



PLANNING BOARD MEETING AGENDA

Thursday September 19, 2019

Town Hall Meeting Room

6:30 p.m.

Call to Order

Pledge of Allegiance

Introduction of Board Members

Public Comment

Approval of Minutes

1. September 5, 2019

Public Hearing

2. Conditional Use Application. Adult Use Marijuana Store. 357 Portland Street (R70 12-1). RC/I Zone. Paper Birch Property.

Old Business

2. Conditional Use Application. Adult Use Marijuana Store. 357 Portland Street (R70 12-1). RC/I Zone. Paper Birch Property.

New Business

3. Conditional Use Application. School & Parking Expansion. 20 Blackberry Hill Road, Hussey School (R57 27). R2 Zone. MSAD60.

Findings of Fact

4. Conditional Use Application. Public Facility (Fire Department). 20 Wilson Street (U4-142-1). Town of Berwick.

Public Comment

Adjournment



PLANNING BOARD MEETING MINUTES

Thursday September 5, 2019

Town Hall Meeting Room

6:30 p.m.

Call to Order

Pledge of Allegiance

Introduction of Board Members

Regular Members Present:

David Andreesen; Nichole Fecteau; Frank Underwood; Sean Winston; Michael LaRue

Regular Member Absent:

Alternate Member Present:

David Ross-Lyons

Staff Members Present:

Lee Jay Feldman, Director of Planning; James Bellissimo, Planner; Stephen Eldridge, Town Manager; Jenifer McCabe, Code Enforcement Officer

Public Comment

Approval of Minutes

1. August 15, 2019

Nicole Fecteau and Sean Winston pointed out a typo.

Motion: Nichole Fecteau motioned to approve the minutes as amended.

Second: Frank Underwood

VOTED – 5-0 in favor

Motion Passed

In favor: Dave Andreesen; Nichole Fecteau; Sean Winston; Michael LaRue; Frank Underwood

Opposed: None

Abstain: None

Public Hearing

2. Conditional Use Application. Public Facility (Fire Department). 20 Wilson Street (U4-142-1). Town of Berwick.

Old Business

3. Conditional Use Application. Public Facility (Fire Department). 20 Wilson Street (U4-142-1). Town of Berwick.

A site walk was held at 5:00PM on September 5th.

Andy Hyland introduced himself as the architect of the project and introduced Todd Gammon as the engineer of the project. Mr. Hyland said the sidewalk from Wilson Street will connect to the new entrance of the Fire Station, and the proposed path is shown to go in between the Fire & Police buildings and continue up to Logan Street.

Todd Gammon updated the Board on the environmental permits for the project. Mr. Gammon said with the DEP permit, all water on the site needs to be treated. Mr. Gammon said the site requires DEP inspection every five years for certification to ensure the stormwater measures are working as designed.

Nichole Fecteau read the definition of Public Space into the record. The applicant and Board agreed on a Conditional of Approval, the green space at 20 Wilson Street School shall remain Public Space unless the property owner comes back for a Conditional Use. Frank Underwood encouraged planning the best use for the remaining green space.

Frank Underwood requested for all materials from the engineer to be utilized at a later date for research into future paths and trails through the site.

Motion: Frank Underwood motioned to approve the application

Second: Nichole Fecteau

VOTED – 5-0 in favor

Motion Passed

In favor: Dave Andreesen; Nichole Fecteau; Sean Winston; Michael LaRue; Frank Underwood

Opposed: None

Abstain: None

New Business

- 4. Conditional Use Application. Adult Use Marijuana Store. 357 Portland Street (R70 12-1). RC/I Zone. Paper Birch Property.**

Lee Jay Feldman read his memo to the Board. Frank Underwood asked about the level of urgency in approving the application. Paul Venuti said they are applying now because of how the State of Maine licensing works.

A Conditional of Approval was discussed. Before receiving an Occupancy Permit, Mr. Venuti shall provide the Town proof of a State of Maine license.

Motion: Nichole Fecteau motioned to find the application complete.

Second: Sean Winston

Sean Winston asked if both Medical and Adult Use Marijuana operations would happen at the same time. Mr. Venuti said it would be Adult Use Marijuana only.

VOTED – 5-0 in favor

Motion Passed

In favor: Dave Andreesen; Nichole Fecteau; Sean Winston; Michael LaRue; Frank Underwood

Opposed: None

Abstain: None

The site walk was scheduled for 5:30PM and Public Hearing set for 6:30PM

Findings of Fact

- 5. 4 Corners Clean**

Nichole Fecteau recused herself.

Motion: Sean Winston motioned to approve the Findings of Fact.

Second: Michael LaRue

VOTED – 4-0 in favor

Motion Passed

In favor: Dave Andreesen; Sean Winston; Michael LaRue; Frank Underwood

Opposed: None

Abstain: None

Nichole Fecteau re-joined the meeting

Informational Items

Rick Vandenberg provided an update on the Rec Master Plan & Prime Tanning Brownfield remediation.

Public Comment

Adjournment

Motion: Michael LaRue motioned to adjourn.

Second: Sean Winston

VOTED – 5-0 in favor

Motion Passed

In favor: Dave Andreesen; Nichole Fecteau; Sean Winston; Michael LaRue; Frank Underwood

Opposed: None

Abstain: None

Minutes prepared by Berwick Planner James Bellissimo, for consideration at the next Berwick Planning Board meeting.

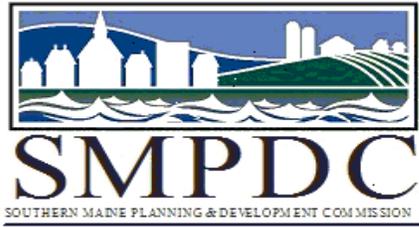
Signed as Approved by the Board:

Town of Berwick Planning Board Public Hearing

The Berwick Planning Board will hold a Public Hearing for a Conditional Use requested by Paper Birch Properties. The applicant requests approval for an Adult Use Marijuana Store at 357 Portland Street (R70 12-1) in the RC/I Zone.

All relevant supporting documentation is available at the Town Hall from the Community Development and Planning Department. Please contact the Berwick Community Development and Planning Department with any questions at planning@berwickmaine.org or 207-698-1101 ext. 124.

Date: Thursday, September 19, 2019 Time: 6:30PM Location: Burgess Meeting Room, Berwick Town Hall



To: Berwick Planning Board
From: Lee Jay Feldman, Director of Planning
Date: 9/11/2019
Re: **Site Plan Review Hussey School Expansion**

I. Proposal

The proposed project will expand the existing building and parking lot(s) at the Hussey School on Blackberry Hill Road. Included in the work for this application is the construction of two new parking areas, a re-designed student drop-off area, a new playground, and a new 2-story building addition. This project will reconfigure the layout in order to achieve a less dangerous, more controlled traffic flow through the site and relocate parking to areas that will result in less danger to students, staff and residents.

As I understand it, MSAD 60 is in the process of contracting with CHA Architecture to design the building addition. It is the intent that the final design will not expand beyond the footprint indicated on the site plans included with this application. If it is determined that the new building will need to be increased, the project will be brought back to the Town for a revision to the plan.

The project will require a Site Location of Development permit from the Maine DEP. The application for that permit has been submitted and is currently in the review process. The applicant has proposed Low Impact Designs for the site. The applicant can best describe these during the sketch presentation. The work also required a NRPA Tier 1 permit for the proposed impact to the roadside wetland along Blackberry Hill Road. This permit was granted on July 22, 2019. There are protected wetlands on the west end of the property that were enhanced as part of the DEP approval to construct Noble High School. No recorded

document describing the area has been obtained; however, it is intended that all wetlands west of the existing drainage swale will remain unaltered.

This project is both an amended Conditional Use as well as a Site Plan review application.

II. Stormwater

The stormwater system proposed is somewhat complicated to explain so for the intricate details I would suggest reviewing sheets L4 & L5 of the plan set for plans that have been blown up to see what is going on.

Currently, you can see a series of catch basins to the west of the existing school which takes a great deal of the water and sends it to the southerly area of the site and empties in to the wetland. What will happen now is that the system will include two (2) large subsurface treatment areas that will treat water and eventually get it to the existing 15" pipe to the rear of the site and empty the treated water into the wetland in the south portion of the site.

The front parking area proposed on the Northwest portion of the site will have a portion of the site with pervious pavers. All water will be picked up by the catch basin in the southeast corner of the parking lot and emptied to the wetland.

Along Blackberry Hill road stormwater will be treated in Focal Point treatment locations before being disbursed east of the existing parking area. The new parking area on this side of the site will not have pervious pavement however, the grading in the lot will sheet flow all water into the proposed treatment pond.

III. Wetlands

The wetlands in this area are considered a protected resource by way of being Shoreland zoned stream protection with a 100' setback. The project as proposed does not impact the setback and meets all the required standards of the shoreland zone. Maine DEP will also have an opportunity to review this project for those impacts as well.

IV. Traffic

The applicant has not specifically indicated what the use of the new 17,000+ addition to be used for? Are we adding more kids and or teachers? Will the drop

off vs. # of buses change etc. I would think this is important to know as part of this application.

V. Waivers

The applicant is seeking one waiver 9.8.F.2.b.i which is simply the scale at which the plan set is drafted to. I see no reason not to waive this as the plans are very legible at this scale.

VI. Process

- Find the application Complete and Waive the above request 9.8.F.2.b.i
- Set a date for a site walk
- Set the date for the Public Hearing



Town of Berwick

Where Tradition Meets Tomorrow

11 Sullivan Street, Berwick, Maine 03901

Phone: (207) 698-1101 Fax: (207) 698-5181

Website: www.berwickmaine.org

APPLICATION: CONDITIONAL USE PERMIT/SITE PLAN REVIEW

PLANNING BOARD REVIEW FEES <i>(All Fees are Non-Refundable)</i>		<input type="checkbox"/> \$500.00 Conditional Use Review <input checked="" type="checkbox"/> \$1,000.00* Site Plan Review <i>* Site Plan Review requiring more than 10 hours of staff time will be billed at \$80/hour.</i>		Site Plan Review⁺ Please check any that apply: <input checked="" type="checkbox"/> Construction of 3,000 or more ft ² <input checked="" type="checkbox"/> Installment of 5,000 ft ² or more impervious surfaces. <input type="checkbox"/> Mobile Home Park <input type="checkbox"/> Extraction Industry <input type="checkbox"/> Multi-Family <input type="checkbox"/> None of the above			
PROPERTY DESCRIPTION	Parcel ID	Map: R57	Lot: 27	Zoning District: R-2	Total Land Area: 25.5 acres	Part of a Subdivision (Y/N)	N
	Physical Address	Vivian E. Hussey Elementary School 20 Blackberry Hill Road Berwick, ME 03901				Aquifer Protection (Y/N)	N
						Shoreland Protection (Y/N)	N
						Resource Protection (Y/N)	N
						Special Flood Hazard Area (Y/N)	N
APPLICANT OR REPRESENTATIVE INFORMATION	Name	Civil Consultants Neil J. Rapoza, PE (Representative)		Mailing Address	PO Box 100 293 Main Street South Berwick, ME 03908		
	Phone	207-384-2550		Email Address	neil@civcon.com (Agent)		
PROJECT DESCRIPTION	<u>Existing Use:</u> Elementary School						
	<u>Project Name:</u> Hussey School Parking & Building Expansion						
	<u>Proposed Use</u> Expansion of existing use.						
	<u>Waiver(s) Requested:</u> 9.8.F.2.b.i - Scale of drawings at 1"=50'						

Planning Board meetings are the 1st and 3rd Thursday of each month at 6:30pm.

This application must be submitted at least **two weeks** in advance of the Planning Board meeting. On-going applications have a **one-week** submittal requirement. Please e-mail a complete application to planning@berwickmaine.org, submit the application fee and eight copies to the Planning Department with the requirements outlined on the other side of this application.

A Public Hearing and a site walk when necessary will be scheduled when the Planning Board finds the application complete. All expenses must be paid before a Certificate of Occupancy will be granted through the Code Enforcement Office. A performance guarantee may be required by the Planning Board.

CERTIFICATION. To the best of my knowledge, all information submitted with this application is true and correct.

Signature of Applicant

Date

Submitted	Waiver Request	Conditional Use Application Requirements
<input checked="" type="checkbox"/>	N/A	List of Abutters located within 200 feet including tax map and lot number. Information can be found in the Assessing Database or GIS maps at www.berwickmaine.org
<input checked="" type="checkbox"/>	N/A	Right, Title and Interest to the Property: Copy of Deed, Purchase & Sale Agreement or subdivision approval.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Plan to include requirements in Section 9.8(F) of the Land Use Ordinance. Including: <input type="checkbox"/> Proposed buildings with room layout <input checked="" type="checkbox"/> Approximate boundaries of the parcel <input checked="" type="checkbox"/> Parking Plan <input checked="" type="checkbox"/> Traffic circulation with proposed exists and entrances <input checked="" type="checkbox"/> Lighting <input checked="" type="checkbox"/> Landscaping.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Written narrative describing proposed use including: <input checked="" type="checkbox"/> Total floor area <input checked="" type="checkbox"/> Ground coverage <input type="checkbox"/> Location of each proposed building <input checked="" type="checkbox"/> Setbacks to property line <input checked="" type="checkbox"/> Business Hours of Operation <input checked="" type="checkbox"/> Number of Employees <input checked="" type="checkbox"/> Materials to be Used Refuse/Garbage Disposal <input checked="" type="checkbox"/> Noise <input checked="" type="checkbox"/> Existing restrictions or easements on the site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> External Plumbing Permit or permission letter to enter municipal water and sewer lines. OR on-site soils investigation report by licensed site evaluator.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Written statement documenting proposed Low Impact Design (LID) for the site to reduce storm water volumes. LID includes, but is not limited to: green roofs, rain gardens, tree wells, infiltration basins, and permeable pavement.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Materials to satisfy Section of 9.8.I.1 a through s as they apply to Conditional Use Review.

Submitted	Waiver Request	Site Plan Approval Requirements [†] These requirements shall be met when the application meets any of the criterion of Section 9.8.E in the Land Use Ordinance.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Map or maps prepared at a scale of not less than 1" to 40'
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Perimeter survey of parcel certified by registered land surveyor Which meets all requirements of 9.8. criterion 2.b.i
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Topography indicating contours at intervals of not more than two feet in elevation unless otherwise specified by the Planning Board.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Existing and proposed locations and dimensions of any utility lines, sewer lines, water lines, easements, drainage ways, public or private ways
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Location, ground floor area and elevations of buildings and other structures on site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site soils investigation which meets all requirements of 9.8.2.b.iv
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Location and dimensions of on-site pedestrian and vehicular access ways, parking areas, loading and unloading facilities, design of ingress and egress of vehicles to and from the site on to public streets and curb and sidewalk lines
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landscape plan showing location, type and approximate size of plantings and location and dimensions of all fencing and screening
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A written statement that meets all 11 requirements of 9.8.F.2.c
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Materials to satisfy Section of 9.8.I.1 a through s as they apply to Site Plan Review.

CIVIL CONSULTANTS MEMORANDUM

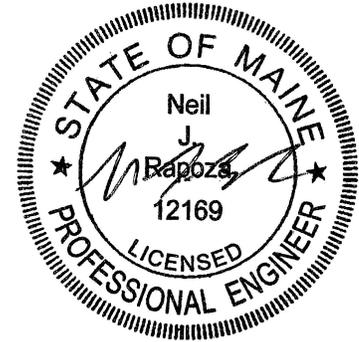
TO: Town of Berwick Planning Office

FROM: Neil J. Rapoza, PE – Sr. Project Engineer

SUBJECT: Project Summary – Town of Berwick Ordinance Section 9.8.F

DATE: 8/15/2019

ROJECT: 12-060.40 HUSSEY SCHOOL EXPANSION



As part of the site plan review process, the following memorandum has been prepared to address Section 9.8.F of the Berwick Land Use Ordinance.

REQUIREMENTS	APPLICANT'S RESPONSE
9.8.F.1	
a. Name and address of the applicant or his/her authorized agent and name of proposed development in which the applicant has title or interest; a deed for the property	<i>Applicant: MSAD 60 100 Noble Way North Berwick, ME 03906</i> <i>Agent: Neil J. Rapoza, PE CIVIL CONSULTANTS PO Box 100 South Berwick, ME 03908</i>
b. Municipal tax maps and lot numbers and names and addresses of abutting landowners	<i>Tax Map R-57, Lot 27</i>
c. Total floor area, ground coverage and location of each proposed building; setbacks to property lines;	<i>Proposed 17,400 sf building addition; min 185 ft setback to property lines(see plan)</i>
d. Approximate boundaries of the parcel	<i>Provided on plans.</i>
e. If on-site sewage disposal is proposed, then an on-site soils investigation report by a licensed site evaluator shall be provided	<i>Not applicable.</i>
f. If public water and/or sewer are to be used, a statement from the water and/or sewer district or utility as to the availability of public water and/or sewer;	<i>See attached letter to sewer district.</i>
g. Existing and proposed entrances/exits from the property	<i>Provided on plans.</i>



h.	A parking plan shall also be provided	<i>Provided on plans.</i>
i.	Any existing restrictions or easements on the site	<i>See deeds provided for easement information.</i>
j.	A brief written narrative shall be provided on what type of business is proposed, hours of operation, number of employees, materials being used, waste disposal, etc	<i>See attached.</i>
9.8.F.2.b		
i.	A map or maps prepared at a scale of not less than one inch to 40 feet and shall include:	<i>Provided on plans. See waiver to allow 1"=50' scale plans.</i>
ii.	Perimeter survey of the parcel made and certified by a registered land surveyor depicting reference points, showing true north point, graphic scale, corners of the parcel and date of survey and total acreage. The perimeter survey shall be recorded at the York County Registry of Deeds after Planning Board approval but prior to the issuance of the land use permit. Areas within 200 feet of the proposed development site shall be included	<i>Provided.</i>
iii.	Existing and proposed locations and dimensions of any utility lines, sewer lines, water lines, easements, drainage ways, public or private rights of way	<i>Provided on plans.</i>
iv.	Location, ground floor area and elevations of buildings and other structures on the site	<i>Provided on plans.</i>
v.	If the site is not to be served by a public sewer line, then an on-site soils investigation report by a Department of Human Services licensed site evaluator shall be provided. The report shall contain the types of soil, location of test pits, and proposed location and design of the best practical subsurface disposal system for the site, all of which must meet the standards set forth in the Maine State Plumbing Code	<i>Not applicable.</i>
vi.	Location and dimensions of on-site pedestrian and vehicular access ways, parking areas, loading and unloading	<i>Provided on plans.</i>



	facilities, design of ingress and egress of vehicles to and from the site on to public streets and curb and sidewalk lines	
vii.	Landscape plan showing location, type and approximate size of plantings and location and dimensions of all fencing and screening	<i>Provided on plans.</i>
viii.	Topography indicating contours at intervals of not more than two feet in elevation unless otherwise specified by the Planning Board	<i>Provided on plans.</i>
i.	A description of the proposed uses to be located on the site, including quantity and type of building construction if any;	<i>See attached project narrative.</i>
ii.	Total floor area and ground coverage of each proposed building and structure and percentage of lot covered by each building or structure;	<i>Provided on plans.</i>
iii.	Method of solid waste disposal;	<i>No changes proposed to the current methods of solid waste disposal.</i>
iv.	Erosion and sedimentation control plan prepared in accordance with Article 7.15 if required;	<i>Provided on plans. Also refer to the Stormwater Management Plan prepared for the DEP Site Location application and provided to the Town.</i>
v.	Copies of letters to the town manager, selectmen, Planning Board, road commissioner/public works director, fire chief, police chief, etc. notifying them of the proposed development;	<i>See attached.</i>
vi.	Stormwater management plan prepared in accordance with Article 7.17 if required;	<i>Refer to the Stormwater Management Plan prepared for the DEP Site Location application and provided to the Town.</i>
vii.	Statement of financial capacity which should include the names and sources of the financing parties including banks, government agencies, private corporations, partnerships and limited partnerships and whether these sources of financing are for construction loans or long-term mortgages or both	<i>Site work associated with the project will be funded by MSAD 60. Any building construction or modification will be funded by a local bond in the future.</i>
viii.	The applicant's evaluation of the availability and suitability of off-site public facilities including sewer, water, and streets	<i>Not applicable.</i>
ix.	A statement from the fire chief as to the availability of fire hydrants and/or fire ponds, or provisions of fire protection services	<i>See attached letter provided to the Fire Department. Any input that is received will be incorporated into the plan.</i>



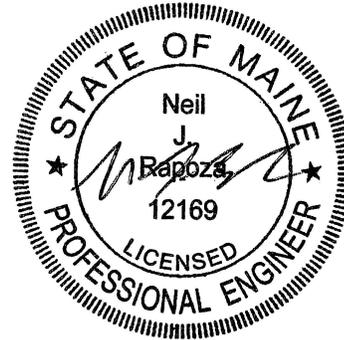
x. If public streets are proposed, a statement from the town engineer that the proposed road or street construction will meet town specifications	<i>Not applicable.</i>
xi. An estimate of the date when construction will start and when the development will be completed	<i>Site work is expected to begin in the winter of 2019-2020, with a completion date of August 2020 (dependent on permit approvals.)</i>

J:\aaa\2012\1206040\BERWICK\20190809-1206040-SECTION_9-8-2-c-PROJECT_SUMMARY.docx



CIVIL CONSULTANTS MEMORANDUM

TO: Town of Berwick
FROM: Neil J. Rapoza, PE
SUBJECT: Project Narrative
DATE: 8/13/2019
PROJECT: 12-060.40 HUSSEY SCHOOL PARKING



The proposed project will expand the existing building and parking lot(s) at the Hussey School on Blackberry Hill Road. Included in the work for this application is the construction of two new parking areas, a re-designed student drop-off area, a new playground, and a new 2-story building addition. The building addition will be constructed after funding has been obtained via local funding pending a vote, while the site modifications are proposed to be completed with budgeted funds after approvals are received.

