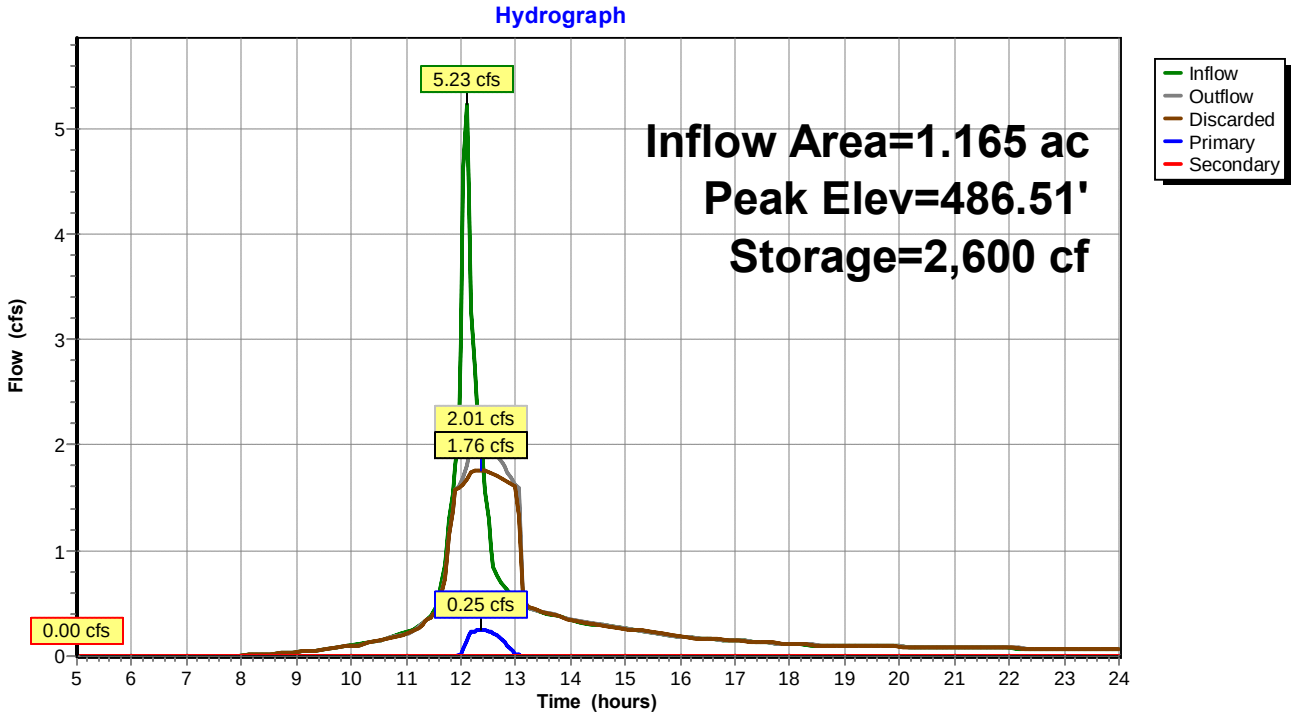
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=1.76 cfs @ 12.37 hrs HW=486.51' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 1.76 cfs)

Primary OutFlow Max=0.25 cfs @ 12.37 hrs HW=486.51' (Free Discharge)
└**1=Culvert** (Passes 0.25 cfs of 0.99 cfs potential flow)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.25 cfs @ 2.84 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin



Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 4.66" for 100-Year event
Inflow = 6.19 cfs @ 12.10 hrs, Volume= 0.453 af
Outflow = 2.14 cfs @ 12.40 hrs, Volume= 0.452 af, Atten= 65%, Lag= 18.2 min
Discarded = 1.83 cfs @ 12.40 hrs, Volume= 0.430 af
Primary = 0.30 cfs @ 12.40 hrs, Volume= 0.022 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.69' @ 12.40 hrs Surf.Area= 5,576 sf Storage= 3,554 cf

Plug-Flow detention time= 9.9 min calculated for 0.452 af (100% of inflow)
Center-of-Mass det. time= 9.7 min (827.2 - 817.5)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

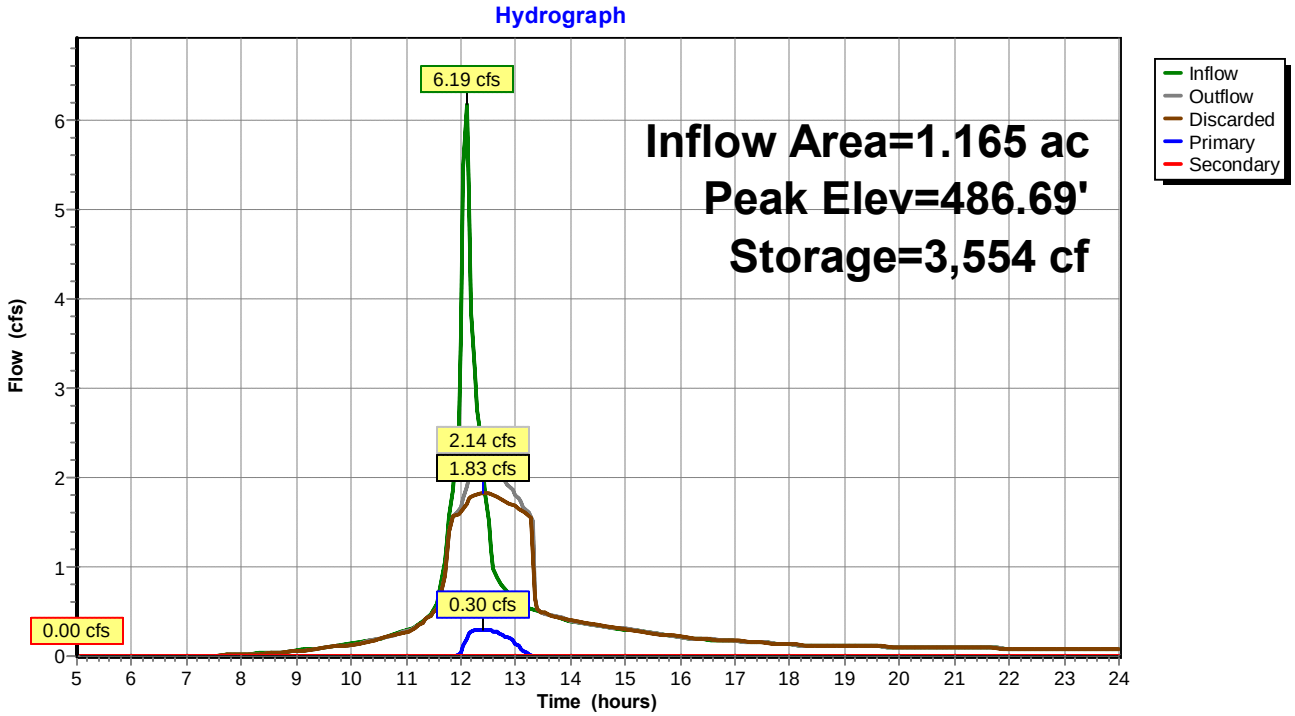
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=1.83 cfs @ 12.40 hrs HW=486.69' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 1.83 cfs)

Primary OutFlow Max=0.30 cfs @ 12.40 hrs HW=486.69' (Free Discharge)
└**1=Culvert** (Passes 0.30 cfs of 1.63 cfs potential flow)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.30 cfs @ 3.48 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin



