Version: November 2015

Shoreland Permit Application

for a **Shoreland Protection Permit** under Chapter 49A of Title 10, § 1441 *et seq*.

For Shoreland Permitting Use Only
Application Number: 268



<u>Public Notice</u>: 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.

Vermont, to be deemed complete. Refer to <i>The Vermont Shoreland Protection Act - A Handbook for Shoreland Development</i> and related instructions for guidance in completing this application.						
A. Parcel Information 1. Landowner's Name: Margaret and Albar	n Richey		us 7068	्राह्म (संग्रह) १५ क्षणीयम् (स	MAR	EIVED 1 6 2016
2a. Physical Address (911 Address): 422 North Shore Rd						
2b. Town - County: Danville - Caledonia 2c. Zip: 05828			3. SPAN*: 174-055-11165			
4. Phone: 802-223-6560			5. Email:			
6. Name of lake/pond: Joes Pond - Danville			7. Total shore frontage: 400.00 (feet)			
8. Was the parcel of land created before July 1, 2014? Yes No						
9. Are there wetlands associated with this parcel? Yes 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? Yes No Permit #:						
11. What is the surface area of your parcel within the Protected Shoreland Area (PSA): 74,052 (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: 5,750 (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: 67,000 (square feet) See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing						
B. Applicant Contact Information 1. Name: Margaret and Alban Richey						
2a. Mailing Address: 171 Westview Meadows Road, APT 6						
2b. Municipality: Montpelier	2c. State: Vermont 2d. Zip: 05602-3391		1			
Phone: 802-223-6560 4. Email:						
C. Application Preparer Information (if the individual preparing the application is not the landowner)1. Name: David L. Frothingham III						
2a. Mailing Address: PO Box 1576						
2b. Municipality: Montpelier	2c. State: Vermont 2d. Zip: 05601-1576					
3. Phone: 802-223-4727 4. Email: david.frothingham@dirtsteel.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.

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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.

The Richey's are proposing to construct an addition to their camp at Joe's Pond. The 74,052 sf parcel has an existing impervious area of 5,750 sf and a total cleared area of about 67,000 sf. The addition is proposed to be located at the northwest end of the camp and will extend 14' off from the existing camp which is about 42 feet form MWL. The new impervious area created will total 168 sf. The total cleared area on the property would be increased by 40 sf. The distance from MWL to the proposed cleared/impervious area is 52 feet.

from MWL to the proposed cleared/impervious area is 52 feet.					
2. For developed parcels, how far is the existing habitable structure from Mean Water Level 42 (feet), and how far will new cleared area or impervious surface be from MWL 52 (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 D	evelopment, 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 If no, explain why below (attach support information as needed):					
The proposed project is an addition to an existing building which is about 42 feet from MWL, the proposed addition and clearing does not reduce this distance as it is proposed to be at least 52 feet away from MWL.					
4a. What is the slope of the project site area: 15.00 % 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%? The slope of the project area less than 20%? The slope of the project area less than 20%?				
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): N/A					
	5b. What is the total resulting impervious surface after				
5a. What is the surface area of new impervious surface associated with this project: 168.00 (square feet)	completion of the project and prior to				
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F Calculating Percent Impervious Surface	implementation of best management practices:				
5c. If no above (5b), describe the best management pract					
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).					
N/A					

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6b. What is the total resulting cleared area* after completion of the project and prior to implementation of best management practices: 67,040 (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.					
oractices used to provide erosion control, bank stability, and ess than 40% (attach support information as needed).					
The parcel is already mostly cleared and has well established grass cover and a few individual trees, this project proposes an increase in cleared area of 40 isf.					
Within construction limits: On slopes greater than 1:4 erosion control matting will be installed, there will be no slopes greater than 1:3. Silt fences are to be used during construction. After construction, grass cover will be re-established in disturbed/cleared areas. The sewer line can not have trees within 10 feet as it will jeopardize the line. To offset this increase in cleared area the applicant proposes to plan two maples along the top of bank of the stream to the southwest of the camp. These tree, when grown, will provide shade to the stream and more than cover the required 40 st. (update via email on 3/31/15 - M.M.)					
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: 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: The project as authorized. I understand that failure to complete. I am aware 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.					
e) alty of law that this document and all attachments were with a system designed to assure that qualified personnel. Based on my inquiry of the person or persons who manage ring the information, the information submitted is, to the best of m aware that there are significant penalties for submitting false ent for knowing violations.					
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Print Form

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

Christopher J. Temple, PE President

David L. Frothingham III, PE Vice President



Nicole D. Crum, PE Zarabeth M. Duell, PE Alicia A. Feiler, PE Nathan M. Phillips, PE John J. Svagzdys, PE

