

Shoreland Permit Applicationfor a **Shoreland Protection Permit** under
Chapter 49A of Title 10, § 1441 *et seq.***For Shoreland Permitting Use Only**Application Number: 239VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
MANAGEMENT DIVISION**
LAKES & PONDS PROGRAM**Public Notice:** At the same time this application is filed with Shoreland Permitting, a copy of this application must be provided to the municipal clerk for posting in the municipality in which the project is located.Submission of this application constitutes notice that the person in Section A intends to create impervious surface and/or cleared area within the Protected Shoreland Area, and certifies that the project will comply with Chapter 49A of Title 10, § 1441 *et seq.* All information required on this form must be provided, and the requisite fees (Section G) must be submitted made payable to the State of Vermont, to be deemed complete. Refer to *The Vermont Shoreland Protection Act - A Handbook for Shoreland Development* and related instructions for guidance in completing this application.**A. Parcel Information**

1. Landowner's Name: Chris Romano <i>Chris Romano</i>		
2a. Physical Address (911 Address): 4918 Lake Morey Road		
2b. Municipality: Fairlee	2c. Zip: 05045	3. SPAN*: 219 071 105 10
4. Phone: (413) 237-0959	5. Email:	
6. Name of lake/pond: Lake Morey	7. Total shore frontage: _____ (feet)	
8. Was the parcel of land created before July 1, 2014? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
9. Are there wetlands associated with this parcel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Contact the Wetlands Program: (802) 828-1535 or www.anr.state.vt.us/dec/waterq/wetlands.htm .		
10. Is there a lake encroachment permit associated with this parcel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Permit #: _____ Contact Lake Encroachment Permitting: www.anr.state.vt.us/dec/waterq/permits/htm/pm_encroachment.htm		
11. What is the surface area of your parcel within the Protected Shoreland Area (PSA): 4,525 (square feet) See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix C, Determining Lakeside Zone & PSA		
12. What is the surface area of existing impervious surface on your parcel within the PSA: 1,165 (square feet) See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F, Calculating Percent Impervious Surface		
13. What is the surface area of existing cleared area on your parcel within the PSA: 3,265 (square feet) See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing		

B. Applicant Contact Information

1. Name: Chris Romano <i>Chris Romano</i>		
2a. Mailing Address: 706 Main Street		
2b. Municipality: Agawam	2c. State: MA	2d. Zip: 01001
3. Phone: (413) 237-0959	4. Email:	

C. Application Preparer Information (If the individual preparing the application is not the landowner.)

1. Name: Timothy L. Schaal, P.E.		
2a. Mailing Address: 451 Valley View Road		
2b. Municipality: White River Junction	2c. State: VT	2d. Zip: 05001
3. Phone: (802) 295-2002	4. Email: tschaal@innevi.com	

*SPAN: The "School Parcel Account Number" is required for your application to be deemed complete. It can be obtained from your property tax bill. If you cannot locate your property tax bill, please obtain this information from your Town Clerk. SPAN is a unique identification number for each parcel of property in the State of Vermont consisting of eleven digits. The first three digits identify the town; the next three digits identify the school district; and the last five digits represent the unique parcel or property.

D. Project Description

1. Describe the proposed project. For this application to be considered administratively complete you must attach site plans that denote existing and proposed cleared areas and impervious surface and their distances from mean water level, no fewer than three photos of the project area, and dimensions and associated surface areas of cleared areas and impervious surfaces.

This project proposes to construct a 26' x 40' parking area along the westerly side of Lake Morey Road. The steep slope along the side of the road will be leveled through the installation of a Redi-Rock retaining wall. The surface of the seasonally used parking area will be grassed to provide infiltration. Further, trees are proposed to help screen the wall from view of the lake.

2. For developed parcels, how far is the existing habitable structure from Mean Water Level 0 (feet), and how far will new cleared area or impervious surface be from MWL 24 (feet)?

OR

For undeveloped parcels, how far will new cleared area or impervious surface be from MWL _____ (feet)?

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix A – Estimating Mean Water Level

3. Can all new cleared area or impervious surface be set back at least 100 feet from MWL? Yes No
If no, explain why below (attach support information as needed):

New cleared and impervious areas can not be 100' from the MWL as the lot is completely within a 100' of the MWL.

4a. What is the slope of the project site area: 80.00 %

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix B, Determining Slope

4b. Is the slope of the project area less than 20%?

Yes No If yes, skip 4c.

4c. If no above (4b), describe the measures taken to ensure the slope is stable, resulting in minimal erosion and impacts to water quality (attach support information as needed):

The project retains fill materials with a Redi-Rock retaining wall and stabilizes any adjacent slopes with erosion control matting. Further, the parking area has been designed with a grass surface to allow infiltration and reduce run-off in comparison to the existing steep and barely vegetated road side slope. Two rows of filter logs will be utilized to ensure that no erosion from construction activities reaches the lake.

5a. What is the surface area of new impervious surface associated with this project: 140.00 (square feet)

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F Calculating Percent Impervious Surface

5b. What is the total resulting impervious surface after completion of the project and prior to implementation of best management practices:

1,305.00 (square feet) and is that 20% or less of the parcel area within the PSA? Yes No

If yes, skip 5c.

5c. If no above (5b), describe the best management practices used to manage, treat and control erosion from stormwater from the portion of impervious that exceeds 20% (attach support information as needed).

The existing impervious area represents approximately 25.7% of the lot area, the additional 140 sq. ft. of impervious area brings the total to 28.8%. The minor increase in impervious area is limited to the face of the retaining wall. The highly porous on-site soils and the stone backfill around the wall will encourage the minor amounts of run-off from the face of the wall to infiltrate surrounding soils.

Further, the increase in impervious area was limited by the installation of a grass parking area which will be seasonally used.

6a. What is the surface area of new cleared area associated with this project: 360.00 (square feet)
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing

6b. What is the total resulting cleared area* after completion of the project and prior to implementation of best management practices: 3,180.00 (square feet) and is that 40% or less of the parcel area within the PSA? Yes No If yes, skip 6c. *Total cleared area includes impervious surface area.

6c. If no above (6b), describe the best management practices used to provide erosion control, bank stability, and wildlife habitat functionally equivalent to clearing less than 40% (attach support information as needed).

The existing cleared area represents approximately 62.3% of the lot area, the additional 360 sq. ft. of cleared area brings the total to 70.3%. The minor increase in cleared area is located on the steep road side slope that is barely vegetated and offers little to no erosion control, wildlife habitat protection of wildlife habitat.

The project levels the slope and retains fill materials with a Redi-Rock retaining wall, and stabilizes any adjacent slopes with erosion control matting. Further, the parking area has been designed with a nearly level grass surface to allow for infiltration and reduce run-off in comparison to the existing steep and barely vegetated road side slope. Two rows of filter logs will be utilized to ensure that no erosion from construction activities reaches the lake.

The proposed project will enhance the water quality of the lake by promoting run-off filtration and infiltration with the installation of a nearly level grass surface parking area, and therefore enhance the wildlife habitat within the lake.

E. Landowner Certification

As APPLICANT, I hereby certify that the statements presented on this application are true and accurate and recognize that by signing this application, I agree to complete all aspects of the project as authorized. I understand that failure to comply with the foregoing may result in violation of the Shoreland Protection Act, 10 V.S.A. Chapter 49A, and the Vermont Agency of Natural Resources may bring an enforcement action for violations of the Act pursuant to 10 V.S.A. chapter 201.

Applicant/Landowner Signature: Albert B. Romero Date: 12/2/15

F. Application Preparer Certification (if applicable)

As APPLICATION PREPARER, I hereby certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Application Preparer Signature: Timothy R. Schaal Date: 12/10/15

G. Permit Application Fees

Administrative Fee: \$125.00		125.00
Impervious Area Fee: \$0.50 per square foot	New impervious area (5a.) <u>140.00</u> x 0.5	\$ 7.00
Total:		\$ 132.00

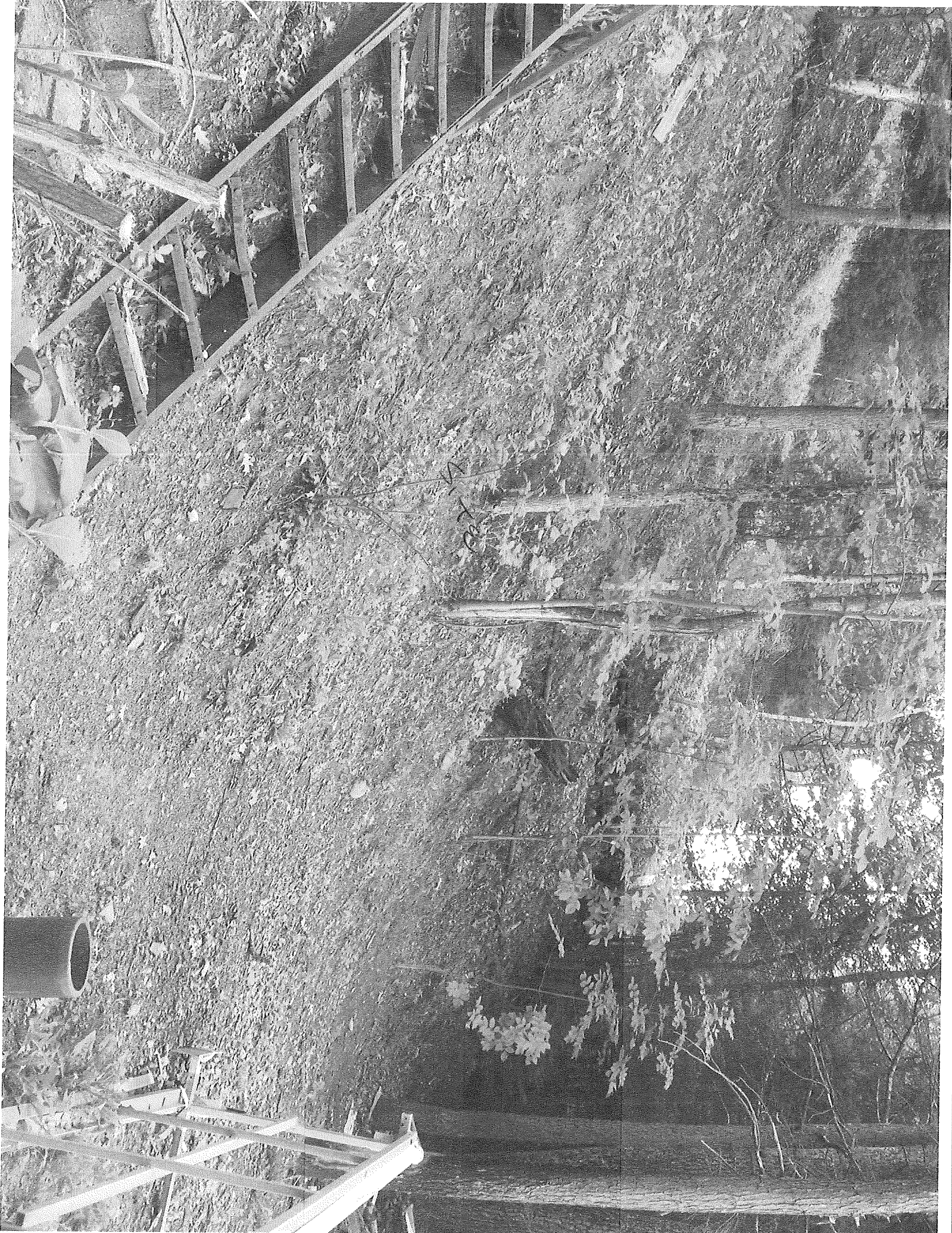
Submit this form and application fee, payable to:

State of Vermont
Vermont Department of Environmental Conservation
Watershed Management Division
Shoreland Permitting
1 National Life Drive, Main 2
Montpelier, VT 05620-3522

Direct all correspondence or questions to Shoreland Permitting at:
ANR.WSMDShoreland@vermont.gov