Summary for Pond 1P: Stormwater Basin

Inflow Area = 1.165 ac, 50.51% Impervious, Inflow Depth > 0.02" for WQ Storm event
Inflow = 0.00 cfs @ 14.78 hrs, Volume= 0.002 af
Outflow = 0.00 cfs @ 14.81 hrs, Volume= 0.002 af, Atten= 0%, Lag= 1.8 min
Discarded = 0.00 cfs @ 14.81 hrs, Volume= 0.002 af
Primary = 0.00 cfs @ 14.81 hrs, Volume= 0.000 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 486.00' @ 14.81 hrs Surf.Area= 4,735 sf Storage= 0 cf

Plug-Flow detention time= 2.0 min calculated for 0.002 af (100% of inflow)
Center-of-Mass det. time= 1.3 min (1,059.1 - 1,057.8)

Volume	Invert	Avail.Storage	Storage Description
#1	486.00'	29,354 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
486.00	4,735	0	0
488.00	7,176	11,911	11,911
489.00	8,825	8,001	19,912
490.00	10,060	9,443	29,354

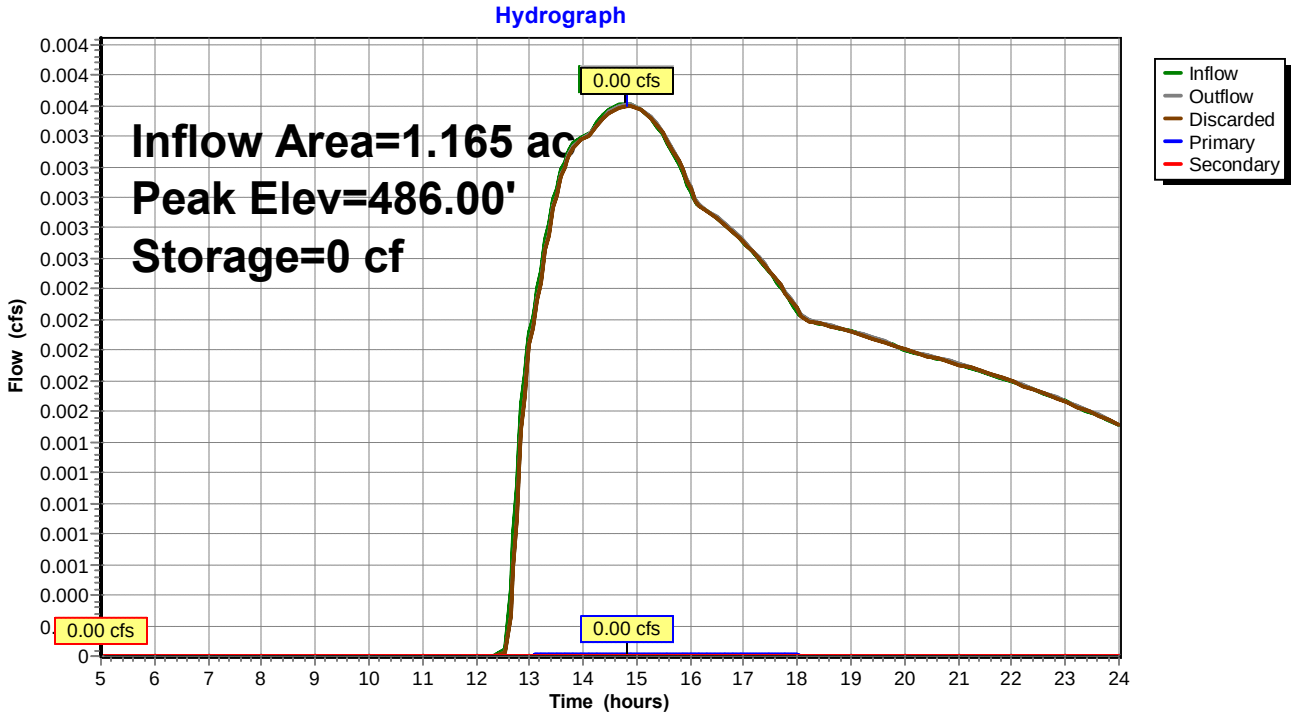
Device	Routing	Invert	Outlet Devices
#1	Primary	486.00'	**12.0" Round Culvert** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 486.00' / 485.00' S= 0.0286 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	486.80'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	487.50'	**16.0' long x 16.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#4	Discarded	486.00'	**14.200 in/hr Exfiltration over Surface area**
#5	Device 1	486.00'	**4.0" Vert. Orifice/Grate** C= 0.600

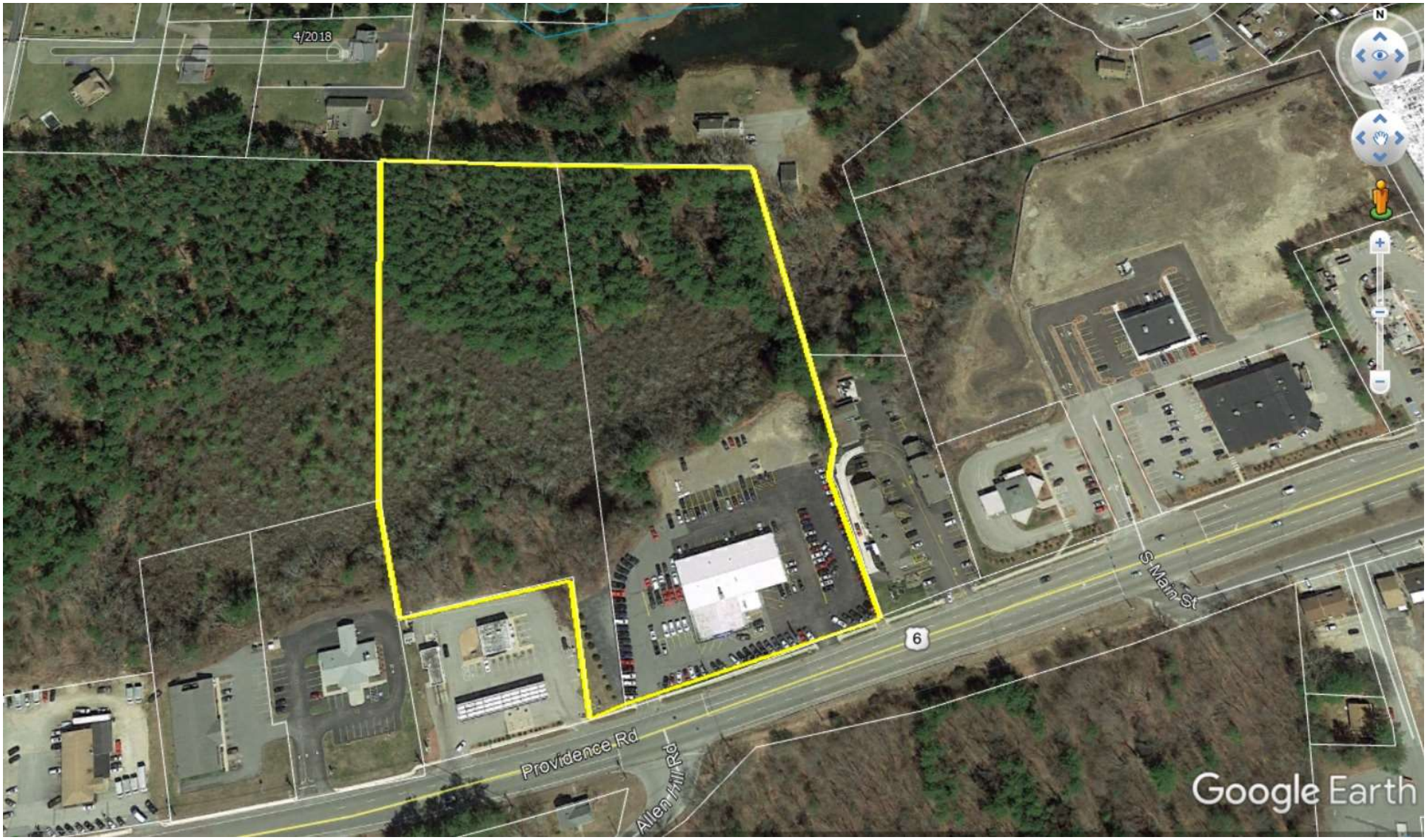
Discarded OutFlow Max=1.56 cfs @ 14.81 hrs HW=486.00' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 1.56 cfs)

Primary OutFlow Max=0.00 cfs @ 14.81 hrs HW=486.00' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.00 cfs @ 0.03 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Passes 0.00 cfs of 0.00 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=486.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Stormwater Basin




4/2018
S Main St
6
Providence Rd
Allen Hill Rd
Google Earth


MAJOR WETLAND


EX. WHITE PINE W/SAPLINGS


HOUSE ON WESTVIEW DR.