March 9, 2016

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



Reference: Richey Camp Addition, Danville, Vermont

Dear Mark:

Please find enclosed a Shoreland Permit Application for the Richey Camp Addition project at 422 North Shore Road in Danville, Vermont. The Richey's are proposing to construct an addition to their camp at Joe's Pond. The addition is proposed to be located on the northwest end of the camp and will extend 14' from the existing camp. This will require the relocation of an existing sewer force main. The 1.7 acre parcel currently has 2 camps with gravel drives as well as a garage and 2 shed which total 5,750 sf of impervious. The site currently has about 67,000 of cleared grass space. The entire parcel is located within the Protected Shorelands Area (PSA). The proposed addition will create 168 sf of additional impervious surface and about 40 sf of additional clearing on the property.

If you have any questions, please do not hesitate to contact me.

Sincerely,

David L. Frothingham III, P.E.

Enclosures

Site Plan Site Photos

Cc:

Margaret and Alban Richey

Chris Bissell

Surveying

Permitting

Site Design

Subdivisions

Timber Design

Expert Testimony

Site Development

Act 250 Permitting

Forensic Engineering

Environmental Permitting

Transportation Engineering

Structural Inspection Services

Commercial Building Design

Construction Oversight

Building Assessment

Pedestrian Bridges

Stream Alterations

Sewer Design

Water Supply

Storm Water

Hydrology

Grading

317 River Street P. O. Box 1576 Montpelier, VT 05601-1576

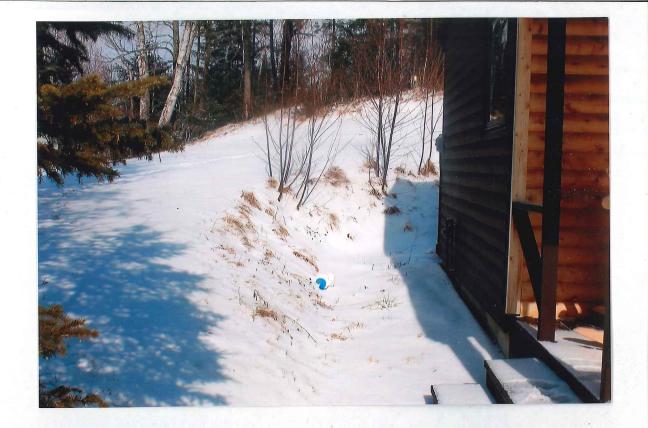
phone: 802.223.4727 fax: 802.223.4740 www.dirtsteel.com

















GENERAL NOTES

1 GENERAL:

- 1.1 ALL WORK SHALL BE PERFORMED IN A FIRST CLASS MANNER, AND IN ACCORDANCE WITH STATE
- CODE (IBC 2012 WITH LATEST SUPPLEMENTS), AND LOCAL CODES AND ORDINANCES. 1.2 ALL EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT DIG-SAFE (1-888-DIG-SAFE) AT LEAST 48 HOURS AND LESS THAN 30 DAYS PRIOR TO

STARTING CONSTRUCTION AND SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD.

- 1.3 THE LIMITS OF SITE WATER AND SEWER WORK SHALL TERMINATE 2'-0" INSIDE THE BUILDING. THE SITE CONTRACTOR SHALL PROVIDE PIPING. GENERAL CONTRACTOR SHALL PROVIDE SLEEVES
- 1.4 GAS AND ELECTRIC LINES SHALL BE EXCAVATED AND BACKFILLED BY THE SITE CONTRACTOR. PIPING SHALL BE PROVIDED AND INSTALLED BY THE APPROPRIATE SUBCONTRACTOR
- 1.5 USE THESE CIVIL DRAWINGS IN CONJUNCTION WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, LANDSCAPING & MECHANICAL DRAWINGS. SHOULD A CONFLICT DEVELOP, NOTIFY THE ENGINEER REFORE PROCEEDING
- 1.6 ALL DIMENSIONS AND ELEVATIONS SHOWN MUST BE VERIFIED BY THE CONTRACTOR DURING CONSTRUCTION BY THE AID OF DRAWINGS, FIELD CHECKS, AND SUBCONTRACTORS SHOP
- 1.7 CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ALL
- 1.8 CONTRACTOR IS RESPONSIBLE FOR ADEQUATE BRACING OF WALLS AND/OR SHORING OF EXCAVATIONS DURING CONSTRUCTION.
- 1.9 THE CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS AND SUBMITTALS BEFORE SUBMISSION TO THE ENGINEER; THUS, PROVIDING ANY INFORMATION REQUIRED OF THE FABRICATOR SUCH AS FIELD DIMENSIONS, ELEVATIONS, ETC. OTHERWISE THE SHOP DRAWINGS OR SUBMITTALS WILL BE REJECTED UNTIL SUCH INFORMATION IS FURNISHED BY THE CONTRACTOR.
- 1.10 BACKFILL INSIDE OF FOUNDATION WALLS, UNDER CONCRETE SURFACES, AND UNDER PAVED SURFACES WITH IMPORTED BANK RUN GRAVEL, OR SELECT ON-SITE MATERIAL THAT WILL MEET STRUCTURAL BACKFILL SIEVE ANALYSIS AND COMPACTION CRITERIA, AS DETERMINED BY THE TESTING LABORATORY, IN 8" LIFTS TO 95% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, ASTM D1557.
- 1.11 GENERAL BACKFILL SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, ASTM D1557.