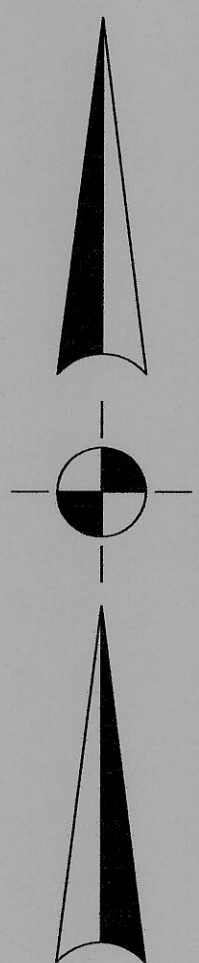
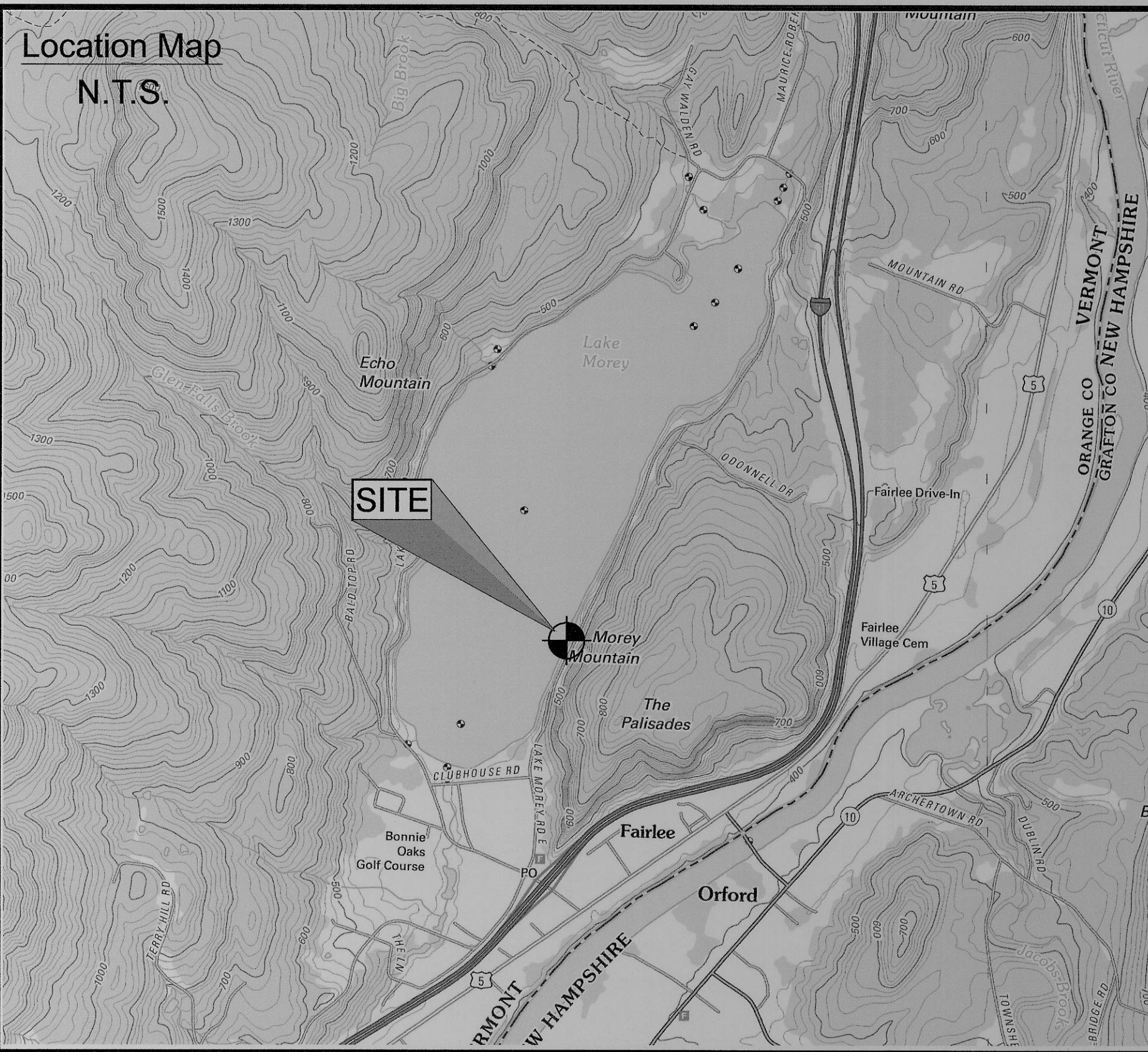
For additional information visit: www.watershedmanagement.vt.gov





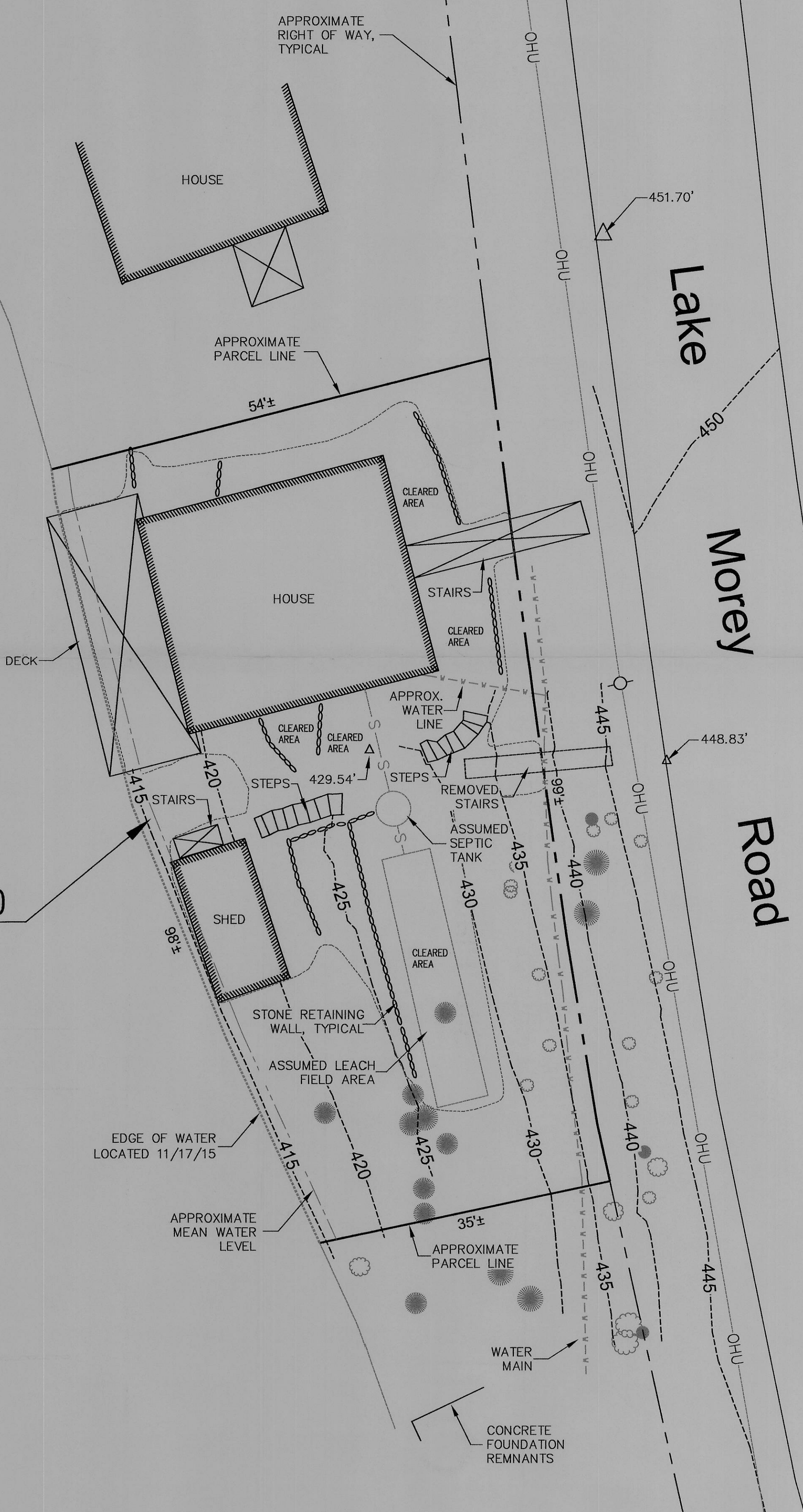


Location Map
N.T.S.



APPROXIMATE VT GRID NORTH

Parcel 024-20-37.000



Parcel 024-20-38.000
4,525± Sq. Ft.

Lake Morey
WATER LEVEL 414.75± 11/17/15

Parcel 024-20-2.000

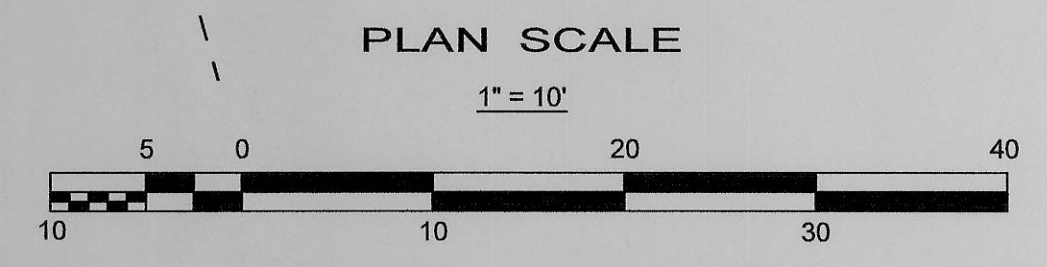
NOTES

- (1) APPROXIMATE PARCEL LINES TAKEN FROM SITE PLAN PREPARED BY ROBERT CARTER, P.E., PROVIDED BY OWNER OF RECORD.
- (2) THIS PLAN IS INTENDED FOR CONCEPTUAL PLANNING AND PERMITTING PURPOSES ONLY. PARCEL LINES, EASEMENTS AND OTHER LINES REPRESENTATIVE OF POSSIBLE OWNERSHIP SHOWN ON THIS PLAN ARE FOR PERMITTING PURPOSES ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET THE LEGAL REQUIREMENTS OR STANDARDS FOR A BOUNDARY SURVEY PLAN AS DEFINED IN 26 VSA 2502(4) AND SHALL NOT BE USED AS THE BASIS OF ANY LAND TRANSFER, EASEMENT OR ESTABLISHMENT OF PROPERTY RIGHTS AND OR REQUIRED SETBACKS THEREFROM.
- (3) ELEVATIONS REFERENCED TO AN ASSUMED DATUM.
- (4) NORTH REFERENCED TO APPROXIMATE VERMONT GRID NORTH.
- (5) EXISTING UTILITIES ARE ASSUMED OR APPROXIMATE AND TO BE USED AS A GENERAL GUIDE ONLY.

LEGEND

- TRAVERSE POINT
- UTILITY POLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- APPROXIMATE RIGHT OF WAY
- APPROXIMATE PARCEL LINE
- APPROXIMATE EDGE OF WATER
- APPROXIMATE MEAN WATER LEVEL
- APPROXIMATE WATER LINE
- ASSUMED SEWER LINE
- APPROXIMATE STONE RETAINING WALL
- APPROXIMATE OVERHEAD UTILITY LINES
- APPROXIMATE CLEARED AREA LIMITS
- CONTOUR LINE

Parcel 024-20-39.000



NO.	REVISION	DATE	NO.	DATE	REVISION	DATE

SCHAAL ENGINEERING, P.C.
451 VALLEY VIEW ROAD
WHITE RIVER JCT. VT 05001
(802) 295-2002
tschaal@innevi.com

Existing Conditions
Site Plan

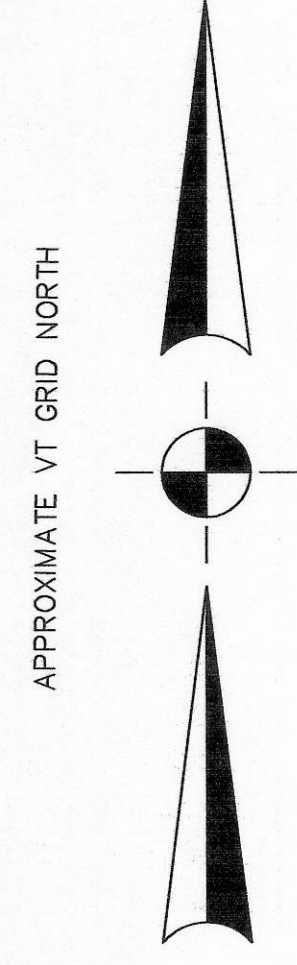
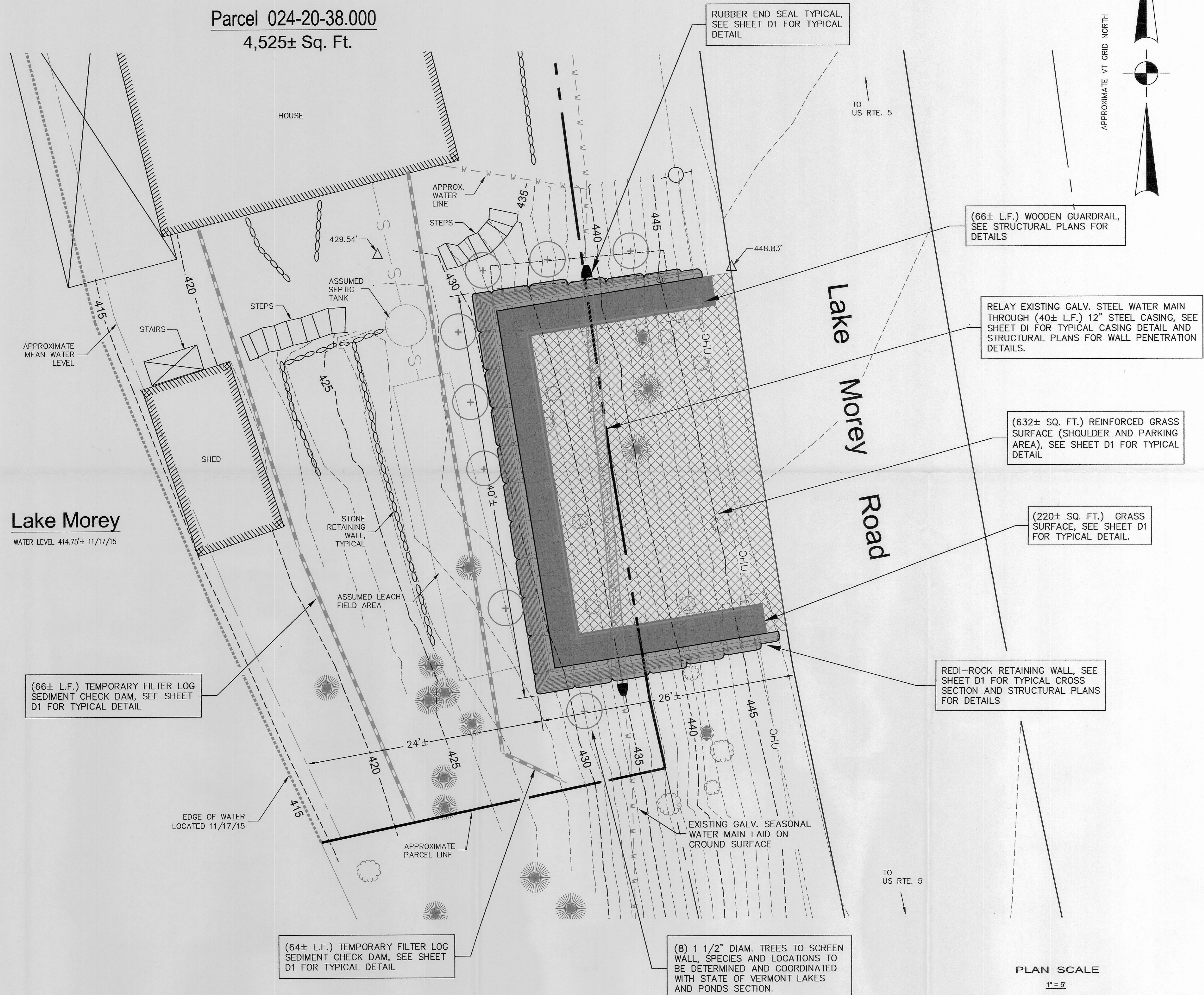
Chris Romano
4918 Lake Morey Road
Fairlee, VT