NW WETLAND / HOUSE ON WESTVIEW DR

PROPOSED PARKING EXPANSION

"VACHON CHEVROLET"

PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CONNECTICUT

PREPARED FOR:

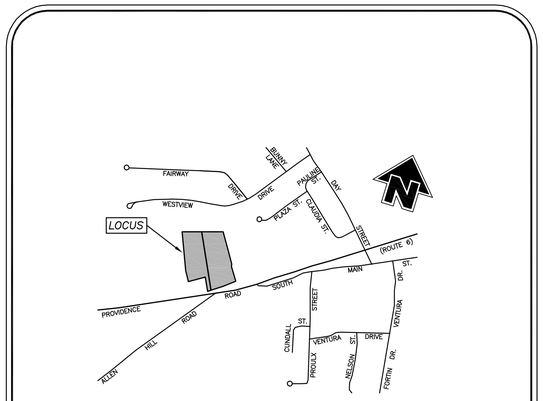
VACHON BROOKLYN, LLC

CONSTRUCTION NOTES/GENERAL PROVISIONS

1. The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.
2. All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
3. All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816", and supplements thereto.
4. The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
5. Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
6. The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
7. The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be referenced by a licensed land surveyor and replaced as necessary by the same.
8. The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade – contractor shall spread and compact. Contractor shall provide, spread and compact required processed aggregate
9. The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed paved areas, accumulated silt and sediment, plus all adjacent areas affected by the construction activities as directed by the Owner or the jurisdictional Agency.

LEGEND

- IRON PIN TO BE SET
- IRON PIN FOUND
- CONCRETE MONUMENT FOUND
- CHD PNT — CHD MONUMENT POINT
- SIGN
- UTILITY POLE
- CB — CATCH BASIN
- MH — MANHOLE
- SMH — SANITARY SEWER MANHOLE
- INLAND WETLANDS FLAG
- 100 — EXISTING CONTOURS
- 100 — PROPOSED CONTOURS
- SILT FENCE



LOCATION MAP
SCALE: 1" = 1000'

INDEX TO DRAWINGS

TITLE	SHEET No.
COVER SHEET	1 OF 5
EXISTING CONDITIONS MAP	2 OF 5
SITE DEVELOPMENT PLAN 1	3 OF 5
SITE DEVELOPMENT PLAN 2	4 OF 5
DETAIL SHEET	5 OF 5

BEFORE YOU DIG
CALL BEFORE YOU DIG
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BEFORE DIGGING OR DISTURBING EARTH
DIAL 811 OR 1-800-922-4455

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per Sec. 8.26C,
Connecticut General Statutes: _____

ENDORSED BY THE BROOKLYN INLAND
WETLANDS COMMISSION

CHAIRMAN DATE

PREPARED BY:

REVISIONS	
DATE	DESCRIPTION
3/10/2020	*PER SOIL SCIENTIST & STAFF*
3/31/2020	*PER NECCOG REVIEW*

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

JANUARY 2020

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

SHEET 1 OF 5
JOB NO: 19129

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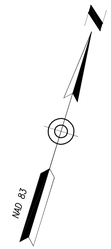
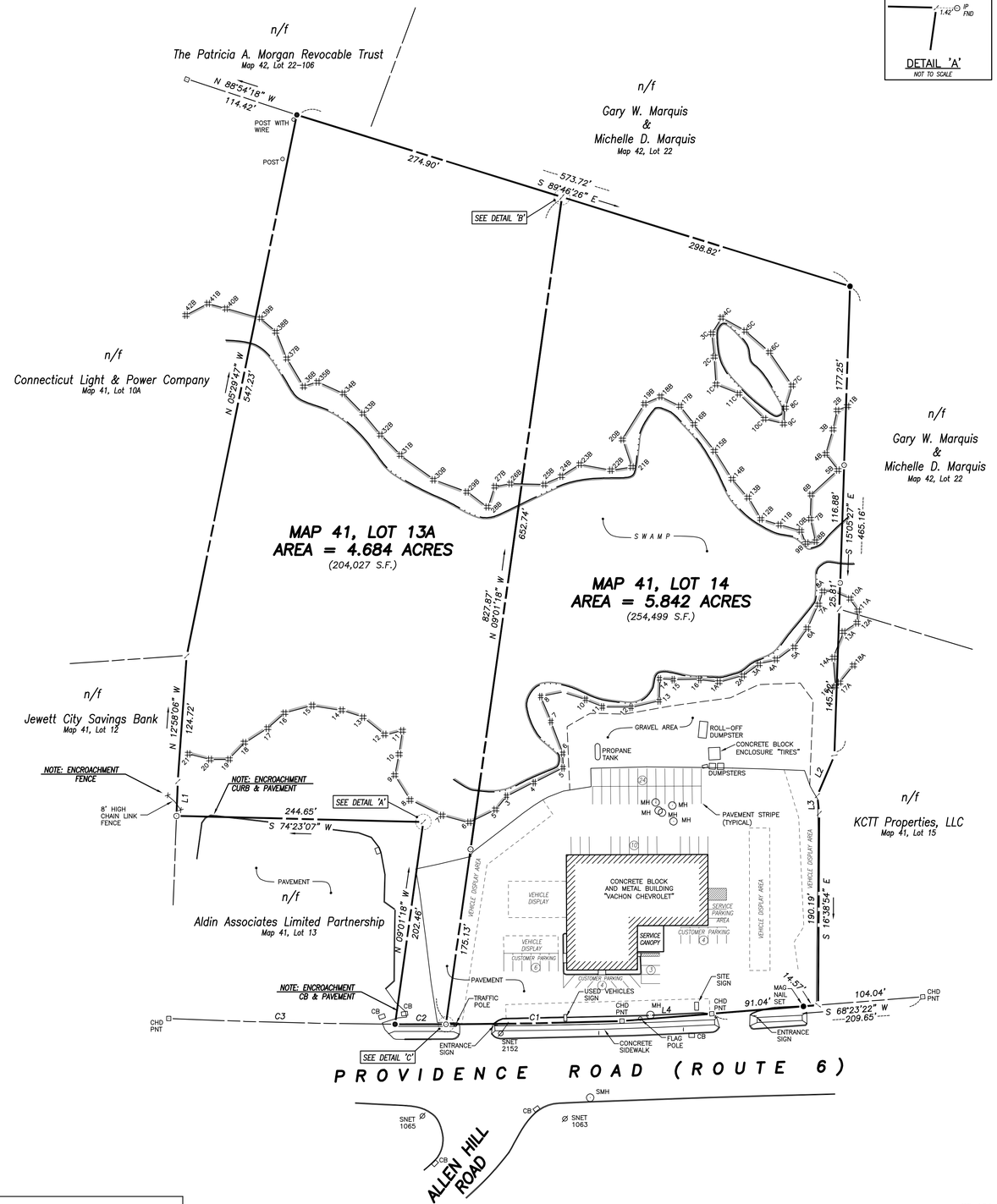
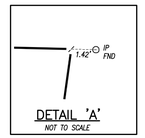