MSAD 60 is in the process of contracting with CHA Architecture to design the building addition. It is the intent that the final design will not expand beyond the footprint indicated on the site plans included with this application. If it is determined that the new building will need to be increased, the project will be brought back to the Town for a revision to the plan. The final footprint will be indicated on an as-built plan at the completion of the project.

The project will require a Site Location of Development permit from the Maine DEP. The application for that permit has been submitted and is currently in the review process. Refer to the copy of this application submitted to the Town for discussion of the proposed Low Impact Designs proposed for the site.

The work also required a NRPA Tier 1 permit for the proposed impact to the roadside wetland along Blackberry Hill Road. This permit was granted on July 22, 2019. There are protected wetlands on the west end of the property that were enhanced as part of the DEP approval to construct Noble High School. No recorded document describing the area has been obtained; however it is intended that all wetlands west of the existing drainage swale will remain unaltered.

The school has been in use by MSAD 60 since its construction in 1989. Since then, several modifications have been made to the parking and entrances on the site. While these changes were made in an attempt to provide a safer condition, the trend of parents dropping off and picking up students as opposed to utilizing bus transportation has created a hazardous environment.

Currently, all staff and parents enter the school property via a single entrance on Blackberry Hill Road. Parents have a small cul-de-sac for drop-offs; however this only provides approximately 200 ft of length for stacking cars and in many instances students exit vehicles while parked in the travel lanes of the lot. This makes maintaining a safe condition unattainable.



This project will reconfigure the layout in order to achieve a less dangerous, more controlled traffic flow through the site and relocate parking to areas that will result in less danger to students, staff and residents.

The use, hours of operation, noise, refuse removal, and traffic generation will remain unchanged.

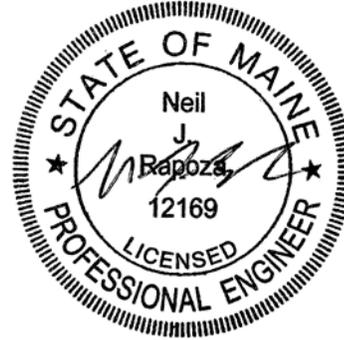
Plans have been provided to the municipal offices for review and abutting property owners have been notified as part of the DEP permitting process. No comments have been received, however all input will be taken into account and represented in the design prior to final approval.

J:\aaa\2012\1206040\BERWICK\20190813-1206040-project_narrative.docx



CIVIL CONSULTANTS MEMORANDUM

TO: Town of Berwick
FROM: Neil J. Rapoza, PE
SUBJECT: Waiver: Plan Scale
DATE: 8/14/2019
PROJECT: 12-060.40 HUSSEY SCHOOL PARKING



A waiver is requested for requirement 9.8.F.2.b.i:

A map or maps prepared at a scale of not less than one inch to 40 ft and shall....

It is requested that the requirement of plans being not less than 1"=40', as the plans most completely and accurately depict the site when produced at 1"=50'. Where applicable, details at a greater scale are provided.

Waiving this requirement would not adversely affect abutting landowners or the general health, safety, and welfare of the Town and would not nullify the intent or purpose of the official zoning map, any ordinance, or the Comprehensive plan.

J:\aaa\2012\1206040\BERWICK\20190814-waiver-plan_scale.docx



02336

WARRANTY DEED

We, OSCAR L. HUSSEY, VIVIAN E. HUSSEY, NELSON H. CLEMENT and BRENDA E. CLEMENT, all of Blackberry Hill Road, Town of Berwick, County of York and State of Maine, for consideration paid, grant to SCHOOL ADMINISTRATIVE DISTRICT #60 whose mailing address is P. O. Box 819, Town of North Berwick, County of York and State of Maine with Warranty Covenants, as joint tenants, a certain lot or parcel of land located on the Southerly sideline of the Blackberry Hill Road, Town of Berwick, County of York and State of Maine, being more particularly bounded and described as follows:

Beginning at a monument to be set in the ground at the Southerly sideline of Blackberry Hill Road and the Northeasterly corner of land now or formerly of Barbara Contella; thence running N 75°06'07" W by the Southerly sideline of Blackberry Hill Road a distance of 1,318.37 feet to a monument to be set in the ground at land now of Benoit L. Begin and Dolores M. Begin; thence turning and running S 15°06'59" W along land now of Benoit L. Begin and Dolores M. Begin a distance of 401.47 feet to a granite monument to be set in the ground; thence continuing S 20°33'39" W along land now of Benoit L. Begin and Dolores M. Begin a distance of 222.49 feet to a granite monument located at the Northwesterly corner of land now of James P. Doucette and Patricia M. Doucette; thence continuing S 20°33'39" W along land now of James P. Doucette and Patricia M. Doucette a distance of 677.51 feet to an iron pipe at land now of John P. Bourgoin and Clara A. Bourgoin; thence turning and running N 75°34'35" W along land now of John P. Bourgoin and Clara A. Bourgoin a distance of 107.28 feet to an iron pipe; thence continuing N 75°16'49" W along a cemetery on this date to be reserved by the Grantors herein a distance of 39.63 feet to an iron pipe; thence continuing N 56°48'00" W along land now of John P. Bourgoin and Clara A. Bourgoin a distance of 66.11 feet to an iron pipe; thence turning and running S 21°40'32" W along land now of John P. Bourgoin and Clara A. Bourgoin a distance of 135.7 feet to a granite monument to be set in the ground at the Northerly sideline of the Maine State Highway Commission right-of-way; thence turning and running in a Northwesterly direction on a curve to the left having a radius of 5,802.07 feet and a length of 274.78 feet along the Maine State Highway Commission right-of-way to a granite monument to be set in the ground; thence continuing N 68°58'08" W along said Maine State Highway Commission right-of-way a distance of 216.97 feet to a monument to be set in the ground; thence continuing N 52°58'08" W along land of the Maine State Highway Commission a distance of 505.23 feet to an iron pipe at land now or formerly of Barbara Contella; thence turning and running N 24°02'34" E along land now or formerly of Barbara Contella a distance of 53.37 feet to an iron pipe; thence continuing N 56°32'45" E along land now or formerly of Barbara Contella a distance of 307.16 feet to an iron pipe; thence turning and running N 24°46'02" W along land now or formerly of Barbara Contella a distance of 77.70 feet to an iron pipe; thence continuing N 03°04'41" W along land now or formerly of Barbara Contella a distance of 157.83 feet to a granite monument to be set at the Southerly sideline of the Blackberry Hill Road, being the point of beginning; containing 25.46 acres, more or less.

Reference is made to a plan entitled "Standard Boundary Survey Plan Showing a Subdivision of Land of OSCAR L. & VIVIAN E. HUSSEY and NELSON H. & BRENDA E. CLEMENT Prepared for Maine School District #60, Blackberry Hill Road & Route #236, Berwick, York County, Maine", said plan prepared by Civil Consultants of South Berwick, Maine and to be recorded in the York County Registry of Deeds.

Reserving over the above described premises the right-of-way to the Grantors herein, their heirs and assigns forever, as is now travelled from Route 236 to a cemetery on this date being reserved by the Grantors herein; said right-of-way shall be ten (10) feet wide and shall permit travel by foot or motor vehicle; said ten (10) foot right-of-way shall be located within the area depicted on the above-referenced plan.

The Grantors herein, OSCAR L. HUSSEY and VIVIAN E. HUSSEY, hereby release the life estate which they reserved in their deed to NELSON H. CLEMENT and BRENDA E. CLEMENT at Book 3281, Page 176.

Meaning and intending to convey a portion of the premises conveyed to OSCAR LEROY HUSSEY and VIVIAN EMMA MORRILL HUSSEY by Warranty Deed of FRANK HEMAN STILLINGS, said deed being dated April 4, 1938 and recorded in the York County Registry of Deeds at Book 901, Page 484 and meaning and intending to convey a portion of the premises conveyed to NELSON H. CLEMENT and BRENDA E. CLEMENT by Warranty Deed of OSCAR L. HUSSEY and VIVIAN E. HUSSEY, said deed being dated March 26, 1984 and recorded in the York County Registry of Deeds at Book 3281 at Page 176.

Witness our hands this 19th day of January, 1989.

Witness

Ronald L. Vigue

OSCAR L. HUSSEY

Oscar L. Hussey

Witness

to

VIVIAN E. HUSSEY

Vivian E. Hussey

Witness

all

NELSON H. CLEMENT

Nelson H. Clement

Witness

four

BRENDA E. CLEMENT

Brenda E. Clement

STATE OF MAINE
COUNTY OF YORK

January 19, 1989

Then personally appeared the above named OSCAR L. HUSSEY, VIVIAN E. HUSSEY, NELSON H. CLEMENT and BRENDA E. CLEMENT and acknowledged the foregoing instrument to be their free act and deed.

RECEIVED YORK S.S.

1989 JAN 20 AM 11:45

ATTEST: Gene M. Penzette

REGISTER OF DEEDS

Notary Public

My commission expires:

RONALD L. VIGUE, Notary Public
My Commission Expires January 15, 1985

VIGUE AND DUNN - ATTORNEYS AT LAW - P. O. BOX 700 - BERWICK, MAINE 03901-0700





CIVIL CONSULTANTS
CIVIL CONSULTANTS
 Engineers
 Planners
 Surveyors
 P.O. Box 100
 South Berwick
 Maine
 03908
 207-384-2550
 www.civcon.com

NO.	REVISIONS	DATE
1	ADD UNDERGROUND CABLE / ELECTRIC	12/13/18

RECORD OWNER:
 MSAD #60
 OWNER ADDRESS:
 PO BOX 819
 N. BERWICK, ME 03906

EXISTING CONDITIONS PLAN OF LAND OF MSAD #60
 THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
 BLACKBERRY HILL ROAD, BERWICK,
 YORK COUNTY, MAINE

PREPARED FOR:
 MSAD #60
 CLIENT ADDRESS:
 PO BOX 819, N. BERWICK, ME 03906

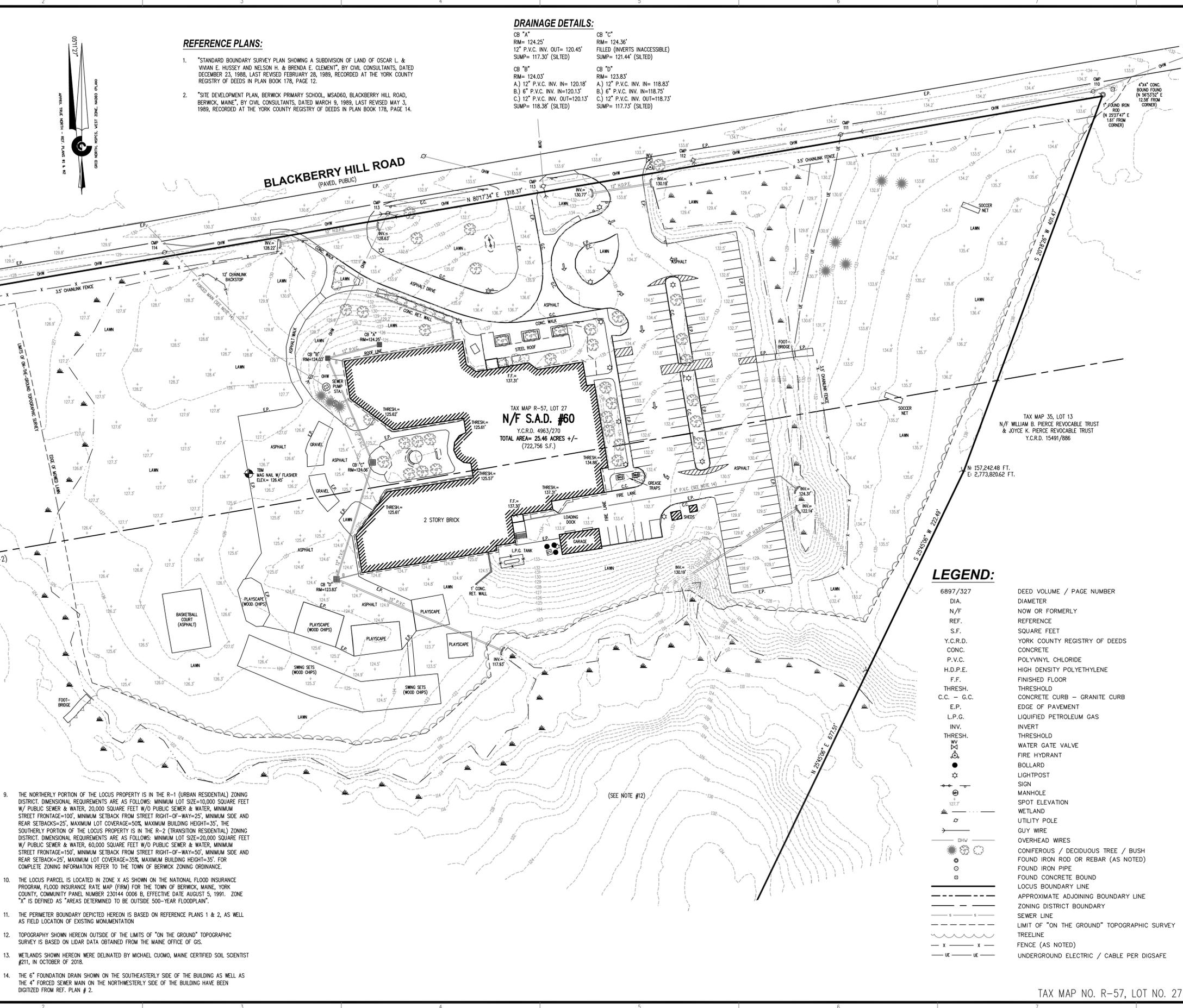
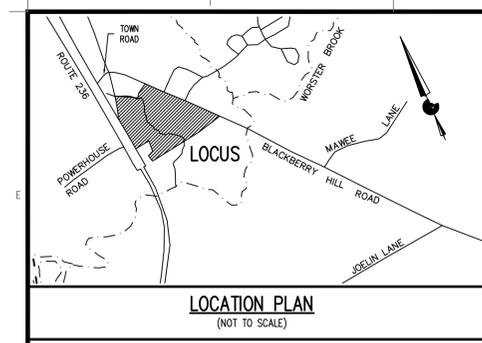
DATE: 11/02/2018
 DRAWN BY: CBS
 CHECKED BY: CHM
 APPROVED BY: CHM

EXISTING CONDITIONS PLAN

PROJECT NO: 12-060-40

EC1

SHEET: 1 OF 1



DRAINAGE DETAILS:

CB "A"
 RIM= 124.25'
 12" P.V.C. INV. OUT= 120.45'
 SUMP= 117.30' (SILTED)

CB "C"
 RIM= 124.36'
 FILLED (INVERTS INACCESSIBLE)
 SUMP= 121.44' (SILTED)

CB "D"
 RIM= 124.03'
 A) 12" P.V.C. INV. IN= 120.18'
 B) 6" P.V.C. INV. IN=120.13'
 C) 12" P.V.C. INV. OUT=120.13'
 SUMP= 118.38' (SILTED)

CB "E"
 RIM= 123.83'
 A) 12" P.V.C. INV. IN= 118.83'
 B) 6" P.V.C. INV. IN=118.75'
 C) 12" P.V.C. INV. OUT=118.73'
 SUMP= 117.73' (SILTED)

REFERENCE PLANS:

- "STANDARD BOUNDARY SURVEY PLAN SHOWING A SUBDIVISION OF LAND OF OSCAR L. & VIVIAN E. HUSSEY AND NELSON H. & BRENDA E. CLEMENT", BY CIVIL CONSULTANTS, DATED DECEMBER 23, 1988, LAST REVISED FEBRUARY 28, 1989, RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 178, PAGE 12.
- "SITE DEVELOPMENT PLAN, BERWICK PRIMARY SCHOOL, MSAD60, BLACKBERRY HILL ROAD, BERWICK, MAINE", BY CIVIL CONSULTANTS, DATED MARCH 9, 1989, LAST REVISED MAY 3, 1989, RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 178, PAGE 14.

LEGEND:

6897/327	DEED VOLUME / PAGE NUMBER
DIA.	DIAMETER
N/F	NOW OR FORMERLY
REF.	REFERENCE
S.F.	SQUARE FEET
Y.C.R.D.	YORK COUNTY REGISTRY OF DEEDS
CONC.	CONCRETE
P.V.C.	POLYVINYL CHLORIDE
H.D.P.E.	HIGH DENSITY POLYETHYLENE
F.F.	FINISHED FLOOR
THRESH.	THRESHOLD
C.C. - G.C.	CONCRETE CURB - GRANITE CURB
E.P.	EDGE OF PAVEMENT
L.P.G.	LIQUIFIED PETROLEUM GAS
INV.	INVERT
THRESH.	THRESHOLD
WV	WATER GATE VALVE
FD	FIRE HYDRANT
●	BOLLARD
☆	LIGHTPOST SIGN
—	MANHOLE
○	SPOT ELEVATION
○	WETLAND
—	UTILITY POLE
—	GUY WIRE
—	OVERHEAD WIRES
○	CONIFEROUS / DECIDUOUS TREE / BUSH
○	FOUND IRON ROD OR REBAR (AS NOTED)
○	FOUND IRON PIPE
○	FOUND CONCRETE BOUND
—	LOCUS BOUNDARY LINE
—	APPROXIMATE ADJOINING BOUNDARY LINE
—	ZONING DISTRICT BOUNDARY
—	SEWER LINE
—	LIMIT OF "ON THE GROUND" TOPOGRAPHIC SURVEY
—	TREELINE
—	FENCE (AS NOTED)
—	UNDERGROUND ELECTRIC / CABLE PER DIGSAFE

NOTES:

- PLANIMETRIC DETAIL DEPICTED HEREON IS THE RESULT OF AN ON-THE-GROUND FIELD SURVEY BY CIVIL CONSULTANTS IN SEPTEMBER, 2018.
- NORTH AS DEPICTED HEREON IS REFERENCED TO GRID NORTH, NAD83, MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE. COORDINATE VALUES AND ORIENTATION ARE DERIVED FROM A GPS SURVEY COMPUTED UTILIZING THE NGS OPUS ON-LINE PROCESSING SERVICE. REFERENCE FRAME IS NAD83 CORS96 EPOCH 2010.0000. THE SURVEY IS TIED TO CORN STATIONS BOSTON WAAS 1 CORN (ZBN1), BARTLETT CORN (BAR1) AND BRUNSWICK 1 CORN (BRU1). DISTANCES DEPICTED HEREON ARE GRID. TO CONVERT GRID DISTANCES TO GROUND DISTANCES, MULTIPLY THE GRID DISTANCE BY 1.0000164059 (AVERAGE COMBINED SCALE FACTOR FOR THE SITE).
- ELEVATIONS DEPICTED HEREON ARE REFERENCED TO NAVD83, DERIVED FROM THE ABOVE REFERENCED GPS SURVEY. [TO CONVERT NAVD83 ELEVATIONS TO NAVD29 ELEVATIONS ADD 0.70']
- ASSESSOR'S INFORMATION: TOWN OF BERWICK, ASSESSOR'S MAP R-57, LOT 27
- RECORD OWNERS: MSAD #60
- DEED REFERENCES: Y.C.R.D. 4963/270
- TOTAL COMBINED PARCEL AREA = 722,756 S.F. (25.46 ACRES)
 TOTAL IMPERVIOUS SURFACE AREA = 141,826 S.F. (3.28 ACRES)
 IMPERVIOUS SURFACE AREA DOES NOT INCLUDE WOODCHIP COVERED PLAYSCAPES OR MULCHED AREAS.
- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS NEED TO CONTACT DIGSAFE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

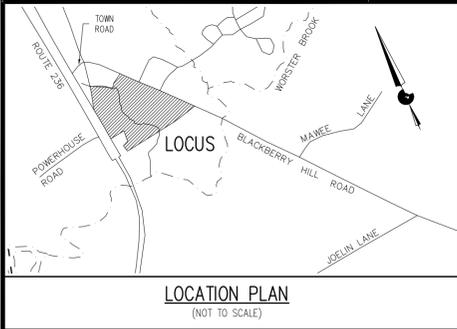
CERTIFICATION:

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE STANDARDS OF PRACTICE ESTABLISHED BY THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS (02-360 CMR CHAPTER 90, PART I & PART II). SEE NOTES HEREON FOR EXCEPTIONS, IF ANY.