DRAWING NUMBER
C1
SCALE: SEE PLANS
CHECKED BY: T.L.S.
DATE: 12/03/15
DRAWN BY: C.D.H.

NOTES

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- (3) ELEVATIONS REFERENCED TO AN ASSUMED DATUM.
- (4) NORTH REFERENCED TO APPROXIMATE VERMONT GRID NORTH.
- (5) EXISTING UTILITIES ARE ASSUMED OR APPROXIMATE AND TO BE USED AS A GENERAL GUIDE ONLY. CRITICAL POINT OF CONNECTIONS OR CROSSINGS SHALL BE HORIZONTALLY AND VERTICALLY VERIFIED PRIOR TO CONSTRUCTION.
- (6) CONTRACTOR SHALL CONTACT INVOLVED UTILITIES AND MAKE ARRANGEMENTS TO HAVE LINES ACCURATELY MARKED AND COORDINATE THEIR RELOCATION AND OR STABILIZATION THROUGH CONSTRUCTION.
- (7) CONTRACTOR SHALL NOTIFY THE TOWN OF FAIRLEE AND DIG-SAFE A MINIMUM OF 5 BUSINESS DAYS PRIOR TO COMMENCING ANY EXPLORATORY EXCAVATIONS OR INSTALLATION RELATED EXCAVATIONS.
- (8) CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND ACCESS TO LAKE MOREY ROAD DURING CONSTRUCTION.
- (9) CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY DISCREPANCIES BETWEEN FIELD DATA AND PLANS. CONSTRUCTION SHALL NOT COMMENCE UNTIL AUTHORIZED BY THE ENGINEER IN THE EVENT OF DISCREPANCIES.
- (10) CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION IS CONDUCTED IN ACCORDANCE WITH THE VERMONT "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL".
- (11) NEW WORK IDENTIFIED BY: NEW WORK

Parcel 024-20-38.000
4,525± Sq. Ft.



LEGEND

- TRAVERSE POINT
- UTILITY POLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- PROPOSED 1 1/2" DIAM. TREE
- APPROXIMATE RIGHT OF WAY
- APPROXIMATE PARCEL LINE
- APPROXIMATE EDGE OF WATER
- APPROXIMATE MEAN WATER LEVEL
- APPROXIMATE WATER LINE
- ASSUMED SEWER LINE
- APPROXIMATE STONE RETAINING WALL
- APPROXIMATE OVERHEAD UTILITY LINES
- CONTOUR LINE
- PROPOSED FILTER LOGS

Lake Morey
 WATER LEVEL 414.75± 11/17/15

NO.	REVISION	DATE	NO.	REVISION	DATE

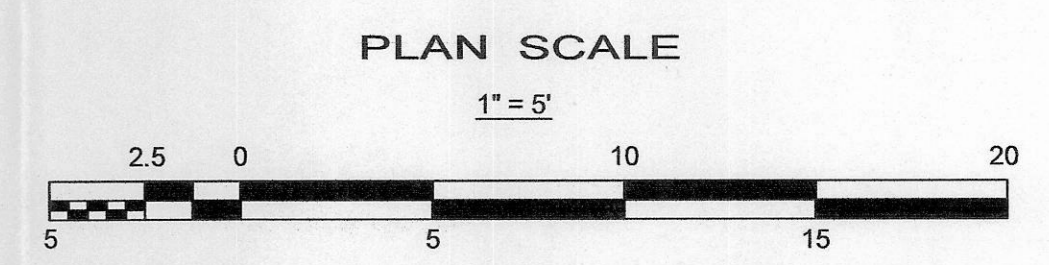
SCHAAL ENGINEERING, P.C.
 451 VALLEY VIEW ROAD
 WHITE RIVER JCT. VT 05001
 (802) 295-2002
 tschaal@innevi.com

Site Plan
 Chris Romano
 4918 Lake Morey Road
 Fairlee, VT

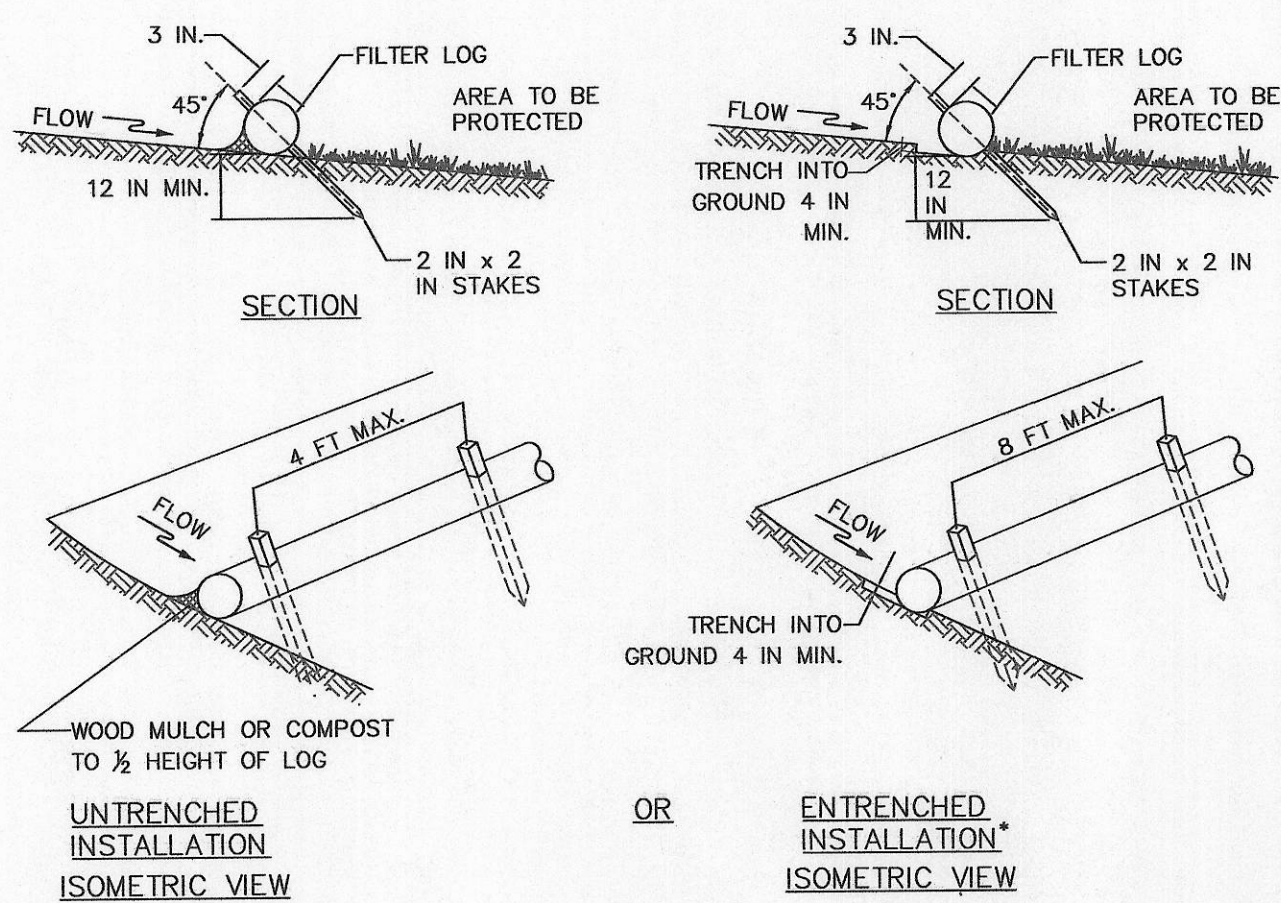
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 DRAWN BY: C.D.H.



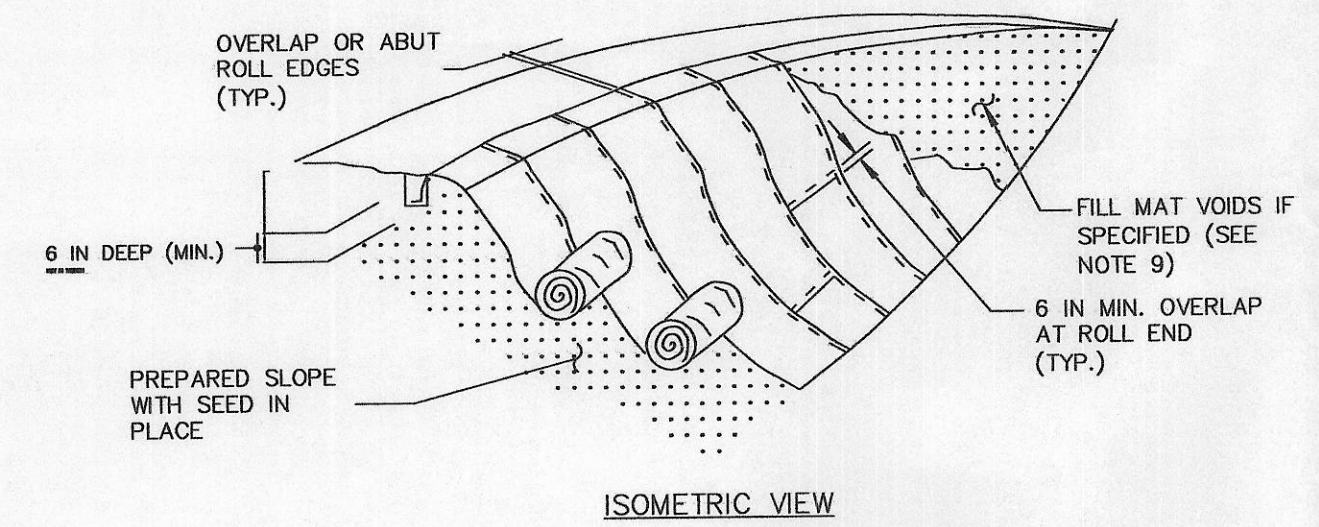
TYPICAL FILTER LOG
NOT TO SCALE



FILTER LOG CONSTRUCTION SPECIFICATIONS

- PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
- FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
- INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
- FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
- STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
- USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
- WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
- REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF 1/2 THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN, REINSTALL FILTER LOG IF UNDERMINING OR DISLOGGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

