

HARTFORD ZONING BOARD OF ADJUSTMENT

March 26, 2025

Meeting Notice and Agenda

The Hartford Zoning Board of Adjustment will meet on Wednesday, March 26, 2025, beginning at 6:30 p.m. to consider the following Applications and Administrative Matters.

This meeting will be conducted in person at Hartford Town Hall, 171 Bridge Street, White River Junction, Vermont. In addition, you may join the meeting remotely as follows:

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 223 959 198 396

Passcode: Ju2kn9sS

Dial in by phone

[+1 802-377-3677](tel:+18023773677), [741035529#](tel:+18023773677) United States, Middlebury

[Find a local number](tel:+18023773677)

802-377-3677

Phone conference ID: 741 035 529#

If you cannot access this meeting notice electronically or if you are having difficulty connecting to the meeting, please email Jo-Ann Ells at jells@hartford-vt.org

A. Public Hearings, beginning at 6:30 p.m.

1. Application #01-25 by Gregg and Karen Edelstein (owners/applicants) for approval of a setback waiver under section 260-52 of the Hartford Zoning Regulations for an addition to a garage, lot 07-2137-000, 814 Noyes Lane, Quechee, in the Quechee Lakes Planned Development.
2. Application #02-25 by Varma Yash and Sharon Rosenthal (owners/applicants) for Conditional Use Approval under sections 260-16, 260-25, and 260-26 of the Hartford Zoning Regulations related to the construction of structures, a driveway, and associated improvements, lot 07-5233-000, Willard Road, Quechee, in the Quechee Lakes Planned Development.

B. Administrative matters: 1. Public Comment. 2. Elect Officers. 3. Ethics Training.
4. Minutes. 5. Administrative Permits. 6. Availability for the next Public Hearing.

Application materials are available at the Hartford Town Hall, Department of Planning and Development Services, 171 Bridge Street, White River Junction, Vermont (802) 295-3075. Persons wishing to appear and be heard may do so in person, or be represented by another party and/or submit written testimony.

An interested person who has **participated** in a municipal regulatory proceeding may appeal a decision rendered in that proceeding to the Vermont Environmental Court. Participation in a local regulatory proceeding shall consist of offering, through oral or written testimony, evidence or a statement of concern related to the subject of the proceeding.

Steve Lagasse, Chair

**DRAFT
MINUTES
Zoning Board of Adjustment
December 11, 2024**

Present: Steve Lagasse, Chair, Chris Lowe, Vice Chair, Stephanie Gile, Alice Maleski, Tom Franklin, and Jo-Ann Ells, Zoning Administrator

Absent: Lannie Collins, Selectboard Liaison

Public Hearing

Chris Lowe read the hybrid meeting script and took a roll call.

1. Application #08-24 by Landon and Renee Potwin (owners/applicants) for approval of a setback waiver under section 260-52 of the Hartford Zoning Regulations for a garage/accessory dwelling unit, lot 02-0043-006, 179 Handy Road, Hartford, in a RL-5 zoning district.

Renee Potwin was present.

Jo-Ann Ells gave an overview of the project and displayed the photograph submitted by the applicants.

It was noted that the second floor of the structure would be used as an accessory dwelling unit (ADU) and storage space. Jo-Ann Ells explained that the town is considering loosening ADU requirements and depending on the outcome, the proposed ADU might be able to be expanded or a seconded ADU added in the future. There was a discussion regarding current ADU requirements.

Alice Maleski noted that she would have liked to have seen elevation plans submitted as part of the application.

Steve Lagasse noted that while the proposed structure is large, he is not concerned given the rural location of the lot and fact that it will not be visible from the street or by neighbors.

Tom Franklin commented that he believed the proposed location of the structure in the driveway, roughly at the same elevation of the existing house, and outside of the septic/well setbacks was good.

Steve Lagasse stated that he agreed with Tom, and added that he was pleased that there is room to expand the ADU if allowed in the future.

There was no public comment.

Steve Lagasse moved to close the Public Hearing. Tom Franklin seconded, and the Public Hearing was closed.

Stephanie Gile moved to approve the application as presented. Tom Franklin seconded, and the motion passed unanimously.

Administrative Matters

1. Public Comment

12-11-24

None

2. Minutes

Chris Lowe moved to approve the minutes of September 4, 2024 as drafted. Alice Maleski seconded, and the motion passed 4-1. (Steve Lagasse did not vote as he was not present at the Hearing.)

3. Administrative Permits

Jo-Ann Ells reviewed three projects that were permitted administratively:

- TPHT, EV Chargers
- WR Toyota, temporary structures
- Quechee Mobil, changes to parking/demo

4. Discuss starting Hearings later

The Board discussed changing the time their meetings start and decided not to make a change.

5. Availability for the next Public Hearing

Chris Lowe noted that he was not available for the January 15, 2025 Hearing.

Adjournment

At 7:03 p.m., Steve Lagasse moved to adjourn. Chris Lowe seconded, and the motion passed.

Respectively Submitted,

Alice Maleski, Clerk

Zoning Board of Adjustment Members/Terms:

Tom Franklin	04-04-25
Stephanie Gile	11-11-27
Alice Maleski	03-17-28
Steve Lagasse	03-17-28
Chris Lowe	03-17-28

**Zoning Board of Adjustment
Administrative Agenda
March 26, 2025**

1. Public Comment
2. Elect Officers
3. Ethics Training
4. Minutes- December 11, 2024
5. Administrative Permits
- None
6. Availability for the next Public Hearing (April 30, 2025)

**DRAFT
FINDINGS OF FACT
CONCLUSIONS OF LAW
AND
DECISION**

HARTFORD ZONING BOARD OF ADJUSTMENT

**Application #01-25 by Gregg and Karen Edelstein
for approval of a setback waiver for an addition to a garage
lot 07-2137-000, 814 Noyes Lane, Quechee
in the Quechee Lakes Planned Development**

This decision pertains to application #01-25 by Gregg and Karen Edelstein (owners/applicants) for approval of a setback waiver under section 260-52 of the Hartford Zoning Regulations for an addition to a garage, lot 07-2137-000, 814 Noyes Lane, Quechee, in the Quechee Lakes Planned Development.

FINDINGS OF FACT

Based upon the information contained in the exhibits for this application (see attached list) and the evidence adduced at the Zoning Board of Adjustment meeting of March 26, 2025 the Hartford Zoning Board of Adjustment makes the following Findings of Fact:

General Information

1. The owners of lot 07-2137-000 are Gregg and Karen Edelstein who acquired the lot on 07-17-23. The deed is filed in vol. 613, pp. 716 of the Hartford Land Records.
2. The lot is located at 814 Noyes Lane in Quechee.
3. The lot is developed with a single-family dwelling and attached one-bay garage.
4. The lot is approximately 0.38 acres.
5. The lot is class two (2), municipal sewer and on-site municipal water.
6. The lot is part of the Quechee Lakes Planned Development.

2. 01-25

This Application

7. The applicants propose to construct a 14' x 22' addition to the garage for a second garage bay.
8. The setbacks for single family lots in the Quechee Lakes Planned Development are 40' front and 25' sides and rear.
9. The applicants seek a Setback Waiver to allow the proposed structure to infringe into the 25' setback. The corners of the structure will be 16.25' and 7.86' from the property line. (See exhibit #2)

All other setbacks will be met.

10. Section 260-52 of the Zoning Regulations sets forth a process and criteria for obtaining a setback waiver. The intent of section 260-52 of the Zoning Regulations "is to provide flexibility in setback requirements for the placement of primary and accessory structures in all zoning districts while maintaining the character of the area." A setback waiver may be considered, providing that a minimum setback of 5' is maintained, if one of the following criteria is met.

- (A) When the reduction is no greater than the front or side setbacks for existing structures on adjacent lots on the same street frontage.
- (B) For greater fire safety as recommended by the Hartford Fire Department.
- (C) For greater preservation of open land/agricultural land or scenic vistas.
- (D) For greater preservation of other natural resources, such as, but not limited to surface waters, wetlands, or steep slopes.
- (E) For increased energy conservation and renewable energy structures.
- (F) The waiver, if authorized, will represent the minimum necessary to achieve the stated purpose of this Section."

According to the applicants, "our proposed side setback meets the minimum setback of 5' and is comparable to the existing side setback on the adjacent lot. It maintains alignment with the neighborhoods overall setback pattern, ensures continuity on the streetscape, and does not interrupt the visual or functional cohesion of properties along this street." (A)

In addition, "with the subject lot of .38 acres the proposed garage addition has been carefully planned to minimize any impact on neighboring properties. The setback still provides ample space for maintenance, privacy and accessibility. Additionally, the structure's placement has been designed to avoid encroachment on neighboring properties or sightline obstructions." (F)

(See exhibit 5)

11. The applicants understand that construction of the project must comply with the following:

Earth moving and hauling, rock drilling or crushing, jack hammer and similar excessively loud equipment shall not be operated on Sundays or between the hours of 5:30 p.m. and 7:00 a.m. except in emergency situations.

12. The applicants understand that any stockpiling of materials related to the construction of the project must be located twice the distance of the height of the stockpiled materials from any public or private right-of-way or property boundary.

13. The applicants understand that the project must meet the following standards:

(1) Any changes in grading shall be made so that runoff is directed to established drainage courses and will not cause ponding or flooding of other properties, or exceed the capacity of downstream drainage facilities.

(2) When possible, drainage systems shall be designed so that water runoff existing prior to site development shall not be increased after development.

(3) All changes in grade shall be controlled so as not to cause a nuisance or damage to other properties or erosion of topsoil.

14. The applicants understand that during construction erosion and sediment control measures as specified in the most current edition of the Low-Risk Site Handbook for Erosion Prevention and Sediment Control published by the Vermont Department of Environmental Conservation will be followed.

15. The applicants understand that they retain the obligation to identify, apply for, and obtain any relevant State permits for this project.

16. The applicants understand that they must obtain a zoning permit to finalize this approval and that the permit must be obtained before the commencement of construction of the project. The applicants further understand that the issuance of the zoning permit only authorizes the construction of the project in compliance with the Findings, Conclusions of Law, Approved Plans, Exhibits and Conditions as specified herein.

4. 01-25

17. The applicants understand that all activities authorized by the issuance of the zoning permit shall be started within six (6) months and completed within two (2) years of its date of issue, or the zoning permit shall become null and void and reapplication to complete any activities shall be required. Any activities not completed within the above permit period shall be subject to any ordinance in effect at the time of reapplication. One six (6) month extension to both time periods may be granted by the Planning Commission prior to the expiration periods noted.
18. The applicants understand that they must obtain a Certificate of Occupancy from the Zoning Administrator upon completion of the project. The applicant understands that a Certificate of Occupancy will not be issued if the project is not in compliance with these Findings, Plans and any conditions placed on the decision.

CONCLUSIONS OF LAW

Based upon the foregoing Findings of Fact, the Hartford Zoning Board of Adjustment concludes that the proposed development will:

- Be compatible with the scale and design of structures and overall existing development pattern of the surrounding area.
- Not impair reasonable or appropriate use of adjoining properties.
- Not result in greater impacts on natural resources.
- Not impair sight distances on public or private roads.

DECISION

The Hartford Zoning Board of Adjustment, based upon the forgoing Findings of Fact and Conclusions of Law, hereby approves application #01-25 by Gregg and Karen Edelstein (owners/applicants) for approval of a setback waiver under section 260-52 of the Hartford Zoning Regulations for an addition to a garage, lot 07-2137-000, 814 Noyes Lane, Quechee, in the Quechee Lakes Planned Development **on the condition that upon completion of the project and before a Certificate of Occupancy is issued, the applicants submit written verification confirming that the project was constructed in accordance with this Decision.**

This decision is also subject to the condition that no modification or expansion shall be made to the project as described and limited in the above Findings of Fact and Conclusions of Law without the written approval of the Hartford Zoning Board of Adjustment and/or the Hartford Planning Commission. This decision may be revoked, and a new application or permit required if conditions and findings are violated or modified without written approval.

The applicants are responsible for insuring compliance with all applicable State and Federal regulations pertaining to this application.

5. 01-25

Those in favor:

Those in opposition:

Those not participating:

Dated at Hartford, Vermont this ____ day of March 2025.

HARTFORD ZONING BOARD OF ADJUSTMENT

By: _____
Chairperson/Vice-Chairperson

Appeal Rights: An interested person who has participated in the proceeding related to this decision has the right to appeal this decision to the Vermont Environmental Court, pursuant to 24 V.S.A. s. 4471 and V.R.E.C.P.5, in writing, within 30 days of the date of this decision. If you fail to appeal this decision as described above, your right to challenge this decision at some future time may be lost. You will be bound by this decision, pursuant to 24 V.S.A. s. 4472 (d) (exclusivity of remedy; finality).

EXHIBIT LIST

1. Application #01-25
2. Site Plan entitled "Site Plan for Gregg and Karen Edelstein, 814 Noyes lane, QLLA #2137, Quechee, Vermont," prepared by Farnsworth Surveys
3. Response to memo dated February 26, 2025
4. Memo from Jo-Ann Ells dated February 26, 2025
5. Applicant for a Setback Wavier prepared by Gregg Edelstein, dated February 24, 2025
6. Letter form Carl Stegman dated February 24, 2025
7. Photographs
8. Letter from Michael Shankman, Chair QLLA Review Board dated December 13, 2024
9. Elevation prepared by AGD Design, LLC dated November 26, 2024



Town of Hartford

Planning Commission App # _____
Zoning Board of Adjustment App # _____

APPLICATION TO PLANNING COMMISSION &/OR ZONING BOARD OF ADJUSTMENT

PLEASE COMPLETE ALL ITEMS APPLICABLE AND PROVIDE THE CORRECT NUMBER OF COPIES OF THIS APPLICATION AND THE SITE PLAN OR SUBDIVISION PLAT. ABUTTING LANDOWNERS WILL BE NOTIFIED BY THE PLANNING/ZONING OFFICE.

1. NAME & ADDRESS OF RECORD OWNER(S) Gregg & Karen Edelstein
814 Noyes Ln, #979 Quechee, VT 05059
Deed Recorded Book _____ Page _____ (Available at Town Clerk's Office)
Telephone: Work _____ Cell 617-699-8061 Email Address: tri70point3@gmail.com
2. NAME & ADDRESS OF APPLICANTS(S) Gregg Edelstein
814 Noyes Ln, #979 Quechee, VT 05059
Telephone: Work _____ Cell _____ Email Address: _____
3. NAME & ADDRESS OF APPLICANTS' CONSULTANT _____

Telephone: Work _____ Cell _____ Email Address: _____
4. PROJECT LOCATION 814 Noyes Ln, Quechee VT 05059
5. PRESENT USE OF PROPERTY Single Family Home, full-time
6. BRIEFLY DESCRIBE PROJECT (in addition, a detailed narrative must be submitted)
Build an addition to convert the existing one-car garage to a two-car garage.
7. PROJECT SIZE IN SQ. FT OR ACREAGE 309SF
Lot Width _____ Lot Depth _____
8. IS PROJECT ON TOWN WATER/SEWER? Yes Sewer No Water If Yes, estimated
Water Consumption/day _____ Amount of Sewer Flow Projected will not change
Size of Closest Lines Above (water) _____ (sewer) _____
9. DESCRIBE LANDSCAPING PLAN _____

10. IF A BUSINESS - Present # of Employees _____
Proposed Days & Hours of Operation _____
Will you use the landfill & recycling center? Yes _____ No _____
The main waste by-product of your business is: _____

11. IF A RESTAURANT - Present seating _____ Proposed _____
12. PARKING SPACES - Number to be provided _____
13. SIGNAGE - Free Standing _____ Attached _____
14. FENCING – Location _____ Height _____
15. NEAREST WATER SUPPLY FOR FIREPROTECTION _____
16. ESTIMATED VALUE OF PROPOSED WORK \$30,000
17. IS THERE AN EXISTING DRIVEWAY? Yes
18. IF A SUBDIVISION - Number of New Lots to be Created _____
- Do you request that the Town consider taking over maintenance of – Roads _____
- Or Park/Open Space _____

I HEREBY CERTIFY THAT THE INFORMATION PROVIDED ON THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. (This certification must be signed by lot owners and applicants).

[Signature] 2/24/25
Applicant's Signature Date

[Signature] 2/24/25
Lot Owner's Signature Date

[Signature] 2/24/25
Co-Applicant's Signature Date

[Signature] 2/24/25
Co-Owner's Signature Date

The applicant retains the obligation to identify, apply for, and obtain any relevant local or state permits before any construction may commence. Please call 802-282-6488 to speak with the State Permit Specialist.

For Office Use Only		
Map/Lot #		
Fee Paid \$:		Receipt #:
PC: Site Plan	Min. Sub.	Maj. Sub.
PD	PD Amend.	Other
ZBA: Conditional Use	Variance	Appeal
Other		
Zoning District (s)		Date Filed:
Official Submittal Date:		





K 8c 2'-8"

16c

17c

9c

17c

13c

53c17'8"



AG DESIGN, LLC
ARTHUR GARGES
P.O. BOX 291
QUECHEE, VT 05059
Tel/Fax: 802.291.1944
E-Mail: agdesign@cs.com

PROPOSED ADDITION
SECOND GARAGE BAY & STORAGE
EDEISTEIN RESIDENCE
814 NOYES LANE, QUECHEE, VT QLLA LOT# 2137



DATE: 26 NOV 2024	REVISIONS:
SCALE: 1/4"=1'-0"	

A2.1



SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

11/26/24 PROGRESS PRINT



Town of Hartford

Application for a Setback Waiver

Supplemental Information - Building or Zoning Permit Required

Applicant name: Gregg Edelstein MAP/LOT #: 7-2137

Location of Property: 814 Noyes Ln., Quechee, VT 05059

1. A setback waiver may be considered by the Zoning Board of Adjustment, providing that a **minimum setback of 5'** is maintained, if one of the following criteria is met.

- (A) When the reduction is no greater than the front or side setbacks for existing structures on adjacent lots on the same street frontage.
- (B) For greater fire safety as recommended by the Hartford Fire Department.
- (C) For greater preservation of open land/agricultural land or scenic vistas.
- (D) For greater preservation of other natural resources, such as, but not limited to surface waters, wetlands or steep slopes.
- (E) For increased energy conservation and renewable energy structures.
- (F) The waiver, if authorized, will represent the minimum necessary to achieve the stated purpose of this Section.

How does your application meet these criteria?

(See Attached Sheet)

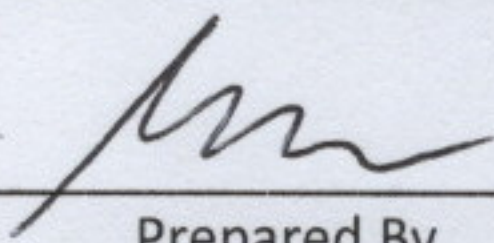
2. The Zoning Board of Adjustment determine that in issuing the setback waiver, the proposed development will:

- (A) Be compatible with the scale and design of structures and overall existing development pattern of the surrounding area.
- (B) Not impair reasonable or appropriate use of adjoining properties.
- (C) Not result in greater impacts on natural resources.
- (D) Not impair sight distances on public or private roads.

How does your application meet these criteria?

(See Attached Sheet)

The applicant retains the obligation to identify, apply for, and obtain any relevant local or state permits before any construction may commence. Please call 802-282-6488 to speak with the State Permit Specialist.

 Prepared By 2/24/25 Date

May 2023

A setback waiver may be considered by the Zoning Board of Adjustment, providing that a minimum setback of 5' is maintained, if one of the following criteria is met.

- A. Our proposed side setback meets the minimum setback of 5' and is comparable to the existing side setback on the adjacent lot. It maintains alignment with the neighborhood's overall setback pattern and ensures continuity in the streetscape. does not disrupt the visual or functional cohesion of properties along this street.
- F. With the subject lot of .38 acres the proposed garage location has been carefully planned to minimize any impact on neighboring properties. The setback still provides ample space for maintenance, privacy, and accessibility. Additionally, the structure's placement has been designed to avoid encroachment on neighboring properties or sightline obstructions.

The Zoning Board of Adjustments determine that in issuing the setback waiver, the proposed development will:

This application meets these criteria in the following ways:

- A. The proposed garage is compatible with the scale and design of other single-family homes on the street
- B. This addition will not impair the use of abutting properties
- C. This addition will not impact any existing natural resources
- D. The proposed garage will not impair any sight distances on any public or private road



REVIEW BOARD

December 13, 2024

Gregg & Karen Edelstein
PO Box 979
Quechee, VT 05059

Sent Via Email: tri70point3@gmail.com

RE: *QLLA Lot # 2137 – 814 Noyes Lane – Garage setback variance*

Dear Gregg & Karen:

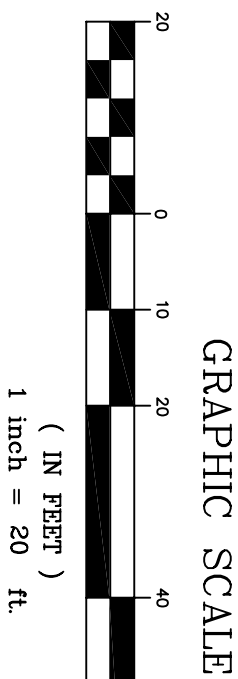
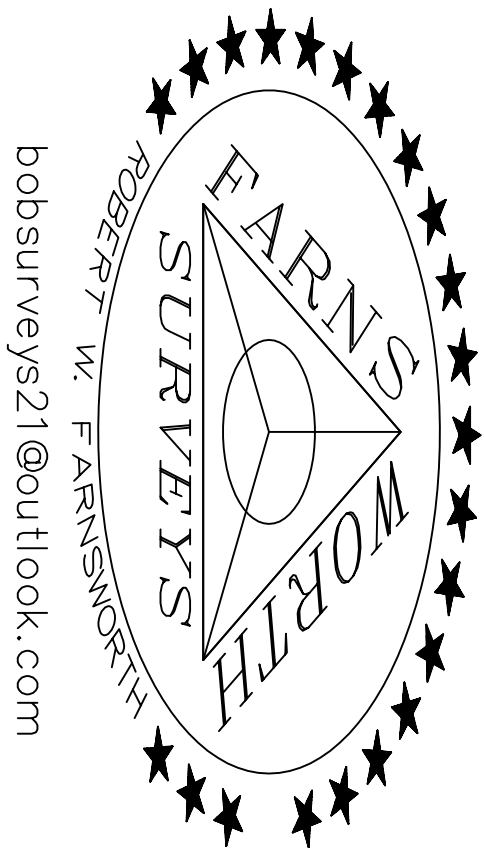
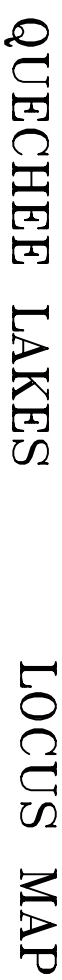
The QLLA Review Board has received your application, which has been reviewed by the Compliance Team who found the following: Request for a side setback waiver in order to add a second garage bay. You indicate that your neighbors, the Stegman's, who abut your property near the variance area do not object. Given the layout of the lot and the limited space available for the garage addition, the Review Board approves the variance from a 25' setback to a 7.9' setback as demonstrated on the site plan by AG Design dated August 22, 2024. Approval is contingent upon obtaining Town of Hartford approval for a variance.

We look forward to receiving your application for the addition and the approved variance permit from the Town of Hartford.

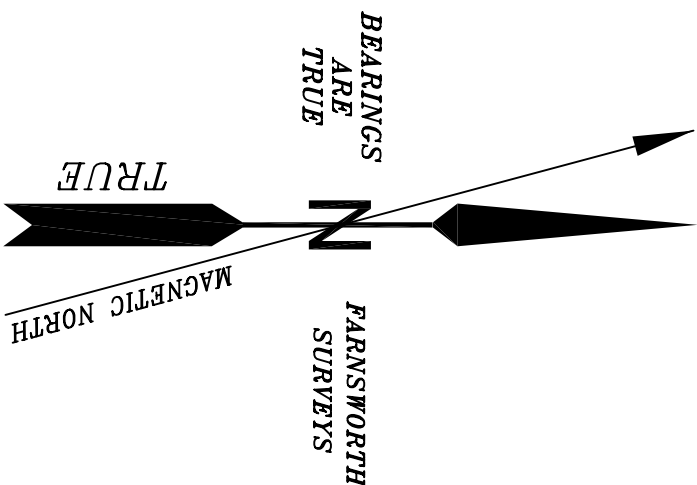
Sincerely,

Michael Shankman, Chair
QLLA Review Board

CC: Art Garges



THE METHOD OF SURVEY WAS WITH A LEITZ SET 4 TOTAL STATION.
BOUNDARY DATA REFERENCED TO A MAP PREPARED BY K.A. LECLAIR FOR QLC (TRUE NORTH)
BOUNDARY SURVEY DATA ON THIS PLAT PROVIDE A CLOSED GEOMETRIC FIGURE.
EASEMENTS OR SERVITUDES ARE AS SHOWN OR DEEDED.
SURVEY FIELD WORK STARTED AUGUST 20, 2024.



REFERENCED TO A MAP PREPARED BY
K.A. LECLAIR FOR QLC (TRUE NORTH).

Robert W. Farnsworth

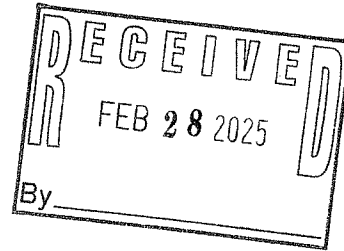
43° - 27' - 15.1876" N - LAT. 72° - 30' - 38.3157" W - LONG. FARNSWORTH SURVEYS OFFICE - 2024

Response to Memorandum dated February 26, 2025

2. We understand that we retain the obligation to identify, apply for, and obtain any relevant local and state permits for this project. I have been in contact with The Vermont Agency of Natural Resources (ANR) to determine if a State Environmental Permits are required.
3. I spoke to Dana Clawson, Hartford's Environmental Sustainability Coordinator about the Vermont Residential Energy Code.
4. We will conform with section 260-27 C of the Hartford Zoning Regulations as follows:
 1. We will maintain the existing foundation drainage system, that was originally approved with the construction of the house and extend it to include the addition.
 2. We will restore the grading to the existing contours as to not impact the abutters from sheet draining.
 3. We will restore and maintain the existing ground cover on the affected area.
5. We acknowledge and understand that construction of the project must comply with Section 260-31 B of the Hartford Zoning Regulations, which states: Earth moving and hauling, rock drilling or crushing, jack hammer and similar excessively loud equipment shall not be operated on Sundays or between the hours of 5:30 p.m. and 7:00 a.m. except in emergency situations.
6. We acknowledge and understand that any stockpiling of materials related to the construction of the project must be located twice the distance of the height of the stockpiled materials from any public or private right-of-way or property boundary.

2/24/2025

Carl Stegman
352 Williams Lane
Quechee, VT 05059



Town of Hartford Planning and Development
171 Bridge Street
Hartford Town Hall
White River Junction, VT 05001

Subject: Support for Setback Waiver Request – 814 Noyes Ln, Quechee, VT

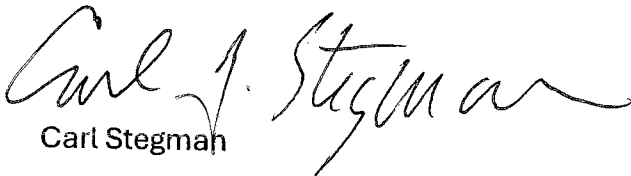
Dear Members of the Department of Hartford Planning and Development

I am writing about the proposed garage expansion at the Edelstein residence - 814 Noyes Ln, Quechee, VT and the associated request for a setback waiver. I have reviewed their plans. As an adjacent property owner, I want to formally express that I have no opposition to the requested waiver for the proposed expansion.

I understand that the project will result in a setback of 7.85 feet, and I do not believe this will negatively impact my property or the surrounding neighborhood. The expansion appears to be in keeping with the character of the area, and I support my neighbor's efforts to improve their property.

Please feel free to contact me if you require any further information. I appreciate your time and consideration of this matter.

Sincerely,


Carl Stegman

**DRAFT
FINDINGS OF FACT
CONCLUSIONS OF LAW
AND
DECISION**

HARTFORD ZONING BOARD OF ADJUSTMENT

**Application #02-25 by Varma Yash and Sharon Rosenthal
for Conditional Use Approval
related to the construction of structures, a driveway, and associated improvements
lot 07-5233-000, Willard Road, Quechee
in the Quechee Lakes Planned Development**

This decision pertains to application #02-25 by Varma Yash and Sharon Rosenthal (owners/applicants) for Conditional Use Approval under sections 260-16, 260-25, and 260-26 of the Hartford Zoning Regulations related to the construction of structures, a driveway, and associated improvements, lot 07-5233-000, Willard Road, Quechee, in the Quechee Lakes Planned Development.

FINDINGS OF FACT

Based upon the information contained in the exhibits for this application (see attached list) and the evidence adduced at the Zoning Board of Adjustment meeting of March 26, 2025, the Hartford Zoning Board of Adjustment makes the following Findings of Fact:

General Information

1. The owners of record of lot 07-5233-000 are Varma Yash and Sharon Rosenthal who acquired the lot on 01-13-23. The deed is filed in volume 609, page 34 of the Hartford Land Records.
2. The lot is located on Willard Road in Quechee.
3. The lot is undeveloped.
4. The lot is approximately 2.92 acres.
5. The lot is class two (2), municipal sewer and one site water.
6. The lot is in part of the Quechee Lakes Planned Development.

This Application

7. According to the applicants, the project consists of the construction of a driveway to serve a primary 5-bedroom dwelling and a 3-bedroom guest house, and associated grading, stormwater management, on-site water supplies (an individual drilled well for

the dwelling and guest house), and sewer services that will connect to the municipal sewer system. The construction of the driveway requires impacts to the riparian buffer of a stream that is identified on the Hartford G.I.S. Natural Resources Map and the movement of more than 200 cubic yards of earth material, both of which require Conditional Use Approval.

A guest house is defined in the Quechee Lakes Master Plan as “a non-rental accessory structure intended for occupancy by family and friends.”

8. According to the applicants, the project will require a State Wetland Permit for impacts within the wetland and the 50' wetland buffer. The applicants have engaged a wetland scientist to communicate with the district wetland ecologist and prepare the application materials.
9. As noted above, the property contains a stream identified on the most recent edition of the Hartford G.I.S. Natural Resources Map.
10. Section 260-25B of the Zoning Regulations requires that a riparian buffer be maintained for a minimum of 30 feet from the edge of a stream or any other surface water identified on the most recent edition of the Hartford G.I.S. Natural Resources Map.

No development, excavation, filling, clearing or grading shall occur within the buffer without Conditional Use Approval under section 260-25F unless the activity is exempt under section 260-25D or allowed under section 260-25E.

According to the applicants, the project includes a private sewer line crossing the riparian buffer to connect to the Town sewer line. The proposed sewer line crosses the stream to connect to the Town sewer line. The connection is an allowed activity under section 260-25 E (7).

In addition, the finished grade of the proposed driveway culvert that crosses the surface water and riparian buffer requires a height of nine feet above the intermittent stream bed, or ten feet above the bottom of the culvert (the culvert is buried one foot below the stream bed). The height of the crossing is necessary to keep the driveway grades on both sides of the crossing within reasonable parameters. The steepest section of the driveway is 12% to 13%. Consequently, the proposed driveway and culvert are not exempt under section 260-25D or allowed under section 260-25 E and require Conditional Use Approval.

11. Section 260-25 F (1) of the Zoning Regulations requires that the Zoning Board of Adjustment assess whether the basic project purpose can be achieved by moving the proposed construction, excavation, filling or grading to a site outside of the buffer.

If such a move is not possible, the proposed use must then be designed to minimize adverse impacts on existing riparian vegetation, water quality and the integrity of the buffer, provided that:

- (a) The least possible area of existing riparian vegetation is disturbed.

According to the applicants, the stream and associated wetlands bisect the property such that the majority of the developable land within the parcel can only

be accessed by crossing the stream with a driveway. Consequently, the basic project purpose cannot be achieved without impacting the riparian buffer. The location of the driveway was selected to minimize the adverse impacts on the stream and its riparian vegetation.

- (b) Disturbed riparian areas are replanted with a mixture of native or noninvasive trees, shrubs, and grasses.

According to the applicant, the revegetation notes on the Riparian Buffer Impacts Plan direct the contractor to replant disturbed riparian areas with native or non-invasive trees, shrubs, and grasses.

- (c) Erosion and sediment control measures are followed.

According to the applicants, the plan set includes an Erosion Prevention and Sediment Control plan and details that follow and reference the Low Risk Site Handbook for Erosion Prevention and Sediment Control published by the Vermont Department of Environmental Conservation.

- (d) Tree and shrub removal results in minimal breaks to the canopy, the stumps and root systems of removed vegetation remain intact in the ground wherever possible, the area is replanted with native or noninvasive shrubs and grasses, and the method used complies with the most current standards of Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont.

According to the applicants, the Riparian Buffer Impacts Plan includes these requirements in the Riparian Buffer Impacts Notes.

- (e) Management and treatment of stormwater run-off from new development to achieve filtering of pollutants is provided.

According to the applicants, the grading and drainage plan and details include provision for drainage ditches and culverts to capture stormwater runoff from the driveway and discharge it to level spreaders, where the runoff is converted from concentrated flow and allowed to spread out over the vegetated earth surface, thereby minimizing erosion, filtering pollutants through the vegetation, and encouraging groundwater recharge. Stormwater will be treated in this manner before reaching the edge of the delineated wetlands or the riparian buffer.

12. Section 260-15 F (2) lists application requirements as follows:

- (a) Area of excavation, filling and/or grading and proximity to top of bank for a river and to the water's edge for any other surface water;
- (b) Depth of excavation and proximity to top of bank for a river and to the water's edge for any other surface water;
- (c) Amount of material to be excavated, filled or graded;
- (d) Existing grade and proposed grade;
- (e) Proximity to flood hazard zone, if any;
- (f) Description of the practices that will be used to protect water quality of project-generated stormwater runoff based on guidance from the most current edition of the Low Risk Site Handbook for Erosion Prevention and Sediment Control;

- (g) Erosion control plan; and
- (h) Plan for rehabilitation of the site at the conclusion of operations, including grading, seeding, planting, fencing, installation of drainage system, or other measures.