Christopher H. Mende
 11-2-2018
 DATE

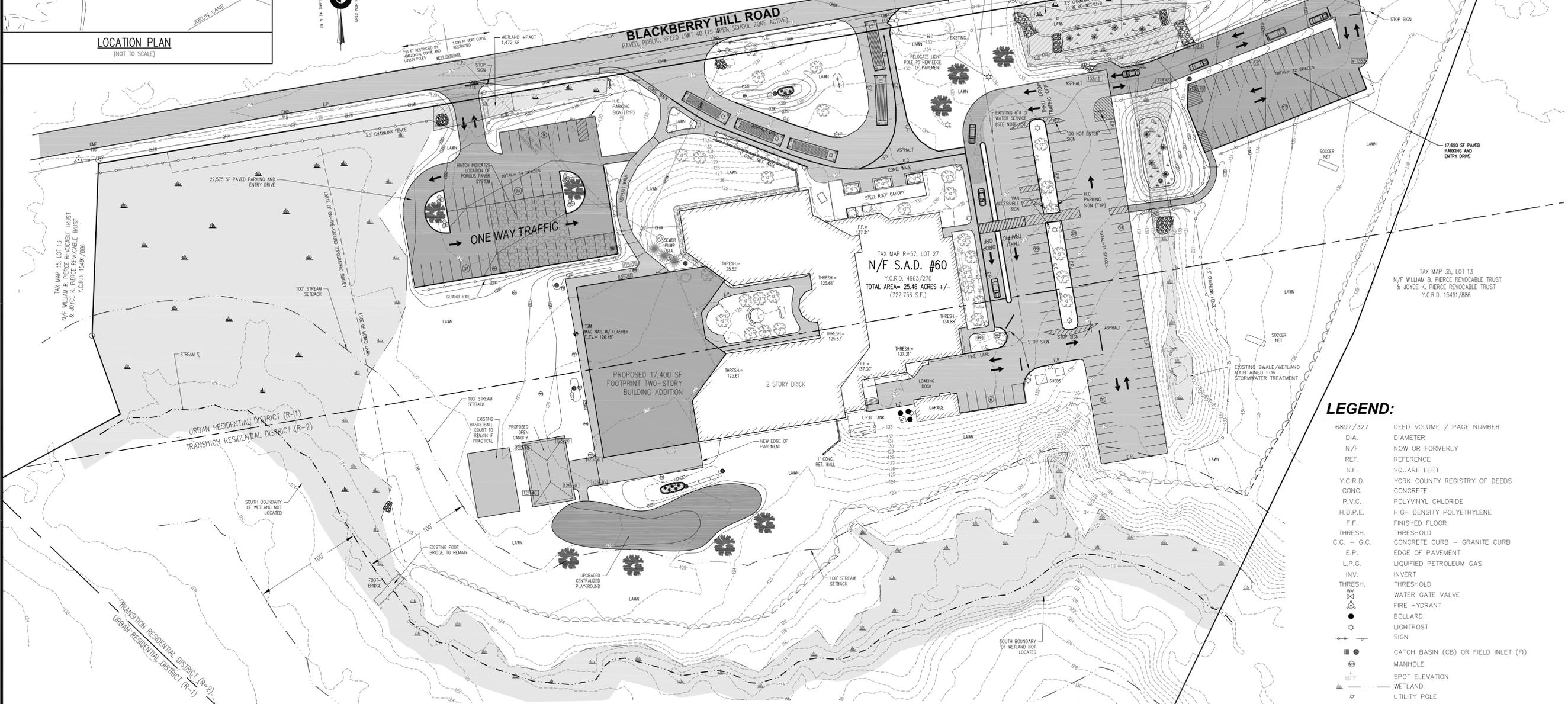
CHRISTOPHER H. MENDE
 MAINE PROFESSIONAL LAND SURVEYOR #1302
 CIVIL CONSULTANTS
 SOUTH BERWICK, MAINE 03908

- THE NORTHERLY PORTION OF THE LOCUS PROPERTY IS IN THE R-1 (URBAN RESIDENTIAL) ZONING DISTRICT. DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS: MINIMUM LOT SIZE=10,000 SQUARE FEET W/ PUBLIC SEWER & WATER, 20,000 SQUARE FEET W/O PUBLIC SEWER & WATER, MINIMUM STREET FRONTAGE=100', MINIMUM SETBACK FROM STREET RIGHT-OF-WAY=25', MINIMUM SIDE AND REAR SETBACKS=25', MAXIMUM LOT COVERAGE=50%, MAXIMUM BUILDING HEIGHT=35'. THE SOUTHERLY PORTION OF THE LOCUS PROPERTY IS IN THE R-2 (TRANSITION RESIDENTIAL) ZONING DISTRICT. DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS: MINIMUM LOT SIZE=20,000 SQUARE FEET W/ PUBLIC SEWER & WATER, 40,000 SQUARE FEET W/O PUBLIC SEWER & WATER, MINIMUM STREET FRONTAGE=150', MINIMUM SETBACK FROM STREET RIGHT-OF-WAY=50', MINIMUM SIDE AND REAR SETBACK=25', MAXIMUM LOT COVERAGE=35%, MAXIMUM BUILDING HEIGHT=35'. FOR COMPLETE ZONING INFORMATION REFER TO THE TOWN OF BERWICK ZONING ORDINANCE.
- THE LOCUS PARCEL IS LOCATED IN ZONE X AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF BERWICK, MAINE, YORK COUNTY, COMMUNITY PANEL NUMBER 230144 0006 B, EFFECTIVE DATE AUGUST 5, 1991. ZONE "X" IS DEFINED AS "AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN".
- THE PERIMETER BOUNDARY DEPICTED HEREON IS BASED ON REFERENCE PLANS 1 & 2, AS WELL AS FIELD LOCATION OF EXISTING MONUMENTATION
- TOPOGRAPHY SHOWN HEREON OUTSIDE OF THE LIMITS OF "ON THE GROUND" TOPOGRAPHIC SURVEY IS BASED ON LIDAR DATA OBTAINED FROM THE MAINE OFFICE OF GIS.
- WETLANDS SHOWN HEREON WERE DELINEATED BY MICHAEL CUOMO, MAINE CERTIFIED SOIL SCIENTIST #211, IN OCTOBER OF 2018.
- THE 6" FOUNDATION DRAIN SHOWN ON THE SOUTHEASTERLY SIDE OF THE BUILDING AS WELL AS THE 4" FORCED SEWER MAIN ON THE NORTHWESTERLY SIDE OF THE BUILDING HAVE BEEN DIGITIZED FROM REF. PLAN # 2.



PLAN NOTES:

- THIS PLAN INDICATES PROPOSED SITE REVISIONS TO THE PARKING AREAS AND ENTRANCES SERVING THE SCHOOL. THE FOLLOWING MODIFICATIONS TO THE SITE WILL BE IMPLEMENTED:
 - A NET INCREASE IN PARKING SPACES OF 72 SPACES IS PROPOSED, WITH A PORTION OF EXISTING SPACES BEING RE-PURPOSED TO CREATE A DEDICATED DROP-OFF LANE TO IMPROVE STUDENT SAFETY.
 - IMPROVED ENTRANCES TO DECREASE CONGESTION AT THE LOCATION OF BUSES AND CARS ENTERING BLACKBERRY HILL ROAD.
 - IMPLEMENTATION OF NEW STORMWATER MANAGEMENT PRACTICES INCLUDING GRAVEL WETLANDS, SUBSURFACE SAND FILTERS, AND LANDSCAPED FILTERS.
- DRAINAGE CULVERTS AND EROSION CONTROL MEASURES NOT SHOWN FOR CLARITY. SEE SHEET L2 FOR CULVERT LOCATIONS AND STRUCTURE INFORMATION.
- BLACKBERRY HILL ROAD HAS A SPEED LIMIT OF 40, WITH A REDUCED SPEED LIMIT IN THE SCHOOL ZONE OF 15 WHEN ACTIVE.



LEGEND:

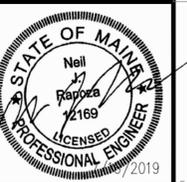
6897/327	DEED VOLUME / PAGE NUMBER
DIA.	DIAMETER
N/F	NOW OR FORMERLY
REF.	REFERENCE
S.F.	SQUARE FEET
Y.C.R.D.	YORK COUNTY REGISTRY OF DEEDS
CONC.	CONCRETE
P.V.C.	POLYVINYL CHLORIDE
H.D.P.E.	HIGH DENSITY POLYETHYLENE
F.F.	FINISHED FLOOR
THRESH.	THRESHOLD
C.C. - G.C.	CONCRETE CURB - GRANITE CURB
E.P.	EDGE OF PAVEMENT
L.P.G.	LIQUIFIED PETROLEUM GAS
INV.	INVERT
THRESH. W/V	THRESHOLD WATER GATE VALVE
⊙	FIRE HYDRANT
⊙	BOLLARD
⊙	LIGHTPOST
⊙	SIGN
⊙	CATCH BASIN (CB) OR FIELD INLET (FI)
⊙	MANHOLE
+	SPOT ELEVATION
⊙	WETLAND
⊙	UTILITY POLE
⊙	GUY WIRE
OHV	OVERHEAD WIRES
⊙	CONIFEROUS / DECIDUOUS TREE / BUSH
⊙	FOUND IRON ROD OR REBAR (AS NOTED)
⊙	FOUND IRON PIPE
⊙	FOUND CONCRETE BOUND
⊙	LOCUS BOUNDARY LINE
---	APPROXIMATE ADJOINING BOUNDARY LINE
---	ZONING DISTRICT BOUNDARY
---	SEWER LINE
---	WATER LINE
---	LIMIT OF "ON THE GROUND" TOPOGRAPHIC SURVEY
---	TREELINE
---	EXISTING FENCE (AS NOTED)
---	PROPOSED FENCE (AS NOTED)
---	PROPOSED SILT FENCE (SHEET L2)
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	PROPOSED WETLAND IMPACT
---	DELINEATED WETLAND (2018)
---	EXISTING IMPERVIOUS AREA
---	PROPOSED IMPERVIOUS AREA

NOTES:

- PLANIMETRIC DETAIL DEPICTED HEREON IS THE RESULT OF AN ON-THE-GROUND FIELD SURVEY BY CIVIL CONSULTANTS IN SEPTEMBER, 2018.
- NORTH AS DEPICTED HEREON IS REFERENCED TO GRID NORTH, NAD83, MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE. COORDINATE VALUES AND ORIENTATION ARE DERIVED FROM A GPS SURVEY COMPUTED UTILIZING THE NOS OPUS ON-LINE PROCESSING SERVICE REFERENCE FRAME IS NAD83 CORS96 EPOCH 2010.0000. THE SURVEY IS TIED TO CORS STATIONS BOSTON WAAS 1 CORS (ZDWB), BARTLETT CORS (BART) AND BRUNSWICK 1 CORS (BRU1). DISTANCES DEPICTED HEREON ARE GRID. TO CONVERT GRID DISTANCES TO GROUND DISTANCES, MULTIPLY THE GRID DISTANCE BY 1.0000164059 (AVERAGE COMBINED SCALE FACTOR FOR THE SITE).
- ELEVATIONS DEPICTED HEREON ARE REFERENCED TO NAVD88, DERIVED FROM THE ABOVE REFERENCED GPS SURVEY. [TO CONVERT NAVD88 ELEVATIONS TO NAVD29 ELEVATIONS ADD 0.70']
- ASSESSOR'S INFORMATION: TOWN OF BERWICK, ASSESSOR'S MAP R-57, LOT 27
- RECORD OWNERS: MSAD #60
- DEED REFERENCES: Y.C.R.D. 4963/270
- TOTAL COMBINED PARCEL AREA = 722,756 S.F. (25.46 ACRES)
TOTAL IMPERVIOUS SURFACE AREA = 141,826 S.F. (3.26 ACRES)
*IMPERVIOUS SURFACE AREA DOES NOT INCLUDE WOODCHIP COVERED PLAYSCAPES OR MULCHED AREAS.
- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS NEED TO CONTACT DISSAFE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- THE NORTHERLY PORTION OF THE LOCUS PROPERTY IS IN THE BERWICK R-1 (URBAN RESIDENTIAL) ZONING DISTRICT. TOWN OF BERWICK DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS:
 - MINIMUM LOT SIZE=10,000 sf W/ PUBLIC SEWER & WATER, 20,000 sf W/O PUBLIC SEWER & WATER
 - MINIMUM STREET FRONTAGE=100'
 - MINIMUM SETBACK FROM STREET RIGHT-OF-WAY=25'
 - MINIMUM SIDE AND REAR SETBACKS=25'
 - MAXIMUM LOT COVERAGE=50%
 - MAXIMUM BUILDING HEIGHT=35'
- THE SOUTHERLY PORTION OF THE LOCUS PROPERTY IS IN THE BERWICK R-2 (TRANSITION RESIDENTIAL) ZONING DISTRICT. TOWN OF BERWICK DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS:
 - MINIMUM LOT SIZE=20,000 sf W/ PUBLIC SEWER & WATER, 60,000 sf W/O PUBLIC SEWER & WATER
 - MINIMUM STREET FRONTAGE=150'
 - MINIMUM SETBACK FROM STREET RIGHT-OF-WAY=50'
 - MINIMUM SIDE AND REAR SETBACKS=25'
 - MAXIMUM LOT COVERAGE=35%
 - MAXIMUM BUILDING HEIGHT=35'
- FOR COMPLETE ZONING INFORMATION REFER TO THE TOWN OF BERWICK ZONING ORDINANCE.
- THE LOCUS PARCEL IS LOCATED IN ZONE X AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF BERWICK, MAINE, YORK COUNTY, COMMUNITY PANEL NUMBER 230144 0006 B, EFFECTIVE DATE AUGUST 5, 1991. ZONE "X" IS DEFINED AS "AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN".
- THE PERIMETER BOUNDARY DEPICTED HEREON IS BASED ON REFERENCE PLANS 1 & 2, AS WELL AS FIELD LOCATION OF EXISTING MONUMENTATION
- TOPOGRAPHY SHOWN HEREON OUTSIDE OF THE LIMITS OF "ON THE GROUND" TOPOGRAPHIC SURVEY IS BASED ON LIDAR DATA OBTAINED FROM THE MAINE OFFICE OF GIS.
- WETLANDS SHOWN HEREON WERE DELINEATED BY MICHAEL CUOMO, MAINE CERTIFIED SOIL SCIENTIST #211, IN OCTOBER OF 2018.
- THE 6" FOUNDATION DRAIN SHOWN ON THE SOUTHEASTERLY SIDE OF THE BUILDING AS WELL AS THE 4" FORCED SEWER MAIN ON THE NORTHWESTERLY SIDE OF THE BUILDING HAVE BEEN DIGITIZED FROM REF. PLAN # 2.
- THE 12" TOWN WATER LINE AND 6" SERVICE TO THE SITE HAVE BEEN DIGITIZED FROM REF PLAN #2.

REFERENCE PLANS:

- "STANDARD BOUNDARY SURVEY PLAN SHOWING A SUBDIVISION OF LAND OF OSCAR L. & VIVIAN E. HUSSEY AND NELSON H. & BRENDA E. CLEMENT", BY CIVIL CONSULTANTS, DATED DECEMBER 23, 1988, LAST REVISED FEBRUARY 28, 1989, RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 178, PAGE 12.
- "SITE DEVELOPMENT PLAN, BERWICK PRIMARY SCHOOL, MSAD60, BLACKBERRY HILL ROAD, BERWICK, MAINE", BY CIVIL CONSULTANTS, DATED MARCH 9, 1989, LAST REVISED MAY 3, 1989, RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 178, PAGE 14.



CIVIL CONSULTANTS
 Engineers
 Planners
 Surveyors
 P.O. Box 100
 South Berwick
 Maine
 03908
 207-384-2550
 www.civcon.com

NO.	REVISIONS	INT.	DATE
1			

RECORD OWNER:
 MSAD #60
 OWNER ADDRESS:
 100 NOBLE WAY
 N. BERWICK, ME 03906

PROPOSED SITE MODIFICATIONS
THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
BLACKBERRY HILL ROAD, BERWICK,
YORK COUNTY, MAINE

PREPARED FOR:
 MSAD #60
 CLIENT ADDRESS:
 100 NOBLE WAY, N. BERWICK, ME 03906

DATE: 7/16/2019
 DRAWN BY: NJR
 CHECKED BY: GRA
 APPROVED BY: NJR

SITE PLAN

PROJECT NO: 12-060.40

L1

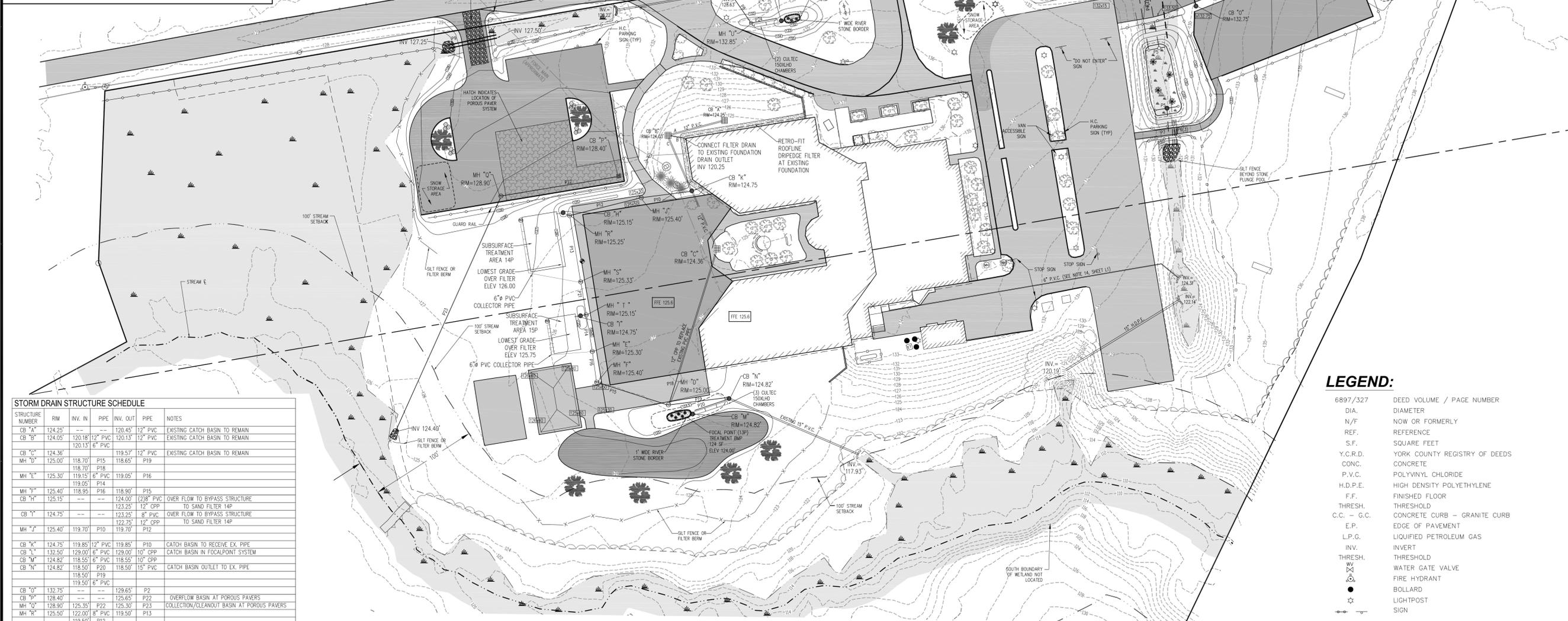
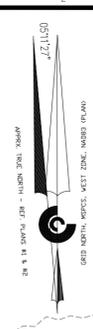
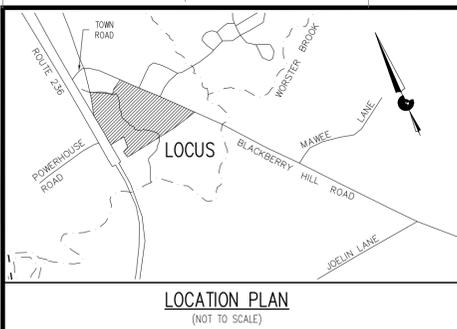
SHEET: 1 OF 7

