



TOWN OF WINCHENDON

UPDATED AGENDA & NOTICE OF MEETING

Pursuant to the provisions of Chapter 30A, Sections 18-25 of the General Laws, as amended, notice is hereby given that a meeting of the following board, committee, or commission will be held on the date and time specified below. Said meeting will be open to the public and press and will be recorded.

BOARD/COMMITTEE: Planning Board – Meeting

DATE: April 20, 2021

TIME: 6:30 p.m.

LOCATION: Virtual meeting via Zoom

Meeting Attendance Directions (via Zoom):

Meeting ID: 954 0697 0411

Passcode: 2423114

To join via phone

Dial in at +1 929 436 2866 and enter the meeting info above as prompted

To join via computer (option for video and/or audio)

go to www.zoom.com and click 'join meeting' then follow prompts using info above **or**

<https://winchendonk12.zoom.us/j/95406970411?pwd=RFBmeitLMjA3K0hkZnpDME93YVIRZz09>

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, this meeting of the Town of Winchendon Planning Board will be conducted via remote participation.

1. Call to Order
2. Announcements & Public Comments
3. Business:
 - Discussion of release of bond(s) held for Miller's Run – Per MGL Ch 41 Section 81U "If the planning board determines that said construction or installation has been completed, it shall release the interest of the town in such bond and return the bond or the deposit to the person who furnished the same, or release the covenant by appropriate instrument, duly acknowledged, which may be recorded."
 - 6:35pm - Public Hearing continuation – Site Plan application for site work and new business submitted by Mantis Management Group, LLC for a cannabis cultivation project located at 2 Juniper Street identified as Winchendon Assessors' Map 5A3 Parcel 197
 - 6:40pm – Public Hearing continuation - Site Plan Application received from CTB Enterprises dba Rooterman for commercial development of site on Gardner Road (Map 9, Parcel 17)
 - Spring Street 'Approval Not Required' ANR – Application for ANR division received from Three M Realty Trust for Map 9 Parcel 34 on the North side of Spring Street
 - Weller Street 'Approval Not Required' ANR – Application for ANR division received from Asher Construction for 61 and 75 Weller Street.
4. Minutes 3/16/2021
5. Correspondence Update
6. Adjourn

Notice- The above topics do not prohibit additional last-minute or unforeseen matters.

The meeting room is handicapped accessible. With advance notice the Planning Board can arrange reasonable accommodation for persons with other disabilities. To request assistance; contact the Department of Planning & Development at 978-297-5410.

No packet
information

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No packet
information



W-1157084
April 13, 2021

Alison Manugian, Conservation & Planning Agent
Town of Winchendon
109 Front Street
Winchendon, MA 01475

Re: Rooter-Man Site Plan Review Planning Board Peer Review Services

Dear Alison and Members of the Planning Board:

Tighe & Bond has been retained by the Town of Winchendon to provide Peer Review Services to the Planning Board in their review of the Site Plan Review and Low Impact Design Permit Applications for the development of a 7,200 square-foot structure and associated site development features (the Project). The Project is located on Gardner Road (Route 140) in the Town of Winchendon, Massachusetts. The property is located within the C1 – Large Scale Commercial zoning district, according to the latest Zoning Map, dated October 2019. The Applicant, CTB Enterprises, Inc. (CTB), has provided the following documents for review:

- Rooter-Man Site Plan, prepared by GRAZ Engineering, LLC, dated December 2, 2020.
- Stormwater Report, Map-9 Lot-17 Gardner Road, prepared by GRAZ Engineering, LLC, dated January 26, 2021.
- Site Design Impact Report, prepared by GRAZ Engineering, LLC, dated March 3, 2021.
- Worcester South District Registry of Deeds Electronically Recorded Document, dated July 8, 2020.

Tighe & Bond also received a copy of review comments received by the Chief of Police via e-mail.

The documents were reviewed for compliance with general engineering practices, the Winchendon Zoning Bylaw, Site Plan Regulations, Low Impact Development (LID) Bylaw, and the Massachusetts Stormwater Management Standards. We offer the following **comments for the Board's consideration:**

1. The following requirements under Section 3.3.3 (Form and Contents of Site Plan) of the Site Plan Regulations were not included on the site plans:
 - a. **A scale of 1"=1,000' was not provided on the index plan. The Board should determine if the index plan scale of 1"=2,000' is acceptable.**
 - b. The Applicant should revise the site plans to include the name and address of the record owner and the applicant, and the name, address, seal, signature, and date of signing of the registered professional engineer or registered land surveyor as appropriate to the data.
 - c. The applicant should provide the location of any signs that are proposed for the Project, if applicable.

2. The following requirements under Section 3.3.4 (Supplemental Plan Information Required) of the Site Plan Regulations were not included on the Site Plans:
 - a. The Applicant should provide the names and full contact information for every person involved in developing the plan and who may have to be contacted for clarifications or additions. Such information must include mail address, land line phone number, fax number, email address, and a cellular phone number, if available. This is required per Section 3.3.4(A) of the Site Plan Regulations.
 - b. The Applicant should provide a table showing the legal requirements (minimums, maximums) of the zoning district, existing conditions, and the proposed site conditions for the following characteristics: lot size, total lot coverage, open space, percent wetlands, percent flood plain, developable site area, front yards, side yards, rear yard, any buffers, building height, minimum distance to groundwater, pre- and post-development runoff rates and groundwater recharge, net floor area and the number of parking spaces (including numbers of reserve parking, handicapped, and small car spaces) with supporting calculations. The table shall give the percentage of reserved parking spaces with respect to the total number of spaces provided. This is required per Section 3.3.4(C) of the Site Plan Regulations.
 - c. The Impact Statement indicates most of the site will be in a cut. If the Applicant intends to export materials, the Applicant should provide the **volume of "earth" as defined in** the Winchendon Zoning Bylaw to be removed per Section 3.3.4(D) of the Site Plan Regulations. If the Applicant intends to retain the cut materials on site, the Applicant should revise the grading to accommodate this or otherwise indicate how material will be retained.
 - d. The location of any off-site loading and unloading should be provided in the site plans, per Section 3.3.4(M) of the Site Plan Regulations.
 - e. The Applicant should provide any landscaping information, including a planting table, landscaping details, limits of work related to landscaping, and the diameter of trees, per Section 3.3.4(P) of the Site Plan Regulations.
 - f. The Applicant should provide any proposed signage per Section 3.3.4(Q) of the Site Plan Regulations.
 - g. All permits that have been obtained to date should be provided to the Board prior to Site Plan Review per Section 3.3.4(R) of the Site Plan Regulations.
 - h. In accordance with Section 3.3.4(S), the following information should be provided in the notes section of the site plans. The Project shall:
 - i. Forbid the use of fill containing hazardous materials;
 - ii. Require the marking of the limits of work in the field before the start of construction or site clearing;
 - iii. Require the cleaning of catch basins, sumps and stormwater basins following construction and annually thereafter;
 - iv. Restrict the hauling of earth materials to or from the site to the hours between 9 a.m. and 4 p.m. on weekdays;
 - v. Describe the materials to be used in the construction of impermeable surfaces such as sidewalks and driveways.

- i. The site plans should provide the driveway entrance dimensions at the curb line for determining compliance with the access requirements of the Zoning Bylaw. Additionally, the size of the largest truck expected to be used shall be provided. **We note the access road width of 16' was provided on the site plans.** However, the entrance dimensions should be provided as well per Section 3.3.4(V) of the Site Plan Regulations.
3. The following requirements under Section 6.3.1 (Filing Application) of the Low Impact Development bylaw **were not included in the applicant's submittals:**
 - a. Low Impact Development Endorsement was not marked on the Planning Board Decision Petition form.
 - b. A Project description was not provided to Tighe & Bond for the Low Impact Development application. A Project narrative and description should be provided prior to the application approval.
 - c. An Inspection and Maintenance agreement was not provided to Tighe & Bond for the Low Impact Development application, as required under Section 6.3.1.6.
 - d. A Low Impact Development Management Plan was not provided to Tighe & Bond for the Low Impact Development application, as required under Section 6.3.1. The Applicant should provide this document or update the site plans and other site documentation to include the LID Management Plan Contents required in Section 6.12 of the Low Impact Development bylaw.
4. **The following comments pertain to the project's compliance** with the Massachusetts Stormwater Standards and Stormwater Handbook:
 - a. Standard 1 – The standard is met.
 - b. Standard 2 – The standard is met.
 - c. Standard 3 – The Soil Test Data on Sheet 4 of 6 on the site plans indicates **the necessary 2' separation to groundwater** for Infiltration Basin 1; however, the Applicant should provide documentation on the groundwater elevation in the area of Infiltration Basin 2, or the Board should consider test pits in this area prior to construction as a condition of approval. The Applicant should provide a mounding analysis for Infiltration Basin 1 and for Infiltration Basin 2 if the separation to groundwater is less than four (4) feet and the recharge system is proposed to attenuate the peak discharge from a 10-year or higher 24-hour storm.
 - d. Standard 4 – According to the Stormwater Handbook, an Infiltration Basin provides 80% TSS removal with adequate pretreatment. The 80% removal rate includes the TSS removal of an adequate pretreatment system, which would be the sediment forebay in this design. The TSS removal calculations provided indicate a separate removal rate for the sediment forebay, however **the removal in the sediment forebay is already "counted" in the 80% TSS removal provided in the infiltration basin.** The current TSS removal **spreadsheet "double-counts" the TSS removal of the sediment forebay.** The Applicant should revise the TSS removal documentation to indicate a total TSS removal of 80%. The Applicant should also revise the water quality volume calculations to reflect a 0.5-inch depth.
 - e. Standard 5 – The Applicant should confirm the site is not a LUHPPL.

- f. Standard 6 – The Applicant should confirm the site is not within critical areas as identified in the Massachusetts Stormwater Handbook and Stormwater Standards.
 - g. Standard 7 – The project is not considered a redevelopment, therefore the standard does not apply.
 - h. Standard 8 – The Applicant has indicated in the Checklist for Stormwater Report that a Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan has been included in the Stormwater Report. This documentation was not included – the Applicant should revise the Report to include this information as outlined in Standard 8.
 - i. Standard 9 – The Applicant should provide an estimated operation and maintenance budget.
 - j. Standard 10 – The Applicant has indicated in the Checklist for Stormwater Report that an illicit discharge compliance statement is attached. This documentation was not included – the Applicant should revise the Report to include this information as outlined in Standard 10.
5. **The following comments pertain to the project’s conformance with general engineering practice:**
- a. The Applicant should provide drainage area maps so the existing and proposed drainage areas and time of concentration flow paths can be reviewed.
 - b. The Applicant should cite the source of precipitation data used.
 - c. The total areas in the existing and proposed hydrologic analyses do not match. The Applicant should revise the hydrologic analysis so the same area is considered under existing and proposed conditions.
 - d. The test pit data on Sheet 4 of 6 of the site plans indicated the presence of sandy loam in the C1 layer of each test pit. According to Volume 3 of the Massachusetts Stormwater Handbook and Stormwater Standards, Table 2.3.3., Sandy Loam is consistent with the qualities of HSG B. The infiltration rates used for each basin in HydroCAD are consistent with this HSG B characterization. The hydrologic soil groups used for the curve numbers in the HydroCAD analysis are HSG A and HSG C, and the required recharge volume calculations use HSG C. The Applicant should provide additional information and justification for this discrepancy. The Applicant should also provide any additional soil mapping data, beyond the data presented from the test pits, that was used in the analysis.
 - e. The HydroCAD analysis for **Infiltration Basin 1 lists a 4” vertical orifice/grate outlet** which is not identified on the plans or described in narrative. The Applicant should clarify the location and intent of this outlet.
 - f. The Applicant should confirm there will be adequate cover over the roof drain pipes to prevent pipe damage.

We trust this information will be satisfactory for the Board in your review of the Rooter-Man Site Plan Review and LID Permit Applications. Please do not hesitate to contact me should you have any questions or need additional information at 413.572.3238 or jechristy@tighebond.com.

Very truly yours,

TIGHE & BOND, INC.

A handwritten signature in black ink that reads "Jean E. Christy". The signature is written in a cursive, flowing style.

Jean E. Christy, PE
Senior Engineer

J:\W\W1157 Winchendon\084 - Rooterman Planning Peer Review\Correspondence\Rooter-Man Planning Board Peer Review Letter 1.Docx

From: Dave Walsh
Sent: Monday, March 22, 2021 12:11 PM
To: Stephen Delaney
Cc: Brian Croteau; Tracy Murphy; Alison Manugian
Subject: Safety Concern Rt. 140

Steve,

Regarding the safety concern on Rt. 140 that was brought to my attention by Selectwoman Amy Salter and others. The problem with vehicles turning into the Lock'd Up Storage area when traveling north was not anticipated during the permitting process. Subsequently, there were no recommendations made to address the issue. This problem is compounded by the fact that the lanes of travel were narrowed and rumble strips were installed by the state three years ago to reduce speeds. This measure by the state has been successful in reducing serious accidents involving lane crossings but does not allow for vehicles to maneuver around other turning vehicles without crossing the fog lines or center lines.

After much review and numerous conversations with D.P.W. Superintendent Brian Croteau, Planning Director Tracy Murphy and Conservation and Planning Agent Alison Manugian. I would make the following suggestions that I believe will be the most successful under the present circumstances.

- Relocate the fog line on the north bound travel lane toward the edge of the road in the area of Lock'd Up Storage and Winchendon Self Storage to allow vehicles to safely turn into the businesses and allow other vehicles to maneuver around the turning vehicles.
- Reduce the speed in the area to 45MPH. It is presently 50MPH but reduces to 35MPH as you approach the intersection of Rt. 12
- Install signage adjacent to the north bound lane in the area north of Old Gardner Rd. indicating "trucks turning" or "trucks entering" as well as "reduced speed 45mph ahead."

