The Cheese Plant Commercial Suites - Stormwater Design

Engineering Feasibility Analysis

Submitted To:

Town of Hinesburg

10632 VT Route 116

Hinesburg, VT 05461

(802) 482-4206

www.hinesburg.org

Submitted By:

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Appendices

1. Site Summary

1.1 Topography

The Cheese Plant Commercial Suites property is located in Hinesburg, VT at 10516 Route 116. The parcel sits on primarily flat land, and slopes downward by approximately 2%, from east to west towards the La Platte River. Slope decreases by approximately 2% in the northern direction of the property towards Patrick Brook, a stream tributary of the La Platte River. With the close proximity to the surrounding surface waters on the northern and western perimeter, the property is within the river corridor of the La Platte River and approximately 50% of the property is within its floodplain. Based on previous accounts from property tenants, flooding has occurred along the drainage swales on the property. Other key existing features include two open lagoons that were previously used for wastewater treatment prior to 2010. Additional details on the history of the lagoons are described in Section 1.4 Land Use. The lagoons are located on the western perimeter of the property and are within the river corridor and floodplain of the La Platte River. Permit implications regarding these topographic constraints are described in Section 2.1 Natural Resource Constraints.

1.2 Soils

The parcel is comprised of 4 NRCS soil types with varying slope ranges:

- Livingston clay, 0-2% slopes
- Munson and Raynham silt loams, 6-12% slopes
- Vergennes clay, 2-6% slopes
- Winooski very fine sandy loam, 0-3% slopes

The location of the proposed stormwater treatment practice (STP) is located entirely on Winooski very fine sandy loam soils. This soil type typically indicates poor-draining soils that are not well suited to infiltrate stormwater runoff. When the project opportunity was originally identified in the Public-Private Partnership project, it was confirmed that the mapped soil types on the property are all within Hydrologic Soil Group D which represents clayey and silty soils with poor infiltration capacity. This information was sufficient to determine that a Tier 1 practice cannot be utilized to infiltrate stormwater runoff onsite.

1.3 Current Drainage Patterns

- **(Discharge Point S/N 001 – On-site Runoff)** Currently, stormwater runoff from the building rooftop, paved parking lot, loading dock, and sidewalks is conveyed via catch basin pipe collection system to the stream directly south of the Cheese Plant facility and discharges to the west into the La Platte River. Stormwater runoff from the unpaved parking area south of the Cheese Plant facility is conveyed via overland flow and grass swales to the aforementioned stream that discharges into the La Platte River.
- **(Discharge Point S/N 001 – Off-site Runoff)** Stormwater runoff from the building rooftops, sidewalks, and paved parking surfaces from the Kelley's Field Senior Housing property on the eastern side of Route 116 is conveyed via grass swales and catch basin pipe collection system to the Cheese Plant property and enters the stream that flows west into the La Platte River.
- **(Discharge Point S/N 002)** A portion of the eastern side of the Cheese Plant property discharges into Patrick Book, a stream tributary of the La Platte River via catch basin pipe collection system.

  Please refer to Appendix A for the locations of S/N 001 and S/N 002.

1.4 Existing Land Use

The 15.48-acre parcel is comprised of one primary building structure previously owned by Saputo. The facility is now owned by Redstone VT Property Management and operated as a light industrial park known as "The Cheese Plant". Tenants include a restaurant, a brewery, and a smoked meat producer. Saputo previously utilized three open lagoons to the west of the main facility for processing and treatment of concentrated cheese waste. Since Saputo vacated the property in 2010 and based on recent satellite imagery, one lagoon has been filled and two lagoons have been remediated to remove all hazardous waste that was remaining from previous wastewater operations (affirmed on the Act 250 Schedule F – Notice application to fill the lagoons). The two remaining open lagoons are surrounded with naturally established wetland vegetation. Current photos of the remaining lagoons are shown in Appendix A. Please see Appendix B for more information on the Act 250 documents associated with the former wastewater treatment lagoons. The total existing impervious surfaces on the property is 5.16 acres and comprises multiple building structures, two parking lots, loading dock, and sidewalks.

1.5 Right-Of-Ways or Easements

No right-of-way (ROW) assessment or easements are required to implement the stormwater treatment practice.

1.6 Design Summary

Gravel Wetland Retrofit

A Tier 2 gravel wetland retrofit is proposed in place of the southwestern lagoon. Stormwater runoff from S/N 001 will be redirected to the gravel wetland retrofit via grass swale and new storm pipe. A diversion structure will direct runoff from the 1" storm into the gravel wetland while allowing larger storms to continue and discharge directly into the La Platte River. Please see Appendix C for the 30% design plan.

Additional design features include:

- Outlet protection using stone armoring to diffuse remaining outflows into the La Platte River.
- Rehabilitation of an existing grass for pre-treatment and to convey flow to the gravel wetland.
- A diversion structure within the swale to divert runoff from the 1" storm event to the gravel wetland while allowing runoff from larger storm events to pass through and discharge to the La Platte River.
- Sizing of the gravel wetland assumes the completion and expansion of a wetland restoration project designed by the Lewis Creek Association. The LCA project proposes to divert runoff flows from the east of Route 116 and redirect it around the Belliveau property into the restored wetland. A new culvert will be installed under Stella Road and the swale west of Stella Road will be reshaped to allow water to flow north. This proposed project will redirect some of the flow away from the proposed gravel wetland retrofit. The floodplain restoration project construction is anticipated to begin in Spring 2023. Please see Appendix D for design plans of the LCA restoration project.

2. Considerations

2.1 Natural Resources Constraints

Deer Wintering Area:

There are no Deer Wintering Areas (DWA) mapped on the property and therefore does not require any action to contact the Department of Fish and Wildlife regarding DWA mitigation.

Flood Hazard Areas:

Approximately 50% of the property, including the open lagoons, is within the floodplain of the La Platte River. Kyle Medash, Western Floodplain Manager – VT DEC Rivers Program, determined that no Flood Hazard Area & River Corridor (FHARC) permit will be needed but the Rivers Program would provide comment on the Act 250 permit amendment under Criterion 1(D) in general accordance with the FHARC Procedure. Working with the Rivers Program in the early stages of the design will help ensure favorable Criterion 1(D) comments to the NRB on the A250 permit application.

From a flood hazard area standpoint, the Rivers Program will need more information on net gain or removal of fill in the floodplain. Depending on the details of that analysis, it will drive what more might be needed in terms of analyzing the site hydraulics. The current 30% design shows that the proposed top of berm elevation is 327.5' and the existing elevation is ~326'. It is important to understand how these changes may or may not affect base flood conditions on adjacent properties, especially since the general area is being increasingly developed and adjacent properties may be impacted. Correspondence with the Rivers Program will need to be continued as the design is further developed to the 100% level to confirm that proposed structures will be in compliance with the FHARC procedure.

Alex Weinhagen, Director of Hinesburg Planning & Zoning, was contacted for local floodplain and river corridor permitting requirements. The project is subject to conditional use review for a floodplain permit through the Town of Hinesburg. A small portion on the western side of the lagoon is within the stream setback and buffer area. Development of stormwater treatment infrastructure in this area also requires review and approval by the Town's Development Review Board (DRB). For this particular project, the DRB would review both applications concurrently.

Groundwater Source Protection Area:

The entire property is within a Groundwater Source Protection Area (SPA). The proposed gravel wetland is a Tier 2 practice as defined by the 2017 Vermont Stormwater Management Manual, which does not utilize infiltration. The system will be lined, thus preventing any stormwater flows from infiltrating to the groundwater table from the gravel wetland.

Primary Agricultural Soils:

The property sits on the prime agricultural soils (PAS) characterized as Winooski very fine sandy loam and Vergennes clay. The agricultural value of the Winooski very fine sandy loam is deemed as 1 and the value of the Vergennes clay is deemed as 6. As the project is subject to Act 250 jurisdiction, the project information will need to be submitted via an Intake Form to the Agency of Agriculture, Food & Markets (AAFM). The AAFM will determine the necessary acreage of land that needs to be mitigated based each soil type's respective agricultural value to offset the PAS disturbed by the proposed stormwater project.

River Corridor:

The river corridor of the La Platte River runs along the western perimeter of the property and the proposed gravel wetland retrofit location. A FHARC permit will not be needed, however the Rivers Program would provide comment on the Act 250 permit amendment under Criterion 1(D) in general accordance with the FHARC Procedure. Working with the Rivers Program in the early stages of the design will help ensure favorable Criterion 1(D) comments to the NRB on the A250 permit application.

The most limiting piece to the design is location in the river corridor of the La Platte. The Rivers Program is looking for a design that will not encroach further toward the river than what currently exists. The current 30% design plan from May 2021 shows significant expansion of the lagoon footprint toward the La Platte, beyond what currently exists (with structure exception). In this case, a permittable design would include not extending beyond the western top of bank alignment of existing lagoon #1. Additionally, the Rivers Program prefers to see the outlet pipe and/or spillway be directed toward the small tributary to the south as the likelihood of lateral channel adjustment is much less than on the La Platte. Generally, stormwater outfalls and drainage are allowed in the river corridor; however, it is typically preferred to be unhardened infrastructure such as rock-lined or vegetated swales vs. pipes or concrete, with the intention that swales may still function if affected by erosion and can be reconfigured to move with channel adjustments as needed.

Wildlife and Fisheries:

Andy Wood with the Wildlife Division notes the site is within summer range for the state & federally endangered Indiana Bat. From the plans and aerials, it is unclear if the limits of disturbance will encompass any existing trees surrounding the lagoon. If it is proposed to clear any trees for this project, the Wildlife Division will need to be notified. A site visit may be required to evaluate trees prior to clearing.

James Brady with the Fisheries Division notes the project is located to the east of the LaPlatte River, South of Patrick Brook, and north of an unnamed tributary to the LaPlatte River. The current site design includes proposed impacts within the stream channels and riparian zones to the west and south of the lagoon. Potential concerns exist regarding in-stream fish populations, which may also determine jurisdiction for other permitting needs. Further discussion with James about the proposed impacts is recommended prior to final project design. Jaron Borg, River Management Engineer with the Watershed Management Division should be informed on the outcome of any discussions with the Fisheries Division.

Wetlands & Hydric Soils:

There are wetlands located on the western side of the property that are included in the Vermont Significant Wetlands Inventory (VSWI). These wetlands include the two former cheese waste treatment lagoons that have since been remediated to be free of all remaining hazardous waste after the lagoon operations ceased in 2010. A preliminary desktop review by Tina Heath, District Wetland Ecologist - Chittenden County, determined that the proposed disturbance for the proposed gravel wetland retrofit would be considered substantial impact that would be well above the General Permit 3-9026 threshold. Ms. Heath recommended that she conduct a site visit in Spring 2023 to determine impacts and permit implications.

Please see Appendix E for all email correspondence with regulatory agencies regarding their review of the proposed natural resource impacts by the project.

2.2 Water Quality Objectives & Goals

Compliance with Stormwater General Permit (GP 3-9050) – 3-Acre Rule:

The Cheese Plant must acquire a regulatory three-acre general stormwater permit (GP 3-9050) through the VT DEC Stormwater Program. The property exceeds the minimum three-acre threshold for requiring the GP 3-9050 as it has 5.16 acres of jurisdictional impervious surfaces. For this property, the GP 3-9050 requires the site to meet the Redevelopment Standard on all impervious surfaces *not* covered by an

existing post-2002 stormwater permit. There are no post-2002 stormwater permits authorized for the site, therefore, the Redevelopment Standard is applied to all impervious surfaces on the property.

The Redevelopment Standard is defined by the Vermont Stormwater Management Manual, which states that "a STP or STPs shall be designed to capture and treat 50% of the WQv from the redeveloped impervious surface." According to this definition, the proposed STP is required to treat 50% of the WQv from the 5.16 acres of impervious surfaces that are *not* covered by a post-2002 permit. This is equal to treating the 100% WQv from 2.58 acres of impervious surfaces to comply with the Redevelopment Standard.

The gravel wetland retrofit is sized to treat the 100% WQv generated from 4.65 acres of the site's impervious surface. The proposed system exceeds the required treatment of at least 2.58 acres of impervious surfaces, thus meeting the Redevelopment Standard for the site required for 3-9050 permit compliance (Table 1).

Table 1. The Cheese Plant Property - Compliance with 3-acre rule permit requirements.

Total Site Impervious (ac)	Total Untreated Impervious (ac)	Total Impervious Covered by Post-2002 Permits (ac)	Total Impervious Treated to 100% WQv Equivalent by STP (ac)	Total Impervious requiring 100% WQv Treatment to meet Redevelopment Standard (ac)	Redevelopment Standard Met
5.16	0.51	0.00	4.65	2.58	✓

Gravel Wetland Retrofit System – Water Quality Metrics

This STP was originally proposed for the property as part of the Public-Private Partnership project completed in May 2021 and funded by the VT DEC Water Investment Division. The primary water quality concerns are unmanaged runoff volumes, nutrients, and sediment from The Cheese Plant, VT Route 116, and the Kelley's Field Senior Housing property discharging into the La Platte River. The following metrics will be provided to improve the water quality of the La Platte River once the STP is implemented:

- 3-Acre Site Impervious Area Managed: 4.65 acres
- Stormwater Runoff Volume Managed: 0.235 acre-feet
- Project Phosphorus Removal Efficiency: 57%
- Project Phosphorus Reduction: 4.30 kg/yr
- Cost per kg of Reduced Phosphorus Annually: $5,666/kg

See Attachment A at the end of this EFA document for a locator map that shows the proposed location for the gravel wetland retrofit on the property and surrounding natural resource features including the La Platte River, wetlands, and river corridors.

3. Maximization Criteria

An Engineering Feasibility Analysis (EFA) was completed according to Chapter 22 of the Environmental Protection Rule, the Stormwater Permitting Rule, to determine whether the site can feasibly "maximize the acreage in compliance" with the Vermont Stormwater Management Manual's Redevelopment Standard. The site was evaluated according to the Maximization Feasibility Criteria, a list of activities not required to maximize compliance with the requirements of General Permit 3-9050:

1. **The purchase or acquisition of land for off-site treatment of stormwater**

- ✓ The purchase or acquisition of additional land is not required to comply with the requirements of GP 3-9050 under the proposed design. The proposed stormwater features are all within the parcel boundary.

2. **Removal of, or actions that would permanently preclude the use or operation of existing structures, utilities, roads, parking areas, sidewalks, and similar infrastructure.**
   - ✓ The proposed project designs will not permanently preclude the use or operation of any existing structure, utilities, roads, parking areas, sidewalks, and similar infrastructure. The proposed STPs will be integrated into the existing stormwater infrastructure within the site. The parking lot will be repaved and maintain the same use and operation once construction is complete.

3. **Site re-grading or site re-contouring that would permanently preclude the existing land use.**
   - ✓ Proposed site re-grading and re-contouring will not permanently preclude the existing land use.

4. **Pumping of stormwater runoff.**
   - ✓ The proposed design does not require pumping of stormwater.

5. **Infiltration where basement flooding or subsurface pollutant plume transport would occur based on a site-specific analysis identifying seasonal high-water table, soil-infiltrative capacity, and direction of groundwater flow.**
   - ✓ The proposed stormwater project is a Tier 2 practice, and therefore will not utilize infiltration mechanisms.