SCALE IS 1/2 NOTED WHEN PLOTTED AS 11X17

COORDINATE FILE: J:\AAA\2012\1206040\CARLSON\SURVEY\POINTS\1206040-MSPCS-83W.CRD

CADD FILE: J:\aaa\2012\1206040\Carlson\Engineering\Drawing\1206040E-ST.dwg

PLOT DATE: 7/16/2019 3:17 PM



STRUCTURE NUMBER	RIM	INV. IN	PIPE	INV. OUT	PIPE	NOTES
CB "A"	124.25	---	12" PVC	120.45	12" PVC	EXISTING CATCH BASIN TO REMAIN
CB "B"	124.05	120.18	12" PVC	120.13	12" PVC	EXISTING CATCH BASIN TO REMAIN
CB "C"	124.36	---	12" PVC	119.57	12" PVC	EXISTING CATCH BASIN TO REMAIN
MH "D"	125.00	118.70	P15	118.65	P19	EXISTING CATCH BASIN TO REMAIN
MH "E"	125.30	119.15	P18	119.05	P16	
MH "F"	125.40	118.95	P16	118.90	P15	
CB "H"	125.15	---	12" PVC	123.25	12" CPP	OVER FLOW TO BYPASS STRUCTURE TO SAND FILTER 14P
CB "I"	124.75	---	8" PVC	123.25	8" PVC	OVER FLOW TO BYPASS STRUCTURE TO SAND FILTER 14P
MH "J"	125.40	119.70	P10	119.70	P12	
CB "K"	124.75	119.85	12" PVC	119.85	P10	CATCH BASIN TO RECEIVE EX. PIPE
CB "L"	124.82	118.55	6" PVC	124.00	10" CPP	CATCH BASIN IN FOCALPOINT SYSTEM
CB "M"	124.82	118.55	6" PVC	118.55	10" CPP	
CB "N"	124.82	118.50	P20	118.50	15" PVC	CATCH BASIN OUTLET TO EX. PIPE
CB "O"	124.82	118.50	P19	118.50	6" PVC	
CB "P"	128.40	---	---	128.65	P2	OVERFLOW BASIN AT POROUS PAVERS
MH "Q"	128.90	125.35	P22	125.30	P23	COLLECTION/CLEANOUT BASIN AT POROUS PAVERS
MH "R"	125.50	122.00	8" PVC	119.50	P13	
MH "S"	125.33	119.55	8" PVC	119.30	P21	
MH "T"	125.15	119.20	P21	119.20	P14	
MH "U"	132.85	122.75	8" PVC	122.00	P8	
		130.00	6" PVC	129.00	P8	

PIPE #	INV. IN	INV. OUT	PIPE SIZE & MATERIAL	PIPE LENGTH	PIPE SLOPE	NOTES
P1	129.50	129.50	12" CPP	72'	---	GRAY WETLAND OVERFLOW
P2	129.65	129.40	10" CPP	52'	.005'	
P3(2)	125.50	125.50	6" PVC	80'	---	PERF. DRAIN, SEE PLAN FOR RISER LOCATIONS
P4(2)	125.50	125.50	6" PVC	80'	---	SOLID DRAIN, SEE PLAN FOR RISER LOCATIONS
P5(2)	125.50	125.50	6" PVC	20'	---	PERF. DRAIN, SEE PLAN FOR RISER LOCATIONS
P6(3)	129.70	129.00	8" PVC	20'	.035'	
P7	127.83	127.33	6" PVC	46'	.011'	
P8	129.00	128.75	12" CPP	39'	.006'	
P9(2)	127.50	127.25	12" CPP	45'	.006'	
P10	119.85	119.70	15" CPP	45'	.003'	
P11	119.70	119.50	15" CPP	65'	.003'	
P13	119.50	119.35	15" CPP	58'	.003'	
P14	119.27	118.97	12" CPP	74.5'	.004'	
P15	118.95	118.70	15" CPP	68'	.004'	
P16	132.00	131.50	12" CPP	61'	.004'	
P17	121.60	121.00	8" PVC	12'	.050'	BUILDING DRAIN OUTLET
P18	119.57	118.70	12" CPP	150'	.006'	EXTENSION OF EXISTING STORM DRAINAGE PIPE
P19	118.68	118.50	15" CPP	49'	.004'	
P20	118.55	118.50	10" PVC	33'	---	PERF. DRAIN, SEE SHEET L5 FOR DETAIL
P21	119.30	119.20	15" CPP	28'	.004'	
P22	125.65	125.35	8" PVC	107'	.003'	UNDERDRAIN COLLECTOR PIPE
P23	125.30	124.40	12" CPP	235'	.004'	
P24	129.00	129.00	10" PVC	22'	---	PERF. DRAIN, SEE SHEET L5 FOR DETAIL

EROSION AND SEDIMENT CONTROL PRACTICES

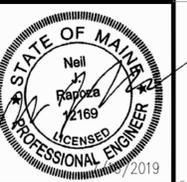
- NO SOIL SHALL BE DISTURBED DURING THE PERIOD OF MARCH 1 THROUGH APRIL 15, NOR DURING ANY OTHER PERIOD WHEN SOILS ARE SATURATED DUE TO RAIN OR SNOW MELT, UNLESS EXPLICITLY REVIEWED AND APPROVED BY CIVIL CONSULTANTS.
- DISTURBED SOILS SHALL BE STABILIZED WITHIN ONE (1) WEEK FROM THE TIME IT WAS LAST ACTIVELY WORKED USING TEMPORARY OR PERMANENT MEASURES SUCH AS PLACEMENT OF RIPRAP, MULCH OR EROSION CONTROL BLANKET, OR OTHER COMPARABLE MEASURES.
- HAY OR STRAW MULCH SHALL BE APPLIED AT A RATE OF AT LEAST ONE (1) BALE PER 500 SQUARE FEET (1-2 TONS PER ACRE).
- IF MULCH IS LIKELY TO BE REMOVED DUE TO STEEP SLOPES OR WIND, IT SHALL BE ANCHORED WITH NETTING, PEG OR TWINE, OR OTHER SUITABLE METHOD AND SHALL BE MAINTAINED UNTIL A CATCH OF VEGETATION IS ESTABLISHED OVER THE ENTIRE DISTURBED AREA.
- IN ADDITION TO PLACEMENT OF RIPRAP, MULCH OR EROSION CONTROL BLANKETS, ADDITIONAL STEPS SHALL BE TAKEN WHERE NECESSARY IN ORDER TO PREVENT SEDIMENTATION OF THE WATER. EVIDENCE OF SEDIMENTATION INCLUDES VISIBLE GULLY EROSION, DISCOLORATION OF WATER BY SUSPENDED PARTICLES AND SLUMPING OF BANKS, SILT FENCES, STAKED HAY BALES AND OTHER SEDIMENTATION CONTROL MEASURES, WHERE PLANNED FOR, SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF WORK, BUT SHALL ALSO BE INSTALLED WHEREVER NECESSARY DUE TO SEDIMENTATION.
- MULCH OR OTHER TEMPORARY MEASURES SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED WITH VEGETATION OR OTHER PERMANENT CONTROL MEASURES AFTER WHICH TEMPORARY MEASURES WILL BE REMOVED.
- PERMANENT RE-VEGETATION OF ALL DISTURBED AREAS, USING NATIVE PLANT MATERIAL WHEN POSSIBLE, SHALL OCCUR WITHIN 30 DAYS FROM THE TIME THE AREAS WERE LAST ACTIVELY WORKED, OR FOR FALL AND WINTER ACTIVITIES, BY JUNE 15, EXCEPT WHERE PRECLUDED BY THE TYPE OF ACTIVITY (E.G. RIPRAP, ROAD SURFACES, ETC.). THE VEGETATIVE COVER SHALL BE MAINTAINED.
- DISPOSAL OF COLLECTED DEBRIS MUST BE IN CONFORMANCE WITH MAINE SOLID WASTE LAW, TITLE 38 MRSA SECTION 1301 ET. SEQ.
- LIME AND FERTILIZER APPLICATION RATES SHALL NOT EXCEED THE FOLLOWING:
GROUND LIMESTONE: 3 TONS/ACRE (130 LBS./1000 S.F.)
FERTILIZER, 10-10-10 OF EQUIVALENT: 600 LBS./ACRE (14 LBS./1000 S.F.)
- FERTILIZER SHALL NOT BE APPLIED BEFORE START OF THE GROWING SEASON NOR AFTER SEPTEMBER 30. FERTILIZED AREAS SHALL BE MULCHED TO REDUCE OFF-SITE TRANSPORT OF NUTRIENTS UNTIL USED BY VEGETATIVE GROWTH. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF ALL MATERIAL STOCKPILES. STORMWATER SHOULD BE PREVENTED FROM RUNNING ONTO STOCKPILES.
- WHERE FILTER BERMS ARE USED AS A SILT BARRIER, THEY SHALL BE PROHIBITED AT THE BASE OF SLOPES GREATER THAN 8% OR WHERE FLOWING WATER EXISTS. THEY MAY BE IMPLEMENTED IN THESE SITUATIONS IF ADDITIONAL SUPPORT MEASURES ARE USED, SUCH AS SILT FENCE.
- TRACKED MUD OR SEDIMENT NOT REMOVED BY THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED FROM THE ROADWAY VIA VACUUM SWEEPING PRIOR TO THE NEXT STORM EVENT.

SEEDING MIXTURE AND SCHEDULE:

- SPREAD TOPSOIL UNIFORMLY 6" DEEP OVER AREAS TO BE RECLAIMED. THE FOLLOWING SEED MIXTURE SHALL BE USED:
- LAWNS:
 KENTUCKY BLUEGRASS 0.46 LBS./1000 S.F.
 CREEPING RED FESCUE 0.46 LBS./1000 S.F.
 PERENNIAL RYE GRASS 0.11 LBS./1000 S.F.
 TOTAL 1.03 LBS./1000 S.F.
- APPLY LIME AND FERTILIZER AS SPECIFIED UNDER THE EROSION AND SEDIMENTATION CONTROL NOTES. WORK INTO THE TOP (4) INCHES OF SOIL PRIOR TO SEEDING. AFTER SEEDING, APPLY MULCH HAY AS SPECIFIED. ON FLAT AREAS AND NOT EXPOSED TO WIND, THE MULCH WILL BE ANCHORED BY WETTING DOWN. IN OTHER AREAS, JUTE NETTING SHALL BE USED FOR ANCHORAGE. THE ABOVE SEEDING SCHEDULE IS APPLICABLE IF SEEDING DURING THE GROWING SEASON (APRIL 15 TO JUNE 15 AND AUGUST 30 TO SEPTEMBER 30). BETWEEN JUNE 15 AND AUGUST 30, SEEDING WILL BE DELAYED UNTIL AUGUST 30. IF SOIL IS DISTURBED BETWEEN OCTOBER 1 AND NOVEMBER 1, DELAY SEEDING UNTIL NOVEMBER 1, AFTER NOVEMBER 1 AND BEFORE A SNOW COVER FORMS, THE SAME PROCEDURE WILL BE FOLLOWED EXCEPT THE SEED RATE WILL BE DOUBLED. AFTER SNOW COVER AND BEFORE APRIL 15, SEEDING WILL BE DELAYED UNTIL APRIL 15. HAY MULCH WILL BE APPLIED AT A RATE OF 150 LBS./1000 SQUARE FEET. THIS WILL BE ANCHORED BY NON-ASPHALTIC TACKLER SPRAYED ON LAWNS AND JUTE NETTING IN DRAINAGE WAYS AND OTHER AREAS.

LEGEND:

- 6897/327 DEED VOLUME / PAGE NUMBER
- DIA. DIAMETER
- N/F NOW OR FORMERLY
- REF. REFERENCE
- S.F. SQUARE FEET
- Y.C.R.D. YORK COUNTY REGISTRY OF DEEDS
- CONC. CONCRETE
- P.V.C. POLYVINYL CHLORIDE
- H.D.P.E. HIGH DENSITY POLYETHYLENE
- F.F. FINISHED FLOOR
- THRESH. THRESHOLD
- C.C. - G.C. CONCRETE CURB - GRANITE CURB
- E.P. EDGE OF PAVEMENT
- L.P.G. LIQUIFIED PETROLEUM GAS
- INV. INVERT
- THRESH. THRESHOLD
- W.V. WATER GATE VALVE
- Fire Hydrant Symbol FIRE HYDRANT
- BOLLARD BOLLARD
- Lightpost Symbol LIGHTPOST
- SIGN SIGN
- Catch Basin Symbol CATCH BASIN (CB) OR FIELD INLET (FI)
- Manhole Symbol MANHOLE
- Spot Elevation Symbol SPOT ELEVATION
- Wetland Symbol WETLAND
- Utility Pole Symbol UTILITY POLE
- Guy Wire Symbol GUY WIRE
- Overhead Wires Symbol OVERHEAD WIRES
- Coniferous / Deciduous Tree / Bush Symbol CONIFEROUS / DECIDUOUS TREE / BUSH
- Found Iron Rod or Rebar Symbol FOUND IRON ROD OR REBAR (AS NOTED)
- Found Iron Pipe Symbol FOUND IRON PIPE
- Found Concrete Bound Symbol FOUND CONCRETE BOUND
- Locus Boundary Line Symbol LOCUS BOUNDARY LINE
- Approximate Adjoining Boundary Line Symbol APPROXIMATE ADJOINING BOUNDARY LINE
- Zoning District Boundary Symbol ZONING DISTRICT BOUNDARY
- Sewer Line Symbol SEWER LINE
- Water Line Symbol WATER LINE
- Limit of "On the Ground" Topographic Survey Symbol LIMIT OF "ON THE GROUND" TOPOGRAPHIC SURVEY
- Treeline Symbol TREELINE
- Existing Fence Symbol EXISTING FENCE (AS NOTED)
- Proposed Fence Symbol PROPOSED FENCE (AS NOTED)
- Proposed Silt Fence Symbol PROPOSED SILT FENCE (SHEET L2)
- Existing Contour Symbol EXISTING CONTOUR
- Proposed Contour Symbol PROPOSED CONTOUR
- Proposed Wetland Impact Symbol PROPOSED WETLAND IMPACT
- Delimited Wetland Symbol DELINEATED WETLAND (2018)



CIVIL CONSULTANTS
CIVIL CONSULTANTS
 Engineers
 Planners
 Surveyors
 P.O. Box 100
 South Berwick
 Maine
 03908
 207-384-2550
 www.civcon.com

NO.	REVISIONS	INT.	DATE
1			

RECORD OWNER:
 MSAD #60
 OWNER ADDRESS:
 100 NOBLE WAY
 N. BERWICK, ME 03906

PROPOSED SITE MODIFICATIONS
THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
BLACKBERRY HILL ROAD, BERWICK,
YORK COUNTY, MAINE

PREPARED FOR:
 MSAD #60
 100 NOBLE WAY, N. BERWICK, ME 03906

CLIENT ADDRESS:

DATE: 7/16/2019
 DRAWN BY: NJR
 CHECKED BY: GRA
 APPROVED BY: NJR

DRAINAGE AND EROSION CONTROL PLAN

PROJECT NO: 12-060-40

L2
 SHEET: 2 OF 7

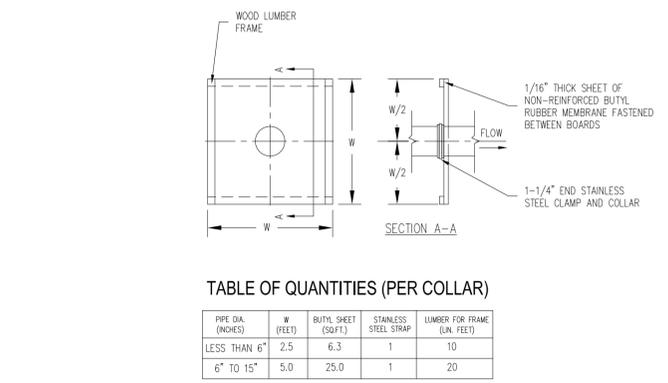
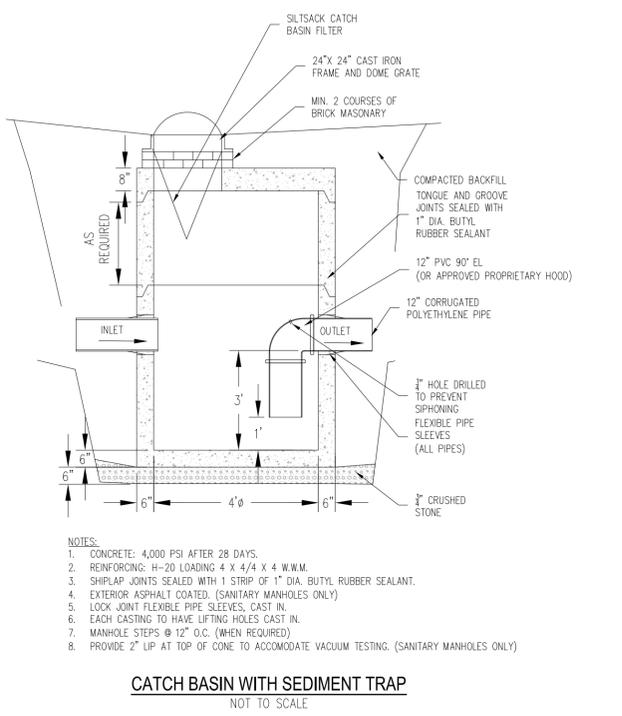
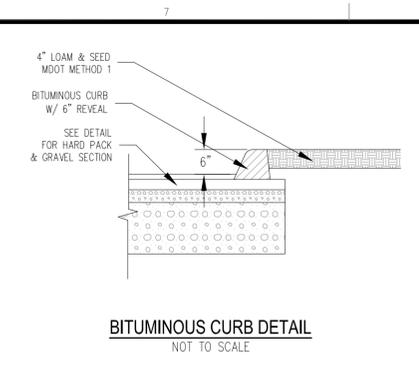
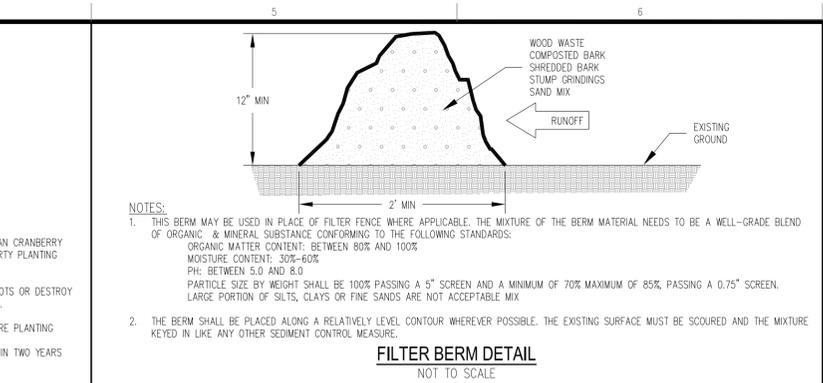
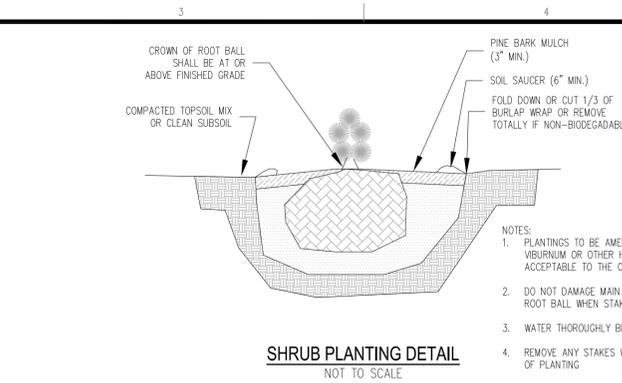
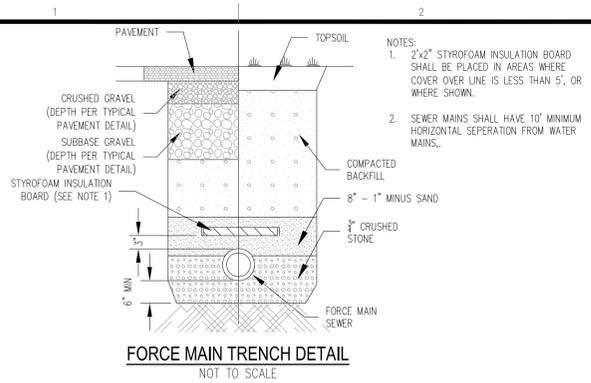
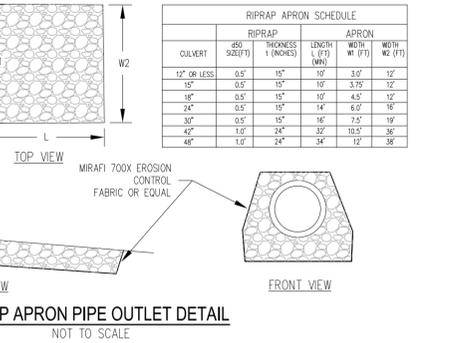
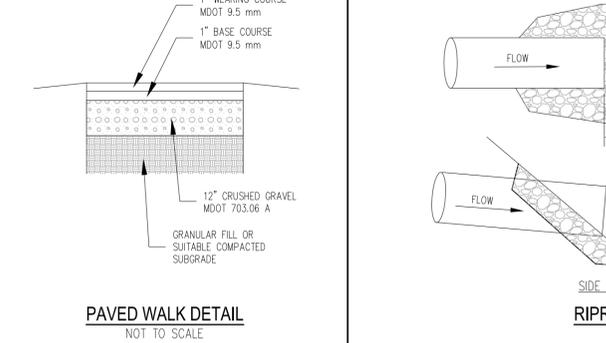
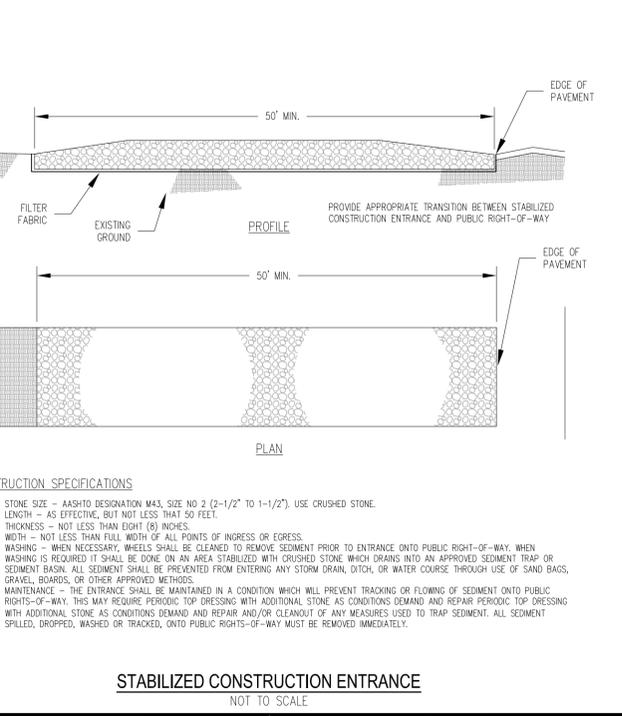
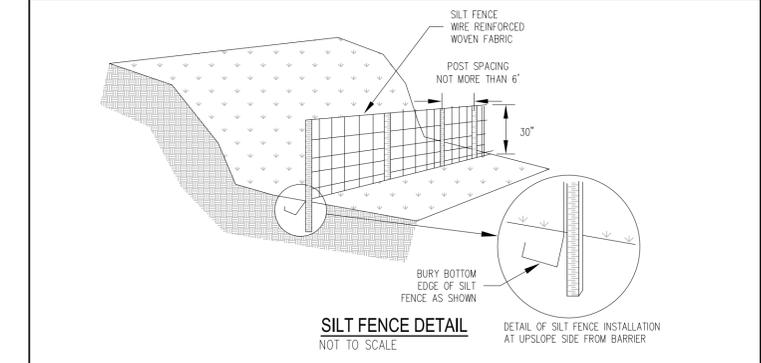
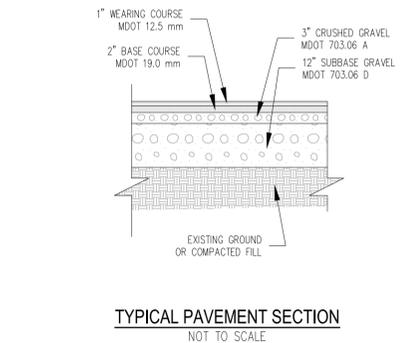
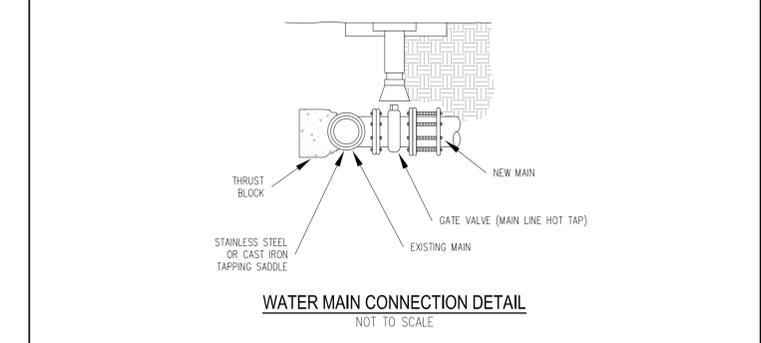


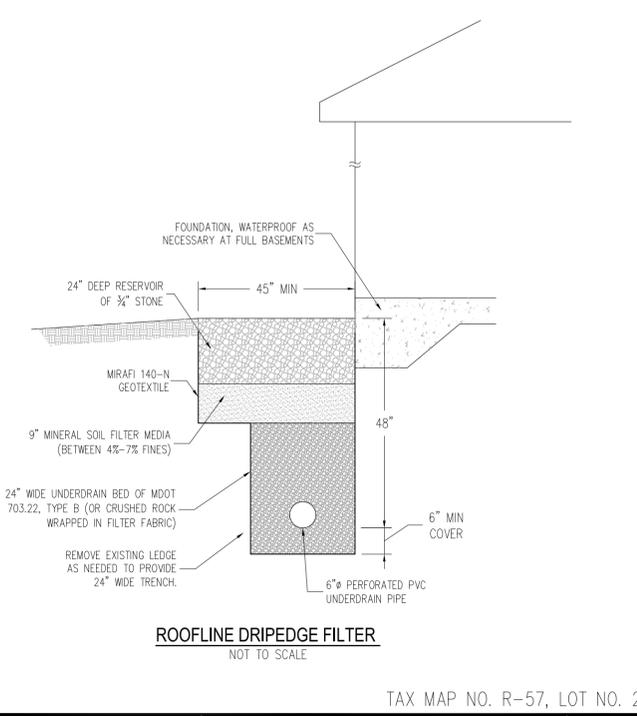
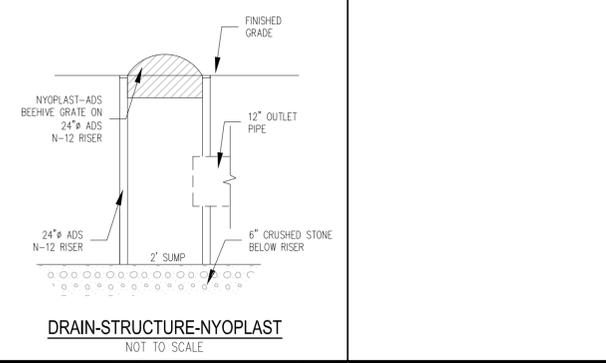
TABLE OF QUANTITIES (PER COLLAR)

PIPE DIA. (INCHES)	W (FEET)	BUTYL SHEET (SQ. FT.)	STAINLESS STEEL STRAP	LUMBER FOR FRAME (LIN. FEET)
LESS THAN 6"	2.5	6.3	1	10
6" TO 15"	5.0	25.0	1	20



RIPRAP APRON SCHEDULE

CULVERT	#50 (SQ.FT.)	THICKNESS (INCHES)	LENGTH (L) (FT.)	WIDTH (W) (FT.)	WIDTH (W) (FT.)
12" OR LESS	0.5	15	10	3.0	12
15"	0.5	15	10	3.75	12
18"	0.5	15	10	4.5	12
24"	0.5	15	14	6.0	16
30"	0.5	15	16	7.5	18
42"	1.0	24	32	10.5	36
48"	1.0	24	34	12	36



STATE OF MAINE
Neil Rapozza
12169
LICENSED PROFESSIONAL ENGINEER
2019

CIVIL CONSULTANTS
Engineers
Planners
Surveyors
P.O. Box 100
South Berwick
Maine
03908
207-384-2550
www.civcon.com

NO.	REVISIONS	INT.	DATE
1			

RECORD OWNER:
MSAD #60
OWNER ADDRESS:
100 NOBLE WAY
N. BERWICK, ME 03906

PROPOSED SITE MODIFICATIONS
THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
BLACKBERRY HILL ROAD, BERWICK,
YORK COUNTY, MAINE

PREPARED FOR:
MSAD #60
100 NOBLE WAY, N. BERWICK, ME 03906

CLIENT ADDRESS:

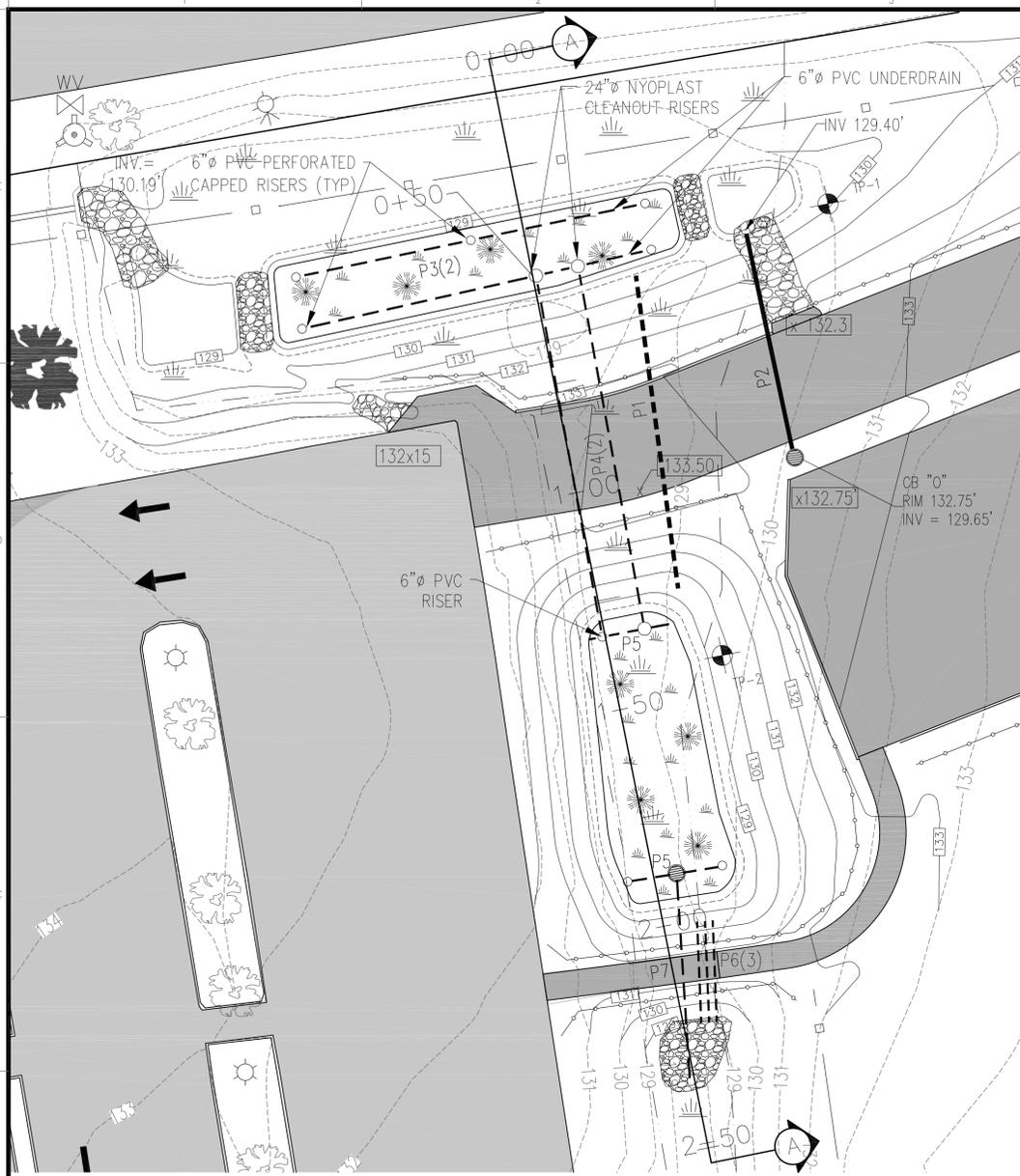
AS NOTED
DATE: 7/16/2019
DRAWN BY: NJR
CHECKED BY: GRA
APPROVED BY: NJR

CONSTRUCTION DETAILS

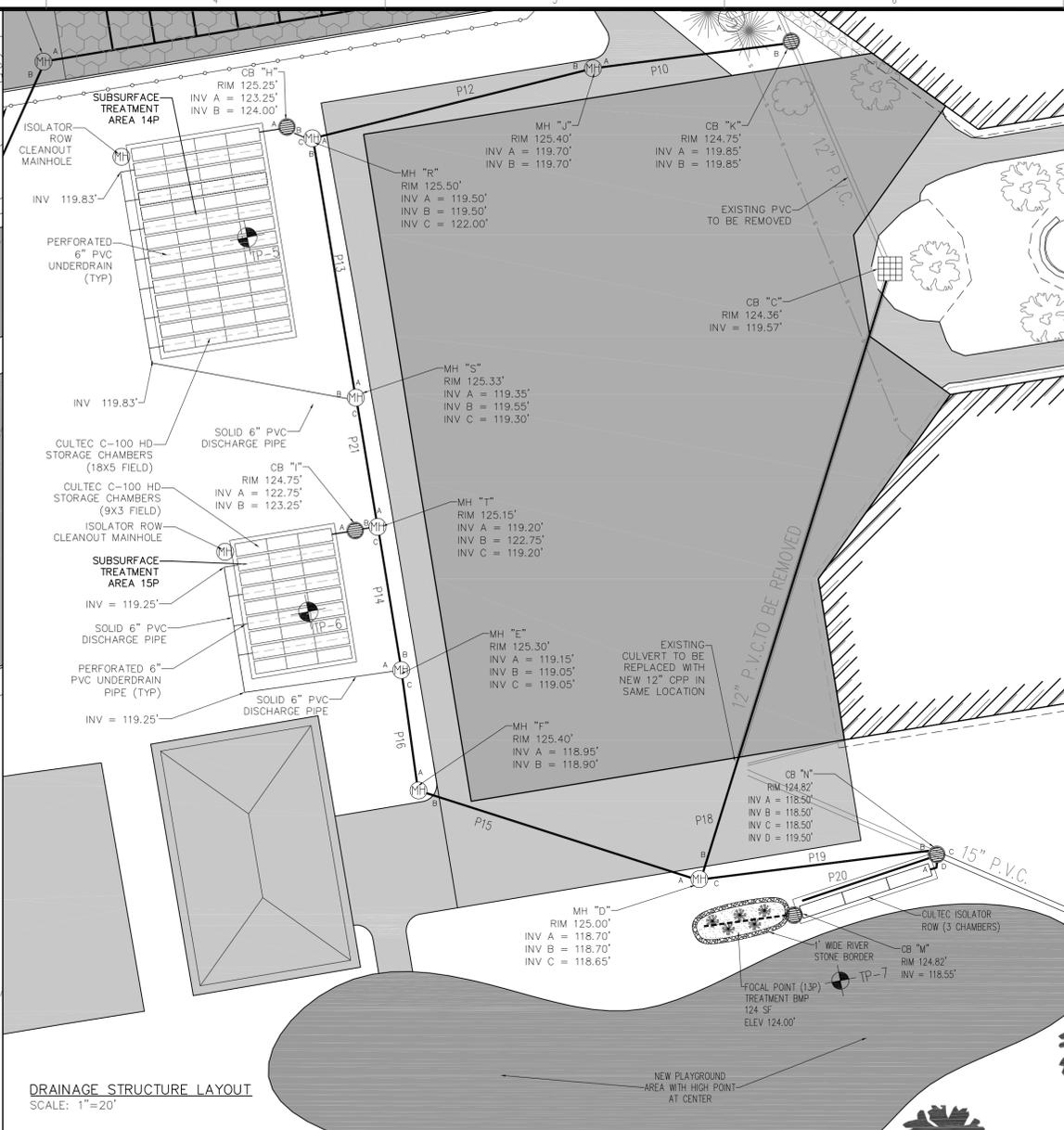
PROJECT NO: 12-060-40

L3

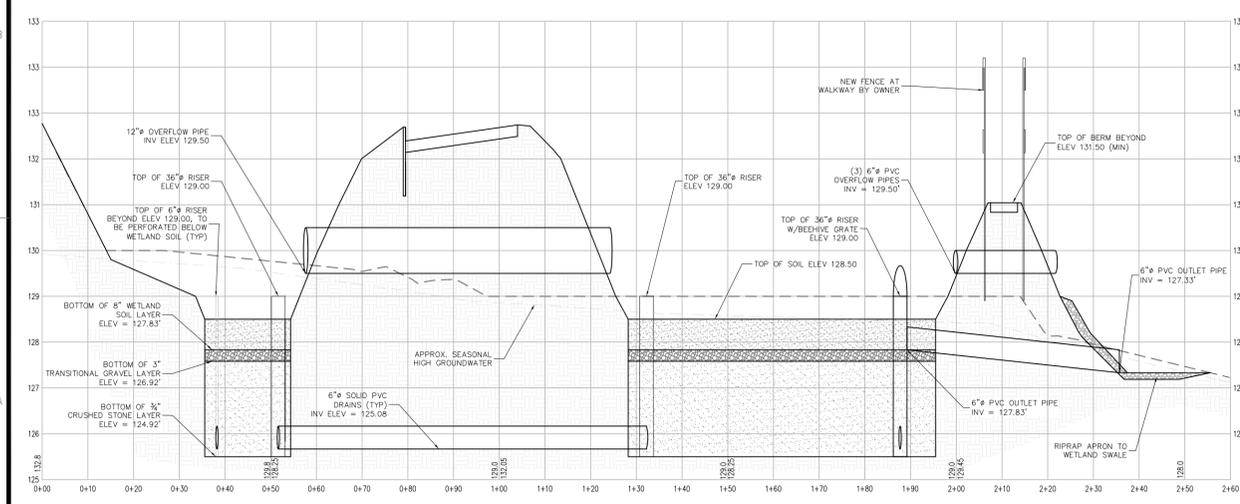
SHEET: 3 OF 7



GRAVEL WETLAND PLAN
SCALE: 1"=20'



DRAINAGE STRUCTURE LAYOUT
SCALE: 1"=20'



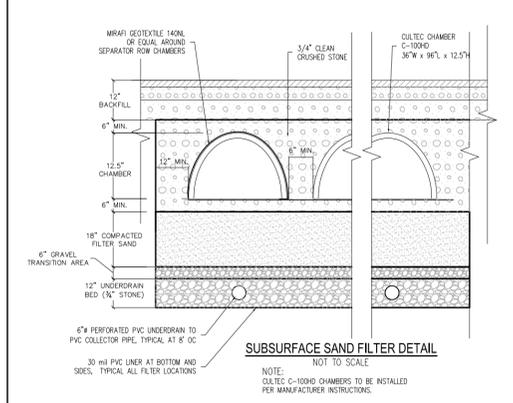
GRAVEL WETLAND DETAIL
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

WETLAND SOIL SPECIFICATION (SOURCE: NYS DOT)

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	SEIVE NO.	PERCENT BY WEIGHT PASSING STANDARD SEIVE
WELL PULVERIZED AND COMPOSED LEAF MULCH, WITH FINES AS INDICATED	15 TO 20	200	< 5
GRANULAR SOIL	80 TO 85	16	100
		40	85 TO 100
		200	40 TO 100 5 TO 10

SEEDING SCHEDULE
NEW ENGLAND WETMIX SEED MIX BY NEW ENGLAND WETLAND PLANTS, INC. (OR EQUIVALENT) SHALL BE APPLIED TO THE SURFACE OF THE WETLAND BASINS AT A RATE OF 1 LB PER 2500 sq. INCREASE RATE TO 1/2 LB FOR FALL AND WINTER SEEDING. LATE SPRING AND SUMMER SEEDING REQUIRES APPLICATION OF WEED-FREE STRAW COVER.