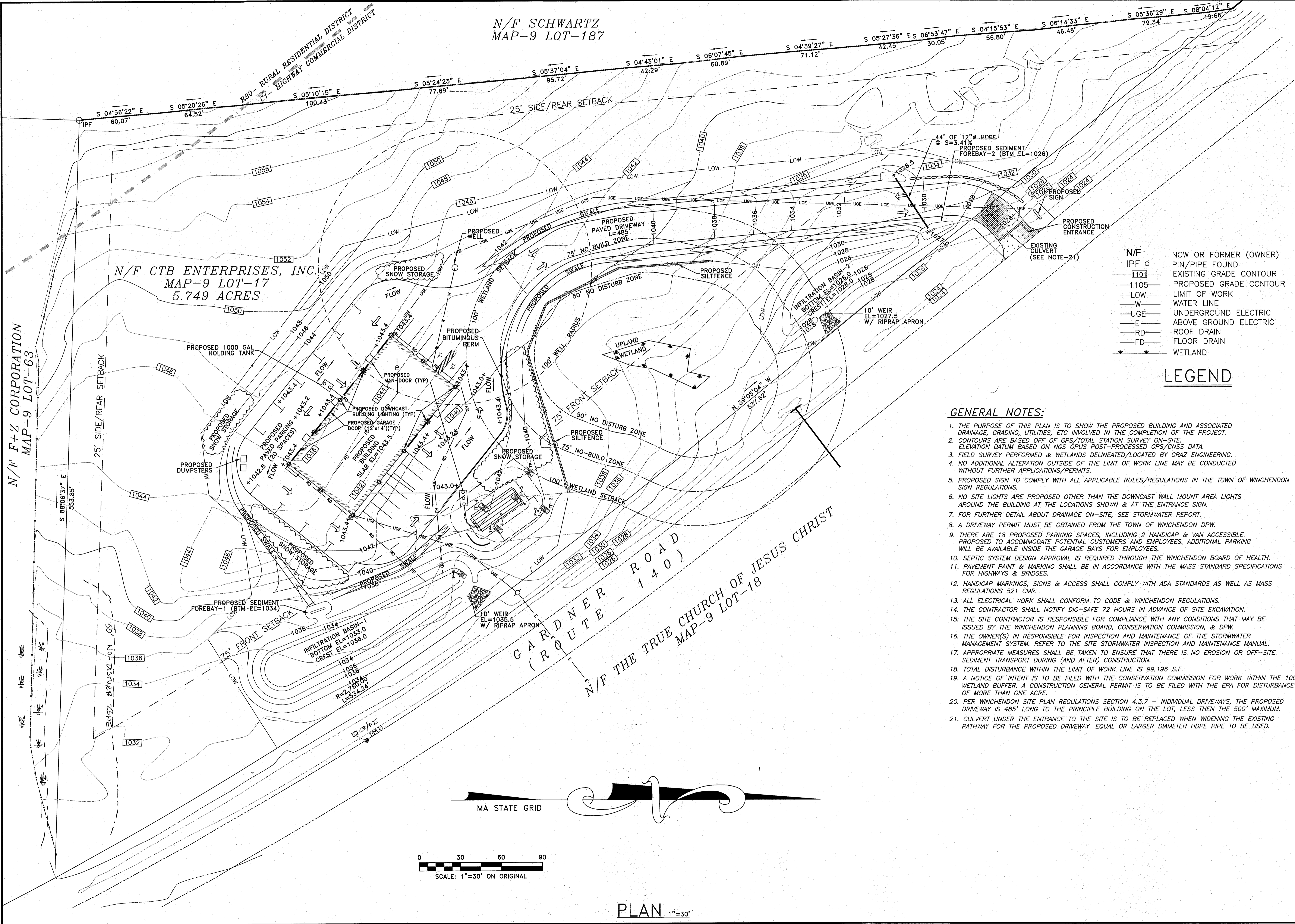
Also, I will be recommending to the planning board that the issue with turning vehicles be considered when additional permits are requested for future business along Rt. 140.

David P. Walsh
Chief of Police
Winchendon Police Department
80 Central Street
Winchendon, Ma. 01475
Direct 978-297-5406
Fax 978-297-4945

N/F SCHWARTZ
MAP-9 LOT-187

N/F CTB ENTERPRISES, INC.
MAP-9 LOT-17
5.749 ACRES

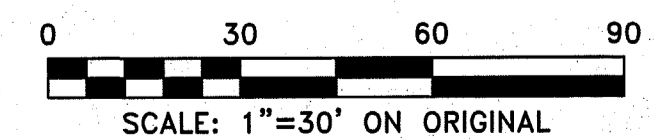
N/F F+Z CORPORATION
MAP-9 LOT-63



LEGEND

N/F	NOW OR FORMER (OWNER)
IPF	PIN/PIPE FOUND
101	EXISTING GRADE CONTOUR
1105	PROPOSED GRADE CONTOUR
LOW	LIMIT OF WORK
W	WATER LINE
UGE	UNDERGROUND ELECTRIC
E	ABOVE GROUND ELECTRIC
RD	ROOF DRAIN
FD	FLOOR DRAIN
Wetland Symbol	WETLAND

- GENERAL NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED BUILDING AND ASSOCIATED DRAINAGE, GRADING, UTILITIES, ETC INVOLVED IN THE COMPLETION OF THE PROJECT.
 2. CONTOURS ARE BASED OFF OF GPS TOTAL STATION SURVEY ON-SITE. ELEVATION DATUM BASED ON NGS OPUS POST-PROCESSED GPS/ONSET DATA.
 3. FIELD SURVEY PERFORMED & WETLANDS DELINEATED/LOCATED BY GRAZ ENGINEERING.
 4. NO ADDITIONAL ALTERATION OUTSIDE OF THE LIMIT OF WORK LINE MAY BE CONDUCTED WITHOUT FURTHER APPLICATIONS/PERMITS.
 5. PROPOSED SIGN TO COMPLY WITH ALL APPLICABLE RULES/REGULATIONS IN THE TOWN OF WINCHENDON SIGN REGULATIONS.
 6. NO SITE LIGHTS ARE PROPOSED OTHER THAN THE DOWNCAST WALL MOUNT AREA LIGHTS AROUND THE BUILDING AT THE LOCATIONS SHOWN & AT THE ENTRANCE SIGN.
 7. FOR FURTHER DETAIL ABOUT DRAINAGE ON-SITE, SEE STORMWATER REPORT.
 8. A DRIVEWAY PERMIT MUST BE OBTAINED FROM THE TOWN OF WINCHENDON DPW.
 9. THERE ARE 18 PROPOSED PARKING SPACES, INCLUDING 2 HANDICAP & VAN ACCESSIBLE PROPOSED TO ACCOMMODATE POTENTIAL CUSTOMERS AND EMPLOYEES. ADDITIONAL PARKING WILL BE AVAILABLE INSIDE THE GARAGE BAYS FOR EMPLOYEES.
 10. SEPTIC SYSTEM DESIGN APPROVAL IS REQUIRED THROUGH THE WINCHENDON BOARD OF HEALTH.
 11. PAVEMENT PAINT & MARKING SHALL BE IN ACCORDANCE WITH THE MASS STANDARD SPECIFICATIONS FOR HIGHWAYS & BRIDGES.
 12. HANDICAP MARKINGS, SIGNS & ACCESS SHALL COMPLY WITH ADA STANDARDS AS WELL AS MASS REGULATIONS 521 CMR.
 13. ALL ELECTRICAL WORK SHALL CONFORM TO CODE & WINCHENDON REGULATIONS.
 14. THE CONTRACTOR SHALL NOTIFY DIG-SAFE 72 HOURS IN ADVANCE OF SITE EXCAVATION.
 15. THE SITE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ANY CONDITIONS THAT MAY BE ISSUED BY THE WINCHENDON PLANNING BOARD, CONSERVATION COMMISSION, & DPW.
 16. THE OWNER(S) IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM. REFER TO THE SITE STORMWATER INSPECTION AND MAINTENANCE MANUAL.
 17. APPROPRIATE MEASURES SHALL BE TAKEN TO ENSURE THAT THERE IS NO EROSION OR OFF-SITE SEDIMENT TRANSPORT DURING (AND AFTER) CONSTRUCTION.
 18. TOTAL DISTURBANCE WITHIN THE LIMIT OF WORK LINE IS 99,196 S.F.
 19. A NOTICE OF INTENT IS TO BE FILED WITH THE CONSERVATION COMMISSION FOR WORK WITHIN THE 100' WETLAND BUFFER. A CONSTRUCTION GENERAL PERMIT IS TO BE FILED WITH THE EPA FOR DISTURBANCE OF MORE THAN ONE ACRE.
 20. PER WINCHENDON SITE PLAN REGULATIONS SECTION 4.3.7 - INDIVIDUAL DRIVEWAYS, THE PROPOSED DRIVEWAY IS 485' LONG TO THE PRINCIPLE BUILDING ON THE LOT, LESS THEN THE 500' MAXIMUM.
 21. CULVERT UNDER THE ENTRANCE TO THE SITE IS TO BE REPLACED WHEN WIDENING THE EXISTING PATHWAY FOR THE PROPOSED DRIVEWAY. EQUAL OR LARGER DIAMETER HDPE PIPE TO BE USED.



PLAN 1"=30'

GRAZ Engineering, LLC
323 WEST LAKE ROAD, FITZ WILLIAM, NH 03447
TEL: (603) 686-9869 WWW.GRAZENGINEERING.COM

ROOTER-MAN: SITE PLAN
PROPOSED GENERAL SITE PLAN
PREPARED FOR: CTB ENTERPRISES, INC.

SCALE AS-NOTED
DRAWN BY T. FLETCHER
DATE DECEMBER 2, 2020
REVISED N/A

DRAWING SET
SHEET 3 OF 6

Site Design Impact Report

Applicant's Name: CTB Enterprises Inc.

Location of Project: Gardner Road; Winchendon, MA (Map-9 Lot-17)

Description of Project: Construction of a Contractor Garage w/ Office Space & Rental Bays

Prepared By: GRAZ Engineering, LLC

Date: March 3, 2021

1. Existing Conditions:

- a) The project is located on the west side of Rt. 140 in Winchendon, MA about a quarter mile south of the intersection of Rt. 140 and Rt. 12 (Map-9 Parcels-17)
- b) There are no existing buildings or infrastructure on the site.
- c) The soil is mostly a loamy sand with several stones and cobbles. For more information about the soil characteristics of the site, see on-site soil evaluations in appendix A.
- d) There are no registered endangered species on the site.

2. Proposed Development

- a) The permits required for the subdivision are as follows:
 - Site Plan Approval
 - Wetlands Order of Conditions
 - Building Permit
 - EPA NOI Construction General Permit

b)

<u>Category</u>	<u>Acreage:</u>	<u>Percentage:</u>
Site Area:	5.749	0.47%
Wetland and other resource areas on site:	0.027	12.68%
Area dedicated to residential lots:	0	0.00%
Area dedicated to commercial or industrial lots:	5.749	100.00%
Area dedicated to streets:	0	0.00%
Area dedicated to drainage and other utilities:	0.831	14.45%
Proposed Impervious Areas:	0.855	14.87%
Total area of disturbance:	2.258	39.28%
Area reserved for recreation, parks, or other open land:	0	0.00%

3. Transportation

- a) There has been a traffic study conducted in the area of proposed construction in which there is a daily traffic count of 10,915. This consists of 5,422 cars northbound and 5,493 cars southbound. The additional traffic will be minimal due to the nature of the project. There will be 6 technicians and 2 office staff employees working on-site for the Rooter-Man half of the building. The technicians will be coming to the shop to pick up the vans and supplies each morning, and usually return before the end of the night. Office employees do not leave the site during the day. If each of the six technicians drive to the site, get a van, return the van, and leave for the day, they would generate a total of 24 trips per day. If the two office personnel come in and leave for the day, that would also add 4 trips. The other half of the building consists of three rental bays with a projected 4 employees per rental bay, along with 5 additional office personnel. Assuming the rental bay employees generate 4 trips a day

each, and the office personnel generate 2 trips a day, the rental bays account for an additional 58 trips per day. Therefore, we estimate that the daily increase of traffic flow would be 82 trips per day. This would increase the daily traffic count by 0.76% through this area. Sight distance will not be a safety issue due to the site having a sight distance of at least 700 feet in either direction. This exceeds the recommended sight distance of 475 feet for the 50mph speed limit. There is also a positive slope heading southerly on Route-140 past the proposed development which would decrease the required sight distance. The posted speed limit is 30 MPH at the driveway entrance location. The vans are not very heavy trucks, therefore accelerating onto Route-140 will not be an issue.

- b) The proposed driveway will have a pavement width of 24', having drainage swales on both sides of the driveway. Maximum grade will be roughly 7% at the steepest point. The paved driveway length will be 485' from Route-140 to the building.

4. Construction

- a) Phase one of the construction will consist of clearing the land, drainage basin construction, rough driveway construction & building site preparation, which will occur in the spring of 2021.

Phase two will consist of the construction of the steel building, installation of septic system & other utilities, which will occur in early summer 2021.

Phase three will consist of finalizing drainage features, paving the parking area & driveway, and finish grading out the rest of site. This will occur in late summer 2021 to fall 2021.