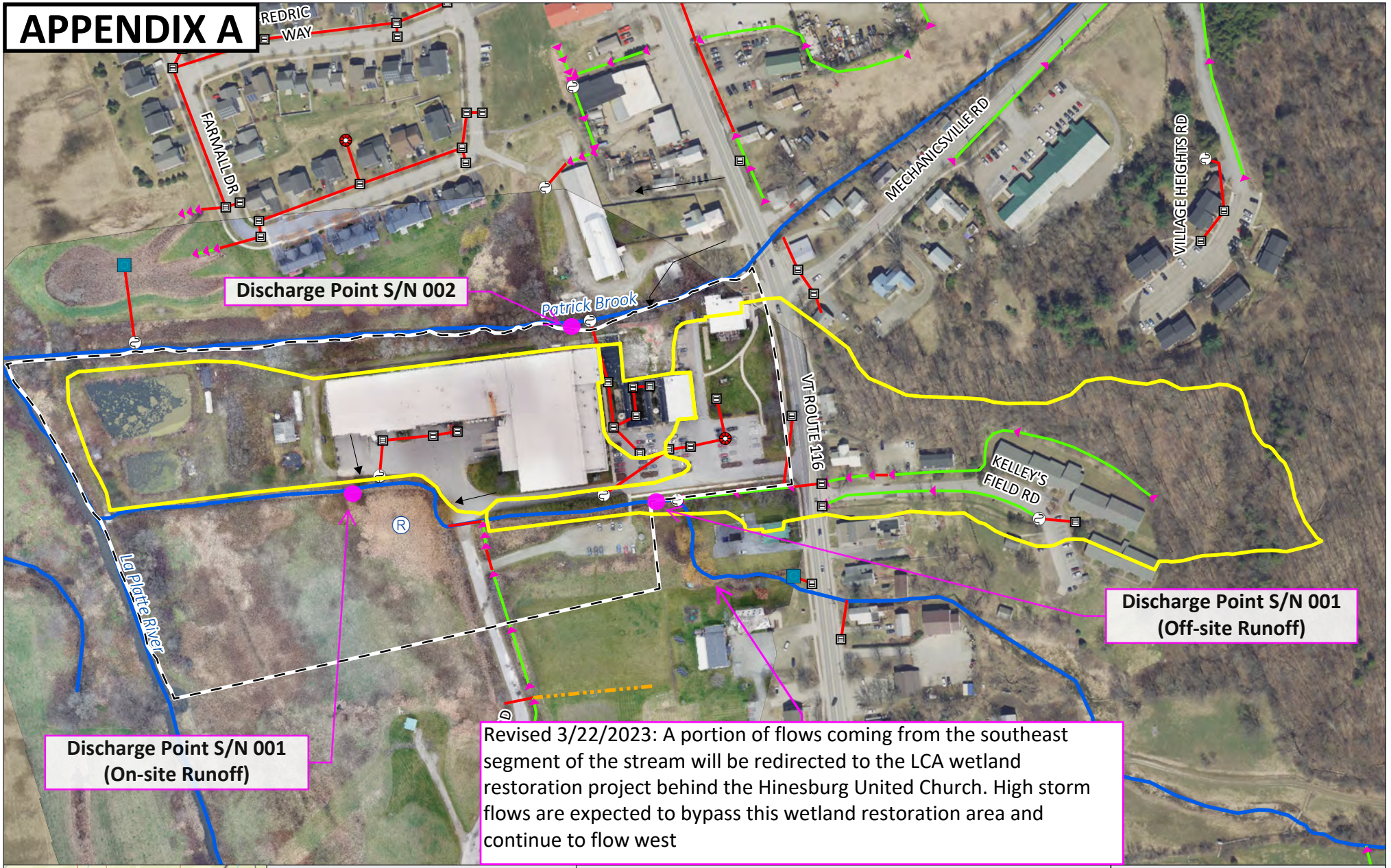
6. **Construction that would not be in compliance with the Agency's "Flood Hazard Area and River Corridor Protection Procedure," namely the "No Adverse Impact Standard."**
   - ✓ Construction will be in compliance with the Agency's "Flood Hazard Area and River Corridor Protection Procedure" and will not require a FHARC permit as confirmed above in Section 2.1 Natural Resources Constraints.

7. **Construction within any wetland or its 50-foot buffer zone.**
   - ✓ Construction is proposed within mapped Class II wetlands or wetlands advisory regions. Continued correspondence with the VT DEC Wetlands Program is required to determine impacts and permit implications of the proposed project. A site visit with Tina Heath, District Wetland Ecologist - Chittenden County, will need to be conducted in Spring 2023 to inform the permit implications.

8. **Destruction of contiguous forest areas exceeding 5,000 square feet where such forest areas are to remain forest under the terms of another permit issued under the Stormwater Permitting Rule.**
   - ✓ No contiguous forest areas will be disturbed for the proposed design.

9. **Activities not approvable under local, state, and federal laws and regulations.**
   - ✓ Compliance with local, state, and federal laws and regulations will be followed prior to and during implementation of the proposed projects.

APPENDIX A



The Cheese Plant Commercial Suites

(Map 1 of 3)

VT Route 116, Hinesburg, VT

Map Date: 1/31/2023

Legend

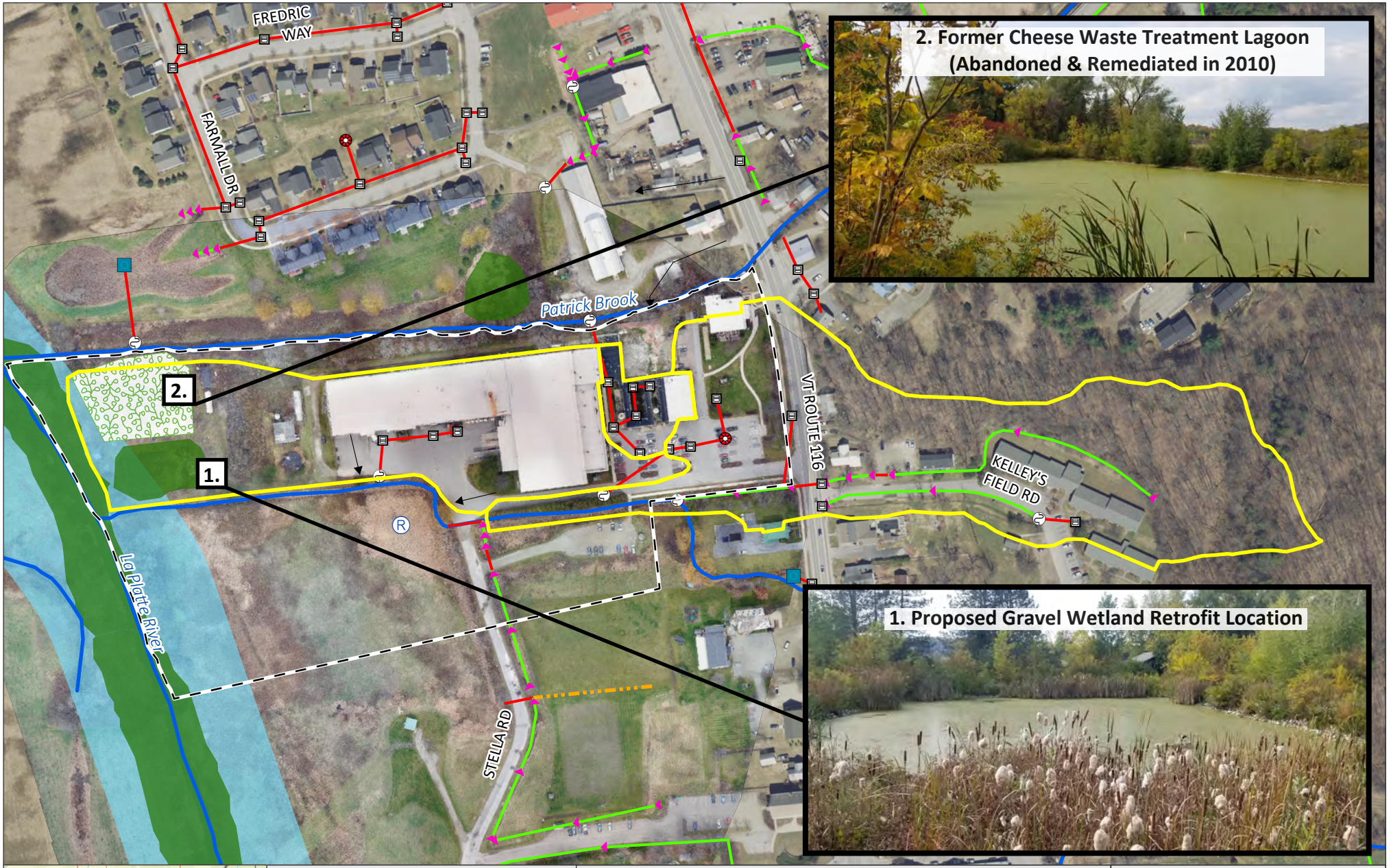
- Parcel Boundary
- Drainage Area Boundary
- Catchbasin
- Stormwater Manhole
- Outfall
- Pond outlet structure
- Retrofit
- Storm line
- Swale
- Under drain
- Overland flow
- Streams

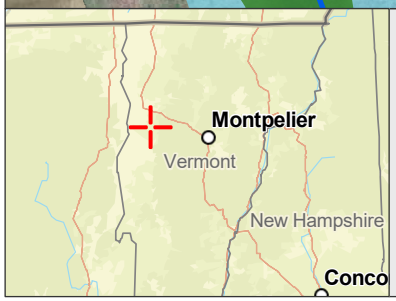
0 175 350 Feet

Scale: 1" = 238'

N

WATERSHED CONSULTING





The Cheese Plant Commercial Suites

(Map 2 of 3)

VT Route 116, Hinesburg, VT

Map Date: 1/31/2023

Legend

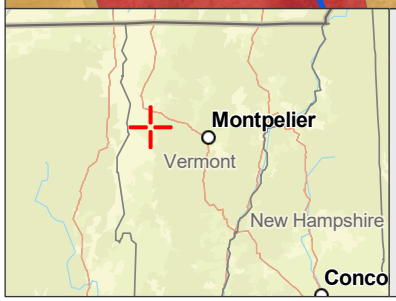
- Parcel Boundary
- Drainage Area Boundary
- Catchbasin
- Stormwater Manhole
- Outfall
- Pond outlet structure
- Retrofit
- Storm line
- Swale
- Under drain
- Overland flow
- Streams
- VSWI Wetlands
- VSWI Wetlands Advisory
- River Corridors

0 175 350 Feet

Scale: 1" = 238'

N

WATERSHED CONSULTING



The Cheese Plant Commercial Suites

(Map 3 of 3)

VT Route 116, Hinesburg, VT

Map Date: 1/31/2023

Legend

- Parcel Boundary
- Drainage Area Boundary
- Catchbasin
- Stormwater Manhole
- Outfall
- Pond outlet structure
- Retrofit
- Storm line
- Swale
- Under drain
- Overland flow
- Streams
- Floodway
- 1% Annual Chance of Flood

0 175 350 Feet

Scale: 1" = 238'

N

WATERSHED CONSULTING

APPENDIX B

State of Vermont

LAND USE PERMIT

AMENDMENT

CASE NO	4C0528-11A	**LAWS/REGULATIONS INVOLVED**
APPLICANT	Catamount-Malone/Hinesburg, LLC	10 V.S.A. §§ 6001 - 6092 (Act 250)
ADDRESS	210 College Street Burlington, VT 05401	

District Environmental Commission #4 hereby issues Land Use Permit Amendment 4C0528-11A, pursuant to the authority vested in it by 10 V.S.A. §§ 6001-6092. This permit amendment applies to the lands identified in Book 213, Pages 733-734, of the land records of the Town of Hinesburg, Vermont, as the subject of a deed to Catamount-Malone/Hinesburg, LLC, the Permittees as Grantees.

This permit specifically authorizes the Permittees to fill in three abandoned lagoons - earthen lagoons with liners which will be removed - and return the area to match the existing grade. The project is located on the western end of the former cheese plant site at 10516 Route 116 in the Town of Hinesburg, Vermont.

The project is subject to Act 250 jurisdiction because the project involves a material change to a development over which the Commission has jurisdiction, and thus constitutes "development" pursuant to 10 V.S.A. § 6001(3)(A). Accordingly, a land use permit amendment is required pursuant to Act 250 Rule 34.

The Permittees, and their assigns and successors in interest, are obligated by this permit to complete, operate and maintain the project as approved by the District Commission in accordance with the following conditions:

1. All conditions of Land Use Permit #4C0528 and amendments are in full force and effect except as amended herein.

2. Representatives of the State of Vermont shall have access to the property covered by this permit, at reasonable times, for the purpose of ascertaining compliance with Vermont environmental and health statutes and regulations and with this permit.

3. The project shall be completed, operated and maintained in accordance with the plans and exhibits on file with the District Environmental Commission and the conditions of this permit.

4. The approved plan is:

   Sheet SP1 - “Site Plan,” dated January 17, 2011, last revision November 15, 2011.

5. A copy of this permit and approved plan shall be on the site at all times throughout the construction process.

6. No changes shall be made in the design or use of this project without the written approval of the District Coordinator or the Commission, whichever is appropriate under the Act 250 Rules.

7. Pursuant to Act 250 Rule 51(G), the permit application and material representations relied upon during the review and issuance of this permit by the District Commission shall provide the basis for determining future substantial and material changes to the approved project and for initiating enforcement actions.

8. The District Environmental Commission maintains continuing jurisdiction during the lifetime of the permit and may periodically require that the permit holder file an affidavit certifying that the project is being completed, operated and maintained in accordance with the terms of the permit, as provided by 10 V.S.A. §§ 6001-6092 and the rules of the Natural Resources Board (Act 250 Rules).

9. The conditions of this permit and the land uses permitted herein shall run with the land and are binding upon and enforceable against the Permittees and their successors and assigns.

10. The Permittees shall comply with Exhibit #4 (Schedule B) for erosion control. The Permittees shall prevent the transport of any sediment beyond that area necessary for construction approved herein. All erosion control devices shall be periodically cleaned, replaced and maintained until vegetation is permanently established on all slopes and disturbed areas. The Commission reserves the right to schedule hearings and site inspections to review erosion control and to evaluate and impose additional conditions with respect to erosion control as it deems necessary.

11. All mulch, siltation dams, water bars and other temporary devices shall be installed immediately upon grading and shall be maintained until all roads are permanently surfaced and all permanent vegetation is established on all slopes and disturbed areas. Topsoil stockpiles shall have the exposed earth completely mulched and have siltation checks around the base.

12. All areas of disturbance must have temporary or permanent 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 within 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. house foundation excavation, utility trenches).

13. All disturbed areas of the site shall be stabilized, either seeded and mulched or covered in stone or rolled erosion control matting immediately upon completion of final grading. All disturbed areas not involved in winter construction shall be double mulched and seeded before September 15. Between the periods of October 15 to April 15, all earth disturbing work shall conform with the "Winter Construction" standards and specifications of the *Vermont Standards & Specifications for Erosion Prevention & Sediment Control* (2006).

14. Prior to construction of the approved work, the Permittees shall complete the following: a) construction limits shall be clearly delineated with flagging or snowfencing; b) diversion ditches shall be placed on the uphill limits of the construction area; and c) temporary siltation controls shall be placed on the downhill limits of the construction. Immediately following the above, the permanent drainage system and/or roads shall be installed after which normal construction can begin.

15. A copy of the approved erosion control plan shall be on the site at all times during construction.

16. In addition to conformance with all erosion control conditions, the Permittees shall not cause, permit or allow the discharge of waste material into any surface waters. Compliance with the requirements of this condition does not absolve the Permittees from compliance with 10 V.S.A. (§§ 1250-1284) Chapter 47, Vermont's Water Pollution Control Law.

17. The Permittees shall maintain a 50-foot undisturbed, naturally vegetated buffer strip between all watercourses on the project site and any disturbed areas.

18. All stumps shall be disposed of on-site above the seasonal high water table or at a State approved landfill so as to prevent groundwater pollution.

19. At the completion of the project, the Permittees shall certify by affidavit that the site improvements have been constructed in accordance with this permit pursuant to Act 250 Rule 32(A).

20. The Permittees shall reference the requirements and conditions imposed by Land Use Permit #4C0528-11A in all deeds of conveyance and leases.

21. Pursuant to 10 V.S.A. § 6090(c) this permit amendment is hereby issued for an indefinite term, as long as there is compliance with the conditions herein. Notwithstanding any other provision herein, this permit shall expire three years from the date of issuance if the Permittees have not commenced construction and made substantial progress toward completion within the three year period in accordance with 10 V.S.A. § 6091(b).