2 CONCRETE:

- 2.1 ALL CONCRETE AND REINFORCING WORK SHALL BE IN STRICT ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-11)". EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED WITH AIR CONTENT OF 6% ± 1.5%. REINFORCED EXTERIOR SLAB CONCRETE SHALL HAVE A CORROSION INHIBITIVE ADMIXTURE. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4.000 PSI AT 28 DAYS. SUBMIT CONCRETE MIX DESIGN FOLLOWING PROCEDURES OUTLINED IN THE FLOW CHART IN CHAPTER 5 OF ACI 318 FOR REVIEW OF ENGINEER. CONTRACTOR SHALL TAKE 4 TEST CYLINDERS OF CONCRETE FOR EACH 50 CUBIC YARDS OF CONCRETE OR FOR EACH DAYS POUR IF LESS THAN 50 C.Y. TESTING WILL BE AT OWNER'S
- 2.2 MAXIMUM W/C RATIO FOR 4000 PSI CONCRETE: 0.44
- 2.3 CONCRETE SHALL BE PROTECTED FROM FREEZING. CONTRACTOR SHALL FOLLOW THE "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306, LATEST EDITION).
- 2.4 ALL CONCRETE SHALL BE PLACED IN THE DRY. PUMP WATER FROM EXCAVATIONS AS NECESSARY.
- 2.5 CONCRETE SHALL BE SO PROPORTIONED SO AS TO HAVE A MAXIMUM SLUMP OF 4".
- 2.6 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREEDS AND FORMS. FORM RELEASE OIL SHALL BE AN APPROVED NON-TOXIC LIQUID.
- 2.7 SLABS SHALL BE WET CURED USING BURLAP COVER TO KEEP ENTIRE SURFACE CONTINUOUSLY
- MOIST FOR A MINIMUM OF SEVEN DAYS. 2.8 DURING PLACEMENT OF CONCRETE, USE TREMIE OR OTHER MEANS TO LIMIT FREE-FALL OF
- 2.9 CONCRETE SHALL BE CONSOLIDATED BY VIBRATION, SPADING, OR RODDING SO THE CONCRETE IS THOROUGHLY WORKED AROUND THE REINFORCEMENT, EMBEDDED ITEMS, AND INTO CORNERS OF FORMS, ELIMINATING ALL AIR OR STONE POCKETS WHICH MAY CAUSE HONEYCOMBING. (CARE

3 REINFORCING STEEL:

CONCRETE TO 5 FEET.

3.1 REINFORCING STEEL SHALL BE NEW BILLET STEEL, ASTM A615, Fy=60 KSI.

SHALL BE TAKEN NOT TO OVER VIBRATE AND CAUSE SEGREGATION).

- 3.2 THE MINIMUM CLEAR DISTANCE FROM REINF. STEEL TO ADJACENT SURFACE SHALL BE: 3" FROM BOTTOM OF SLAB ON GRADE AND 2" FROM EDGES OF SLAB ON GRADE.
- 3.3 PROVIDE LAP SPLICES OF ALL SLAB REINFORCEMENT AS FOLLOWS: #5 BAR 2'-4" MINIMUM, #7 BAR - 3'-8" MINIMUM. AT CHANGES IN DIRECTION OF SLAB, PROVIDE CORNER BARS WITH LEGS EQUAL TO BAR LAP SPLICE LENGTH (MINIMUM).
- 3.4 REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING CONCRETE PLACEMENT OPERATIONS USING APPROVED TIES, CHAIRS, AND SPACERS AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER, OR VIEW.