CONSTRUCTION OVERSIGHT NOTE:
INSPECTION BY A PROFESSIONAL ENGINEER WILL CONSIST OF WEEKLY SITE VISITS TO INSPECT THE INSTALLATION OF THE UNDERDRAIN PIPES AND ASSOCIATED RISERS AND CLEANOUTS, CRUSHED STONE, TRANSITION GRAVEL LAYER, WETLAND SOIL PLACEMENT AND OVERFLOW CULVERTS. INSPECTIONS SHALL BE MADE BY, OR DOCUMENTATION PROVIDED TO, THE ENGINEER UNTIL FINAL STABILIZATION OF THE POND HAS BEEN ACHIEVED. AN INSPECTION OF THE UNDERDRAINED GRAVEL OUTLET SHALL ALSO BE PERFORMED ONE YEAR AFTER THE FINAL STABILIZATION OF THE WETLAND.



CONSTRUCTION OVERSIGHT NOTE:
INSPECTION BY A PROFESSIONAL ENGINEER WILL CONSIST OF WEEKLY SITE VISITS TO INSPECT THE INSTALLATION OF THE UNDERDRAIN PIPES AND ASSOCIATED RISERS AND CLEANOUTS, CRUSHED STONE, TRANSITION GRAVEL LAYER, FILTER SAND PLACEMENT, STORAGE CHAMBERS AND COLLECTION PIPES. INSPECTIONS SHALL BE MADE BY, OR DOCUMENTATION PROVIDED TO, THE ENGINEER UNTIL FINAL STABILIZATION OF THE AREA BRANNING TO THE FILTER HAS BEEN ACHIEVED. AN INSPECTION OF THE ISOLATOR ROW SHALL ALSO BE PERFORMED AFTER PLACEMENT OF BACKFILL OVER THE FILTER HAS BEEN COMPLETED.

Michael Cuomo, Soil Scientist
6 York Pond Road, York, Maine 03909
207 363 4532
mcuomosoil@gmail.com

TEST PIT DATA
Client: Civil Consultants
Location: Vivian Hussey School, Berwick
Date: 25 October 2018

TEST PIT NUMBER: ONE
Depth Description
0-15" Very dark gray silt loam, granular, friable.
15-18" Olive yellow silt loam, granular, friable, redox.
18-24" Light gray silt loam, blocky, friable, redox.
24-54" Olive silty clay loam, massive, firm, redox.

TEST PIT NUMBER: TWO
Depth Description
0-8" Very dark grayish brown silt loam, granular, friable.
8-12" Light yellowish brown silt loam, blocky, friable, redox.
12-20" Gray silt loam, blocky, friable, redox.
20-60" Olive silty clay loam, massive, firm, redox.

DEPTH TO SEASONAL HIGH WATER TABLE: 8"
Soil Series name: Lamoine silt loam
Hydrologic Soil Group: D
This is not a hydric (wetland) soil

Michael Cuomo, Soil Scientist
6 York Pond Road, York, Maine 03909
207 363 4532
mcuomosoil@gmail.com

TEST PIT DATA
Client: Civil Consultants
Location: Vivian Hussey School, Berwick
Date: 4 June 2019

TEST PIT NUMBER: FOUR
Depth Description
0-7" Very dark grayish brown silt loam, granular, friable.
7-24" Light olive brown fine sandy loam fill, massive, friable.
24-30" Very dark grayish brown silt loam, granular, friable, redox.
30-38" Olive brown very fine sandy loam, blocky, friable, redox.
38-63" Light olive gray silty clay loam, massive, firm, redox.

DEPTH TO SEASONAL HIGH WATER TABLE: 24"
Soil Series name: Micholville silt loam
Hydrologic Soil Group: C
This is not a hydric (wetland) soil

TEST PIT NUMBER: FIVE
Depth Description
0-6" Very dark grayish brown silt loam, granular, friable.
6-12" Dark olive brown silt loam, blocky, friable, redox.
12-26" Olive brown silt loam, blocky, friable, redox.
26-43" Light olive brown stratified fine sand and silt, massive, friable, redox.

DEPTH TO SEASONAL HIGH WATER TABLE: 5"
Soil Series name: Micholville SPB silt loam
Hydrologic Soil Group: D
This is not a hydric (wetland) soil

Michael Cuomo, Soil Scientist
6 York Pond Road, York, Maine 03909
207 363 4532
mcuomosoil@gmail.com

TEST PIT DATA
Client: Civil Consultants
Location: Vivian Hussey School, Berwick
Date: 4 June 2019

TEST PIT NUMBER: SIX
Depth Description
0-6" Very dark grayish brown silt loam, granular, friable.
6-17" Olive brown silt loam, blocky, friable, redox.
17-29" Light olive brown silt loam, blocky, friable, redox.
29-67" Olive yellow stratified fine sand and silt, massive, friable, redox.

DEPTH TO SEASONAL HIGH WATER TABLE: 6"
Soil Series name: Micholville SPB silt loam
Hydrologic Soil Group: D
This is not a hydric (wetland) soil

TEST PIT NUMBER: SEVEN
Depth Description
0-9" Dark grayish brown silt loam & fill, granular, friable.
9-12" Dark olive brown silt loam, granular, friable, redox.
12-19" Grayish brown very fine sandy loam, blocky, friable, redox.
19-34" Light olive brown very fine sandy loam, blocky, friable, redox.
34-63" Olive yellow stratified fine sand and silt, massive, friable, redox.

DEPTH TO SEASONAL HIGH WATER TABLE: 5"
Soil Series name: Micholville SPB silt loam
Hydrologic Soil Group: D
This is not a hydric (wetland) soil



CIVIL CONSULTANTS
Engineers
Planners
Surveyors
P.O. Box 100
South Berwick
Maine
03908
207-384-2550
www.civcon.com

NO.	DATE	REVISIONS
1		

RECORD OWNER:
MSAD #60
OWNER ADDRESS:
100 NOBLE WAY
N. BERWICK, ME 03906

PROPOSED SITE MODIFICATIONS
THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
BLACKBERRY HILL ROAD, BERWICK,
YORK COUNTY, MAINE

PREPARED FOR:
MSAD #60
100 NOBLE WAY, N. BERWICK, ME 03906

CLIENT ADDRESS:

DATE: 7/16/2019
DRAWN BY: NJR
CHECKED BY: GRA
APPROVED BY: NJR

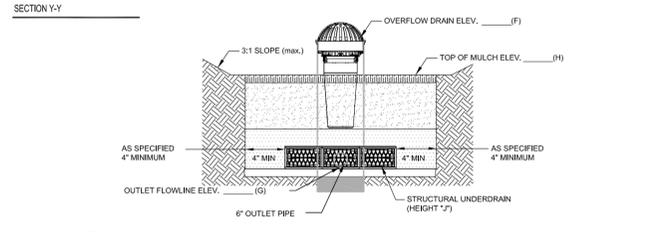
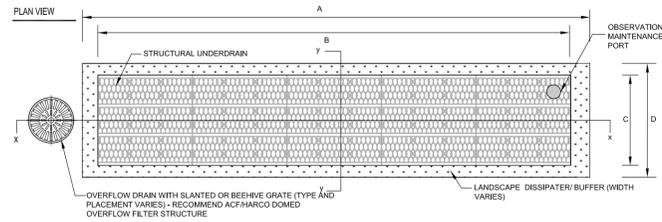
BMP CONSTRUCTION
DETAILS AND
NOTES

PROJECT NO: 12-060.40

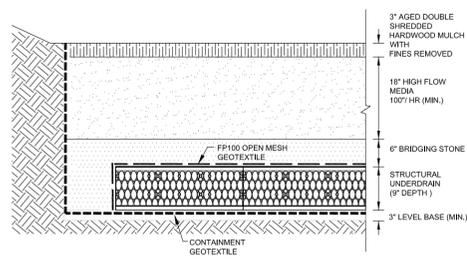
L4

TAX MAP NO. R-57, LOT NO. 27

SHEET: 4 OF 7



1 FOCALPOINT CONSTRUCTION GUIDE

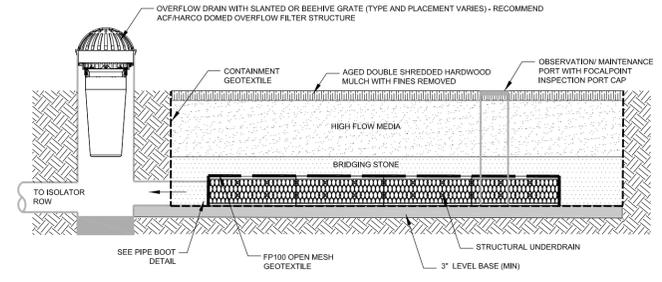


FOCALPOINT HP PERFORMANCE SPECIFICATION:
 HIGH PERFORMANCE MEDIA
 HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 100\"/>

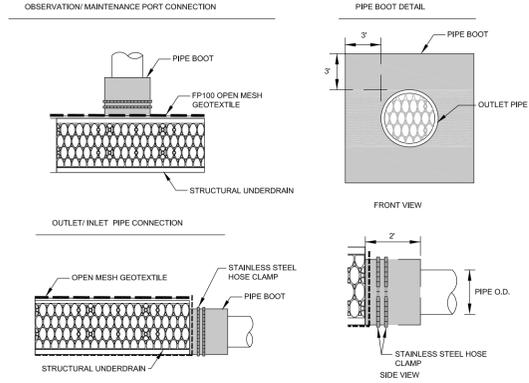
2 FOCALPOINT DETAILED CROSS SECTION

FOCALPOINT KEY DIMENSIONAL DATA

FOCALPOINT I.D.	13P	31P	
A	FOCALPOINT LENGTH (ft)	20	12
B	UNDERDRAIN LONG (ft)	18	10
C	FOCALPOINT WIDTH (ft)	6.25	5.75
D	UNDERDRAIN WIDE (ft)	4	4
E	WATER QUALITY VOLUME (cf)	620	277
F	OVERFLOW ELEVATION (DIAMETER)	124.82 (24")	132.50 (24")
G	6\"/>		
H	TOP OF MULCH	124.00	131.75
J	UNDERDRAIN HEIGHT (inches)	MIN 9	MIN 9



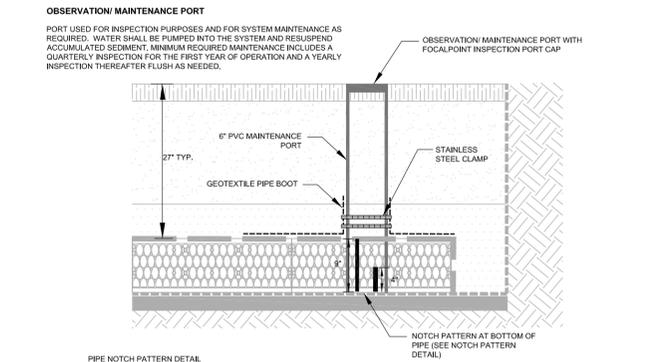
3 FOCALPOINT SECTION X-X



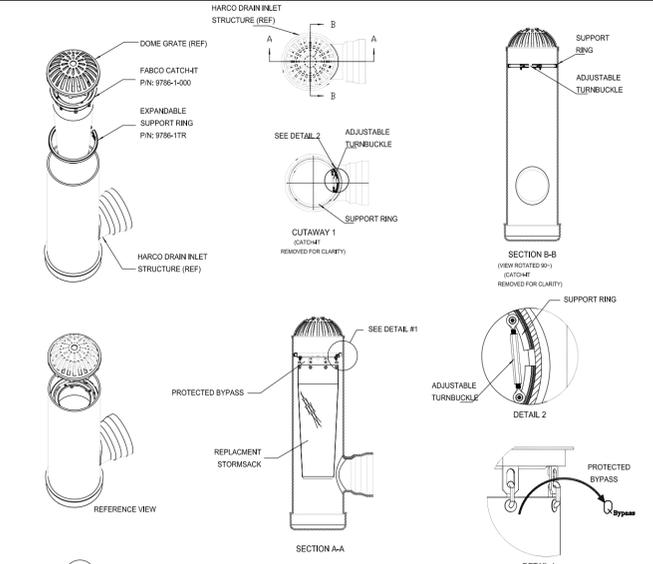
4 FOCALPOINT PIPE CONNECTION DETAIL

NOTE:
 • DETAILS AND SIZING BASED ON INFORMATION PROVIDED BY:
 ROBERT WOODMAN, PE
 SENIOR STORMWATER ENGINEER
 ACF ENVIRONMENTAL, INC.
 rwoodman@acfenv.com
 207.272.4431
 MODIFICATIONS MADE BY CIVIL CONSULTANTS ARE SPECIFIC TO THIS PROJECT

FOCALPOINT MAINTENANCE NOTES:
INSPECTION OF FOCALPOINT AND SURROUNDING AREA: RECORD INDIVIDUAL UNIT BEFORE MAINTENANCE WITH PHOTOGRAPHS. NOTE THE FOLLOWING: STANDING WATER, CONFIRM BYPASS INLET IS CLEAR, CHECK FOR DAMAGE TO SYSTEM, CONDITION OF OVERFLOW CONVEYANCE SYSTEM.
REMOVAL OF DEBRIS, TRASH AND MULCH: DIG OUT SILT (IF ANY), REMOVE MULCH AND TRASH/FOREIGN ITEMS. AFTER REMOVAL OF MULCH AN DEBRIS, MEASURE DISTANCE FROM TOP OF THE FOCALPOINT MEDIA SOIL TO THE FLOW LINE EVALUATION OF THE ADJACENT OVERFLOW CONVEYANCE. IF THIS DISTANCE IS GREATER THAN THAT SPECIFIED ON THE PLANS, ADD MEDIA (NOT TOP SOIL OR OTHER FILL) TO RECHARGE TO THE DISTANCE SPECIFIED.
MULCH REPLACEMENT: MOST MAINTENANCE VISITS REQUIRE ONLY REPLACEMENT MULCH (IF UTILIZED) WHICH MUST BE, AGED, DOUBLE SHREDDED HARDWOOD MULCH WITH FINES REMOVED. FOR SMALLER PROJECTS, ONE CUBIC FOOT OF MULCH WILL COVER FOUR SQUARE FEET OF BIOFILTRATION BED, AND FOR LARGER PROJECTS, ONE CUBIC YARD OF MULCH WILL COVER 108 SQUARE FEET OF BIOFILTRATION BED. SOME VISITS MAY REQUIRE ADDITIONAL FOCALPOINT® HPMS ENGINEERED SOIL MEDIA AVAILABLE FROM THE VAR/CONTRACTOR.
PLANT HEALTH EVALUATION / PRUNING / REPLACEMENT: EXAMINE THE PLANT'S HEALTH AND REPLACE IF DEAD OR DYING. PRUNE AS NECESSARY TO ENCOURAGE GROWTH IN THE CORRECT DIRECTIONS.
CLEAN FOCALPOINT AREA: CLEAN AREA AROUND UNIT AND REMOVE ALL REFUSE TO BE DISPOSED OF APPROPRIATELY.



5 FOCALPOINT OBSERVATION PORT DETAIL



6 ACF/HARCO DOMED OVERFLOW FILTER RISER

NOTES:
 1. STORMSACK WEIGHT (EMPTY): 12 LB MAX
 2. MATERIAL:
 A) SHROUD: HIGH DENSITY POLYETHYLENE (TYPICAL WALL THICKNESS: .125)
 B) SUPPORT RING: HDPE, POWDER COATED
 C) STORMSACK: WOVEN POLYPROPYLENE GEOTEXTILE (GEOTEX 117)
 D) HARCO: ALUMINUM PIPES/FITTERS
 3. RECOMMENDED MINIMUM VAULT DEPTH: 24\"/>

STRUCTURE DIAMETER (INCHES)	DEBRIS CAPACITY (CF)	FILTERED FLOWRATE (GPM)	BYPASS FLOWRATE (GPM)	TOTAL SYSTEM FLOWRATE (GPM)
12	0.77	2.2	1.2	3.4
18	1.65	2.5	1.0	3.5
24	3.60	4.9	2.4	7.3
30	6.20	4.9	2.4	7.3



CIVIL CONSULTANTS
 Engineers
 Planners
 Surveyors
 P.O. Box 100
 South Berwick
 Maine
 03908
 207-384-2550
 www.civcon.com

NO.	REVISIONS	INT.	DATE
1			

RECORD OWNER:
 MSAD #60
 OWNER ADDRESS:
 100 NOBLE WAY
 N. BERWICK, ME 03906

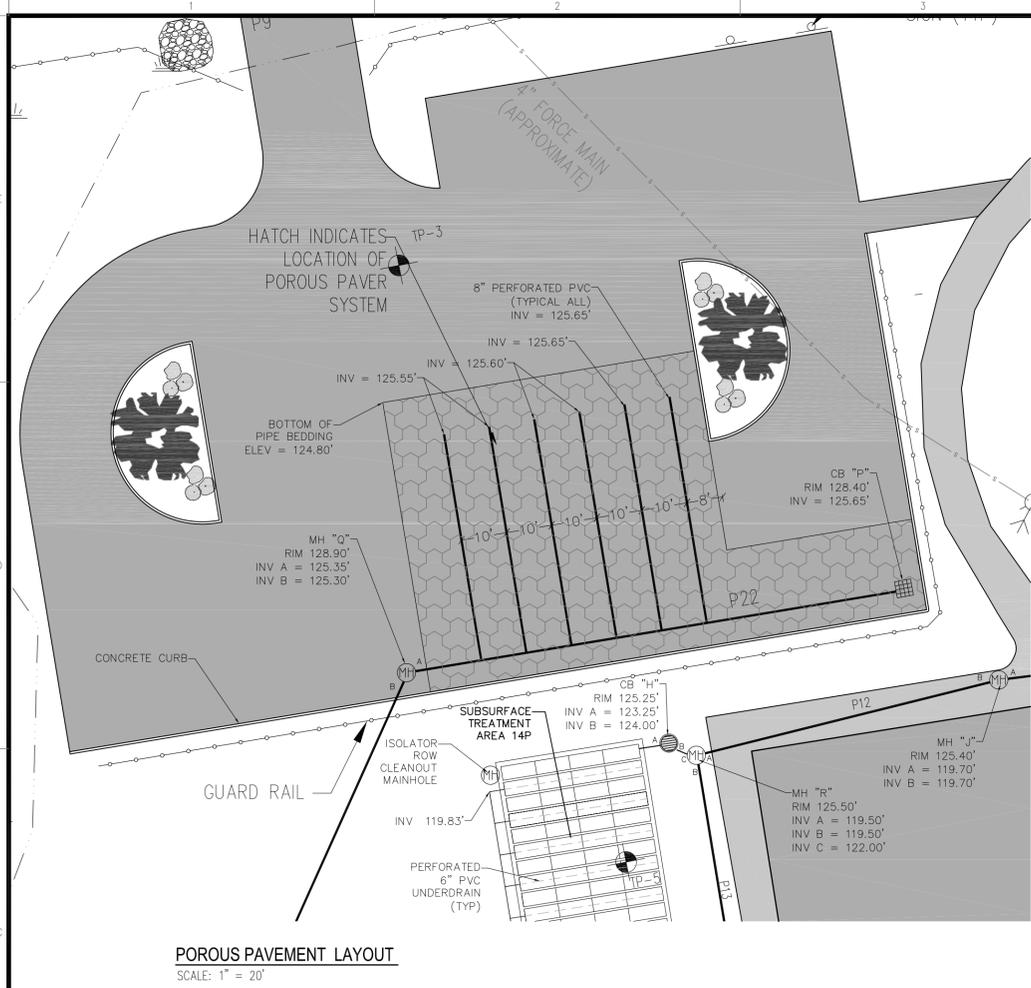
PROPOSED SITE MODIFICATIONS
 THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
 BLACKBERRY HILL ROAD, BERWICK,
 YORK COUNTY, MAINE
 PREPARED FOR:
 MSAD #60
 CLIENT ADDRESS:
 100 NOBLE WAY, N. BERWICK, ME 03906