22. The Permittees shall file a Certificate of Actual Construction Costs, on forms available from the Natural Resources Board, pursuant to 10 V.S.A. § 6083a(g) within one month after construction has been substantially completed or two years from the date of this permit, whichever shall occur first. Application for extension of time for good cause shown may be made to the District Commission. If actual construction costs exceed the original estimate, a supplemental fee based on actual construction costs must be paid at the time of certification in accordance with the fee schedule in effect at the time of application. Upon request, the Permittees shall provide all documents or other information necessary to substantiate the certification. Pursuant to existing law, failure to file the certification or pay any supplemental fee due constitutes grounds for permit revocation. The certificate of actual construction costs and any supplemental fee (by check payable to the "State of Vermont") shall be mailed to: Natural Resources Board, National Life Records Center Building, National Life Drive, Montpelier, VT 05620-3201; Attention: Certification.

23. Failure to comply with all of the above conditions may be grounds for permit revocation pursuant to 10 V.S.A., § 6027(g).

Dated at Essex Junction, Vermont, this 10th day of May, 2012.

By /s/ Stephanie H. Monaghan
Stephanie H. Monaghan, District Coordinator
As authorized by Marcy Harding, Vice Chair
District #4 Commission

Members participating in this decision:

Larry Veladota
Parker Riehle

Any party may file a **motion to alte**r with the District Commission within 15 days from the date of this decision, pursuant to Act 250 Rule 31(A).

Any **appeal** of this decision must be filed with the Superior Court, Environmental Division within 30 days of the date the decision was issued, pursuant to 10 V.S.A. Chapter 220. The Notice of Appeal must comply with the Vermont Rules for Environmental Court Proceedings (VRECP). The appellant must file with the Notice of Appeal the entry fee required by 32 V.S.A. § 1431 and the 5% surcharge required by 32 V.S.A. § 1434a(a), which is $262.50 as of January 2011.

The appellant must also serve a copy of the Notice of Appeal on the Natural Resources Board, National Life Records Center Building, Montpelier, VT 05620-3201, and on other parties in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

Decisions on minor applications may be appealed only if a hearing was held by the district commission. Please note that there are certain limitations on the right to appeal. See 10 V.S.A. § 8504(k).

For additional information on filing appeals, see the Court's website at:
http://www.vermontjudiciary.org/GTC/environmental/default.aspx or call (802) 828-1660. The Court's mailing address is: Superior Court, Environmental Division, 2418 Airport Road, Suite 1, Barre, VT 05641-8701.

SCHEDULE A
Fee Information
(Effective July 1, 2010)

Submit with the application a check payable to the "State of Vermont". Municipal and state agency projects are exempt from fees but should still report construction costs on this form. Not-for-profit organizations are not exempt. Calculate the fee using the following table:

Note: All lines on the schedule must be filled out. If a line does not apply, or if there is no associated cost, enter 0. An incomplete schedule will result in a delay in application processing.

1) Number of lots to be created _____ x $100.00 = $_____

2) Gravel Pits: $.20/cubic yard of the proposed maximum rate of annual extraction = $_____

3) Construction costs:*

Site preparation . . . . . $ 5,000

Buildings:
a) sq. ft. _____
b) $ per sq. ft. _____
Total (a x b) . . . . . $_____
Roads and parking . . . . . $_____
Utilities . . . . . $_____
Off-site improvements . . . . . $_____
Landscaping . . . . . $_____
Other **Fill**. . . . . $_____
Total costs: $_____ x 0.00540 = $_____**

4) **Total Fee (Sections 1 + 2 + 3) =** $_____***

* For residential subdivisions, include the estimated construction cost of all improvements proposed to be constructed by the applicant or a related person or entity, including common facilities, infrastructure, dwellings, and other. (For more information, see definition of "person" at 10 V.S.A. § 6001(14).) (www.nrb.state.vt.us/lup/statute.htm)

** For projects exceeding $15,000,000 in total cost, multiply the first $15,000,000 in costs X .00540 and multiply the balance of the costs X .00250. See 10 V.S.A. § 6083a (www.nrb.state.vt.us/lup/statute.htm) for the complete schedule of fees.

*** Minimum fee of **$150** for new applications
Minimum fee of **$50** for amendment applications
Maximum total application fee is $150,000.00
Treat expansions of approved projects as new applications.

I attest by my signature that the above is true to the best of my knowledge:

_____
(signature of applicant or agent)

Certificate of Actual Construction Costs

Effective July 1, 2010

Print Permittee's Name: Catamount-Malone/Hinesburg, LLC **Permit** ***#4C0528-11*** _____ **Date** _____

The permittee(s) shall file this certificate of actual construction costs pursuant to 10 V.S.A. § 6083a(g) within one month after construction has been substantially completed or two years from the date of this permit, whichever shall occur first. (Application for extension of time for good cause shown may be made to the District Commission.) If actual construction costs exceed the original estimate, a supplemental fee based on actual construction costs must be paid at the time of certification. Upon request, the permittee(s) shall provide all documents or other information necessary to substantiate the certification. Pursuant to 10 V.S.A. § 6083a(g), failure to file the certification or pay any supplemental fee due are grounds for permit revocation.

1) Number of lots created _____ x $100.00 = $_____

2) Gravel Pits: $.20/cubic yard of the proposed maximum rate of annual extraction = $_____

3) Actual Construction costs:*

Site preparation . . . . . $_____

Buildings:

a) sq. ft. _____

b) $ per sq. ft. _____

Total (a x b) . . . . . .$_____

Roads and parking . . . . . $_____

Utilities . . . . . $_____

Off-site improvements . . . . $_____

Landscaping . . . . . .$_____

Other _____. . . . $_____

Total Actual Construction Costs: $_____ x 0.00540 = $_____

4) Total Fee (Sections 1+2+3) = $_____***

5) Original Fee Submitted = $_____

6) Supplemental Fee to be submitted to Natural Resources Board (Section 4 - Section 5) = $_____

* For residential subdivisions, include the estimated construction cost of all improvements proposed to be constructed by the applicant or a related person or entity, including common facilities, infrastructure, dwellings, and other. (For more information, see definition of "person" at 10 V.S.A. § 6001(14).) (www.nrb.state.vt.us/lup/statute.htm)

** For projects exceeding $15,000,000 in total cost, multiply the first $15,000,000 in costs X .00540 and multiply the balance of the costs X .00250. See 10 V.S.A. § 6083a (www.nrb.state.vt.us/lup/statute.htm) for the complete schedule of fees.

Continues on Page 2

Certificate of Actual Construction Costs
Page 2

*** Minimum fee of **$150** for new applications
Minimum fee of **$50** for amendment applications
Maximum total application fee is $150,000.00

I attest by my signature under 13 V.S.A. § 3016 (FALSE CLAIM) that the above is true to the best of my knowledge:

_____
(signature of applicant or agent)

This certificate of actual construction costs and any supplemental fee (by check payable to the "State of Vermont") should be mailed to: Natural Resources Board, National Life Records Center Building, National Life Drive, Montpelier, VT 05620-3201.

SCHEDULE E
Adjoiner Information

Submit with the application a list of all adjoining landowners with mailing addresses. An "adjoiner" is a person or organization which owns or controls land or easements on lands which physically abut the tract or tracts of land on which your project is located. Be certain to include landowners on the opposite sides of highways, railways, and rivers. Also include homeowner associations, utility companies, and others with significant legal interest in the project land. It is very helpful if you indicate the location of each adjoiner on your site plan.

If you do not provide a list which is thorough and up-to-date, your application could be delayed because of improper notice distribution!

Please note: For lists which include more than 20 adjoining landowners, our administrative staff appreciates receiving the list on mailing labels to facilitate the notification process. Thank you.

NAME MAILING ADDRESS WITH ZIP CODE

ADJOINERS

Thomas and Wendy Needham
737 S. Ithan Avenue
Rosemont, PA 19010

United Church of Hinesburg
Route 116
Hinesburg, VT 05461

Joe Colangelo, Administrator
Town Hall
Hinesburg, VT 05461

John K. and Amy L. Lyman
Box 528
Hinesburg, VT 05461

Michael Hadon
213 Farmall Drive
Hinesburg, VT 05461

Guy Maglaris
227 Farmall Drive
Hinesburg, VT 05461

Michael Loner
175 Farmall Drive
Hinesburg, VT 05461

John Lozell
187 Farmall Drive
Hinesburg, VT 05461

Kelly Lavigne
195 Farmall Drive
Hinesburg, VT 05461

Nathan and Sharon Miller
207 Farmall Drive
Hinesburg, VT 05461

Andrew and Nadine Leise
233 Farmall Drive
Hinesburg, VT 05461

Gabriel Tomkowicz and Elizabeth Allis
247 Farmall Drive
Hinesburg, VT 05461

Victoria Perry
25 Kelley's Field Road
Hinesburg, VT 05461

Paige Larson
25 Kelly's Field Road
Hinesburg, VT 05461

Joshua Trombly
25 Kelly's Field Road
Hinesburg, VT 05461

Kristin Gawryczik
25 Kelly's Field Road
Hinesburg, VT 05461

SCHEDULE F
Certification of Service and Notice of Application

You are required by 10 V.S.A. § 6084 to send notice and a copy of your application to the municipality, the municipal and regional planning commission in which the land is located, the Vermont Agency of Natural Resources (Division of Regulatory Management & Act 250 Review, Agency of Natural Resources, 103 South Main Street, Ctr. Bldg., 3rd Floor, Waterbury, VT 05671-0301), and any adjacent Vermont municipality, municipal or regional planning commission if the land is located on a boundary on or before the date of filing your application with the district commission. You are also required to send notice and a copy of your application to the solid waste management district in which the land is located, if the development or subdivision constitutes a facility pursuant to subdivision 6602(10) of Title 10 V.S.A. Chapter 151. You must also **post** a copy of the notice in the town clerk's office of the town or towns where the land is located. A notice form is attached for your convenience.

In order to verify that the statutory parties to the application have received copies of the application and thus avoid delay caused by improper distribution of the application, have a representative of the parties sign this form when they receive the application. You may, in the alternative, send copies of the notice and application by Certified U.S. Mail, UPS/Federal Express, or courier and list the names below.

Applicant(s) Name: Catamount-Malone/Hinesburg, LLC

I, the undersigned, have received a copy of an Act 250 application for the above applicant(s).

delivered to the Hinesburg town clerk	4/3/12
for the selectmen, aldermen, or trustees	date
delivered to Planning Commission office	4/3/12
for the municipal planning commission	date
Sent via USPS mail	4/3/12
for the regional planning commission	date
Sent via USPS mail	4/3/12
for the Agency of Natural Resources	date
for an adjacent municipality, if any*	date
for an adjacent planning commission, if any*	date
for an adjacent regional planning commission, if any*	date
for regional solid waste management district, if applicable	date

I hereby certify that I have forwarded a complete copy of this application to each of the parties entitled to notice pursuant to 10 V.S.A. Section 6084 and that I have posted a copy of the notice of application in the town clerk's office(s).

for Debra A. Bell - TLE	4/3/12
Applicant(s)/Agent Signature	**Date**

* Attach additional sheets if more than one town is adjacent to the project lands.

Schedule F - Notice

Note To Applicants: **This notice must be included with all copies of the application. You must also post, or cause to be posted, a copy of this notice in the town clerk's office of the town or towns wherein the land proposed for subdivision or development lies.**

Notice of Act 250 Application

By application dated April 3rd 2012, (name and address of applicant)
Catamount - Malone/Hinesburg, LLC
210 College St, Burlington, VT 05401 filed an application pursuant to 10 V.S.A. § 6001 *et seq.* ("Act 250") to: (description of project including road location and Town)
Three lagoons are located on the western end of the former Cheese factory off of Rte 116 in Hinesburg's Town Center. These lagoons were formerly part of the wastewater treatment system for the former cheese plant. These lagoons have been cleared of hazardous waste material. The applicant would like to fill in these lagoons to match existing grade in the area.
A copy of this application may be reviewed at the Town Offices, Town of Hinesburg, Vermont (contact the Town Clerk or Administrator).

Signature Melissa B. Rum
Date 4/3/2012

In the event you wish to receive further notice concerning this application, please contact the district office for your area:

Environmental Comm.
Districts #1 and 8
440 Asa Bloomer State
Office Building
4th Floor 88 Merchants Row
Rutland, VT 05701
(Tel. 786-5920)

Environmental Comm.
Districts #4, 6 and 9
111 West St.
Essex Jct., VT 05452
(Tel. 879-5614)

Environmental Comm.
District #7
1229 Portland St.
Suite 201
St. Johnsbury, VT 05819
(Tel. 751-0120)

Environmental Comm.
Districts #2 and 3
100 Mineral Street
Suite #305
Springfield, VT 05156
(Tel. 885-8855)

Environmental Comm.
District #5
5 Perry Street, Suite 60
Barre, VT 05641
(Tel. 476-0185)

SCHEDULE G

Act 250 Participants

Please list below the name and town of residence for all persons not listed on the Cover Sheet who are affiliated with the applicant(s) for the project or who may be involved in presenting the applicant's case as an agent or representative. This information will help District Commissioners to determine if they have potential conflicts of interest. Full and early disclosure of this information will help to avoid delays later in the process. Thank you.

Additional Applicants, Landowners, or Persons Affiliated with the Applicant for the Project: [Examples of affiliation include partners, directors, officers, court appointed guardians, family members (e.g. spouse, parents, children), entity members, stockholders (if share is greater than 5%), or any professional whose benefit from the proposed Project indicates more than an agency relationship with the Applicant(s). If you have questions, please contact the district coordinator.]

Name (Print) Town of Residence / Incorporation

_____

_____

_____

Consultants, Attorneys, or other Agents of the Applicant:

Name (Print) Town of Residence

_____

_____

_____

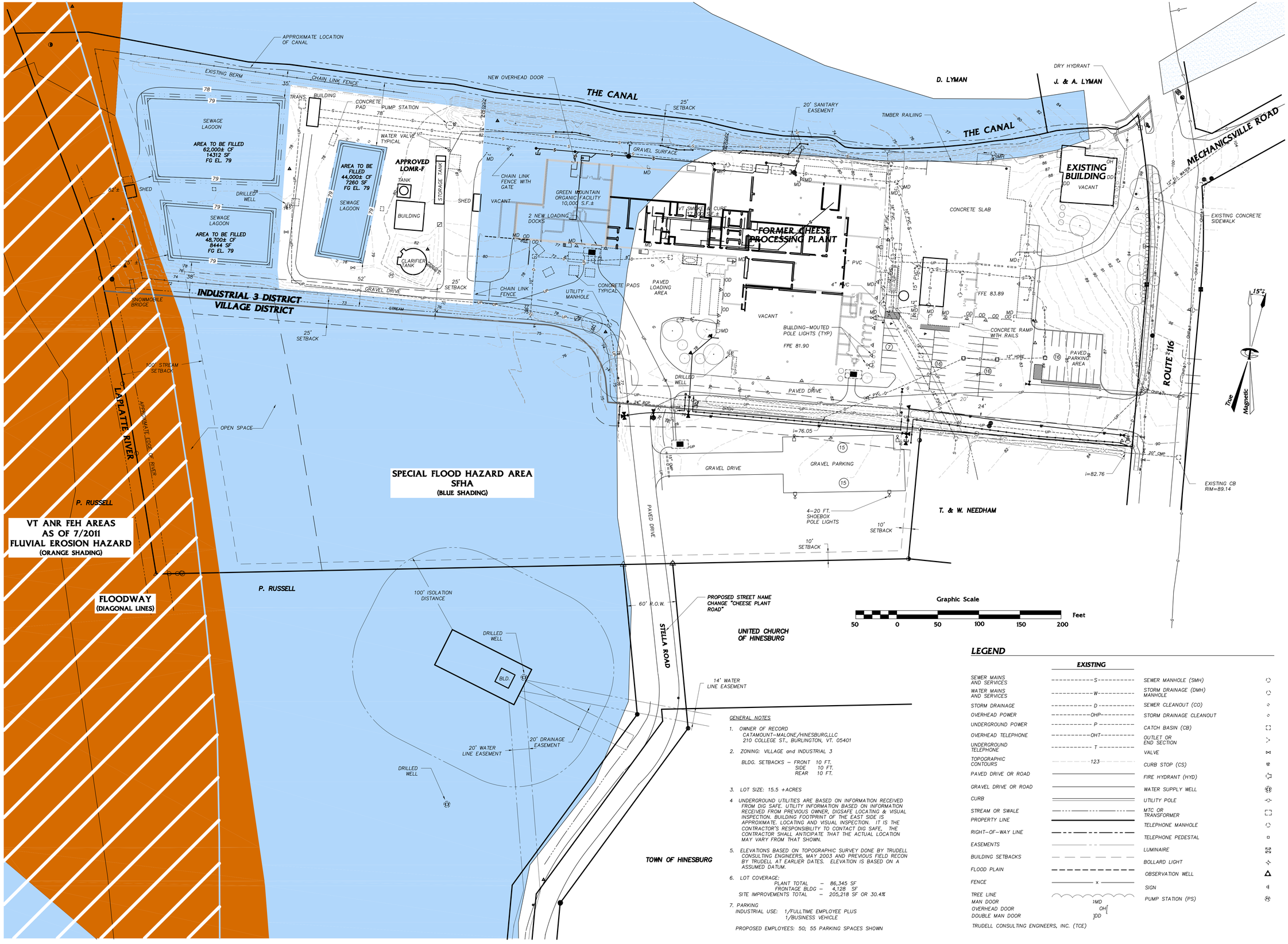
Witnesses for the Applicant (if known at this time):