To meet these requirements, the applicants submitted the following Plans:

- A Riparian Buffer Impacts Plan
- Existing Conditions Plan
- Grading and Drainage Plan
- Erosion and Sediment Control Plan.

(See exhibit #2)

13. Section 260-26 of the Zoning Regulations, Extraction of Earth Resources/Filling of Land, states “in all districts, the removal from a lot of more than 20 cubic yards per year of soil, sand, rock or gravel, the quarrying of stone, or the addition or on-site movement of more than 200 cubic yards per year of such materials shall require Conditional Use approval, except for (1) removal of material excavated for the foundation of a building for which a current zoning permit exists or (2) removal or filling in connection with a development for which site development plan approval has been granted.”
14. According to the applicants, construction of the driveway and the associated stormwater management facilities will require the addition or on-site movement of approximately 700 cubic yards of cut and 3,800 cubic yards of fill material, which require Conditional Use Approval.
15. The applicants submitted the following information as required under section 260-26 (1)-(6):

(1) Depth of excavation and proximity to roads or adjacent properties.

According to the applicants, the driveway construction requires imported fill to achieve final grades throughout the length of the driveway. The existing vegetation and topsoil will be excavated an average depth of approximately 12 inches to prepare the ground for the imported materials. The proposed sewer service pipe and drainage culverts will require excavation of an average depth of four feet to install the pipes.

The adjacent properties to the north and south of the parcel are already developed with single-family homes. The nearest structure to the driveway is the dwelling on Lot 7-5235, located approximately 125 feet north of the driveway.

(2) Existing grade and proposed grade created by removal or addition of material.

According to the applicants, the existing land is wooded and slopes from west to east across the parcel. There is a band of very steeply sloping terrain (40%) across the middle of the parcel, and the wetland area east of the steep slope is relatively gently sloping (5% to 10%). The proposed driveway slope will be approximately 8% for the first 100 feet from Willard Road, heading westward down to the intermittent stream where it levels off as it crosses over the stream. The driveway then rises westward toward the proposed main house at a slope of 12% to 13%. Common fill, gravel, and

hardpack materials will be imported to construct the driveway and parking areas.

(3) Anticipated effect upon public health and safety.

According to the applicants, the driveway construction will not cause any adverse effects upon public health and safety. The project is on an existing parcel within the QLLA master plan development; therefore, it is already zoned and planned to be developed as a single-family home. The project includes the construction of on-site water supplies to serve the main house and guest house, and construction of sewer services that will connect to the municipal sewer main in Willard Road. Stormwater management practices and erosion prevention and sediment control measures are also proposed to maintain water quality during and after construction.

(4) Anticipated effect of noise, dust, or vibration on the use of adjacent properties.

According to the applicants, construction is anticipated to begin spring/summer of 2025. Hours of construction will be Monday through Saturday, 7:00 a.m. to 5:00 p.m. Dust will be controlled by using water or chloride. The nearest residence is on Lot 7-5235, located approximately 125 feet north and uphill, and screened by woods, such that vibrations will not be noticeable on adjacent properties.

(5) Anticipated effect of traffic on residential areas, potential for excess congestion or damage to public roads.

According to the applicants, the project is not anticipated to impact local traffic or damage the existing Hartford roads. Construction will occur over a period of several weeks; consequently, there will be no more than a few trucks delivering material to the site during any hour.

(6) Measures for preventing erosion, controlling runoff, and conserving topsoil.

According to the applicants, the contractor will utilize stone check dams, erosion control socks, and silt fence to control erosion, in accordance with the Vermont Low-Risk Site Handbook for Erosion Prevention and Sediment Control.

Stormwater runoff will be controlled by the construction of stone discharge aprons and level spreaders at the downstream side of culverts and at areas of potential concentrated stormwater flow. The approximate sizes and locations are depicted on the site plans.

The total site disturbance associated with the construction of the driveway and houses is approximately 0.85 acre; therefore, a Construction General Permit (CGP) 3-9020 from the State of Vermont is not required.

16. The property is subject to the requirements of the Rural Lands Overlay District as outlined in section 260-21 B 4 of the Zoning Regulations. This section requires that all development be laid out, so they integrate carefully into the natural resources while protecting and minimizing fragmentation of land, and adverse visual and environmental impacts on these natural resources.

To achieve this, the following supplemental standards apply:

- Development envelopes and associated development shall be located down-slope of ridgelines and prominent hills in areas where ridgelines and hillsides are easily visible from existing roadways and shall be considered relative to the availability of less visible locations on-site. Additional landscaping may be required to screen development to reduce visibility.

According to the applicants, the development envelopes are not located on a ridgeline or prominent hill that is easily visible from existing roadways. The building development areas will maintain wooded buffers between them and the edges of the parcel.

- When locating structures, roads, driveways, utility corridors and rights-of-way, one or more of the following should be employed:
 - a. Place improvements at the wooded edge and/or nearby developed areas. If not possible, place improvements in a manner that minimizes encroachment in wooded areas and open fields.
 - b. Follow existing contours, roads, tree lines, and stone walls.
 - c. Share roads, driveways, utility corridors and rights-of-way.
 - d. Place developments and subdivisions close to roads.
 - e. Follow established settlement patterns.

According to the applicants, the driveway to the main house is located along the north side of the parcel, situated to minimize the wetland and steep slope disturbance. The guest house will share the same driveway. The proposed dwellings and driveway layout are consistent with other single-family developments in the neighborhood, following established settlement patterns.

- Locate development such that it will not conflict with existing agricultural uses in the area and provide adequate buffers between potentially conflicting uses.

According to the applicants, the parcel is currently wooded with no existing agricultural use. There are no existing agricultural uses along Willard Road, such that there is no need for a buffer between it and the proposed development.

- Create an efficient use of land that results in cluster development, small networks of utilities and roads, and large sections of unfragmented land.

According to the applicants, the proposed single-family dwelling development is located on an existing parcel zoned for residential development. The driveway and house sites are laid out to minimize disturbance to the stream and wetlands. A single driveway is proposed to serve both the main house and the guest house, thereby preserving large sections of woodland within the parcel.

17. Section 260-27 C of the Hartford Zoning Regulations states:

Grading and drainage. The following provisions shall apply to any changes which affect drainage of water to or from a property:

Any changes in grading shall be made so that runoff is directed to established drainage courses and will not cause ponding or flooding of other properties or exceed the capacity of downstream drainage facilities.

When possible, drainage systems shall be designed so that water runoff existing prior to site development shall not be increased after development.

All changes in grade shall be controlled so as not to cause a nuisance or damage to other properties or erosion of topsoil.

According to the applicants, roof runoff from the dwelling and guest house will be directed to sheet flow across existing woodland areas within the property, providing ample opportunity for runoff to be reabsorbed into the woodland duff and recharge groundwater. Runoff from the proposed driveway will be collected in drainage swales on both sides of the driveway to culverts that will discharge to level spreaders. The level spreaders will convert the concentrated stormwater from the culverts to sheet flow so that this drainage can flow across the woodland duff and be reabsorbed. The driveway alignment and grading do not modify flow patterns and will not direct new or concentrated flows toward the abutting properties. Three culverts have been designed and appropriately sized to convey drainage from the north to the south side of the driveway, connecting the drainage to the intermittent stream that flows across the parcel.

18. Section 260-28D of the Zoning Regulations states:

In Commercial Districts, retaining walls over 42 inches in height shall require the issuance of a zoning permit and certification by a professional engineer on their design, structural stability, and construction. In Residential and Rural Districts, a permit shall be required for such walls only when the distance between the wall and any boundary or

easement line is less than twice the height of the wall.

According to the applicants, the retaining wall along the north side of the proposed driveway will be located approximately eight feet from the northern boundary line. The height of the wall at its tallest point is approximately nine feet, such that the retaining wall will require a Zoning Permit and certification by an engineer on the design, structural stability, and construction.

19. The applicants understand they must obtain a driveway permit from the Department of Public Works.
20. The applicants understand that construction of the project must comply with the following:

Earth moving and hauling, rock drilling or crushing, jack hammer and similar excessively loud equipment shall not be operated on Sundays or between the hours of 5:30 p.m. and 7:00 a.m. except in emergency situations.
21. The applicants understand that any stockpiling of materials related to the construction of the project must be located twice the distance of the height of the stockpiled materials from any public or private right-of-way or property boundary.
22. The applicants retain the obligation to identify, apply for, and obtain any relevant state permits for this project.
23. The applicants understand that a zoning permit is required before the commencement of construction of the project. The applicants further understand that the issuance of the zoning permit only authorizes the construction of the project in compliance with the Findings, Conclusions of Law, Approved Plans, Exhibits and Conditions as specified herein.
24. The applicants understand that all activities authorized by the issuance of the zoning permit shall be started within six (6) months and completed within two (2) years of its date of issue, or the zoning permit shall become null and void and reapplication to complete any activities shall be required. Any activities not completed within the above permit period shall be subject to any ordinance in effect at the time of reapplication. One six (6) month extension to both time periods may be granted by the Planning Commission prior to the expiration periods noted.
25. The applicants understand that they must obtain a Certificate of Occupancy from the Zoning Administrative Officer upon completion of the project. The applicants understand that a Certificate of Occupancy will not be issued if the project is not in compliance with these Findings, Plans and any conditions placed on the decision.

CONCLUSIONS OF LAW

The Hartford Zoning Board of Adjustment, based upon the forgoing Findings of Fact, concludes that the proposed project will not adversely affect:

260-16A (1) Community facilities.

(a) The capacity of planned or existing **community facilities**, including, but not limited to:

[1] Emergency services.

[2] Municipal water or sewer system.

[3] Recreational facilities.

[4] The school system.

[5] Solid waste disposal facilities.

260-16A (2) The **character** of the area, as defined by the objectives of the zoning district within which the project is located and specifically stated policies and standards of the municipal plan, including, but not limited to:

(a) Scenic or natural beauty, historic sites, or rare and irreplaceable natural areas.

(b) Compatibility with scale and design of structures existing in that area.

260-16A (3) The capacity of **roads and highways** in the vicinity to safely accommodate expected traffic flows. In making this determination, the Board may require submission of a traffic impact study made by a professional traffic engineer.

260-16A (4) Any Town of Hartford **bylaws** in effect.

260-16A (5) Utilization of **renewable energy resources**.

And complies with Sections 260-25 and 260-26 of the Zoning Regulations.

DECISION

The Hartford Zoning Board of Adjustment, based upon the forgoing Findings of Fact and Conclusions of Law, hereby approves application #02-25 by Varma Yash and Sharon Rosenthal (owners/applicants) for Conditional Use Approval under sections 260-16, 260-25, and 260-26 of the Hartford Zoning Regulations related to the construction of structures, a driveway, and

10. 02-25

associated improvements, lot 07-5233-000, Willard Road, Quechee, in the Quechee Lakes Planned Development **on the condition that:**

- **The final plans are email to the Zoning Administrator.**
- **A Zoning Permit is obtained under section 260-28 D of the Zoning Regulations before construction of the retaining wall commences.**
- **Before a Certificate of Occupancy is issued, the applicants submit written verification from their Engineer certifying that the project was constructed in compliance with the approved plan and Findings of Fact.**

This decision is also subject to the condition that no modification or expansion shall be made to the project as described and limited in the above Findings of Fact and Conclusions of Law without the written approval of the Hartford Zoning Board of Adjustment and/or the Hartford Planning Commission. This decision may be revoked, and a new application or permit required if conditions and findings are violated or modified without written approval.

The applicant is responsible for insuring compliance with all applicable State and Federal regulations pertaining to this application.

Those in favor:

Those in opposition:

Those not participating:

Dated at Hartford, Vermont this ____ day of March 2025.

HARTFORD ZONING BOARD OF ADJUSTMENT

By: _____
Chairperson/Vice-Chairperson

Appeal Rights: An interested person who has participated in the proceeding related to this decision has the right to appeal this decision to the Vermont Environmental Court, pursuant to 24 V.S.A. s. 4471 and V.R.E.C.P.5, in writing, within 30 days of the date of this decision. If you fail to appeal this decision as described above, your right to challenge this decision at some future time may be lost. You will be bound by this decision, pursuant to 24 V.S.A. s. 4472 (d) (exclusivity of remedy; finality).

11. 02-25

EXHIBIT LIST

1. Application #02-25
2. Set of Plans entitled “Varma Yash & Karen Rosenthal, Tax Map 7, Lot 5233, Willard Road, Hartford Vermont, received March 6, 2025 (as updated if required by this Decision), including:
 - Sheet 1 Existing Conditions
 - Sheet 2 Overall Site Plan
 - Sheet 3 Proposed Grading and Drainage Plan
 - Sheet 4 Water Supply and Sewer Design
 - Sheet 5 Erosion and Sediment Control Plan
 - Sheet 6 Riparian Buffer Impact Plan
 - Sheet 7 Sewer System Details
 - Sheet 8 Site and Sewer Details
 - Sheet 9 Site and Drainage Details
 - Sheet 10 Water Supply Design and Details
 - Sheet 11 Erosion and Sediment Control Details
3. Letter from Ann Kynor revision date March 5, 2205
4. Memo from Ann Kynor dated March 5, 2205
5. Memo from Jo-Ann Ells dated February 27, 2025
6. Overlay Districts Form



Town of Hartford

Planning Commission App # _____
Zoning Board of Adjustment App # _____

APPLICATION TO PLANNING COMMISSION &/OR ZONING BOARD OF ADJUSTMENT

PLEASE COMPLETE ALL ITEMS APPLICABLE AND PROVIDE THE CORRECT NUMBER OF COPIES OF THIS APPLICATION AND THE SITE PLAN OR SUBDIVISION PLAT. ABUTTING LANDOWNERS WILL BE NOTIFIED BY THE PLANNING/ZONING OFFICE.

1. NAME & ADDRESS OF RECORD OWNER(S) _____

Deed Recorded Book _____ Page _____ (Available at Town Clerk's Office)

Telephone: Work _____ Cell _____ Email Address: _____

2. NAME & ADDRESS OF APPLICANTS(S) _____

Telephone: Work _____ Cell _____ Email Address: _____

3. NAME & ADDRESS OF APPLICANTS' CONSULTANT _____

Telephone: Work _____ Cell _____ Email Address: _____

4. PROJECT LOCATION _____

5. PRESENT USE OF PROPERTY _____

6. BRIEFLY DESCRIBE PROJECT (in addition, a detailed narrative must be submitted)

7. PROJECT SIZE IN SQ. FT OR ACREAGE _____

Lot Width _____ Lot Depth _____

8. IS PROJECT ON TOWN WATER/SEWER? Yes _____ No _____ If Yes, estimated

Water Consumption/day _____ Amount of Sewer Flow Projected _____

Size of Closest Lines Above (water) _____ (sewer) _____

9. DESCRIBE LANDSCAPING PLAN _____

10. IF A BUSINESS - Present # of Employees _____

Proposed Days & Hours of Operation _____

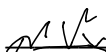
Will you use the landfill & recycling center? Yes _____ No _____

The main waste by-product of your business is: _____

11. **IF A RESTAURANT** - Present seating _____ Proposed _____
12. **PARKING SPACES** - Number to be provided _____
13. **SIGNAGE** - Free Standing _____ Attached _____
14. **FENCING** – Location _____ Height _____
15. **NEAREST WATER SUPPLY FOR FIREPROTECTION** _____
16. **ESTIMATED VALUE OF PROPOSED WORK** _____
17. **IS THERE AN EXISTING DRIVEWAY?** _____
18. **IF A SUBDIVISION** - Number of New Lots to be Created _____
- Do you request that the Town consider taking over maintenance of – Roads _____
- Or Park/Open Space _____

I HEREBY CERTIFY THAT THE INFORMATION PROVIDED ON THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. (This certification must be signed by lot owners and applicants).


 Applicant's Signature _____ Date _____

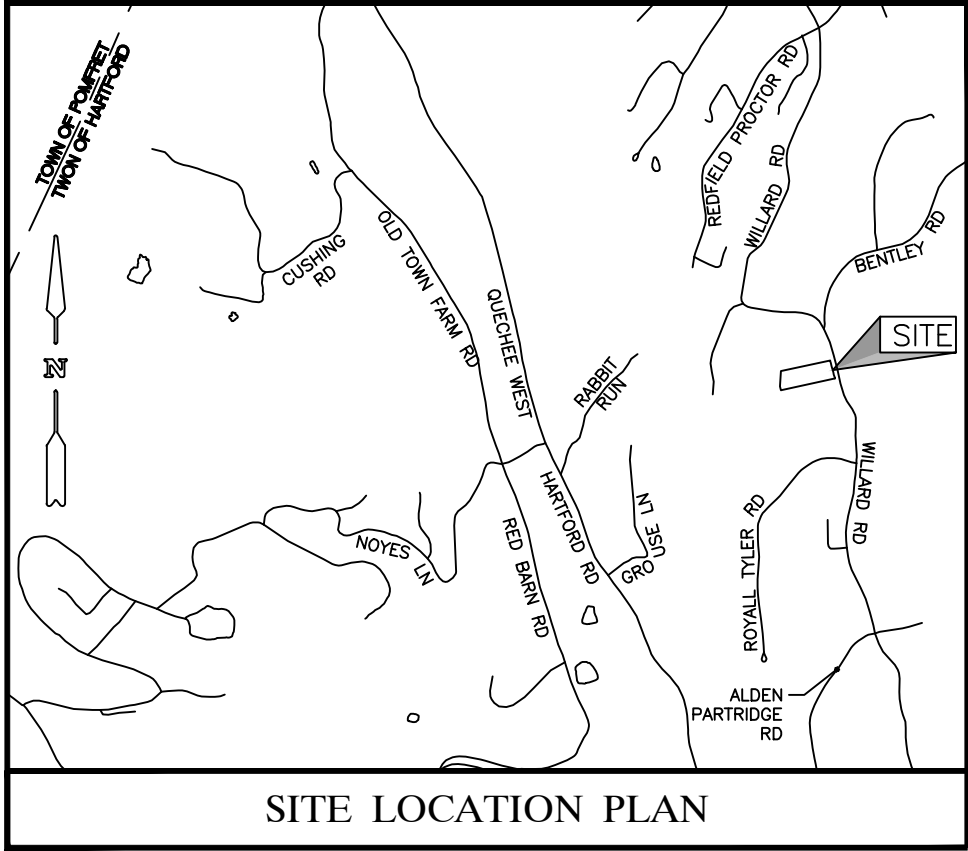

 Lot Owner's Signature _____ Date _____


 Co-Applicant's Signature _____ Date _____


 Co-Owner's Signature _____ Date _____

The applicant retains the obligation to identify, apply for, and obtain any relevant local or state permits before any construction may commence. Please call 802-282-6488 to speak with the State Permit Specialist.

For Office Use Only		
Map/Lot #		
Fee Paid \$:		Receipt #:
PC: Site Plan	Min. Sub.	Maj. Sub.
PD	PD Amend.	Other
ZBA: Conditional Use	Variance	Appeal
Other		
Zoning District (s)		Date Filed:
Official Submittal Date:		



WETLAND NOTE:

AUDRA L. KLUMB, NH CERTIFIED WETLAND SCIENTIST NO. 222, OF A&D KLUMB ENVIRONMENTAL, LLC, PERFORMED THE WETLAND MAPPING FOR THIS SITE ON SEPTEMBER 15, 2023 AND AUGUST 21, 2024 ACCORDING TO THE TECHNICAL CRITERIA OF THE US ARMY CORPS OF ENGINEERS DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987), THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0 (JANUARY 2012).

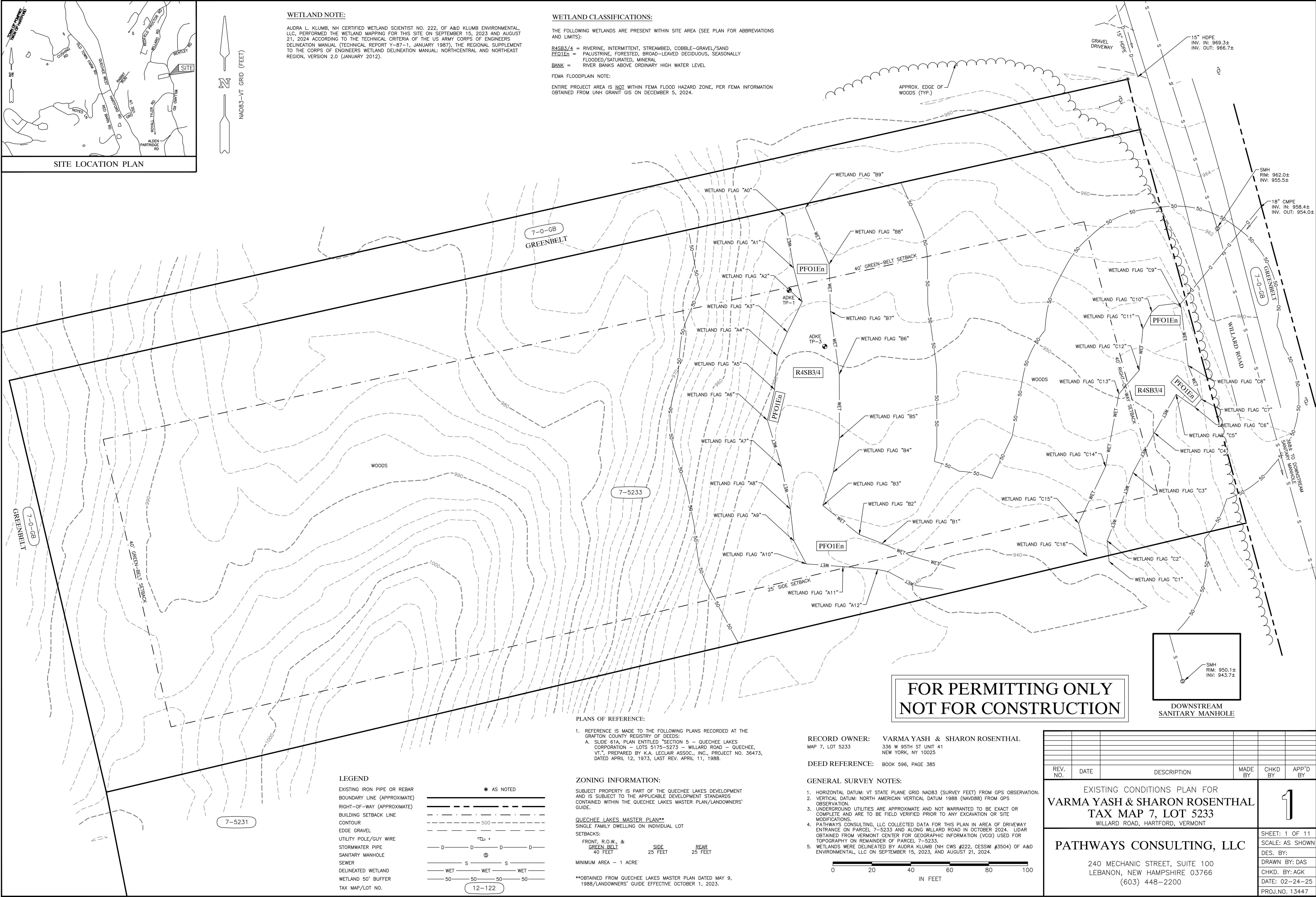
WETLAND CLASSIFICATIONS:

THE FOLLOWING WETLANDS ARE PRESENT WITHIN SITE AREA (SEE PLAN FOR ABBREVIATIONS AND LIMITS):

R4SB3/4 = RIVERINE, INTERMITTENT, STREAMBED, COBBLE-GRAVEL/SAND
PFO1En = PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED, MINERAL
BANK = RIVER BANKS ABOVE ORDINARY HIGH WATER LEVEL

FEMA FLOODPLAIN NOTE:

ENTIRE PROJECT AREA IS **NOT** WITHIN FEMA FLOOD HAZARD ZONE, PER FEMA INFORMATION OBTAINED FROM UNH GRANIT GIS ON DECEMBER 5, 2024.



PLANS OF REFERENCE:

- REFERENCE IS MADE TO THE FOLLOWING PLANS RECORDED AT THE GRAFTON COUNTY REGISTRY OF DEEDS:
 - SLIDE 61A, PLAN ENTITLED "SECTION 5 - QUECHEE LAKES CORPORATION - LOTS 5175-5273 - WILLARD ROAD - QUECHEE, VT.", PREPARED BY K.A. LECLAIR ASSOC., INC., PROJECT NO. 36473, DATED APRIL 12, 1973, LAST REV. APRIL 11, 1988.

ZONING INFORMATION:

SUBJECT PROPERTY IS PART OF THE QUECHEE LAKES DEVELOPMENT AND IS SUBJECT TO THE APPLICABLE DEVELOPMENT STANDARDS CONTAINED WITHIN THE QUECHEE LAKES MASTER PLAN/LANDOWNERS' GUIDE.

QUECHEE LAKES MASTER PLAN**

SINGLE FAMILY DWELLING ON INDIVIDUAL LOT

FRONT, R.O.W., & GREEN BELT 40 FEET
SIDE 25 FEET
REAR 25 FEET

MINIMUM AREA - 1 ACRE

**OBTAINED FROM QUECHEE LAKES MASTER PLAN DATED MAY 9, 1988/LANDOWNERS' GUIDE EFFECTIVE OCTOBER 1, 2023.

RECORD OWNER: VARMA YASH & SHARON ROSENTHAL
MAP 7, LOT 5233
336 W 95TH ST UNIT 41
NEW YORK, NY 10025

DEED REFERENCE: BOOK 596, PAGE 385

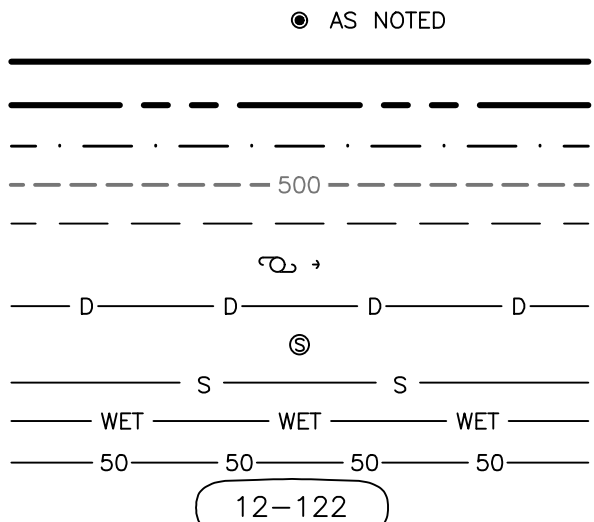
GENERAL SURVEY NOTES:

- HORIZONTAL DATUM: VT STATE PLANE GRID NAD83 (SURVEY FEET) FROM GPS OBSERVATION.
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) FROM GPS OBSERVATION.
- UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT WARRANTED TO BE EXACT OR COMPLETE AND ARE TO BE FIELD VERIFIED PRIOR TO ANY EXCAVATION OR SITE MODIFICATIONS.
- PATHWAYS CONSULTING, LLC COLLECTED DATA FOR THIS PLAN IN AREA OF DRIVEWAY ENTRANCE ON PARCEL 7-5233 AND ALONG WILLARD ROAD IN OCTOBER 2024. LIDAR OBTAINED FROM VERMONT CENTER FOR GEOGRAPHIC INFORMATION (VCGI) USED FOR TOPOGRAPHY ON REMAINDER OF PARCEL 7-5233.
- WETLANDS WERE DELINEATED BY AUDRA KLUMB (NH CWS #222, CESSWI #3504) OF A&D ENVIRONMENTAL, LLC ON SEPTEMBER 15, 2023, AND AUGUST 21, 2024.

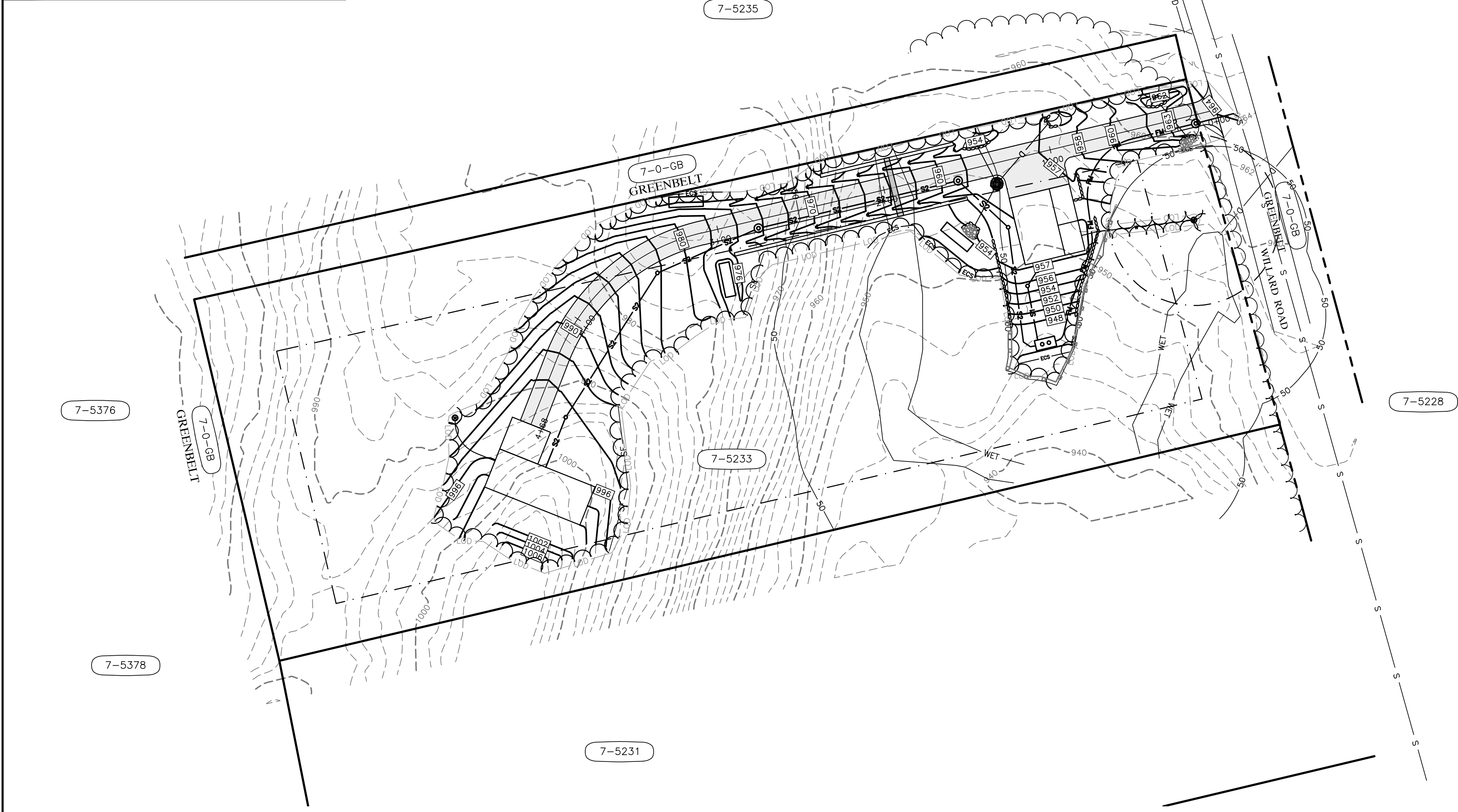
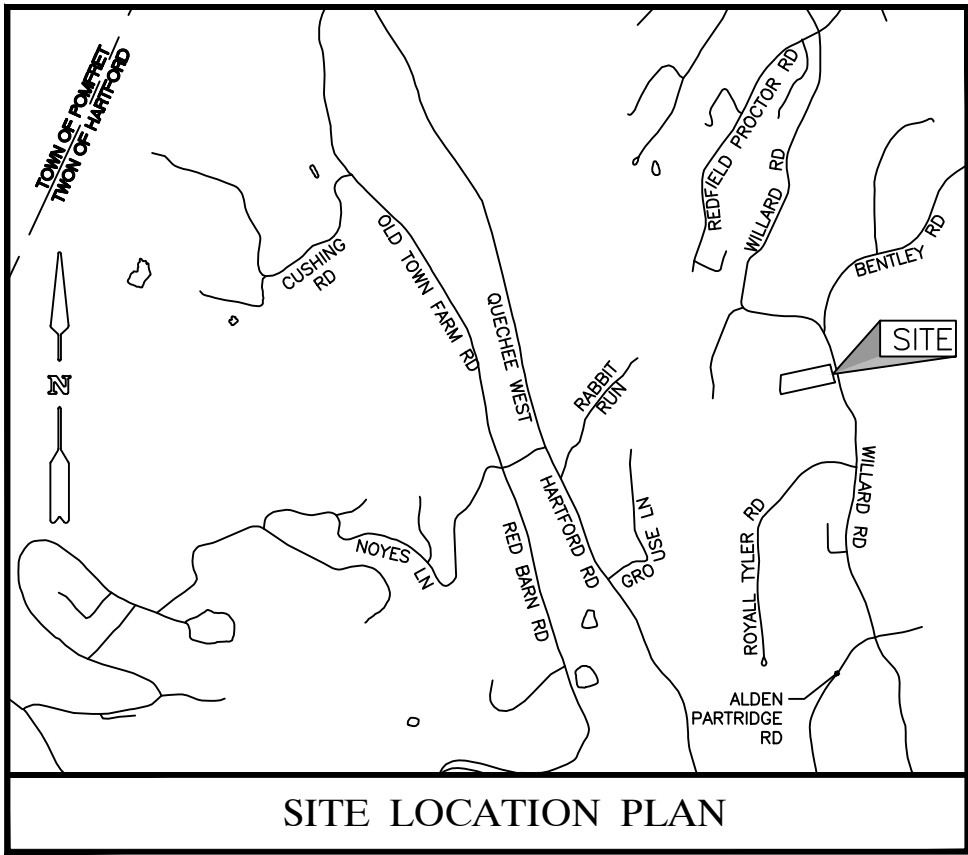


LEGEND

EXISTING IRON PIPE OR REBAR
BOUNDARY LINE (APPROXIMATE)
RIGHT-OF-WAY (APPROXIMATE)
BUILDING SETBACK LINE
CONTOUR
EDGE GRAVEL
UTILITY POLE/GUY WIRE
STORMWATER PIPE
SANITARY MANHOLE
SEWER
DELINEATED WETLAND
WETLAND 50' BUFFER
TAX MAP/LOT NO.