- b) The costs of construction during phase one is an estimated \$300,000. Phase two will cost an additional \$150,000.
- c) Most of the site will be in a cut, therefore no fill for grading will need to be brought to the site. Any material that will be brought (septic sand, gravel for driveway) will be brought to the site Monday-Friday between the hours of 9 A.M. – 4 P.M. Fill will come from W.J. Graves Construction in Templeton, MA. Any material needing to be removed from the site will be done so in the same hours, but it is likely that any remaining material can be dispersed throughout the site.
- d) The erosion control to be used during construction is silt fence. During the entire construction timeline, the amount to be cleared is 2.258 acres. The site contractor holds the responsibility to inspect any erosion control measures daily and make any repairs if necessary.
- e) There are several permanent erosion control measures that will be taken on the site. The stormwater system consists of swales directing polluted stormwater to sediment forebays and infiltration basins to be treated and mostly recharged into the ground.

Any overflow from the infiltration basins will be treated water running into the roadside ditch of Route-140, and ultimately to a culvert which runs under the road.

5. Public Utility

- a) The water usage will be roughly 300 gallons/day. This will be supplied by an on-site well.
- b) The sewage usage will be approximately 300 gallons/day. A septic system will be installed to service the building, sized sufficiently per Title V & local regulations.
- c) Water on the existing site drains to a manmade drainage swale alongside of Route-140. These swales direct flow to a culvert, which brings stormwater across the street. The proposed stormwater management system removes >80% TSS from the site runoff, infiltrates any excess runoff created from the increase of impervious area onsite, and maintains the existing drainage pattern of water flowing across the road.
- d) Solid waste will be stored on site in a dumpster and will be removed from site through Waste Management.

6. Conservation and Recreation

- a) There is a small isolated wetland in the middle of the lot. There will be some buffer zone work done around the wetland, however no work will be done within 50' of the wetland.
- b) The hillside drains runoff into the manmade swale alongside of Route-140, which is then directed through a culvert across the road.
- c) The subsurface conditions do not limit any part of the proposed project. Two percolation tests were performed and four deep holes were inspected on the lot for the septic system. The soil was good enough for both infiltrating stormwater and treating sewage. Further testing will be done to ensure both infiltrating basin locations contain the same or similar underlying soil.
- d) Water quality will not be affected on-site or downstream because all stormwater will be treated prior to entering any waterway.
- e) This lot is in a largely wooded area, therefore the removal of 2 acres of woods should not affect the wildlife, as there is an abundance of woodlands surrounding the property. There are no endangered species on the property.
- f) The proposed site is not reliant on the existing soils, nor will it affect the soils in any negative manner.
- g) There is no proposed recreational areas or open spaces.

7. Sustainable Energy Element

The proposed structure will not be generating any energy or any large quantities of greenhouse gasses. The consumption of energy will be limited to that of a large garage & small office space.

8. Aesthetics

- a) The proposed structure will be a steel building, the architectural drawings have been submitted along with the site plan application.
- b) Lighting will consist of downcast LED lighting wherever needed above garage doors, entrances, near parking areas, etc.
- c) Landscaping shall consist of loam and seed throughout the entire site.
- d) Leaving a strip of natural vegetation along the property, the site will be screened from Route-140, making the structure blend into the surroundings more.

9. Neighborhood and Community

- a) There will be no impact on schools in the vicinity, whereas no residential uses are created.
- b) There will be little to no impact on the ability of the police to protect the development. The proposed driveway meets all of the standards for emergency vehicles to reach the lot.
- c) The work that will be conducted on the premises is low-risk in terms of fire protection needs. Adequate resources for on-site firefighting will be installed/provided in the buildings (e.g. fire extinguishers). Lastly, the proposed driveway meets all of the standards for emergency vehicles to reach the lot.
- d) There are no adjacent lands in use, however various lots within the same area have been developed as commercial in nature. The proposed use is an allowable use by right per the Winchendon Zoning Bylaws.
- e) The project conforms with the master plan to construct a highway commercial zone along Gardner Road.

10. Social-Economic

- a) Not Applicable.
- b) Not Applicable.
- c) A construction crew of approximately 6 people will be working on-site during construction. During operation, approximately 12-18 people will be working on-site in

the early morning, and 3-5 will remain on-site throughout the day. The remaining employees will return to the site at the end of the work day.

11. Municipal Benefit/Cost

This project will be a benefit for the town. On top of all the permit fees to construct the structure, the property will have an increased property value, which will result in higher taxes to be paid with a negligible impact on town services, schools and infrastructure. The town will not be responsible for snow plowing, salting, sanding, pavement repairs, etc.

12. Hazardous Materials

The proposed project will not generate, store or dispose of any hazardous materials or waste .

GRAZ Engineering, LLC

WWW.GRAZENGINEERING.COM
323 West Lake Road • Fitzwilliam, NH 03447 • Telephone (603) 585-6959 • Fax (603) 585-6960

STORMWATER REPORT

Map-9 Lot-17 Gardner Road Winchendon, Massachusetts

January 26, 2021



PREPARED FOR:

CTB Enterprises, Inc.

236 Stowell Rd. Ashburnham, MA 01430



Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- New development
- Redevelopment
- Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- No disturbance to any Wetland Resource Areas
- Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- Reduced Impervious Area (Redevelopment Only)
- Minimizing disturbance to existing trees and shrubs
- LID Site Design Credit Requested:
 - Credit 1
 - Credit 2
 - Credit 3
- Use of "country drainage" versus curb and gutter conveyance and pipe
- Bioretention Cells (includes Rain Gardens)
- Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- Treebox Filter
- Water Quality Swale
- Grass Channel
- Green Roof
- Other (describe): _____

Standard 1: No New Untreated Discharges

- No new untreated discharges
- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- Soil Analysis provided.
- Required Recharge Volume calculation provided.
- Required Recharge volume reduced through use of the LID site Design Credits.
- Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - Static
 - Simple Dynamic
 - Dynamic Field¹
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - Site is comprised solely of C and D soils and/or bedrock at the land surface
 - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - Solid Waste Landfill pursuant to 310 CMR 19.000
 - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - is within the Zone II or Interim Wellhead Protection Area
 - is near or to other critical areas
 - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - involves runoff from land uses with higher potential pollutant loads.
 - The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- The BMP is sized (and calculations provided) based on:
 - The ½" or 1" Water Quality Volume or
 - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does **not** cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - Limited Project
 - Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - Bike Path and/or Foot Path
 - Redevelopment Project
 - Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

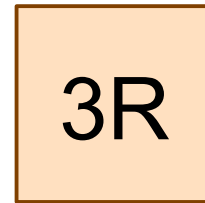
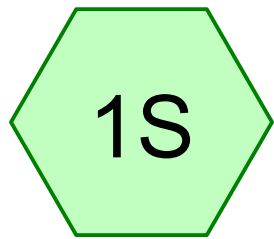
- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- The project is **not** covered by a NPDES Construction General Permit.
- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - Name of the stormwater management system owners;
 - Party responsible for operation and maintenance;
 - Schedule for implementation of routine and non-routine maintenance tasks;
 - Plan showing the location of all stormwater BMPs maintenance access areas;
 - Description and delineation of public safety features;
 - Estimated operation and maintenance budget; and
 - Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

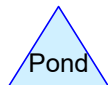
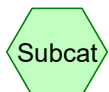
Standard 10: Prohibition of Illicit Discharges

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is attached;
- NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.



Existing Wooded Lot

Culvert



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Type III 24-hr 2-Year Rainfall=3.00"

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Page 2

Summary for Subcatchment 1S: Existing Wooded Lot

Runoff = 1.81 cfs @ 12.40 hrs, Volume= 0.261 af, Depth= 0.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
226,280	70	Woods, Good, HSG C
24,140	30	Woods, Good, HSG A
250,420	66	Weighted Average
250,420		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.6	947	0.0400	0.70		Lag/CN Method,

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Type III 24-hr 2-Year Rainfall=3.00"

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Page 3

Summary for Reach 3R: Culvert

Inflow Area = 5.749 ac, 0.00% Impervious, Inflow Depth = 0.54" for 2-Year event
Inflow = 1.81 cfs @ 12.40 hrs, Volume= 0.261 af
Outflow = 1.81 cfs @ 12.40 hrs, Volume= 0.261 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Subcatchment 1S: Existing Wooded Lot

Runoff = 5.61 cfs @ 12.35 hrs, Volume= 0.669 af, Depth= 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.50"

Area (sf)	CN	Description
226,280	70	Woods, Good, HSG C
24,140	30	Woods, Good, HSG A
250,420	66	Weighted Average
250,420		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.6	947	0.0400	0.70		Lag/CN Method,

Summary for Reach 3R: Culvert

Inflow Area = 5.749 ac, 0.00% Impervious, Inflow Depth = 1.40" for 10-Year event
Inflow = 5.61 cfs @ 12.35 hrs, Volume= 0.669 af
Outflow = 5.61 cfs @ 12.35 hrs, Volume= 0.669 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 100-Year Rainfall=6.83"

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Summary for Subcatchment 1S: Existing Wooded Lot

Runoff = 13.08 cfs @ 12.32 hrs, Volume= 1.471 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=6.83"

Area (sf)	CN	Description
226,280	70	Woods, Good, HSG C
24,140	30	Woods, Good, HSG A
250,420	66	Weighted Average
250,420		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.6	947	0.0400	0.70		Lag/CN Method,

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Type III 24-hr 100-Year Rainfall=6.83"

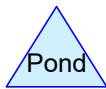
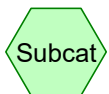
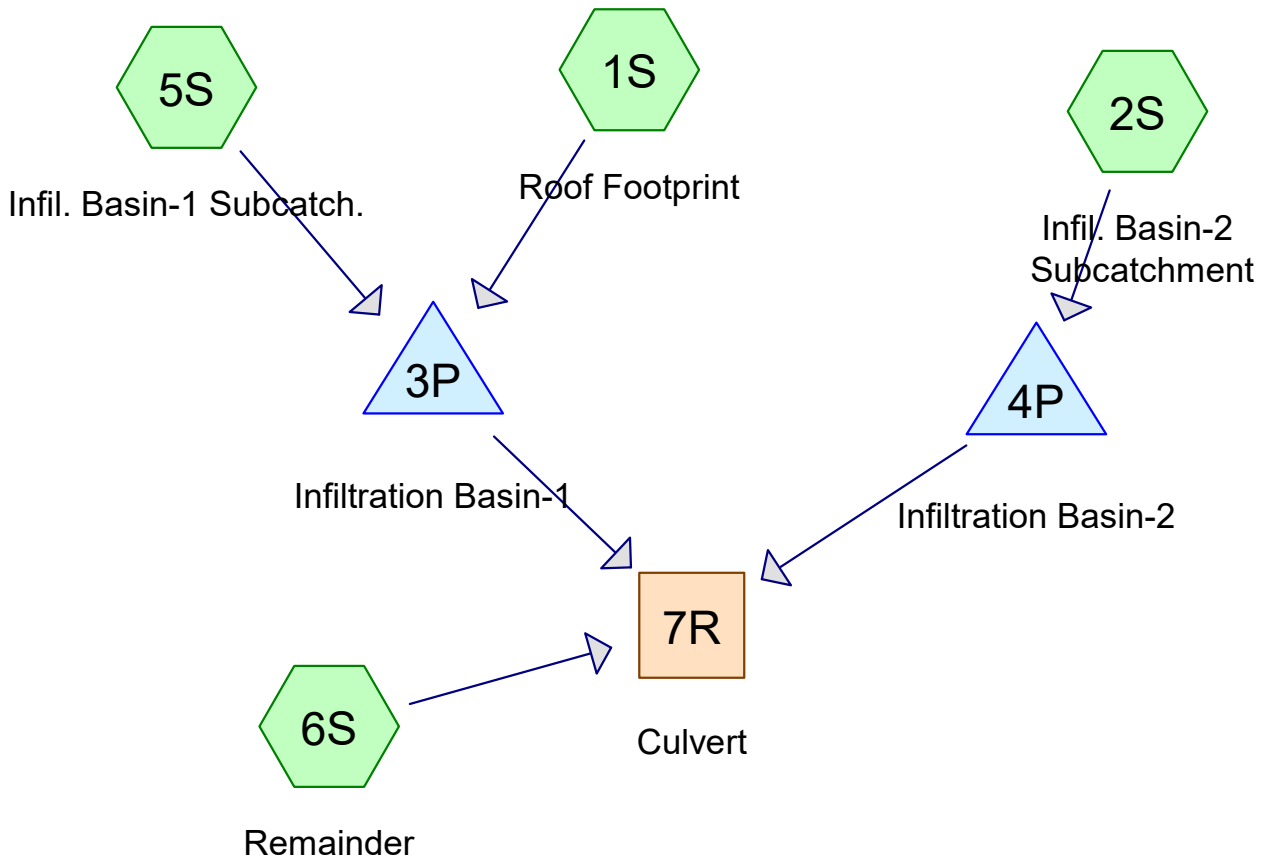
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Summary for Reach 3R: Culvert

Inflow Area = 5.749 ac, 0.00% Impervious, Inflow Depth = 3.07" for 100-Year event
Inflow = 13.08 cfs @ 12.32 hrs, Volume= 1.471 af
Outflow = 13.08 cfs @ 12.32 hrs, Volume= 1.471 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs



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Type III 24-hr 2-Year Rainfall=3.00"

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Time span=1.00-30.00 hrs, dt=0.05 hrs, 581 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Roof Footprint Runoff Area=7,200 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.47 cfs 0.038 af

Subcatchment 2S: Infil. Basin-2 Runoff Area=84,423 sf 19.00% Impervious Runoff Depth=1.02"
Flow Length=564' Slope=0.0567 '/' Tc=9.5 min CN=76 Runoff=1.93 cfs 0.164 af

Subcatchment 5S: Infil. Basin-1 Subcatch. Runoff Area=44,767 sf 31.33% Impervious Runoff Depth=0.96"
Flow Length=402' Slope=0.0547 '/' Tc=7.6 min CN=75 Runoff=1.02 cfs 0.082 af

Subcatchment 6S: Remainder Runoff Area=114,052 sf 0.00% Impervious Runoff Depth=0.47"
Flow Length=947' Slope=0.0400 '/' Tc=23.8 min CN=64 Runoff=0.65 cfs 0.102 af

Reach 7R: Culvert Inflow=1.06 cfs 0.124 af
Outflow=1.06 cfs 0.124 af

Pond 3P: Infiltration Basin-1 Peak Elev=1,033.58' Storage=1,853 cf Inflow=1.47 cfs 0.120 af
Discarded=0.21 cfs 0.119 af Primary=0.02 cfs 0.001 af Outflow=0.23 cfs 0.120 af

Pond 4P: Infiltration Basin-2 Peak Elev=1,027.57' Storage=2,636 cf Inflow=1.93 cfs 0.164 af
Discarded=0.16 cfs 0.143 af Primary=0.45 cfs 0.021 af Outflow=0.61 cfs 0.164 af

Total Runoff Area = 5.749 ac Runoff Volume = 0.387 af Average Runoff Depth = 0.81"
85.12% Pervious = 4.894 ac 14.88% Impervious = 0.855 ac

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Subcatchment 1S: Roof Footprint

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.50"

Area (sf)	CN	Description
7,200	98	Roofs, HSG C
7,200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 Minute Minimum

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Subcatchment 2S: Infil. Basin-2 Subcatchment

Runoff = 4.21 cfs @ 12.14 hrs, Volume= 0.344 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.50"

Area (sf)	CN	Description
20,000	74	>75% Grass cover, Good, HSG C
16,037	98	Paved parking, HSG C
48,386	70	Woods, Good, HSG C
84,423	76	Weighted Average
68,386		81.00% Pervious Area
16,037		19.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	564	0.0567	0.99		Lag/CN Method,

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Subcatchment 5S: Infil. Basin-1 Subcatch.