60 30 0 60
GRAPHIC SCALE IN FEET

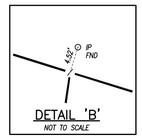
CURVE DATA		
C1	C2	C3
R = 5680.00'	R = 5680.00'	R = 5680.00'
D = 1°45'30"	D = 0°30'33"	D = 2°15'41"
L = 174.32'	L = 50.48'	L = 224.18'
CH = S 71°56'28" W	CH = S 73°04'30" W	CH = S 74°27'37" W
174.32'	50.48'	224.16'

LINE DATA		
L1	N 14°49'40" W	34.19'
L2	S 06°00'57" W	43.34'
L3	S 23°24'09" E	17.56'
L4	S 68°21'47" W	89.41'





DETAIL 'A'
NOT TO SCALE



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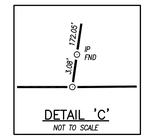
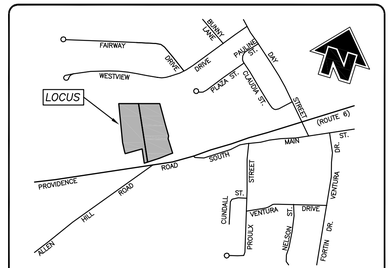


DETAIL 'C'
NOT TO SCALE



LOCATION MAP
SCALE: 1" = 1000'

LEGEND

●	IRON PIN TO BE SET
○	IRON PIN FOUND
□	CONCRETE MONUMENT FOUND
□ CHD PNT	CHD MONUMENT POINT
⚘	SIGN
⌀	UTILITY POLE
□CB	CATCH BASIN
○ MH	MANHOLE
○ SMH	SANITARY SEWER MANHOLE
——#——	INLAND WETLANDS FLAG

MAP REFERENCES:

1. "Connecticut State Highway Department – Right of Way Map – Town of Brooklyn – Brooklyn–Danielson Road – From the Old Pomfret Road – Easterly About 12,000 Feet – Route U.S.6. – Scale: 1" = 40' Date: June 29, 1934 – Number 19–06 – Sheet No. 4 of 4."
2. "Town of Brooklyn – Map Showing Land & Easement Acquired By – The SAtate of Connecticut – From – Mildred Chase Hopkins – Relocation of Route U.S. 6 – Scale: 1" = 40' – Date: June 1953 – Town No. 19 – Project No. 43 – Serial No. 1 – Sheet 1 of 1 – Prepared by: Ernest T. Perkins." On file in the Brooklyn Land Records as Map Book 2 Page 98.
3. "Boundary Survey – property of – Stephen Castle – Route 6, Brooklyn, Conn. – Scale: 1" = 40' – Date: July 30, 1964 – Sheet 1 of 1 Prepared by: Morton S. Fine & Associates." On file in the Brooklyn Land Records as Map Book 3 Page 52.
4. "Map Showing Portion of Land of – Stephen Castle – Brooklyn, Connecticut – Scale: 1" = 20' – Date: March 19, 1982 – Prepared By: Thomas A. Brennan, Jr." On file in the Brooklyn Land Records as Map Book 7 Page 18.
5. "Subdivision Map – Prepared for – Gary D. Kuchy – Westview Drive Brooklyn, Connecticut – Scale: 1" = 80' – Date: June 16, 1999 Revised to: 11/1/99 – Sheet 1 of 11 – Prepared by: J&D Civil Engineers and Provost Rovero Fitzback." On file in the Brooklyn Land Records.
6. "Boundary Survey – Property of Gertrude M. Markley – Providence Road – Route 6 – Brooklyn, Connecticut – Scale: 1" = 40' – Date: Nov. 2002 – Sheet No. 1 – prepared by: Archer Surveying, LLC." On file in the Brooklyn Land Records as Map Book 15 Page 90.
7. "Improvement Location Survey – Prepared for – Premier Chevrolet 512 Providence Road (Route 6) – Brooklyn, Connecticut – Scale: 1" = 50' – Date: 10/12/2011 – Sheet 1 of 1 – Prepared by: Killingly Engineering Associates." On file in the Brooklyn Land Records.
8. "Property Survey – Property Line Relocation – Prepared for KCTT Properties, LLC – Route #6 (Providence Road) – Brooklyn, Connecticut – Scale: 1" = 20' – Date: October 2016 – Revised to: 1/5/2017 – Sheet No. 1 of 1 – Prepared by: PC Survey Associates." On file in the Brooklyn Land Records.

APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per Sec. 8.26C, Connecticut General Statutes: _____

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20–300b–1 through 20–300b–20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996;
   - This survey conforms to a Class "A–2" horizontal accuracy.
   - Survey Type: Improvement Location Survey.
   - Boundary Determination Category: Dependent Resurvey.
2. Zone = PC.
3. Owner of record:
   Map 41, Lot 14 = Vachon Brooklyn, LLC
   957 Washington St., Attleboro, MA 02703
   Volume 620, Page 163
   Map 41, Lot 13A = Vachon Brooklyn, LLC
   957 Washington Street, Attleboro, MA 02703
   Volume 632, Page 114
4. Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in September 2019.
5. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD 83) and are taken from actual field measurements of CGS Random Points B9262 and B9264.

10/07/2020	PER PLANNER REVIEW
03/31/2020	PER NECCOG REVIEW
03/10/2020	PER SOIL SCIENTIST REPORT & STAFF COMMENTS
DATE	DESCRIPTION
REVISIONS	

IMPROVEMENT LOCATION SURVEY
SHOWING EXISTING CONDITIONS
PREPARED FOR

VACHON BROOKLYN, LLC

PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 1/07/2020	DRAWN: AMR
SCALE: 1" = 60'	DESIGN: NET
SHEET: 2 OF 5	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 19129

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

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SEE SITE DEVELOPMENT PLAN No. 2

CURVE DATA		
C1	C2	C3
R = 5680.00'	R = 5680.00'	R = 5680.00'
D = 1°45'30"	D = 0°30'33"	D = 2°15'41"
L = 174.32'	L = 50.48'	L = 224.18'
CH = S 71°56'28" W 174.32'	CH = S 73°04'30" W 50.48'	CH = S 74°27'37" W 224.16'

NAD 83

40 20 0 40

GRAPHIC SCALE IN FEET

MAP 41, LOT 13A
AREA = 4.684 ACRES
(204,027 S.F.)

MAP 41, LOT 14
AREA = 5.842 ACRES
(254,499 S.F.)
WATER ELEVATION = 482.0 (12/28/2019)

n/f
Jewett City Savings Bank
Map 41, Lot 12

n/f
Aldin Associates Limited Partnership
Map 41, Lot 13

n/f
KCTT Properties, LLC
Map 41, Lot 15

PROPOSED WATER QUALITY BASIN, PROVIDE NEW ENGLAND WETLAND MIX ON BOTTOM OF BASIN (±1,150 S.F.)