Name (Print) Town of Residence

_____

_____

_____



GENERAL NOTES

1. OWNER OF RECORD
   CATAMOUNT-MALONE/HINESBURG,LLC
   210 COLLEGE ST., BURLINGTON, VT. 05401
2. ZONING: VILLAGE and INDUSTRIAL 3
   BLDG. SETBACKS - FRONT 10 FT.
   SIDE 10 FT.
   REAR 10 FT.
3. LOT SIZE: 15.5 +ACRES
4. UNDERGROUND UTILITIES ARE BASED ON INFORMATION RECEIVED FROM DIG SAFE. UTILITY INFORMATION BASED ON INFORMATION RECEIVED FROM PREVIOUS OWNER, DIGSAFE LOCATING & VISUAL INSPECTION. BUILDING FOOTPRINT OF THE EAST SIDE IS APPROXIMATE. LOCATING AND VISUAL INSPECTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT DIG SAFE. THE CONTRACTOR SHALL ANTICIPATE THAT THE ACTUAL LOCATION MAY VARY FROM THAT SHOWN.
5. ELEVATIONS BASED ON TOPOGRAPHIC SURVEY DONE BY TRUDELL CONSULTING ENGINEERS, MAY 2003 AND PREVIOUS FIELD RECON BY TRUDELL AT EARLIER DATES. ELEVATION IS BASED ON A ASSUMED DATUM.
6. LOT COVERAGE:
   PLANT TOTAL - 86,345 SF
   FRONTAGE BLDG - 4,128 SF
   SITE IMPROVEMENTS TOTAL - 205,218 SF OR 30.4%
7. PARKING
   INDUSTRIAL USE: 1/FULLTIME EMPLOYEE PLUS 1/BUSINESS VEHICLE

PROPOSED EMPLOYEES: 50; 55 PARKING SPACES SHOWN

LEGEND

EXISTING			
SEWER MAINS AND SERVICES	S	SEWER MANHOLE (SMH)	
WATER MAINS AND SERVICES	W	STORM DRAINAGE (DMH) MANHOLE	
STORM DRAINAGE	D	SEWER CLEANOUT (CO)	
OVERHEAD POWER	OHP	STORM DRAINAGE CLEANOUT	
UNDERGROUND POWER	P	CATCH BASIN (CB)	
OVERHEAD TELEPHONE	OHT	OUTLET OR END SECTION	
UNDERGROUND TELEPHONE	T	VALVE	
TOPOGRAPHIC CONTOURS	123	CURB STOP (CS)	
PAVED DRIVE OR ROAD		FIRE HYDRANT (HYD)	
GRAVEL DRIVE OR ROAD		WATER SUPPLY WELL	
CURB		UTILITY POLE	
STREAM OR SWALE		MTC OR TRANSFORMER	
PROPERTY LINE		TELEPHONE MANHOLE	
RIGHT-OF-WAY LINE		TELEPHONE PEDESTAL	
EASEMENTS		LUMINAIRE	
BUILDING SETBACKS		BOLLARD LIGHT	
FLOOD PLAIN		OBSERVATION WELL	
FENCE	x	SIGN	
TREE LINE		PUMP STATION (PS)	
MAN DOOR	MD		
OVERHEAD DOOR	OH		
DOUBLE MAN DOOR	DD		

TRUDELL CONSULTING ENGINEERS, INC. (TCE)

TRUDELL CONSULTING ENGINEERS, INC.

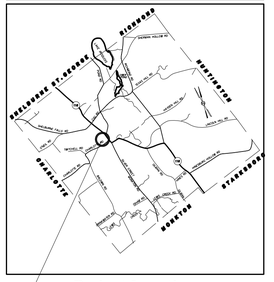
478 Blair Park Road P.O. Box 308 (802) 879-6331(phone)
(802) 879-0060(fax)
Visit Us on the Web at: www.TrudellConsulting.com

THESE PLANS ARE SUITABLE FOR THE PURPOSE OF:

- CEPTUAL APPROVAL SUBMISSION
- PRELIMINARY APPROVAL SUBMISSION
- ACT 250 SUBMISSION
- FINAL APPROVAL SUBMISSION
- CONSTRUCTION DRAWINGS

USE AND INTERPRETATION OF THE DRAWINGS

1. Drawings prepared for submittal are intended for preliminary planning, coordination with other disciplines, utilities, and approving authorities. They are not intended as final drawings or construction drawings.
2. ...rrors are discovered they are to be brought to the attention of Trudell Consulting Engineers, Inc. before using. By use of these drawings for construction of the Project, the Owner represents that (he/she) has reviewed, approved, and accepted the drawings. The drawings shall be considered "Final Approval Submission" once they receive state and local approval.
3. As instruments of service these drawings and copies thereof furnished by the Engineer are his property. Changes to the drawings may only be made by the Engineer.
4. It is the User's responsibility to ensure this copy contains the most current revisions.



Project Location

No.	Description	Date	By
4	Conditional Use to Fill Lagoons	11/15/11	DAB
3	Add Sewer, Water, LP Gas & Elec.	08/23/11	RPT
2	Notice of Decision, water service	05/27/11	DAB
1	Staff Comments	01/31/11	DAB

Revisions

STATE OF VERMONT RICHARD P. TRUDELL NO. 3091 CIVIL LICENSED PROFESSIONAL ENGINEER

Project Title

The Cheese Plant

Route 116
Hinesburg, Vermont

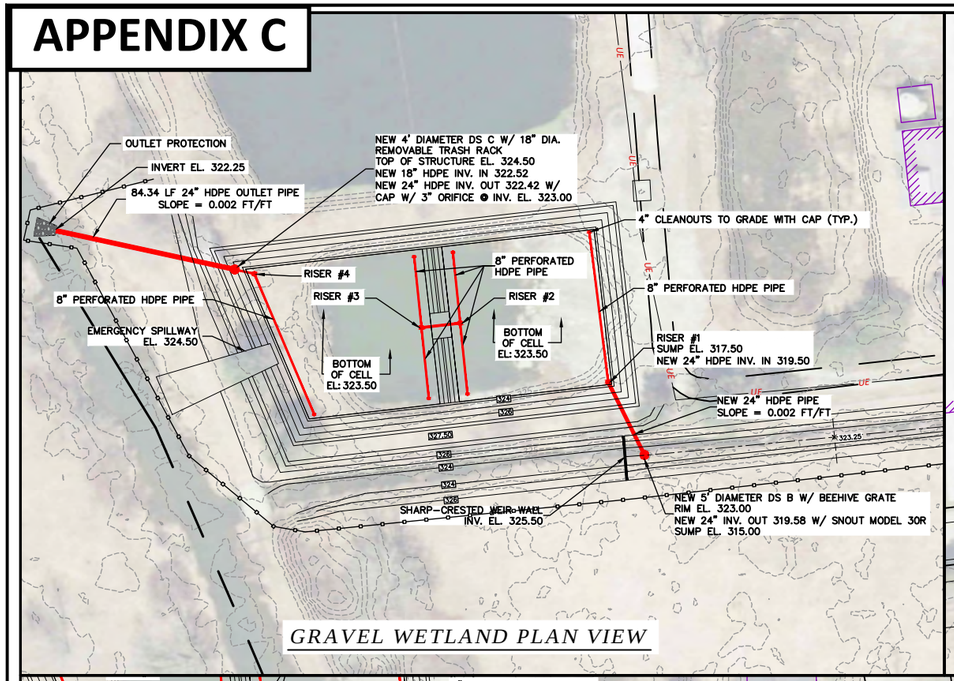
Sheet Title

Site Plan

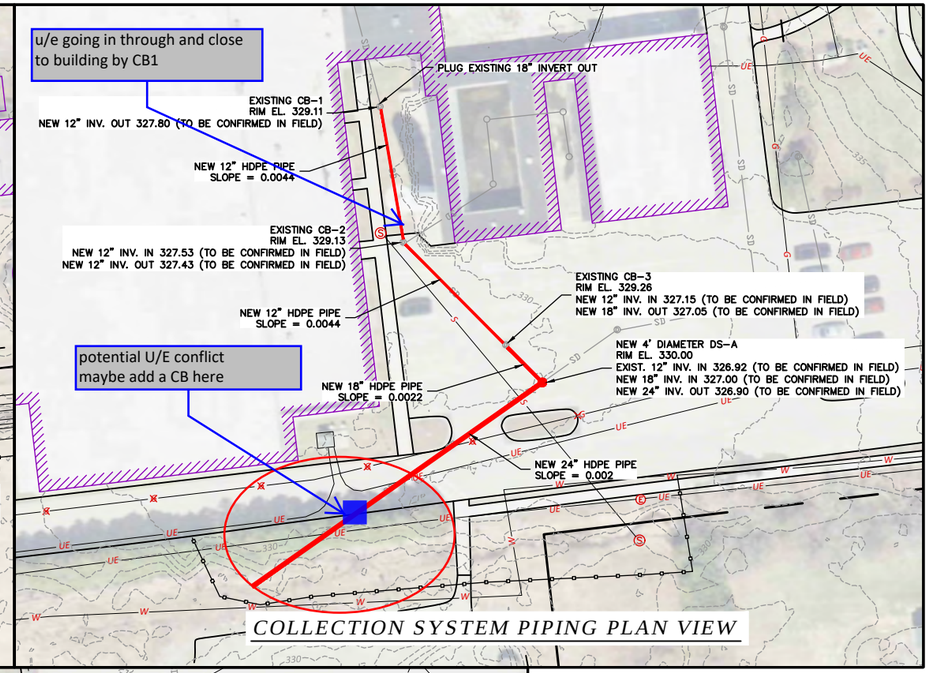
Drawing Number : 2011003-51 Extension : 1
Project manager : DAB Drawn : NPC
Date : 01/17/11 F.B. 144 Scale : 1" = 50'
Project reference : 97068 X-Ref : 2011003clc
Bench File : XXX
Approved

SP1

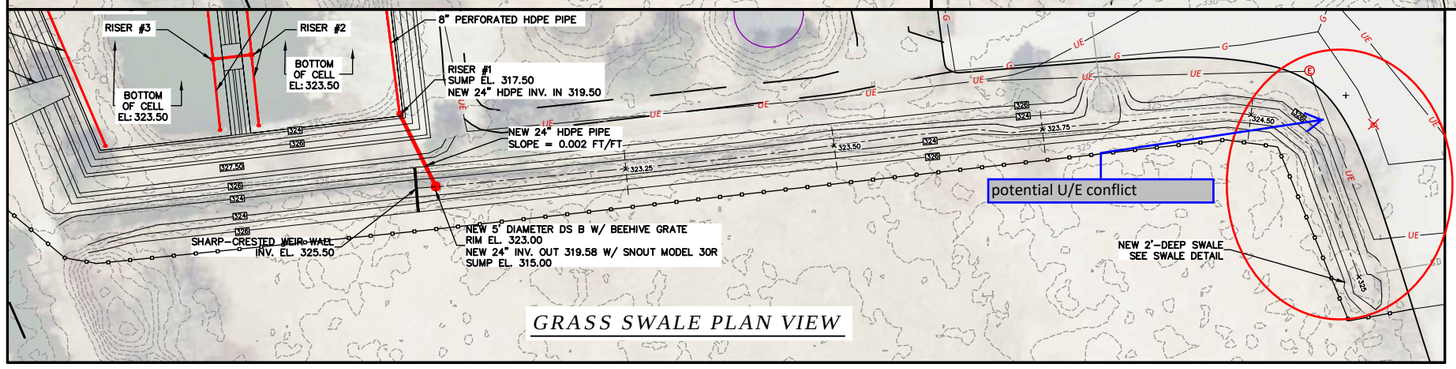
APPENDIX C



GRAVEL WETLAND PLAN VIEW



COLLECTION SYSTEM PIPING PLAN VIEW



GRASS SWALE PLAN VIEW

SITE PLAN

SCALE: 1" = 70'

LEGEND:

EXISTING

SYMBOL	DESCRIPTION
SD	STORM DRAIN LINE
W	WATER LINE
UE UE UE	UNDERGROUND ELECTRIC LINE
G G G	GAS LINE
Ⓢ	SEWER MANHOLE
Ⓓ	DRAINAGE STRUCTURE
	CONTOURS
	BUILDING OUTLINE

PROPOSED

- DRAINAGE STRUCTURE
- STORM DRAIN PIPE
- OUTLET PROTECTION PAD
- FINISHED GRADING CONTOUR
- SILT FENCE

APPROXIMATE MAP NORTH

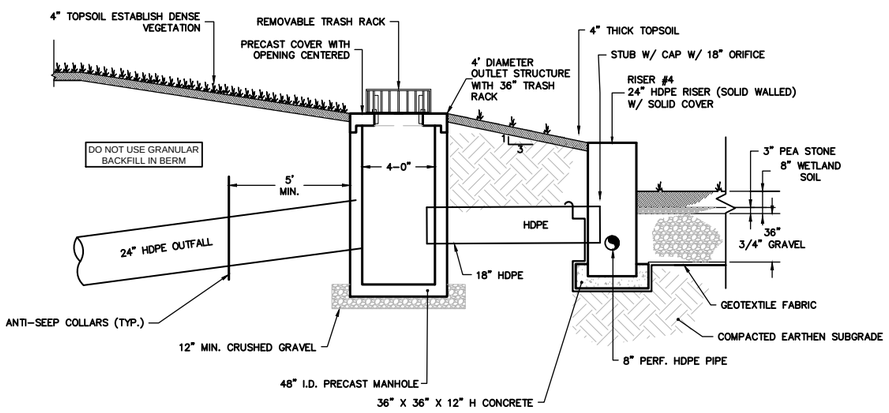
SCALE: 1" = 70'

0 17.5 35 70

Overall Total Area Managed (acres)	Overall Impervious Area Managed (acres)	3-Acre Site Total Impervious Area (acres)	3-Acre Site Impervious Area Managed (acres)	*Phosphorus Load (kg/yr)	*Project Phosphorus Removal Efficiency (%)	*Project Phosphorus Reduction (kg/yr)	*Cost per kg Reduced Phosphorus Annually ($/kg)
13.61	6.71	5.54	4.65	7.57	57%	4.30	$ 5,666

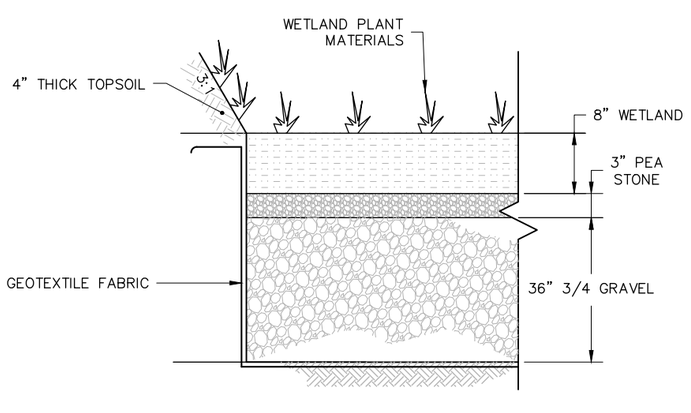
- This conceptual design features a Gravel Wetland installed at The Cheese Plant industrial park to treat stormwater runoff from portions of Hinesburg Village, including VT Route 116, the Cathedral Square housing complex on Kelleys Field Road, the Hinesburg Public House, and The Cheese Plant. The Cheese Plant is a "3-acre site" and is required to obtain permit coverage under General Permit 3-9050.
- The project treats runoff from the 1" storm event from 84% of The Cheese Plant's impervious surface and meets the redevelopment standard for the site under 3-9050.
- The design includes the rehabilitation of an existing grass swale for pre-treatment, and a diversion structure within the swale to divert runoff from the 1" storm event to the Gravel Wetland while allowing runoff from larger storm events to pass through and discharge to the La Platte River. The Gravel Wetland is proposed in the location of a former cheese processing waste lagoon.
- Sizing of the Gravel Wetland assumes the completion and expansion of a floodplain restoration project to divert Lewis Creek into a naturalized flow path west of Stella Road.
- A total implemented cost estimate of $625,000 was developed by Hoyle, Tanner & Associates, Inc.