4 PRECAST CONCRETE:

- 4.1 PRECAST CONCRETE SHALL BE THE PRODUCT OF A MANUFACTURER WHO HAS DEMONSTRATED THE ABILITY TO PRODUCE PRECAST PRODUCTS AND HAS BEEN IN BUSINESS FOR AT LEAST THE LAST THREE YEARS. THE MANUFACTURING PLANT AND METHODS SHALL CONFORM TO THE LATEST STANDARDS OF THE PRECAST CONCRETE INSTITUTE. THE DESIGN OF THE PRECAST MEMBERS SHALL BE BY A REGISTERED ENGINEER EXPERIENCED IN THE DESIGN OF PRECAST, PRESTRESSED CONCRETE DESIGN. PRECAST CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS OR HIGHER STRENGTH AS DEEMED NECESSARY BY DESIGN. ALL STEEL CONNECTION MATERIAL SHALL BE HOT-DIPPED GALVANIZED.
- 4.1.1 THE SUPERIMPOSED DESIGN LOADS ON ALL BURIED STRUCTURES SHALL MEET OR EXCEED AASHTO HS-20 LOADING UNLESS OTHERWISE NOTED.

5 MATERIAL SPECIFICATIONS:

- 5.1 MATERIALS NOT SPECIFIED HEREIN SHALL MEET OR EXCEED VERMONT AGENCY OF TRANSPORTATION (VAOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- 5.2 GENERAL FILL SHALL BE A COMPACTABLE SAND OR GRAVEL REASONABLY FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIALS AND SHALL HAVE 0-20 PERCENT PASSING THE NO. 100 SIEVE AND 40-100 PERCENT PASSING THE NO. 4 SIEVE.
- 5.3 BANK RUN GRAVEL SHALL BE FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIALS AND SHALL HAVE 100 PERCENT PASSING A 3 INCH SIEVE, 20-75 PERCENT PASSING A NO. 4 SIEVE, 0-12 PERCENT PASSING A NO. 100 SIEVE AND 0-6 PERCENT PASSING A NO. 200 SIEVE.
- 5.4 CRUSHED BANK RUN GRAVEL SHALL BE FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIALS AND SHALL HAVE 100 PERCENT PASSING A 2 INCH SIEVE, 90-100 PERCENT PASSING A 13 INCH SIEVE 30-60 PERCENT PASSING A NO. 4 SIEVE, 0-12 PERCENT PASSING A NO. 100 SIEVE AND 0-6 PERCENT PASSING A NO. 200 SIEVE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF AND ABIDE BY THE CONDITIONS OF THE PERMITS LISTED.

- 6.1 LOCAL APPROVALS 6.2 VERMONT DRINKING WATER AND GROUNDWATER PROTECTION DIVISION
- WASTEWATER SYSTEM AND POTABLE WATER SUPPLY PERMIT
- 6.3 VERMONT WATERSHED MANAGEMENT DIVISION SHORELANDS PERMIT APPLICATION

EROSION CONTROL DURING CONSTRUCTION

- 1. BEFORE ANY CLEARING, GRUBBING, OR DEMOLITION OF THE SITE IS INITIATED, AND DURING ALL EARTHWORK PHASES, EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED AT THE INLET OF ANY STORM DRAINS, SWALES, AND DITCHES RECEIVING WATER FROM THE PROJECT. SEE TYPICAL DETAILS AND PLANS FOR TYPES AND
- SILT FENCE SHALL BE PLACED DOWN GRADIENT OF ALL DISTURBED AREAS. IF THE DISTURBED AREA IS 100' OR LESS FROM THE WATERS OF THE STATE THE SILT FENCE
- 3. ALL STOCKPILED SOIL SHALL BE ENCIRCLED WITH SILT FENCE. UNLESS AN EXISTING BARRIER WILL ENTRAP ALL EROSION FROM SUCH A STOCKPILE OR THE STOCKPILE IS COMPLETELY COVERED WITH VEGETATION THAT PREVENTS EROSION.
- NO MORE THAN 500 FEET OF TRENCH SHALL BE OPEN AT ONE TIME AND EXCAVATED MATERIAL TO BE USED FOR BACKFILL SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCH. ALL OTHER EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN
- BEFORE AND AFTER EVERY STORM ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSPECTED FOR FAILURES OR CLOGGING, AND ANY FAILURE OR CLOGGING SHALL BE RECTIFIED. DURING THE WINTER CONSTRUCTION SEASON SPECIAL ATTENTION SHALL BE PAID TO THE CHANGES IN WEATHER THAT COULD CAUSE SIGNIFICANT SNOW MELT AND
- STONE CHECK DAMS SHALL BE PLACED IN NEWLY CONSTRUCTED SWALES, DITCHES. OR OTHER WATERWAYS DURING THE CONSTRUCTION PERIOD. STONE INLET PROTECTION OR SEDIMENT CATCH BASIN INSERTS SHALL BE PLACED IN ALL NEW AND EXISTING CATCH BASIN WHICH RECEIVED RUNOFF FROM DISTURBED AREAS. THE PLACING OF THESE TRAPS AND DAMS SHALL BE AS SHOWN ON THE PLANS. MAINTENANCE SHALL BE AS IN #5 ABOVE.
- FROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM NUMBER REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO USE ADDITIONAL BARRIERS AS FIELD CONDITIONS DICTATE AND TO INSURE THAT ANY EROSION CREATED BY THIS PROJECT DOES NOT REACH THE STATE'S WATERWAYS OR LEAVE THE SITE.
- NEW SWALES AND DITCHES (AND ANY OTHER AREA SUBJECT TO CONCENTRATED STORM RUNOFF) SHALL BE FERTILIZED AND SEEDED WITH THE FOLLOWING MIXTURE TO AT LEAST TWO (2) FEET ABOVE THE CHANNEL BOTTOM:

CREEPING RED FESCUE REDTOP SMOOTH BROMEGRASS

AND SHALL HAVE MULCH APPLIED AT THE RATE OF 2 TONS PER ACRE.

- IN ALL NEW SWALES AND DITCHES, AND WHERE SLOPE GRADE EXCEEDS 25 PERCENT (1 ON 4 SLOPE), JUTE MATTING SECURELY ATTACHED TO THE GROUND SHALL BE PLACED OVER MULCH AND MAINTAINED UNTIL A PERMANENT GRASS COVER IS ESTABLISHED.
- 10. ALL DISTURBED TERRAIN AT FINAL GRADE SHALL BE SEEDED AND MULCHED WITHIN 48 HOURS OF COMPLETION, AND BY SEPTEMBER 15TH AT THE LATEST. BEFORE APPLYING FINAL SEEDING FOUR (4) INCH AVERAGE DEPTH OF TOPSOIL SHALL BE PLACED IN ALL DISTURBED AREAS TO BE SEEDED. FERTILIZER SHALL BE APPLIED TO THE TOP 2-INCHES OF TOPSOIL AT A RATE OF 500 LBS/ACRE. SEED MIXTURES SHALL BE ONE AS SPECIFIED ON LANDSCAPING PLAN. IF NO SEED MIXTURE IS SPECIFIED IT SHALL BE ONE OF THE FOLLOWING, AS APPROPRIATE.

EMBANKMENT/SLOPING GROUND MIXTURE#1 CREEPING RED FESCUE	LBS/ACF 20
REDTOP "	2
BIRDSFOOT TREFOIL	8
OR CROWNVETCH	15
MIXTURE#2 TALL FESCUE	10
REDTOP	2
FLAT PEA (LATHCO)	30
MIXTURE#3 CREEPING RED FESCUE	15
FLAT PEA (LATHCO)	30
FLAT/LEVEL GROUND	LBS/ACRE
MIXTURE#1 KENTUCKY BLUE GRASS	20
CREEPING RED FESCUE RYE (PERENNIAL), OR	20
REDTOP	5
MIXTURE#2 CREEPING RED FESCUE	20
REDTOP "	2
TALL FESCUE	20