AS NOTED
 DATE: 7/16/2019
 DRAWN BY: NJR
 CHECKED BY: GRA
 APPROVED BY: NJR

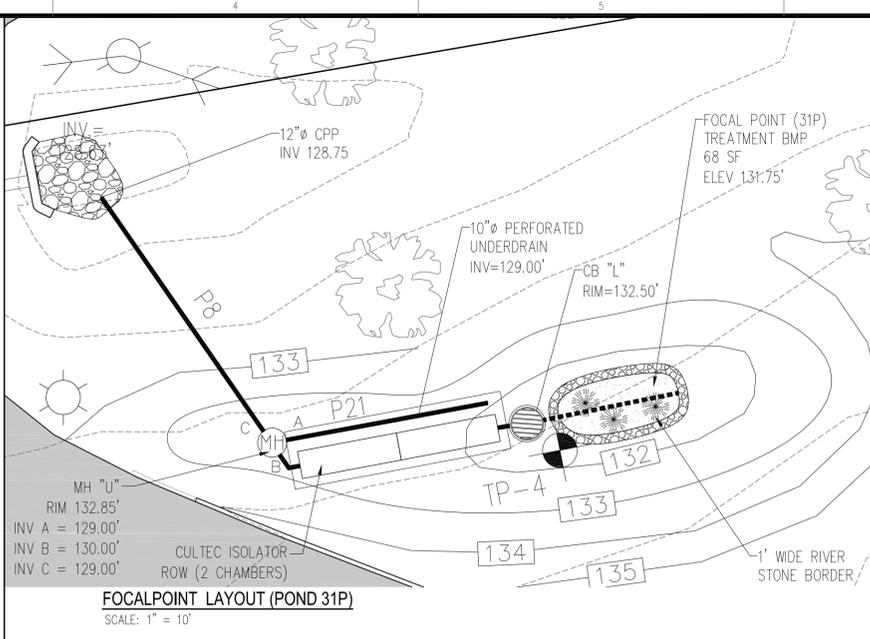
BMP CONSTRUCTION
 NOTES AND
 DETAILS

PROJECT NO: 12-060.40

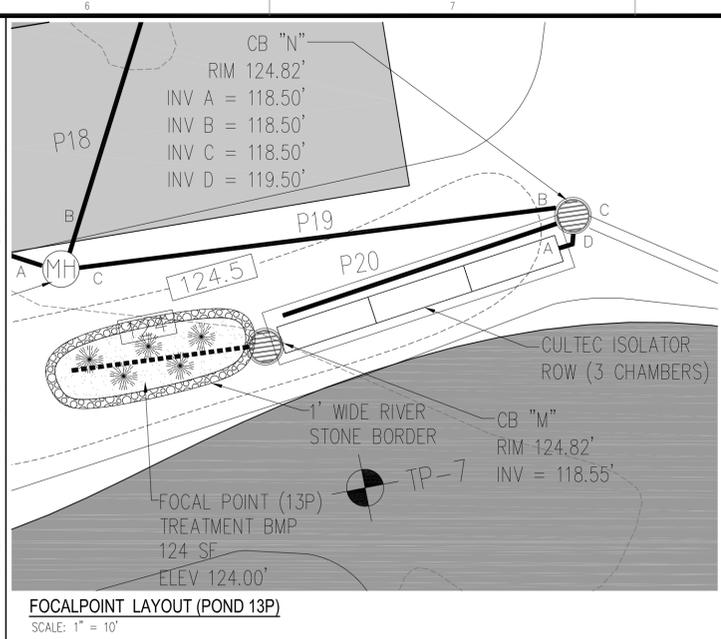
L6
 SHEET: 6 OF 7



POROUS PAVEMENT LAYOUT
SCALE: 1" = 20'



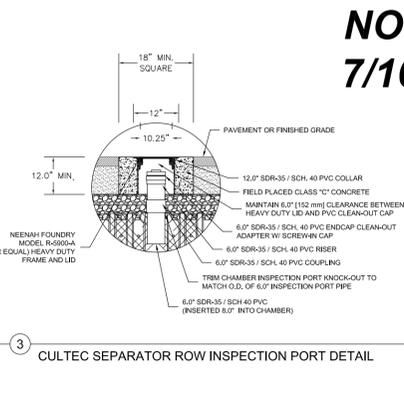
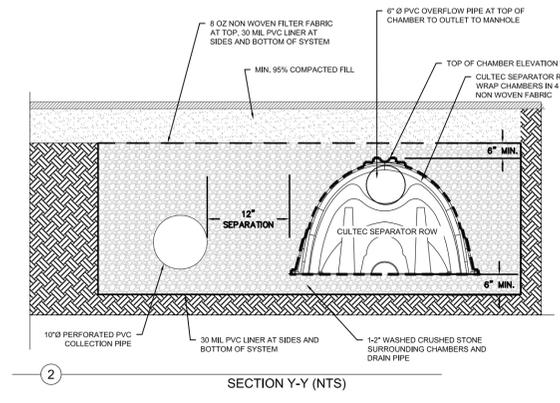
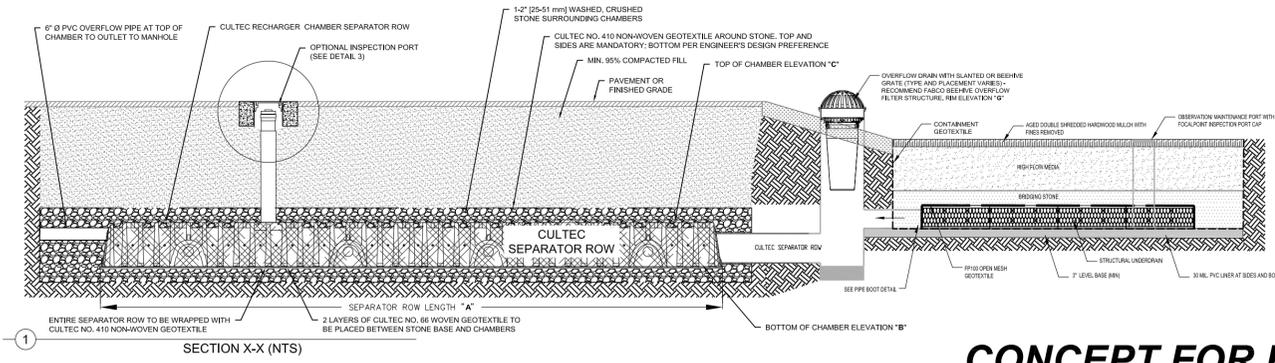
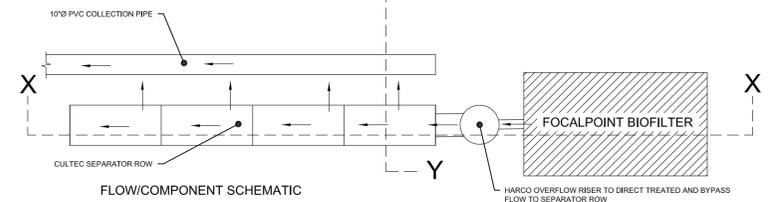
FOCALPOINT LAYOUT (POND 31P)
SCALE: 1" = 10'



FOCALPOINT LAYOUT (POND 13P)
SCALE: 1" = 10'

DIMENSIONAL DATA

FOCALPOINT I.D.	13P	31P
# CULTEC CHAMBER	150X140	150X140
# CULTEC CHAMBERS	3	2
A SEPARATOR ROW LENGTH (ft)	33	22
B BOTTOM OF CHAMBER ELEV	118.55	129.00
C TOP OF CHAMBER ELEV	120.05	130.50
D OVERFLOW PIPE TO TANK ELEV	N/A	N/A
E R-TANK INVERT	N/A	N/A
F R-TANK MODULE	N/A	N/A
G BEEHIVE OVERFLOW RIM	124.82	132.50



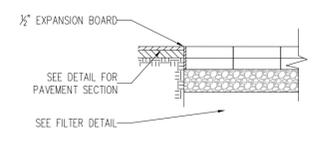
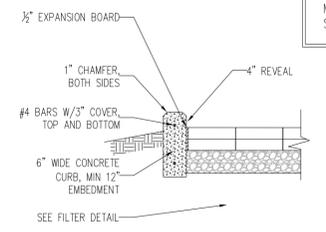
CONCEPT FOR REVIEW ONLY - NOT FOR CONSTRUCTION
7/16/19

NOTE:
• DETAILS AND SIZING BASED ON INFORMATION PROVIDED BY:
ROBERT WOODMAN, PE
SENIOR STORMWATER ENGINEER
ACF ENVIRONMENTAL, INC.
rwoodman@acfenv.com
207.272.4431
MODIFICATIONS MADE BY CIVIL CONSULTANTS ARE SPECIFIC TO THIS PROJECT

CONSTRUCTION OVERSIGHT NOTE:
• INSPECTION BY A PROFESSIONAL ENGINEER WILL CONSIST OF WEEKLY SITE VISITS TO INSPECT THE INSTALLATION OF THE UNDERDRAIN PIPES AND ASSOCIATED RISERS AND CLEANOUTS, CRUSHED STONE, TRANSITION GRATEL LAYERS, FILTER MATERIAL PLACEMENT AND PAVEMENT UNITS. INSPECTIONS SHALL BE MADE BY, OR DOCUMENTATION PROVIDED TO, THE ENGINEER. RAINOFF SHALL BE DIRECTED AWAY FROM THE BMP UNTIL FINAL STABILIZATION OF THE AREA DRAINING TO THE FILTER HAS BEEN ACHIEVED.

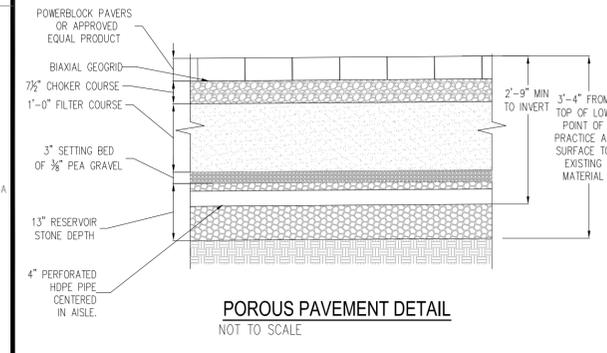
NOTE:
• DETAILS AND SIZING BASED ON INFORMATION PROVIDED BY:
ROBERT WOODMAN, PE
SENIOR STORMWATER ENGINEER
ACF ENVIRONMENTAL, INC.
rwoodman@acfenv.com
207.272.4431
MODIFICATIONS MADE BY CIVIL CONSULTANTS ARE SPECIFIC TO THIS PROJECT

PAVER MAINTENANCE NOTES:
VACUUM SWEEPING: AREAS OF PAVER BLOCKS SHALL BE CLEANED USING A VACUUM SWEEPER ONCE ANNUALLY. POWER WASHING MAY BE NECESSARY TO DISLODGE TRAPPED PARTICLES.
SURFACE CONDITION MAINTENANCE: AREAS OF PAVERS SHALL NOT BE SEALED OR COVERED WITH IMPERMEABLE MATERIALS. UNITS SHALL BE INSPECTED ANNUALLY FOR DETERIORATION OR SPALLING.



POROUS PAVING UNIT CURB DETAIL
NOT TO SCALE

POROUS PAVING UNIT TRANSITION DETAIL
NOT TO SCALE



POROUS PAVEMENT DETAIL
NOT TO SCALE

FROM TABLE 2 OF POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS DESIGN SPECIFICATIONS - UNH STORMWATER CENTER (OCT 2014)

US STANDARD SIEVE SIZE	PERCENT PASSING (%)			
	CHOKER COURSE (AASHTO NO. 57)	FILTER COURSE	RESERVOIR COURSE (AASHTO NO. 3)	RESERVOIR COURSE ALTERNATE* (AASHTO NO. 5)
6/150	-	100	-	-
23/63	-	-	100	-
2/50	-	-	90-100	-
1 1/2/37.5	100	-	35-70	100
1/25	95-100	-	0-15	90-100
3/19	-	-	-	20-55
3/12.5	25-60	-	0-5	0-10
3/9.5	-	-	-	0-5
#4/4.75	0-10	70-100	-	-
#8/2.36	0-5	0-6**	-	-
#200/0.075	-	-	-	-
% COMPACTION ASTM D698 / AASHTO T99	95	95	95	95

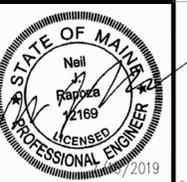
* ALTERNATE GRADATIONS (e.g. AASHTO NO. 5) MAY BE ACCEPTED UPON ENGINEERS' APPROVAL.
** PREFERABLY LESS THAN 4% FINES

SCALE IS 1/2 NOTED WHEN PLOTTED AS 11X17

COORDINATE FILE: J:\AAA\2012\1206040\CARLSON\SURVEY\POINTS\1206040-MSPCS-83W.CRD

CADD FILE: J:\aaa\2012\1206040\Carlson\Engineering\Drawing\1206040E-ST.dwg

TAX MAP NO. R-57, LOT NO. 27



CIVIL CONSULTANTS
Engineers
Planners
Surveyors
P.O. Box 100
South Berwick
Maine
03908
207-384-2550
www.civcon.com

NO.	REVISIONS	INT.	DATE
1			

RECORD OWNER:
MSAD #60
OWNER ADDRESS:
100 NOBLE WAY
N. BERWICK, ME 03906

PROPOSED SITE MODIFICATIONS
THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
BLACKBERRY HILL ROAD, BERWICK,
YORK COUNTY, MAINE

AS NOTED
DATE: 7/16/2019
DRAWN BY: NJR
CHECKED BY: GRA
APPROVED BY: NJR

BMP CONSTRUCTION
DETAILS AND
NOTES

PROJECT NO: 12-060.40

L5

SHEET: 5 OF 7

PLOT DATE: 7/16/2019 3:30 PM

MAINTENANCE PROCEDURES

THE FOLLOWING PROCEDURES WILL BE FOLLOWED FOR INITIAL AND LONG TERM MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES AT THIS SITE. NOTE: FOR THE PURPOSES OF THESE PROCEDURES, A MAJOR STORM EVENT IS CLASSIFIED AS A RAINFALL EXCEEDING 3.2 INCHES. A SIGNIFICANT RAINFALL IS 1/2" IN A 24 HOUR PERIOD.

MAINTENANCE LOG

THE RESPONSIBLE PARTY SHALL ESTABLISH A MAINTENANCE LOG/PLAN FOR USE IN RECORDING MAINTENANCE ACTIVITIES. AS A MINIMUM, THE LOG SHALL INCLUDE THE DATE(S) OF ACTIVITIES, WHO PERFORMED THE DUTIES, WHAT WAS DONE (I.E. LOOKED AT DETENTION BERMS, CLEANED DROP INLETS, ETC.), THE RESULTS OF THE ACTIVITY (I.E. ALL STRUCTURES WERE IN GOOD SHAPE, OR, POND #44 NEEDS TO BE REPAIRED). IF ANY ITEM NEEDS TO BE REPAIRED, A FOLLOW-UP ENTRY SHALL SHOW THE DATE THAT REPAIRS WERE COMPLETED.

DETENTION BASINS AND WET PONDS (INITIAL AND LONG TERM)

MAINTENANCE IS NECESSARY IF DETENTION BASINS ARE TO CONTINUE TO FUNCTION AS ORIGINALLY DESIGNED. THE RESPONSIBLE PARTY SHALL DESIGNATE AN INDIVIDUAL (OR COMPANY) TO MAINTAIN THE STRUCTURES AND THE BASIN AREA.

- THE FOLLOWING MAINTENANCE SCHEDULE ARE ITEMS WHICH SHOULD BE CONSIDERED IN FORMULATING A MAINTENANCE PLAN:
1. EMBANKMENT – EMBANKMENTS SHOULD BE INSPECTED ANNUALLY TO DETERMINE IF RODENT BURROWS, WET AREAS, OR EROSION OF THE FILL IS TAKING PLACE.
 2. VEGETATION – THE VEGETATED AREAS OF STRUCTURE DEVICES SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH. LIME AND FERTILIZER SHOULD BE APPLIED AS NECESSARY AS DETERMINED BY SOIL TESTS. TREES AND SHRUBS SHOULD BE KEPT OFF THE EMBANKMENT AND EMERGENCY SPILLWAY AREAS.
 3. INLETS – PIPE INLETS AND SPILLWAY STRUCTURES SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEDIMENT SHOULD BE REMOVED. IF PIPES ARE COATED, THE COATING SHOULD BE CHECKED AND REPAIRED AS NECESSARY.
 4. OUTLETS – PIPE OUTLETS SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. THE CONDITION OF THE PIPES SHOULD BE NOTED AND REPAIRS MADE AS NECESSARY. IF EROSION IS TAKING PLACE THEN MEASURES SHOULD BE TAKEN TO STABILIZE AND PROTECT THE AFFECTED AREA OF THE OUTLET.
 5. GRAVEL TRENCH (WET PONDS) – THE GRAVEL TRENCH SHALL BE KEPT CLEAR OF CLOGGING MATERIALS (DECAYING LEAVES, ETC.) SO THAT DISCHARGE THROUGH THE TRENCH IS NOT IMPEDED. THE TOP SEVERAL INCHES OF THE GRAVEL IN THE OUTLET TRENCH SHOULD BE REPLACED WITH FRESH MATERIAL WHEN WATER POUNDS ABOVE THE PERMANENT POOL FOR MORE THAN 72 HOURS. THE SEDIMENT REMOVED FROM THE WET POND SHOULD BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE REGULATIONS.
 6. SEDIMENT – SEDIMENT SHOULD BE CONTINUALLY CHECKED IN THE BASIN. WHEN SEDIMENT ACCUMULATIONS REACH THE PREDETERMINED DESIGN ELEVATION, THEN THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED.
 7. SAFETY INSPECTIONS – ALL BERMS OVER 2' IN HEIGHT SHALL BE INSPECTED BY A QUALIFIED PROFESSIONAL ENGINEER EVERY 5 YEARS. THE DESIGNATED INDIVIDUAL SHOULD ALSO MAKE INSPECTIONS AFTER EVERY MAJOR STORM EVENT.

LAND GRADING AND SLOPE STABILIZATION

ALL SLOPES SHOULD BE CHECKED PERIODICALLY TO SEE THAT VEGETATION IS IN GOOD CONDITION. ANY RILLS OR DAMAGE FROM EROSION AND ANIMAL BURROWING SHOULD BE REPAIRED IMMEDIATELY TO AVOID FURTHER DAMAGE. IF SEEPS DEVELOP ON THE SLOPES, THE AREA SHOULD BE EVALUATED TO DETERMINE IF THE SEEP WILL CAUSE AN UNSTABLE CONDITION. SUBSURFACE DRAINS OR GRAVEL MULCHING MAY BE REQUIRED TO SOLVE SEEP PROBLEMS. DIVERSIONS, BERMS, AND WATERWAYS IN THE LAND GRADING AREA SHOULD BE CHECKED TO SEE THAT THEY ARE FUNCTIONING PROPERLY. PROBLEMS FOUND DURING THE INSPECTIONS SHOULD BE REPAIRED. SLOPES AND ASSOCIATED PRACTICES UTILIZING VEGETATION SHOULD BE LIMED AND FERTILIZED AS NECESSARY TO KEEP THE VEGETATION HEALTHY. ENCROACHMENT OF UNDESIRABLE VEGETATION SUCH AS WEEDS AND WOODY GROWTH THAT IS NOT PLANNED SHOULD BE CONTROLLED TO AVOID PROBLEMS OF BANK STABILITY IN THE FUTURE.