*from the Agency of Natural Resources Stormwater Treatment Practice Calculator
^Analysis does not include costs associated with final and construction engineering



OUTLET DETAIL

SCALE: NOT TO SCALE

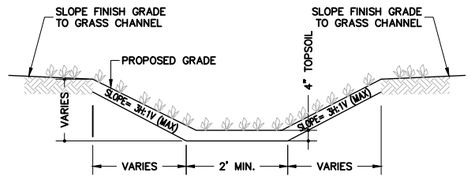


GRAVEL WETLAND DETAIL

SCALE: NOT TO SCALE

NOTES:

1. THE GRASS CHANNEL SLOPE SHALL BE AS SHOWN ON DRAWING.



GRASS CHANNEL SECTION DETAIL

SCALE: NOT TO SCALE

30% CONCEPT DESIGN
NOT FOR CONSTRUCTION

ENGINEER

DATE	DESCRIPTION	ISSUE

HOYLE, TANNER PROJECT NO. 129200

FILE NAME HINESBURG

DRAWN BY MMI

CHECKED BY KDW

DESIGNED BY KDW

DATE: MAY 2021

SCALE: AS SHOWN

Hoyle, Tanner & Associates, Inc.
125 College Street–4th Floor, Burlington, VT 05401
Tel (802) 860-1331 Fax (802) 860-6499 Web: www.hoyletanner.com

STATE OF VERMONT
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

HINESBURG
GRAVEL WETLAND

FIGURE NO. 1

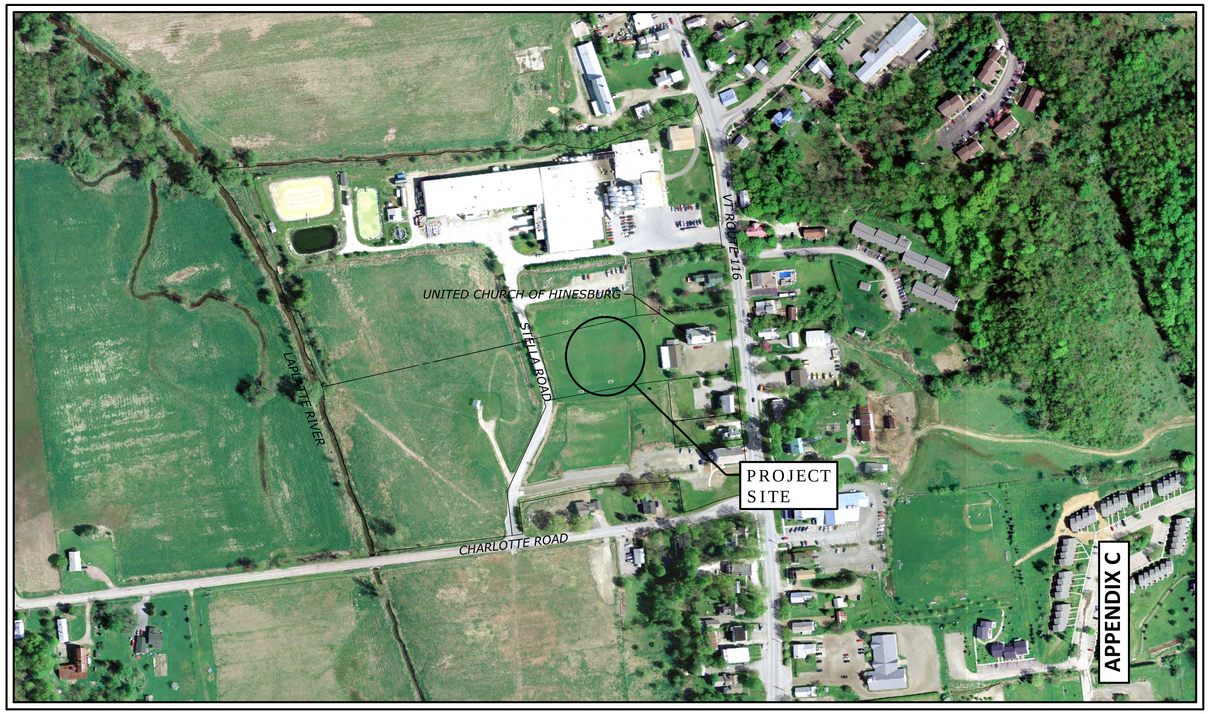
SHEET 1 OF 1

APPENDIX D

WETLANDS RESTORATION IN HINESBURG VILLAGE

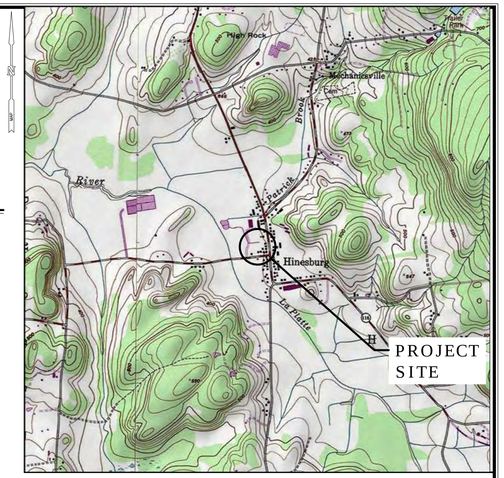
VT ROUTE 116
HINESBURG, VERMONT

FINAL DESIGN
DECEMBER 10, 2021



PROJECT SITE VICINITY MAP:

0' 100' 200'
0 1/2" 1"
SCALE 1" = 200'



LOCATION MAP:

0' 1000' 2000'
0 1/2" 1"
SCALE 1" = 2000'

PREPARED FOR:

LEWIS CREEK ASSOCIATION
PO BOX 313
CHARLOTTE, VERMONT 05445

LIST OF DRAWINGS

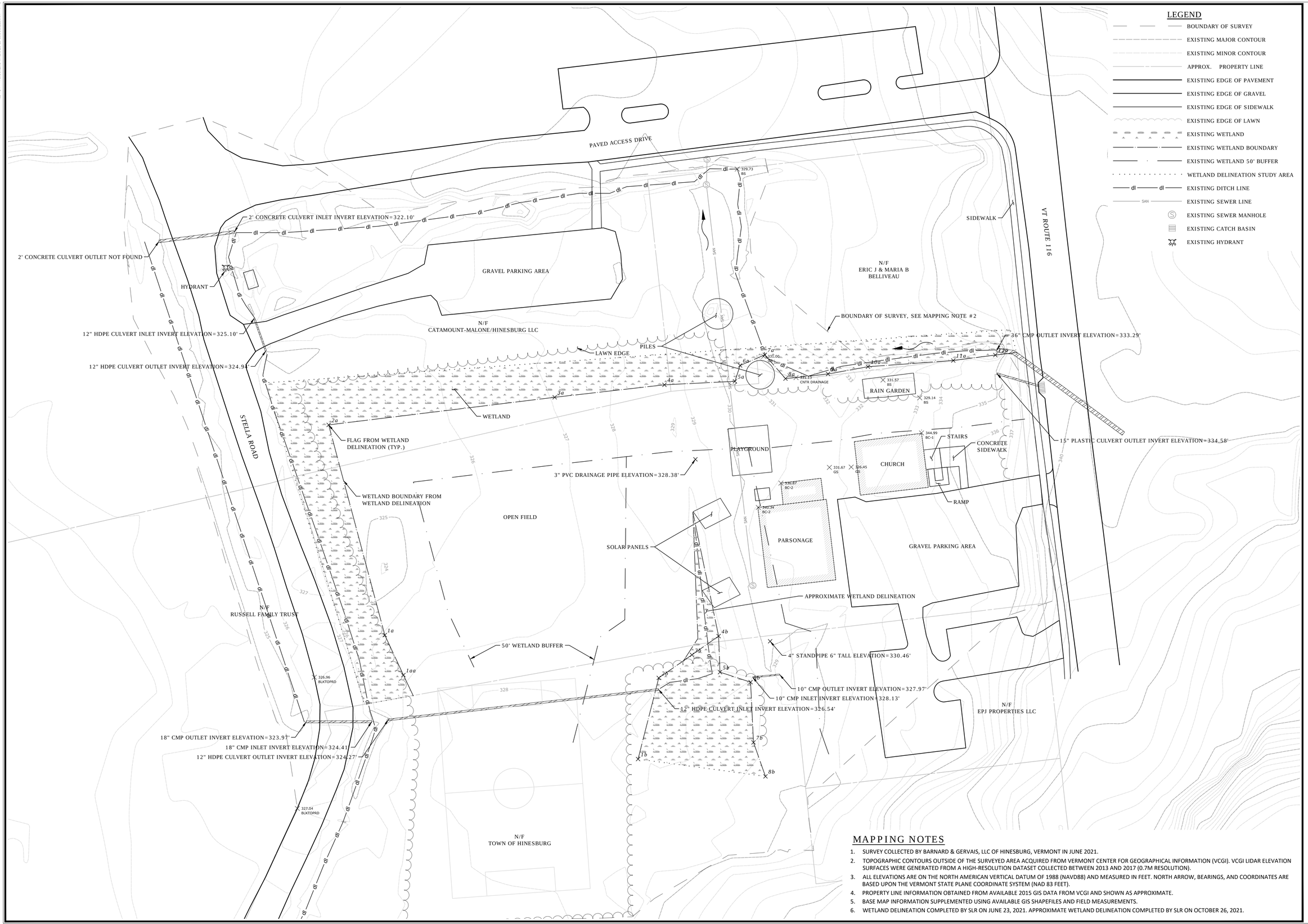
NO.	NAME	TITLE
0#	--	TITLE
0#	SP1	SITE PLAN - EXISTING CONDITIONS
0#	SP2	SITE PLAN - PROPOSED CONDITIONS
04	SP3	SITE PLAN - GRADING & IMPACTS
05	SP4	SITE PLAN - RESTORATION
06	SP5	SITE PLAN - CONSTRUCTION ACCESS
07	XS	CROSS SECTIONS
08	DET	DETAILS

PREPARED BY:

SLR

1 SOUTH MAIN STREET
WATERBURY, VT 05676
802.882.8335
SLRCONSULTING.COM

811
Know what's **below.**
Call before you dig.
www.cbyd.com



MAPPING NOTES

1. SURVEY COLLECTED BY BARNARD & GERVAIS, LLC OF HINESBURG, VERMONT IN JUNE 2021.
2. TOPOGRAPHIC CONTOURS OUTSIDE OF THE SURVEYED AREA ACQUIRED FROM VERMONT CENTER FOR GEOGRAPHICAL INFORMATION (VCGI). VCGI LIDAR ELEVATION SURFACES WERE GENERATED FROM A HIGH-RESOLUTION DATASET COLLECTED BETWEEN 2013 AND 2017 (0.7M RESOLUTION).
3. ALL ELEVATIONS ARE ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND MEASURED IN FEET. NORTH ARROW, BEARINGS, AND COORDINATES ARE BASED UPON THE VERMONT STATE PLANE COORDINATE SYSTEM (NAD 83 FEET).
4. PROPERTY LINE INFORMATION OBTAINED FROM AVAILABLE 2015 GIS DATA FROM VCGI AND SHOWN AS APPROXIMATE.
5. BASE MAP INFORMATION SUPPLEMENTED USING AVAILABLE GIS SHAPEFILES AND FIELD MEASUREMENTS.
6. WETLAND DELINEATION COMPLETED BY SLR ON JUNE 23, 2021. APPROXIMATE WETLAND DELINEATION COMPLETED BY SLR ON OCTOBER 26, 2021.

SLR
1 SOUTH MAIN STREET
WATERBURY, VT 05676
802.882.8255
SLRCONSULTING.COM

DESCRIPTION	DATE	BY

SITE PLAN - EXISTING CONDITIONS

WETLANDS RESTORATION IN HINESBURG VILLAGE

VT ROUTE 116
HINESBURG, VERMONT

CMN	CMN	JCL
DESIGNED	DRAWN	CHECKED

1" = 30'
SCALE

DECEMBER 10, 2021
DATE

3452-33
PROJECT NO.