REV. NO.	DATE	DESCRIPTION	MADE BY	CHKD BY	APP'D BY
EXISTING CONDITIONS PLAN FOR VARMA YASH & SHARON ROSENTHAL TAX MAP 7, LOT 5233 WILLARD ROAD, HARTFORD, VERMONT					
PATHWAYS CONSULTING, LLC					
240 MECHANIC STREET, SUITE 100 LEBANON, NEW HAMPSHIRE 03766 (603) 448-2200					
SHEET: 1 OF 11 SCALE: AS SHOWN DES. BY: DRAWN BY: DAS CHKD. BY: AGK DATE: 02-24-25 PROJ. NO. 13447					



LEGEND

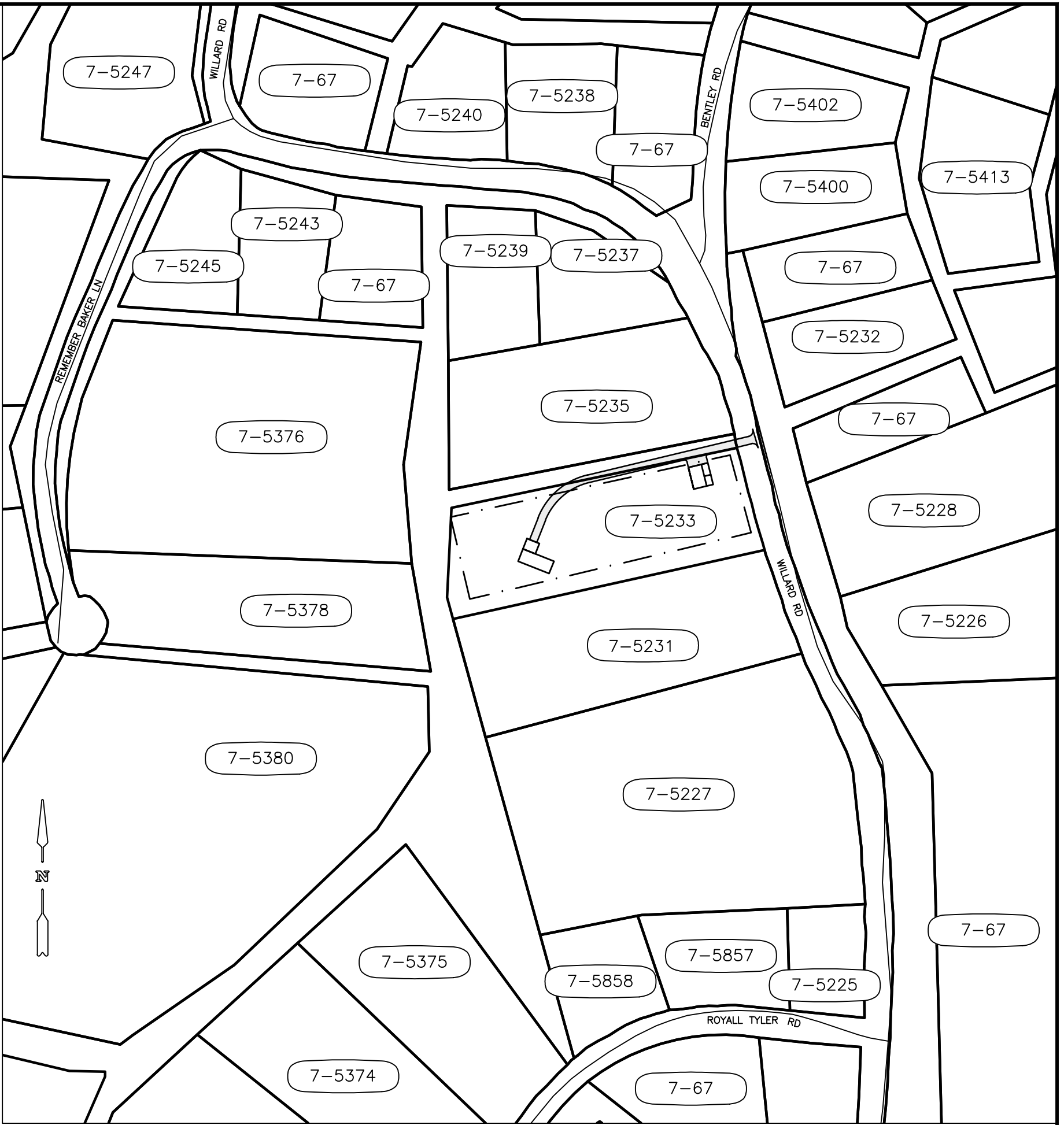
EXISTING IRON PIPE OR REBAR
BOUNDARY LINE (APPROXIMATE)
RIGHT-OF-WAY (APPROXIMATE)
BUILDING SETBACK LINE
CONTOUR
EDGE GRAVEL
UTILITY POLE/GUY WIRE
STORMWATER PIPE
SANITARY MANHOLE
SEWER
DELINEATED WETLAND
WETLAND 50' BUFFER
TAX MAP/LOT NO.

LEGEND: PROPOSED

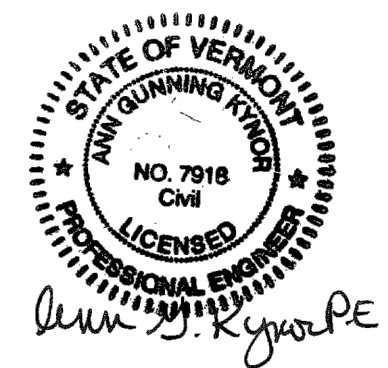
CONTOUR
GRAVITY SEWER
FORCE MAIN
LIMITS OF TREE CLEARING
PROPOSED WORK

FOR PERMITTING ONLY
NOT FOR CONSTRUCTION

OVERALL SITE PLAN FOR
VARMA YASH & SHARON ROSENTHAL
TAX MAP 7, LOT 5233
WILLARD ROAD, QUEECHEE, VERMONT



- GENERAL SURVEY NOTES:
- HORIZONTAL DATUM: VT STATE PLANE GRID NAD83 (SURVEY FEET) FROM GPS OBSERVATION.
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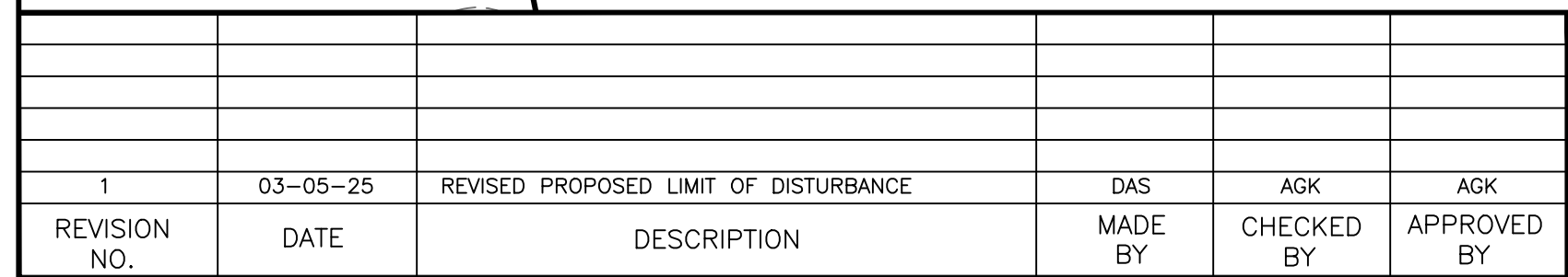


REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY
1	03-05-25	TOWN OF HARTFORD STAFF REVIEW	DAS	AGK	AGK

PATHWAYS CONSULTING, LLC
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

SCALE: AS SHOWN	2
DESIGNED BY: AGK	
DRAWN BY: DAS	
CHECKED BY: AGK	
DATE: 02-24-25	
PROJ. NO. 13447	SHEET 2 OF 11





WILLARD ROAD, QUECHEE, VERMONT

240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

6

MANHOLE LEAKAGE TEST

1. EROSION CONTROL SHALL BE INSTALLED AT THE TOE OF SLOPES AND IN THE DISTURBED AREAS. PRIOR TO COMMENCING CONSTRUCTION EROSION CONTROL MEASURES SHALL INCLUDE SILLING OR FENCING OFF THE EROSION CONTROL DEVICES MUST BE MAINTAINED UNTIL THE SITE IS STABILIZED WITH ADEQUATE VEGETATION.
2. TANK DESIGN SPECIFICATIONS:
 - (a) MINIMUM CONCRETE STRENGTH-5000 PSI AT 28 DAYS
 - (b) STEEL REINFORCEMENT-ASTM A-615-75, GRADE 60, 1" MIN. COVER
 - (c) CIRCUM COVER 0' TO 5'
 - (d) WATER TABLE 5" BELOW FINISHED GRADE
 - (e) CONSTRUCTION JOINT-SEALED WITH 1" MINIMUM BUTYL RUBBER OR EQUIVALENT.
 - (f) SEAMLESS TANKS ARE PREFERRED. IF FIBERGLASS TANKS ARE USED, DOCUMENTATION FROM THE MANUFACTURER IS REQUIRED TO SUBSTANTIATE THE STRUCTURAL SOUNDNESS OF THE TANK.
 - (f) DESIGN LOAD-ASHSTO H10.
3. TANK EXCAVATION: THE CONTRACTOR SHALL PROVIDE AN EXCAVATION FREE OF OBSTRUCTIONS FOR A MINIMUM CLEARANCE OF 18" AROUND THE OUTSIDE PERIMETER OF THE TANK(S). A MINIMUM 6" DEEP OF GRAVEL BEDDING IS REQUIRED BENEATH THE TANK(S). THE GRAVEL BEDDING SHALL BE UNIFORM THICKNESS AND FILTER FABRIC MAY BE REQUIRED BENEATH THE TANK(S) TO ALLOW FOR PROPER SEPARATION OF BEDDING IN CONDITIONS OF HIGH GROUNDWATER OR UNSUITABLE SOILS.
4. TANK BACKFILL: TANK BACKFILL SHALL BE BACKFILLED AROUND THE TANK(S) WITH SUITABLE SOIL SUCH AS PEA GRAVEL, SAND, OR CLEAN GRAVEL. THE BACKFILL MATERIAL SHALL BE COMPACTED IN LIFTS NOT TO EXCEED 12".
5. ALL UNUSED KNOCK-OUTS IN THE SEPTIC TANK CHAMBER SHALL BE SEALED TO PREVENT LEAKAGE.
6. THE CONTRACTOR SHALL PERFORM SEPTIC TANK LEAKAGE TEST. LEAKAGE TESTING OF ALL TANKS FOR WATER TIGHTNESS PER SECTION 1-1010 OF THE VERMONT WASTEWATER RULES.
7. SEWER FORCE MAIN SLOPE, PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH VERMONT WASTEWATER RULES, SECTION 1-1009.

ALL MANHOLES SHALL BE TESTED FOR LEAKAGE. LEAKAGE TESTING OF GRAVITY SEWERS UTILIZING THE WATER TESTING PROCEDURE TAKES INTO ACCOUNT THE LEAKAGE FROM ONE MANHOLE IN THE SECTION. OTHERWISE, MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH ONE OF THE FOLLOWING PROCEDURES:

- (A) HYDROSTATIC TEST:

AFTER THE MANHOLE HAS BEEN ASSEMBLED IN PLACE, ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED AND THE PLUGS PLACED TO PREVENT BLOWOUT.

THE TOP OF THE MANHOLE SHALL BE MORE THAN 2 FEET ABOVE THE SURROUNDING
GROUNDWATER LEVEL OR THE GROUNDWATER LEVEL SHALL BE LOWERED.

EACH MANHOLE SHALL BE CHECKED FOR INFILTRATION BY FILLING WITH WATER TO THE TOP OF THE CONE SECTION. A STABILIZATION PERIOD OF ONE HOUR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THIS PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE SECTION. AFTER A PERIOD OF FIVE (5) MINUTES OF STABILIZATION, TWO (2) HOURS BEGIN, AT THE END OF THE TEST PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE MEASURING THE VOLUME OF WATER ADDED. THIS AMOUNT SHALL BE CONVERTED TO A 24 HOUR RATE AND THE LEAKAGE DETERMINED ON THE BASIS OF GALLONS PER HOUR. THE LEAKAGE FOR EACH MANHOLE SHALL NOT EXCEED FIVE GALLONS PER VERTICAL FOOT OR A 24 HOUR PERIOD FOR EXFILTRATION AND THERE SHALL BE NO VISIBLE INFILTRATION.

- (B) VACUUM TEST:

THIS METHOD OF TESTING MANHOLES FOR LEAKAGE INVOLVES THE USE OF A DEVICE FOR SEALING THE TOP OF THE MANHOLE CONE SECTION AND PUMPING THE AIR OUT OF THE MANHOLE, CREATING A VACUUM AND HOLDING THIS VACUUM FOR A PRESCRIBED PERIOD OF TIME. THE PROCEDURE FOR THIS TEST IS AS FOLLOWS:

- (1) ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. THE COMPLETED MANHOLE SHALL NOT BE BACKFILLED PRIOR TO TESTING. MANHOLES WHICH HAVE BEEN BACKFILLED SHALL BE EXCAVATED TO EXPOSE THE ENTIRE EXTERIOR PRIOR TO VACUUM TESTING OR THE MANHOLE SHALL BE TESTED FOR LEAKAGE BY MEANS OF A HYDROSTATIC TEST.

- (2) ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN A MANNER TO PREVENT DISPLACEMENT.

- (3) A PLATE WITH A INFLATABLE RUBBER RING THE SIZE OF THE TOP OF THE MANHOLE SHALL BE INSTALLED BY INFLATING THE RING WITH AIR TO PRESSURE ADEQUATE TO PREVENT LEAKAGE OF AIR BETWEEN THE RUBBER RING AND THE MANHOLE WALL.

- (4) AIR SHALL THEN BE PUMPED OUT OF THE MANHOLE THROUGH AN OPENING IN THE PLATE UNTIL A VACUUM IS CREATED INSIDE THE MANHOLE EQUAL TO 10 INCHES OF MERCURY ON AN APPROVED VACUUM GAUGE. THE REMOVAL OF AIR SHALL THEN BE STOPPED AND THE TEST TIME BEGUN.

- (5) THE VACUUM MUST NOT DROP TO BELOW 9 INCHES OF MERCURY WITHIN A 2 MINUTE TEST PERIOD. IF MORE THAN 1 INCH OF DROP IN VACUUM OCCURS WITHIN THE 2 MINUTE TEST PERIOD THE MANHOLE HAS FAILED THE TEST AND SHALL BE REPAIRED OR RECONSTRUCTED, AND RETESTED.

- (6) FOLLOWING SATISFACTORY TEST RESULTS, THE MANHOLE MAY BE BACKFILLED.

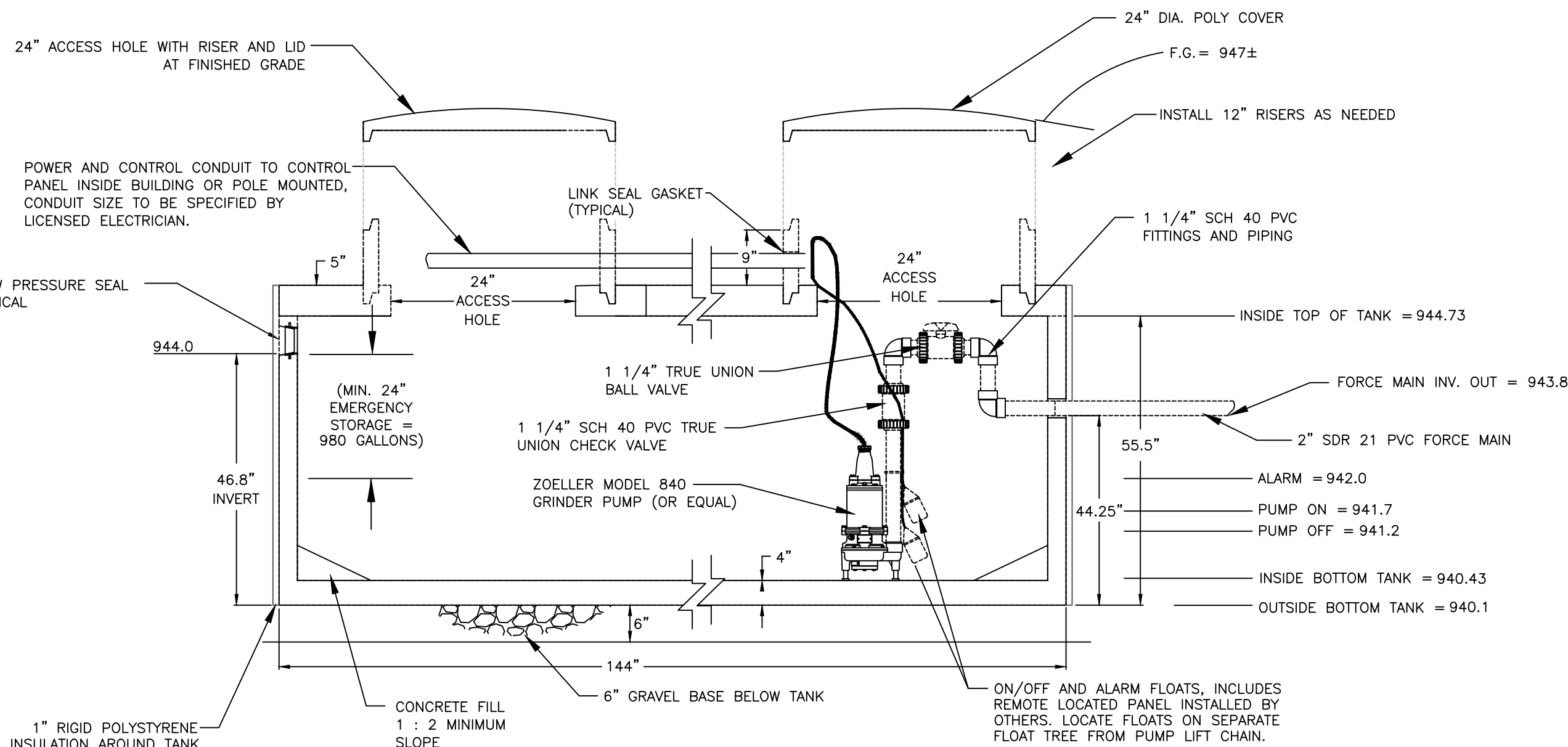
1. THE SYSTEM MUST BE INSTALLED IN STRICT ACCORD WITH THIS APPROVED PLAN. ANY CHANGES MUST BE APPROVED IN WRITING BY THE ENGINEER BEFORE ANY CONSTRUCTION BEGINS.
2. THE SYSTEM IS DESIGNED TO ACCOMMODATE ONLY SANITARY WASTEWATER ASSOCIATED WITH NORMAL DOMESTIC USE.
3. SUBDIVISION APPROVAL NO. N/A
4. THE CONTRACTOR SHALL PROVIDE ALL APPROVED PLANS AND SITE CONDITIONS MUST BE REPORTED TO THE ENGINEER BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE SEPTIC TANK FOR PUMPING AND OTHER MAINTENANCE.
6. THE DESIGN LOADING FOR ALL CONCRETE STRUCTURES SHALL BE H10.
7. THE OWNER SHOULD PUMP OUT SEPTIC TANK SOLIDS EVERY TWO YEARS OR LESS, AS NEEDED.
8. TRENCHES SHOULD BE CLEANED AT LEAST ONCE PER YEAR BY HOISING OFF FILTER CONTENTS INTO SEPTIC TANK.
9. ALL PVC GRAVITY SEWER PIPE SHALL BE 12" SDR D3034 SHALL BE 35 PVC OR EQUAL UNLESS OTHERWISE NOTED. ALL 12" PRESSURE PIPE SHALL BE SDR 21 ALL 12" PRESSURE PIPE SHALL BE JOINED TO CONCRETE STRUCTURES BY BUTYL RUBBER OR AN EQUIVALENT SEALANT.
10. ALTERATION OF ANY INFORMATION AS DEPICTED WITH THESE PLANS IS PROHIBITED AND SHALL RENDER THESE DOCUMENTS VOID.
11. LANDOWNER/CLIENT IS RESPONSIBLE FOR OBTAINING AND MAINTAINING COMPLIANCE WITH ALL LIFE, SAFETY, OSHA AND BUILDING PERMITS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
12. CONTRACTOR IS RESPONSIBLE TO PERFORM ALL SERVICES IN ACCORDANCE TO ALL APPLICABLE STATE AND FEDERAL WORK SAFETY CODES.
13. ALL EARTHWORK SHALL BE PERFORMED IN ACCORDANCE TO THE VERMONT LOW RISK SITE REMEDIATION ACT AND VERMONT EROSION PREVENTION AND SEDIMENT CONTROL REGULATIONS. LOCATIONS, ELEVATIONS AND ORIENTATION OF ALL PHYSICAL ITEMS IN WORK AREA SHALL BE VERIFIED AND FURTHER IDENTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY CHANGES IN LOCATION OR DIMENSIONS SHOWN ON THE PLANS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
15. CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY DIG SAFE THE WORK SITE AND ALSO LOCATING ALL KNOWN NON-MEMBER UNDERGROUND UTILITIES THAT MAY NOT BE LOCATED BY A DIG SAFE EFFORT.
16. CONTRACTOR/LANDOWNER SHALL BE RESPONSIBLE TO INSTALL ALL INTERIOR PLUMBING AND ELECTRICAL SERVICES IN ACCORDANCE TO THE APPLICABLE CODE(S).
17. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CURRENT APPLICABLE VERMONT ENVIRONMENTAL PROTECTION RULE CHAPTERS.
18. CONTRACTORS IN ACCORDANCE TO PROVIDING INSTALLATION OF ALL SEWER SYSTEM COMPONENTS IN ACCORDANCE TO VT (26 V.S.A. CHAPTER 10) AND WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES EFFECTIVE NOVEMBER 6, 2021.
19. PROPOSED POTABLE WATER SYSTEM(S) SHALL BE CONSTRUCTED TO CONFORM TO THE STATE OF VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND WATER SUPPLY RULES EFFECTIVE NOVEMBER 6, 2021.
20. LEAKAGE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND WATER SUPPLY RULES EFFECTIVE NOVEMBER 6, 2021.
21. PROPERTY LINES, EASEMENTS AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED IN THE PERMIT APPLICATION ARE FOR THE USE OF THE A/R ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN 26 V.S.A. CHAPTER 10. ANY SURVEY SHALL BE BASED ON THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.

SEWER FORCE MAIN PRESSURE AND LEAKAGE TESTING (VERMONT WASTEWATER RULES SECTION 1-1009)

- (a) UPON COMPLETION OF CONSTRUCTION OF A FORCE MAIN, THE FORCE MAIN SHALL BE PRESSURE AND LEAKAGE TESTED TO ENSURE THERE ARE NO LEAKS.
- (1) PRESSURE TEST
ALL NEWLY LAID PIPE OR ANY VALVED SECTION THEREOF SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE OF AT LEAST 1.5 TIMES THE HIGHEST WORKING PRESSURE IN THE SECTION IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
 - (I) TEST PRESSURES SHALL:
 - (A) BE LESS THAN 50 POUNDS PER SQUARE INCH AT THE HIGHEST POINT ALONG THE TEST SECTION;
 - (B) NOT EXCEED PIPE OR THRUST RESTRAINT DESIGN PRESSURES;
 - (C) BE OF AT LEAST 2-HOUR DURATION;
 - (D) NOT VARY BY MORE THAN 5 POUNDS PER SQUARE INCH; AND
 - (E) NOT EXCEED TWICE THE RATED PRESSURE OF THE VALVES WHEN THE PRESSURE BOUNDARY OF THE TEST SECTION INCLUDES CLOSED GATE VALVES.
 - (II) EACH VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY AND THE SPECIFIED TEST PRESSURE, BASED ON THE ELEVATION OF THE LOWEST POINT OF THE LINE OR SECTION UNDER TEST AND CORRECTED TO TEST GAUGE, SHALL BE APPLIED BY MEANS OF A PIPE END CONNECTED TO THE VALVE.
 - (III) BEFORE APPLYING THE SPECIFIED TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPE AND VALVES.
 - (IV) ALL EXPOSED PIPE, FITTINGS, VALVES, AND JOINTS SHALL BE EXAMINED CAREFULLY DURING THE TEST. ANY DAMAGED OR DEFECTIVE PIPE, FITTINGS, OR VALVES THAT ARE DISCOVERED FOLLOWING THE PRESSURE TEST SHALL BE REPAIRED OR REPLACED WITH SOUND MATERIAL AND THE TEST SHALL BE REPEATED.
- (2) LEAKAGE TEST
A LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH THE PRESSURE TEST.
 - (A) LEAKAGE SHALL BE DETERMINED BY THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE, OR ANY VALVED SECTION THEREOF, TO MAINTAIN PRESSURE WITHIN 5 POUNDS PER SQUARE INCH OF THE SPECIFIED TEST PRESSURE AFTER THE AIR IN THE PIPELINE HAS BEEN EXPELLED AND THE PIPE HAS BEEN FILLED.
 - (B) PIPE INSULATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:
$$L = \frac{N(D)^3(V)^2}{7400}$$
where:
L is the allowable leakage, in gallons per hour;
N is the number of joints in the length of pipeline tested; D is the nominal diameter of the pipe, in inches; and
V is the average test pressure during the leakage test, in pounds per square inch gauge.

REQUIREMENTS FOR TESTING OF TANKS FOR WATERTIGHTNESS (VERMONT WASTEWATER RULES SECTION § 1-1010)

- (a) SEPTIC TANKS, DOSING SIPHONS, HOLDING TANKS, PUMP STATIONS, WASTEWATER STORAGE TANKS, WET WELLS, AND GREASE TANKS SHALL BE WATERTIGHT.
- (b) WHEN REQUIRED TO BE TESTED FOR WATERTIGHTNESS BY A PERMIT, TANKS SHALL BE TESTED USING THE ASTM FOR TESTING OF TANKS OR THE FOLLOWING:
- (1) FOR CONCRETE TANKS, COMPLETE ONE OF THE FOLLOWING TESTS:
- (A) USING A WATER PRESSURE TEST, SEAL THE TANK AND RISERS, FILL WITH WATER TO THE TOP OF THE RISERS, AND LET STAND FOR 24 HOURS. REFILL THE TANK. THE TANK IS CONSIDERED WATERTIGHT IF THE WATER LEVEL IS HELD FOR 1 HOUR.
- (B) VACUUM TANK TEST. EMPTY THE TANK, SEAL THE TANK, AND FILL THE TANK TO 2 INCHES (50 MM) OF MERCURY. THE TANK IS CONSIDERED WATERTIGHT IF 90 PERCENT OF THE VACUUM IS HELD FOR 2 MINUTES.
- (C) FOR PLASTIC OR FIBERGLASS TANKS, FILL THE TANK UP TO THE TOP OF THE RISERS WITH WATER FOR 1 HOUR. THE TANK IS CONSIDERED WATERTIGHT IF THERE IS NO DROP IN THE WATER LEVEL.
- (2) FOR TANKS TO BE FILLED TO THE TOP OF THE RISERS WITH WATER FOR 1 HOUR. THE TANK IS CONSIDERED WATERTIGHT IF THERE IS NO DROP IN THE WATER LEVEL.



PUMP SPECIFICATIONS:
 980 GPD ÷ 4 DOSES = 245 GAL./DOSE 18' ELEVATION
 HEAD + 1.7' FRICTION LOSS IN NETWORK + 2.4' FRICTION
 LOSS IN DELIVERY LINE AND MANIFOLD = 22.1' TDH
 PUMP REQUIRED ZOELLER MODEL 840 PUMP OR EQUAL
 (44.6' GPM @ 25' TDH) (2 HP, 60 HZ)

TYPICAL 1,500 GALLON H-10 PRECAST CONCRETE PUMP STATION #1

- PUMP STATION NOTES

1. CONTRACTOR SHALL VERIFY THE LOAD CAPACITY OF THE PRECAST PUMP TANK PRIOR TO INSTALLING.
2. ALL JOINTS IN PRECAST TANK SHALL BE SEALED WITH FLEXIBLE ELASTIC JOINT COMPOUND CONFORMING TO FEDERAL SPECIFICATION SS-SS-00210.
3. PRECAST REINFORCED CONCRETE SECTIONS SHALL BE IN ACCORDANCE WITH ASTM C-478 CONCRETE STRENGTH (fc) (TYPE 2 CEMENT) 4000 P.S.I.
4. USE NON-SHRINK GROUT AROUND PIPE OPENINGS.
5. PROVIDE 1,000 GALLON PRECAST CONCRETE PUMP STATION MFG. BY WOOD BRIDGE L.L.C. IN AREAS PLOWED.
6. SEAL ALL UNUSED OPENINGS IN PRECAST PUMP STATION.
7. ALL CONNECTION POINTS TO BE SEALED WATERTIGHT.
8. SEAL ALL ELECTRICAL CONDUTITS GAS AND WATER TIGHT AT BOTH ENDS.
9. PROVIDE 2" OF RIGID INSULATION ABOVE DISCHARGE PIPE IN AREAS OF LESS THAN 4 FEET OF COVER IN AREAS NOT PLOWED.
10. PROVIDE 2" OF RIGID INSULATION ABOVE DISCHARGE PIPE IN AREAS OF LESS THAN 6 IN AREAS PLOWED.
11. AUDIO AND VISUAL ALARM TO BE PROVIDED WITH CONTROL PANEL IN BASEMENT OF HOUSE OR EXTERIOR PANEL OUTSIDE OF HOUSE.
12. ALL ELECTRICAL WIRING TO BE RATED AND RATED NEMA 3R OR 4 FOR WEATHERPROOF EQUIPMENT.
13. PRECAST TANK SHALL BE TESTED FOR WATERTIGHTNESS IN ACCORDANCE WITH SECTION 1-1010 OF THE VERMONT ENVIRONMENTAL PROTECTION ACT, 1. WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES.



John J. Kypar P.E.

FOR PERMITTING ONLY
NOT FOR CONSTRUCTION

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

SEWER SYSTEM DETAILS FOR
VARMA YASH & SHARON ROSENTHAL
TAX MAP 7, LOT 5233

WILLARD ROAD, QUECHEE, VERMONT

PATHWAYS CONSULTING, LLC

240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

SCALE: AS SHOWN

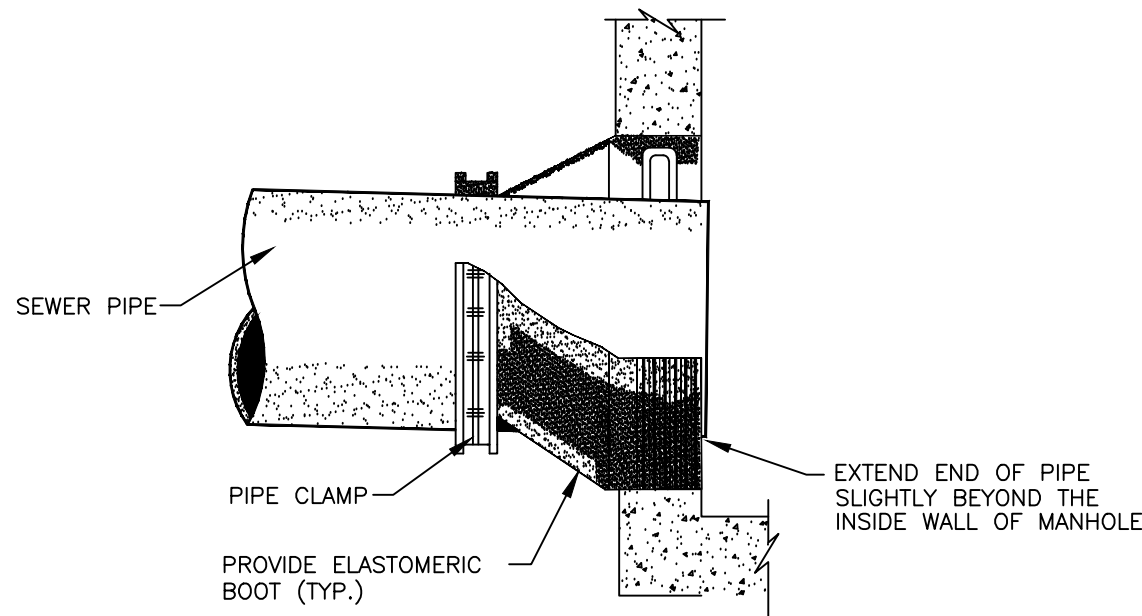
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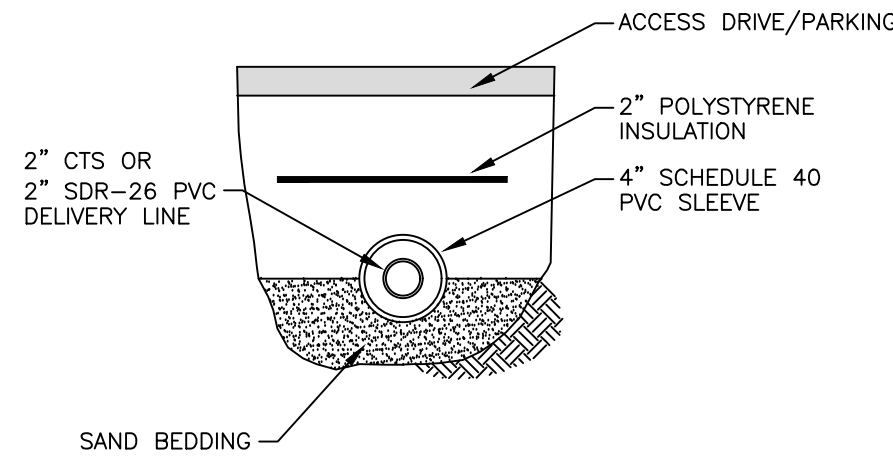
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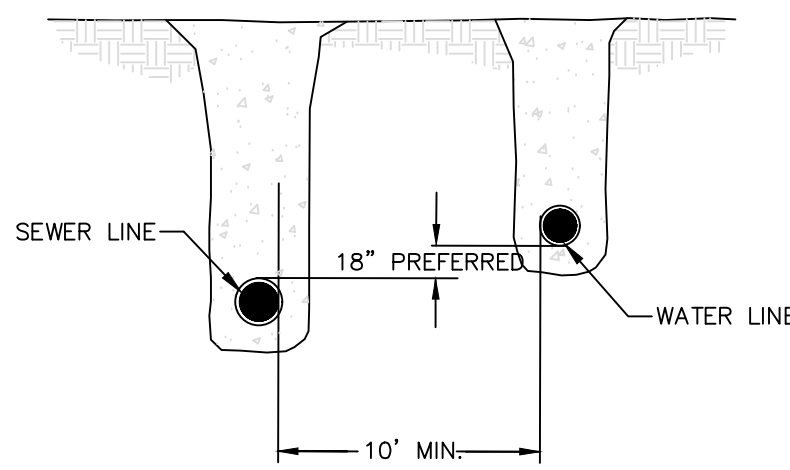
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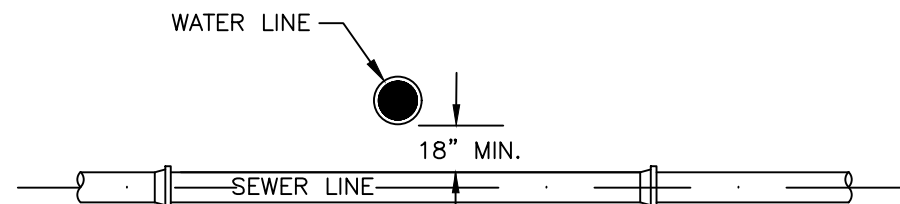
ELASTOMERIC BOOT DETAIL
N.T.S.