PROVIDE A CONTINUOUS LINE OF SILT FENCE OR STAKED HAYBALES THROUGHOUT CONSTRUCTION

MODIFIED RIPRAP OVERFLOW ELEVATION = 485.0

PROVIDE DOT #3 STONE WATER QUALITY TRENCH

PROVIDE SUPER SILT FENCE, SILT FENCE BACKED WITH STAKED HAYBALES, OR SILT FENCE BACKED WITH WOOD CHIP BERMS AT CLEARING LIMITS.

PROPOSED WETLANDS DISTURBANCE – ±1,250 S.F.

DOT #3 STONE CHECK DAM

DISTURBANCE – ±1,860 S.F.

SILT FENCE BACKED WITH STAKED HAYBALES

S W A M P

PAVED, VEHICLE STORAGE AREA

8" HIGH CHAIN LINK FENCE

LARGE BLOCK RETAINING WALL

PAVEMENT

125' UPLAND REVIEW

GRAVEL AREA

ROLL-OFF DUMPSTER

PROPANE TANK

CONCRETE BLOCK ENCLOSURE "TIRES"

DUMPSTERS

PAVEMENT STRIPE (TYPICAL)

VEHICLE DISPLAY AREA

PROPOSED CONSTRUCTION ENTRANCE – REMOVE PRIOR TO INSTALLATION OF 1ST COURSE OF PAVEMENT

CONCRETE BLOCK AND METAL BUILDING "VACHON CHEVROLET"

VEHICLE DISPLAY

SERVICE PARKING AREA

SERVICE CANOPY

CUSTOMER PARKING

VEHICLE DISPLAY AREA

CUSTOMER PARKING

PAVEMENT

VEHICLE DISPLAY AREA

TRAFFIC POLE

USED VEHICLES SIGN

SITE SIGN

MAG NAIL SET

CHD PNT

CB

MH

SNET 2152

CONCRETE

SIDEWALK

FLAG POLE

ENTRANCE SIGN

ENTRANCE SIGN

C1

C2

C3

124.72'

34.19'

244.65'

202.46'

175.13'

190.19'

145.22'

43.34'

17.56'

89.41'

91.04'

104.04'

14.57'

PROVIDENCE ROAD (ROUTE 6)

SNET 1065

SNET 1063

SMH

CB

ALLEN HILL ROAD

LEGEND

- IRON PIN TO BE SET
- IRON PIN FOUND
- CHD MONUMENT FOUND
- CHD PNT — CHD MONUMENT POINT
- SIGN
- UTILITY POLE
- CB — CATCH BASIN
- MH — MANHOLE
- SMH — SANITARY SEWER MANHOLE
- INLAND WETLANDS FLAG
- EXISTING CONTOURS
- PROPOSED CONTOURS
- SILT FENCE

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	MATURE HEIGHT
	Myrica gale	Sweetgale	12	24"	2'–4'
✹	Low–growing, bushy shrub. Blue–green to dark green foliage has a pleasant fragrance. Nitrogen fixer. Often found in bogs and acidic wetlands.				
	Lindera benzoin	Common Spicebush	12	24"	3'–4'
⊙	Medium shrub found in seasonal wetlands and moist woods. Red fruit important food source for many birds. The primary food of larval Spicebush Swallowtail butterflies. Fall foliage.				

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20–300b–1 through 20–300b–20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996;
   - This survey conforms to a Class "A–2" horizontal accuracy.
   - Topographic features conform to a Class "T–2", "V–2" vertical accuracy.
   - Survey Type: Improvement Location Survey.
2. Zone = PC.
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6. Elevations shown are based on an assumed datum. Contours shown are taken from actual field survey. Contour interval = 2'.
7. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1–800–922–4455 or 811.

DATE	DESCRIPTION
10/07/2020	PER PLANNER REVIEW
03/31/2020	PER NECCOG REVIEW
03/10/2020	PER SOIL SCIENTIST REPORT & STAFF COMMENTS

REVISIONS

IMPROVEMENT LOCATION SURVEY
SITE DEVELOPMENT PLAN No. 1
PREPARED FOR

VACHON BROOKLYN, LLC

512 PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 1/07/2020	DRAWN: AMR
SCALE: 1" = 40'	DESIGN: NET
SHEET: 3 OF 5	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 19129

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per Sec. 8.26C,
Connecticut General Statutes: _____

ENDORSED BY THE BROOKLYN INLAND
WETLANDS COMMISSION

CHAIRMAN DATE

BEFORE YOU DIG
CALL BEFORE YOU DIG
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
DIAL 811 OR 1-800-922-4455

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

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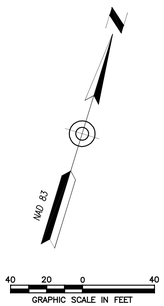

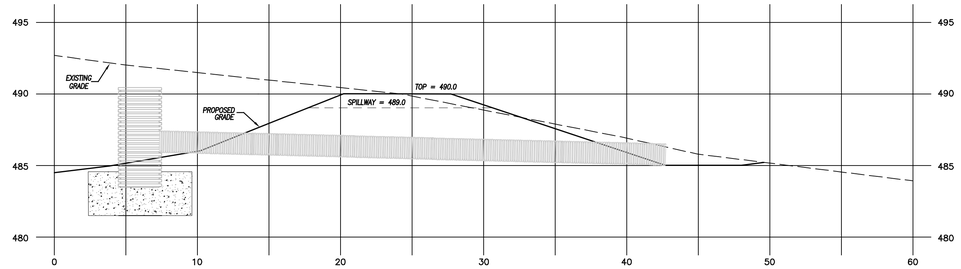

CROSS SECTION "A–A"

SCALE: 1" = 5'

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	MATURE HEIGHT
	Juniperus scopolorum	Moonglow Juniper	18	5'	16'–20'
	Exceptionally showy, silvery blue foliage and broad pyramidal form makes a most attractive screen. A tough plants with dense branching that grows to 20' tall.				
	Viburnum rhytidophyllum	Leatherleaf Viburnum	17	3–4'	6'–10'
	This evergreen Viburnum (most are deciduous) has this olive green leaves that form a great green wall for screening. White fragrant flowers in the spring followed by red berries in the fall that provide food for birds.				
	Acer rubrum	Red Maple	14	3" Caliper	60'–80'

LANDSCAPING REQUIREMENTS PER SECTION 7.C.5

7.C.5.1 10 S.F. of interior landscaping required for each parking space*. Based upon this requirement and 10' width per parking space, 118 spaces require 1,180 S.F. of interior landscaping. Center island provides 4,532 S.F.

7.C.5.4 At one deciduous tree having a caliper of 2.5" measured 4' above the root crown and at least 8' in height shall be provided for each 100 S.F. of required interior landscaping. 12 required – 14 provided.

SCREENING AND BUFFERING REQUIREMENTS PER SECTION 7.C.6

7.C.6.3 Buffer shall have a minimum width of 20 feet. Greater than 20' provided.

7.C.6.4 Buffer area shall:

a. Be of evergreen planting of such type, height, spacing and arrangement as in the judgement of the Commission will effectively screen the activity from the neighboring residential area.

b. At a minimum shall consist of trees 6' in height planted at intervals of 10' on center.