Runoff = 2.29 cfs @ 12.11 hrs, Volume= 0.176 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.50"

Area (sf)	CN	Description
14,026	98	Paved parking, HSG C
10,078	70	Woods, Good, HSG C
13,962	74	>75% Grass cover, Good, HSG C
6,701	39	>75% Grass cover, Good, HSG A
44,767	75	Weighted Average
30,741		68.67% Pervious Area
14,026		31.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	402	0.0547	0.88		Lag/CN Method,

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Subcatchment 6S: Remainder

Runoff = 2.22 cfs @ 12.37 hrs, Volume= 0.276 af, Depth= 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.50"

Area (sf)	CN	Description
96,613	70	Woods, Good, HSG C
17,439	30	Woods, Good, HSG A
114,052	64	Weighted Average
114,052		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.8	947	0.0400	0.66		Lag/CN Method,

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Reach 7R: Culvert

Inflow Area = 5.749 ac, 14.88% Impervious, Inflow Depth = 1.00" for 10-Year event
Inflow = 5.48 cfs @ 12.22 hrs, Volume= 0.481 af
Outflow = 5.48 cfs @ 12.22 hrs, Volume= 0.481 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Pond 3P: Infiltration Basin-1

Inflow Area = 1.193 ac, 40.85% Impervious, Inflow Depth > 2.36" for 10-Year event
 Inflow = 2.98 cfs @ 12.11 hrs, Volume= 0.234 af
 Outflow = 0.61 cfs @ 12.57 hrs, Volume= 0.234 af, Atten= 79%, Lag= 28.1 min
 Discarded = 0.34 cfs @ 12.57 hrs, Volume= 0.190 af
 Primary = 0.27 cfs @ 12.57 hrs, Volume= 0.044 af

Routing by Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,034.09' @ 12.57 hrs Surf.Area= 4,010 sf Storage= 3,733 cf

Plug-Flow detention time= 98.1 min calculated for 0.234 af (100% of inflow)
 Center-of-Mass det. time= 97.9 min (916.4 - 818.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,033.00'	13,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,033.00	2,868	0	0
1,034.00	3,913	3,391	3,391
1,036.00	6,145	10,058	13,449

Device	Routing	Invert	Outlet Devices
#1	Discarded	1,033.00'	1.020 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 1,032.67'
#2	Primary	1,035.50'	6.0' long (Profile 1) Broad-Crested Rectangular Weir Head (feet) 0.49 0.98 1.48 Coef. (English) 2.92 3.37 3.59
#3	Primary	1,033.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.34 cfs @ 12.57 hrs HW=1,034.09' (Free Discharge)
 ↑1=Exfiltration (Controls 0.34 cfs)

Primary OutFlow Max=0.27 cfs @ 12.57 hrs HW=1,034.09' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
 ↑3=Orifice/Grate (Orifice Controls 0.27 cfs @ 3.12 fps)

Rooterman - Post

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Pre Development
Type III 24-hr 10-Year Rainfall=4.50"

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Summary for Pond 4P: Infiltration Basin-2

Inflow Area = 1.938 ac, 19.00% Impervious, Inflow Depth = 2.13" for 10-Year event
 Inflow = 4.21 cfs @ 12.14 hrs, Volume= 0.344 af
 Outflow = 3.82 cfs @ 12.20 hrs, Volume= 0.342 af, Atten= 9%, Lag= 3.7 min
 Discarded = 0.18 cfs @ 12.20 hrs, Volume= 0.181 af
 Primary = 3.64 cfs @ 12.20 hrs, Volume= 0.160 af

Routing by Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,027.79' @ 12.20 hrs Surf.Area= 2,405 sf Storage= 3,144 cf

Plug-Flow detention time= 125.8 min calculated for 0.342 af (99% of inflow)
 Center-of-Mass det. time= 121.7 min (962.3 - 840.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,026.00'	3,666 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,026.00	1,108	0	0
1,028.00	2,558	3,666	3,666

Device	Routing	Invert	Outlet Devices
#1	Primary	1,027.50'	8.0' long (Profile 1) Broad-Crested Rectangular Weir Head (feet) 0.49 0.98 1.48 Coef. (English) 2.92 3.37 3.59
#2	Discarded	1,026.00'	1.020 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 1,025.50'

Discarded OutFlow Max=0.18 cfs @ 12.20 hrs HW=1,027.79' (Free Discharge)
 ↑**2=Exfiltration** (Controls 0.18 cfs)

Primary OutFlow Max=3.62 cfs @ 12.20 hrs HW=1,027.79' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir** (Weir Controls 3.62 cfs @ 1.57 fps)

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Pre Development
Type III 24-hr 100-Year Rainfall=6.83"

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Time span=1.00-30.00 hrs, dt=0.05 hrs, 581 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Roof Footprint Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>6.59"
Tc=6.0 min CN=98 Runoff=1.08 cfs 0.091 af

Subcatchment 2S: Infil. Basin-2 Runoff Area=84,423 sf 19.00% Impervious Runoff Depth=4.11"
Flow Length=564' Slope=0.0567 '/' Tc=9.5 min CN=76 Runoff=8.15 cfs 0.663 af

Subcatchment 5S: Infil. Basin-1 Subcatch. Runoff Area=44,767 sf 31.33% Impervious Runoff Depth=4.00"
Flow Length=402' Slope=0.0547 '/' Tc=7.6 min CN=75 Runoff=4.50 cfs 0.343 af

Subcatchment 6S: Remainder Runoff Area=114,052 sf 0.00% Impervious Runoff Depth=2.87"
Flow Length=947' Slope=0.0400 '/' Tc=23.8 min CN=64 Runoff=5.41 cfs 0.627 af

Reach 7R: Culvert Inflow=11.95 cfs 1.192 af
Outflow=11.95 cfs 1.192 af

Pond 3P: Infiltration Basin-1 Peak Elev=1,034.93' Storage=7,494 cf Inflow=5.56 cfs 0.433 af
Discarded=0.57 cfs 0.304 af Primary=0.47 cfs 0.130 af Outflow=1.04 cfs 0.433 af

Pond 4P: Infiltration Basin-2 Peak Elev=1,027.98' Storage=3,607 cf Inflow=8.15 cfs 0.663 af
Discarded=0.20 cfs 0.220 af Primary=7.69 cfs 0.436 af Outflow=7.88 cfs 0.655 af

Total Runoff Area = 5.749 ac Runoff Volume = 1.723 af Average Runoff Depth = 3.60"
85.12% Pervious = 4.894 ac 14.88% Impervious = 0.855 ac

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Type III 24-hr 100-Year Rainfall=6.83"

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Summary for Pond 3P: Infiltration Basin-1

Inflow Area = 1.193 ac, 40.85% Impervious, Inflow Depth > 4.36" for 100-Year event
 Inflow = 5.56 cfs @ 12.11 hrs, Volume= 0.433 af
 Outflow = 1.04 cfs @ 12.59 hrs, Volume= 0.433 af, Atten= 81%, Lag= 28.8 min
 Discarded = 0.57 cfs @ 12.59 hrs, Volume= 0.304 af
 Primary = 0.47 cfs @ 12.59 hrs, Volume= 0.130 af

Routing by Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,034.93' @ 12.59 hrs Surf.Area= 4,947 sf Storage= 7,494 cf

Plug-Flow detention time= 106.3 min calculated for 0.433 af (100% of inflow)
 Center-of-Mass det. time= 106.3 min (912.0 - 805.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,033.00'	13,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,033.00	2,868	0	0
1,034.00	3,913	3,391	3,391
1,036.00	6,145	10,058	13,449

Device	Routing	Invert	Outlet Devices
#1	Discarded	1,033.00'	1.020 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 1,032.67'
#2	Primary	1,035.50'	6.0' long (Profile 1) Broad-Crested Rectangular Weir Head (feet) 0.49 0.98 1.48 Coef. (English) 2.92 3.37 3.59
#3	Primary	1,033.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.57 cfs @ 12.59 hrs HW=1,034.93' (Free Discharge)

↑ **1=Exfiltration** (Controls 0.57 cfs)

Primary OutFlow Max=0.47 cfs @ 12.59 hrs HW=1,034.93' (Free Discharge)

↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

↑ **3=Orifice/Grate** (Orifice Controls 0.47 cfs @ 5.40 fps)

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Pre Development
Type III 24-hr 100-Year Rainfall=6.83"

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Summary for Pond 4P: Infiltration Basin-2

Inflow Area = 1.938 ac, 19.00% Impervious, Inflow Depth = 4.11" for 100-Year event
 Inflow = 8.15 cfs @ 12.14 hrs, Volume= 0.663 af
 Outflow = 7.88 cfs @ 12.17 hrs, Volume= 0.655 af, Atten= 3%, Lag= 1.8 min
 Discarded = 0.20 cfs @ 12.17 hrs, Volume= 0.220 af
 Primary = 7.69 cfs @ 12.17 hrs, Volume= 0.436 af

Routing by Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,027.98' @ 12.17 hrs Surf.Area= 2,541 sf Storage= 3,607 cf

Plug-Flow detention time= 79.9 min calculated for 0.654 af (99% of inflow)
 Center-of-Mass det. time= 73.2 min (894.9 - 821.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,026.00'	3,666 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,026.00	1,108	0	0
1,028.00	2,558	3,666	3,666

Device	Routing	Invert	Outlet Devices
#1	Primary	1,027.50'	8.0' long (Profile 1) Broad-Crested Rectangular Weir Head (feet) 0.49 0.98 1.48 Coef. (English) 2.92 3.37 3.59
#2	Discarded	1,026.00'	1.020 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 1,025.50'

Discarded OutFlow Max=0.20 cfs @ 12.17 hrs HW=1,027.97' (Free Discharge)
 ↑**2=Exfiltration** (Controls 0.20 cfs)

Primary OutFlow Max=7.52 cfs @ 12.17 hrs HW=1,027.97' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir** (Weir Controls 7.52 cfs @ 2.00 fps)

Site Recharge to Groundwater

"Static Method"

Soil type: C
 Impervious Area (A1): 21,229 s.f.

Rawls Rate: 1.02 In./Hr.

Soil type: D
 Impervious Area (A2): 0 s.f.

Hydrologic Group	Target Depth Factor (F)	
A	0.60	inches
B	0.35	inches
C	0.25	inches
D	0.1	inches

Determine the required recharge volume:

$R_v = F \times \text{impervious area}$

Rv = Required Recharge Volume
 F = Target Depth Factor

$$R_v = \frac{F \text{ "HSGC" } \times A_1}{12 \text{ in. / ft.}} + \frac{F \text{ "HSGD" } \times A_2}{12 \text{ in. / ft.}} = \text{442 Cu.Ft.}$$

From Hydrocad determine the elevation that will hold back the required recharge volume:

Below is a excerpt from the stage storage table of Infiltration Pond 71P.
 Required Site Rv= 442 Cu.Ft., the minimum low level outlet required = 1033.30

Elevation (Ft.)	Surface Area (Sq.Ft.)	Cum. Storage (Cu. Ft.)	
1033	2868	0	← 1033.30 El. At Rv Min.
1033.5	3,391	1565	
1034	3,913	3,391	
1034.5	4,471	5,487	
1035	5,029	7,862	
1035.5	5,587	10,516	← 10516 Rv at LLO
1036	6,145	13,449	

The Low Level Outlet (LLO) has been designed at elevation: 1,035.50

Determine if the infiltration BMP will drain completely within 72 hours:

$$\text{Time drawdown} = \frac{R_v}{(K) (\text{Bottom Area})}$$

Rv = Storage Volume at Low Level Outlet (LLO) Elevation
 K = Saturated Hydraulic Conductivity (Rawls Rate)
 Bottom area = Bottom surface area not including sidewall

$$\text{Time drawdown} = \frac{10,516}{\frac{1.02}{12 \text{ in. / ft.}} * 2,868} = \text{43 hours}$$

Result is satisfactory for design purposes

43 hrs. < 72 hrs.