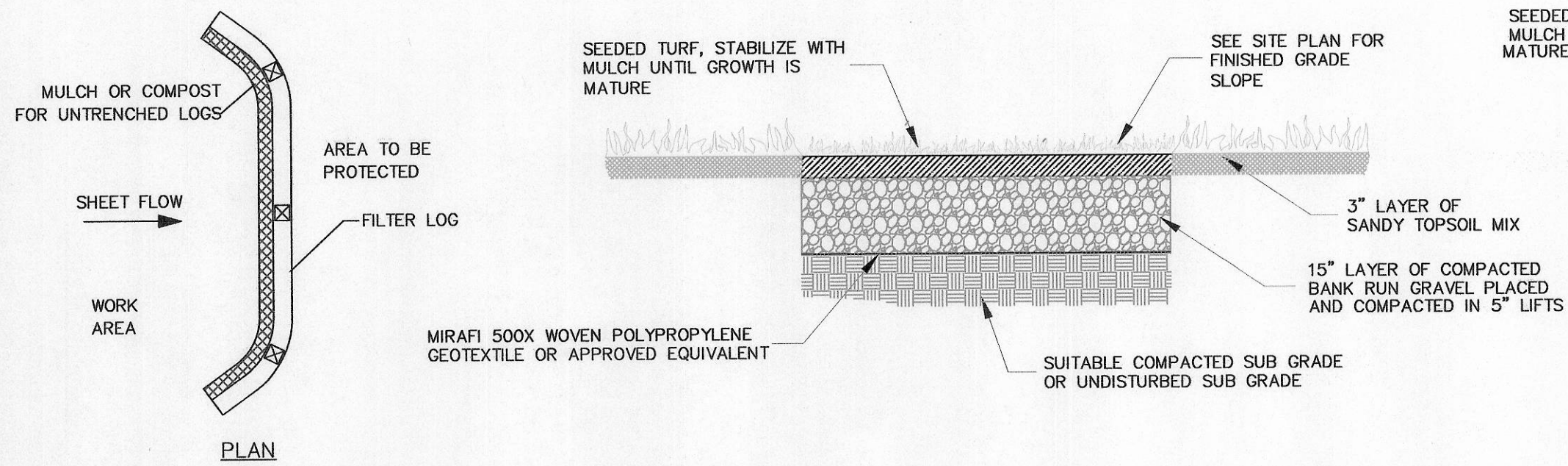
SOIL STABILIZATION MATTING SLOPE APPLICATION
NOT TO SCALE



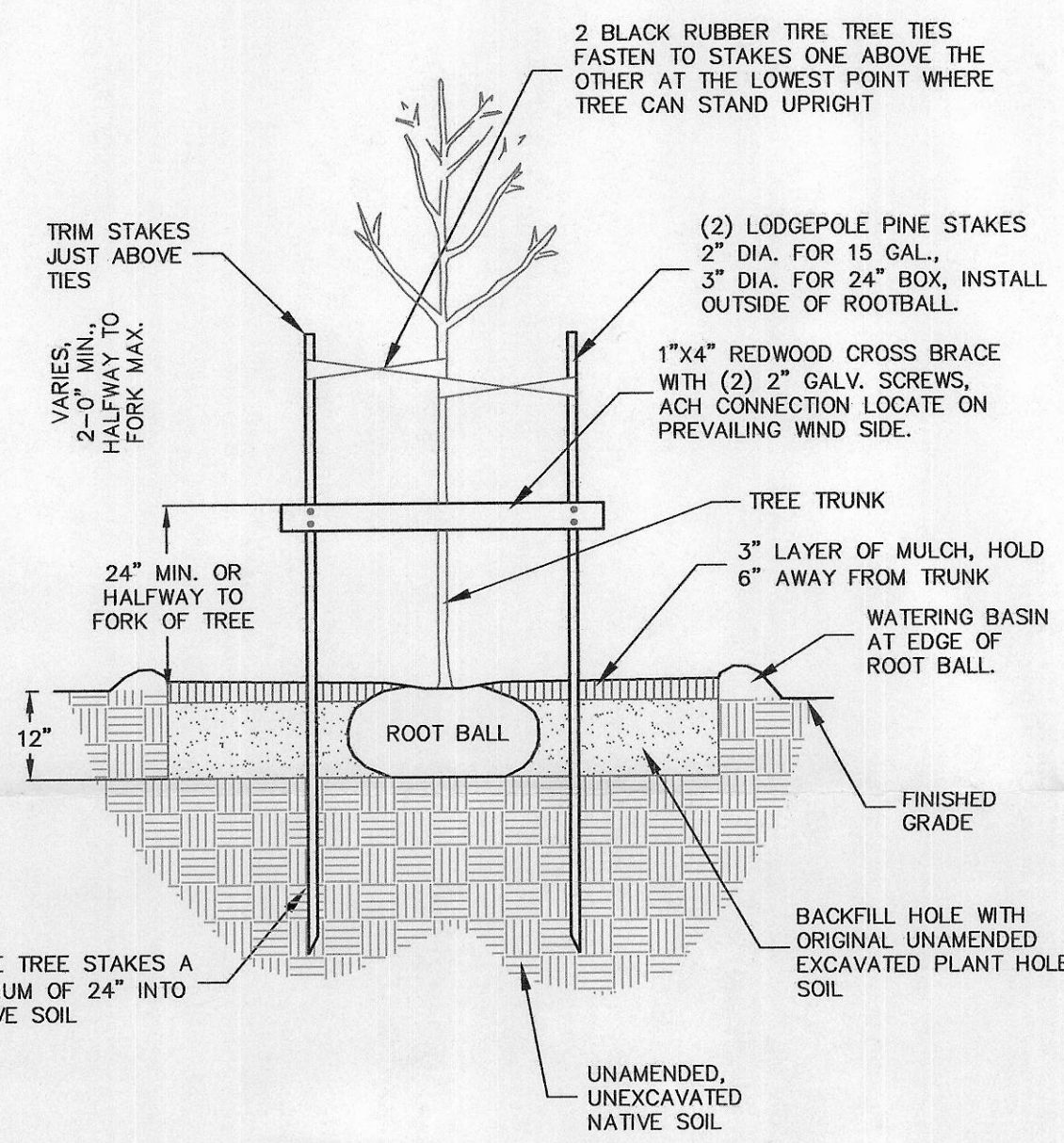
CONSTRUCTION SPECIFICATIONS

- USE MATTING FOR GIVEN SLOPE:
 - 3:1 OR FLATTER USE NORTH AMERICAN GREEN S75BN
 - 3:1 TO 2:1 SLOPES USE NORTH AMERICAN GREEN S150BN
 - 2:1 TO 1:1.5 SLOPES USE NORTH AMERICAN GREEN S2150BN
- USE TEMPORARY BIODEGRADABLE SOIL STABILIZATION MATTING WITH BOTTOM AND TOP NETS MADE OF LENO WOVEN JUTE FIBERS INFILLED WITH STRAW OR COCONUT FIBERS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT.
- SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH THE SITE PLANS AND DETAILS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
- KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYPED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
- ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET.

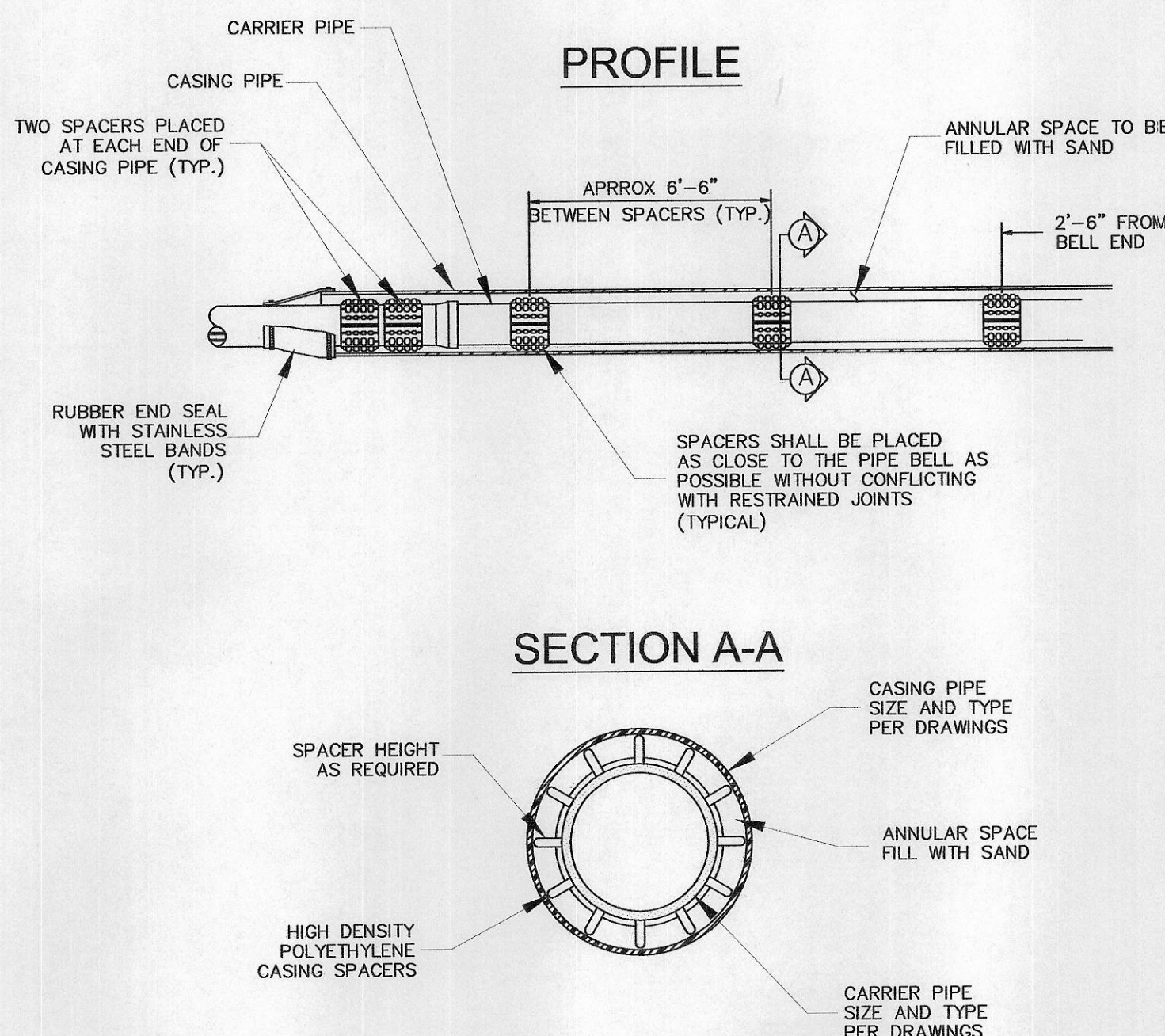
TYPICAL REINFORCED GRASS SURFACE
NOT TO SCALE