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- 100 PROPOSED CONTOURS
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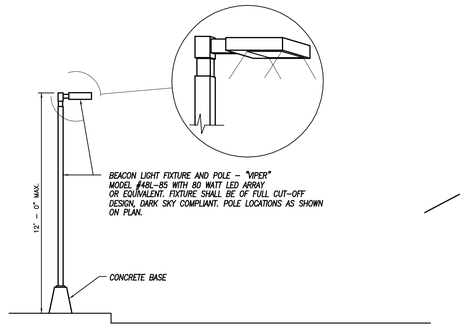
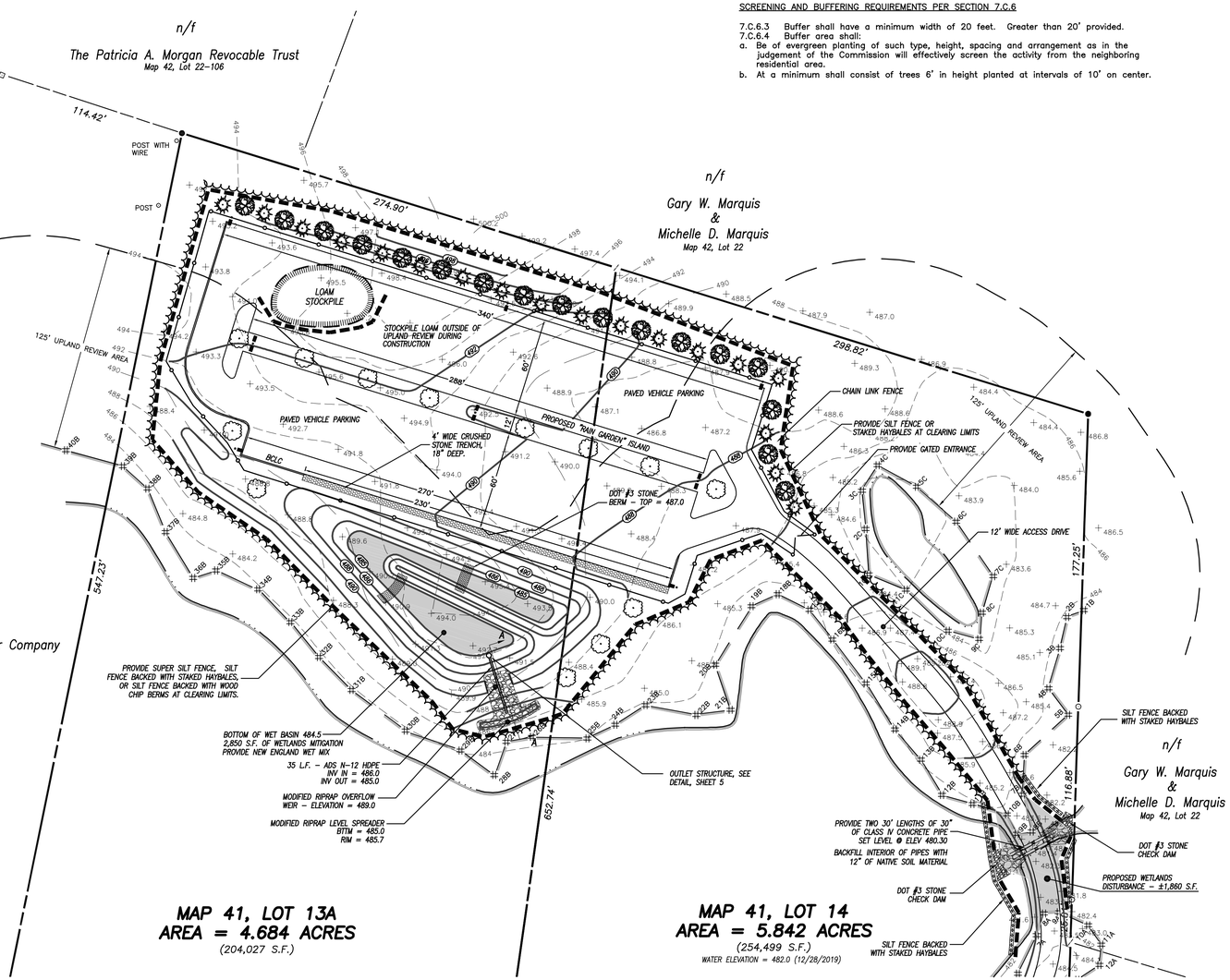


LIGHT STANDARD

NOT TO SCALE

NOTES:

1. PROVIDE JUTE NETTING OVER TOPSOIL & SEED MIX IN BASIN TO STABILIZED SLOPES.
2. NO SALTS OR CHEMICAL APPLICATIONS SHALL BE USED FOR SNOW AND ICE REMOVAL IN PROPOSED PARKING AREAS.



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(254,499 S.F.)
WATER ELEVATION = 482.0 (12/28/2019)

SEE SITE DEVELOPMENT PLAN No. 1

NOTES:

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03/10/2020	PER SOIL SCIENTIST REPORT & STAFF COMMENTS
DATE	DESCRIPTION
REVISIONS	

IMPROVEMENT LOCATION SURVEY
SITE DEVELOPMENT PLAN No. 2
PREPARED FOR

VACHON BROOKLYN, LLC

512 PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
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DATE: 1/07/2020	DRAWN: AMR
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APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per Sec. 8.26C, Connecticut General Statutes: _____

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AT LEAST TWO FULL BUSINESS DAYS BEFORE DIGGING OR DISTURBING EARTH
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EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. U.S.D.A. N.R.C.S. Web Soil Survey.

DEVELOPMENT CONTROL PLAN:

1. Development of the site will be performed by the Contractor, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
2. The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Brooklyn will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
3. All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
4. Dust control will be accomplished by spraying with water. The application of calcium chloride is not permitted adjacent to wetland resource areas or within 100' of these areas.
5. The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
6. Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

SILT FENCE INSTALLATION AND MAINTENANCE:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the inland wetlands commission.
7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
   - the fence has been overtopped, undercut or bypassed by runoff water,
   - the fence has been moved out of position (knocked over), or
   - the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
   - the barrier has been overtopped, undercut or bypassed by runoff water,
   - the barrier has been moved out of position, or
   - the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS–2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3–4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent. Additionally, lime may be applied using rates given in Figure TS–1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%–100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent reoccurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10–10–10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retill compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 – October 1.
6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

DEVELOPMENT SCHEDULE/SEQUENCE OF OPERATIONS:

1. Flag the limits of disturbance and schedule pre–construction meeting with Town of Brooklyn wetlands Agent.
2. Install the anti–tracking construction entrance.
3. Install temporary logging crossing (corduroy crossing or slash mat) in the area of the wetlands crossing to allow for logging access.
4. Cut trees within the defined clearing limits and remove the cut wood.
5. Install perimeter erosion and sedimentation controls in accordance with the site development plan.
6. Excavate for proposed stormwater basin; area shall be utilized for a temproary sedimentation basin during construction.
7. Chip brush and slash; stockpile chips for use on site or remove off site.
8. When all logging activities have been completed, remove temporary crossing and install proposed pipes; counter sink pipes a minimum of 12" and fill bottoms with native material.
9. Box out areas to be paved and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpiles and apply temporary seeding and divert water around the perimeter of the stockpile.
10. Install and compact processed gravel for driveway and parking area base.
11. Remove tree stumps and dispose of at an approved disposal site. Alternatively, stumps may be chipped in place. No stumps shall be buried on site.
12. Make all required cuts and fills. Establish the subgrade for the driveway as required and install additional erosion controls as necessary and as shown on the plans.
13. Inspect perimeter erosion and sedimentation controls weekly and after rain events in excess of 0.5". Repair any damaged controls and provide additional erosion control devices as necessary to address areas of concentrated runoff that may develop as a result of the construction activities. The contractor shall review discharge conditions with the design engineer or the Town of Brooklyn prior to installing additional erosion controls. Apply water as necessary for dust control.
14. Install required utilities.
15. Prepare sub–base for driveway and remainder of the parking areas for final grading.
16. Place topsoil where required and install any proposed landscaping.
17. Remove anti– tracking construction entrance and install first course of pavement.
18. When the remainder of the site work is near completion, sweep all paved areas for the final course of paving. Inspect erosion controls and remove any accumulated sediment. Clean accumulate sediment from the stormwater basin, apply topsoil & seed, and cover with jute netting.
19. Install final course of pavement upon the completion of the final structure.
20. Fine grade, rake, seed and mulch to within 2' of the pavement.
21. Remove and dispose of all silt fence and hay bales after the site has been stabilized to the satisfaction of the Town of Brooklyn.