LEVEL SPREADER

LEVEL SPREADERS SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE LIP HAS BEEN DAMAGED AND THAT THE DESIGN CONDITIONS HAVE NOT CHANGED. ANY SEDIMENT ACCUMULATION SHOULD BE REMOVED. DAMAGE SHOULD BE REPAIRED AND RE-VEGETATED. THE VEGETATION SHOULD BE MOWED OCCASIONALLY TO CONTROL WEEDS AND THE ENCROACHMENT OF WOODY VEGETATION. CLIPPINGS SHOULD BE REMOVED AND DISPOSED OF OUTSIDE THE SPREADER AND AWAY FROM THE OUTLET AREA. FERTILIZATION SHOULD BE DONE AS NECESSARY TO KEEP THE VEGETATION HEALTHY AND DENSE.

OUTLET PROTECTION

OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSIDE CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

ROCK RIPRAP (INITIAL & LONG TERM)

ROCK RIPRAP SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED. WOODY VEGETATION SHOULD BE REMOVED FROM THE ROCK RIPRAP ANNUALLY. IF THE RIPRAP IS ON A CHANNEL BANK, THE STREAM SHOULD BE KEPT CLEAR OF OBSTRUCTIONS. IF DAMAGE HAS OCCURED, REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE RIPRAP.

STORM DRAIN INLET PROTECTION

ALL STRUCTURES SHALL BE INSPECTED AFTER SIGNIFICANT RAIN EVENTS AND REPAIRED AS NEEDED.

SEDIMENT SHALL BE REMOVED AND THE STORM DRAIN SEDIMENT BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

ALL CATCH BASINS AND STORM DRAIN INLETS SHALL BE CLEANED AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED.

STRAW OR HAY BALE BARRIER, SILT FENCE AND FILTER BERM

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.

THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED.

SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE BARRIER.

FILTER BERMS SHOULD BE RESHAPED AS NEEDED.

SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

TEMPORARY CHECK DAMS

REGULAR INSPECTIONS MUST BE MADE TO ENSURE THAT THE CENTER OF THE CHECK DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE CHECK DAM MUST BE CORRECTED. IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWNSTREAM OF THE CHECK DAM, THE CHECK DAM MUST BE INSPECTED AND ADJUSTED.

CHECK DAMS MUST BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT MUST BE REMOVED WHEN IT REACHES ONE HALF THE ORIGINAL HEIGHT OF BEFORE.

IF IT POSSIBLE, LEAVE THE CHECK DAM IN PLACE PERMANENTLY. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS MUST BE REMOVED WHEN A PERMANENT LINING HAS BEEN ESTABLISHED. IF A CHECK DAM MUST BE REMOVED FROM A GRASS LINED DITCH, WAIT UNTIL THE GRASS HAS MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED REMOVAL.

STABILIZED CONSTRUCTION ENTRANCE (ANTI-TRACKING PAD)

EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER AND THE ENTRANCE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ONTO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES OR WATERWAYS.

CULVERTS

CULVERTS MUST BE MAINTAINED BY KEEPING INLETS, TRASH GUARDS, AND COLLECTION BOXES AND STRUCTURES CLEAN AND FREE OF MATERIALS THAT CAN REDUCE THE FLOW. ALL LEAKS SHALL BE REPAIRED TO ENSURE PROPER FUNCTIONING OF THE CULVERT. ANIMAL GUARDS MUST BE INSPECTED AND MAINTAINED IN PROPER WORKING ORDER.

VEGETATED SWALE

TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION, HOWEVER, IT SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.

THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

FOCALPOINT FILTER

DIG OUT SILT (IF ANY). REMOVE MULCH AND TRASH/FOREIGN ITEMS. AFTER REMOVAL OF MULCH AND DEBRIS, MEASURE DISTANCE FROM TOP OF THE FOCALPOINT MEDIA SOIL TO THE FLOW LINE EVALUATION OF THE ADJACENT OVERFLOW CONVEYANCE. IF THIS DISTANCE IS GREATER THAN THAT SPECIFIED ON THE PLANS, ADD MEDIA (NOT TOP SOIL OR OTHER FILL) TO RECHARGE TO THE DISTANCE SPECIFIED. MOST MAINTENANCE VISITS REQUIRE ONLY REPLACEMENT MULCH (IF UTILIZED) WHICH MUST BE, AGED, DOUBLE SHREDDED HARDWOOD MULCH WITH FINES REMOVED. FOR SMALLER PROJECTS, ONE CUBIC FOOT OF MULCH WILL COVER FOUR SQUARE FEET OF BIOFILTRATION BED, AND FOR LARGER PROJECTS, ONE CUBIC YARD OF MULCH WILL COVER 108 SQUARE FEET OF BIOFILTRATION BED. SOME VISITS MAY REQUIRE ADDITIONAL FOCALPOINT/HMBS ENGINEERED SOIL MEDIA AVAILABLE FROM THE VAR/CONTRACTOR. EXAMINE THE PLANT'S HEALTH AND REPLACE IF DEAD OR DYING. PRUNE AS NECESSARY TO ENCOURAGE GROWTH IN THE CORRECT DIRECTIONS. CLEAN AREA AROUND UNIT AND REMOVE ALL REFUSE TO BE DISPOSED OF APPROPRIATELY.

OVERWINTER CONSTRUCTION

MAINE EROSION AND SEDIMENT CONTROL BMP (3/2016)

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREA SHALL BE CONSIDERED TO BE DENIED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. A COVER OF EROSION CONTROL MIX PERFORMS THE BEST.

ANY ADDED MEASURES, WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION, MUST BE INSTALLED. THESE MAY BE DEPENDENT UPON SITE AND WEATHER CONDITIONS AND THE ACTUAL SITE SIZE. TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION, CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED.

1. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCE, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION COVER, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH AN EROSION CONTROL COVER.

DURING WINTER CONSTRUCTION, A DOUBLE ROW OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

2. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

3. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENIED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75 LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS.

MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.

AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

5. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS NOVEMBER 1ST AND THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS./1,000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

OVERWINTER STABILIZATION

MAINE EROSION AND SEDIMENT CONTROL BMP (3/2016)

1. STABILIZATION OF DITCHES AND CHANNELS

ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER MUST BE TAKEN.

SOD LINING: A DITCH OR CHANNEL MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS.

STONE LINING: A DITCH OR CHANNEL MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

2. STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

TEMPORARY VEGETATION AND EROSION CONTROL MATS: BY OCTOBER 1, THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET FOLLOWED BY INSTALLATION OF EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.

SOD: THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

EROSION CONTROL MIX: EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STONE RIPRAP: PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER TO BE INSTALLED BENEATH THE RIPRAP.

3. STABILIZATION OF DISTURBED SOILS

TEMPORARY VEGETATION: BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3-LBS PER 1,000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75-LBS PER 1,000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVERWINTER PROTECTION AS FOLLOWS.

MULCH: BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150-LBS PER 1,000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

MAINTENANCE

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85% TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STABILIZATION SCHEDULE BEFORE WINTER

SEPTEMBER 15 ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET.

OCTOBER 1 IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED, ALL DISTURBED AREAS TO BE PROTECTED WITH ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3-LBS PER 1,000 SQUARE FEET AND MULCHED.

NOVEMBER 15 ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THIS DATE.

DECEMBER 1 ALL DISTURBED AREAS WHERE GROWTH OF VEGETATION FAILS TO BE AT LEAST THREE INCHES TALL OR AT LEAST 75% OF THE DISTURBED SOIL IS COVERED VEGETATION, MUST BE PROTECTED FOR OVER-WINTER. NOTE: THE DATES GIVEN ARE FOR PROJECTS IN SOUTH-CENTRAL MAINE.

PROJECT MAINTENANCE ITEMS:

THE DEVICES THAT WILL REQUIRE MAINTENANCE FOR THIS PROJECT ARE:

- FOCALPOINT FILTRATION DEVICES
- GRAVEL WETLANDS
- SUBSURFACE SAND FILTERS
- CATCH BASINS & CULVERTS
- GRASSED SWALES
- POROUS PAVERS

HOUSEKEEPING NOTES

*PER ME DEP CHAPTER 500 – APPENDIX 'C'

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

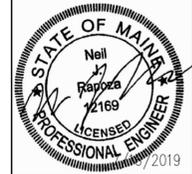
5. EXCAVATION DE-WATERING. EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

- (a) DISCHARGES FROM FIREFIGHTING ACTIVITY;
- (b) FIRE HYDRANT FLUSHINGS;
- (c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
- (d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
- (e) ROUTINE EXTERNAL BUILDING WASH-DOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
- (f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
- (g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- (h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;
- (i) FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
- (j) UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX (C)(5));
- (k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
- (l) LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- (a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- (b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- (c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- (d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.



© CIVIL CONSULTANTS

CIVIL CONSULTANTS
Engineers
Planners
Surveyors
P.O. Box 100
South Berwick
Maine
03908
207-384-2550
www.civcon.com

NO.	DATE	REVISIONS
1		

RECORD OWNER: MSAD #60
OWNER ADDRESS: 100 NOBLE WAY, N. BERWICK, ME 03906

PROPOSED SITE MODIFICATIONS
THE VIVIAN E. HUSSEY SCHOOL, TAX MAP R-57, LOT 27
BLACKBERRY HILL ROAD, BERWICK, YORK COUNTY, MAINE

PREPARED FOR: MSAD #60
100 NOBLE WAY, N. BERWICK, ME 03906

CLIENT ADDRESS:

AS NOTED

DATE: 7/16/2019
DRAWN BY: NJR
CHECKED BY: GRA
APPROVED BY: NJR

NOTES AND DETAILS

PROJECT NO: 12--060-40

Town of Berwick Planning Board
Conditional Use/Site Plan Review - Findings of Fact

Applicant: Town of Berwick
20 Wilson Street (Map U04-Lot 142)
September 5 2019

The Town of Berwick sought approval to construct a new 17,187 square foot fire station on the same property as the current Police station which in turn will create a Public Safety campus for the community. This site is located in the C/I Zone and Village Overlay District and is a Conditional Use. This project does meet all of the dimensional regulations of the zone.

As part of this project, the former Estabrook School will be taken down in order to accommodate. The site will have two points of access one off Logan Street and the other off Sullivan Street while the police station is served via a separate access off Wilson Street.

The building is proposed to be a single-story building with office and work space as well as 4 service doors both front and back.

The access grade from Sullivan Street will be modest however it should be understood that the drive elevation will be approximately 5 feet above grade allowing stormwater from this access to get into the wetlands and culverts easier. There is a small stream located on the property which will require a 42” culvert crossing under the Sullivan street access The access to Logan Street is a much steeper grade, somewhere in the 7% range with ditching on the east side of the access and grading to get the water to the basin and pipe located between the Police station and the fire station. The pond is piped to direct water to the large pond(s) on the westerly side of the buildings. This project will require a Maine DEP chapter 500 basic stormwater permit. The applicant has submitted a full stormwater plan for your review. From staff review, it seems to be a very straight forward analysis.

As mentioned earlier there are impacted wetlands on the site. The applicant is impacting approximately 10,164 square feet of wetlands on the site which will also require a tier permit from Maine DEP.

Water and Sewer service will be taken off Sullivan Street to serve the site. They are proposing a generator location to the west of the parking area and a dumpster to the southeast of the new building. They are proposing 26 parking spaces to the north of the building.

The Planning Board met on August 1st, 2019 for the first meeting of the application. After some discussion regarding the application and whether or not it was complete due to the lack of an updated application form and checklist the submittal was found complete and a Public Hearing set for August 15th and a sitewalk not scheduled until September 5th, after which time the board could vote on the application.

During the review process, a great deal of discussion surrounded a pedestrian access through the site which is in the town's comprehensive plan and not proposed as part of this municipal project.

At the August 15 meeting the applicant did a presentation and overview of the project. During the presentation, the applicant noted that there will be a signal system along Sullivan Street to warn people that equipment is entering the street during a call situation.

5 people spoke on the project during the Public Hearing. All the discussion for this project again surrounded the need for a public access walkway through the site. The planning board will leave this public hearing open for additional comment and a site walk was scheduled September 5th at 5:00 P.M

At the site walk several interested parties attended the walk. The walk consisted at looking around the layout of the building, asking questions regarding the old school to be torn down and observing the proposed public access to be constructed sometime in the future.

During the Planning Board meeting, no public spoke on the application and the Public Hearing was closed. The applicant's representative introduced the general location of a proposed walking path across a part of the property that would not impact the operation of the Fire or Police vehicles on site during daily operations. The planning board approved the application on a 5-0 vote with the following condition:

1. All greenspace shall remain public space unless any change of use is proposed, the proposed change shall come back to the planning board as a Change of Use application proposal.

Findings of Fact

1. **Conformance with the Comprehensive Plan:** *All proposed conditional uses and site plans shall conform to the Comprehensive Plan of the Town of Berwick and with the provisions of all pertinent federal, state and local codes, ordinances, and regulations.*

This application has been reviewed and debated thoroughly as it relates to the Comprehensive Plan and the Planning Board agreed that it will meet all regulations in regard to the project as well as the intent of the comprehensive plan. The applicant is also going to receive Army Corp of Engineers permits as well as multiple Maine DEP permits

2. **Preserve and enhance the landscape:** *The landscape shall be preserved in its natural state insofar as practicable by minimizing tree removal, disturbance of soil, retaining existing vegetation during construction. After construction is complete, landscape shall be designed and planted that will define, soften or screen the appearance of off street parking areas from the right of way and abutting properties and/or structures in order to enhance the physical design of the building(s) or site, and to minimize the encroachment of the proposed use on the neighboring land uses.*

During the review process the applicant has demonstrated the real desire to preserve as much of the environmental features as possible on the site such as minimizing wetland impacts and providing state of the art stormwater ponds on site. The applicant's proposal will also be required to meet the State DEP requirements for stormwater and erosion control in order to minimize on and off-site impacts.

3. **Relationship of the proposed buildings to the environment:** *Proposed structures shall be related harmoniously to the terrain and to the existing buildings in the vicinity which have a visual relationship to the proposed buildings. Special attention shall be paid to the bulk, location and height of the building(s) and such natural features such as slope, soil type and drainage ways.*

The applicant has designed this project with cuts and fills of material being left on site and used to help define the site. The building is located several hundred feet off the street which will minimize visual impacts to the surrounding neighborhood.

4. **Vehicular access:** *The proposed site layout shall provide for safe access and egress from public and private roads by providing adequate location, numbers and controls of access points including site distances, turning lanes, traffic signalization when required by existing and projected traffic flow on municipal road systems.*

The applicant has provided two means of egress off Sullivan and Logan streets. The main access will be off Sullivan street and they plan on placing actuated lights at the entrance with Sullivan in order to warn motorists that emergency vehicles are entering the street during service calls. Logan street will be used as a secondary access and does not need any actuation systems.

5. **Parking and circulation:** *The layout and design of all vehicular and pedestrian circulation, including walkways, interior drives, and parking areas shall provide for safe general interior circulation, separation of pedestrian and vehicular traffic, service traffic, loading areas, and arrangements and use of parking areas.*

The site has been designed in a safe circulation manner in order to minimize mixing pedestrians, non-emergency vehicles and emergency vehicles from comingling on the site.

6. **Surface water drainage:** *Adequate provision shall be made for surface drainage so that removal of surface waters will not adversely affect neighboring properties, downstream conditions, soil erosion or the public storm drainage system. Whenever possible, on-site absorption of unpolluted run-off waters shall be utilized to permit groundwater recharge on the site.*

The applicant has provided more than adequate stormwater system designs that are also being reviewed by the Maine DEP as part of the permitting process.

7. **Existing utilities:** *The development shall not impose an unreasonable burden on sewers, sanitary and storm drains, water lines or other public utilities.*

The applicant has met this standard by review of outside agencies that have signed off on the application.

8. **Advertising features:** *The size, location, design, lighting and materials of all exterior signs and outdoor advertising structures or features shall not detract from the design of proposed buildings and structures and the surrounding properties.*

This is not applicable to the application

9. **Special features of the development:** *Exposed storage areas, exposed machinery installation, service areas, truck loading areas, utility buildings and similar structures shall have sufficient setback and screening to provide an audio/visual buffer to minimize their adverse impact on other land uses within the development area and surrounding properties.*

The applicant has done a very good job at minimizing these impacts as stated in Finding #3

10. **Exterior lighting:** *All exterior lighting shall be designed to minimize adverse impact on neighboring properties.*

The applicant is minimizing the amount of on-site lighting by utilizing seven 20' LED pole mounted lights on the site.

11. **Emergency vehicle access:** *Provisions shall be made for providing and maintaining convenient and safe emergency vehicle access to all buildings and structures.*

This is a Public safety facility designed to properly serve emergency vehicles. The site has been designed with this use in mind.

12. **Municipal services:** *The development will not have an unreasonable adverse impact on the municipal services including municipal road systems, fire department, police department, solid waste program, sewer treatment plant, school, open spaces, recreational programs and facilities, and other municipal service and facilities.*

This facility is a municipal facility and is to serve all others within the community. No adverse impacts to municipal services have been identified

13. **Will not result in water or air pollution:** *In making this determination, it shall at a minimum consider: The elevation of the land above sea level and its relationship to the floodplains, the nature of soils and subsoils and their ability to adequately support waste disposal; the slope of the land and its attest on effluents; and the applicable state and local health and water resources regulations.*

This has been met

14. **Has sufficient water available for the reasonably foreseeable needs of the development** *(this is usually considered to be ten years approximately).*

This facility is on the public water system

15. **Will not cause an unreasonable burden on an existing water supply,** *if a municipal or community water supply is to be utilized.*

The water department has signed off on this project. This standard has been met

16. **Will not cause soil erosion or reduction in the capacity of the land to hold water** *so that dangerous or unhealthy conditions may result.*

The applicant met this standard. See other findings above.

17. **Will provide for adequate sewerage waste disposal.**

This project has been reviewed by the sewer depart and had no negative comments. This project is a replacement to the existing facility as well.

18. **Will not have adverse effects on the scenic or natural beauty of the area, aesthetics, or rare and irreplaceable natural areas.**

This standard has been met

19. **The developer has adequate financial and technical capacity to meet the above stated standards.**

The citizens of Berwick appropriated money for this project through a bond.

20. **Whenever situated in whole or in part within 250 feet of any pond, lake or river, will not adversely affect the quality of such body of water or affect the shoreline of such body of water, based on the standards outlined in Section 9.8.I.1.j.**

Not Applicable

21. **Low Impact Design:** *Each applicant is required to submit a statement to the Planning Board documenting proposed Low Impact Design (LID) for the site, which will help to reduce storm water volumes and help to enhance storm water quality. LID includes, but is not limited to, green roofs, rain gardens, tree wells, infiltration basins and permeable pavement.*

The stormwater system has been designed to act as a Low Impact design system with the use of stormwater filtration ponds and long-term maintenance for the replacement of media in the base of the system which helps to filter the water during storm periods

This approval is contingent on the fact that the Findings of Fact were not available the evening of the approval therefore the findings or approval could be modified at the time the Planning board reviewed the Findings of Fact.

I, David Andreesen, certify that I am Chair of the Planning Board of the Town of Berwick, Maine, a Planning Board established pursuant to Maine State Statute (30 MRSA § 1917 and Title 30-A § 4401) and I further certify that this decision was approved by the Planning Board at its meeting of September 5th 2019. With the following Condition(s)

- 1 All greenspace shall remain public space unless any change of use is proposed, the proposed change shall come back to the planning board as a Change of Use application proposal.

Vote to find the application Complete 4-0

Vote to approve 5-0

David Andreesen, Chair, Berwick Planning Board