Site Recharge to Groundwater

"Static Method"

Soil type: C
 Impervious Area (A1): 16,040 s.f.

Rawls Rate: 1.02 In./Hr.

Soil type: D
 Impervious Area (A2): 0 s.f.

Hydrologic Group	Target Depth Factor (F)	
A	0.60	inches
B	0.35	inches
C	0.25	inches
D	0.1	inches

Determine the required recharge volume:

$R_v = F \times \text{impervious area}$

Rv = Required Recharge Volume
 F = Target Depth Factor

$$R_v = \frac{F \text{ "HSGC" } \times A_1}{12 \text{ in. / ft.}} + \frac{F \text{ "HSGD" } \times A_2}{12 \text{ in. / ft.}} = \boxed{334} \text{ Cu.Ft.}$$

From Hydrocad determine the elevation that will hold back the required recharge volume:

Below is a excerpt from the stage storage table of Infiltration Pond 1.

Required Site Rv= 334 Cu.Ft., the minimum low level outlet required = 1026.27

Elevation (Ft.)	Surface Area (Sq.Ft.)	Cum. Storage (Cu. Ft.)	
1026	1108	0	
1026.5	1,471	645	← 1026.27 El. At Rv Min.
1027	1,833	1,471	
1027.5	2,196	2,478	← 2478 Rv at LLO
1028	2,558	3,666	

The Low Level Outlet (LLO) has been designed at elevation: 1,027.50

Determine if the infiltration BMP will drain completely within 72 hours:

$$\text{Time drawdown} = \frac{R_v}{(K) (\text{Bottom Area})}$$

Rv = Storage Volume at Low Level Outlet (LLO) Elevation
 K = Saturated Hydraulic Conductivity (Rawls Rate)
 Bottom area = Bottom surface area not including sidewall

$$\text{Time drawdown} = \frac{2,478}{\frac{1.02}{12 \text{ in. / ft.}} * 1,108} = \boxed{26 \text{ hours}}$$

Result is satisfactory for design purposes

26 hrs. < 72 hrs.

INSTRUCTIONS:

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location: Gardner Road; Winchendon, MA (Map-9 Lot-17)

	B	C	D	E	F
	BMP ¹	TSS Removal Rate ¹	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
TSS Removal Calculation Worksheet	Sediment Forebay	0.25	1.00	0.25	0.75
	Infiltration Basin	0.80	0.75	0.60	0.15
		0.00	0.15	0.00	0.15
		0.00	0.15	0.00	0.15
		0.00	0.15	0.00	0.15

Total TSS Removal =

85%

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: Rooterman Site Plan
 Prepared By: Trevor Fletcher
 Date: 21-Jan-21

*Equals remaining load from previous BMP (E) which enters the BMP

Non-automated TSS Calculation Sheet must be used if Proprietary BMP Proposed
 1. From MassDEP Stormwater Handbook Vol. 1

Stormwater runoff volumes to be treated for water quality

- Sediment Forebay Design Criteria: 0.1-inch of runoff x total impervious area of post-development site

Sediment Forebay 1

Required Storage Volume:

Subcatchment	Impervious Area (SF)	Imp. Area x 0.1 in runoff (Cu.Ft.)
1S	21,228	
	21,228	177
		Required Storage

From Hydrocad determine the elevation that will hold back the required storage volume:

Below is a excerpt from the stage storage table of Sediment Forebay.

Based on a req. storage = 177 (cu.Ft) Min. Storage El. Req'd= 1035.90

Elevation (Ft.)	Surface Area (Sq.Ft.)	Cum Storage (Cu. Ft.)
1034	15	0
1034.5	56	18
1035	98	56
1035.5	139	115
1036	180	195

← 1035.90 El. At Req. Storage Volume

*No weir proposed - assumed at top of check dam

The Weir Elevation has been designed at elevation: 1,035.90

Supplied Storage Volume: 177 Cu.Ft.

Stormwater runoff volumes to be treated for water quality

- Sediment Forebay Design Criteria: 0.1-inch of runoff x total impervious area of post-development site

Sediment Forebay 2

Required Storage Volume:

Subcatchment	Impervious Area (SF)	Imp. Area x 0.1 in runoff (Cu.Ft.)
2S	16,040	
		134 Required Storage

From Hydrocad determine the elevation that will hold back the required storage:

Below is a excerpt from the stage storage table of Sediment Forebay.

134 Cu.Ft., the min. storage elevation required = 1027.68

Stage Storage Volumes

Elevation (Ft.)	Surface Area (Sq.Ft.)	Cum. Storage (Cu. Ft.)
1026	7	0
1026.5	50	14
1027	94	50
1027.5	137	108
1028	180	187
1028.1	309	211

1027.68 El. At Req. Storage

←

*No weir proposed - assume top of check dam

The Weir Elevation has been designed at elevation: 1,027.70

Supplied Storage Volume: 137 Cu.Ft.

STORMWATER OPERATION & MAINTENANCE MANUAL

CTB Enterprises- Rooterman Site

Map-9 Lot-17; Gardner Road; Winchendon, MA 01475

Owner: CTB Enterprises, Inc.

Owner Address: 236 Stowell Road; Ashburnham, MA 01430

Phone: 978-827-6060

This following manual outlines the inspection and maintenance requirements associated with stormwater management elements at the site. The owner, Chris Brennan, shall provide the required construction controls as well as the inspections, operations and long-term maintenance for the term of his ownership. Any successor in title to the property shall also be bound by the requirements as described herein and/or as specified by the Town of Winchendon Planning Board and/or the Conservation Commission.

The Owner/operator shall review and be responsible for any requirements contained in the Stormwater Pollution Prevention Plan (SWPPP), and compliant with NPDES General Permit Conditions.

The site stormwater practices are enumerated below. Inspection and maintenance sheets are provided for each location. Refer to the BMP ID Plan for the location of the site Stormwater Management System.

- A- Conveyance Swales**
- B- Sediment Forebay**
- C- Infiltration Basins**
- D- Outlet Protection**
- E- Culverts**
- F- Silt-Fencing**
- G- De-Icing Log**
- H- Invasive Species**

low velocities can act as sediment traps, add extra capacity to address sediment accumulation without reducing design capacity. Add an extra 0.3 to 0.5 feet of freeboard depth, if sediment accumulation is expected. Use side slopes of 3:1 or flatter to prevent side slope erosion. Make the longitudinal slope of the channel as flat as possible and not greater than 5%.

Install check dams in drainage channels when necessary to achieve velocities of 5 feet per second or less. See check dam section of this Handbook <<LINK>>. Do not use earthen check dams because they tend to erode on the downstream side, and it is difficult to establish and maintain grass on the dams. The maximum ponding time behind the check dam should not exceed 24 hours. Use outlet protection at discharge points from a drainage channel to prevent scour at the outlet.

The design for the drainage channel must include access for maintenance. When located along a highway, provide a breakdown lane with a width of 15 feet. When located along a street, off-street parking can be doubled up as the access, provided signs are posted indicating no parking is allowed during maintenance periods. When locating drainage channels adjacent to pervious surfaces, include a 15-foot wide grass strip to provide access for maintenance trucks.

Construction

Use temporary erosion and sediment controls during construction. Soil amendments, such as using aged compost that contains no biosolids, may be needed to encourage vegetation growth. Select a vegetation mix that suits the characteristics of the site. Seeding will require mulching with appropriate materials, such as mulch matting, straw, wood chips, other natural blankets, or synthetic blankets. Anchor blanket immediately after seeding. Provide new seedlings with adequate water until they are well established. Refer to the "Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials" <<LINK>> on sediment/erosion control for information regarding seeding, mulching, and use of blankets.

Maintenance

The maintenance and inspection schedule should take into consideration the effectiveness of the drainage channel. Inspect drainage channels the first few months after construction to make sure that there is no rilling or gullying, and that vegetation in the channels is adequate. Thereafter, inspect the channel twice a year for slope integrity, soil moisture, vegetative health, soil stability, soil compaction, soil erosion, ponding, and sediment accumulation.

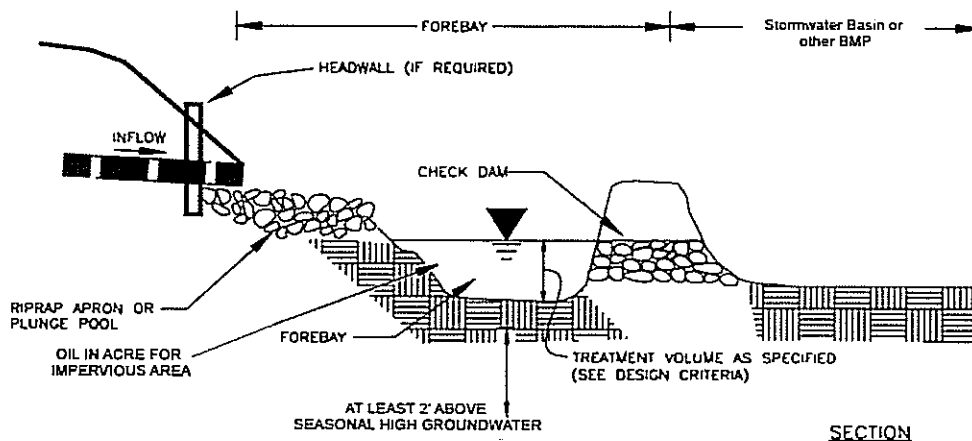
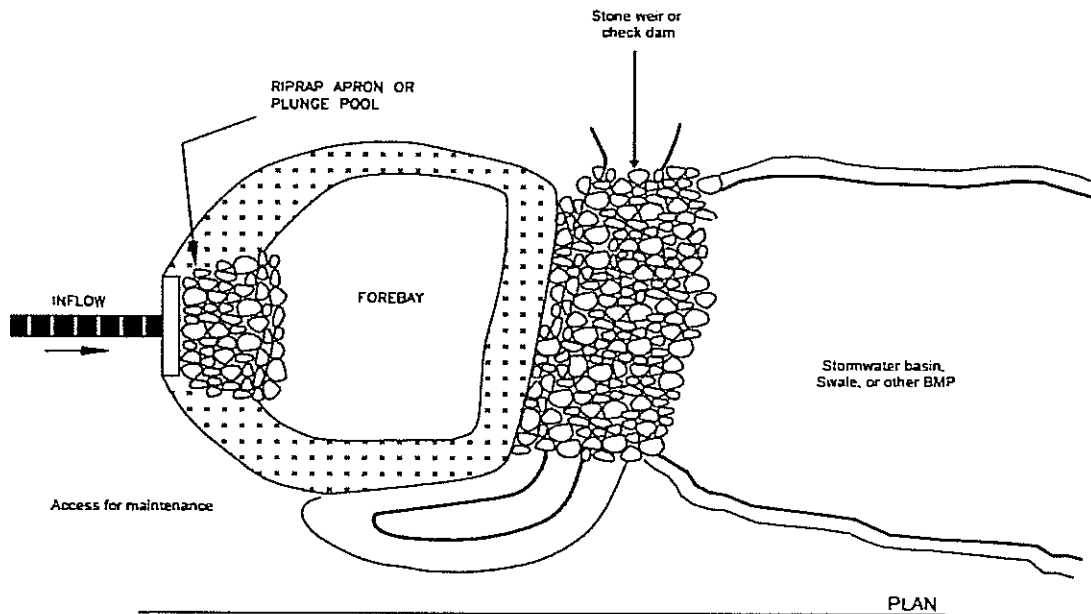
Regular maintenance tasks include mowing, fertilizing, liming, watering, pruning, weeding, and pest control. Mow channels at least once per year. Do not cut the grass shorter than three to four inches. Keep grass height under 6 inches to maintain the design depth necessary to serve as a conveyance. Do not mow excessively, because it may increase the design flow velocity.

Remove sediment and debris manually at least once per year. Re-seed periodically to maintain the dense growth of grass vegetation. Take care to protect drainage channels from snow removal procedures and off-street parking. When drainage channels are located on private residential property, the operation and maintenance plan must clearly specify the private property owner who is responsible for carrying out the required maintenance. If the operation and maintenance plan calls for maintenance of drainage channels on private properties to be performed by a public entity or an association (e.g. homeowners association), maintenance easements must be obtained.

Maintenance

Sediments and associated pollutants are removed only when sediment forebays are actually cleaned out, so regular maintenance is essential. Frequently removing accumulated sediments will make it less likely that sediments will be resuspended. At a minimum, inspect sediment forebays monthly and clean them out at least four times per year. Stabilize the floor and sidewalls of the sediment forebay before making it operational, otherwise the practice will discharge excess amounts of suspended

sediments. When mowing grasses, keep the grass height no greater than 6 inches. Set mower blades no lower than 3 to 4 inches. Check for signs of rilling and gulying and repair as needed. After removing the sediment, replace any vegetation damaged during the clean-out by either reseeding or re-sodding. When reseeding, incorporate practices such as hydroseeding with a tackifier, blanket, or similar practice to ensure that no scour occurs in the forebay, while the seeds germinate and develop roots.



CONSTRUCTION PERIOD SEDIMENT FOREBAYS SIZED 0.5" ACRE PER ENTIRE CONTRIBUTING DRAINAGE AREA

adapted from the Vermont Stormwater Handbook

the soils beneath the basin floor and side slopes and reduces infiltration capacity. Because some compaction of soils is inevitable during construction, add the required soil amendments and deeply till the basin floor with a rotary tiller or a disc harrow to a depth of 12 inches to restore infiltration rates after final grading.