RESPONSIBLE PARTY FOR E&S MAINTENANCE:

Joe Simon
Vachon Chevrolet
512 Providence Road
Brooklyn, CT 06234
(401) 692–1459

WETLAND SEED MIX FOR WETLANDS MITIGATION

The New England Wetmix (Wetland Seed Mix) contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin borders and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. If planted during the fall months, the seed mix will germinate the following spring. During the first season of growth, several species will produce seeds while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is comprised of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons.

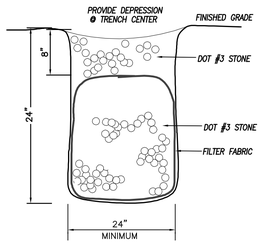
The wetland seeds in this mix can be sown by hand, with a hand–held spreader, or hydro–seeded on large or hard to reach sites. Lightly rake to insure good seed–to–soil contact. Seeding can take place on frozen soil, as the freezing and thawing weather of late fall and late winter will work the seed into the soil. If spring conditions are drier than usual watering may be required. If sowing during the summer months supplemental watering will likely be required until germination. A light mulch of clean, weed free straw is recommended.

APPLICATION RATE: 1 LB/2500 sq. ft

SPECIES: Fox Sedge, (Carex vulpinoidea), Lurid Sedge, (Carex lurida), Blunt Broom Sedge, (Carex scoparia), Sensitive Fern, (Onoclea sensibilis), Blue Vervain, (Verbena hastata), Hop Sedge, (Carex lupulina), Green Bulrush, (Scirpus atrovirens), Nodding Bur Marigold, (Bidens cer–nua), Bristly Sedge, (Carex comosa), Fringed Sedge, (Carex crinita), American Mannagrass, (Glyceria grandis), Wool Grass, (Scirpus cyperinus), Soft Rush, (Juncus effusus), Spotted Joe Pye Weed, (Eupatorium maculatum), Boneset, (Eupatorium perfoliatum), Mud Plantain, (Alisma subcordatum), New England Aster, (Aster novae–angliae), Rattlesnake Grass, (Glyceria canadensis), Purplestem aster (Aster puniceus), Soft Stem Bulrush, (Scirpus validus), Blueflag (Iris versicolor), Swamp Milkweed, (Asclepias incarnata), Monkey Flower, (Mimulus ringens). The functionality of each mix will remain unchanged, although mix composition may vary during the year.

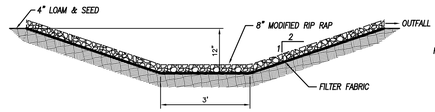
CONSTRUCTION NOTES/GENERAL PROVISIONS

1. The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are is shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1–800–922–4455, and obtain all applicable permits, prior to any excavation around utilities.
2. All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
3. All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 817", and supplements thereto.
4. The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
5. Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
6. The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
7. The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be referenced by a licensed land surveyor and replaced as necessary by the same.
8. The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade – contractor shall spread and compact. Contractor shall provide, spread and compact required processed aggregate
9. The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed paved areas, accumulated silt and sediment, plus all adjacent areas affected by the construction activities as directed by the Owner or the jurisdictional Agency.



WATER QUALITY TRENCH DETAIL

NOT TO SCALE



SECTION THROUGH LEVEL SPREADER

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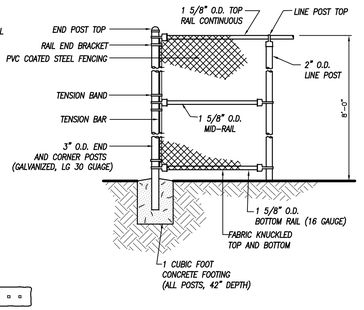
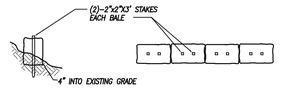


CHAIN LINK FENCE DETAIL

NOT TO SCALE

NOTE: PROVIDE PRIVACY SLATS, FOREST GREEN OR BLACK



HAYBALE BARRIER

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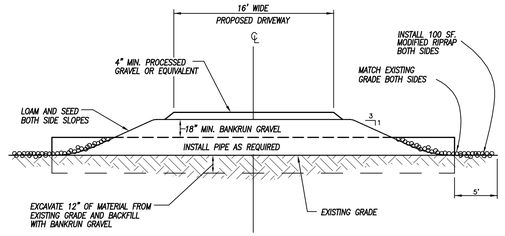

DRIVEWAY CULVERT DETAIL

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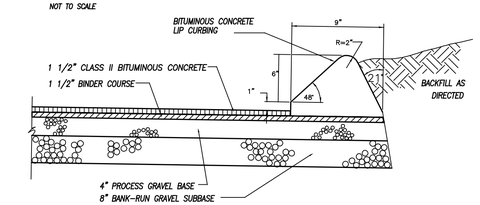
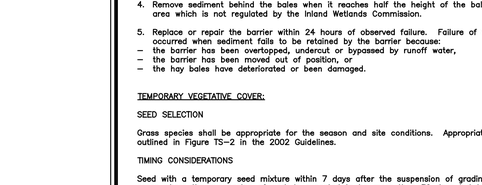


BITUMINOUS CONCRETE LIP CURBING

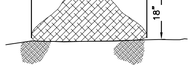
NOT TO SCALE



SILT FENCE – BACKED WITH HAYBALES

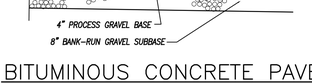
NOT TO SCALE

NOTE: SUPER SILT FENCE MAY BE UTILIZED IN LIEU OF SILT FENCE BACKED WITH STAKED HAYBALES OR WOOD CHIP BERMS MAY BE SUBSTITUTED FOR STAKED HAYBALES



WOOD CHIP BERM

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT

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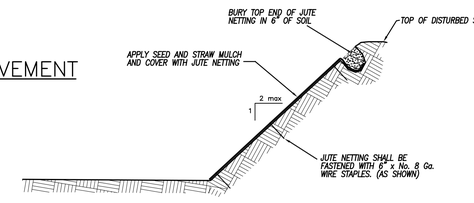
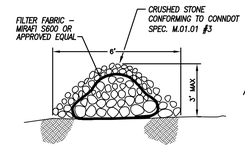


SLOPE STABILIZATION DETAIL

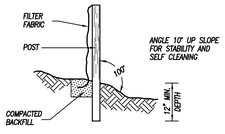
NOT TO SCALE



STONE BERM

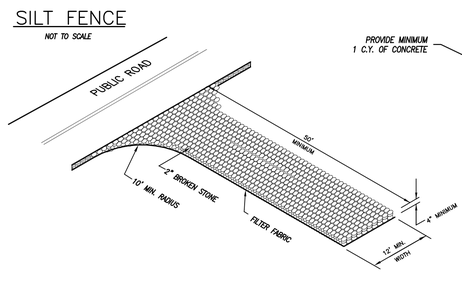
NOT TO SCALE

NOTE: REMOVE SEDIMENT OR REPLACE BERM WHEN SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE BERM



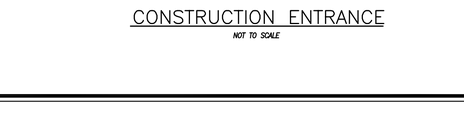
SILT FENCE

NOT TO SCALE



STORMWATER BASIN OUTLET STRUCTURE DETAIL

NOT TO SCALE



CONSTRUCTION ENTRANCE

NOT TO SCALE

10/07/2020	PER PLANNER REVIEW
03/31/2020	PER NECCOG REVIEW
03/10/2020	PER SOIL SCIENTIST REPORT & STAFF COMMENTS
DATE	DESCRIPTION
	REVISIONS