PVC DELIVERY LINE DETAIL
N.T.S.



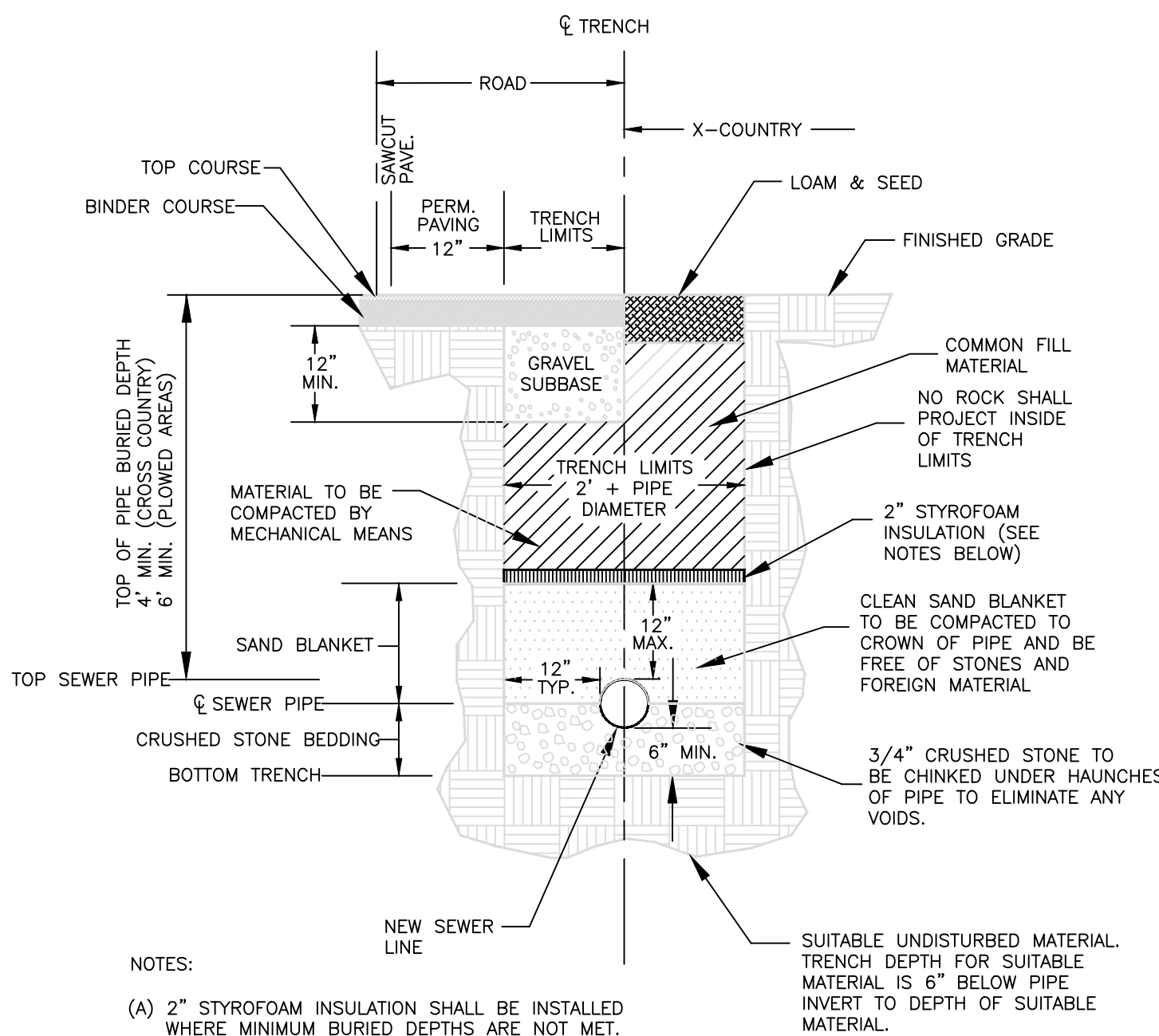
TYPICAL SEWER-WATER PARALLEL INSTALLATION
N.T.S.



TYPICAL SEWER-WATER CROSSOVER
N.T.S.

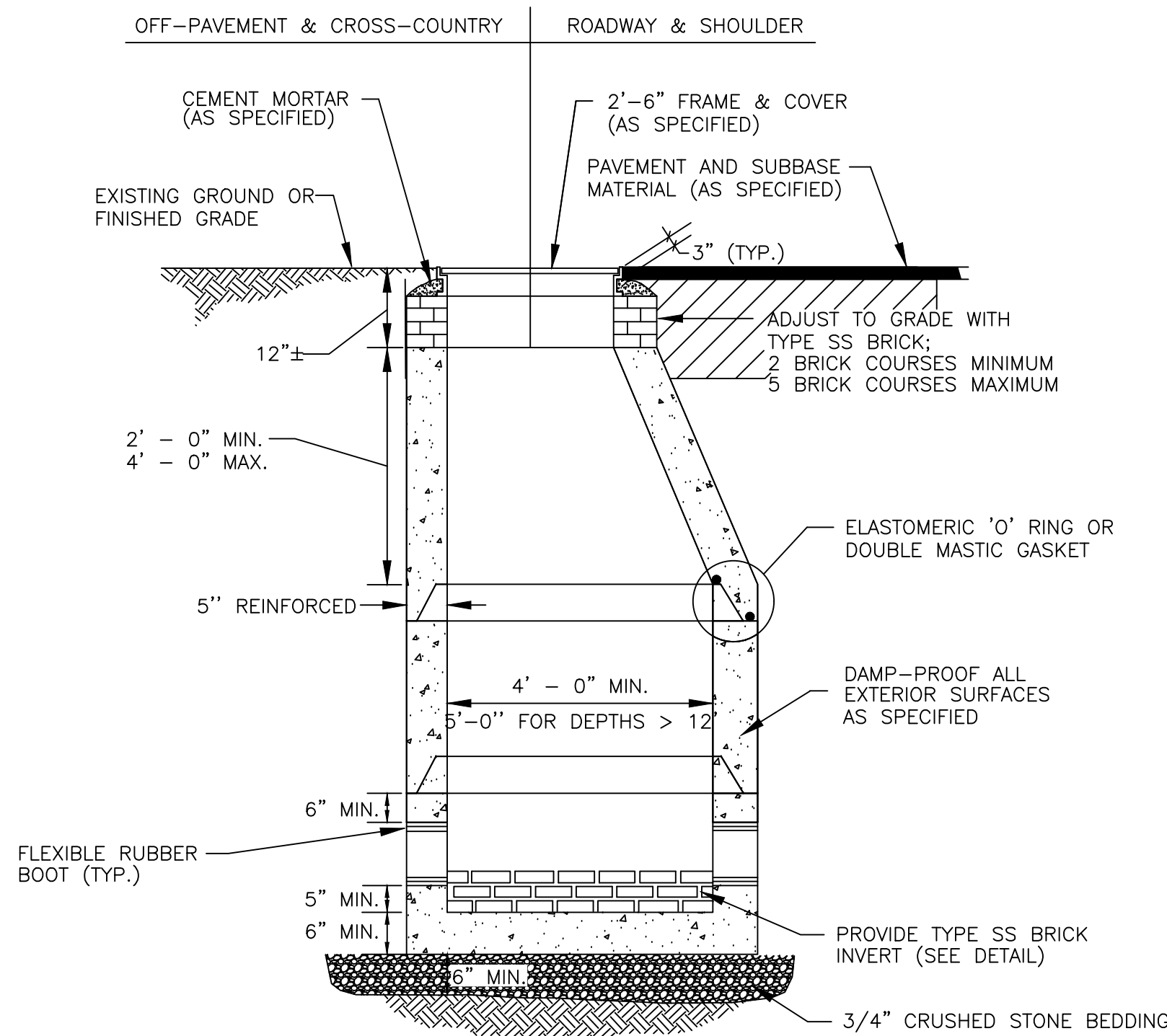
SECTION 1-1204 SEPARATION OF WATER SERVICE LINES AND WATER SERVICE PIPES FROM SANITARY SEWER SERVICE LINES, SANITARY SEWER COLLECTION LINES, AND STORM SEWERS

- (b) VERTICAL SEPARATION AND CROSSINGS FOR SANITARY SEWER COLLECTION LINES, SANITARY SEWER SERVICE LINES, AND STORM SEWERS
- (1) WATER SERVICE LINES AND WATER SERVICE PIPES CROSSING ABOVE PROPOSED, EXISTING, OR PERMITTED SANITARY SEWER COLLECTION LINES OR SANITARY SEWER SERVICE LINES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS:
- (A) THE BOTTOM OF THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE LAID 18 INCHES ABOVE THE TOP OF THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE.
- (B) THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE SLEEVED WITH PIPE MATERIALS APPROVED BY THE VERMONT PLUMBING RULES TO A POINT 10-HORIZONTAL FEET FROM THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE AND:
- (i) IF THE SLEEVES TERMINATE BELOW GROUND SURFACE, HAVE THE ENDS OF THE SLEEVE SEALED TO BE WATERTIGHT; OR
- (ii) IF THE SLEEVES TERMINATE ABOVE FINISHED SLAB OR IN A BASEMENT, HAVE THE ENDS OF THE SLEEVE SEALED TO BE WATERTIGHT OR LEFT OPEN.
- (C) THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE CENTERED AT THE CROSSING, SO THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE SANITARY SEWER JOINTS AND ONE OF THE FOLLOWING REQUIREMENTS SHALL BE MET:
- (i) THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER SERVICE LINE OR WATER SERVICE PIPE AND THE TOP OF THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE.
- (ii) THE SANITARY SEWER COLLECTION LINES AND SANITARY SEWER SERVICE LINES SHALL BE WATER WORKS GRADE 150 POUNDS PER SQUARE INCH PRESSURE RATED PIPE MEETING AWWA STANDARD C-900 OR EQUIVALENT PIPE AND PRESSURE TESTED TO 150 POUNDS PER SQUARE INCH TO ASSURE WATERTIGHTNESS.
- (2) WATER SERVICE LINES AND WATER SERVICE PIPES CROSSING BELOW PROPOSED, EXISTING, OR PERMITTED SANITARY SEWER COLLECTION LINES OR SANITARY SEWER SERVICE LINES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS:
- (A) THE WATER SERVICE LINE OR WATER SERVICE PIPE SHALL BE SLEEVED WITH PIPE MATERIALS APPROVED BY THE VERMONT PLUMBING RULES TO A POINT 10-HORIZONTAL FEET FROM THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE AND:
- (i) IF THE SLEEVES TERMINATE BELOW GROUND SURFACE, HAVE THE ENDS OF THE SLEEVE SEALED TO BE WATERTIGHT; OR
- (ii) IF THE SLEEVES TERMINATE ABOVE FINISHED SLAB OR IN A BASEMENT, HAVE THE ENDS OF THE SLEEVE SEALED TO BE WATERTIGHT OR LEFT OPEN.
- (B) THE WATER SERVICE LINE OR WATER SERVICE PIPE MEETS THE FOLLOWING REQUIREMENTS:
- (i) THE TOP OF THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE LAID 18 INCHES BELOW THE BOTTOM OF THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE.
- (ii) WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE CENTERED AT THE CROSSING, SO THE JOINTS IN THE WATER LINE OR WATER PIPE WILL BE A MINIMUM OF 10 FEET FROM THE CENTER LINE OF THE CROSSING.
- (3) WATER SERVICE LINES AND WATER SERVICE PIPES CROSSING ABOVE OR BELOW PROPOSED, EXISTING, OR PERMITTED STORM SEWERS SHALL MEET THE FOLLOWING REQUIREMENTS:
- (A) IF THE WATER SERVICE LINE OR WATER SERVICE PIPE IS CROSSING ABOVE, THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER SERVICE LINE OR WATER SERVICE PIPE AND THE TOP OF THE STORM DRAIN.
- (B) IF THE WATER SERVICE LINE OR WATER SERVICE PIPE IS CROSSING BELOW, THE WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE TOP OF THE WATER SERVICE LINE OR WATER SERVICE PIPE AND THE BOTTOM OF THE STORM DRAIN.
- (C) WATER SERVICE LINES AND WATER SERVICE PIPES CROSSING LESS THAN 18 INCHES OVER A STORM DRAIN SHALL BE CENTERED AT THE CROSSING SO THE JOINTS IN THE LINE OR PIPE WILL BE AS FAR AS POSSIBLE FROM THE STORM SEWER JOINTS.
- (D) WATER SERVICE LINES AND WATER SERVICE PIPES CROSSING LESS THAN 18 INCHES UNDER A STORM SEWER, THE LINES OR PIPES SHALL HAVE THE JOINTS IN THE LINE OR PIPE A MINIMUM OF 10 FEET FROM THE CENTER LINE OF THE STORM DRAIN.

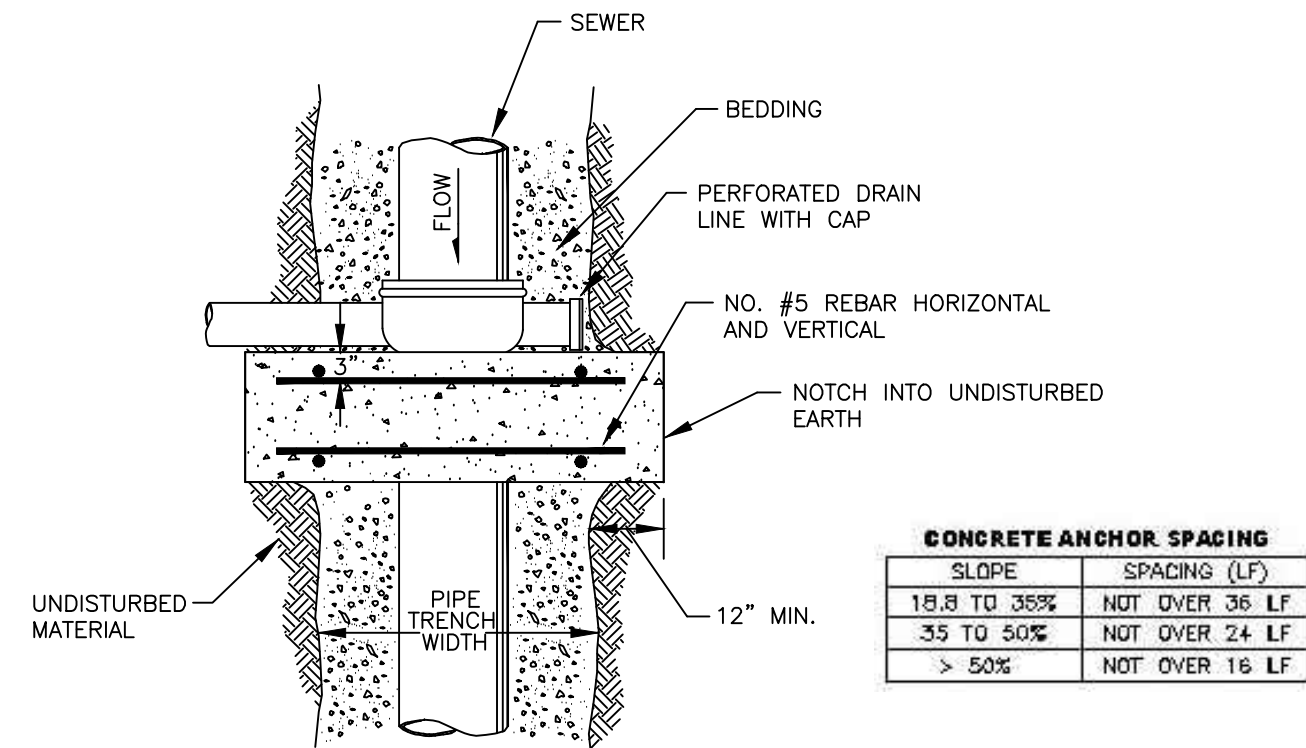


- NOTES:
- (A) 2" STYROFOAM INSULATION SHALL BE INSTALLED WHERE MINIMUM BURIED DEPTHS ARE NOT MET.
- (B) SEWER PIPE CLASS SHALL BE SDR 21 OR SDR 26 WHERE MINIMUM BURIED DEPTHS ARE NOT MET, UNLESS DUCTILE IRON IS SPECIFIED.

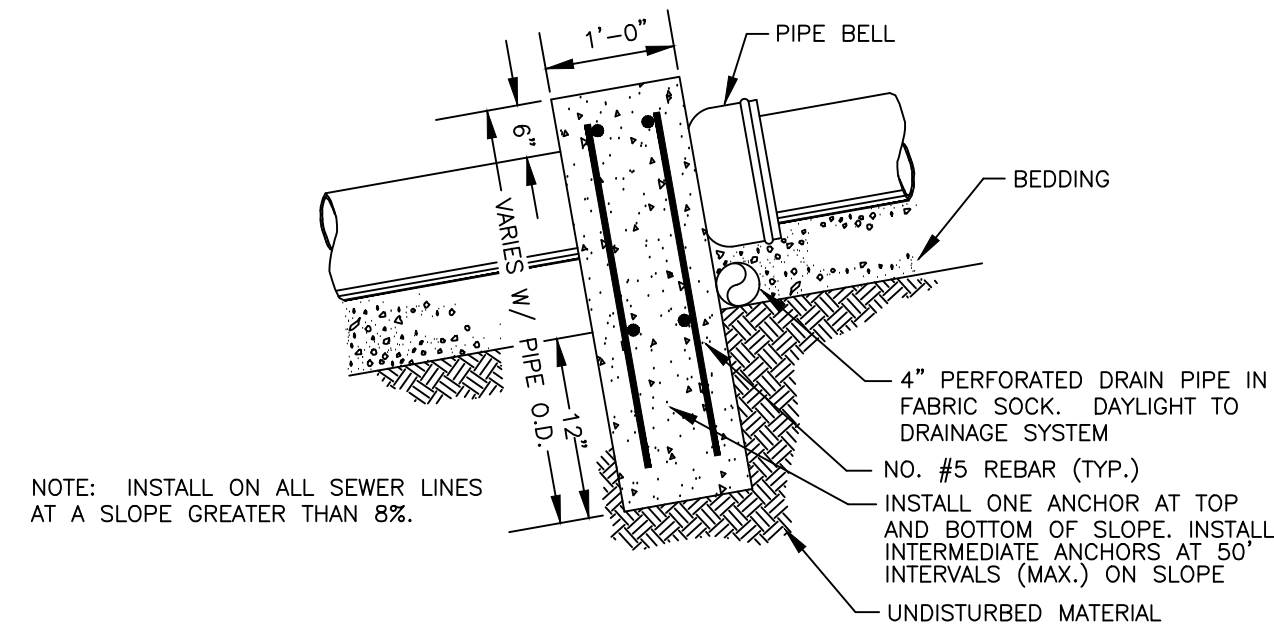
TYPICAL SEWER PIPE TRENCH
CROSS SECTION VIEW
N.T.S.



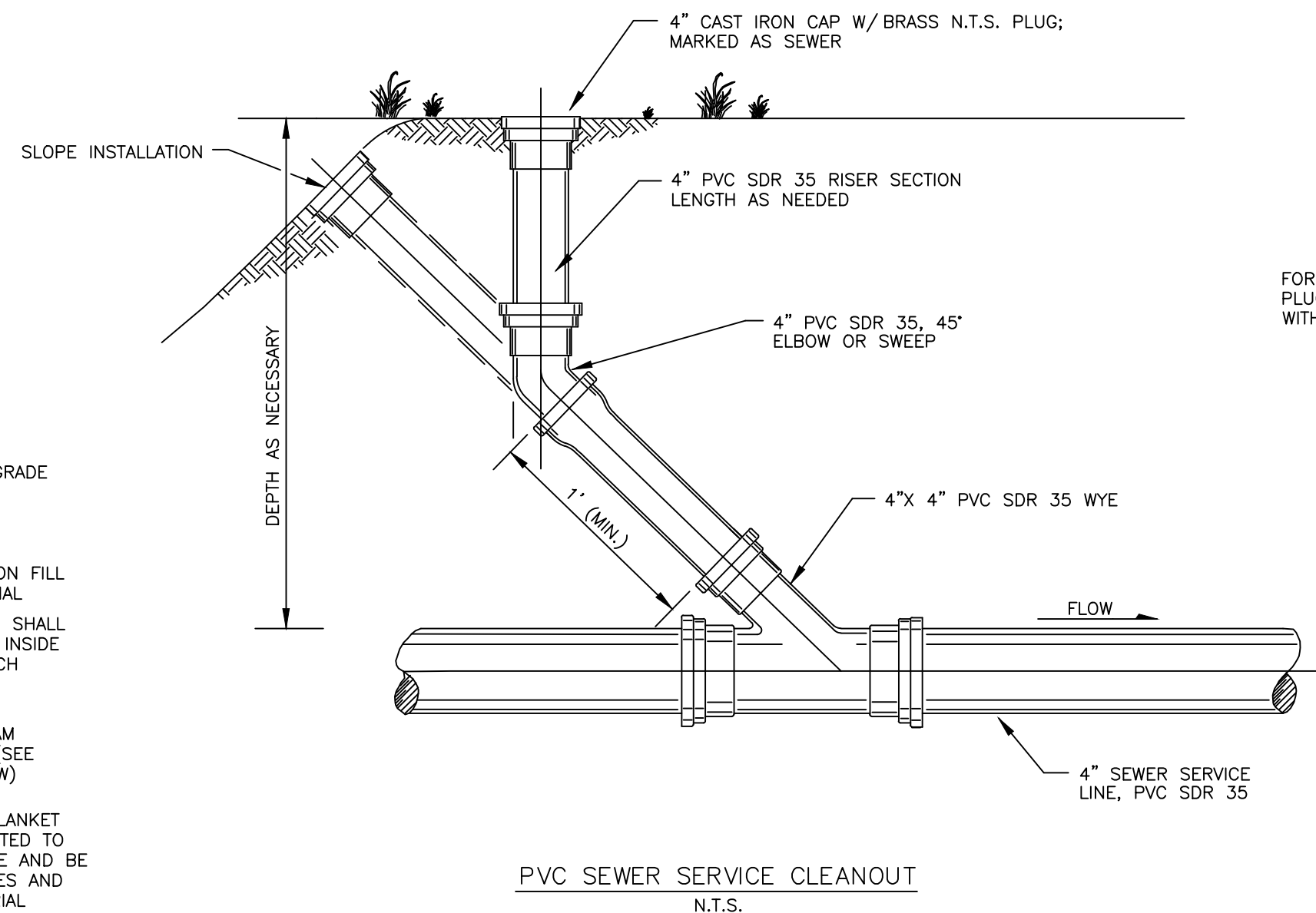
TYPICAL SEWER MANHOLE
N.T.S.



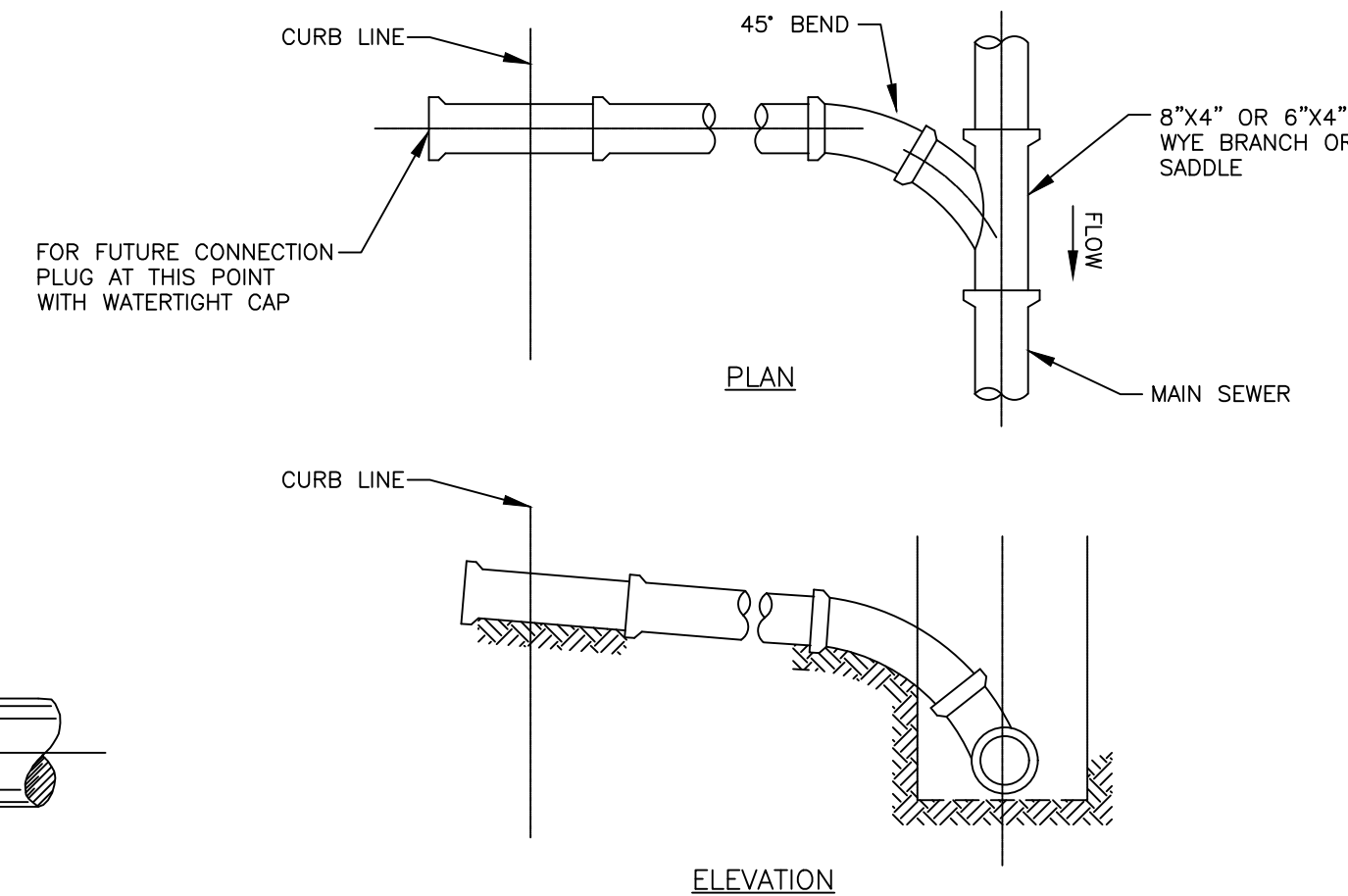
CONCRETE ANCHOR SPACING	
SLOPE	SPACING (LF)
15.9 TO 35%	NOT OVER 36 LF
35 TO 50%	NOT OVER 24 LF
> 50%	NOT OVER 16 LF



CONCRETE ANCHOR BLOCK DETAIL FOR PIPES ON STEEP SLOPES
N.T.S.



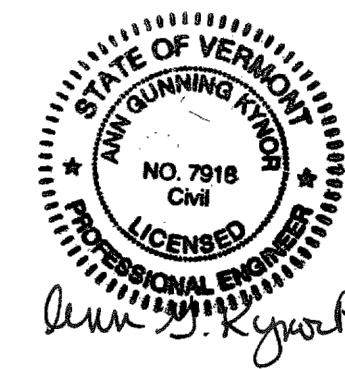
PVC SEWER SERVICE CLEANOUT
N.T.S.



- NOTES:
1. ALL NEW SERVICE CONNECTIONS SHALL BE 4-INCH SDR-35 PVC WITH PUSH-ON JOINTS OR DUCTILE IRON PIPE CONSISTENT WITH THE MAIN LINE SEWER MATERIAL. PVC PIPE SHALL BE MANUFACTURED BY JOHNS-MANVILLE OR CERTAIN TEED. DUCTILE IRON PIPE SHALL BE MANUFACTURED BY CLOW CORPORATION OR U.S. PIPE.
2. FLEXIBLE OR TRANSITION COUPLINGS FOR NON-PRESSURE SEWER PIPE SHALL BE RESILIENT PLASTIC WITH RECESSED STAINLESS STEEL BANDS AT EACH END FOR FASTENING, MANUFACTURED BY FERNCO, INC.

LATERAL CONNECTION DETAIL
N.T.S.