2 OF 8
SHEET NO.

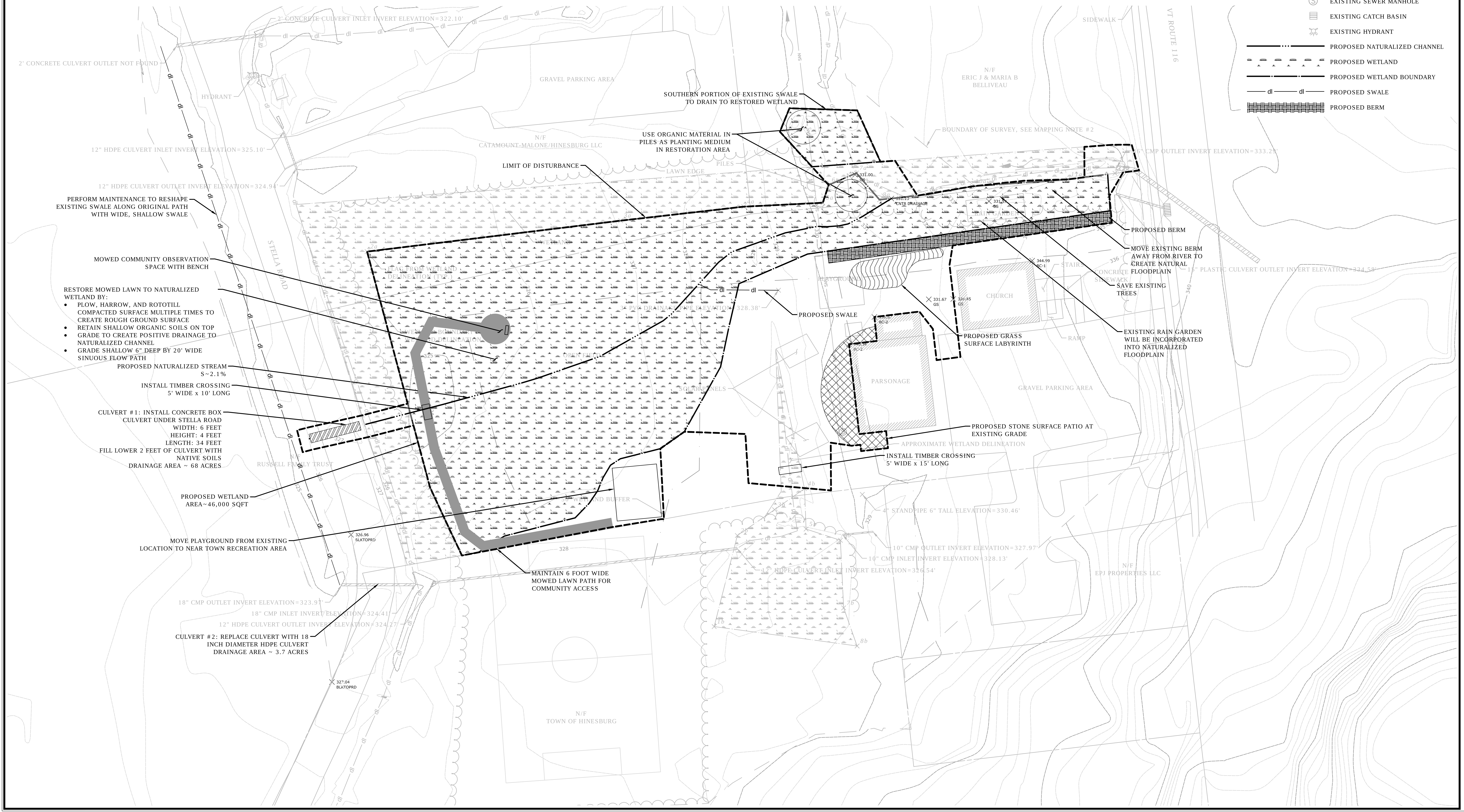
SP1
SHEET NAME

GENERAL NOTES

1. THE PURPOSE OF THIS PROJECT IS TO RESTORE A WETLAND AREA BEHIND UNITED CHURCH OF HINESBURG IN HINESBURG, VERMONT.
2. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "DIG SAFE" AT 1-888-DIG-SAFE (344-7233). THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DISTURB EXISTING UTILITIES.
3. THE CONTRACTOR SHALL DESIGNATE A SUPERINTENDENT AT THE START OF CONSTRUCTION AND THE CONTRACTOR'S SUPERINTENDENT SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR AND HIS/HER JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR COMPLYING WITH THE JOB SPECIFICATIONS AND PERMIT REQUIREMENTS.
4. ALL STORAGE AND ACCESS ROUTES, PEDESTRIAN FENCES/BARRIERS, AND LIMITS OF CLEARING SHALL BE FLAGGED BY CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY PROJECT ENGINEER.
5. WORKING HOURS SHALL BE APPROVED BY PROJECT ENGINEER AND LANDOWNERS.
6. NO CONSTRUCTION VEHICLES SHALL BE STORED, SERVICED, WASHED OR FLUSHED IN A LOCATION WHERE LEAKS, SPILLAGE, WASTE MATERIALS, CLEANERS, OR WATERS WILL BE INTRODUCED OR FLOW INTO WETLANDS OR WATERCOURSES. AN EMERGENCY MANAGEMENT PLAN AND SPILL KIT WILL BE MAINTAINED ON SITE AT ALL TIMES. IN THE EVENT OF AN ACCIDENTAL RELEASE, IMMEDIATELY STOP CONSTRUCTION WORK, CONTAIN THE SPILL, AND NOTIFY THE TOWN, APPROPRIATE AUTHORITIES AND PROJECT ENGINEER. THE SPILL KIT MUST CONTAIN AT A MINIMUM A CONTAINMENT BOOM, STRAW OR OTHER ABSORBENT MATERIALS, AND BUCKETS.
7. STORAGE AND OR USE OF CHEMICALS, FUELS, OILS, GREASES, BITUMINOUS MATERIALS, SOLIDS, WASTE WASHINGS, AND CEMENT SHALL BE HANDLED APPROPRIATELY AS TO PREVENT LEACHING OR SURFACE RUNOFF INTO WETLANDS, WATERCOURSES, OR DRAINS. ALL APPROVED STORAGE FOR THESE MATERIALS MUST BE CONTAINED.
8. EQUIPMENT SHALL BE REMOVED FROM WATER RESOURCES AND THEIR BUFFERS PRIOR TO REFUELING. NO REFUELING OF EQUIPMENT ALLOWED IN THE WATER OR WETLAND.
9. ALL EQUIPMENT AND VEHICLES SHALL BE CLEANED PRIOR TO AND FOLLOWING CONSTRUCTION TO REDUCE THE POTENTIAL FOR SPREAD OF INVASIVE SPECIES AND SEDIMENT.
10. THE PROJECT SITE IS SUBJECT TO FLOODING. THE CONTRACTOR SHALL MONITOR WEATHER FORECASTS AND STABILIZE THE CONSTRUCTION SITE AND REMOVE EQUIPMENT FROM FLOOD PRONE AREAS. ALL EQUIPMENT TO BE STORED ON HIGH GROUND.
11. WORK SHOULD BE PERFORMED DURING LOW WATER.
12. THERE SHALL BE NO CLAIMS FOR EXTRA COMPENSATION DUE TO DELAYS IN WATER CONTROL ASSOCIATED WITH HIGH WATER LEVELS FROM NATURAL EVENTS SUCH AS FLOODS.
13. THE CONTRACTOR SHALL MAINTAIN ALL ROADWAYS, SIDEWALKS, AND WALKWAYS IN THE AREA FREE OF SOIL, MUD, AND CONSTRUCTION DEBRIS. CONSTRUCTION ENTRANCES MUST BE MAINTAINED AT EACH SITE ACCESS POINT. SEE PLANS AND DETAILS.
14. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS THROUGHOUT DURATION OF PROJECT.
15. ALL EXCESS MATERIAL IS TO BE REMOVED AND DISPOSED OF OR RECYCLED OFF SITE.
16. PROPOSED LAYOUT, PROFILE, AND CROSS SECTIONS ARE TO BE STAKED BY THE CONTRACTOR AND REVIEWED BY THE PROJECT ENGINEER. FINAL DIMENSIONS WILL BE FINE-TUNED IN THE FIELD BY THE PROJECT ENGINEER.
17. BEDROCK REMOVAL IS NOT PROPOSED. DO NOT REMOVE BEDROCK WITHOUT DIRECTION OF PROJECT ENGINEER.
18. EXCAVATION TO BE PERFORMED BY MECHANICAL MEANS ONLY. DO NOT OVER-EXCAVATE. PROJECT ENGINEER TO REVIEW PROPOSED GRADES WITH CONTRACTOR AS WORK PROGRESSES.
19. ANY MATERIAL EXPORTED OFF-SITE SHALL BE LEGALLY DISPOSED OF IN AN UPLAND LOCATION AT NO ADDITIONAL COST. THE CONTRACTOR IS RESPONSIBLE FOR FINDING A SUITABLE RECIPIENT OF THE MATERIAL, GAINING REGULATORY APPROVAL FOR EXPORTED MATERIAL PLACEMENT IF NEEDED, AND HAULING.
20. ALL AREAS SURROUNDING THE PROJECT SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED UPON COMPLETION OF CONSTRUCTION. THE RESTORATION OF THE SITE IS SUBJECT TO APPROVAL BY THE PROJECT ENGINEER AND LANDOWNER.
21. FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PARTICIPATE IN A FINAL SITE INSPECTION WITH PROJECT ENGINEER FOR THE PURPOSE OF VERIFYING THAT THE PROJECT HAS BEEN COMPLETED ACCORDING TO THE CONSTRUCTION PLANS AND THE TERMS AND CONDITIONS OF THE CONTRACT.

LEGEND

- BOUNDARY OF SURVEY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- APPROX. PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF SIDEWALK
- EXISTING EDGE OF LAWN
- EXISTING WETLAND
- EXISTING WETLAND BOUNDARY
- WETLAND DELINEATION STUDY AREA
- EXISTING DITCH LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING HYDRANT
- PROPOSED NATURALIZED CHANNEL
- PROPOSED WETLAND
- PROPOSED WETLAND BOUNDARY
- PROPOSED SWALE
- PROPOSED BERM



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DESCRIPTION	DATE	BY

SITE PLAN - PROPOSED CONDITIONS

WETLANDS RESTORATION IN HINESBURG VILLAGE

**VT ROUTE 116
HINESBURG, VERMONT**

DESIGNED	DRAWN	CHECKED
CMN	CMN	JCL

SCALE: 1" = 30'

DATE: DECEMBER 10, 2021

PROJECT NO.: 3452-33

SHEET NO.: 3 OF 8

SHEET NAME: **SP2**

LEGEND

- BOUNDARY OF SURVEY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- APPROX. PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF SIDEWALK
- EXISTING EDGE OF LAWN
- EXISTING WETLAND
- EXISTING WETLAND BOUNDARY
- WETLAND DELINEATION STUDY AREA
- EXISTING DITCH LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING HYDRANT
- PROPOSED NATURALIZED CHANNEL
- PROPOSED WETLAND BOUNDARY
- PROPOSED SWALE
- PROPOSED BERM

N
W E
S
0' 15' 30'
0 1/2" 1"

PAVED ACCESS DRIVE
2' CONCRETE CULVERT INLET INVERT ELEVATION=322.10'
2' CONCRETE CULVERT OUTLET NOT FOUND
HYDRANT
GRAVEL PARKING AREA
SOUTHERN PORTION OF EXISTING SWALE TO DRAIN TO RESTORED WETLAND
N/F ERIC J & MARIA B BELLIVEAU
SIDEWALK
VT ROUTE 116
BOUNDARY OF SURVEY, SEE MAPPING NOTE #2
12" HDPE CULVERT INLET INVERT ELEVATION=325.10'
N/F CATAMOUNT-MALONE/HINESBURG LLC
USE ORGANIC MATERIAL IN PILES AS PLANTING MEDIUM IN RESTORATION AREA
PILES
LIMIT OF DISTURBANCE
LAWN EDGE
12" HDPE CULVERT OUTLET INVERT ELEVATION=324.94'
PERFORM MAINTENANCE TO RESHAPE EXISTING SWALE ALONG ORIGINAL PATH WITH WIDE, SHALLOW SWALE
RAIN GARDEN
6" CMP OUTLET INVERT ELEVATION=333.25'
PROPOSED BERM
MOVE EXISTING BERM AWAY FROM RIVER TO CREATE NATURAL FLOODPLAIN
STAIRS
CONCRETE SIDEWALK
SAVE EXISTING TREES
15" PLASTIC CULVERT OUTLET INVERT ELEVATION=334.50'
WETLAND
MOWED COMMUNITY OBSERVATION SPACE WITH BENCH
FLAG FROM WETLAND DELINEATION (TYP.)
SURVEY SECTION (TYP)
STELLA ROAD
RESTORE MOWED LAWN TO NATURALIZED WETLAND BY:
- PLOW, HARROW, AND ROTOTILL COMPACTED SURFACE MULTIPLE TIMES TO CREATE ROUGH GROUND SURFACE
- RETAIN SHALLOW ORGANIC SOILS ON TOP
- GRADE TO CREATE POSITIVE DRAINAGE TO NATURALIZED CHANNEL
- GRADE SHALLOW 6" DEEP BY 20' WIDE SINUOUS FLOW PATH

3" PVC DRAINAGE PIPE ELEVATION=328.38'
PROPOSED SWALE
CHURCH
PROPOSED GRASS SURFACE LABYRINTH
RAMP
EXISTING RAIN GARDEN WILL BE INCORPORATED INTO NATURALIZED FLOODPLAIN
WETLAND BOUNDARY PER WETLAND DELINEATION
OPEN FIELD
PROPOSED NATURALIZED STREAM S~2.1%
INSTALL TIMBER CROSSING 5' WIDE x 10' LONG
INLET INVERT ELEVATION SOIL:324.0 FEET BOX: 322.0 FEET
CULVERT #1: INSTALL CONCRETE BOX CULVERT UNDER STELLA ROAD WIDTH: 6 FEET HEIGHT: 4 FEET LENGTH: 34 FEET FILL LOWER 2 FEET OF CULVERT WITH NATIVE SOILS
DRAINAGE AREA = 88 ACRES
SOLAR PANELS
PARSONAGE
GRAVEL PARKING AREA
PROPOSED STONE SURFACE PATIO AT EXISTING GRADE
APPROXIMATE WETLAND DELINEATION
INSTALL TIMBER CROSSING 5' WIDE x 15' LONG
RUSSELL FAMILY TRUST
OUTLET INVERT ELEVATION SOIL: 323.9 FEET BOX: 321.9 FEET
PROPOSED WETLAND AREA~46,000 SQFT
50' WETLAND BUFFER
4" STAND PIPE 6" TALL ELEVATION=330.46'
MOVE PLAYGROUND FROM EXISTING LOCATION TO NEAR TOWN RECREATION AREA
10" CMP OUTLET INVERT ELEVATION=327.97'
10" CMP INLET INVERT ELEVATION=328.13'
12" HDPE CULVERT INLET INVERT ELEVATION=326.54'
N/F EPJ PROPERTIES LLC
MAINTAIN 6 FOOT WIDE MOWED LAWN PATH FOR COMMUNITY ACCESS
18" CMP OUTLET INVERT ELEVATION=323.97'
18" CMP INLET INVERT ELEVATION= 324.41'
12" HDPE CULVERT OUTLET INVERT ELEVATION=324.27'
CULVERT #2: REPLACE CULVERT WITH 18 INCH DIAMETER HDPE CULVERT DRAINAGE AREA ~ 3.7 ACRES
N/F TOWN OF HINESBURG

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DESCRIPTION	DATE	BY

SITE PLAN - GRADING

WETLANDS RESTORATION IN HINESBURG VILLAGE

VT ROUTE 116
HINESBURG, VERMONT

CMN	CMN	JCL
DESIGNED	DRAWN	CHECKED

SCALE: 1" = 30'
DATE: DECEMBER 10, 2021
PROJECT NO.: 3452-33
SHEET NO.: 4 OF 8

SHEET NAME: SP3

RESTORATION NOTES

1. SEED RESTORED WETLAND WITH SEED MIXES ACCORDING TO THE VERMONT SEED MIX LIST. APPLICATION RATE VARIES BY SPECIES CHOSEN.
2. SEED ALL DISTURBED LAWN AND PATH AREAS WITH VERMONT CONSERVATION GRASS SEED MIX.
3. APPLY 2 INCHES STRAW MULCH OVER ALL SEEDED AREAS. HAY IS NOT ALLOWED.
4. REMOVE TEMPORARY ACCESS ROADS AND TEMPORARY STOCKPILE AREAS.
5. RESTORE ALL ACCESS ROUTES USED DURING CONSTRUCTION TO PRE-EXISTING OR IMPROVED CONDITIONS, FILL RUTS CREATED BY EQUIPMENT TO RESTORE GRADE AND REVEGETATE AS NEEDED.
6. CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO SITE FEATURES IF DAMAGED BY CONSTRUCTION ACTIVITIES.
7. RESTORE ALL OTHER DISTURBED AREAS WITHIN THE PROJECT SITE SUCH AS TEMPORARY ACCESS ROADS, STOCKPILE AREAS, STAGING AREAS, AND SURPLUS DISPOSAL AREAS TO ORIGINAL OR IMPROVED CONDITION.
8. THE SITE IS TO BE FULLY SEEDED AND MULCHED FOLLOWING CONSTRUCTION.
9. TREE AND SHRUB PLACEMENT WILL BE DETERMINED AT THE TIME OF PLANTING AT THE DIRECTION OF THE OWNER (LCA/UCH).

TREE PLANTING NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING PLANT PITS.
2. PLANTINGS SHALL BE LIMITED TO THE PERIODS OF APRIL 15 - JULY 15 OR SEPTEMBER 15 - NOVEMBER 30.
3. IN TREE PLANTING HOLES - TOPSOIL TO CONTAIN A MINIMUM OF 12% ORGANIC CONTENT (BY WEIGHT), AMEND SOIL WITH ORGANIC MATTER (LEAF COMPOST).
4. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A 2" MIN. DEPTH OF SHREDDED MULCH EXTENDING 1 FOOT BEYOND EACH PLANTING HOLE.
5. QUANTITY AND PLACEMENT OF PLANTS ARE APPROXIMATE AND SHOULD BE ADJUSTED IN THE FIELD TO AVOID IMPACT TO EXISTING WOODY SHRUBS AND SMALL TREES ON THE SITE.
6. WHERE A SIZE RANGE IS SPECIFIED AT LEAST 50% OF PLANTS PROVIDED SHALL BE OF THE LARGER SIZE.
7. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL AT LEAST 50% OF THE TREES HAVE REACHED 6 FEET TALL. MAINTENANCE SHALL INCLUDE WATERING, MULCHING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ALL OTHER CARE NEEDED FOR PROPER GROWTH OF THE PLANTS.
8. WATER PLANTS SEVERAL TIMES A WEEK FOR THE FIRST FEW WEEKS IF NO SUBSTANTIAL RAIN FALLS. ALSO WATER DURING DRY SPELLS FOR THE FIRST SUMMER.
9. ALL TREES AND SHRUBS WILL CARRY A GUARANTEE FOR 3 YEARS AFTER PLANTING. CONTRACTOR RESPONSIBLE FOR PROTECTION FROM RODENTS.