- 11. ALL NEWLY SEEDED AREAS SHALL BE MULCHED AT A RATE OF TWO (2) TONS PER ACRE OF HAY OR STRAW. DURING WINTER CONSTRUCTION MULCH SHALL BE APPLIED AT A RATE OF 4 TONS PER ACRE. JUTE OR OTHER EQUAL NETTING SHALL BE USED WHERE WIND OR WATER MAY ERODE NEWLY-PLACED SEED OR MULCH OR WHERE GRADE EXCEEDS 25% (1:4). ALL NETTING, WHERE USED, SHALL BE STAKED TO THE GROUND IN COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 12. ALL AREAS THAT REACH FINISHED GRADE DURING THE WINTER CONSTRUCTION SEASON SHALL BE MULCHED AT A RATE OF 4 TONS/ACRE AND TACKED DOWN TO PREVENT WINDTHROW WITHIN 24 HOURS OF REACHING FINAL GRADE. THESE AREAS SHALL BE SEEDED AS SPECIFIED IN NOTE 9 IN THE SPRING AS SOON AS WEATHER ALLOWS.
- 13. ALL HAY MULCH SHALL BE TACKED DOWN TO PREVENT WINDTHROW. JUTE MATTING OR FOUIVAIENT SHALL BE USED WHERE INDICATED ON PLANS. IN ALL OTHER AREAS MULCHED SHALL BE TRACKED WITH A BULLDOZER. THE CLEATS OF THE BULLDOZER SHALL BE PARALLEL TO THE CONTOURS. DURING THE WINTER CONSTRUCTION SEASON NETTING OR JUTE MATTING SHALL BE USED TO TACK DOWN ALL MULCH.
- 14. ALL DISTURBED AREAS NOT AT FINAL GRADE THAT WILL NOT BE DISTURBED AGAIN FOR A PERIOD OF GREATER THAN THIRTY (30) DAYS, SHALL BE SEEDED WITH A TEMPORARY, RAPID-GROWING COVER CROP, SUCH AS RYE GRASS AND MILLET, AND SHALL BE MULCHED. NETTING SHALL ALSO BE APPLIED, AS SPECIFIED IN ITEM 13, TO STABILIZE THE MULCH AND SEED.
- 15. ALL DISTURBED AREAS MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 14 DAYS OF THE INITIAL DISTURBANCE. AFTER THIS TIME, ANY DISTURBANCE IN THE AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY. THE FOLLOWING EXCEPTIONS APPLY: i) STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA IN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS. ii) STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E. NO OUTLET) WITH A DEPTH OF 2-FEET OR GREATER (E.G. FOUNDATION EXCAVATION, UTILITY TRENCHES)
- 16. DURING WINTER CONSTRUCTION ALL DISTURBED AREAS MUST HAVE TEMPORARY OR FINAL STABILIZATION AT THE END OF EACH WORK DAY. THE FOLLOWING EXCEPTIONS APPLY: i) STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA IN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS. ii) STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E. NO OUTLET) WITH A DEPTH OF 2-FEET OR GREATER (E.G. FOUNDATION EXCAVATION, UTILITY TRENCHES)
- 17. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION OF THE SITE.
- 18. EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER ANY RAIN EVENT WHICH PRODUCES RUNOFF BY THE ON-SITE COORDINATOR. WHO WILL BE RESPONSIBLE FOR RECTIFYING ANY PROBLEMS FOUND. ALL INSPECTION FORMS SHALL BE KEPT ON-SITE AS RECORDS OF THE CONDITION OF THE EROSION CONTROL MEASURES. TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVE WITH 30 DAYS OF PERMANENT SITE STABILIZATION.
- 19. NO MORE THAN 3 ACRES SHALL BE DISTURBED (WITHOUT TEMPORARY OR FINAL STABILIZATION) AT ANY ONE TIME
- 20. SEEDING MUST BE COMPLETED BY SEPTEMBER 15.
- 21. CONTRACTOR SHALL APPLY DUST CONTROL MEASURES AS NECESSARY OR AS DIRECTED BY THE ENGINEER TO PREVENT THE AIR MOVEMENT OF DUST. ACCEPTABLE METHODS OF DUST CONTROL ARE VEGETATIVE COVER, MULCHING, SPRINKLING OF WATER, OR THE USE OF CALCIUM CHLORIDE.
- 22. AT THE COMPLETION OF THE PROJECT, ALL STORMWATER DRAINAGE FACILITIES INCLUDING DITCHES, GRASSED SWALES, CATCH BASINS, SUMPS, CULVERTS, STORM DRAINS, STORM MANHOLES, OUTLET STRUCTURES, STORM FILTERS, ETC SHALL BE CLEANED AND FREE OF SILT, SEDIMENT OR DEBRIS WHICH MIGHT IMPAIR THE PROPER OPERATION OF THE

- LEAKAGE TESTING OF SEWER PIPING AND MANHOLES
- 1. USE LEAKAGE TESTING PROCEDURE PRESCRIBED BY AUTHORITY HAVING JURISDICTION OR, IF METHOD IS NOT PRESCRIBED BY THAT AUTHORITY, USE PROCEDURE DESCRIBED IN VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES, EFFECTIVE SEPTEMBER 29, 2007, APPENDIX 1-A, DESIGN GUIDELINES, SECTION
- CONTRACTOR SHALL NOTIFY ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO TESTING. ENGINEER MUST BE PRESENT AT TEST FOR ACCEPTANCE.
- AFTER TESTING AND PRIOR TO ACCEPTANCE THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH AS-BUILT DRAWINGS.

MANHOLE TESTING

- A. 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 TEST SECTION. OTHER MANHOLES SHALL BE TESTED IN ACCORDANCE WITH THIS PROCEDURE.
- B. ALL INFLOW AND OUTFLOW PIPES SHALL BE PLUGGED.
- C. FILL THE MANHOLE 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, IF NECESSARY, AND THE TEST TIME OF AT LEAST 6 HOURS BEGUN. AT THE END OF THE TEST PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE, MEASURING THE VOLUME OF
- THE LEAKAGE FOR EACH MANHOLE SHALL NOT EXCEED ONE GALLON PER VERTICAL FOOT FOR A 24 HOUR PERIOD AND THERE SHALL BE NO VISIBLE INFILTRATION.