FOR PERMITTING ONLY
NOT FOR CONSTRUCTION



SITE AND SEWER DETAILS FOR
VARMA YASH & SHARON ROSENTHAL
TAX MAP 7, LOT 5233
WILLARD ROAD, QUEECHEE, VERMONT

PATHWAYS CONSULTING, LLC
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

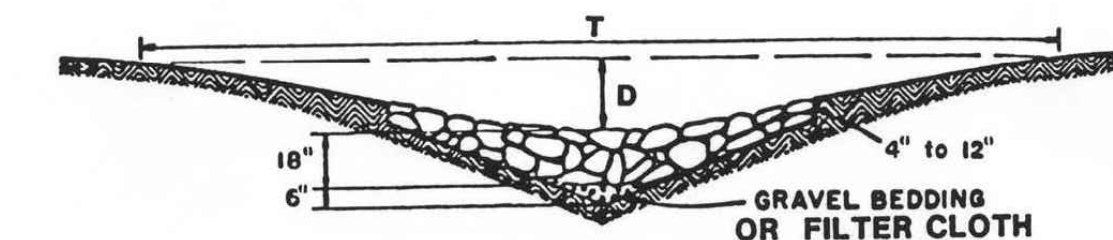
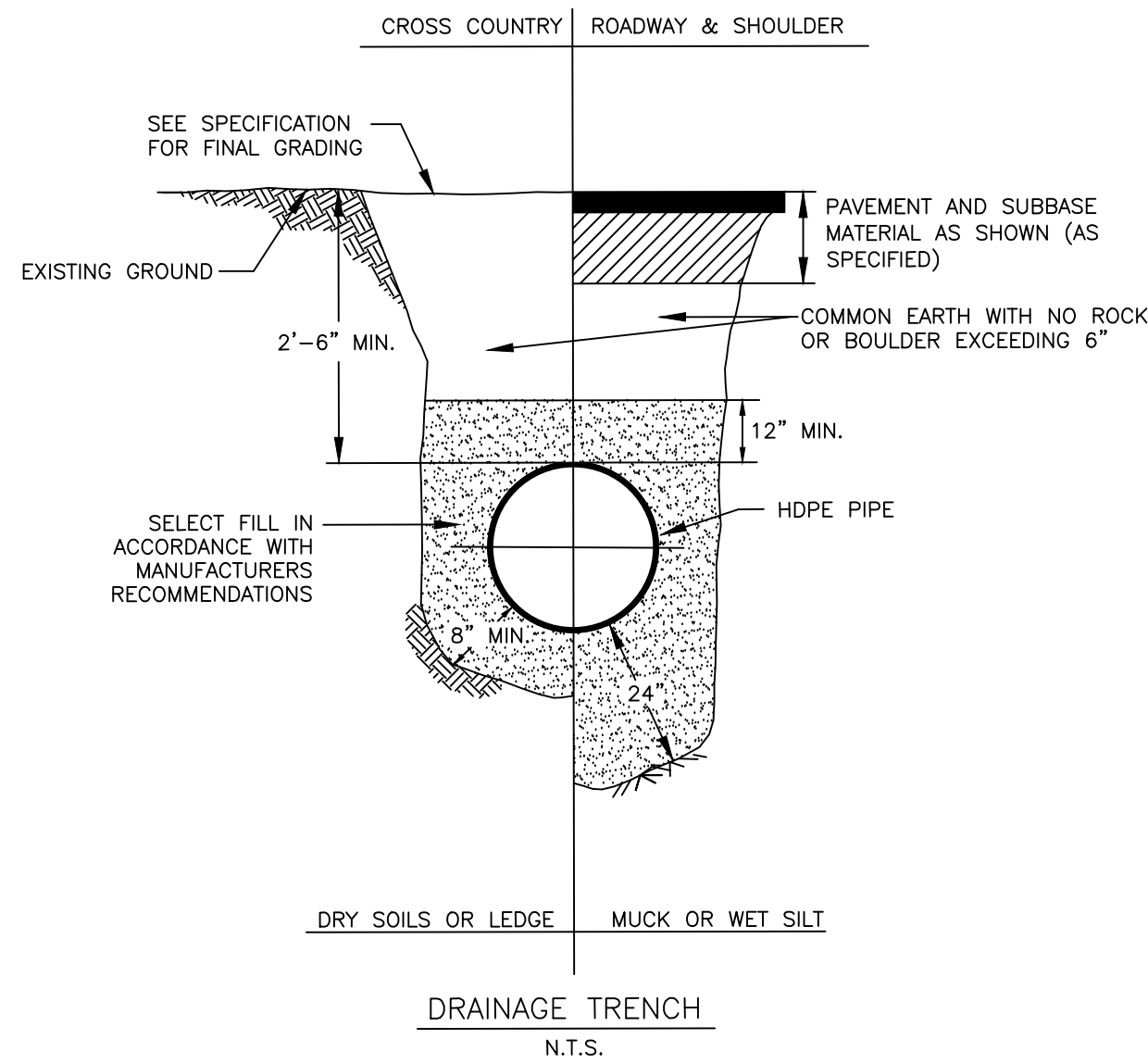
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PROJ. NO. 13447

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SHEET 8 OF 11

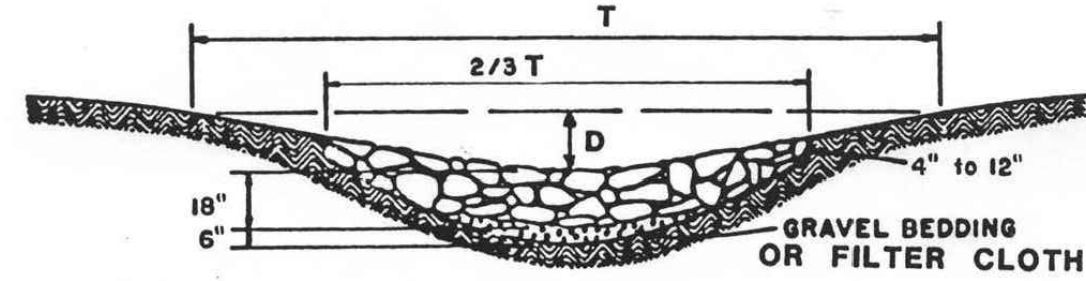
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GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF HARTFORD CONSTRUCTION STANDARDS AND SPECIFICATIONS.
2. LOCATION AND SIZE OF EXISTING PIPES AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE EXACT OR COMPLETE.
3. EXPLORATORY EXCAVATION SHALL BE REQUIRED TO VERIFY LOCATION AND SIZE OF EXISTING UTILITIES AND APPURTENANCES.
4. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING ELECTRIC, CABLE TELEVISION AND TELEPHONE UTILITIES PRIOR TO COMMENCEMENT OF WORK. DIG SAFE SHALL BE NOTIFIED AT LEAST 3 WORKING DAYS PRIOR TO ANY WORK.
5. TOWN OF HARTFORD PUBLIC WORKS PERSONNEL SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO ANY UTILITY CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY. UTILITY CONSTRUCTION MAY ONLY BEGIN AFTER AUTHORIZATION FROM PUBLIC WORKS PERSONNEL.
6. THE TOWN OF HARTFORD SHALL BE NOTIFIED PRIOR TO ANY WORK REQUIRING TRAFFIC IMPEDANCE, ROADWAY OR DRAINAGE STRUCTURE DISTURBANCE. CONSTRUCTION MAY ONLY BEGIN AFTER AUTHORIZATION FROM TOWN PERSONNEL.
7. THE ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION IF THERE ARE ANY DISCREPANCIES IN PLANS OR EXISTING DATA. CONSTRUCTION SHALL NOT PROCEED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
8. ELECTRICAL, CABLE TELEVISION AND TELEPHONE SERVICE CONNECTIONS ARE NOT SHOWN ON THESE PLANS AND WILL BE PROVIDED BY OTHERS.
9. ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED AS OFTEN AS REQUIRED BY WEATHER CONDITIONS.
10. DITCHES AND OTHER RUNOFF COLLECTION AREAS SHALL BE MAINTAINED BOTH DURING AND AFTER CONSTRUCTION TO ENSURE THE PROPER REMOVAL OF SEDIMENT.
11. ALL SLOPES GREATER THAN 3:1 (3 HORIZONTAL TO 1 VERTICAL) SHALL BE STABILIZED USING MULCH NETTING. ADDITIONAL STABILIZATION MEASURES NECESSARY SHALL BE IMPLEMENTED AS REQUIRED.
12. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5' - 6" COVER OVER TOP OF WATER LINE TO PROPOSED GRADE.
13. GRADING SHALL BE DIRECTED TOWARD DRAINAGE FACILITIES UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY THE ENGINEER IN WRITING.
14. ALL DRAINAGE FACILITIES SHALL BE INSTALLED IN EXISTING GROUND UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY THE ENGINEER IN WRITING.
15. A POSITIVE SLOPE SHALL BE MAINTAINED FOR ALL DRAINAGE FACILITIES UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY THE ENGINEER IN WRITING.
16. THE ENGINEER SHALL BE RETAINED FOR CONSTRUCTION OBSERVATION FOR ALL PROJECT COMPONENTS FOR WHICH THE ENGINEER PROVIDED A DESIGN. THE ENGINEER SHALL BE HELD HARMLESS, INDEMNIFIED, AND SHALL NOT BE RESPONSIBLE FOR ANY ACTS OR OMISSIONS DURING CONSTRUCTION THAT THE ENGINEER DOES NOT SPECIFICALLY OBSERVE.
17. IN ACCORDANCE WITH SECTION 260-31 B OF THE HARTFORD ZONING REGULATIONS, EARTH MOVING AND HAULING, ROCK DRILLING OR CRUSHING, JACK HAMMER AND SIMILAR EXCESSIVELY LOUD EQUIPMENT SHALL NOT BE OPERATED ON SUNDAYS OR BETWEEN THE HOURS OF 5:30 P.M. AND 7:00 A.M. EXCEPT IN EMERGENCY SITUATIONS.
18. IN THE TOWN OF HARTFORD, ANY STOCKPILING OF MATERIALS RELATED TO THE CONSTRUCTION OF THE PROJECT MUST BE LOCATED TWICE THE DISTANCE OF THE HEIGHT OF THE STOCKPILED MATERIALS FROM ANY PUBLIC OR PRIVATE RIGHT-OF-WAY OR PROPERTY BOUNDARY.
19. THE HARTFORD ZONING REGULATIONS PROVIDE THAT "CONSTRUCTION TRAILERS MAY BE USED AT CONSTRUCTION SITES FOR OFFICE AND LABORATORY USE ON THE CONDITION THAT THEY ARE PLACED A MINIMUM OF 10 FEET FROM ANY PROPERTY LINE, ARE USED FOR A PROJECT WITH A VALID ZONING PERMIT AND ARE REMOVED BEFORE A CERTIFICATE OF OCCUPANCY IS REQUESTED. NO CONSTRUCTION TRAILER MAY BE PLACED IN SUCH A WAY THAT OBSTRUCTS SIGHT DISTANCE ALONG THE TRAVELED WAY, AT ANY INTERSECTION OR DRIVEWAY. ANY CONSTRUCTION TRAILER FOUND TO OBSTRUCT SIGHT DISTANCE WILL BE REQUIRED TO BE RELOCATED IMMEDIATELY".

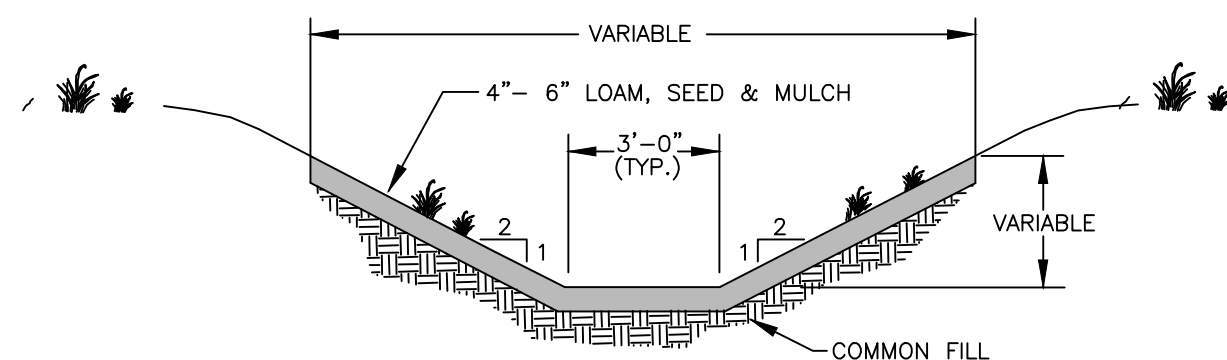


Waterway with stone center drain. 1/4\"/>

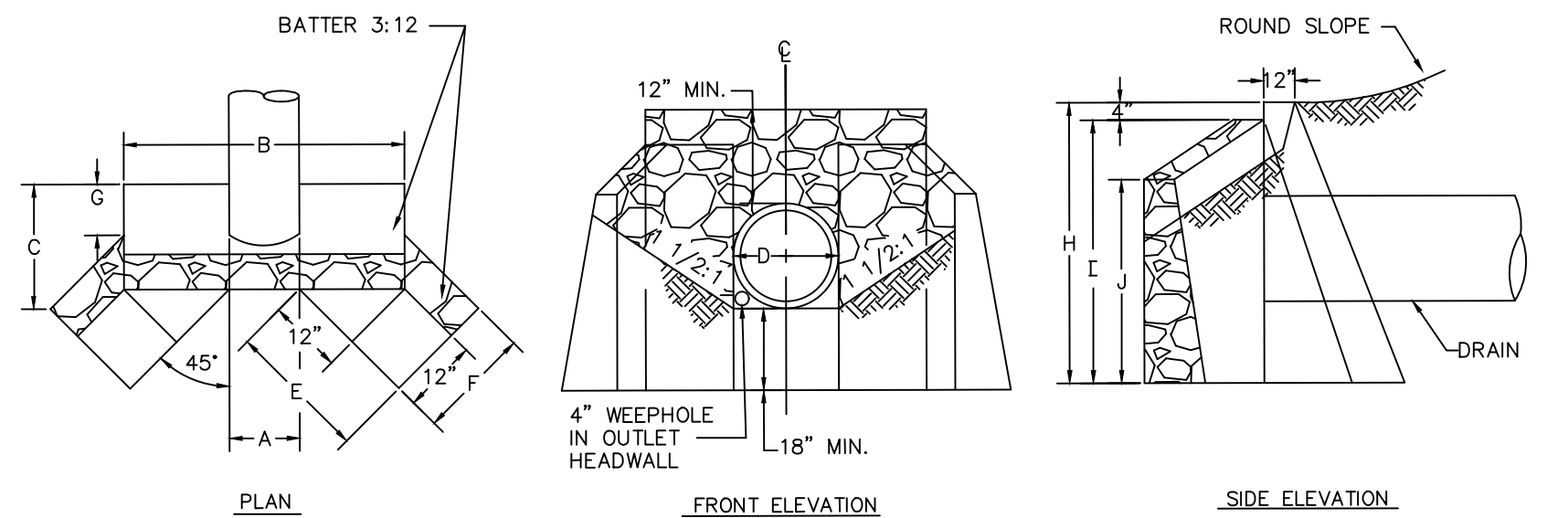


Waterway with stone center drain. Rounded section shaped by bulldozer.

STONE LINED SWALE DETAIL
N.T.S.

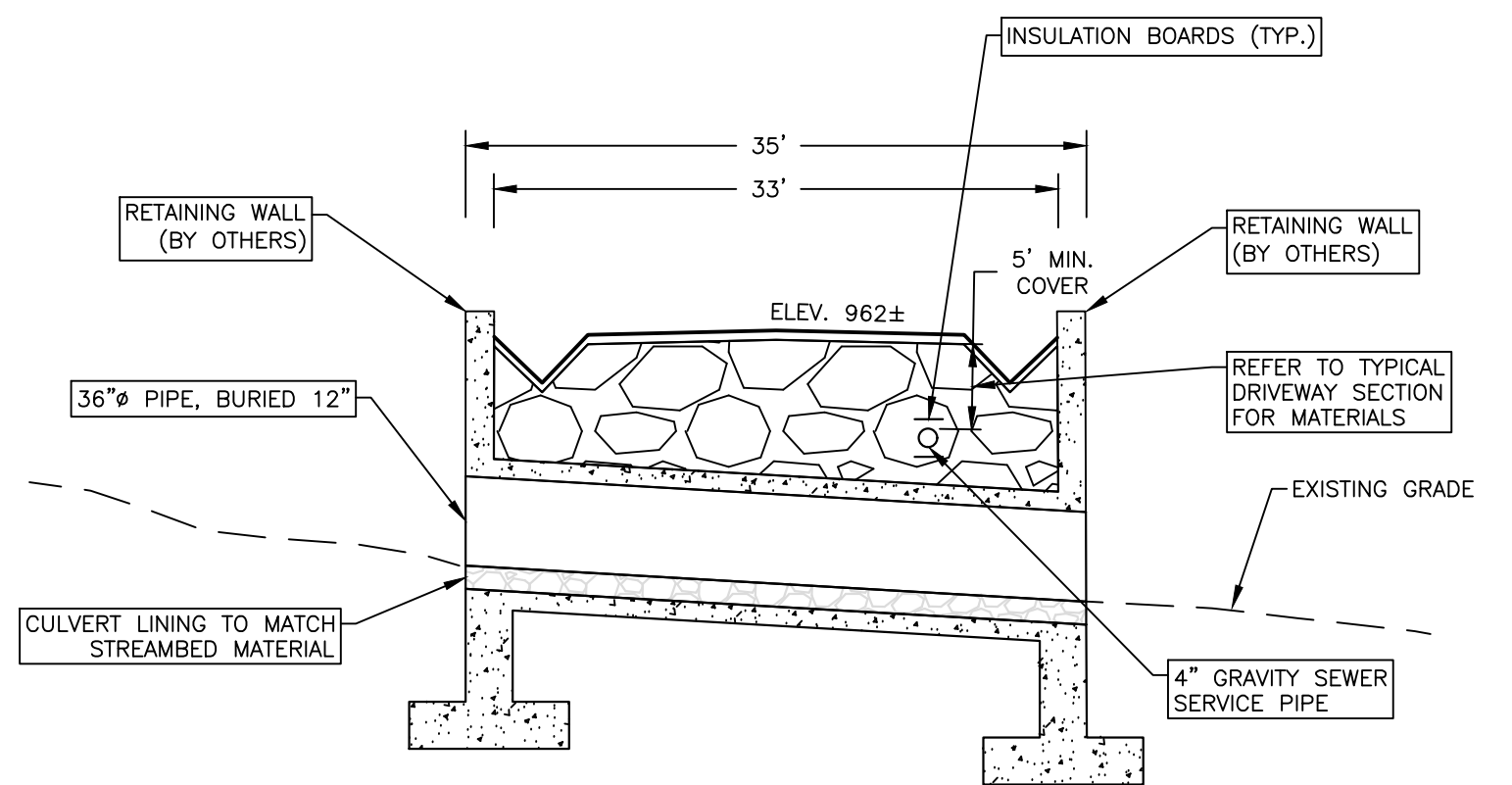
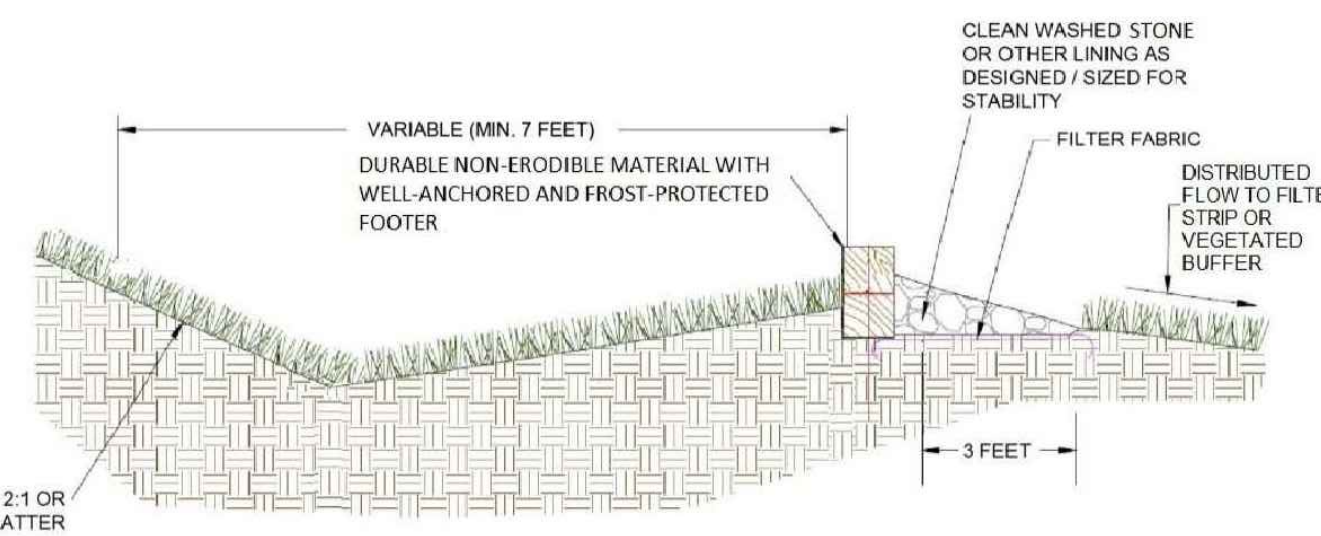


GRASS LINED DRAINAGE DITCH DETAIL
N.T.S.

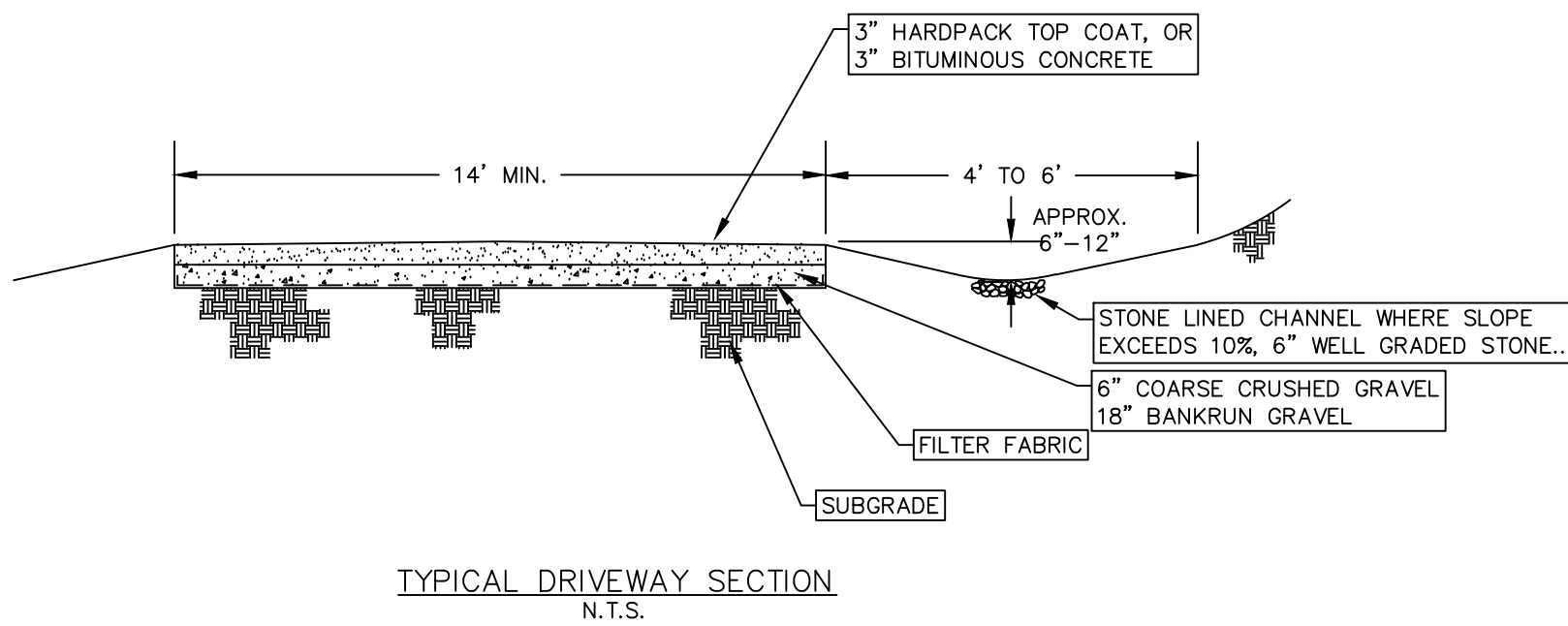


DIA. D INCHES	DIMENSIONS									
	A	B	C	E	F	G	H	I	J	
12"	1'-3"	4'-0"	2'-2"	2'-4"	1'-10"	0'-7"	4'-0"	3'-8"	3'-0"	
15"	1'-6"	4'-3"	2'-2"	2'-4"	1'-10"	0'-7"	4'-0"	3'-8"	3'-0"	
18"	1'-9"	4'-6"	2'-2"	2'-4"	1'-10"	0'-7"	4'-0"	3'-8"	3'-0"	

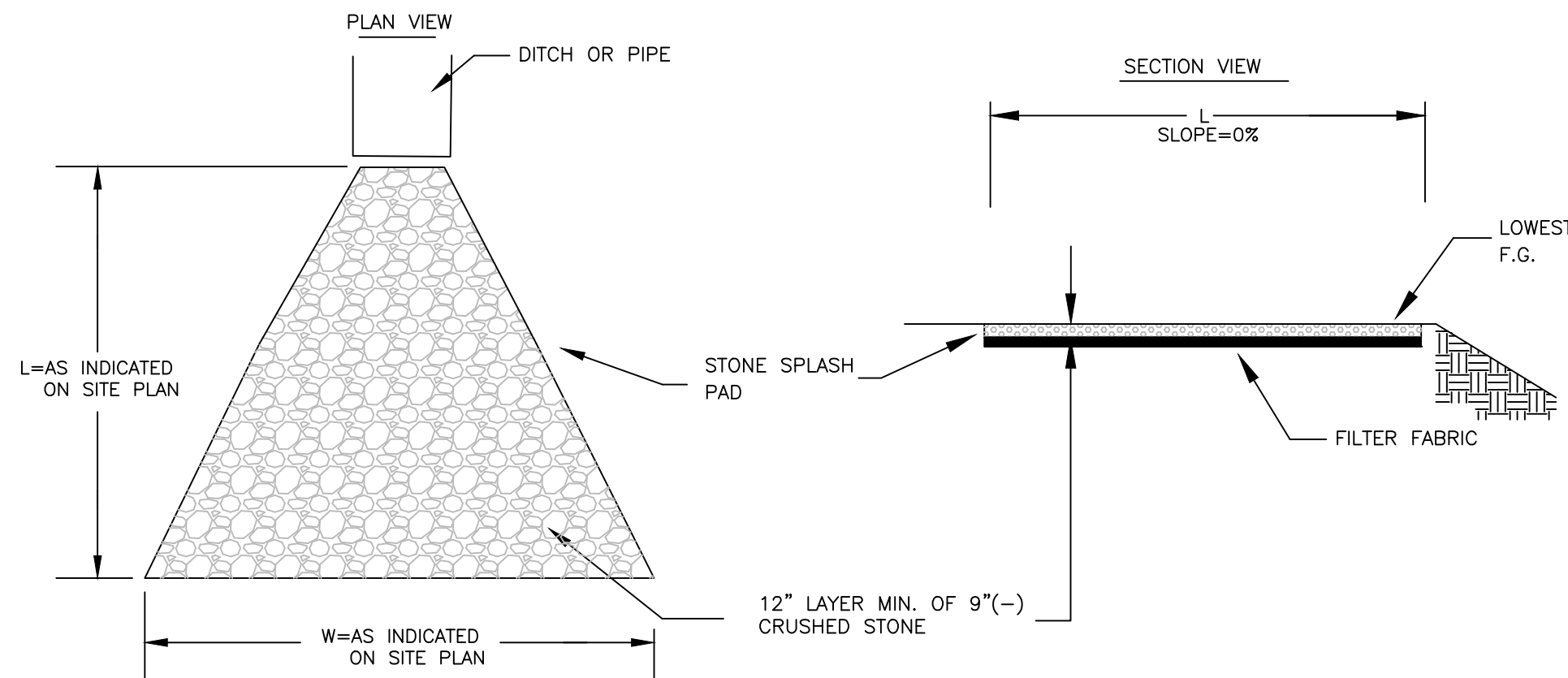
STONE MASONRY HEADWALL DETAILS
N.T.S.



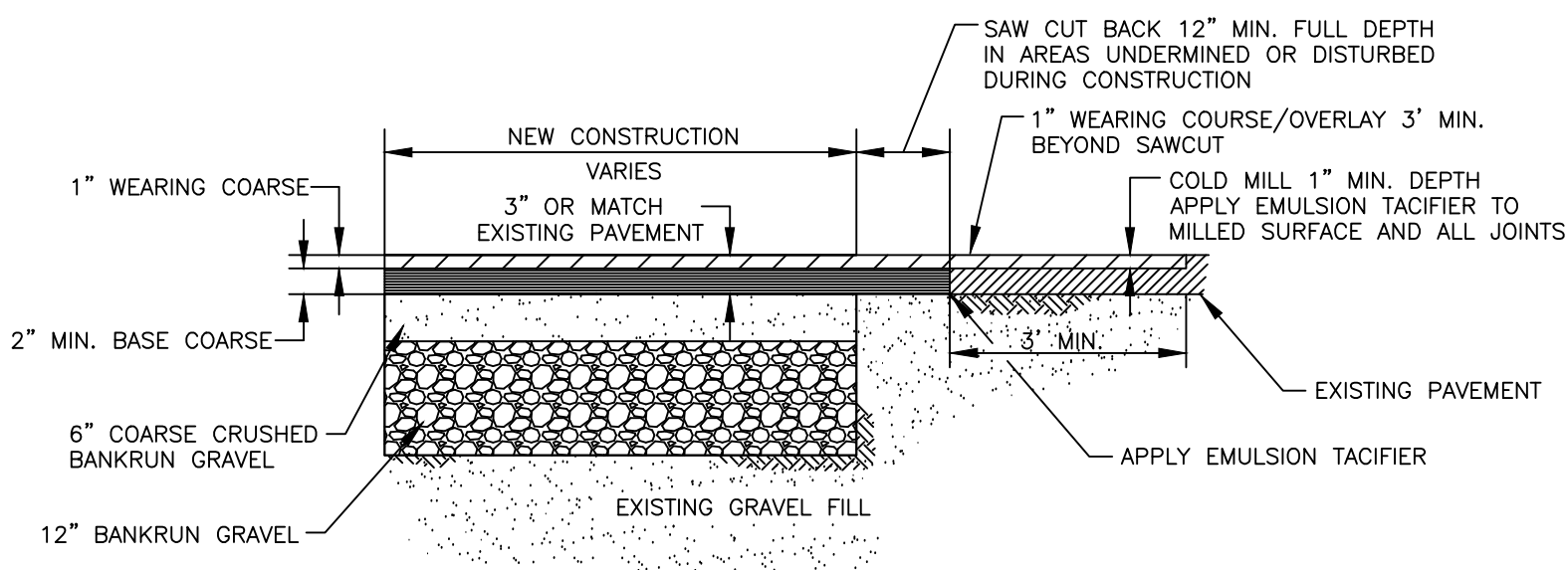
SECTION A-A
CULVERT CROSS-SECTION DETAIL
N.T.S.



TYPICAL DRIVEWAY SECTION
N.T.S.

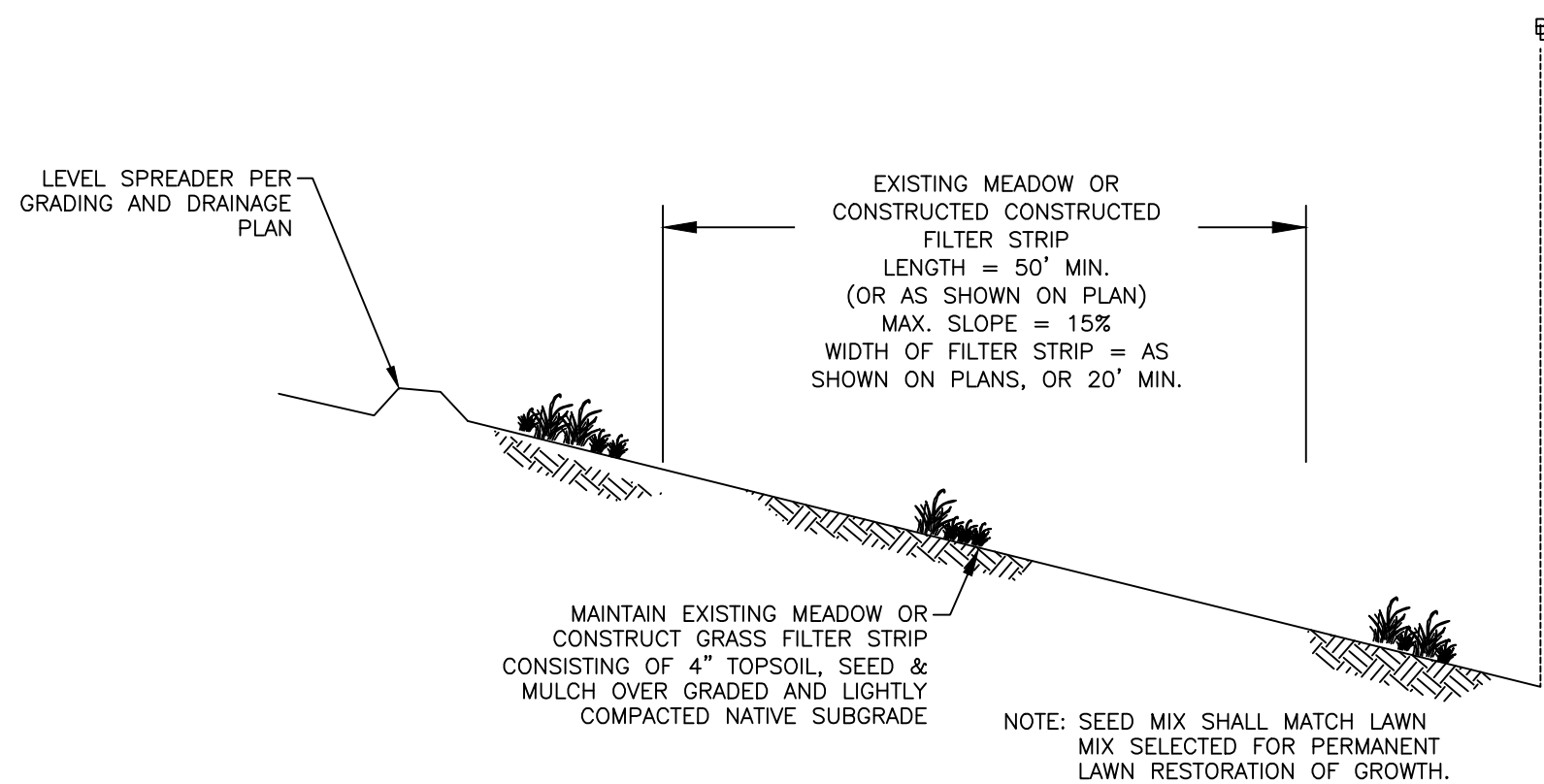


STONE LINED OUTLET PROTECTION
N.T.S.



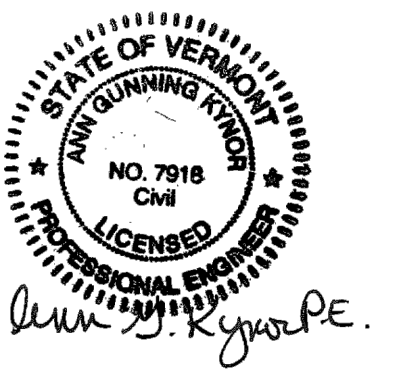
NOTE: APPLY EMULSION TACIFIER BETWEEN BITUMINOUS BASE COURSE AND WEARING COURSE, IF WEARING COURSE IS NOT INSTALLED THE SAME DAY AS BASE COURSE.

PAVEMENT SAWCUT DETAIL
N.T.S.



TYPICAL VEGETATED BUFFER OR FILTER STRIP
N.T.S.

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SITE AND DRAINAGE DETAILS FOR
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SHEET 9 OF 11

WATER SUPPLY NOTES – DWELLING #1

1. THIS IS A NON-PUBLIC WATER SUPPLY. DESIGN FLOW = 420 GPD (3-BEDROOM DWELLING)
2. AVERAGE DAY DEMAND= 90% OF WASTEWATER DESIGN FLOW, OR 378 GPD
3. MAXIMUM DAY DEMAND = AVERAGE DAY DEMAND/630 OR 0.6 GPM
4. INSTANTANEOUS PEAK DEMAND = 5 GPM UP TO 15 GPM
5. 50 PERCENT OF WELL DRILLER'S ESTIMATED YIELD MAY BE USED AS THE LONG TERM YIELD.
6. THE WATER SYSTEM AND DISTRIBUTION SYSTEM MUST BE CAPABLE OF SATISFYING BOTH THE MAXIMUM DAY DEMAND AND THE INSTANTANEOUS PEAK DEMAND OF THE PLUMBING SYSTEM. UNLESS THE COMBINATION OF THE WATER SOURCE, WITHDRAWAL SYSTEMS AND PRESSURIZATION SYSTEM CAN MEET BOTH THESE CRITERIA, WATER STORAGE SHALL BE REQUIRED. INSTANTANEOUS PEAK YIELD TESTING AND STORAGE VOLUME CALCULATIONS MUST BE CONDUCTED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH SUBCHAPTER 11 OF THE VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND WATER SUPPLY RULES, EFFECTIVE NOVEMBER 6, 2023 TO DETERMINE IF WATER STORAGE IS REQUIRED.
7. CONSTRUCTION STANDARDS FOR WELLS NOT REQUIRING A PERMIT SHALL BE IN ACCORDANCE WITH SECTION 1-1205 OF THE VERMONT WASTEWATER SUPPLY AND POTABLE WATER SUPPLY RULES (NOVEMBER 6, 2023).
8. ALL WELLS, PIPE, TANKS AND EQUIPMENT WHICH CAN CONVEY OR STORE POTABLE WATER SHALL BE DISINFECTED AND TESTED IN ACCORDANCE WITH AWWA PROCEDURES AND SECTIONS 1-1209 AND 1-1210 OF THE VERMONT WASTEWATER SUPPLY AND POTABLE WATER SUPPLY RULES (NOVEMBER 6, 2023).