Use proper erosion/sediment control during construction. Immediately following basin construction, stabilize the floor and side slopes of the basin with a dense turf of water-tolerant grass. Use low maintenance, rapidly germinating grasses, such as fescues. Do not sod the basin floor or side slopes. After the basin is completed, keep the basin roped or fenced off while construction proceeds on other parts of the site. Never direct construction period drainage to the infiltration basin. After construction is completed, do not direct runoff into the basin until the bottom and side slopes are fully stabilized.

Maintenance

Infiltration basins are prone to clogging and failure, so it is imperative to develop and implement aggressive maintenance plans and schedules. Installing the required pretreatment BMPs will significantly reduce maintenance requirements for the basin.

The Operation and Maintenance Plan required by Standard 9 must include inspections and preventive maintenance at least twice a year, and after every time drainage discharges through the high outlet orifice. The Plan must require inspecting the pretreatment BMPs in accordance with the minimal requirements specified for those practices and after every major storm event. A major storm event is defined as a storm that is equal to or greater than the 2-year, 24-hour storm (generally 2.9 to 3.6 inches in a 24-hour period, depending in geographic location in Massachusetts).

Once the basin is in use, inspect it after every major storm for the first few months to ensure it is stabilized and functioning properly and if necessary take corrective action. Note how long water remains standing in the basin after a storm; standing water within the basin 48 to 72 hours after a storm indicates that the infiltration capacity may have been overestimated. If the ponding is due to clogging, immediately address the reasons for the clogging (such as upland sediment erosion, excessive compaction of soils, or low spots).

Thereafter, inspect the infiltration basin at least twice per year. Important items to check during the inspection include:

- Signs of differential settlement,
- Cracking,
- Erosion,
- Leakage in the embankments
- Tree growth on the embankments
- Condition of riprap,
- Sediment accumulation and
- The health of the turf.

At least twice a year, mow the buffer area, side slopes, and basin bottom. Remove grass clippings and accumulated organic matter to prevent an impervious organic mat from forming. Remove trash and debris at the same time. Use deep tilling to break up clogged surfaces, and revegetate immediately.

Remove sediment from the basin as necessary, but wait until the floor of the basin is thoroughly dry. Use light equipment to remove the top layer so as to not compact the underlying soil. Deeply till the remaining soil, and revegetate as soon as possible. Inspect and clean pretreatment devices associated with basins at least twice a year, and ideally every other month.

References:

Center for Watershed Protection, http://www.stormwatercenter.net/Manual_Builder/Construction%20Specifications/Infiltration%20Trench%20Specifications.htm

Center for Watershed Protection, http://www.stormwatercenter.net/Manual_Builder/Performance%20Criteria/Infiltration.htm

Center for Watershed Protection, Stormwater Management Fact Sheet, Infiltration Basin, http://www.stormwatercenter.net/Assorted%20Fact%20Sheets/Tool6_Stormwater_Practices/Infiltration%20Practice/Infiltration%20Basin.htm

Ferguson, B.K., 1994. Stormwater Infiltration. CRC Press, Ann Arbor, MI.

or below the level of the adjacent grassed areas to ensure thorough drainage of these areas. When designing the channels, consider settlement of the lining and the adjacent areas, the potential for frost impacts on the lining and the potential for erosion or scour along the edges of the lining caused by bank-full velocities. Provide impervious linings with broken stone foundations and weep holes. Design the channel to maintain a low outflow discharge rate at the downstream end of the channel.

Use low-flow underdrains, connected to the principal outlet structure or other downstream discharge point, to promote thorough drying of the channel and the basin bottom. Consider the depth of the low flow channel when preparing the final bottom-grading plan.

Design dry detention basin side slopes to be no steeper than 3:1. Flatter slopes help to prevent erosion of the banks during larger storms, make routine bank maintenance tasks (such as mowing) easier, and allow access to the basin. Include a multi-stage outlet structure to provide an adequate level of water quality and flood control. To meet the water quantity control standards, use the required design storm runoff rates as outlet release rates.

Design the outlet to control the outflow rate without clogging. Locate the outlet structure in the embankment for maintenance, access, safety and aesthetics. Design the outlet to facilitate maintenance; the vital parts of the structures should be accessible during normal maintenance and emergency situations. Include a draw-down valve to allow the dry detention basin to completely drain within 24 hours. To prevent scour at the outlet, include a flow transition structure, such as a lined apron or plunge pad, to absorb the initial impact of the flow and reduce the velocity to a level that will not erode the receiving channel or area.

Design embankments and spillways in conformance with the state regulations for Dam Safety (302 CMR 10.00). All dry detention basins must have an emergency spillway capable of bypassing runoff from large storms without damaging the impounding structure. Provide an access for maintenance by public or private right-of-way, using a minimum width of 15 feet and a maximum slope of 5:1. This access should extend to the forebay, safety bench and outflow structure, and should never cross the emergency spillway, unless the spillway has been designed for that purpose. Use vegetative buffers

around the perimeter of the basin for erosion control and additional sediment and nutrient removal.

Maintenance

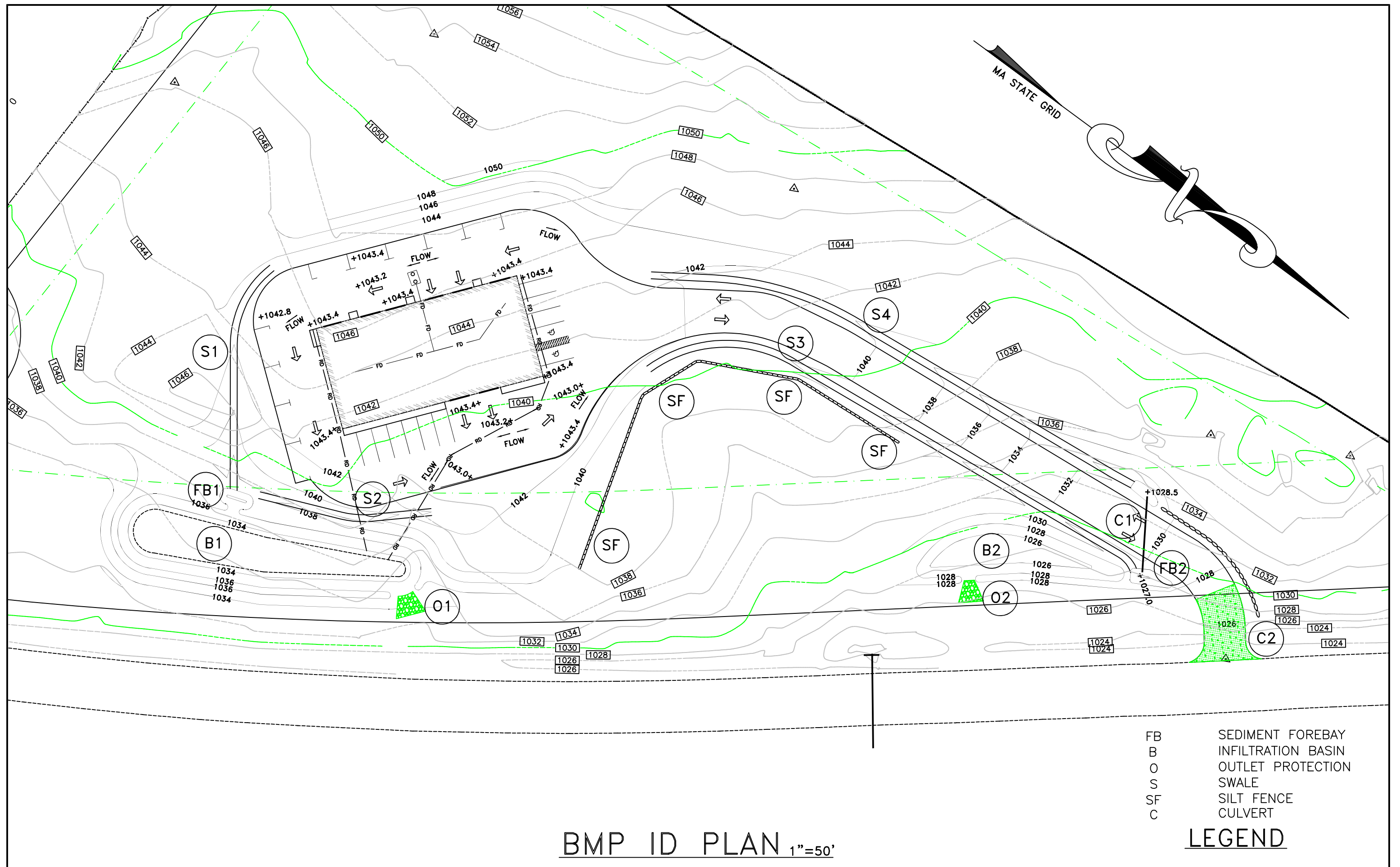
It is critical to provide access for maintenance, especially to the interior of the basin. Inspect dry detention basins at least once per year to ensure that they are operating as intended. Inspect basins during and after storms to determine if the basin is meeting the expected detention times. Inspect the outlet structure for evidence of clogging or outflow release velocities that are greater than design flow. Potential problems that should be checked include: subsidence, erosion, cracking or tree growth on the embankment; damage to the emergency spillway; sediment accumulation around the outlet; inadequacy of the inlet/outlet channel erosion control measures; changes in the condition of the pilot channel; and erosion within the basin and banks. Make any necessary repairs immediately. During inspections, note changes to the detention basin or the contributing watershed because these changes could affect basin performance. Mow the side slopes, embankment, and emergency spillway at least twice per year. Remove trash and debris at this time. Remove sediment from the basin as necessary, and at least once every 10 years or when the basin is 50% full. Provide for an on-site sediment disposal area to reduce the overall sediment removal costs.

Resources:

MassHighway. Stormwater handbook for Highways and Bridges. May 2004.
T.R. Schueler. Center for Watershed Protection. Design of Stormwater Pond Systems. 1996.

H – Invasive Species

If any invasive species begin to grow in the stormwater management practices, immediately call GRAZ Engineering (603)-585-6959 to be advised on actions to be taken regarding the specific invasive species.

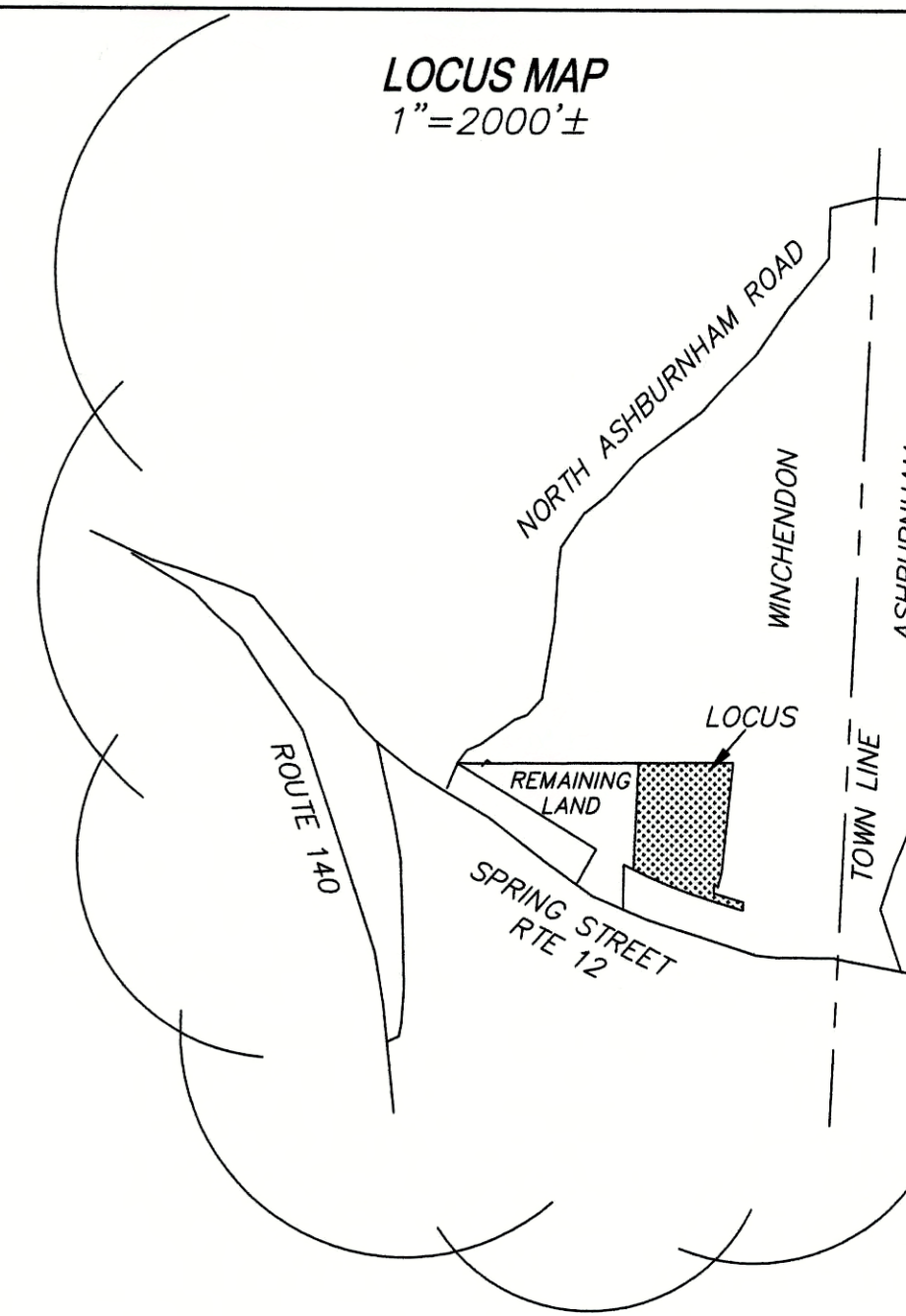


BMP ID PLAN 1"=50'

FB	SEDIMENT FOREBAY
B	INFILTRATION BASIN
O	OUTLET PROTECTION
S	SWALE
SF	SILT FENCE
C	CULVERT

LEGEND

LOCUS MAP
1"=2000'±



**WINCHENDON
PLANNING BOARD**

APPROVAL UNDER THE SUB-DIVISION CONTROL LAW IS NOT REQUIRED.