- A. ALL NEWLY LAID SANITARY SEWERS SHALL BE TESTED FOR LEAKAGE. EITHER THE WATER METHOD OR THE AIR METHOD AS SPECIFIED IN THE VERMONT ENVIRONMENTAL PROTECTION RULES IS ACCEPTABLE AT THE OPTION OF THE CONTRACTOR.
- THE MAXIMUM LEAKAGE SHALL BE 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE OF PIPE PER DAY FOR THE WATER TEST METHOD. THE WATER TEST SHALL BE CONDUCTED UNDER 2 FEET OF HEAD ABOVE THE HIGHEST POINT TESTED OR ABOVE THE HIGHEST KNOWN WATER TABLE, WHICHEVER IS HIGHER.
- AIR TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM STANDARD C828-80. THE MINIMUM ALLOWED TIME FOR A PRESSURE DROP FROM 3.5 PSI TO 2.5 PSI SHALL BE 1.2 MINUTES PER 100 FEET OF 8" PIPE AND 0.7 MINUTES PER 100 FEET OF 6" PIPE. SEE VERMONT ENVIRONMENTAL PROTECTION RULES, APPENDIX 1, TABLE 1-A-3 FOR OTHER PIPE

LANDSCAPING NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH PLANTING OPERATIONS
- 2. LANDSCAPING CONTRACTOR SHALL RECEIVE SITE GRADE TO +/- 0.10 FOOT.
- 3. ALL TREES OF THE SAME SPECIES AND SIZE SHALL HAVE MATCHING HEIGHT AND FORM
- UNLESS OTHERWISE NOTED ON THE PLANS 4. ALL PLANT MATERIALS AND FINAL LOCATION OF ALL PLANT MATERIALS SHALL BE SUBJECT TO
- THE APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION 5. IF CONFLICTS ARISE BETWEEN SIZE OF AREAS AND PLANS, CONTRACTOR SHALL CONTACT OWNERS REPRESENTATIVE FOR IMMEDIATE RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER'S REPRESENTATIVE WILL RESULT IN CONTRACTORS LIABILITY TO
- RELOCATE THE MATERIALS. CONTRACTOR SHALL FURNISH PLANT MATERIALS FREE OF PESTS OR PLANT DISEASES. PRE-SELECTED OR "TAGGED" MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED AS PEST AND DISEASE FREE. IT IS THE CONTRACTORS OBLIGATION TO WARRANTY
- ALL PLANT MATERIALS. 7. ALL GROUND COVERS SHALL BE TRIANGULARLY SPACED UNLESS OTHERWISE NOTED.
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS

DAMAGED DURING PLANTING OPERATIONS.

- 9. ALL LANDSCAPE AREAS SHALL BE COVERED WITH 2-INCHES OF ORGANIC BARK MULCH UNLESS
- 10. AREAS SHOWN AS GROUND COVER AT THE BASE OF TREE AND SHRUB MATERIALS MUST CONFORM TO THE FOLLOWING CRITERIA. THERE SHALL BE NO GROUND COVER PLANT MATERIAL AT THE BASE OF THE TREE OR SHRUB AS FOLLOWS: A) 4-FOOT RADIUS AROUND EVERGREEN TREES; B) 3-FOOT RADIUS AROUND DECIDUOUS TREES; AND C) 2-FOOT RADIUS AROUND LARGE SHRUBS
- 11. FINAL PLACEMENT OF ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE PRIOR TO FINAL PLACEMENT AND BACKFILL. CONTACT OWNER'S REPRESENTATIVE 24-HOURS PRIOR TO PLACEMENT FOR APPROVAL.
- 12. ALL DISTURBED AREAS, UNLESS OTHERWISE NOTED, TO BE LOAM, SEEDED, AND MULCHED.