WATER SUPPLY NOTES – DWELLING #2

1. THIS IS A NON-PUBLIC WATER SUPPLY. DESIGN FLOW = 560 GPD (5-BEDROOM DWELLING)
2. AVERAGE DAY DEMAND= 90% OF WASTEWATER DESIGN FLOW, OR 504 GPD
3. MAXIMUM DAY DEMAND = AVERAGE DAY DEMAND/630 OR 0.8 GPM
4. INSTANTANEOUS PEAK DEMAND = 5 GPM UP TO 15 GPM
5. 50 PERCENT OF WELL DRILLER'S ESTIMATED YIELD MAY BE USED AS THE LONG TERM YIELD.
6. THE WATER SYSTEM AND DISTRIBUTION SYSTEM MUST BE CAPABLE OF SATISFYING BOTH THE MAXIMUM DAY DEMAND AND THE INSTANTANEOUS PEAK DEMAND OF THE PLUMBING SYSTEM. UNLESS THE COMBINATION OF THE WATER SOURCE, WITHDRAWAL SYSTEMS AND PRESSURIZATION SYSTEM CAN MEET BOTH THESE CRITERIA, WATER STORAGE SHALL BE REQUIRED. INSTANTANEOUS PEAK YIELD TESTING AND STORAGE VOLUME CALCULATIONS MUST BE CONDUCTED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH SUBCHAPTER 11 OF THE VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND WATER SUPPLY RULES, EFFECTIVE NOVEMBER 6, 2023 TO DETERMINE IF WATER STORAGE IS REQUIRED.
7. CONSTRUCTION STANDARDS FOR WELLS NOT REQUIRING A PERMIT SHALL BE IN ACCORDANCE WITH SECTION 1-1205 OF THE VERMONT WASTEWATER SUPPLY AND POTABLE WATER SUPPLY RULES (NOVEMBER 6, 2023).
8. ALL WELLS, PIPE, TANKS AND EQUIPMENT WHICH CAN CONVEY OR STORE POTABLE WATER SHALL BE DISINFECTED AND TESTED IN ACCORDANCE WITH AWWA PROCEDURES AND SECTIONS 1-1209 AND 1-1210 OF THE VERMONT WASTEWATER SUPPLY AND POTABLE WATER SUPPLY RULES (NOVEMBER 6, 2023).

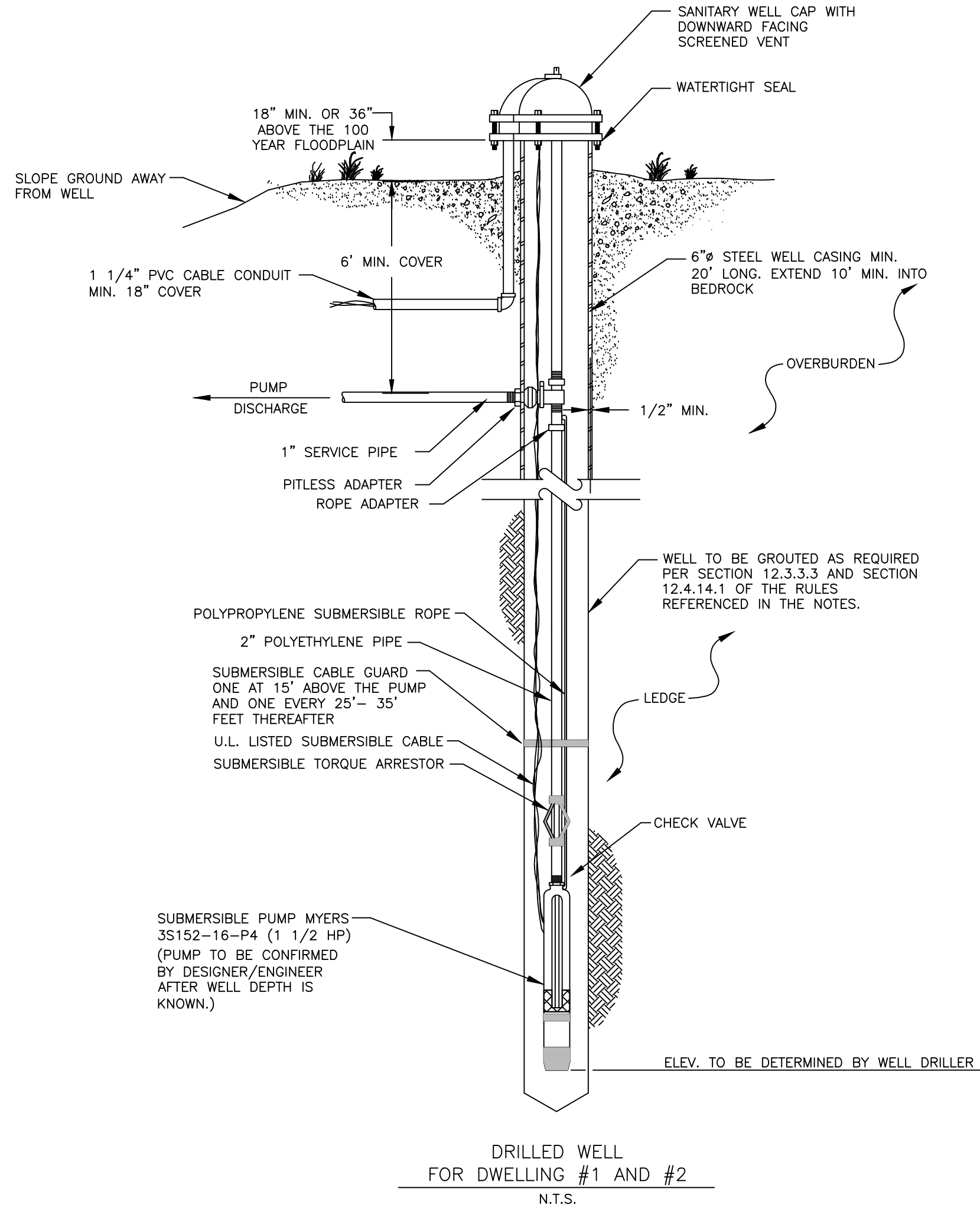
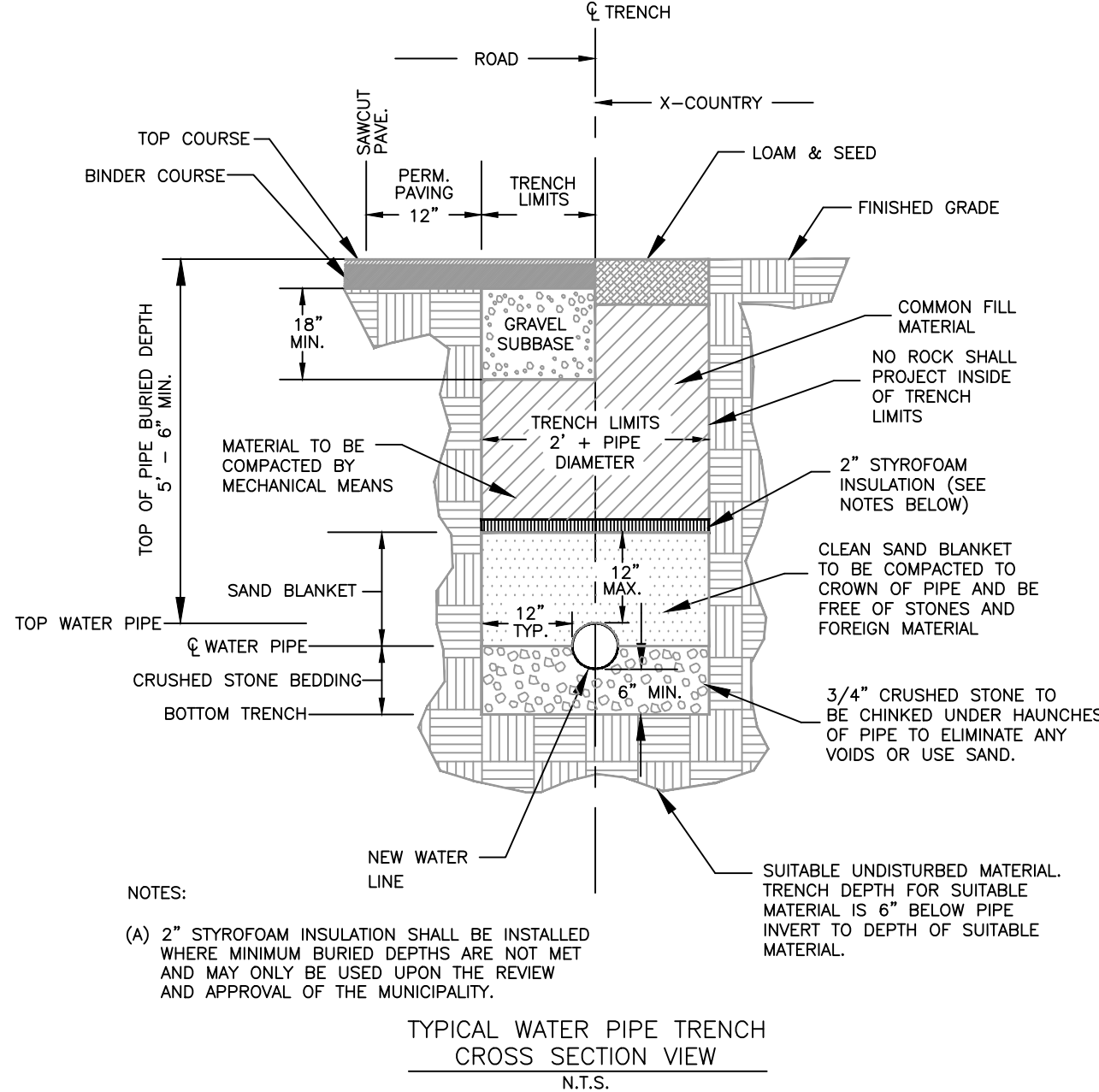
WATER TESTING
(PER VERMONT CODE)

THE CONTRACTOR SHALL TEST ALL INSTALLED PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA C600, EXCEPT AS AMENDED OR ADDED BELOW:

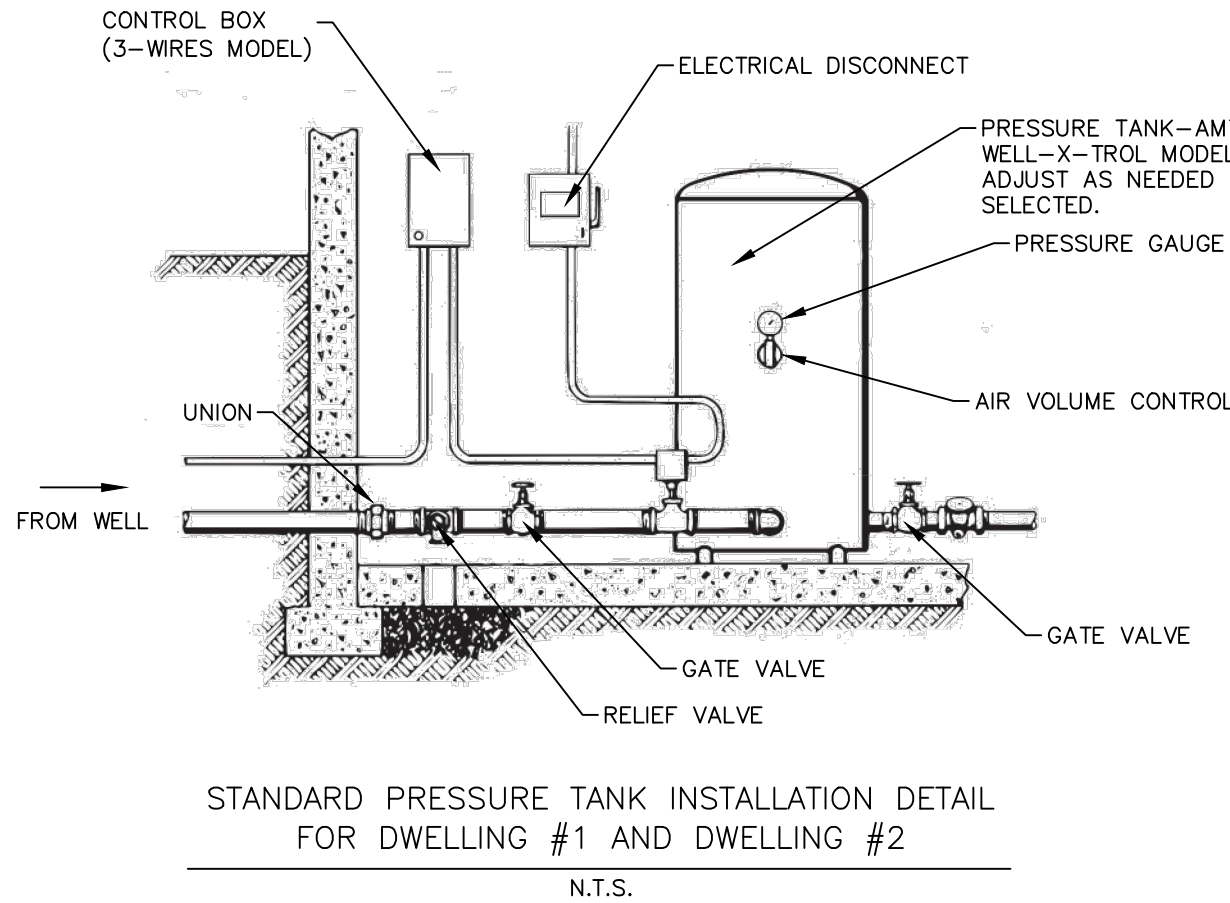
1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL REQUIRED PIPE TAPS FOR TESTING, AND AS NECESSARY FOR TESTING AS SPECIFIED.
2. A PRESSURE TEST AND LEAKAGE TEST ARE REQUIRED FOR ALL PIPE.
3. WATER TO BE FURNISHED BY THE OWNER.
4. TESTING REQUIREMENTS (VERMONT):
 - a. WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE PRESSURE TESTED AND LEAKAGE TESTED ACCORDING TO ONE OF THE FOLLOWING PROCEDURES PRIOR TO PLACING THE POTABLE WATER SUPPLY INTO SERVICE:
 1. VERMONT PLUMBING RULES;
 2. THE AWWA; OR
 3. BY PRESSURIZING THE LINES AND PIPES WITH WATER AT THE WORKING PRESSURE OF THE SYSTEM OR GREATER AND HOLD WITHOUT A DROP IN PRESSURE FOR A MINIMUM OF 16 MINUTES.
 - b. ATMOSPHERIC STORAGE STRUCTURES SHALL BE LEAKAGE TESTED ACCORDING TO THE FOLLOWING PROCEDURE TO ENSURE WATER LOSS IS EQUAL TO OR LESS THAN 0.05 OF 1 PERCENT OF THE TANK CAPACITY PRIOR TO PLACING THE STRUCTURE INTO SERVICE:
 1. FILLING THE TANK WITH POTABLE WATER AND LET STAND FOR 24 HOURS; AND
 2. MEASURING THE LOSS OF WATER OVER 24 HOURS.
 - c. IF THE WATER SERVICE LINE, WATER SERVICE PIPE, OR ATMOSPHERIC STORAGE STRUCTURE FAILS THE PRESSURE OR LEAKAGE TEST, THE CAUSE OF THE FAILURE SHALL BE REPAIRED, AND THE LINE, PIPE, OR STRUCTURE RETESTED.
5. WRITTEN AND SIGNED RESULTS OF SUCCESSFUL PRESSURE TESTING OF THE NEW WATER MAIN WITH DETAILS SHALL BE PROVIDED TO THE TOWN AND THE PROJECT CIVIL ENGINEER.

DISINFECTION OF WATER MAINS AND SERVICE LINES

- A. DISINFECTING WATER MAINS.
 - a. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT (WATER TO BE FURNISHED BY THE OWNER), AS NECESSARY TO COMPLETE DISINFECTING THE MAINS, AS SPECIFIED HEREIN; INCLUDING INSTALLATION OF PIPE TAPS NECESSARY FOR CHLORINATION OR TAKING SAMPLES AND INCLUDING PAYING FOR ALL BACTERIOLOGICAL TESTING BY AN APPROVED INDEPENDENT LABORATORY.
 - b. THE CONTRACTOR SHALL DISINFECT ALL INSTALLED WATER MAINS IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA C651, EXCEPT AS AMENDED OR ADDED BELOW:
 1. DISCUSS THE PROCEDURE WITH THE WATER SUPERINTENDENT OR HIS AUTHORIZED AGENT AND OBTAIN APPROVAL BEFORE DOING THE WORK.
 2. ALL NEWLY INSTALLED WATER MAINS SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 2.5 FT/SEC BEFORE AND AFTER DISINFECTION.
 3. FORM OF CHLORINE: CALCIUM HYPOCHLORITE GRANULES OR SODIUM HYPOCHLORITE SOLUTION.
 4. METHOD OF CHLORINE APPLICATION: CONTINUOUS FEED METHOD OR SLUG METHOD.
 5. BACTERIA SAMPLE SHOWING ABSENCE OF BACTERIA FROM A N.H. CERTIFIED WATER TESTING LABORATORY SHALL BE PROVIDED TO THE TOWN OF ROYALTON, VT. AND THE PROJECT CIVIL ENGINEER.
- C. DISINFECTION REQUIREMENTS (VERMONT)
 - a. A POTABLE WATER SUPPLY SHALL BE DISINFECTED PURSUANT TO THE REQUIREMENTS OF SUBSECTION (B), (C), AND (D) PRIOR TO PLACING THE POTABLE WATER SUPPLY INTO SERVICE AND AFTER ANY SERVICING OR REPAIR OF THE POTABLE WATER SUPPLY, SUCH AS INSTALLATION OF NEW PIPES, WIRES, CASING, OR PUMPS.
 - b. DISINFECTION OF THE POTABLE WATER SOURCE SHALL BE COMPLETED PURSUANT TO THE RECOMMENDATIONS BY THE VERMONT DEPARTMENT OF HEALTH FOR DISINFECTING A WATER SYSTEM, OR THE FOLLOWING METHOD:
 1. FLUSH THE POTABLE WATER SUPPLY UNTIL THE WATER RUNS CLEAR;
 2. PROVIDE AN INITIAL DOSAGE OF AT LEAST 100 MG/L OF CHLORINE IN THE POTABLE WATER SOURCE;
 3. CIRCULATE THE WATER IN THE POTABLE WATER SOURCE; AND
 4. ALLOW THE WATER TO REST IN THE POTABLE WATER SOURCE FOR A MINIMUM OF 12 TO 24 HOURS BEFORE DISPOSING OF THE CHLORINATED WATER.
 - c. DISINFECTION OF WATER SERVICE LINES AND WATER SERVICE PIPES SHALL BE COMPLETED PURSUANT TO THE REQUIREMENTS OF THE VERMONT PLUMBING RULES OR THE FOLLOWING METHOD:
 1. FILL THE WATER SERVICE LINE OR WATER SERVICE PIPE WITH A WATER/CHLORINE SOLUTION OF 100 MG/L; AND
 2. ALLOW THE CHLORINATED WATER TO REST IN THE WATER SERVICE LINE OR WATER SERVICE PIPE FOR A MINIMUM OF 24 HOURS BEFORE DISPOSING OF THE CHLORINATED WATER.
 - d. DISINFECTION OF WATER STORAGE TANKS SHALL BE COMPLETED PURSUANT TO AWWA STANDARD C652.
 - e. CHLORINATED WATER USED TO DISINFECT OR RESULTING FROM DISINFECTION OF POTABLE WATER SUPPLIES SHALL NOT BE DISCHARGED TO A WASTEWATER SYSTEM OR TO SURFACE WATER. PROPER DISPOSAL OF THE CHLORINATED WATER IS TO THE GROUND SURFACE THROUGH SHEET FLOW THAT INFILTRATES INTO THE SOIL OR DISPOSAL TO A WASTEWATER TREATMENT FACILITY, IF AUTHORIZED BY THE WASTEWATER TREATMENT FACILITY.



- NOTES:
- A. SUBJECT TO MINIMUM CONSTRUCTION STANDARDS AS SET FORTH IN SUBCHAPTERS 11 AND 12 OF THE VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND WATER SUPPLY RULES, EFFECTIVE NOVEMBER 6, 2023.
 - B. WELL PUMP IS TO BE EQUIPPED WITH A LOW WATER CUT-OFF SWITCH.
 - C. CONTRACTOR IS TO PROVIDE LIGHTNING PROTECTION ON WELL CIRCUIT AND SIGNAL CIRCUIT.



PER VERMONT ENVIRONMENTAL PROTECTION RULES CHAPTER 1, WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES:

SUBCHAPTER 10 – FLEXIBLE SPECIFIC TECHNICAL STANDARDS FOR WASTEWATER SYSTEMS

SECTION §1-007: SEPARATION OF SANITARY SEWER SERVICE LINES AND SANITARY SEWER COLLECTION LINES FROM WATER MAINS, WATER SERVICE LINES AND WATER SERVICE PIPES

- a. HORIZONTAL ISOLATION DISTANCES FROM WATER MAINS, WATER SERVICE LINES, AND WATER
(1) ALL PORTIONS OF A SANITARY SEWER COLLECTION LINE AND SANITARY SEWER SERVICE LINE SHALL BE AT LEAST 10 FEET HORIZONTALLY FROM ALL PORTIONS OF A PROPOSED, EXISTING, OR PERMITTED WATER MAINS, EXCEPT WHERE SITE CONDITIONS PREVENT OBTAINING THE 10-FOOT SEPARATION AND ONE OF THE FOLLOWING REQUIREMENTS IS MET:
 - (A) THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE SHALL BE WATER WORKS GRADE 150 POUNDS PER SQUARE INCH PRESSURE RATED PIPE MEETING AWWA STANDARD C-900 OR EQUIVALENT PIPE AND PRESSURE TESTED TO 150 POUNDS PER SQUARE INCH TO ASSURE WATERTIGHTNESS.
 - (B) THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE AND THE WATER MAIN IS IN A SEPARATE TRENCH OR ON AN UNDISTURBED SOIL SHELF IN THE SEWER TRENCH.
 - (2) ALL PORTIONS OF A SANITARY SEWER COLLECTION LINE AND SANITARY SEWER SERVICE LINE SHALL BE AT LEAST 10 FEET HORIZONTALLY FROM ALL PORTIONS OF A PROPOSED, EXISTING, OR PERMITTED WATER SERVICE LINE OR WATER SERVICE PIPE, EXCEPT WHEN ONE OF THE FOLLOWING REQUIREMENTS IS MET:
 - (A) THE WATER SERVICE LINE OR WATER SERVICE PIPE SHALL BE SLEEVED WITH PIPE MATERIALS APPROVED BY THE VERMONT PLUMBING RULES; AND:
 - (i) IF THE SLEEVES TERMINATE BELOW GROUND, THE ENDS OF THE SLEEVE ARE SEALED TO BE WATERTIGHT; OR
 - (ii) IF THE SLEEVES TERMINATE ABOVE FINISHED SLAB OR IN A BASEMENT, THE ENDS OF THE SLEEVE ARE SEALED TO BE WATERTIGHT OR LEFT OPEN.
 - (B) THE WATER SERVICE LINE OR WATER SERVICE PIPE SHALL BE IN A SEPARATE TRENCH OR AN UNDISTURBED SOIL SHELF IN THE SEWER TRENCH AND ONE OF THE FOLLOWING REQUIREMENTS IS MET:
 - (i) THE BOTTOM OF THE WATER SERVICE LINE OR WATER SERVICE PIPE SHALL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE; OR
 - (ii) THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE SHALL BE WATER WORKS GRADE 150 POUNDS PER SQUARE INCH PRESSURE RATED PIPE MEETING AWWA STANDARD C-900 OR EQUIVALENT PIPE AND PRESSURE TESTED TO 150 POUNDS PER SQUARE INCH TO ASSURE WATERTIGHTNESS.
- b. VERTICAL SEPARATION AND CROSSINGS FOR WATER MAINS, WATER SERVICE LINES, AND WATER SERVICE PIPES
(1) SANITARY SEWER COLLECTION LINES AND SANITARY SEWER SERVICE LINES CROSSING ABOVE PROPOSED, EXISTING, OR PERMITTED WATER MAINS SHALL BE LAID SO THE BOTTOM OF THE COLLECTION LINE OR SERVICE LINE IS 18 INCHES ABOVE THE TOP OF THE WATER MAIN WITH THE JOINTS OF THE COLLECTION LINE OR SERVICE LINE EQUAL DISTANCE FROM THE CROSSING, EXCEPT WHERE SITE CONDITIONS PREVENT OBTAINING THE 18-INCH SEPARATION AND ONE OF THE FOLLOWING REQUIREMENTS IS MET:
 - (A) THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE SHALL BE SLEEVED TO A POINT 10 HORIZONTAL FEET FROM THE CENTER LINE OF THE CROSSING.
 - (B) THE SANITARY SEWER COLLECTION LINES AND SANITARY SEWER SERVICE LINES SHALL:
 - (i) BE WATER WORKS GRADE 50 POUNDS PER SQUARE INCH PRESSURE RATED PIPE MEETING AWWA STANDARD C-600 OR EQUIVALENT PIPE AND BE PRESSURE TESTED TO 150 POUNDS PER SQUARE INCH TO ASSURE WATERTIGHTNESS; AND
 - (b) THE SANITARY SEWER COLLECTION LINE SHALL BE PROVIDED STRUCTURAL SUPPORT, SUCH AS SLEEVEING OF THE SANITARY SEWER, THAT WILL EXTEND BEYOND THE TRENCH EXCAVATION FOR THE WATER SERVICE LINE OR WATER SERVICE PIPE.
- (2) SANITARY SEWER COLLECTION LINES AND SANITARY SEWER SERVICE LINES CROSSING BELOW PROPOSED, EXISTING, OR PERMITTED WATER MAINS SHALL BE LAID SO THE TOP OF THE COLLECTION LINE OR SERVICE LINE IS 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, EXCEPT WHEN ONE OF THE FOLLOWING REQUIREMENTS ARE MET:
 - (A) THE SANITARY SEWER COLLECTION LINES AND SANITARY SEWER SERVICE LINES SHALL: BE WATER WORKS GRADE 150 POUNDS PER SQUARE INCH PRESSURE RATED PIPE MEETING AWWA STANDARD C-600 OR EQUIVALENT PIPE AND PRESSURE TESTED TO 50 POUNDS PER SQUARE INCH TO ASSURE WATERTIGHTNESS.
 - (B) THE SANITARY SEWER COLLECTION LINE OR SANITARY SEWER SERVICE LINE SHALL BE SLEEVED TO A POINT 10 HORIZONTAL FEET FROM THE CENTER LINE OF THE CROSSING.

WATER WELL REQUIRED MINIMUM SEPARATION DISTANCES

POTENTIAL SOURCE OF CONTAMINATION AND OTHER SITING LIMITATIONS	SEPARATION DISTANCE
ROADWAY, PARKING LOT (OUTER EDGE OF SHOULDER)	25'
DRIVEWAY (<3 RESIDENCES)	15'
SEWAGE SYSTEM DISPOSAL FIELDS	(a)
SUBSURFACE WASTEWATER PIPING AND RELATED TANKS	50'
PROPERTY LINE	10' (b)
LIMIT OF HERBICIDE APPLICATION ON UTILITY R.O.W.	100' (c)
SURFACE WATER	10'
FLOOD WAYS	(d)
BUILDINGS	10'
CONCENTRATED LIVESTOCK HOLDING AREA AND MANURE STORAGE SYSTEMS	200'
HAZARDOUS OR SOLID WASTE DISPOSAL SITE	(e)
NON-SEWAGE WASTEWATER DISPOSAL FIELDS	(e)

- a. SEE SITE PLAN.
- b. INCREASED TO 50' WHEN ADJACENT TO AGRICULTURAL CROPLAND.
- c. APPLIES TO RIGHT-OF-WAY (R.O.W.) WHERE HERBICIDES HAVE BEEN APPLIED TO THE PAST 12 MONTHS OR MAY BE APPLIED IN THE FUTURE. THIS DISTANCE MAY BE INCREASED TO 200' DEPENDING ON THE ACTIVE INGREDIENTS IN THE HERBICIDE ACCORDING TO VERMONT REGULATIONS FOR CONTROL OF PESTICIDES.
- d. WATER SOURCES SHALL NOT BE LOCATED IN A FLOOD WAY.
- e. IF A WATER SOURCE IS POTENTIALLY DOWN GRADIENT OF A SOURCE OF CONTAMINATION, THEN THE AGENCY SHALL APPLY THE CRITERIA IN 11.4.2.2 OF VERMONT WATER SUPPLY RULE – CHAPTER 21.



FOR PERMITTING ONLY
NOT FOR CONSTRUCTION

WATER SUPPLY DESIGN AND DETAILS FOR
VARMA YASH & SHARON ROSENTHAL
TAX MAP 7, LOT 5233
WILLARD ROAD, QUECHEE, VERMONT

PATHWAYS CONSULTING, LLC

240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

SCALE: AS SHOWN	10 SHEET 10 OF 11
DESIGNED BY: AGK	
DRAWN BY: DAS	
CHECKED BY: AGK	
DATE: 02-24-25	
PROJ. NO. 13447	

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

EROSION CONTROL SPECIFICATIONS

1. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL, AND THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
2. RECOGNIZING THAT IMMEDIATE ATTENTION TO EROSION CONTROL PRACTICES DRAMATICALLY IMPROVES SOIL AND MOISTURE CONSERVATION AND REDUCES NEGATIVE IMPACTS ON WATER QUALITY, THE CONTRACTOR SHALL GIVE HIGH PRIORITY TO THE DAILY AND TIMELY INSTALLATION OF BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATE INSTALLATION OF PRACTICES USUALLY REDUCES LONG TERM COSTS TO THE CONTRACTOR AND PROVIDES BENEFITS TO THE DEVELOPER AND THE PUBLIC GOOD.
3. EROSION CONTROL PRACTICES ARE SHOWN ON THE PLANS WITH RESPECT TO LOCATION AS DETERMINED FROM EXISTING TOPOGRAPHY. CHANGES MAY BE INDICATED IN THE FIELD TO IMPROVE EROSION AND SEDIMENT CONTROL.

4. CONSTRUCTION SHALL PROCEED UNIT BY UNIT TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND THE COMPLETION OF GRADING, SEEDING, AND LANDSCAPING AS SOON AS POSSIBLE WITHIN A UNIT. THIS PROCEDURE SHOULD RESULT IN THE EXPOSURE OF THE SMALLEST PRACTICAL LAND AREA AT ANY ONE TIME.

5. AREAS ADJACENT TO STREAMS CALL FOR PARTICULAR ATTENTION WITH REGARD TO SILT INTERCEPTION. INSTALL SILT FENCES AS SHOWN ON PLAN AND IN DETAIL BEFORE EARTHWORK COMMENCES. ADDITIONAL FENCING MAY BE REQUIRED AS WORK CONTINUES.

6. INSTALL STONE CHECKS AS SHOWN. INSPECT AND MAINTAIN ON A DAILY BASIS. CLEAN ACCUMULATED SEDIMENT AS NECESSARY. LEAVE IN PLACE UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.

7. CUT AND FILL SLOPES BOTH CALL FOR INTENSIVE EROSION CONTROL MEASURES.

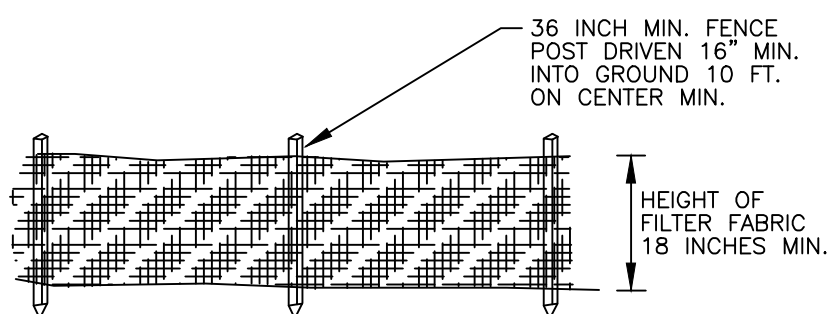
8. ALL DISTURBED AREAS SHALL HAVE TOPSOIL SPREAD (4" MINIMUM) AND BE LIMED, FERTILIZED, TILLED, SEEDED AND MULCHED. ALL SLOPES 3:1 (1 RISE ON 3 RUN) AND STEEPER SHALL HAVE MULCH HELD IN PLACE WITH BIODEGRADABLE (NOT PHOTO-BIODEGRADABLE) JUTE NETTING STAPLED AND STAKED. EACH AREA SHALL BE FERTILIZED, PREPARED, SEEDED AND MULCHED (WITH ANCHORED NETTING IF REQUIRED) WITHIN 72 HOURS OF FINAL GRADING. WHEN PERMANENT SEEDING CANNOT BE INSTALLED BY SEPTEMBER 15, TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AND MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON.

9. TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AN) MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON. TEMPORARY STABILIZATION OF DISTURBED AREAS: SEED BED PREPARATION: TILL THREE INCHES DEEP MIXING IN FERTILIZER. APPLY LIME 2 TONS/ACRE (100#/1,000 SQ. FT.) FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 300#/ACRE (77/1,000 SQ.FT.) OF 10-20-20 OR EQUIVALENT. SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE 1 BELOW. SPREAD SEED) UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS. MULCHING: MULCH ALL DISTURBED AREAS WITH 1-1/2 TO 2 TONS OF HAY OR STRAW PER ACRE (70-90#/1000 SQ. FT.) ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND FLATTER SLOPES SUBJECT TO WASH OR WIND BLOWN. JUTE OR OTHER BIODEGRADABLE (NOT PHOTO-BIODEGRADABLE) NETTING, STAKING AND STAPLING MAY BE REQUIRED.