DATE: _____
BY: _____

ANR ENDORSEMENT DOES NOT CONSTITUTE COMPLIANCE WITH ZONING FOR LAND USE OR BUILDING PURPOSES NOR DOES IT CONVEY THE RIGHT TO DEVELOP THE PROPERTY.

PLANNING BOARD ID BLOCK

PLAN OF LAND
PREPARED FOR
**THREE M REALTY TRUST
WINCHENDON, MA**

SCALE 1 INCH = 100 FEET SEPTEMBER 23, 2020
EDMOND J. BOUCHER, PLS, 4 JOLLY ROAD, ROYALSTON, MA, 01368
JOB NO. G-927

S 88°55'00" E 1551.51'
IRON PIN SET
S 88°55'00" E 792.58'
PHILIP C. BEALS
N 89°56'23" E 279.05' IRON PIPE
N 89°56'23" E 107.35'

REMAINING LAND OF
THREE M REALTY TRUST
BOOK 16573 PAGE 391

PARCEL "B"
27.24 ACRES
NOT A BUILDING LOT
TO BE DEEDED TO
TOON & TUNE LLC

TOON & TUNE, LLC
BOOK 58020 PAGE 101
PLAN BOOK 931 PLAN 23

TOON & TUNE, LLC
BOOK 47538 PAGE 121

TOON & TUNE, LLC
BOOK 47538 PAGE 121

WILLIAM R. CLARK
BOOK 23483 PAGE 285

RALPH J. ARSENAULT
& LINDA M. CORMIER

MICHAEL W. &
KIMBERLY J. COLON

GAIL M. CLARK

FREDERICK A. &
NANCY D. CLOUTIER

GEORGE J. & IONA M. LADEAU

SOLAR FIELD

CHAIN-LINK FENCE

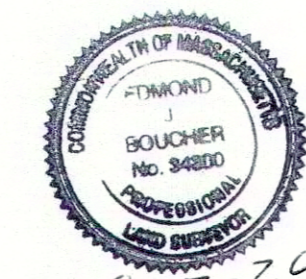
DRILL HOLE SET

SPRING STREET

- LEGEND:**
- IRON PIPE
 - IRON PIN
 - ⊙ DRILL HOLE
 - STONE BOUND
 - ⊞ STONE WALL
 - - - PAVING

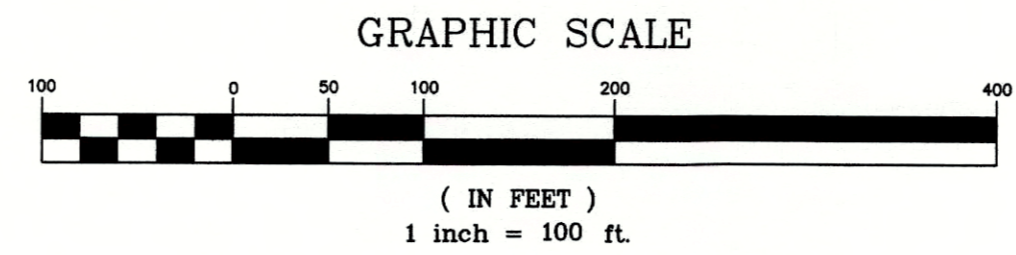
NOTES:

- 1) PRESENT OWNER IS THREE M REALTY TRUST
- 2) DEED REFERENCE: BOOK 16573 PAGE 391.
BOOK 30210 PAGE 40.
- 3) ASSESSORS MAP REFERENCE: MAP 9, LOT 34.
- 4) THIS PROPERTY IS IN ZONE INDUSTRIAL
- 5) ABUTTERS SHOWN WERE TAKEN FROM THE MOST RECENT TAX LIST.



9-23-20
Edmond J. Boucher

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.



FOR REGISTRY USE

N/F JAMES E. & DEIRDRE HOLT
 MAP-5C2 LOT-68
 44 PROSPECT STREET
 WINCHENDON, MA 01475

N/F PATRICIA E. SCARRELL
 MAP-5C2 LOT-69
 34 PROSPECT STREET
 WINCHENDON, MA 01475

N/F JON COSTELLO
 MAP-5C3 LOT-152
 47 HIGH STREET
 WINCHENDON, MA 01475

LEGEND

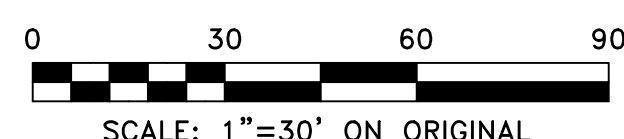
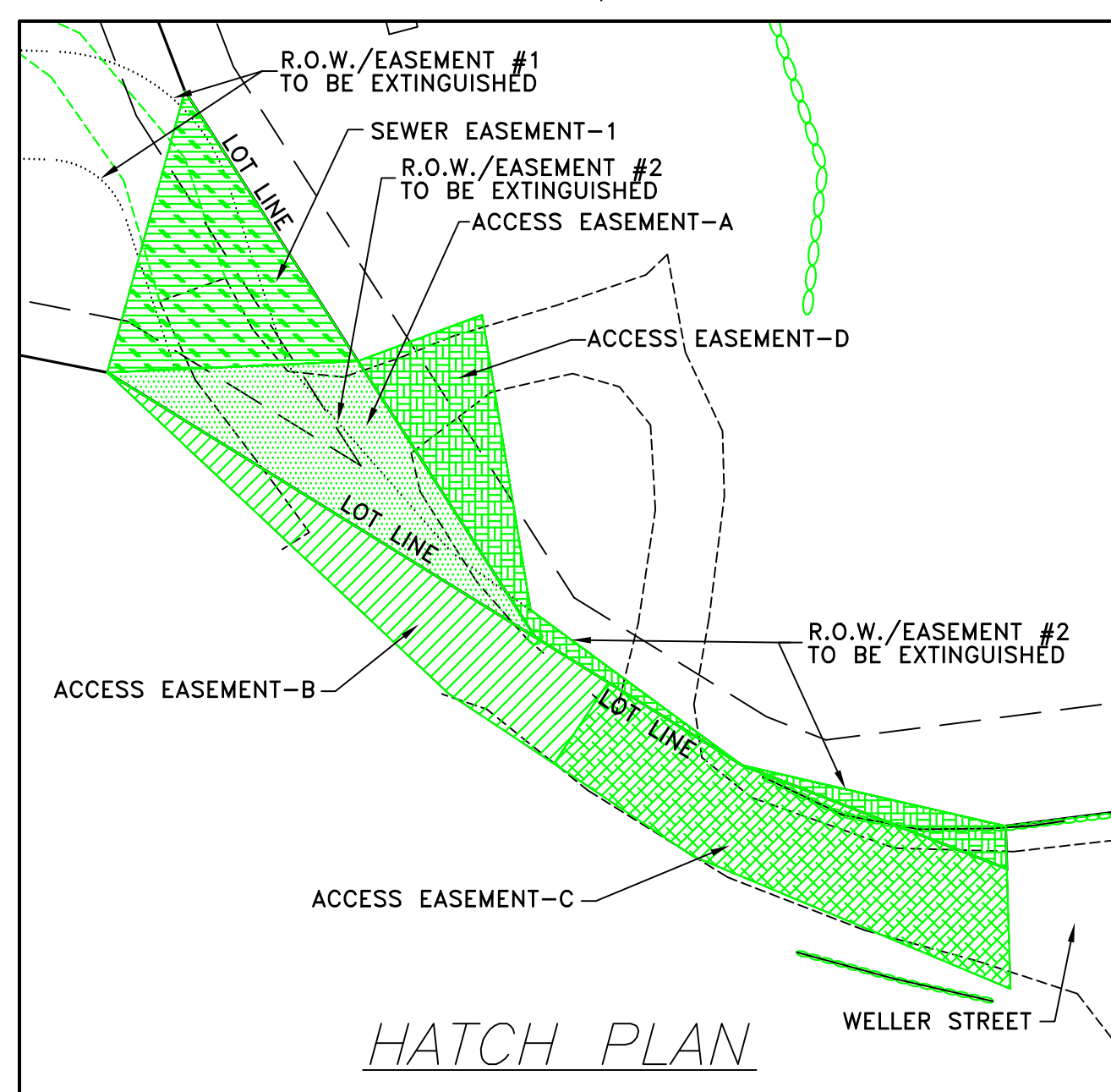
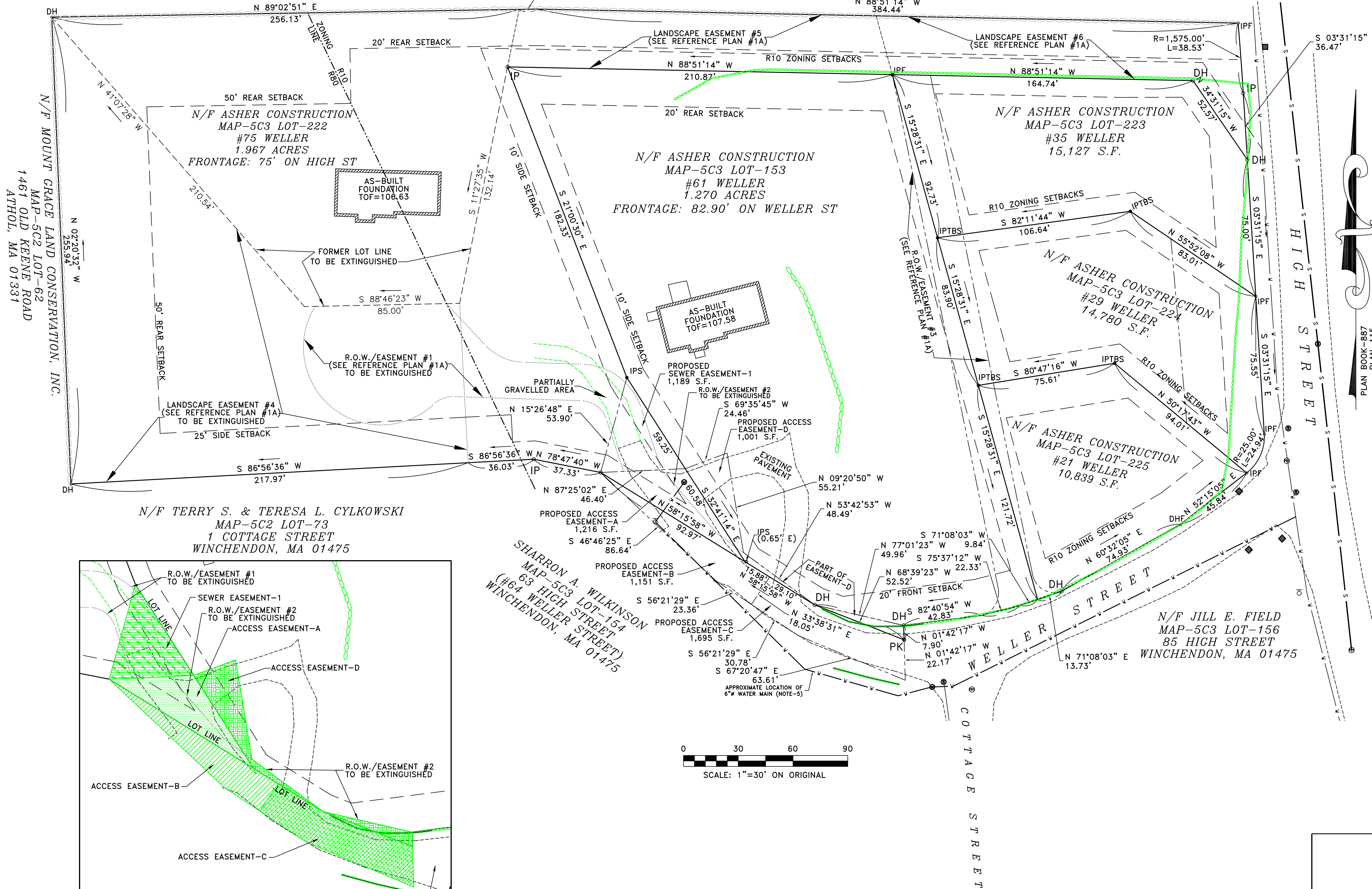
- N/F NOW OR FORMER OWNER
- IPF ○ IRON PIN FOUND
- EXISTING STONE WALL
- DHF ○ DRILL HOLE FOUND
- IPTBS ● IRON PIN SET (NOTE-5)
- S SEWER LINE
- W WATER LINE
- E POWER LINES
- D DRAINAGE

REFERENCE PLANS & DEEDS

1. SUBJECT LOTS ASSESSOR'S MAP-5C3 LOTS-153, 222-225
 WRCD DEED BOOK-63106 PAGE-305
 A. WORD PLAN BOOK-887 PAGE-115
 B. WRCD PLAN BOOK-954 PAGE-89