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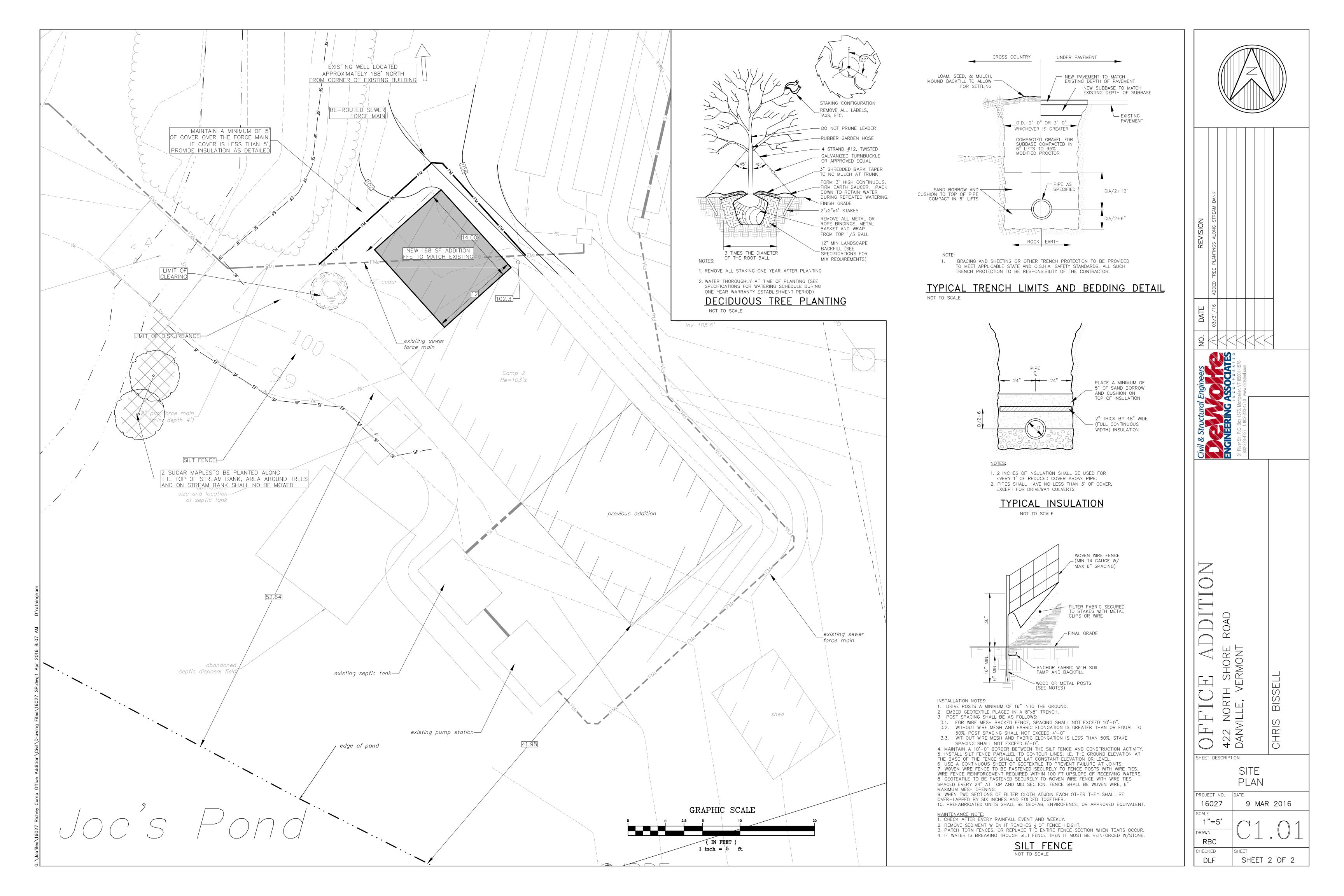
SHEET DESCRIPTION LEGEND AND GENERAL NOTES

PROJECT NO. DATE 9 MAR 2016 DRAWN

CHECKED

SHEET 1 OF 2





From: David Frothingham < David.Frothingham@dirtsteel.com>

Sent: Thursday, March 31, 2016 11:52 AM

To: Mitchell, Mark

Subject: RE: Shoreland Permit Application #268, Richey

Attachments: Shore land permit revised pages 2 & 3.pdf; C1.01 SITE PLAN r3-31-16.pdf

Follow Up Flag: Follow up Flag Status: Flagged

Good morning Mark,

Please find attached the revised site plan and application pages. The applicate proposes to plant two maple trees along the top of bank of the adjacent stream. These trees will provide shade for the stream and the canopies, when grown, will exceed the 40sf required.

If you have any further comments please do not hesitate to contact me.

David Frothingham PE Senior Civil Engineer

DeWolfe Engineering Assoc. 317 River Street PO Box 1576 Montpelier, Vt 05601

General Ph: 802-223-4727 x319

Direct Ph: 802-613-3001 Fax: 802-223-4740

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From: Mitchell, Mark [mailto:Mark.Mitchell@vermont.gov]

Sent: Wednesday, March 30, 2016 12:04 PM

To: David Frothingham

Subject: FW: Shoreland Permit Application #268, Richey

Hi David,

In reviewing your Shoreland Permit Application for 1479 Westshore Road on Joes Pond, a few clarifications are needed for it to be considered technically complete:

- 1) Section D.1 states that the new impervious area created will total 280 SF, but Section 5a states it will be 168 SF.
- 2) Section D.1 also states that the total cleared area on the property would be increased by 350 SF, but Section 6a states it will be 40 SF.
- 3) Section 6c must address the new cleared area through revegetation of an equal surface area within the same distance from mean water level.

Please let me know if you have any questions.

Thanks, Mark



Mark Mitchell, Regional Permit Analyst Lake & Shoreland Permitting

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