TABLE 1
PLANT SELECTION AND SEEDING RATES

SPECIES REMARKS	PER ACRE	PER 1000 SQ.FT.	
WINTER RYE SEEDING TO	2 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEED AUGUST 15 SEPTEMBER 15 FOR BEST COVER. SEED TO DEPTH OF ONE INCH.
OATS	2 1/2 BU OR 80 LBS.	2 LBS.	BEST FOR SPRING SEEDING LATER SUMMER PROTECTION. SEED TO DEPTH OF ONE INCH.
ANNUAL RYE	40 LBS.	1 LB.	GROWS QUICKLY, BUT IS SHORT GRASS DURATION. USE MERE APPEARANCES ARE IMPORTANT, COVER SEED WITH NO MORE THAN 1/4 INCH OF SOIL. WITH MULCH, SEEDING MAY BE DONE THROUGHOUT GROWING SEASON. OTHERWISE SEED EARLY SPRING OR BETWEEN AUGUST 15 & SEPTEMBER 15.

10. PERMANENT STABILIZATION OF DISTURBED AREAS: SEED BED PREPARATION: TOPSOIL (SANDY LOAM, LOAM, OR SILT LOAM). FRABLE, FREE OF TREE ROOTS, WEEDS, STONES MORE THAN 1-1/2 INCHES IN DIAMETER OR LENGTH SHALL BE PLACED OVER ALL DISTURBED AREAS IN A 6" (MINIMUM) THICK LAYER. TOPSOIL SHALL BE FREE OF HERBICIDES AND TOXIC MATERIALS. TILL THREE INCHES DEEP MIXING IN THE FERTILIZER AND LIME. APPLY LIME 2 TONS/ACRE (100#/1,000 SQ. FT.) FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 300#/ACRE (77#/1,000 SQ.FT.) OF 10-20-20 OR EQUIVALENT. SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE 2 BELOW. SPREAD SEED UNIFORMLY BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS. MULCHING: MULCH ALL DISTURBED AREAS WITH 1-1/2 TO 2 TONS OF HAY OR STRAW PER ACRE (70 - 90#/1,000 SQ.FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND ON FLATTER SLOPES SUBJECT TO WASH (WATERWAYS AND/OR WINDBLOWN USING JUTE (OR OTHER BIODEGRADABLE-NOT PHOTO-BIODEGRADABLE) NETTING, STAKING, AND STAPLING.



EMBED FABRIC 6 INCHES
MINIMUM INTO GROUND
OR BACKFILL

CONSTRUCTION SPECIFICATIONS

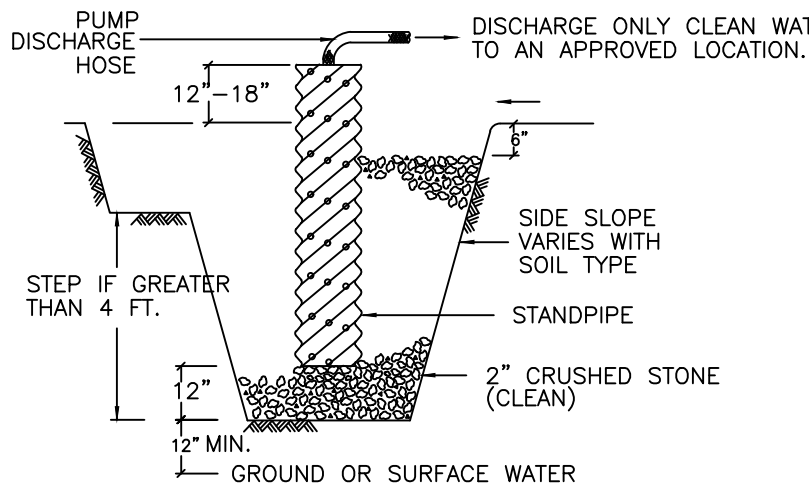
- SILT FENCE MAY BE EITHER PREMANUFACTURED OR PREPARED ON SITE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- SILT FENCE SHALL BE LOCATED AS SHOWN ON THE PLAN AND WHEREVER CONSTRUCTION ACTIVITIES MAY RESULT IN A TEMPORARY RUNOFF TO A STREAM OR WETLAND WHICH MAY CARRY SILT OR SEDIMENT.
- THE TRENCH SHALL BE TOED IN PLACE BY PLACEMENT IN A 6 INCH TRENCH AND BACKFILLING WITH A SUITABLE MATERIAL.
- WHEN A TRENCH CANNOT BE CONSTRUCTED, THE FABRIC MAY BE FOLDED AT THE BASE IN A MANNER SUCH THAT A MINIMUM OF 6 INCHES OF FABRIC LIES ON THE GROUND TOWARD THE DIRECTION OF FLOW. THE FOLDED FABRIC SHALL BE COVERED TO A DEPTH OF 6 INCHES WITH SUITABLE MATERIAL EXTENDING A MINIMUM OF 4 INCHES BEYOND THE FABRIC.
- SUPPORTING STAKES SHALL BE PLACED NO MORE THAN 10 FEET APART.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED. FENCING SHALL BE REPLACED WHEN TORN. WHEN TRENCHING IS DISTURBED, WHEN THE FENCE DISPLAYS PLUGGING AS EVIDENCED BY SILT-LADEN APPEARANCE, WHEN WATER IS EXCESSIVELY RETARDED BY THE FENCE, OR WHENEVER 'BULGES' APPEAR.

SILT FENCE
N.T.S.

MIXTURE	TABLE 2 SEEDING RATES	POUNDS PER ACRE
A. PARK AND LAWN AREAS		
NASSAU KENTUCKY BLUEGRASS	60%	96
JAMESTOWN 2 CHEWINGS FESCUE	20%	32
PALMER 2 PERENNIAL RYEGRASS	20%	32
TOTAL	100%	160

- B. MEADOW AREAS.
NEW ENGLAND WILD FLOWER SEED MIX, NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL.
- C. DETENTION BASIN BOTTOM & SIDES.
NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES, NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL.

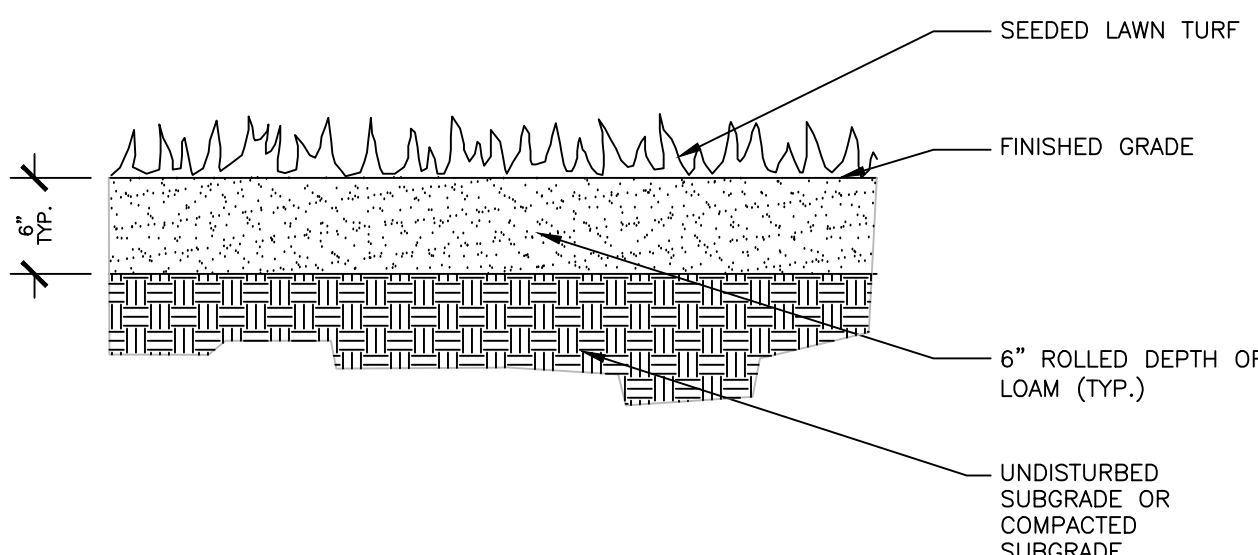
11. TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
12. MAINTENANCE: DURING THE CONSTRUCTION PERIOD AND UNTIL SUCH TIME AS THE LONG TERM VEGETATION IS ESTABLISHED.
- DISTURBED AREAS WILL BE FERTILIZED AND RESEED.
 - STONE CHECKS, SILT FENCE AND BALED HAY CHECKS WILL BE CHECKED AND CLEANED AS NECESSARY.
 - DRAINAGE AND GRASS TREATMENT SWALES SHALL BE CHECKED FREQUENTLY AND CLEANED AS REQUIRED.
 - THE SILT FENCES AND HAY BALES WILL BE CHECKED ON A REGULAR BASIS AND REPAIRED AS NECESSARY TO CORRECT ANY DAMAGE, DETERIORATION, AND SHORT CIRCUITING.
13. REFER TO "GRADING AND UTILITY PLANS" PRIOR TO ANY SITE DISTURBANCE. CONTACT ENGINEER FOR COPIES OF PLAN.
14. INSPECTIONS-- THE ENGINEER SHALL BE CONTACTED ON A REGULAR BASIS TO INSPECT ALL EROSION CONTROL PRACTICES AS WELL AS THE MAINTENANCE OF THE EROSION CONTROL COMPONENTS. INSPECTIONS SHALL OCCUR AT LEAST ONCE EVERY SEVEN DAYS AND AFTER A PRECIPITATION EVENT THAT CAUSES RUNOFF TO LEAVE THE SITE. EROSION CONTROL PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
15. ALL DITCHES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
16. THE MAXIMUM AMOUNT OF AREA TO BE DISTURBED AND UNSTABILIZED SHALL BE 1 ACRE AT ANY TIME.
17. THE MAXIMUM AMOUNT OF TIME ANY AREA MAY BE DISTURBED WITHOUT TEMPORARY OR FINAL STABILIZATION SHALL BE 7 CONSECUTIVE DAYS.
18. FOR PROJECTS IN THE TOWN OF HARTFORD, IF EROSION CONTROL FABRIC IS USED, IT SHALL BE BIODEGRADABLE, BUT NOT PHOTO-BIODEGRADABLE.



INSTALLATION NOTES

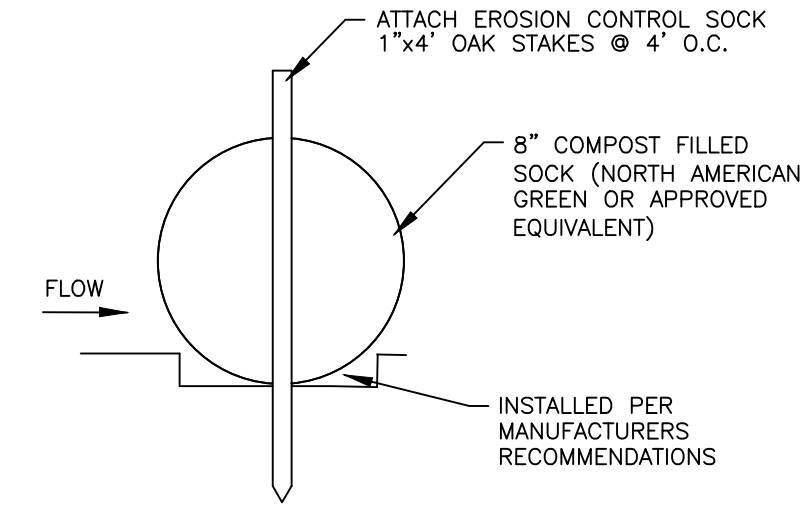
- PIT DIMENSIONS ARE VARIABLE.
- THE STANDPIPE SHOULD BE A PERFORATED 12" TO 24" DIAMETER CORRUGATED METAL, PVC OR HDPE PIPE.
- A BASE OF 2" CLEAN CRUSHED STONE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD THEN BE BACKFILLED WITH 2" CRUSHED STONE.
- THE STANDPIPE SHOULD EXTEND 12" - 18" ABOVE THE LIP OF THE PIT.
- THE STANDPIPE MAY BE WRAPPED WITH FILTER FABRIC BEFORE INSTALLATION. IF DESIRED, 1/4" - 1/2" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTER FABRIC, THIS WILL INCREASE THE RATE OF WATER SEEPAGE INTO THE PIPE.

DEWATERING STRUCTURE
N.T.S.



TYPICAL LOAM & SEED DETAIL
N.T.S.

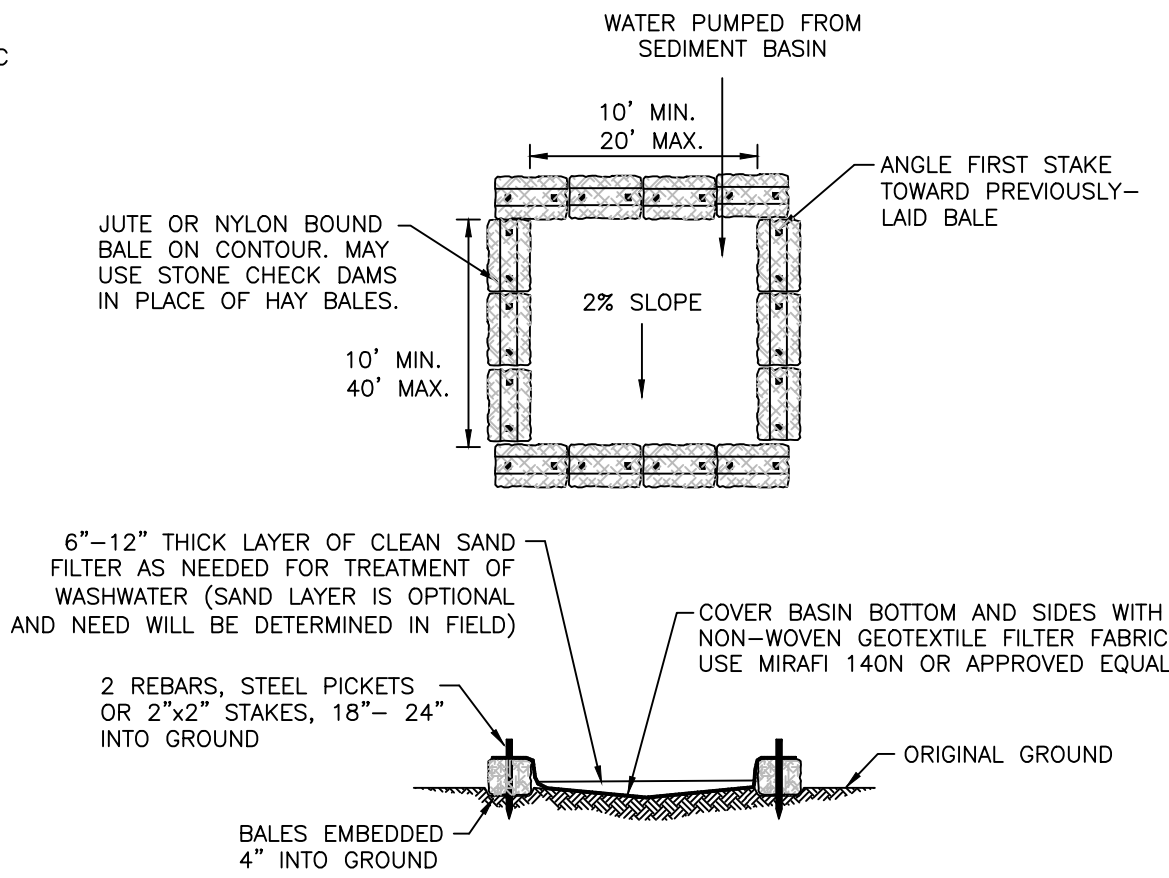
FOR PERMITTING ONLY
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EROSION CONTROL SOCK DETAIL
N.T.S.

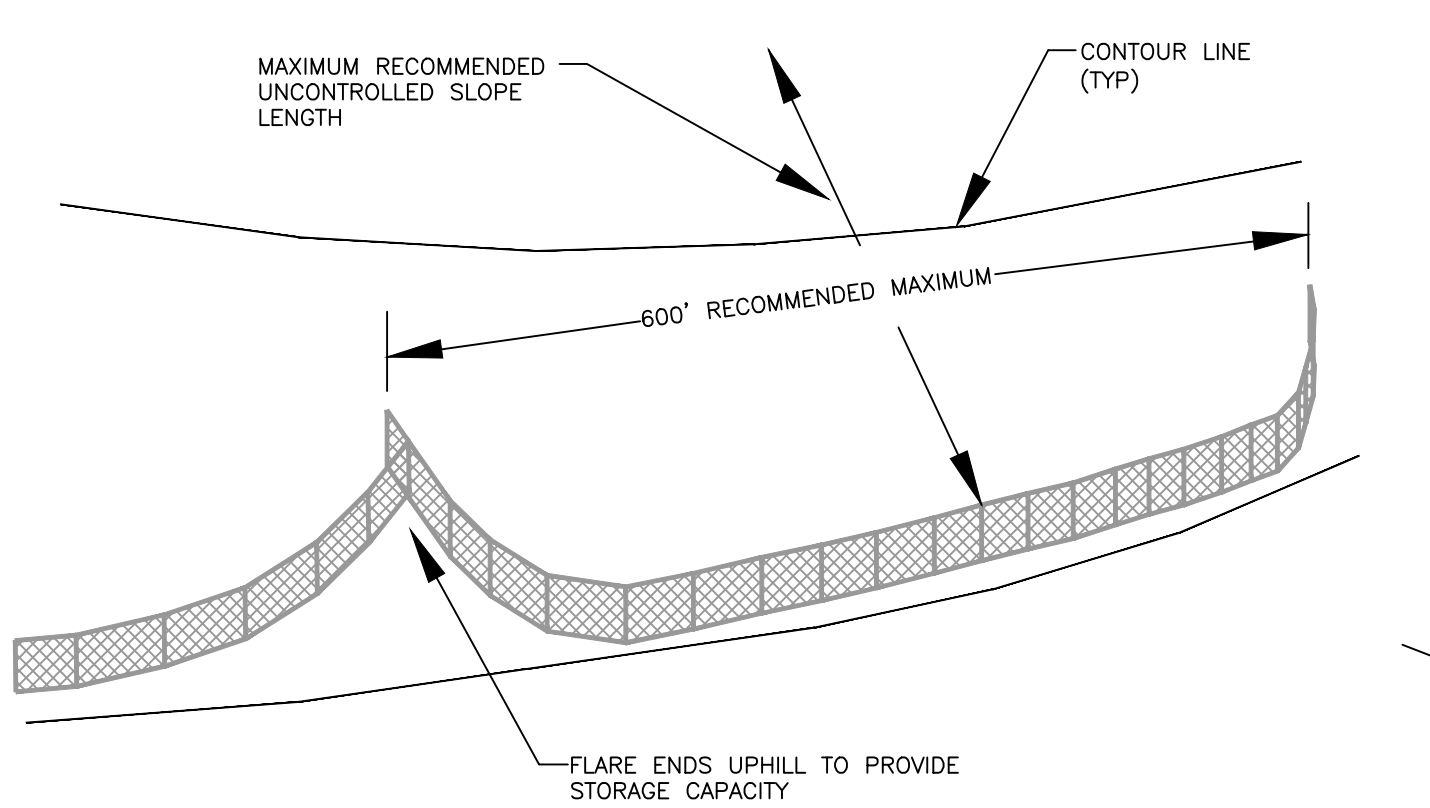
TEMPORARY DEWATERING NOTES:

- LOCATIONS OF COFFERDAMS AND WATER DIVERSION COMPONENTS DETAILED ON THE PLANS ARE APPROXIMATE AND MAY BE ADJUSTED AS REQUIRED TO ACCOMMODATE THE CONTRACTORS MEANS AND METHODS OF CONSTRUCTION.
- CONTRACTOR CANNOT MAKE MAJOR ALTERATIONS TO THE APPROACH AND LOCATION FOR COFFERDAMS AND WATER DIVERSION PROVIDED ON THESE PLANS BEFORE SUBMITTING PLANS FOR THE ALTERED APPROACH TO OWNER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH ANY RELATED WORK.
- CONTROL OF WATER WITHIN THE EXCAVATION SHALL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT DISTURBANCE. DEWATERING SHALL BE CONTINUOUS UNTIL THE STREAM MAINTENANCE WORK IS COMPLETE.
- THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED AS A RESULT OF COFFERDAMS AND/OR OTHER DEWATERING COMPONENTS, TO THEIR ORIGINAL CONDITION, UNLESS OTHERWISE SHOWN ON THE PLANS.

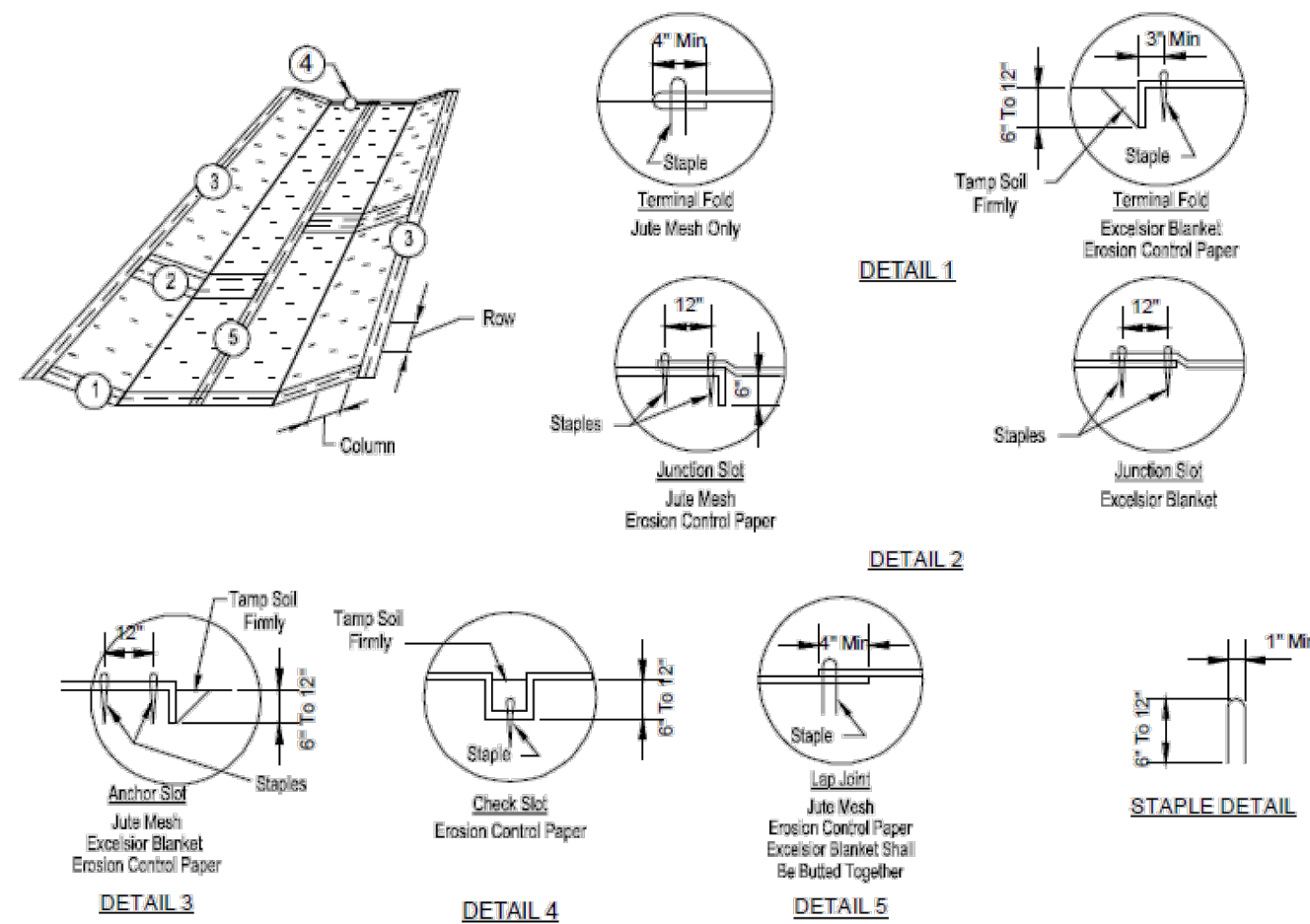


- NOTE:
- GOAL IS FOR ALL CONTAMINATED WATER TO FLOW THROUGH NON-WOVEN FABRIC, AND SAND LAYER AS DEEMED NECESSARY, PRIOR TO EXITING BASIN.
 - BASIN SIZE TO VARY BASED ON EXPECTED VOLUME OF WASHWATER, BUT SHOULD NOT EXCEED LIMITS INDICATED ABOVE.
 - CONTRACTOR MAY USE MULTIPLE CELLS TO INCREASE TREATMENT CAPACITY.
 - DETAIL AS SHOWN IS INTENDED TO PROMOTE INFILTRATION INTO GROUND BELOW BASIN. WHERE INFILTRATION IS NOT DESIRED DUE TO UNSUITABLE SOIL CONDITIONS, CLOSE PROXIMITY TO SENSITIVE RESOURCES, OR OTHER CONDITIONS, CONTRACTOR SHALL USE IMPERVIOUS PLASTIC LINER ON BOTTOM AND THREE SIDES WITH NON-WOVEN FABRIC ON DOWNGRADE END TO ALLOW WATER TO EXIT BASIN IN DESIRED DIRECTION AWAY FROM SENSITIVE RESOURCES.

SETTLING BASIN/SAND FILTER FOR DEWATERING CONTROL
N.T.S.



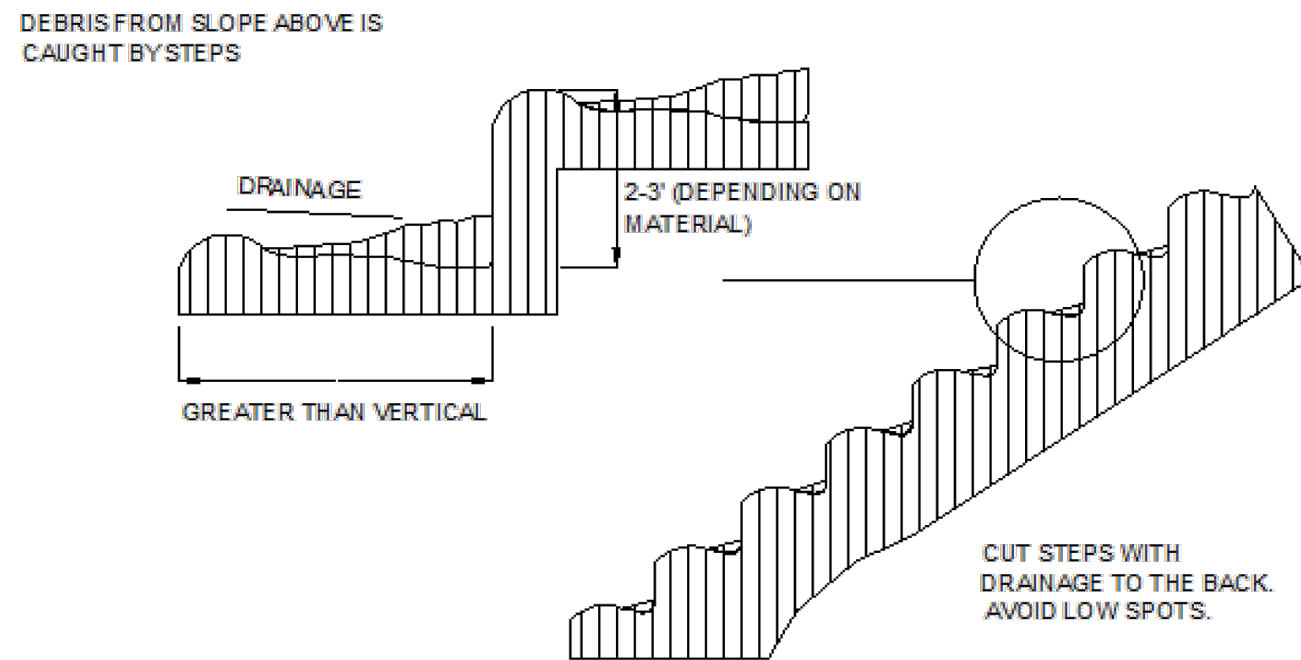
SILT FENCE LAYOUT
N.T.S.



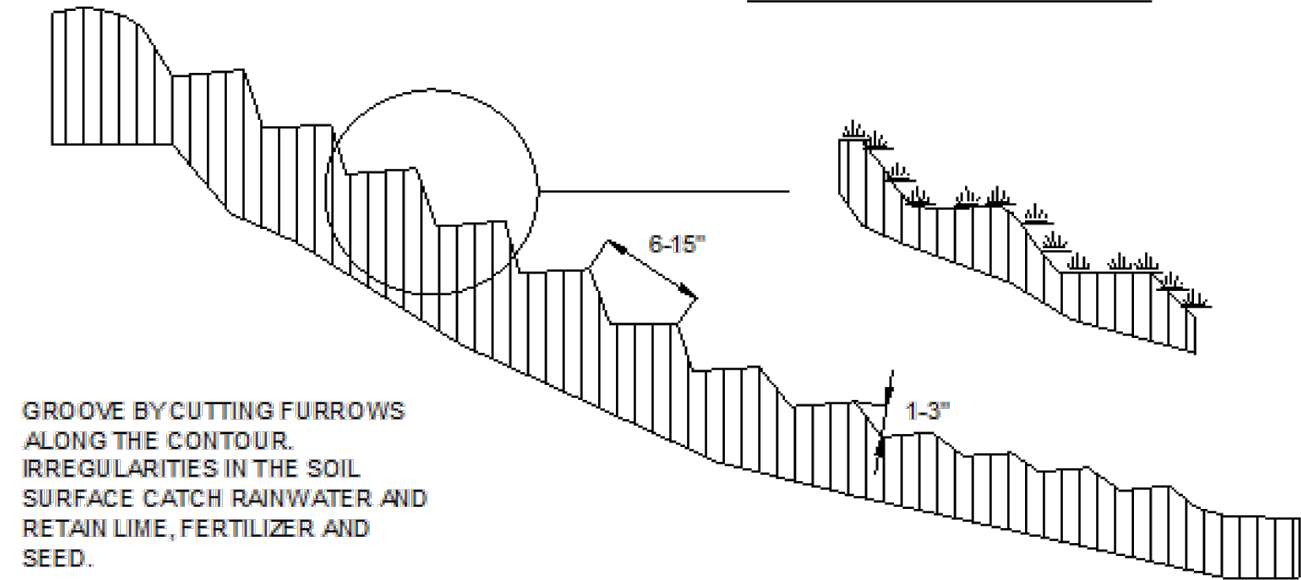
CONSTRUCTION SPECIFICATIONS

- SPACING: INSTALL RECP EVERY 50' ON SLOPES MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
- STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 2' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
- DISTURBED AREA SHALL BE SMOOTHLY GRADED TO ENSURE CLOSE CONTACT BETWEEN RECP AND GROUND.
- EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
- ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ROLLED EROSION CONTROL PRODUCT (RECP) DETAIL
N.T.S.