NOTES

1. THE PURPOSE OF THIS PLAN IS TO CHANGE THE BOUNDARY LINES BETWEEN MAP-5C3 LOT-153 AND LOT-222. THIS BOUNDARY LINE ADJUSTMENT WILL EXTINGUISH LANDSCAPE EASEMENT #4 AND ACCESS EASEMENT #1 & REPLACE ACCESS EASEMENT #2 WITH ACCESS EASEMENTS A, B, C & D. THIS PLAN ALSO CREATES ACCESS EASEMENT-D, WHICH PROVIDES A TURNAROUND FOR LARGER VEHICLES UTILIZING EXISTING PAVEMENT RATHER THAN CREATING A NEW TURNAROUND WITHIN ACCESS EASEMENT #1.
2. THE SUBJECT PROPERTIES ARE LOCATED IN BOTH THE WINCHENDON R10 & R80 ZONING DISTRICT.
 DIMENSIONAL REQUIREMENTS (R10)
 AREA= 10,000 SQ. FT. MIN.
 FRONTAGE=75'
 MINIMUM FRONT SETBACK=20'
 MINIMUM SIDE SETBACK=10'
 MINIMUM REAR SETBACK=20'
 DIMENSIONAL REQUIREMENTS (R80)
 AREA= 80,000 SQ. FT. MIN.
 FRONTAGE=200'
 MINIMUM FRONT SETBACK=40'
 MINIMUM SIDE SETBACK=25'
 MINIMUM REAR SETBACK=50'
3. FIELD SURVEY PERFORMED BY ELECTRONIC TOTAL STATION TO THE STANDARDS OF MASSACHUSETTS REGULATION 250 CMR 6.00.
4. WHEREAS NO TITLE REPORT HAS BEEN PREPARED, NO DETERMINATION OF TITLE IS MADE OR IMPLIED.
5. IPTBS SIGNIFIES A 5/8" STEEL REINFORCING BAR WITH A PINK CAP LABELLED 'GRAZ ENG. PLS 47393' TO BE SET.
6. LOT SLOPE CALCULATIONS:
 *ALL LOTS MUST HAVE ADEQUATE LOT AREA, EXCLUDING AREA WITH SLOPES IN EXCESS OF 1:4.
 61 WELLER STREET: >>10,000 S.F. AT LESS THAN 1:4 SLOPE
 75 WELLER STREET: >>10,000 S.F. AT LESS THAN 1:4 SLOPE
7. NO WETLANDS EXIST ON-SITE.
8. WATER LINE LOCATION BASED OFF OF A 1935 SKETCH, LOCATION COULD NOT BE VERIFIED BY SURVEY.
9. RIGHT-OF-WAY/EASEMENT #2 TO BE EXTINGUISHED IN FAVOR OF PROPOSED ACCESS EASEMENTS A, B, AND C.
 - ACCESS EASEMENT A: 1,227 S.F. OVER 75 WELLER FOR THE BENEFIT OF 64 WELLER TO MAINTAIN THE BENEFITS THAT RIGHT-OF-WAY/EASEMENT #2 CURRENTLY PROVIDES.
 - ACCESS EASEMENT B: 1,151 S.F. OVER 64 WELLER FOR THE BENEFIT OF 75 WELLER TO MAINTAIN THE BENEFITS THAT RIGHT-OF-WAY/EASEMENT #2 CURRENTLY PROVIDES.
 - ACCESS EASEMENT C: 1,695 S.F. OVER 64 WELLER FOR THE BENEFIT OF 64 & 75 WELLER TO MAINTAIN THE BENEFITS THAT RIGHT-OF-WAY/EASEMENT #2 CURRENTLY PROVIDES.
 - ACCESS EASEMENT D: 1,023 S.F. OVER 61 WELLER FOR THE BENEFIT OF 64 & 75 WELLER TO ALLOW ACCESS TO A TURNAROUND AND OTHERWISE MAINTAIN THE BENEFITS THAT RIGHT-OF-WAY/EASEMENT #2 CURRENTLY PROVIDES.
10. A SEWER EASEMENT IS TO BE CREATED OVER 75 WELLER (MAP-5C3 LOT-222) FOR THE BENEFIT OF 61 WELLER (MAP-5C3 LOT-153).
11. PROPOSED BOUNDARY LINE ADJUSTMENT WILL NOT CREATE ANY ZONING NON-CONFORMITIES.
12. SEE 'DECLARATION OF COVENANTS', TO BE RECORDED, FOR A DESCRIPTION OF USE AND RESPONSIBILITIES FOR THE EASEMENTS SHOWN HEREON.



I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS:

PAUL F. GRASEWICZ P.L.S.
 MASS. PLS #47393

APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED
 PLANNING BOARD OF WINCHENDON, MA
 DATE: _____

ANR ENDORSEMENT DOES NOT SIGNIFY COMPLIANCE WITH ZONING FOR LAND USE OR BUILDING PURPOSES NOR DOES IT CONVEY THE RIGHT TO DEVELOP THE PROPERTY.

A-N-R (MGL CH. 41, 81P) PLAN

ASSESSOR'S MAP-5C3 LOTS-153 & 222
 61 & 75 WELLER STREET & HIGH STREET
 WINCHENDON, MA

OWNER:
 ASHER CONSTRUCTION, LLC
 77 NASHUA ROAD;
 SHARON, NH 03458

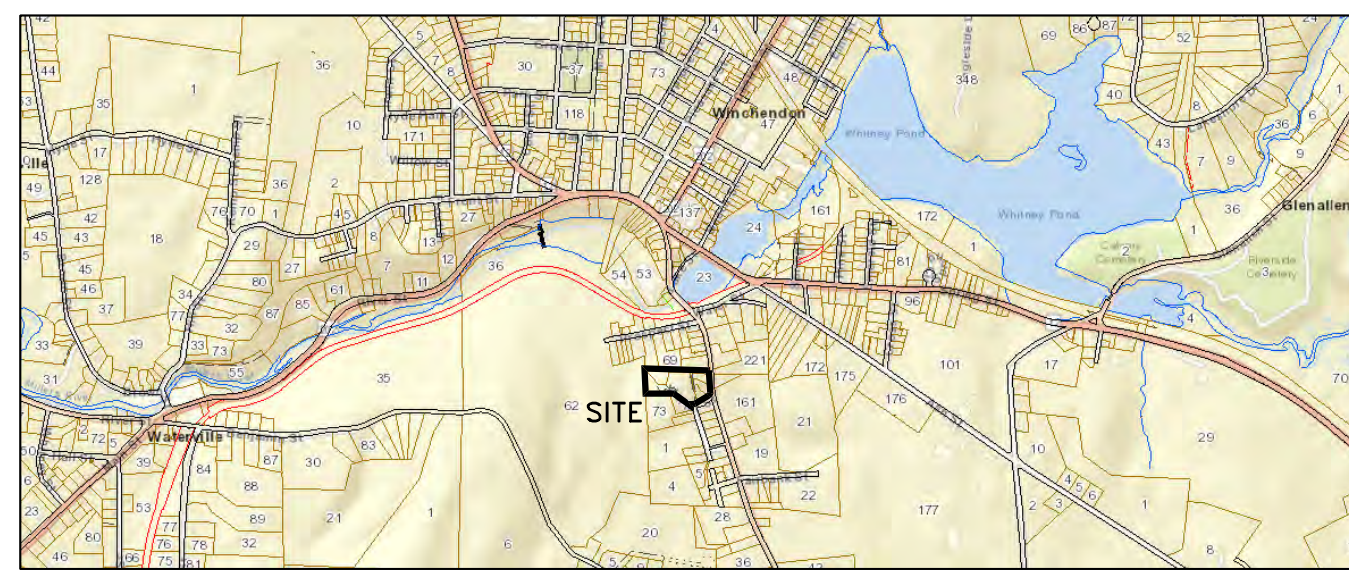
APRIL 14, 2021

GRAZ Engineering, LLC

323 WEST LAKE ROAD; FITZWILLIAM, NH 03447; (603) 585-6959

JOB NO. 20147

SHEET 1 OF 1



LOCUS NTS

FOR REGISTRY OF DEEDS USE

PB # _____

TOWN OF WINCHENDON



Planning Board

Telephone (978)-297-5419

Regular Meeting Minutes

March 16, 2021

Meeting was held via zoom – Meeting ID: 937 3286 9935 Passcode: 0372241

Board Members Present: Chairman Guy Corbosiero, Les Goodrich, Joe Sackett, Art Amenta, Burt Gould

Board Members Absent: Garrett Wante (alt)

Additional People Present: Alison Manugian - Planning Agent, Trevor Fletcher of Graz Engineering

Call to Order: Chair Guy Corbosiero called the meeting to order at 6:30 pm and read the standard legal statement regarding meetings during COVID.

Announcements & Public Comment: none

Minutes:

L Goodrich made a motion to approve the minutes of February 16, 2021 as presented. J. Sackett seconded the motion and all members voted aye via roll call

Correspondence:

A Manugian summarized the updates and scheduled meetings from area communities. More information can be requested.

Business:

Financial Regulations Public Hearing –

- G. Corbosiero read the public hearing notice and opened the public hearing.
- A Manugian summarized the discussion of last meeting – regulations have been recommended by Town Counsel for adoption with regard to holding surety on non-subdivision projects, such as the Spring Street Solar project that triggered this conversation. Per MGL Chapter 44 Section 53G1/2 the local authority needs to adopt the regulations for them to take effect.
- G. Corbosiero pointed out the similarity to using the Mullen Rule
- Board members were asked for questions and comments and none were forthcoming.
- No members of the public were present to offer input.

L. Goodrich motioned to close the public hearing and B. Gould seconded the motion prior to all voting aye via roll call vote.

J. Sackett motioned to adopt the Rules Regarding Financial Security pursuant to MGL C44 S 53G1/2 as recommended by Counsel. A. Amenta seconded the motion and all voted aye via roll call.

Public Hearing regarding Site Plan Application received from CTB Enterprises dba Rooterman for commercial development of site on Gardner Road (Map 9, Parcel 17)

- G. Corbosiero read the public hearing notice and opened the public hearing. T. Fletcher was present to represent the applicant and was sworn in by the G. Corbosiero

- A Manugian highlighted that the parcel is a currently undeveloped site near the intersection of Routes 12 and 140. Peer review has been requested and is not yet available. The project has a NOI before conservation; which has been continued pending Planning Board feedback
- T. Fletcher summarized the project and application - Rooterman provides for unclogging of residential sewer lines. Half of the proposed building is for storage of their vans and the other bays are intended for lease to other commercial tenants. The Rooterman use will not contribute significant traffic as only the office employees will be on-site and drivers will swap out personal vehicles for vans at the start and end of the day. There are 20 proposed exterior parking spaces. The proposed entry has been selected based on sight lines and the existing culvert location. The culvert is part of an existing drainage swale running alongside Route 140.
- L. Goodrich indicated concern about the rental spaces and highlighted the need for site approval and permitting for each new business/tenant, which will include traffic review. Particularly given the speed of travel at the point there may be traffic and turning concerns
- L. Goodrich asked about the depth of the vegetated buffer between the site and Route 140 which T. Fletcher clarified will remain about 20' deep.
- B. Gould raised his concern that projects shouldn't come to the Planning Board until Conservation Commission has been made and the peer review is final.
- A. Manugian responded that the goal is often to have both hearings open at once so both boards can respond in tandem to refinements and changes from either process. Having peer review completed is sometimes a difficult process given the state imposed timelines for advertising and varying work load of the engineers.
- T. Fletcher confirmed that the road at this point is town controlled so no state curb cut is needed.
- J.Sackett asked for confirmation that the on-site septic is only for water usage from the office ad garage and that any other septic disposal (from unclogging and Rooterman's business) will be disposed of elsewhere. T. Fletcher confirmed that this is the intent.

B. Gould motioned to continue the hearing to April 20, 2021 at 6:40pm. L. Goodrich seconded and all voted aye via roll call vote.

Storm-water Management Bylaw and Regulations

- A. Manugian outlined that the EPA mandated MS4 program requires significant changes to the bylaw and regulations regarding stormwater management. The documents outlined here will replace the previous Low Impact Development Bylaw and Regulations that do not comply with the new requirements. The new bylaw and regulations began with templates approved by the EPA and have been adjusted for local processes and preferences in conjunction with the Town's MS4 Consulting Engineers. There are not a lot of changes that we can make and be compliant.
- The Selectmen appointed Bylaw Review Committee will include the Stormwater Management Bylaw in their review with Town Counsel and will submit to Town Meeting for approvals with the remainder of their updated bylaws.
- The Regulations need to be reviewed and adopted by the Planning Board following Public Hearing. The included draft regulations will be sent to members for review in Word format as a freestanding document.
-

L. Goodrich motioned to adjourn the meeting, and B. Gould seconded. All approved via roll call vote.
The Chair ended the meeting at 7:05 pm

Respectfully submitted:



Alison Manugian, Planning Agent

TOWN OF WINCHENDON



Planning Board Correspondence Summary April 20, 2021 Meeting

No items before the Select Board with Planning Comments/Issues

No items before the Select Board without Planning Comments/Issues

No other Notices/Announcements

Meeting Notices from Local Communities:

The Gardner Zoning Board of Appeals will hold a meeting on 4/20/2021 to discuss:

- A Variance request for Lot 42 on Summit Ave regarding lack of frontage
- A Variance request for 161 Chelsea Street with regard to a Professional Office and Warehouse
- A Special Permit for 0 Matthews Street with regard to a Contractors' Yard.

The Ashburnham Planning Board will hold a public hearing on May 12 to discuss an application for a permanent entrance for a driveway and access to Packard Hill Rd – Map 14, Parcel 15. This is required as this is a designated scenic road.

Decisions from Local Communities:

The Gardner Zoning Board of Appeals held a meeting on 3/25/2021 and rendered the following decisions:

- Installation of an access driveway from Betty Spring Road to parcel PID X22-22-4A as described would not constitute a zoning violation.
- Denial of a special permit application to keep farm animals at 145 Dyer Street.
- Grant of a Special Permit to keep up to 6 hens at 155 Century Way

The Ashburnham Planning Board held a public hearing on 4/14 to discuss proposed amendments to Section 3.3 of their Zoning Bylaws.