LEGEND

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- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF SIDEWALK
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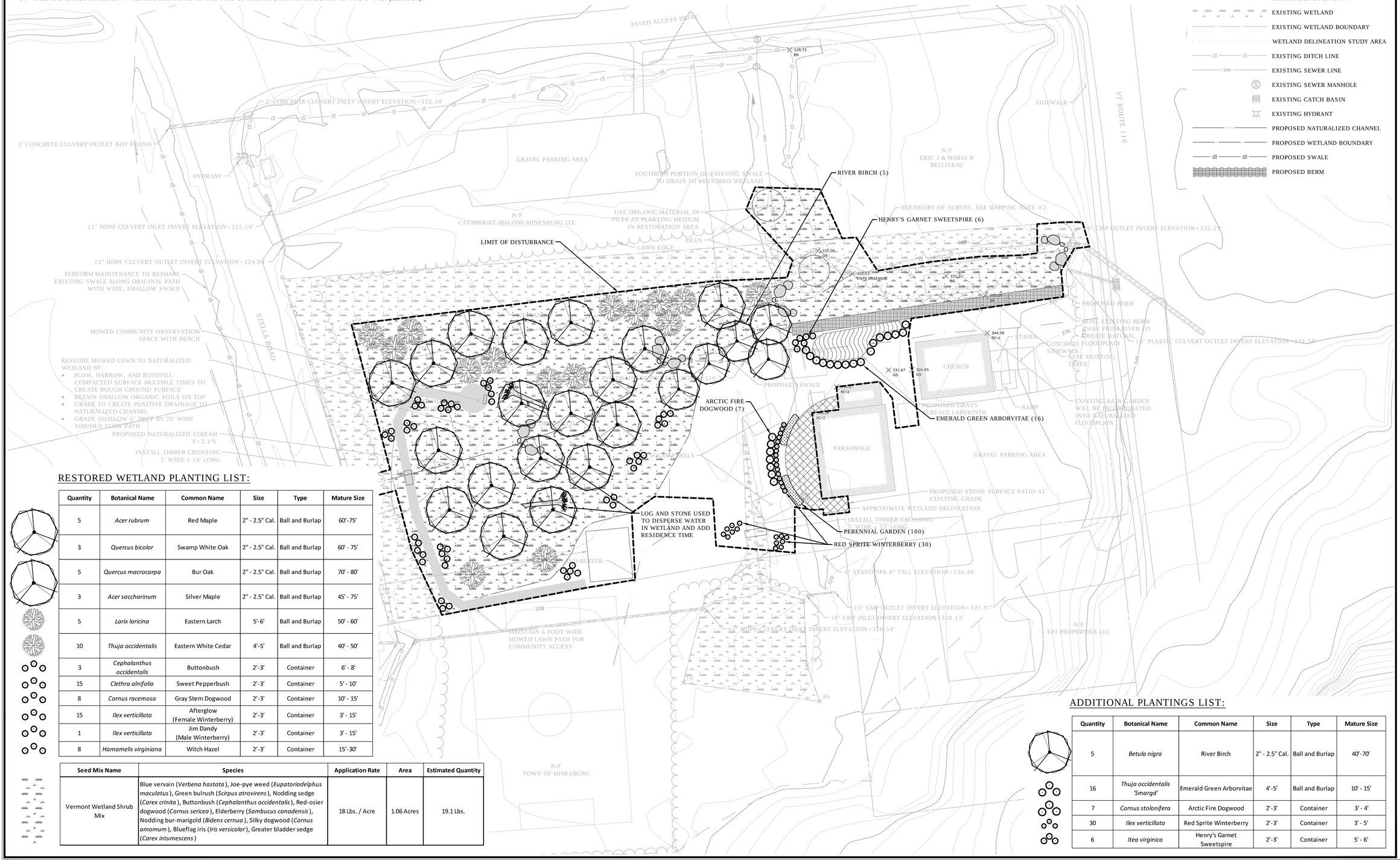
- EXISTING HYDRANT
- PROPOSED NATURALIZED CHANNEL
- PROPOSED WETLAND BOUNDARY
- PROPOSED SWALE
- PROPOSED BERM



RESTORED WETLAND PLANTING LIST:

Quantity	Botanical Name	Common Name	Size	Type	Mature Size
5	*Acer rubrum*	Red Maple	2" - 2.5" Cal.	Ball and Burlap	60'-75'
3	*Quercus bicolor*	Swamp White Oak	2" - 2.5" Cal.	Ball and Burlap	60' - 75'
5	*Quercus macrocarpa*	Bur Oak	2" - 2.5" Cal.	Ball and Burlap	70' - 80'
3	*Acer saccharinum*	Silver Maple	2" - 2.5" Cal.	Ball and Burlap	45' - 75'
5	*Larix laricina*	Eastern Larch	5'-6'	Ball and Burlap	50' - 60'
10	*Thuja occidentalis*	Eastern White Cedar	4'-5'	Ball and Burlap	40' - 50'
3	*Cephalanthus occidentalis*	Buttonbush	2'-3'	Container	6' - 8'
15	*Clethra alnifolia*	Sweet Pepperbush	2'-3'	Container	5' - 10'
8	*Cornus racemosa*	Gray Stem Dogwood	2'-3'	Container	10' - 15'
15	*Ilex verticillata*	Afterglow (Female Winterberry)	2'-3'	Container	3' - 15'
1	*Ilex verticillata*	Jim Dandy (Male Winterberry)	2'-3'	Container	3' - 15'
8	*Hamamelis virginiana*	Witch Hazel	2'-3'	Container	15'-30'

Seed Mix Name	Species	Application Rate	Area	Estimated Quantity
Vermont Wetland Shrub Mix	Blue vervain (*Verbena hastata*), Joe-pye weed (*Eupatoriadelphus maculatus*), Green bulrush (*Scirpus atrovirens*), Nodding sedge (*Carex crinita*), Buttonbush (*Cephalanthus occidentalis*), Red-osier dogwood (*Cornus sericea*), Elderberry (*Sambucus canadensis*), Nodding bur-marigold (*Bidens cernua*), Silky dogwood (*Cornus amomum*), Blueflag iris (*Iris versicolor*), Greater bladder sedge (*Carex intumescens*)	18 Lbs. / Acre	1.06 Acres	19.1 Lbs.

ADDITIONAL PLANTINGS LIST:

Quantity	Botanical Name	Common Name	Size	Type	Mature Size
5	*Betula nigra*	River Birch	2" - 2.5" Cal.	Ball and Burlap	40'-70'
16	*Thuja occidentalis 'Smargd'*	Emerald Green Arborvitae	4'-5'	Ball and Burlap	10' - 15'
7	*Cornus stalonifera*	Arctic Fire Dogwood	2'-3'	Container	3' - 4'
30	*Ilex verticillata*	Red Sprite Winterberry	2'-3'	Container	3' - 5'
6	*Itea virginica*	Henry's Garnet Sweetspire	2'-3'	Container	5' - 6'

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DESCRIPTION	DATE	BY

SITE PLAN - RESTORATION

WETLANDS RESTORATION IN HINESBURG VILLAGE

VT ROUTE 116
HINESBURG, VERMONT

CMN DESIGNED	CMN DRAWN	JCL CHECKED

1" = 30' SCALE

DECEMBER 10, 2021 DATE

3452-33 PROJECT NO.

5 OF 8 SHEET NO.

SP4 SHEET NAME

EROSION CONTROL NOTES

1. THE SEDIMENT AND EROSION CONTROL PRACTICES IMPLEMENTED AS PART OF THE PROJECT SHALL BE IMPLEMENTED AND MAINTAINED ACCORDING TO "THE LOW RISK SITE HANDBOOK FOR EROSION PROTECTION AND SEDIMENT CONTROL" GUIDANCE DOCUMENT FROM THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHERE APPLICABLE IN CONSULTATION WITH PROJECT ENGINEER.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
3. CLEARING OF NATIVE VEGETATION FOR CONSTRUCTION ACCESS SHOULD BE MINIMIZED.
4. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES. THE CONTRACTOR WILL VERIFY THE MAINTENANCE WEEKLY AND AFTER RAIN EVENTS AND REPORT TO PROJECT ENGINEER.
6. THE PROJECT ENGINEER IS TO BE NOTIFIED IMMEDIATELY IF EXCESSIVE SEDIMENT EROSION TAKES PLACE, IF SIGNIFICANT FINE GRAIN SEDIMENT IS ENCOUNTERED OR IF POTENTIALLY CONTAMINATED SEDIMENTS ARE ENCOUNTERED (OILY, DARK COLOR, CHEMICAL ODOR).
7. PLAN AND PERFORM WORK FOR LOW FLOW PERIODS.
8. STOCKPILE AND STAGING LOCATIONS AS APPROVED BY THE PROJECT ENGINEER, SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE.
9. NO DISTURBED EARTH WILL REMAIN EXPOSED FOR MORE THAN SEVEN (7) CONSECUTIVE DAYS WITHOUT APPLYING TEMPORARY OR PERMANENT STABILIZATION MEASURES.
10. EXPOSED AREAS SHALL BE SEEDED AND MULCHED OR PROTECTED WITH EROSION CONTROL MATTING WITHIN 48 HOURS OF ACHIEVING FINAL GRADE. IF USING EROSION CONTROL MATTING, NO PLASTIC WILL BE ALLOWED.

LEGEND

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- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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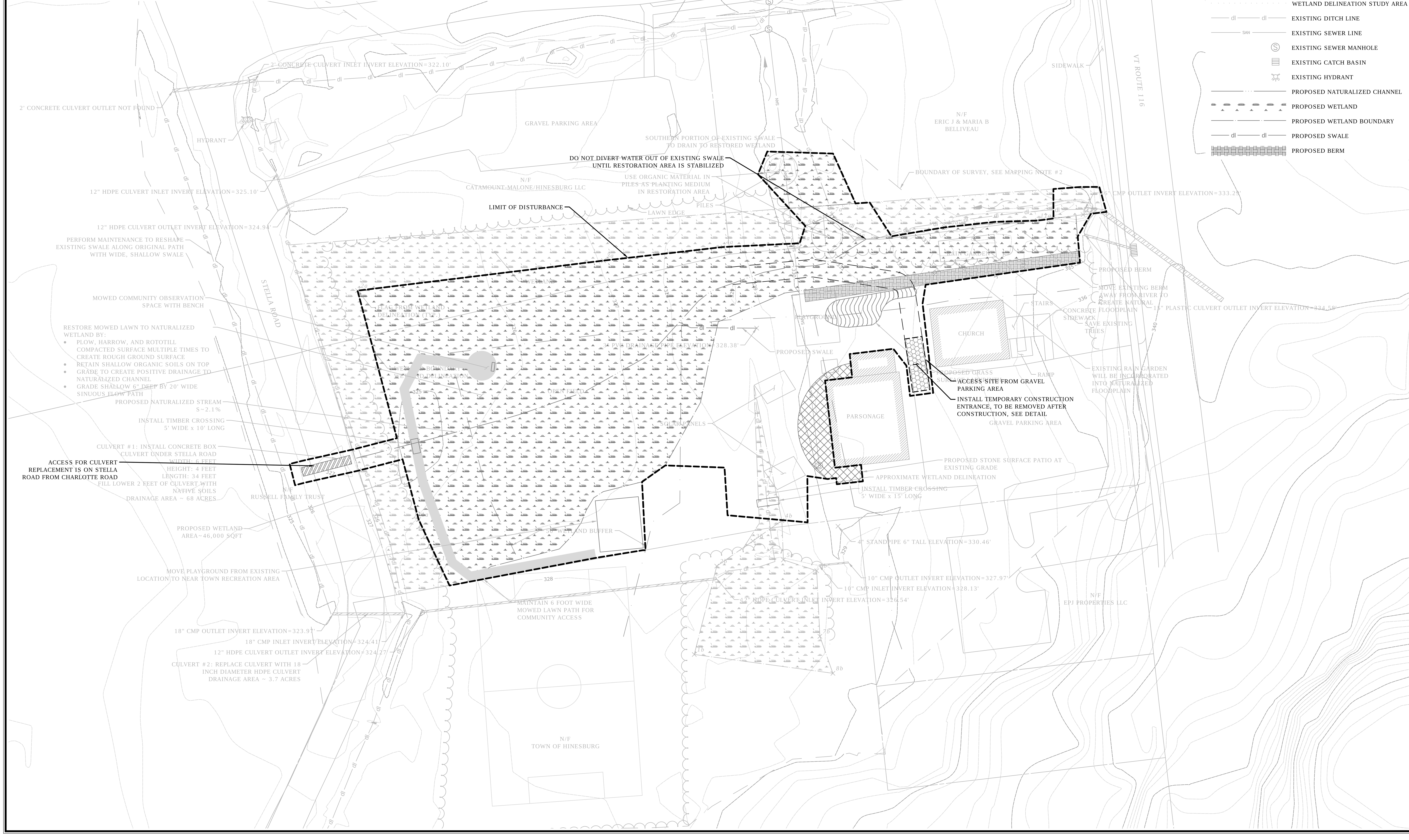

N
W E
S
0' 15' 30'
0 1/2" 1"

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DESCRIPTION	DATE	BY

SITE PLAN - CONSTRUCTION

WETLANDS RESTORATION IN HINESBURG VILLAGE

VT ROUTE 116
HINESBURG, VERMONT

CMN	CMN	JCL
DESIGNED	DRAWN	CHECKED

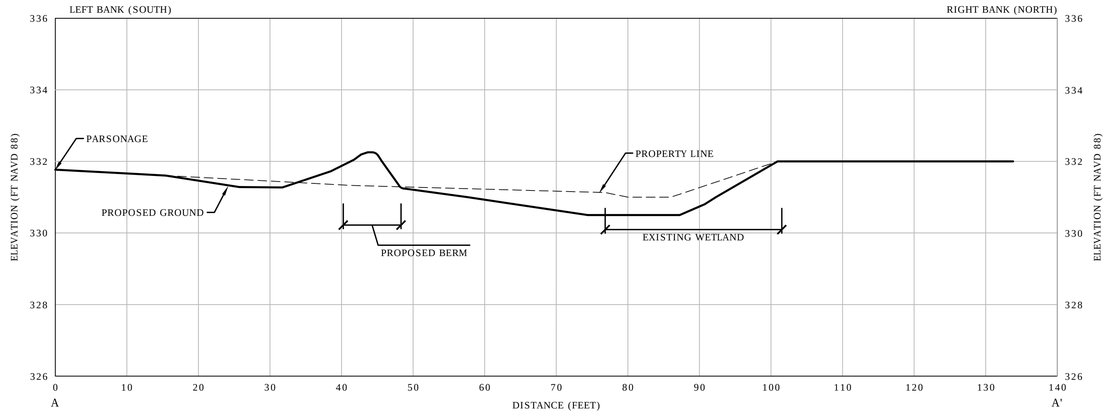
SCALE: 1" = 30'