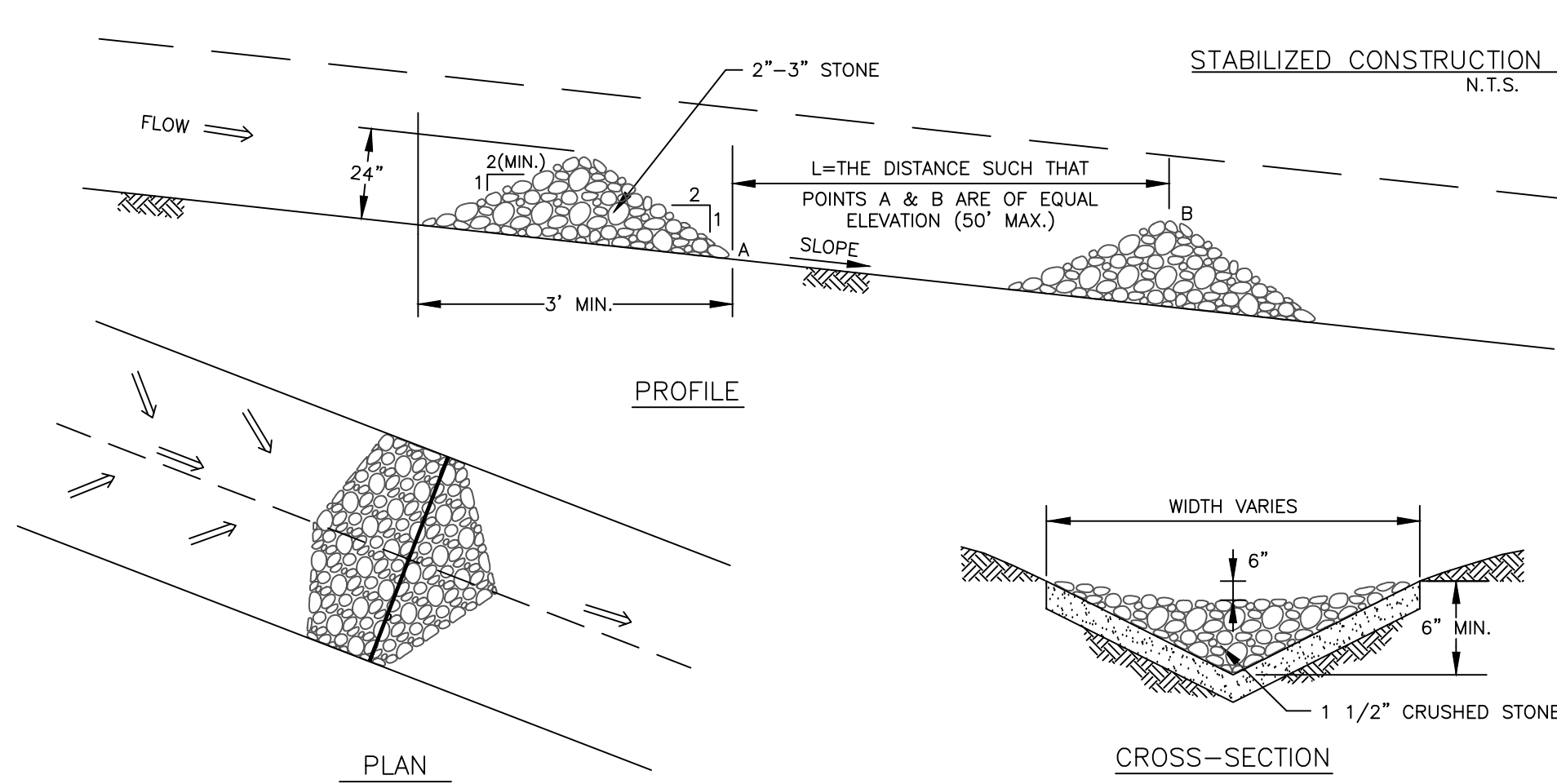


STAIR STEPPING CUT SLOPES

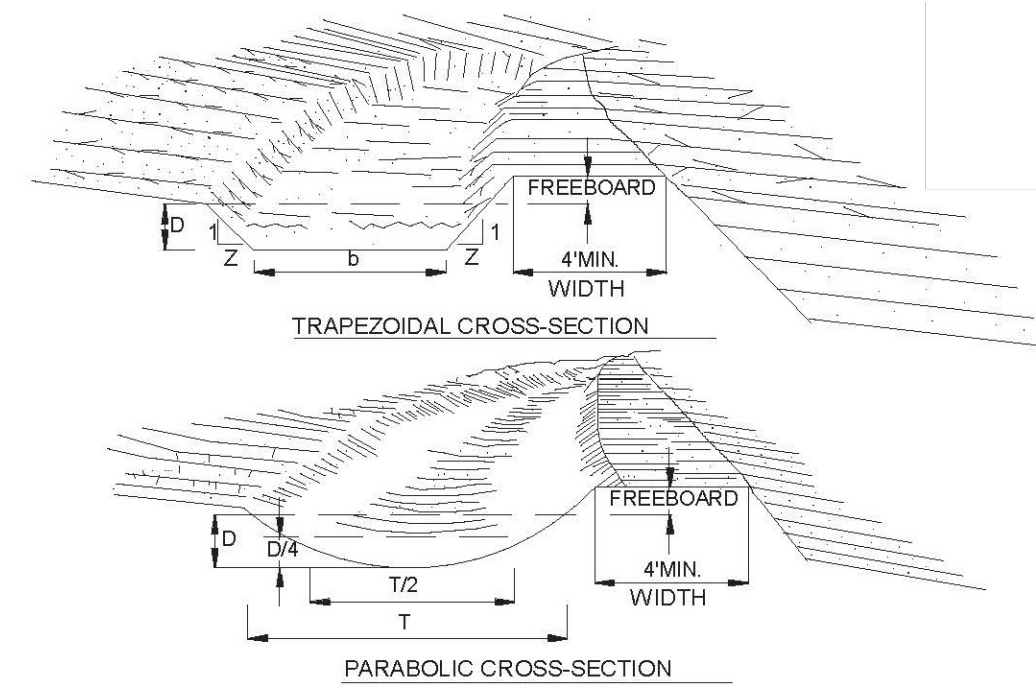


GROOVING SLOPES

SURFACE ROUGHENING DETAIL
N.T.S.



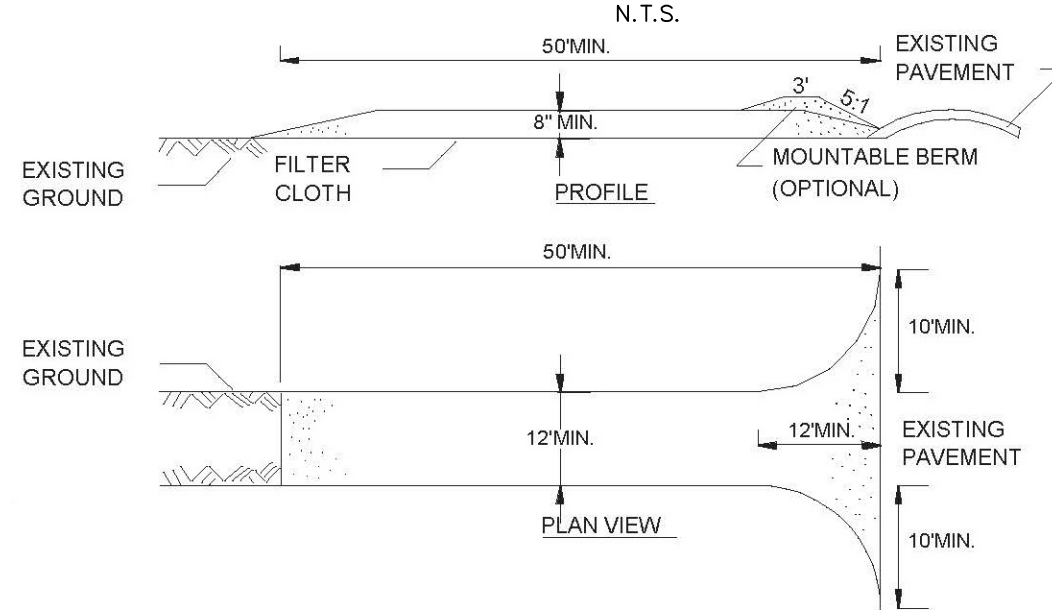
STONE CHECK DAMS
N.T.S.



CONSTRUCTION SPECIFICATIONS

- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIVERSION.
- THE DIVERSION SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETE DIVERSION.
- ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIVERSION.
- STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION.
 - FOR DESIGN VELOCITIES OF LESS THAN 3.5 FT. PER SEC., SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY DIVERSIONS OR OTHER MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE DIVERSION DURING THE ESTABLISHMENT OF THE VEGETATION.
 - FOR DESIGN VELOCITIES OF MORE THAN 3.5 FT. PER SEC., THE DIVERSION SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE OR MATTING OR WITH SEEDING AND MULCHING INCLUDING TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.

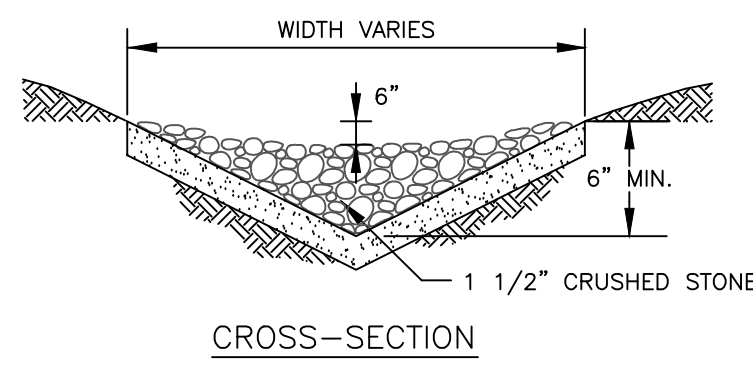
DIVERSION DITCH DETAIL



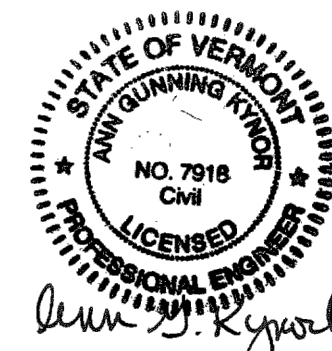
CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).
- THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
- WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



CROSS-SECTION



David J. KyurePE.

EROSION AND SEDIMENT CONTROL DETAILS FOR
VARMA YASH & SHARON ROSENTHAL
TAX MAP 7, LOT 5233
WILLARD ROAD, QUECHEE, VERMONT

PATHWAYS CONSULTING, LLC

240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

SCALE: AS SHOWN
DESIGNED BY: AGK
DRAWN BY: DAS
CHECKED BY: AGK
DATE: 02-24-25
PROJ. NO. 13447

11

SHEET 11 OF 11

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

PATHWAYS CONSULTING, LLC

Planning • Civil & Environmental Engineering • Surveying • Construction Assistance
240 Mechanic Street • Suite 100
Lebanon, New Hampshire 03766
(603) 448-2200 • Fax: (603) 448-1221

February 24, 2025
Revised March 5, 2025

Jo-Ann Ells, Zoning Administrator
Town of Hartford
Department of Planning and Development Services
171 Bridge Street
White River Junction, Vermont 05001

RE: APPLICATION FOR CONDITIONAL USE PERMITS, YASH/ROSENTHAL LOT 7-5233, 0 WILLARD ROAD, QUECHEE, VERMONT (Project No. 13447)

Dear Jo-Ann:

Please find enclosed application materials for Conditional Use Permits (CUP) for (a) development within the riparian buffer of a stream identified on the Town of Hartford (Hartford) G.I.S. Natural Resources Map, and (b) the addition and on-site movement of more than 200 cubic yards of earth material. The application materials include one copy of this cover letter, an application for the CUP, the Overlay District Handout, a check in the amount of \$155, and one full-size set of plans and details. A digital copy of the application package will be provided to you as well.

The parcel is located in the Rural Lands One (RL-1) Zoning District, it is identified on the Hartford Listers' Map 07 as Lot 5233 on Willard Road in Quechee, and it is part of the Quechee Lakes Landowners Association (QLLA). The present use of the 2.92-acre property is vacant and wooded. The project consists of the construction of a driveway to serve a primary 5-bedroom dwelling and a 3-bedroom guest house, and associated grading, stormwater management, on-site water supplies (an individual drilled well for each dwelling), and sewer services that will connect to the municipal sewer system. The construction of the driveway requires impacts to the riparian buffer of a stream that is identified on the Hartford G.I.S. Natural Resources Map and the movement of more than 200 cubic yards of earth material, both of which require Conditional Use approval.

Conditional Use Application for Riparian Buffer Impacts

According to Chapter 260, Section 25 of the Town Code – Protection of Surface Waters, “A riparian buffer shall be maintained ... for a minimum of 30 feet from the edge of a stream or any other surface water identified on the most recent edition of the Hartford G.I.S. Natural Resources Map.... No development, excavation, filling, clearing or grading shall occur within the buffer without conditional use approval from the Zoning Board of Adjustment...” The construction of the proposed driveway and stormwater management facilities will impact the riparian buffer of the stream, thus requiring Conditional Use approval.

The following information is offered in support of the application and in accordance with the requirements of Section 260-25.F of the Town Code:

(1)(a) The least possible area of existing riparian vegetation is disturbed.

The stream and associated wetlands bisect the property such that the majority of the developable land within the parcel can only be accessed by crossing the stream with a driveway. Consequently, the basic project purpose cannot be achieved without impacting the riparian buffer. The location of the driveway was selected to minimize the adverse impacts on the stream and its riparian vegetation.

(1)(b) Disturbed riparian areas are replanted with a mixture of native or noninvasive trees, shrubs, and grasses.

The revegetation notes on the Riparian Buffer Impacts Plan direct the contractor to replant disturbed riparian areas with native or non-invasive trees, shrubs, and grasses.

(1)(c) Erosion and sediment control measures are followed.

The plan set includes an Erosion Prevention and Sediment Control plan and details that follow and reference the Low Risk Site Handbook for Erosion Prevention and Sediment Control published by the Vermont Department of Environmental Conservation.

(1)(d) Tree and shrub removal results in minimal breaks to the canopy, the stumps and root systems of removed vegetation remain intact in the ground wherever possible, the area is replanted with native or noninvasive shrubs and grasses, and the method used complies with the most current standards of Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont.

The Riparian Buffer Impacts Plan includes these requirements in the Riparian Buffer Impacts Notes.

(1)(e) Management and treatment of stormwater run-off from new development to achieve filtering of pollutants is provided.

The grading and drainage plan and details include provision for drainage ditches and culverts to capture stormwater runoff from the driveway and discharge it to level spreaders, where the runoff is converted from concentrated flow and allowed to spread out over the vegetated earth surface, thereby minimizing erosion, filtering pollutants through the vegetation, and encouraging groundwater recharge. Stormwater will be treated in this manner before reaching the edge of the delineated wetlands or the riparian buffer.

(2) Application requirements:

The identified plan sheets include information that address the following requirements:

(a) Area of excavation, filling and/or grading, and proximity to... the water's edge:

Refer to the Riparian Buffer Impacts Plan.

(b) Depth of excavation and proximity to... the water's edge:

Refer to the Riparian Buffer Impacts Plan.

(c) Amount of material to be excavated, filled or graded:

Refer to the Riparian Buffer Impacts Plan.

(d) Existing grade and proposed grade:

Refer to the Existing Conditions Plan and the Grading and Drainage Plan.

(e) Proximity to flood hazard zone:

This stream does not have a flood hazard zone on any flood maps, so this requirement does not apply.

(f) Description of the practices that will be used to protect water quality of project-generated stormwater runoff based on guidance from the most current edition of the Low-Risk Site Handbook for Erosion Prevention and Sediment Control:

Refer to the Erosion and Sediment Control Plan.

(g) Erosion control plan:

Refer to the Erosion and Sediment Control Plan.

(h) Plan for rehabilitation of the site at the conclusion of operations, including grading, seeding, planting, fencing, installation of drainage systems, or other measures:

Refer to the Riparian Buffer Impacts Plan.

Conditional Use Application for Proposed Movement of Earth

According to Chapter 260, Section 26 of the Town Code – Extraction of Earth Resources/Filling of Land, “in all districts, the removal from a lot of more than 20 cubic yards per year of soil, sand, rock or gravel, the quarrying of stone, or the addition or on-site movement of more than 200 cubic yards per year of such materials shall require Conditional Use approval, except for (1) removal of material excavated for the foundation of a building for which a current zoning permit exists or (2) removal or filling in connection with a development for which site development plan approval has been granted.” Construction of the driveway and the associated stormwater management facilities will require the addition or on-site movement of approximately 700 cubic yards of cut and 3,800 cubic yards of fill material, which require Conditional Use approval.

The following information is offered in support of the application and in accordance with Section 260-26.A of the Town Code:

(1) Depth of excavation and proximity to roads or adjacent properties.

The driveway construction requires imported fill to achieve final grades throughout the length of the driveway. The existing vegetation and topsoil will be excavated an average depth of approximately 12 inches to prepare the ground for the imported materials. The

proposed sewer service pipe and drainage culverts will require excavation of an average depth of four feet to install the pipes.

The adjacent properties to the north and south of the parcel are already developed with single-family homes. The nearest structure to the driveway is the dwelling on Lot 7-5235, located approximately 125 feet north of the driveway.

(2) Existing grade and proposed grade created by removal or addition of material.

The existing land is wooded and slopes from west to east across the parcel. There is a band of very steeply sloping terrain (40%) across the middle of the parcel, and the wetland area east of the steep slope is relatively gently sloping (5% to 10%). The proposed driveway slope will be approximately 8% for the first 100 feet from Willard Road, heading westward down to the intermittent stream where it levels off as it crosses over the stream. The driveway then rises westward toward the proposed main house at a slope of 12% to 13%. Common fill, gravel, and hardpack materials will be imported to construct the driveway and parking areas.

(3) Anticipated effect upon public health and safety.

The driveway construction will not cause any adverse effects upon public health and safety. The project is on an existing parcel within the QLLA master plan development; therefore, it is already zoned and planned to be developed as a single-family home. The project includes the construction of on-site water supplies to serve the main house and guest house, and construction of sewer services that will connect to the municipal sewer main in Willard Road. Stormwater management practices and erosion prevention and sediment control measures are also proposed to maintain water quality during and after construction.

(4) Anticipated effect of noise, dust, or vibration on the use of adjacent properties.

Construction is anticipated to begin spring/summer of 2025. Hours of construction will be Monday through Saturday, 7:00 a.m. to 5:00 p.m. Dust will be controlled by using water or chloride. The nearest residence is on Lot 7-5235, located approximately 125 feet north and uphill, and screened by woods, such that vibrations will not be noticeable on adjacent properties.

(5) Anticipated effect of traffic on residential areas, potential for excess congestion or damage to public roads.

The project is not anticipated to impact local traffic or damage the existing Hartford roads. Construction will occur over a period of several weeks; consequently, there will be no more than a few trucks delivering material to the site during any hour.

(6) Measures for preventing erosion, controlling runoff, and conserving topsoil.

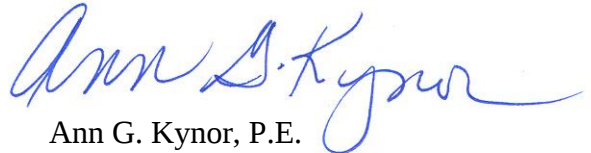
The contractor will utilize stone check dams, erosion control socks, and silt fence to control erosion, in accordance with the Vermont Low-Risk Site Handbook for Erosion Prevention and Sediment Control.

Stormwater runoff will be controlled by the construction of stone discharge aprons and level spreaders at the downstream side of culverts and at areas of potential concentrated stormwater flow. The approximate sizes and locations are depicted on the site plans. The total site disturbance associated with the construction of the driveway and houses is approximately 0.85 acre; therefore, a Construction General Permit (CGP) 3-9020 is NOT required.

We look forward to presenting this project to the Zoning Board of Adjustment. Please do not hesitate to contact me if you have any questions.

Sincerely,

PATHWAYS CONSULTING, LLC



Ann G. Kynor, P.E.
Project Engineer

AGK:aml

Enclosures

cc: Jamey Ennis w/enclosures

PATHWAYS CONSULTING, LLC

Planning • Civil & Environmental Engineering • Surveying • Construction Assistance
240 Mechanic Street • Suite 100
Lebanon, New Hampshire 03766
(603) 448-2200 • Fax: (603) 448-1221

MEMORANDUM

TO: JO-ANN ELLS, TOWN OF HARTFORD ZONING ADMINISTRATOR

FROM: ANN G. KYNOR, P.E., PROJECT MANAGER 

RE: APPLICATION FOR CONDITIONAL USE PERMITS, LOT 07-5233, VARMA YASH AND SHARON ROSENTHAL, WILLARD ROAD, QUECHEE, VERMONT (Project No. 13447)

DATE: MARCH 5, 2025

On behalf of the applicants, our responses to the Department Heads' and Staff preliminary comments, dated February 27, 2025, are provided in *italics* below each comment.

1. Please confirm that you understand that you retain the obligation to identify, apply for, and obtain any relevant local and state permits for this project.

We acknowledge and understand this requirement.

2. Please confirm that you understand that to finalize any approval and before the activity may commence you must submit a complete Zoning Permit application.

A complete application includes:

- An application for a Zoning Permit
- Application fee
- Documentation outlining how any conditions of the Zoning Board's approval have been met
- Final plans

We acknowledge and understand this requirement.

3. Any approval will include a condition that your engineer certify that no changes, other than those required by the Zoning Board, were made to the final plans that are submitted for the Zoning Permit. Please confirm your understanding.

We acknowledge and understand this requirement.

4. Any approval will include a condition that, in addition to the required hard copies, the final plans are emailed to me.

We acknowledge and understand this requirement.

5. Please confirm you understand that you need a driveway permit from the Department of Public Works.

We acknowledge and understand that a driveway permit is required.

6. Will the project require a State Wetland Permit?

Yes, the project will require a State Wetland Permit for impacts within the wetland and the 50' wetland buffer. The applicant has engaged a wetland scientist to communicate with the district wetland ecologist and prepare the application materials.

7. Please review Section 260-25 E of the Zoning Regulations to determine if the proposed activity in the riparian buffer is allowable and amend the application if necessary.

Allowable uses and activities in the riparian buffer include:

"Section 260-25 E (7) Private connections to the Town water and sewer lines." The proposed project includes a private sewer line crossing the riparian buffer to connect to the Town sewer line. The sewer line crosses the intermittent stream to connect to the Town sewer line, such that it is an allowed use in the riparian buffer.

"Section 260-25 E (9) Installation of driveway culverts to serve drainage ditches along Town highways; installation of other culverts serving driveways that cross surface waters as long as the finished grade does not exceed a height of six feet above the bottom of the culvert, the culvert shall be properly sized, and additional surface water protection measures listed in Subsection F(1)(b), (c), and (d) are used." The finished grade of the proposed driveway culvert that crosses the surface water and riparian buffer requires a height of nine feet above the intermittent stream bed, or ten feet above the bottom of the culvert (the culvert is buried one foot below the stream bed). The height of the crossing is necessary to keep the driveway grades on both sides of the crossing within reasonable parameters. The steepest section of the driveway is 12% to 13%. Consequently, the proposed driveway and culvert are not allowed under this section and require a conditional use permit.

8. Please confirm that the proposed guest house meets the following requirements of the Quechee Lakes Master Plan (QLMP):

- The structure may not exceed 20' in height
- A guest house is defined in the QLMP as "a non-rental accessory structure intended for occupancy by family and friends."

The proposed guest house meets these requirements.

9. Please review section 4-2 B of the QLMP. It does not appear that the guest house may have a garage.

Section 4-2B of the Quechee Lakes Master Plan (QLMP) states, "Single family lots shall be used only for single family residential purposes. A dwelling may have as accessory to it a garage of not more than three car capacity and other accessory structures which may include storage buildings, boat sheds, swimming pools, tennis courts, terraces, decks, porches, playhouses, and other customary accessory structures. Lots which

contain two acres or more may have a guest house. Guest houses shall not exceed twenty (20) feet in height. Farmsteads and woodsteads may have a barn."

We do not interpret this section to prohibit a garage at the guest house. As discussed, this section clearly limits the size of the garage of the main dwelling, but it does not specifically prohibit a garage with the guest house. The proposed main house meets the restriction of having a garage with no more than three car capacity. The proposed guest house will have a one-car garage and meets the requirements outlined in the QLMP.

10. Please note, a Zoning Permit and certification by an engineer on the design, structural stability, and construction is required for the retaining walls if the distance between the wall and any boundary or easement line is less than twice the height of the wall.

The retaining wall along the north side of the proposed driveway will be located approximately eight feet from the northern boundary line. The height of the wall at its tallest point is approximately nine feet, such that the retaining wall will require a Zoning Permit and certification by an engineer on the design, structural stability, and construction.

11. Please contact Hartford's Environmental Sustainability Coordinator, Dana Clawson, regarding Vermont's Residential Energy Code. dclawson@hartford-vt.org

The applicant acknowledges and understands this request.

12. Please outline how the application conforms with section 260-27 C of the Hartford Zoning Regulations which states:

C. **Grading and drainage.** The following provisions shall apply to any changes which affect drainage of water to or from a property:

- (1) Any changes in grading shall be made so that runoff is directed to established drainage courses and will not cause ponding or flooding of other properties or exceed the capacity of downstream drainage facilities.
- (2) When possible, drainage systems shall be designed so that water runoff existing prior to site development shall not be increased after development.
- (3) All changes in grade shall be controlled so as not to cause a nuisance or damage to other properties or erosion of topsoil.

Roof runoff from the dwellings will be directed to sheet flow across existing woodland areas within the property, providing ample opportunity for runoff to be reabsorbed into the woodland duff and recharge groundwater. Runoff from the proposed driveway will be collected in drainage swales on both sides of the driveway to culverts that will discharge to level spreaders. The level spreaders will convert the concentrated stormwater from the culverts to sheet flow so that this drainage can flow across the woodland duff and be reabsorbed. The driveway alignment and grading do not modify flow patterns and will not direct new or concentrated flows toward the abutting properties. Three culverts have been

designed and appropriately sized to convey drainage from the north to the south side of the driveway, connecting the drainage to the intermittent stream that flows across the parcel.

13. Please acknowledge that you understand that once the project is complete and before a Certificate of Occupancy will be issued you need to submit written verification from your Engineer certifying that the project was constructed in compliance with the approved plans and Findings of Fact.

Please acknowledge that you understand these requirements.

We acknowledge and understand this requirement.

14. Please acknowledge that you understand that construction of the project must comply with Section 260-31 B of the Hartford Zoning Regulations, which states:

“Earth moving and hauling, rock drilling or crushing, jack hammer and similar excessively loud equipment shall not be operated on Sundays or between the hours of 5:30 p.m. and 7:00 a.m. except in emergency situations.”

We acknowledge and understand this requirement and have included it as Note 17 on Sheet 9 of the Site Plans.

15. Please acknowledge that you understand that any stockpiling of materials related to the construction of the project must be located twice the distance of the height of the stockpiled materials from any public or private right-of-way or property boundary.

We acknowledge and understand this requirement and have included it as Note 18 on Sheet 9 of the Site Plans.

16. Please send me a single email with all application materials.

Digital versions of the application form, the original narrative letter, the overlay district handout, the staff review letter, this memorandum, and the revised site plans will be provided to you via e-mail.

17. Please submit 6 copies of all application materials.

Six hard copies of all the items listed above are provided as enclosures to this memorandum.

Please do not hesitate to contact me if you have any questions or require additional information.

Enclosures

cc: Jamey Ennis w/enclosures

Memorandum

To: Varma Yash and Sharon Rosenthal
Cc: Ann Kynor, Pathways Consulting
From: Jo-Ann Ells, Zoning Administrator
Date: February 27, 2025
Re: Conditional Use Application

Please submit a response to the following comments/questions on your application for Conditional Use Approval before **9:00 a.m., Thursday, March 6, 2025**. If you are unable to meet this deadline, please contact me as soon as possible to discuss the deadline to have your application considered at the next round of Public Hearings.

Please note Town Hall is closed on Tuesday, March 4th for voting.

Prior to the Zoning Board Hearing, you will receive an agenda, draft Findings of Fact, and additional staff comments if there are any. Please feel free to contact me at any time during this process.

1. Please confirm that you understand that you retain the obligation to identify, apply for, and obtain any relevant local and state permits for this project.

To determine what State Environmental Permits may be required for your project, The Vermont Agency of Natural Resources (ANR) recommends that you use ANR's Permit Navigator Tool by going to the VT Department of Environmental Conservation website [Welcome to DEC | Department of Environmental Conservation \(vermont.gov\)](https://www.vermont.gov/dec) and going to the "Permit Navigator Tool" [Permit Navigator \(force.com\)](https://www.force.com)

If further assistance is needed, please contact the Community Assistance Specialist for our area:

Jeff McMahon, Community Assistance Specialist

Jeff.McMahon@Vermont.gov

802-477-2241

2. Please confirm that you understand that to finalize any approval and before the activity may commence you must submit a complete Zoning Permit application.

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- (2) When possible, drainage systems shall be designed so that water runoff existing prior to site development shall not be increased after development.
- (3) All changes in grade shall be controlled so as not to cause a nuisance or damage to other properties or erosion of topsoil.

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16. Please send me a single email with all application materials.

17. Please submit 6 copies of all application materials.

PLEASE NOTE: The Town of Hartford is aware of a email scam targeting applicants falsely claiming to be from the Town. The email threatens that non-payment will affect the application.

The scam email includes a fake invoice requesting a wire transfer payment.

If you receive an email, please:

- Do **not** click on/open any links or attachments.
- Do **not** forward the email to me or the town.
- Please call me and let me know you received such an email. (802) 478-1117

Overlay Districts

§ 260-21 Hartford Zoning Regulations

PROPOSED PROJECT: 0 WILLARD ROAD, LOT 7-5233

Your property is in a:

- ☒ Rural Lands Overlay District
- ☐ Agriculture Overlay District
- ☐ Wildlife Connector Overlay District

Please outline how your project complies with the following:

- ☐ The project is exempt:

Exemptions. The following uses are exempt from the administrative review process for overlay districts. However, building/zoning permitting requirements and all other zoning regulations apply.

- Agricultural buildings.
- Residential additions with a building footprint of less than 500 square feet.
- Attached garages with a building footprint less than 500 square feet.
- Accessory structures, including pools and hot tubs, less than 250 square feet in area and less than 10 feet in height.
- Attached decks less than 500 square feet.

The project is not exempt.

☒ Rural Lands- Supplemental development standards.

All development and subdivisions should be laid out, so they integrate carefully into the natural resources while protecting and minimizing fragmentation of land, and adverse visual and environmental impacts on these natural resources. To achieve this, the following supplemental standards shall apply:

- Development envelopes and associated development shall be located down-slope of ridgelines and prominent hills in areas where ridgelines and hillsides are easily visible from existing roadways and shall be considered relative to the availability of less visible locations on-site. Additional landscaping may be required to screen development to reduce visibility.

The development envelopes are not located on a ridgeline or prominent hill that is easily visible from existing roadways. The building development areas will maintain wooded buffers between them and the edges of the parcel.

- When locating structures, roads, driveways, utility corridors and rights-of-way, **one or more** of the following should be employed:
 - [a] Place improvements at the wooded edge and/or nearby developed areas. If not possible, place improvements in a manner that minimizes encroachment in wooded areas and open fields.
 - [b] Follow existing contours, roads, tree lines, and stone walls.
 - [c] Share roads, driveways, utility corridors and rights-of-way.
 - [d] Place developments and subdivisions close to roads.
 - [e] Follow established settlement patterns.

The driveway to the main house is located along the north side of the parcel, situated to minimize the wetland and steep slope disturbance. The guest house will share the same driveway. The proposed dwellings and driveway layout are consistent with other single-family developments in the neighborhood, following established settlement patterns.

- Locate development such that it will not conflict with existing agricultural uses in the area and provide adequate buffers between potentially conflicting uses.

The parcel is currently wooded with no existing agricultural use. There are no existing agricultural uses along Willard Road, such that there is no need for a buffer between it and the proposed development.

- Create an efficient use of land that results in cluster development, small networks of utilities and roads, and large sections of unfragmented land.

The proposed single-family dwelling development is located on an existing parcel zoned for residential development. The driveway and house sites are laid out to minimize disturbance to the stream and wetlands. A single driveway is proposed to serve both the main house and the guest house, thereby preserving large sections of woodland within the parcel.

☐ Agriculture Overlay District.

Supplemental development standards. In addition to the general provisions for all overlay districts specified in Subsection [B](#) above, all development and subdivisions involving lands in an Agricultural Overlay District are subject to the following supplemental standards:

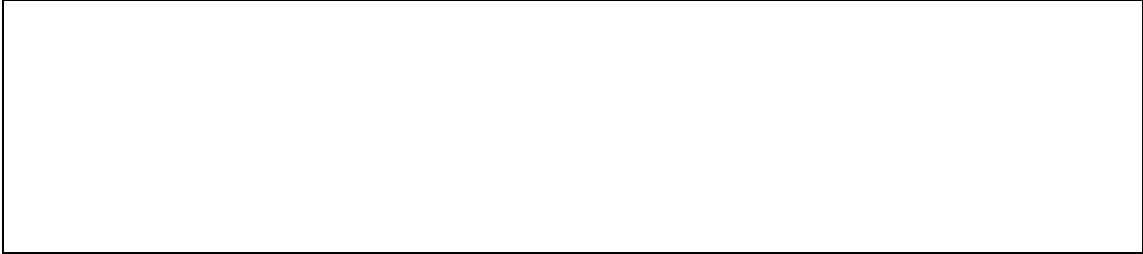
- (a) Development envelopes shall be located at field edges or, in the event that no other land is practical for development, on the least fertile soils in order to minimize the use of productive agricultural land and impacts on existing farm operations.
- (b) Buildings should be clustered to avoid the fragmentation of productive farmland/open land.

☐ Wildlife Connector Overlay District.

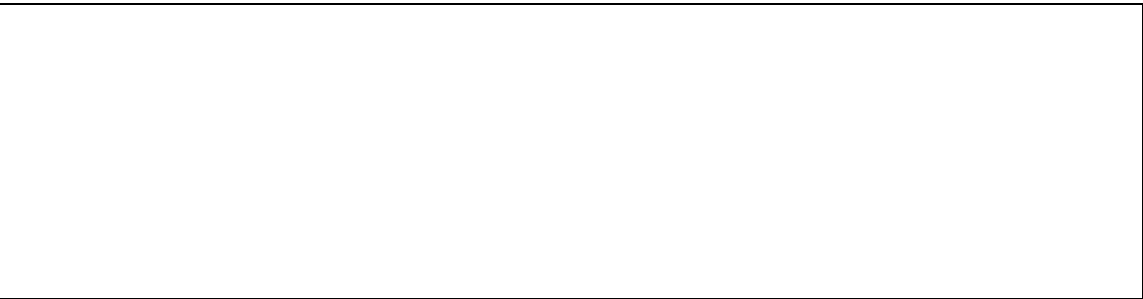
Supplemental development standards. In addition to the general provisions for all

overlay districts specified in Subsection B above, all development and subdivisions involving lands in a Wildlife Connector Overlay District are subject to the following supplemental standards:

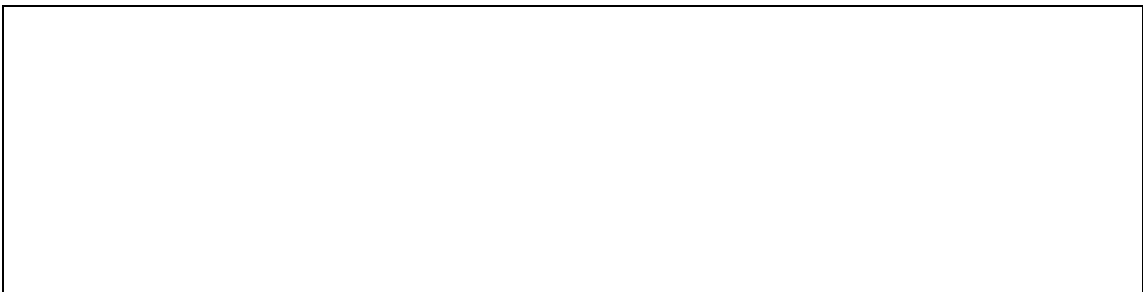
- Development will be encouraged close to roads and/or developed areas to allow sufficient wildlife corridors through the area.

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- A buffer area of adequate size from the edge of development shall be established to ensure the protection of critical wildlife habitats and travel corridors.

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- Written review from the Vermont Department of Fish and Wildlife regarding the impact of the proposed development on the wildlife corridor and significant wildlife habitats when requested by the Planning Commission for site development plan and subdivision applications or by the Administrative Officer for zoning permits.

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