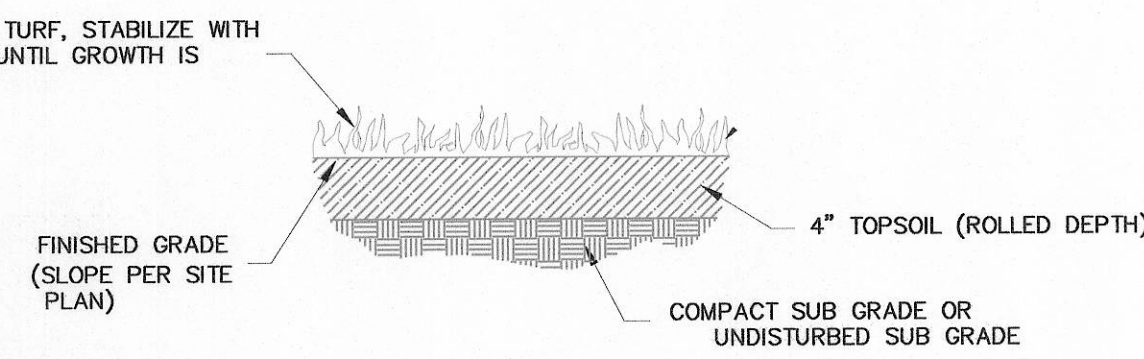
TYPICAL TREE PLANTING
NOT TO SCALE



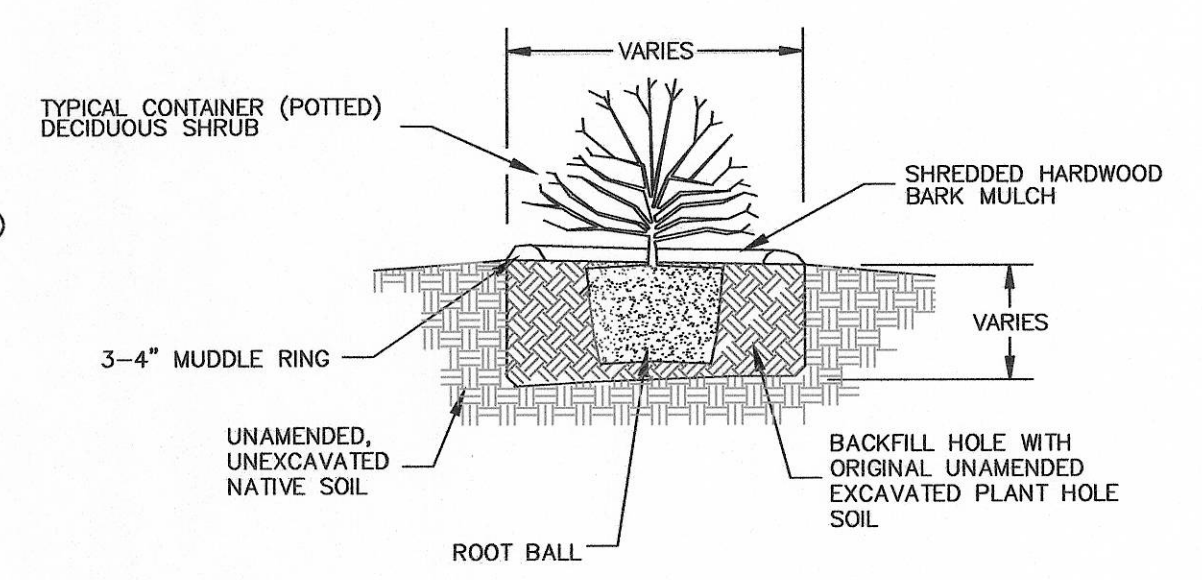
CASING PIPE AND SPACERS
NOT TO SCALE



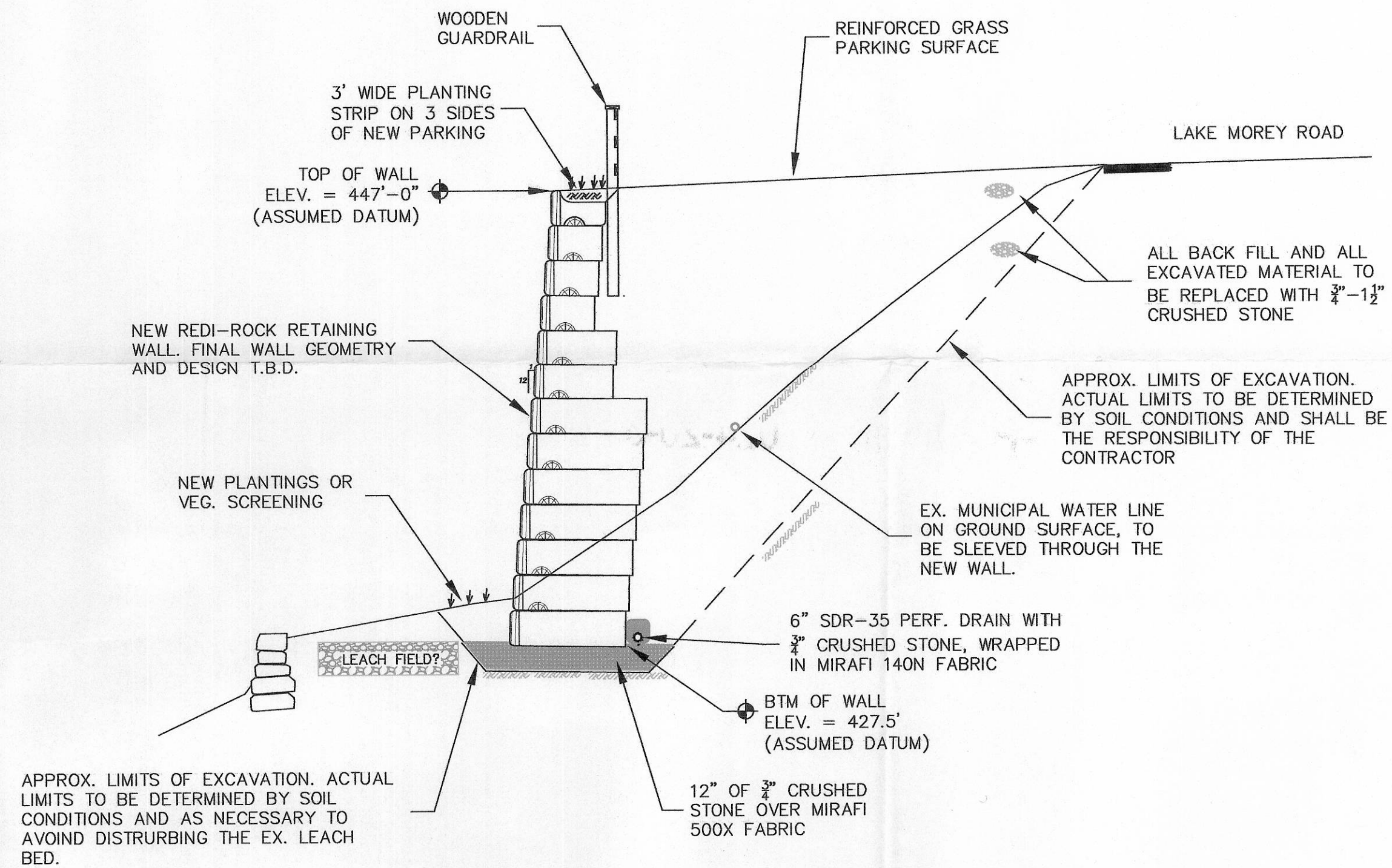
TYPICAL TOPSOIL SEED & MULCH
NOT TO SCALE



TYPICAL CONTAINER SHRUB PLANTING
NOT TO SCALE



TYPICAL RETAINING WALL SECTION
NOT TO SCALE



CASING PIPE AND SPACERS NOTES

- CASING SPACERS SHALL BE USED TO SECURE THE CARRIER PIPE INSIDE OF THE ENCASEMENT/CASING PIPE BY PROVIDING SUPPORT AROUND THE PERIPHERY OF THE PIPE. SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THEN THE SPACERS SHALL BE THE PROJECTION TYPE WITH THE MINIMUM NUMBER OF PROJECTION TYPE SPACERS EQUAL TO THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 6" PIPE SHALL HAVE A MINIMUM OF 6 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM OF 18 PROJECTIONS.
- THE MAXIMUM SPAN BETWEEN SPACERS SHALL BE 6.5 FEET TO PREVENT SAGGING OF THE CARRIER PIPE. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACER DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE. SPACER SHALL HAVE MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON DRAWINGS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS TO FASTEN TIGHTLY ONTO THE CARRIER PIPE SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
- CASING SPACERS SHALL BE PROJECTION TYPE, NON-CORROSIVE SPACERS WHICH ARE COMPOSED OF PREFORMED SECTIONS OF HIGH DENSITY POLYETHYLENE. SPACERS SHALL BE ISO 9002 CERTIFIED FOR STRENGTH AND QUALITY. PROJECTION TYPE SPACERS SHALL BE RAGI TYPE SPACERS AS MARKETED BY PUBLIC WORKS MARKETING, INC., P.O. BOX 38174, DALLAS, TEXAS, 75238-0174, PHONE 214-340-4226 OR 800-517-0395, OR APPROVED EQUAL.
- IF THE MANUFACTURER'S RECOMMENDED SPACING IS MORE STRINGENT THAT THE SPACING REQUIREMENTS SHOWN ABOVE, THEN THE MANUFACTURER'S RECOMMENDED SPACING SHALL APPLY.
- CASING PIPE ENDS SHALL BE SEALED WITH PVM MODEL II WITH A 1/8" THICK RUBBER WRAP AROUND AND SECURED WITH STAINLESS STEEL BANDS.
- CASING SPACERS SHALL BE EVENLY SPACED ALONG PIPE LENGTH.

SCHAAL ENGINEERING, P.C.
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(802) 295-2002
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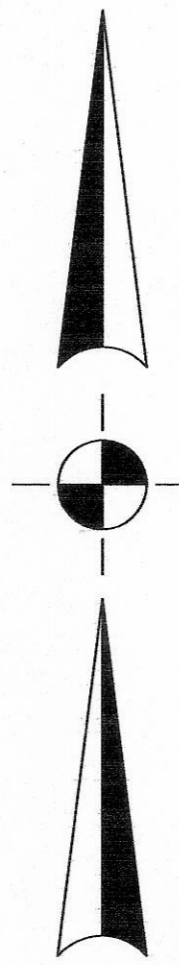
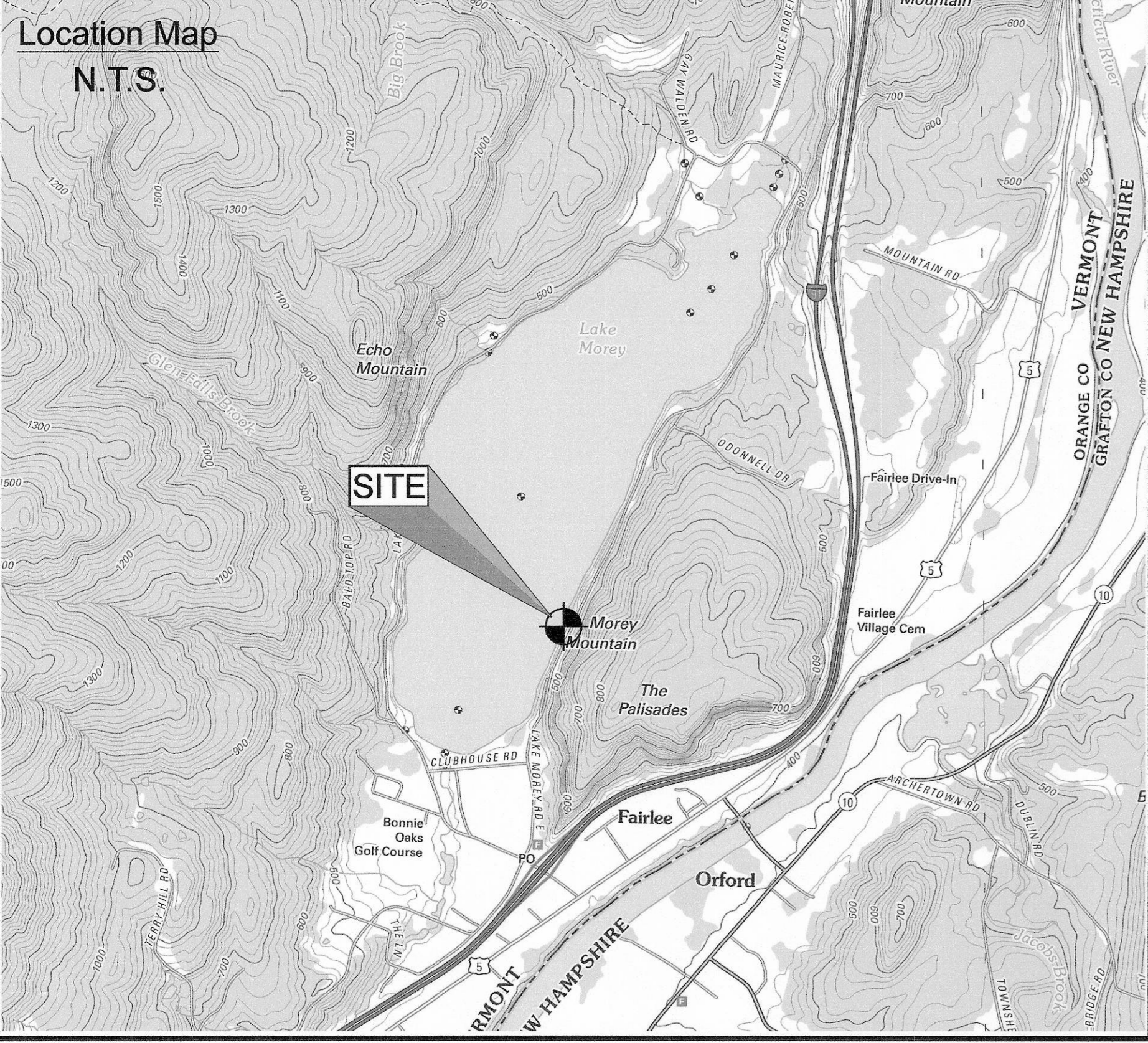
Typical Details
Chris Romano
4918 Lake Morey Road
Fairlee, VT

DRAWING NUMBER

D1

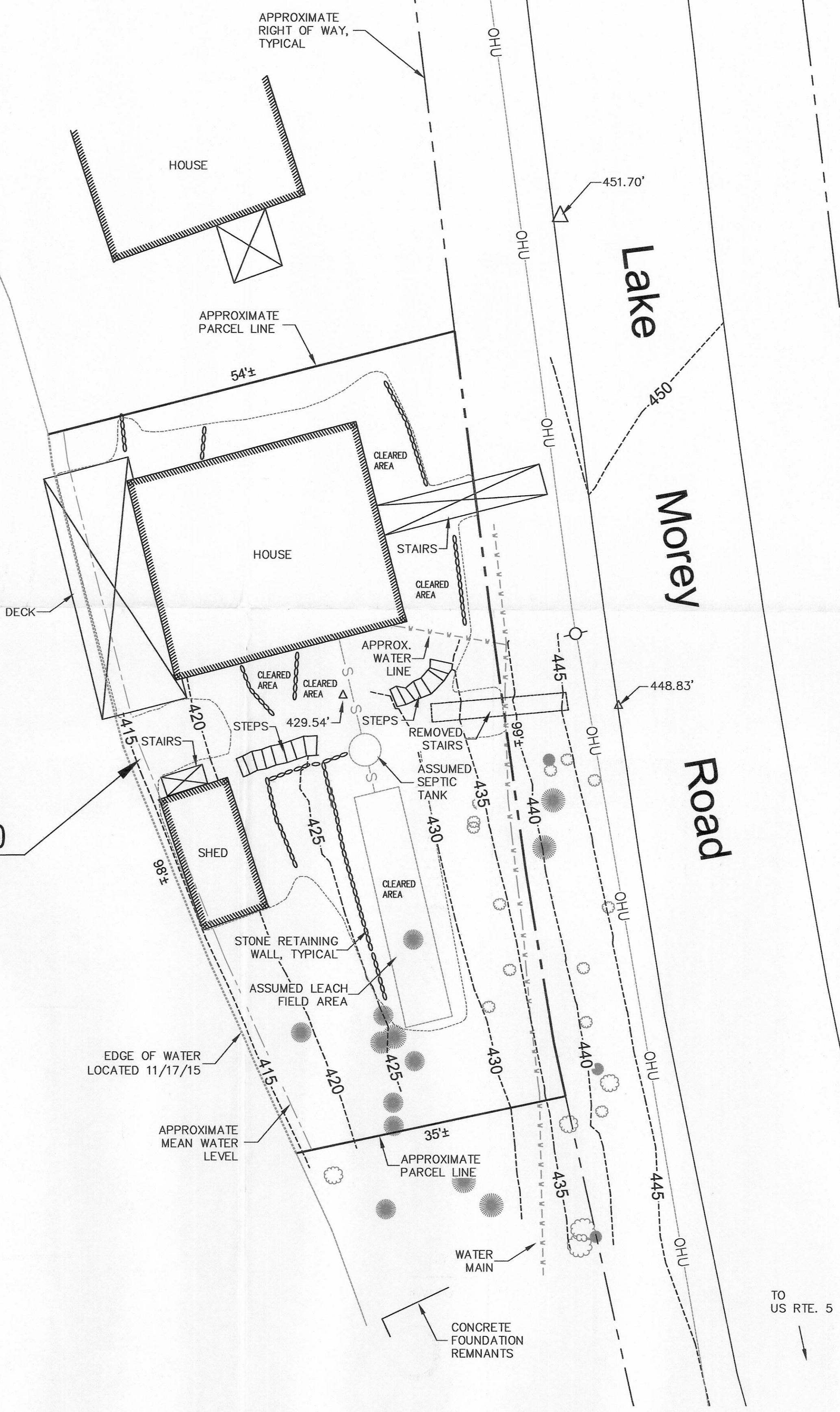
SCALE: SEE PLANS
CHECKED BY: T.L.S.
DATE: 11/22/15
DRAWN BY: C.D.H.