DETAIL SHEET

PREPARED FOR

VACHON BROOKLYN, LLC

PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 1/07/2020	DRAWN: AMR
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 5 OF 5	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 19129

APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per Sec. 8.26C, Connecticut General Statutes: _____

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

K:\19129\Drawings\05_19129 DET.dwg Oct 19, 2020 - 1:25 PM

Margaret's Report 11/3/2020

Final Certificates of Zoning Compliance issued:

25 South Street – Derrick Renaud. Finish basement, full bath and office space.

371 Tripp Hollow Road - Square One Building Associates. New single-family house with attached garage and rear deck.

31 Canterbury Road – Bernard Norman. Rooftop solar panels in the VC Zone.

154 So. Main Street – Angela Malo. Convert former commercial space on first floor to a duplex building with second floor apartment to remain.

Zoning Permits issued:

353 Day Street – Jeffrey A. Weaver. New single-family dwelling; 1st floor 1370 sf; attached garage 441 sf.

154 Allen Hill Road – Kimberly and Trevor Wood. New 20 ft x 15 ft shed atop a post and beam foundation.

49 Pomfret Road – Mark Olivo. Rooftop solar panels visible from the road in the VC Zone. This permit was issued because the project was approved by the PZC during a Site Plan Review.

351 South Street – Luz Carabello. New 10 ft x 16 ft shed.

364 Canterbury Road – Michael Icart. Three second-floor replacement windows in the RA/Scenic Route 169 Overlay Zone.

372 Canterbury Road – Kathleen and William Bailey. 12 ft x 24 ft preconstructed shed on crushed stone in the RA/Scenic Route 169 Overlay Zone.

92 Church Street – John and Sara Turner. New 15 ft x 33 ft in-ground swimming pool.

154 So. Main Street – Angela Malo. Convert former commercial space on first floor to a duplex building with second floor apartment to remain.

36 Fortin Drive - Brian Russo. Finish basement; theater room, utility room, bathroom, woodstove installation

Sign Permits issued: None.

Home Office Permits Issued: None.

Zoning and Blight Complaints:

128 South Main Street – Keith Allen Smith. I received a complaint about tall weeds and poison ivy blocking passage on a neighbor's driveway and the public sidewalk. On 10/5 I inspected and took photos. On 10/6 I issued a Notice of Violation. On 10/11, the neighbor who complained emailed me to say that the weeds were being removed from her property line. On 10/15, Mr. Smith called me, as required, to say the weeds had been removed and that he was ready for a re-inspection. On 10/15, I re-inspected, took photos, and issued a Closed Notice of Violation. This blight violation has been resolved.

4 Elm Street – Aaron-James Puzzo Kerouac. I received a complaint about two unregistered vehicles on the subject property. On 9/24, I inspected and took photographs. The property is blighted due to widespread litter, a dilapidated building and untrimmed vegetation. A Notice of Violation was issued on 10/20/2020. On 11/2, Mr. Kerouac requested a hearing before an impartial Town hearing officer. On 11/3, I contacted Bob Kelleher asking him to schedule a hearing.

Paradise Lake – Terry Powell. The Town has been fighting Mr. Powell for zoning and blight violations since at least 2012. Citations issued in 2018 were never paid. I received a complaint about a recent increase in the number of trailers, etc. being hauled in. I contacted the ZEO in Lisbon, CT, who said that the Lisbon Town Counsel has been fighting Mr. Powell for four years and now has him in court. It appears that Mr. Powell may be hauling junk from Lisbon to Brooklyn. I have contacted the CT Housing Prosecutor for advice. I inspected and took photos with Resident State Trooper Steve Corradi on 10/22. A Cease and Desist Order will be forthcoming.

10 Lasalette Drive – Gloria Smith. I received a complaint from Craig Dunlop of 60 Lasalette Drive, regarding Mrs. Smith's son, Marc Provost, running a business selling wood on the side of Route 169 in the VC Zone. My review of this complaint is ongoing.

99 Brown Road – Gordon Briggs. I received a complaint from Roland Gaboury of 101 Church Street. Mr. Briggs lives in Florida; a caretaker is staying at 99 Brown Road, according to Mr. Gaboury. I inspected and took photos from the road on 10/21. I sent Mr. Gaboury a complaint form, which he has yet to return to me. My review of this complaint is ongoing.

24 Tiffany Street – Jason Graves. I received an anonymous phone complaint about overgrown weeds spilling over the property line, blocking the public sidewalk. I took photos and issued a Notice of Violation on 11/2.

SP 20-002 – Special Permit for additional vehicle storage, Applicant: Vachon Brooklyn, LLC, 512 Providence Road, Proposed construction of two 16' wide access drives to proposed new vehicle storage lots.

-The Inland Wetlands and Watercourses Commission has issued an approval for the proposal.

- We will be discussing the application of the landscaping and stormwater runoff requirements for parking areas as well as buffering to nearby residences.

- You may wish to consider bonding for maintenance of the drainage structures or landscaping.

Sample Motion to Approve

Move to approve the Special Permit application of Vachon Brooklyn, LLC for construction of two new vehicle storage lots and 16' wide access drives at 512 Providence Road (Map 41, Lots 13A and 14), identified in the files of the Brooklyn Land Use Office as SP 20-002, in accordance with all final documents and testimony submitted with the application with the finding that the design is consistent with the Special Permit criteria including those specific to the Planned Commercial Zone with the following conditions:

1. The Inland Wetlands and Watercourses Commission approval with conditions and the Planning and Zoning Commission approval with conditions must be included on the final recorded special permit plans. Draft final approved plans shall be printed on paper and submitted to town staff for review prior to printing on archival material. The final approved plans bearing the seal and signature of the appropriate professionals and signed by Commission Chairs shall be recorded along with the Special Permit in the office of the Town Clerk.
2. Prior to the commencement of any activity undertaken in accordance with this approval, the limit of disturbance shall be flagged in the field by a licensed land surveyor and such flags shall be posted high above grade on trees or on construction fence so as not to be disturbed by clearing activities. The limits of disturbance markings shall remain in place for the duration of the excavation activity and shall be replaced if disturbed. Additionally, property lines within 50' of the area of disturbance shall be flagged. All flagging as

required by this approval shall be checked no less frequently than quarterly by the operator to ensure they are in place and shall be restored if disturbed or removed.

3. Prior to the commencement of any activity undertaken in accordance with this approval, erosion and sedimentation control measures as shown on the approved plans shall be installed to the satisfaction of the Land Use Office. The Land Use Office shall have the authority to direct that additional erosion and sedimentation control measures be installed if deemed necessary to maintain adequate protection from erosion and sedimentation.

ZC 20-003 – Zone Boundary Change from RA to VC, Applicant: Ronald Sorel, Location: 94-102 Hartford Road, Approximately 4 acres on the north side of Hartford Road.

Sample Motion

Move to approve the zone boundary change with the finding that it is suitable for the location, will aid in the protection of protect public health, safety, welfare, and property values and is consistent with the Plan of Conservation and Development and the intent of the Zoning Regulations. The zone boundary change shall become effective 15 days from the date of publication on the website.