NO.	REVISION	DATE	NO.	REVISION	DATE



APPROXIMATE VT GRID NORTH

Parcel 024-20-37.000



- NOTES**
- (1) APPROXIMATE PARCEL LINES TAKEN FROM SITE PLAN PREPARED BY ROBERT CARTER, P.E., PROVIDED BY OWNER OF RECORD.
 - (2) THIS PLAN IS INTENDED FOR CONCEPTUAL PLANNING AND PERMITTING PURPOSES ONLY. PARCEL LINES, EASEMENTS AND OTHER LINES REPRESENTATIVE OF POSSIBLE OWNERSHIP SHOWN ON THIS PLAN ARE FOR PERMITTING PURPOSES ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET THE LEGAL REQUIREMENTS OR STANDARDS FOR A BOUNDARY SURVEY PLAN AS DEFINED IN 26 VSA 2502(4) AND SHALL NOT BE USED AS THE BASIS OF ANY LAND TRANSFER, EASEMENT OR ESTABLISHMENT OF PROPERTY RIGHTS AND OR REQUIRED SETBACKS THEREFROM.
 - (3) ELEVATIONS REFERENCED TO AN ASSUMED DATUM.
 - (4) NORTH REFERENCED TO APPROXIMATE VERMONT GRID NORTH.
 - (5) EXISTING UTILITIES ARE ASSUMED OR APPROXIMATE AND TO BE USED AS A GENERAL GUIDE ONLY.

LEGEND

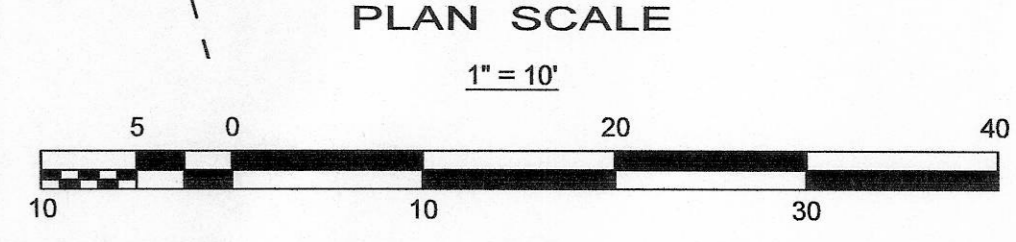
- TRAVERSE POINT
- UTILITY POLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- APPROXIMATE RIGHT OF WAY
- APPROXIMATE PARCEL LINE
- APPROXIMATE EDGE OF WATER
- APPROXIMATE MEAN WATER LEVEL
- APPROXIMATE WATER LINE
- ASSUMED SEWER LINE
- APPROXIMATE STONE RETAINING WALL
- APPROXIMATE OVERHEAD UTILITY LINES
- APPROXIMATE CLEARED AREA LIMITS
- CONTOUR LINE

Parcel 024-20-38.000
4,525± Sq. Ft.

Lake Morey
WATER LEVEL 414.75± 11/17/15

Parcel 024-20-2.000

Parcel 024-20-39.000

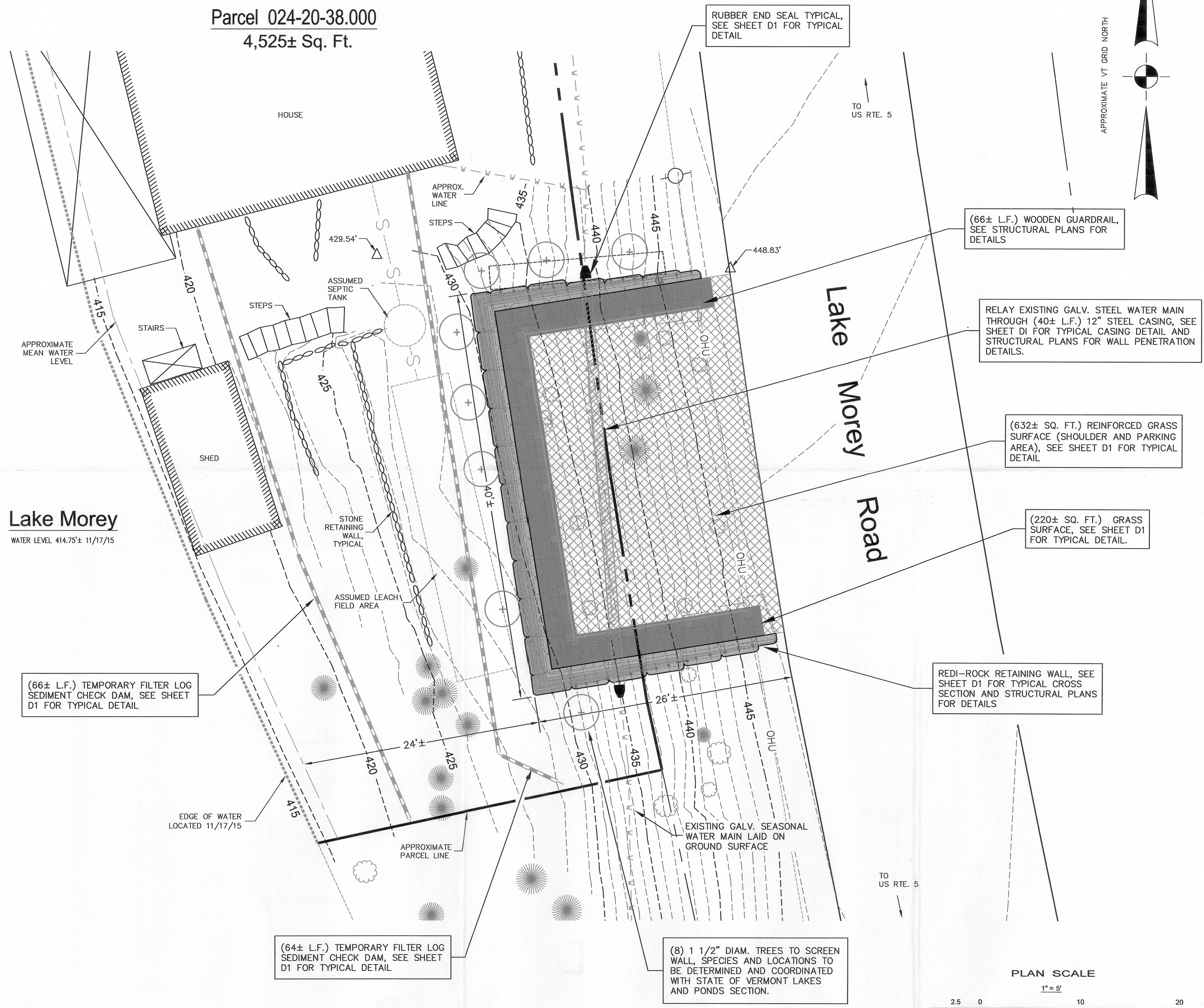


<p>SCHAAL ENGINEERING, P.C. 451 VALLEY VIEW ROAD WHITE RIVER JCT. VT 05001 (802) 295-2002 tschaal@innevi.com</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">NO.</th> <th style="width: 15%;">REVISION</th> <th style="width: 15%;">DATE</th> <th style="width: 15%;">NO.</th> <th style="width: 15%;">REVISION</th> <th style="width: 15%;">DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	REVISION	DATE	NO.	REVISION	DATE						
NO.	REVISION	DATE	NO.	REVISION	DATE								
<p>Existing Conditions Site Plan</p> <p>Chris Romano 4918 Lake Morey Road Fairlee, VT</p>													
<p>DRAWING NUMBER</p> <h1 style="font-size: 2em; margin: 0;">C1</h1>													
<p>SCALE: SEE PLANS CHECKED BY: T.L.S. DATE: 12/03/15 DRAWN BY: C.D.H.</p>													

NOTES

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- (4) NORTH REFERENCED TO APPROXIMATE VERMONT GRID NORTH.
- (5) EXISTING UTILITIES ARE ASSUMED OR APPROXIMATE AND TO BE USED AS A GENERAL GUIDE ONLY. CRITICAL POINT OF CONNECTIONS OR CROSSINGS SHALL BE HORIZONTALLY AND VERTICALLY VERIFIED PRIOR TO CONSTRUCTION.
- (6) CONTRACTOR SHALL CONTACT INVOLVED UTILITIES AND MAKE ARRANGEMENTS TO HAVE LINES ACCURATELY MARKED AND COORDINATE THEIR RELOCATION AND OR STABILIZATION THROUGH CONSTRUCTION.
- (7) CONTRACTOR SHALL NOTIFY THE TOWN OF FAIRLEE AND DIG-SAFE A MINIMUM OF 5 BUSINESS DAYS PRIOR TO COMMENCING ANY EXPLORATORY EXCAVATIONS OR INSTALLATION RELATED EXCAVATIONS.
- (8) CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND ACCESS TO LAKE MOREY ROAD DURING CONSTRUCTION.
- (9) CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY DISCREPANCIES BETWEEN FIELD DATA AND PLANS. CONSTRUCTION SHALL NOT COMMENCE UNTIL AUTHORIZED BY THE ENGINEER IN THE EVENT OF DISCREPANCIES.
- (10) CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION IS CONDUCTED IN ACCORDANCE WITH THE VERMONT "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL".
- (11) NEW WORK IDENTIFIED BY: NEW WORK

Parcel 024-20-38.000
4,525± Sq. Ft.



LEGEND

- TRAVERSE POINT
- UTILITY POLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- PROPOSED 1 1/2" DIAM. TREE
- APPROXIMATE RIGHT OF WAY
- APPROXIMATE PARCEL LINE
- APPROXIMATE EDGE OF WATER
- APPROXIMATE MEAN WATER LEVEL
- APPROXIMATE WATER LINE
- ASSUMED SEWER LINE
- APPROXIMATE STONE RETAINING WALL
- APPROXIMATE OVERHEAD UTILITY LINES
- CONTOUR LINE
- PROPOSED FILTER LOGS

Lake Morey
 WATER LEVEL 414.75± 11/17/15

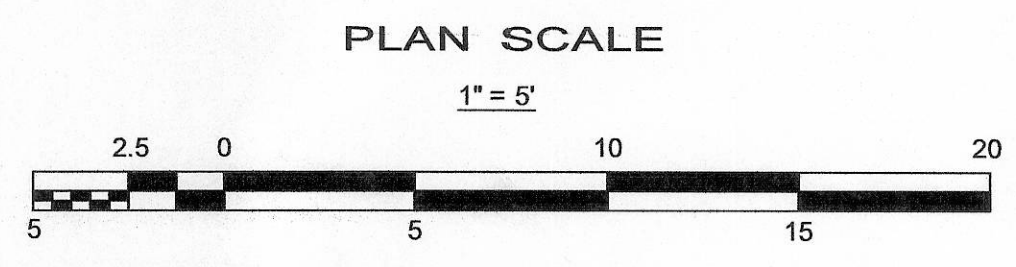
NO.	REVISION	DATE	NO.	REVISION	DATE

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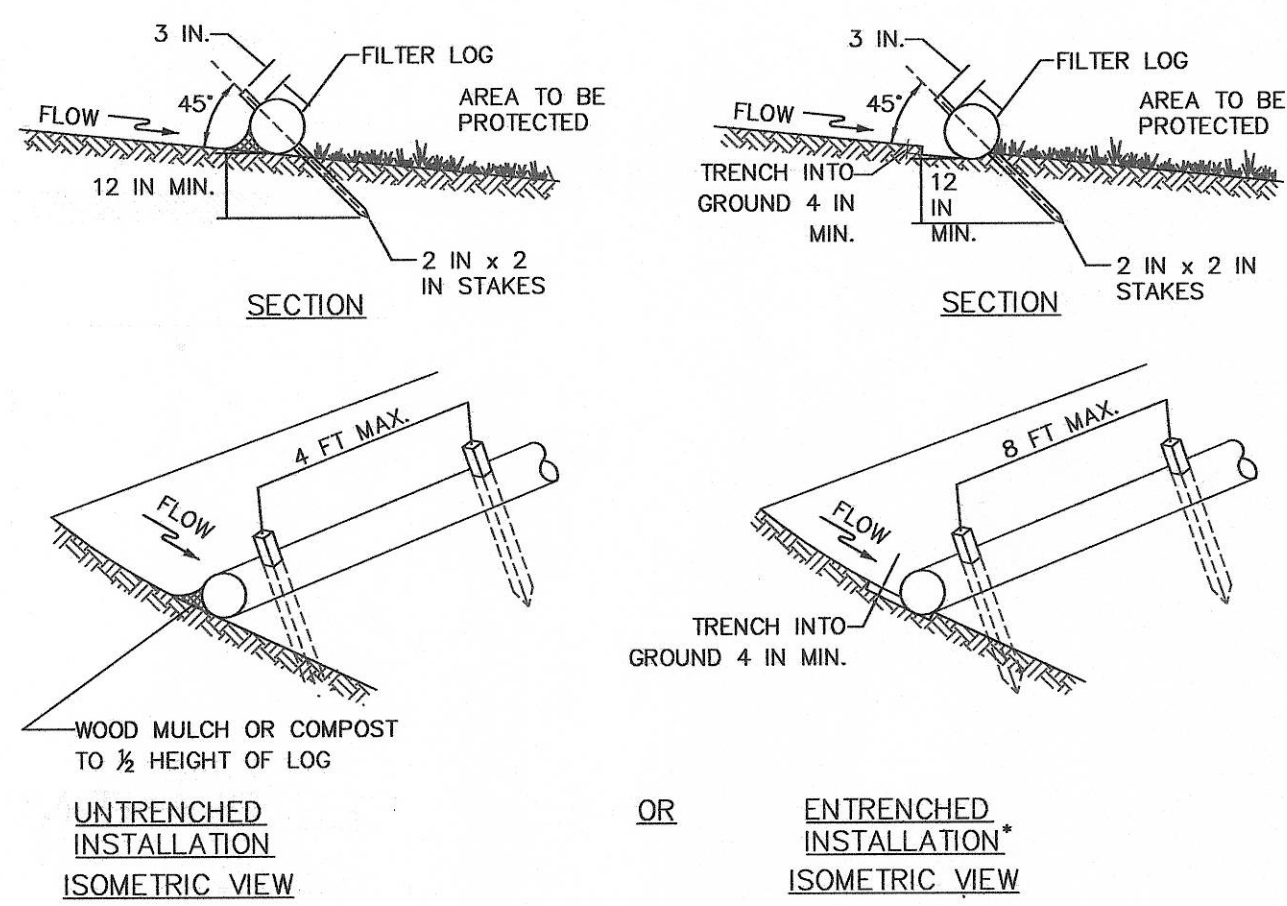
Site Plan
 Chris Romano
 4918 Lake Morey Road
 Fairlee, VT

DRAWING NUMBER
C2

SCALE: SEE PLANS
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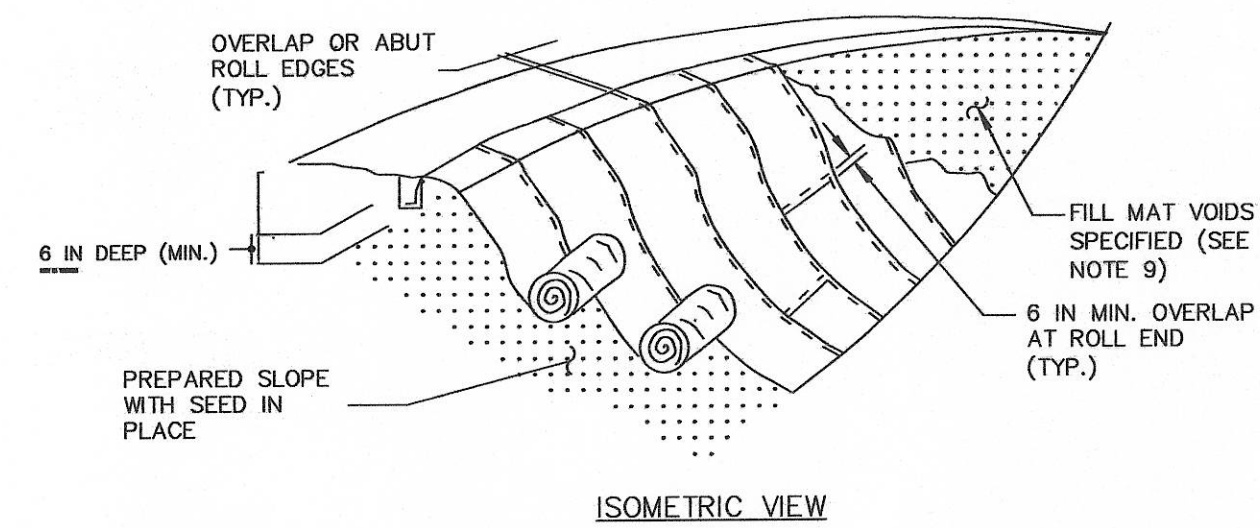
TYPICAL FILTER LOG
NOT TO SCALE



FILTER LOG CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF 1/2 THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

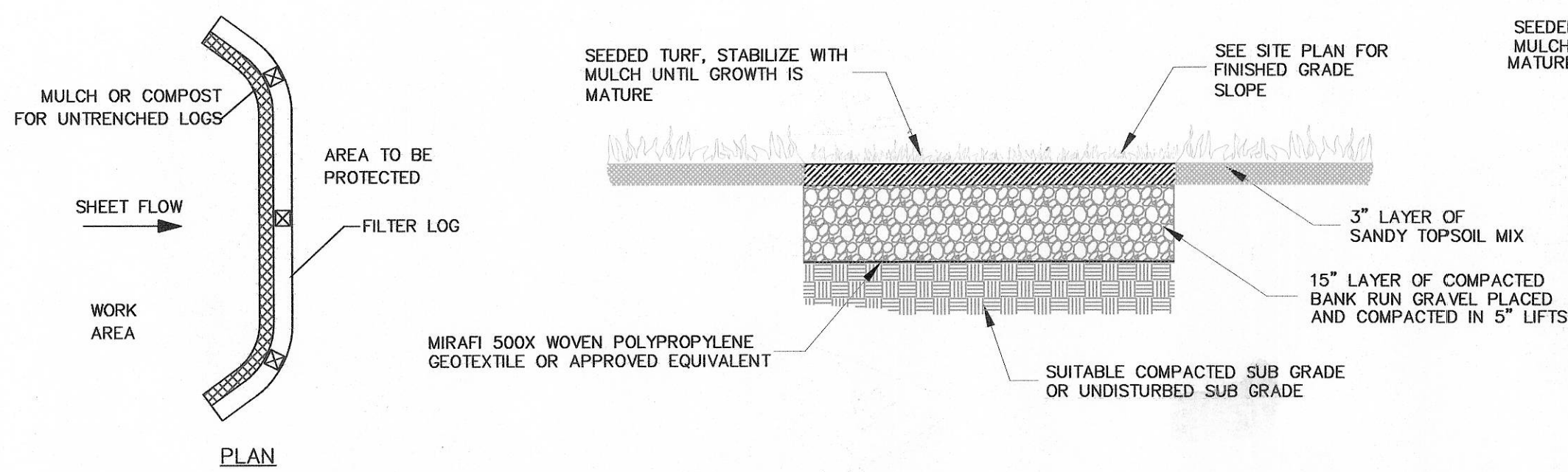
SOIL STABILIZATION MATTING SLOPE APPLICATION
NOT TO SCALE



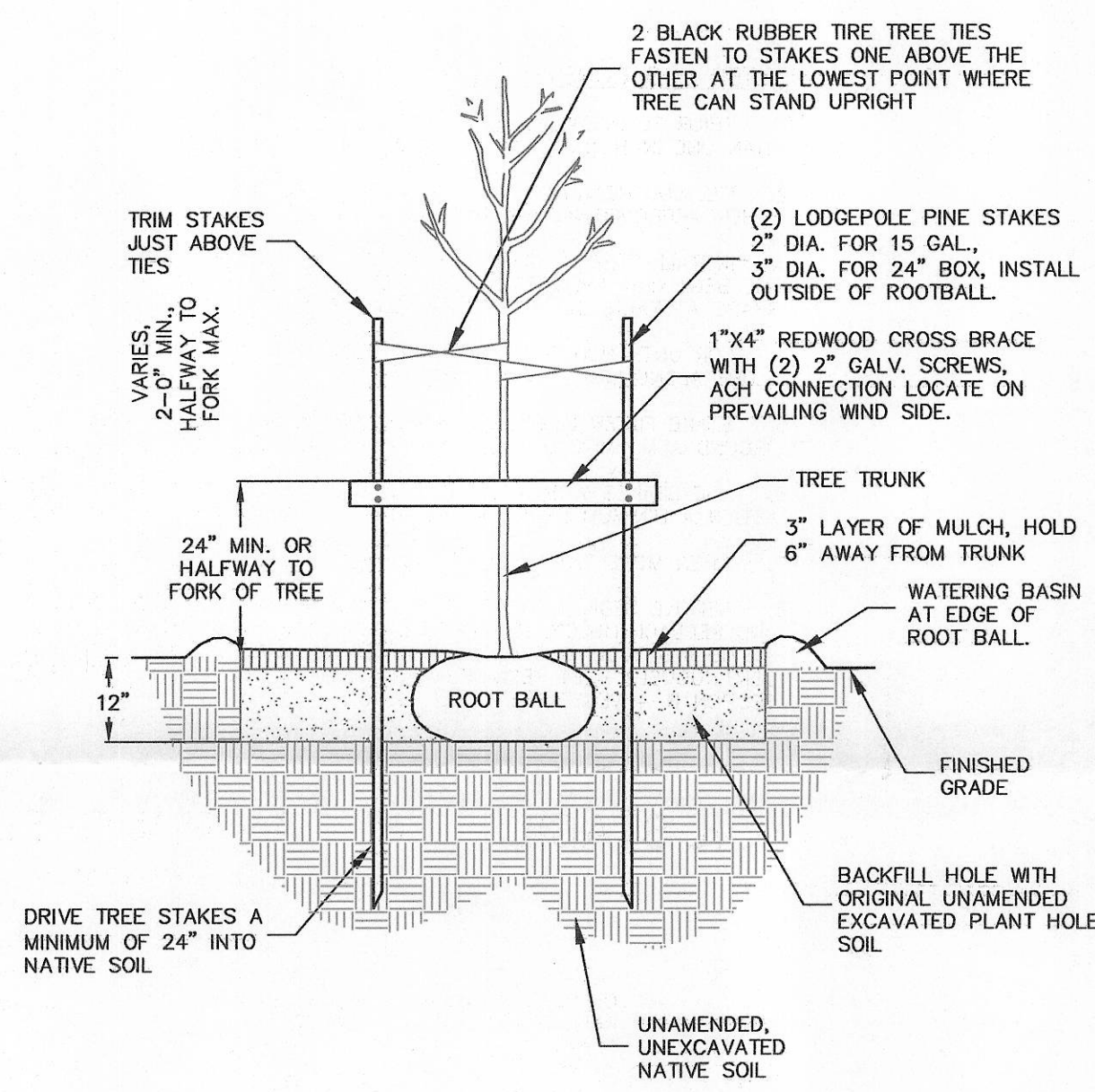
CONSTRUCTION SPECIFICATIONS

1. USE MATTING FOR GIVEN SLOPE;
? 3:1 OR FLATTER USE NORTH AMERICAN GREEN S759N
? 3:1 TO 2:1 SLOPES USE NORTH AMERICAN GREEN S1509N
? 2:1 TO 1:1.5 SLOPES USE NORTH AMERICAN GREEN SC1509N
2. USE TEMPORARY BIODEGRADABLE SOIL STABILIZATION MATTING WITH BOTTOM AND TOP NETS MADE OF LENO WOVEN JUTE FIBERS INFILLED WITH STRAW OR COCONUT FIBERS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH THE SITE PLANS AND DETAILS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET.

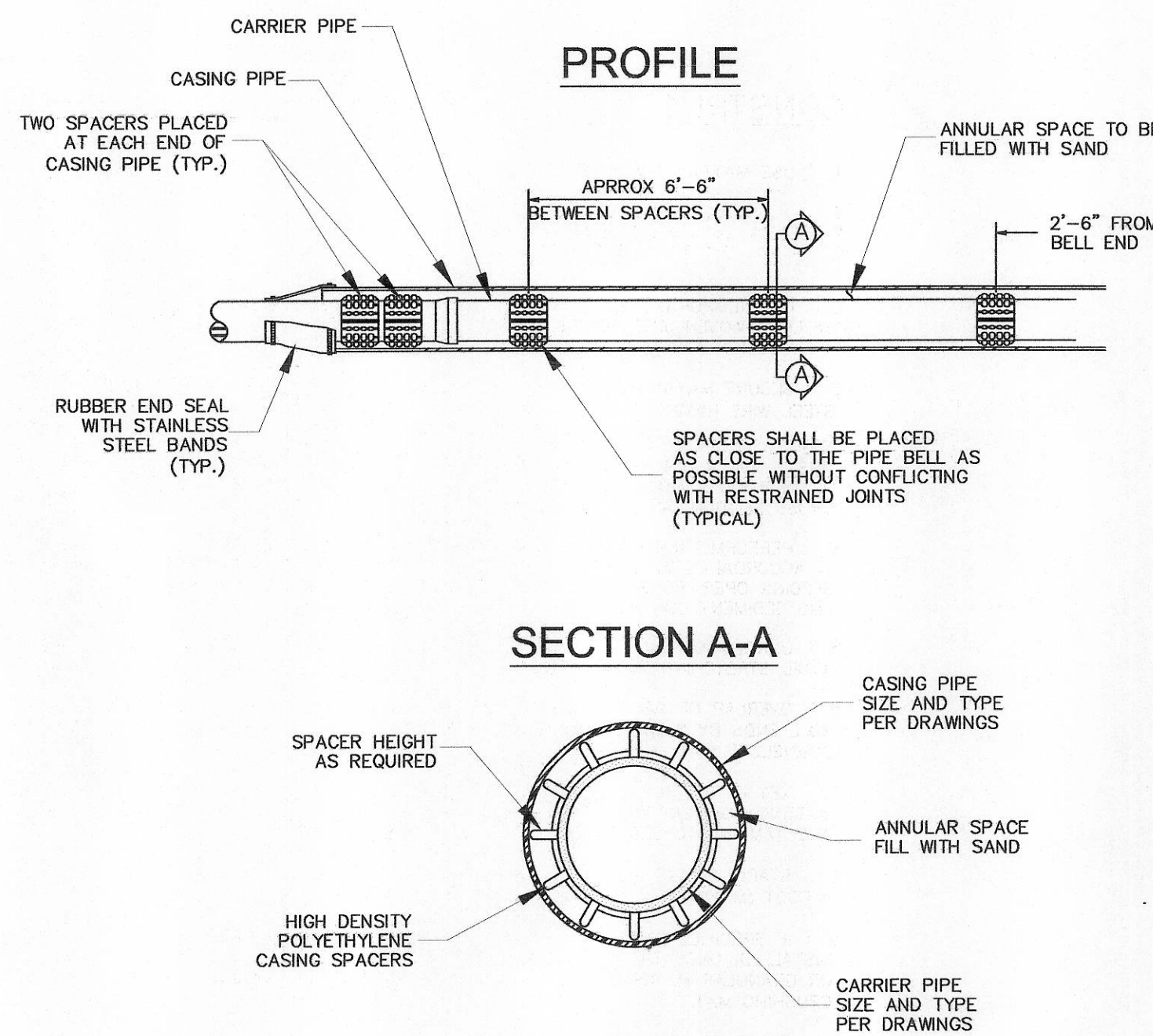
TYPICAL REINFORCED GRASS SURFACE
NOT TO SCALE



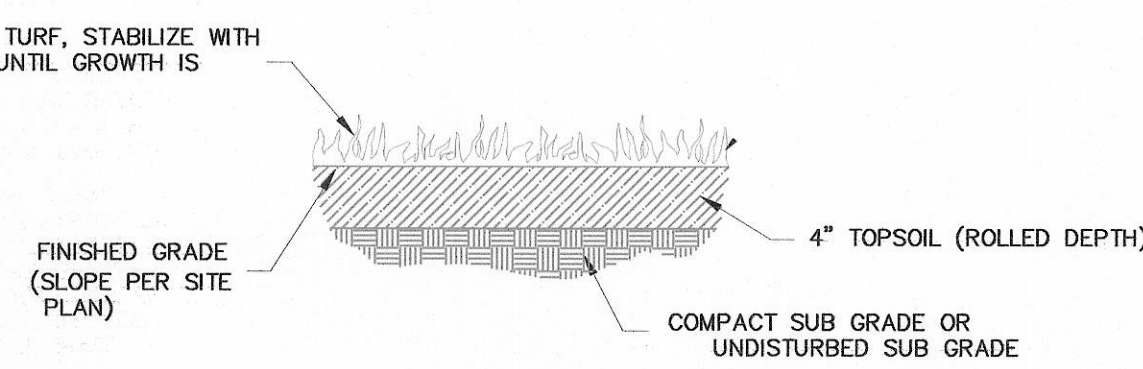
TYPICAL TREE PLANTING
NOT TO SCALE



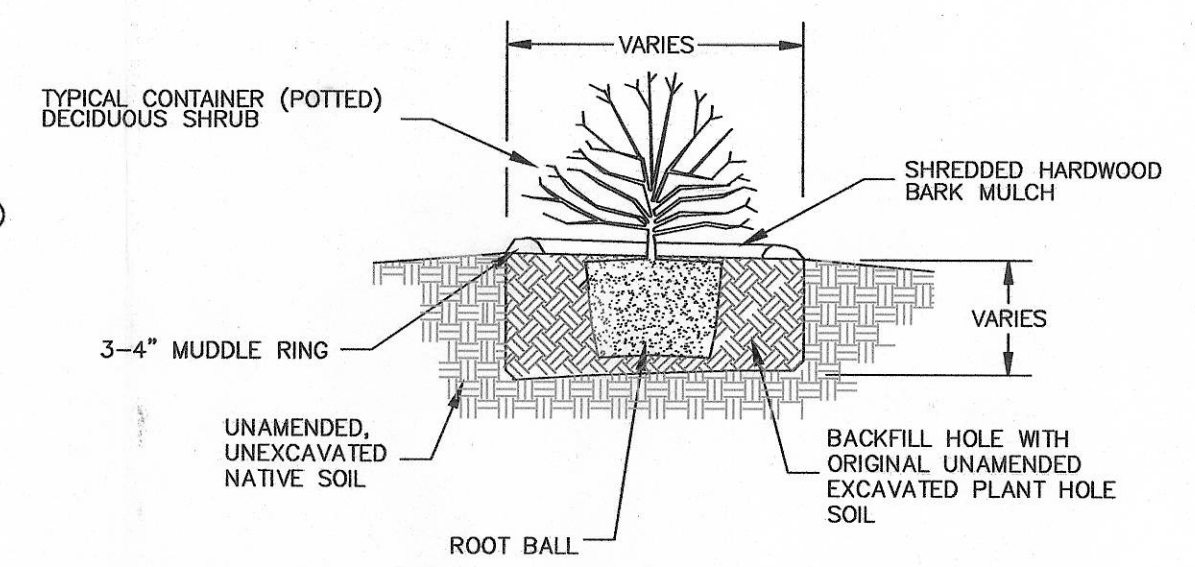
CASING PIPE AND SPACERS
NOT TO SCALE



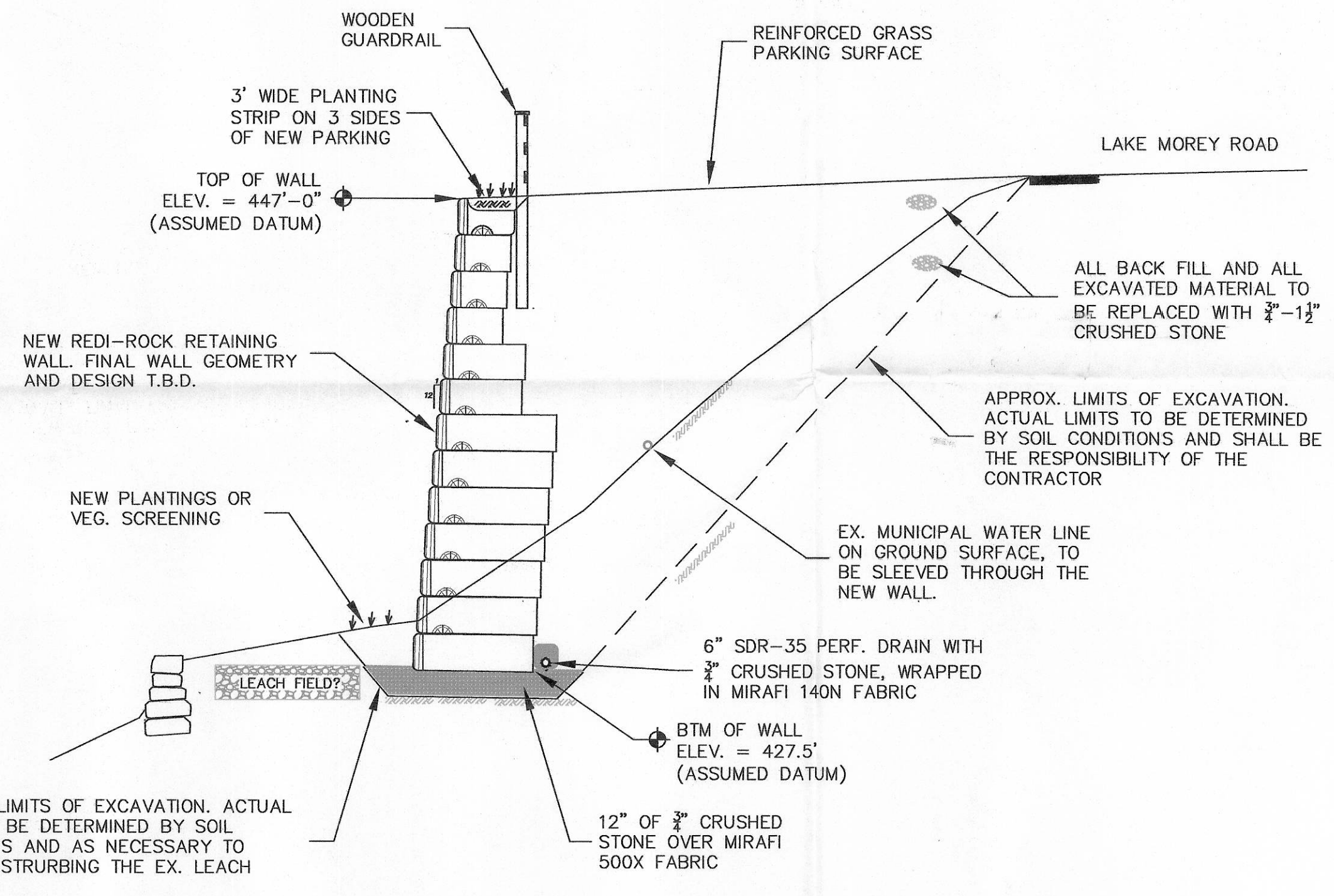
TYPICAL TOPSOIL SEED & MULCH
NOT TO SCALE



TYPICAL CONTAINER SHRUB PLANTING
NOT TO SCALE



TYPICAL RETAINING WALL SECTION
NOT TO SCALE



CASING PIPE AND SPACERS NOTES

1. CASING SPACERS SHALL BE USED TO SECURE THE CARRIER PIPE INSIDE OF THE ENCASUREMENT/CASING PIPE BY PROVIDING SUPPORT AROUND THE PERIPHERY OF THE PIPE. SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THEN THE SPACERS SHALL BE THE PROJECTION TYPE WITH THE MINIMUM NUMBER OF PROJECTION TYPE SPACERS EQUAL TO THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 8" PIPE SHALL HAVE A MINIMUM OF 8 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM OF 18 PROJECTIONS.
2. THE MAXIMUM SPAN BETWEEN SPACERS SHALL BE 6.5 FEET TO PREVENT SAGGING OF THE CARRIER PIPE. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACER DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE. SPACER SHALL HAVE MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON DRAWINGS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS TO FASTEN TIGHTLY ONTO THE CARRIER PIPE SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
3. CASING SPACERS SHALL BE PROJECTION TYPE, NON-CORROSIVE SPACERS WHICH ARE COMPOSED OF PREFORMED SECTIONS OF HIGH DENSITY POLYETHYLENE. SPACERS SHALL BE ISO 9002 CERTIFIED FOR STRENGTH AND QUALITY. PROJECTION TYPE SPACERS SHALL BE RACI TYPE SPACERS AS MARKETED BY PUBLIC WORKS MARKETING, INC., P.O. BOX 38174, DALLAS, TEXAS, 75238-0174, PHONE 214-340-4226 OR 800-517-0395, OR APPROVED EQUAL.
4. IF THE MANUFACTURER'S RECOMMENDED SPACING IS MORE STRINGENT THAT THE SPACING REQUIREMENTS SHOWN ABOVE, THEN THE MANUFACTURER'S RECOMMENDED SPACING SHALL APPLY.
5. CASING PIPE ENDS SHALL BE SEALED WITH PVM MODEL II WITH A 1/4" THICK RUBBER WRAP AROUND AND SECURED WITH STAINLESS STEEL BANDS.
6. CASING SPACERS SHALL BE EVENLY SPACED ALONG PIPE LENGTH.

SCHAAL ENGINEERING, P.C.

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Typical Details

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