DATE: DECEMBER 10, 2021

PROJECT NO.: 3452-33

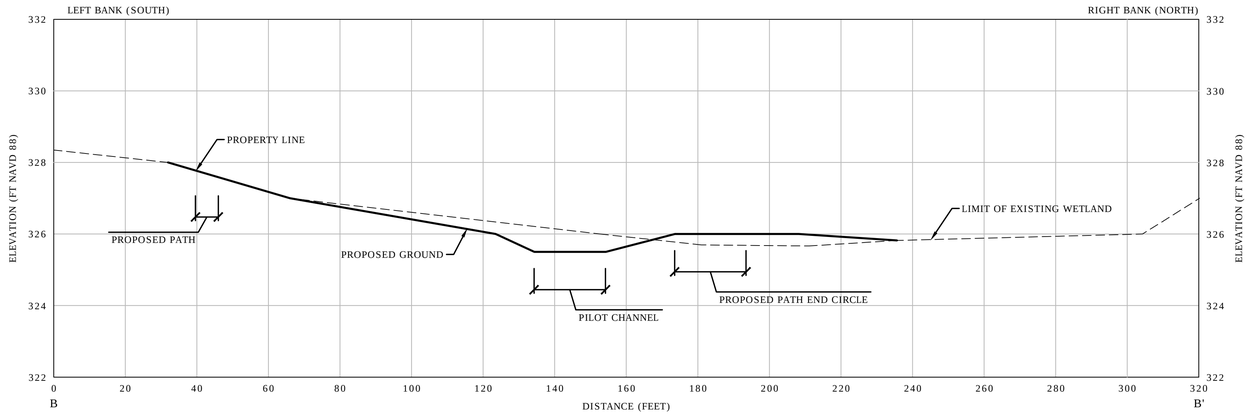
SHEET NO.: 6 OF 8

SHEET NAME: SP3



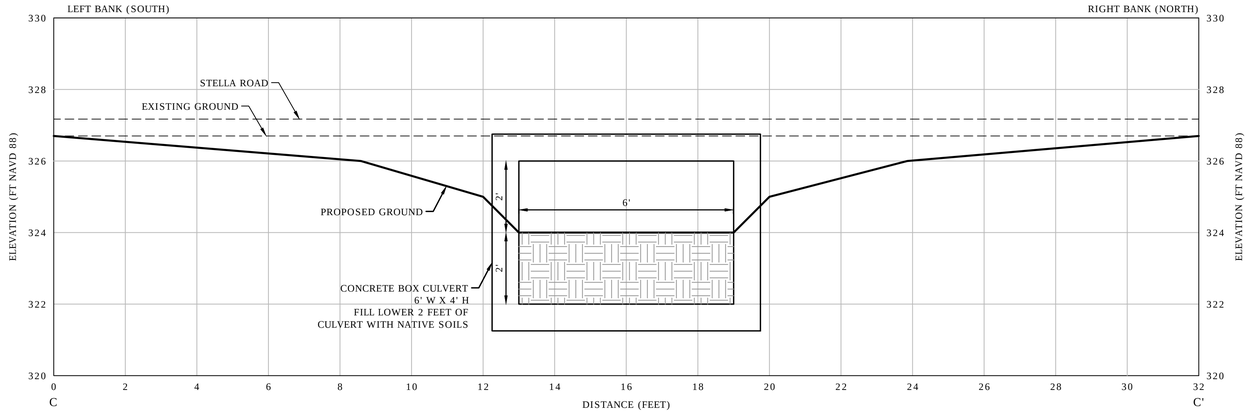
CROSS SECTION A-A'

SCALE: H: 1"=10', V: 1"=2'



CROSS SECTION B-B'

SCALE: H: 1"=20', V: 1"=2'



CROSS SECTION C-C'

SCALE: 1"=2'

0' 10' 20'
0 1/2" 1"
SCALE 1" = 20'H
1" = 2'V

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DESCRIPTION	DATE	BY

FINAL DESIGN

CROSS SECTIONS

WETLANDS RESTORATION IN HINESBURG VILLAGE

VT ROUTE 116
HINESBURG, VERMONT

CMN	CMN	JCL
DESIGNED	DRAWN	CHECKED

SCALE: VARIES

DATE: DECEMBER 10, 2021

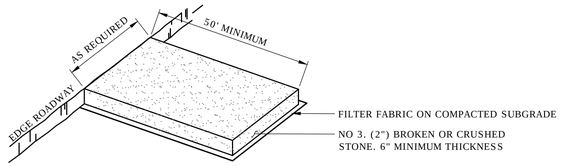
PROJECT NO.: 3452-33

SHEET NO.: 7 OF 8

SHEET NAME: XS

WETLAND RESTORATION OPERATIONS & MAINTENANCE NOTES:

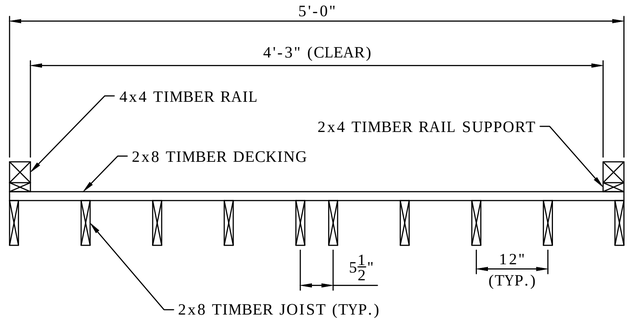
1. DURING FIRST YEAR LANDSCAPE CONTRACTOR TO PROVIDE PLANT MAINTENANCE.
2. DURING FIRST YEAR WALK SITE TO REMOVE INVASIVE SPECIES BY HAND AT MIDDLE AND END OF GROWING SEASON.
3. WETLAND RESTORATIONS ARE INTENDED TO RESTORE WETLAND FUNCTIONS AND STREAM DYNAMIC EQUILIBRIUM TO ALLOW THE STREAM TO MEANDER OVER TIME. THE CHANNEL WILL MOVE IN THE FUTURE. IT IS EXPECTED THAT THE LANDOWNERS WILL NOT TAKE ACTION USING HARD ARMORING TO HOLD THE STREAM IN PLACE ACROSS THE PROJECT AREA OR TO FILL ANY PORTION OF THE RESTORED WETLAND AREA.
4. DURING THE GROWING SEASON, EVALUATE NON-INVASIVE VEGETATIVE COVER. SUCCESSFUL VEGETATION IS DEFINED AS 80% AERIAL COVERAGE OF NON-INVASIVE VEGETATIVE COVER.
5. IN AREAS OF POOR VEGETATIVE COVER, RESEED WITH NATIVE WETLAND SEED MIX.
6. IN SPRING AND AFTER LARGE FLOOD VISIT THE SITE TO REMOVE ANY DEBRIS BLOCKING CULVERTS AND NOTE ANY EROSION PATHS.
7. IF EROSION PATHS LARGER THAN 1 FOOT DEEP APPEAR, PLACE LOGS AND BRUSH TO BREAK UP FLOW PATH AND DISPERSE FLOW IN SURROUNDING VEGETATION.



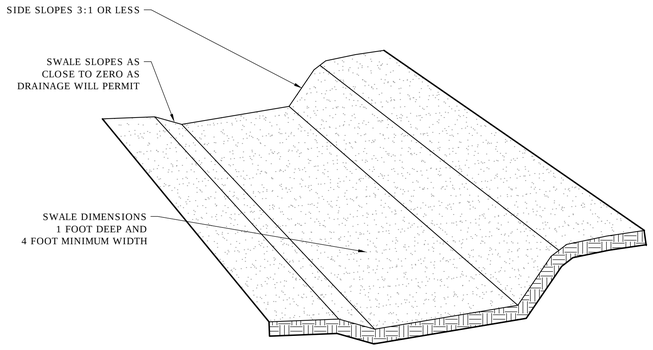
NOTES:

1. CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH GENERATE VEHICULAR TRACKING OF MUD.

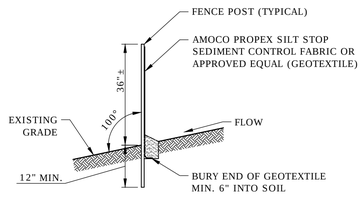
CONSTRUCTION ENTRANCE PAD
NOT TO SCALE



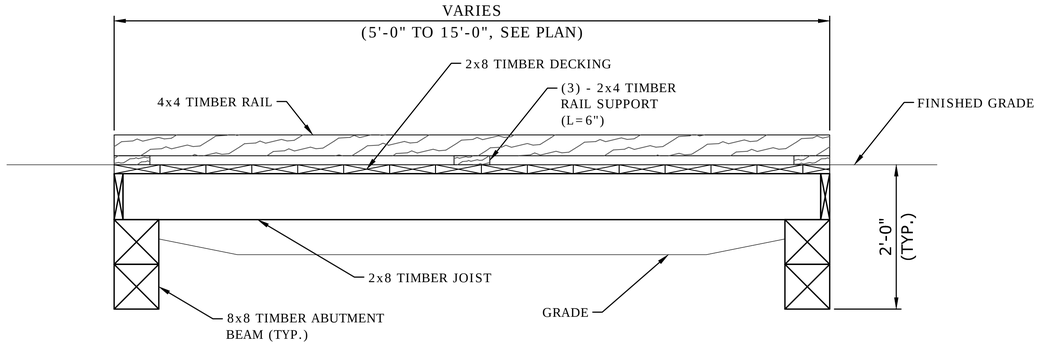
TYPICAL TIMBER BRIDGE SECTION
SCALE: ¾"=1'-0"



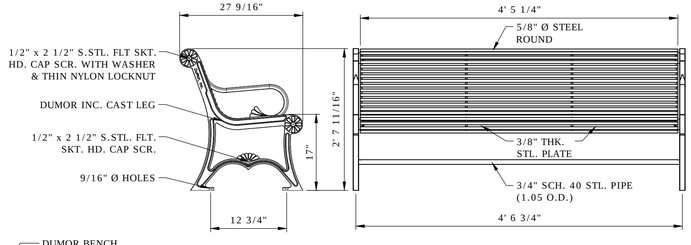
GRASSED SWALE
NOT TO SCALE

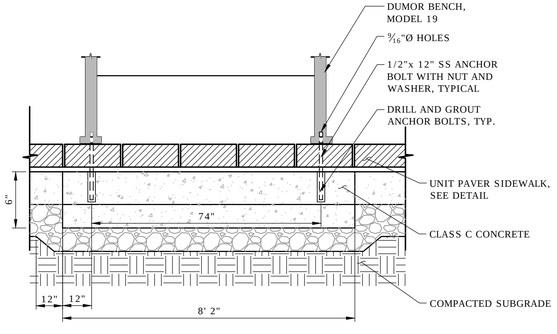


SEDIMENT FILTER FENCE
NOT TO SCALE



TYPICAL TIMBER BRIDGE ELEVATION
SCALE: ¾"=1'-0"

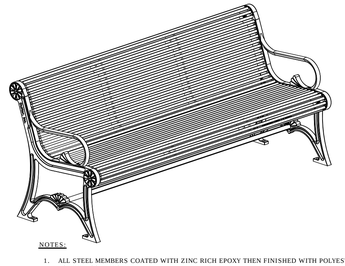




NOTES:

1. 1/2"x 8" STAINLESS STEEL ANCHOR BOLTS & NUTS PROVIDED BY CONTRACTOR

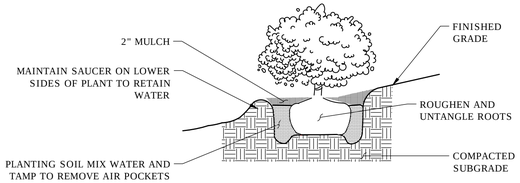
SITE BENCH MOUNTING
NOT TO SCALE



NOTES:

1. ALL STEEL MEMBERS COATED WITH ZINC RICH EPOXY THEN FINISHED WITH POLYESTER POWDER COATING.
2. 1/2" X 3 3/4" PLTD. EXPANSION ANCHOR BOLTS PROVIDED.
3. BENCH AS MANUFACTURED BY DUMOR, INC. MODEL: 19 OR APPROVED EQUIVALENT.

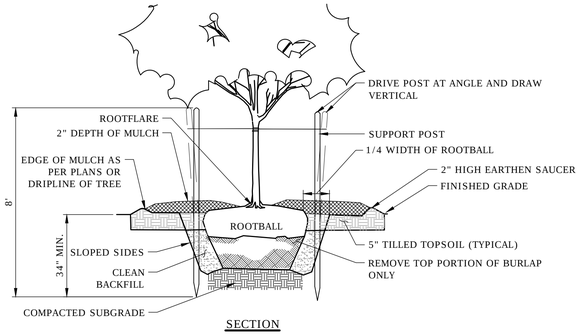
SITE BENCH
NOT TO SCALE



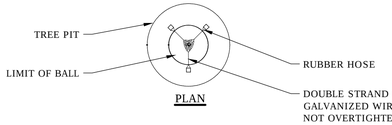
NOTES:

1. UNLESS OTHERWISE DIRECTED SHREDDED MULCH SHALL BE PLACED TO A LIMIT OF ONE FOOT BEYOND THE CENTER OF THE OUTERMOST SHRUBS IN SHRUB BED.

SHRUB PLANTING
NOT TO SCALE



SECTION



PLAN

NOTE:

1. SUPPORT STAKES SHALL BE REMOVED BY THE CONTRACTOR ONE YEAR AFTER INSTALLATION.

TREE PLANTING
NOT TO SCALE

SLR
1 SOUTH MAIN STREET
WATERBURY, VT 05676
802.882.8255
SLRCONSULTING.COM

APPENDIX A

BY	DATE	DESCRIPTION

DETAILS

FLOODPLAIN RESTORATION PROJECT
WHETSTONE BROOK AT MELROSE TERRACE
BRATTLEBORO HOUSING PARTNERSHIPS
BRATTLEBORO, VERMONT

FINAL DESIGN

JCL	CMN	JCL
DESIGNED	DRAWN	CHECKED

SCALE: NOT TO SCALE
DATE: DECEMBER 10, 2021
PROJECT NO.: 3452-33
SHEET NO.: 8 OF 8
SHEET NAME: DET

APPENDIX E

WATERSHED CONSULTING

Nisha Nadkarni <nisha@watershedca.com>

River Corridor Review: Burlington and Hinesburg Stormwater Projects

Medash, Kyle <Kyle.Medash@vermont.gov> Tue, Dec 20, 2022 at 11:39 AM
To: nisha <nisha@watershedca.com>
Cc: "Pomeroy, Staci" <Staci.Pomeroy@vermont.gov>

Hi Nisha,

Thank you for checking back in on this one. This email is specifically for the cheese plant project in Hinesburg shown in the plans you sent over, the email below from Sept 9 referencing favorable comments was for the price chopper plaza project in SB, I'm not sure Gretchen had commented on this Hinesburg project. Staci is copied here, she is currently acting as the main contact for the River Scientists.

From a regulatory perspective I think we are clear, no FHARC permit will be needed but we would commenting on the Act 250 permit amendment under Criterion 1(D) in general accordance with the FHARC Procedure. As you are aware, working with us in the early stages of the design will help ensure favorable Criterion 1(D) comments to the NRB on the A250 permit application.

The most limiting piece to this design is location in the River Corridor of the La Platte. Generally, we're looking for a design that does not encroach further toward the river than what currently exists. I do see some sort of structure in this area, will this remain? Is it an important feature that can be considered for shadowing? The current design plan dated May 2021 shows significant expansion of the lagoon footprint toward the La Platte, beyond what currently exists (w/ structure exception). In this case, a permittable design would include not extending beyond the western top of bank alignment of existing lagoon #1. Additionally, we'd prefer to see the outlet pipe and/or spillway be directed toward the small tributary to the south as the likelihood of lateral channel adjustment is much less than on the La Platte. As a general note, we do allow for stormwater outfalls and drainage in the RC; however, it is typically preferred to be unhardened infrastructure such as rock-lined or vegetated swales vs. pipes or concrete. The idea here being that swales may still function if affected by erosion and can be reconfigured to move with channel adjustments as needed.

From a flood hazard area standpoint, we'd still need the information outlined below (BFE, cut/fills, footprint expansions, no rise). The one concerning thing I picked up on was that it appears the proposed top of berm elevation is 327.5' and the existing elevation is ~326'. It's important to understand how these changes may or may not affect base flood conditions on adjacent properties, especially since this general area is being increasingly developed and adjacent properties may be impacted. As stated earlier, there's not enough information to easily tell if this is a net gain or removal of fill in the floodplain, depending on the details of that analysis would drive what more might be needed in terms of analyzing the site hydraulics.

Please let me know if you have any questions, happy to discuss any of this further. Note I will be out of office from 12/21-12/28.

Respectfully,

[Quoted text hidden]

WATERSHED CONSULTING

Nisha Nadkarni <nisha@watershedca.com>

RE: Hinesburg ARPA P3 3 Acre Stormwater Project

Taft, Kathleen <Kathleen.Taft@vermont.gov> Fri, Dec 16, 2022 at 11:11 AM
To: Todd Odit <todithvt@gmavt.net>, Andres Torizzo <andres@watershedca.com>, nisha <nisha@watershedca.com>, Dan Albrecht <dalbrecht@ccrpcvt.org>
Cc: aweinhagen <aweinhagen@hinesburg.org>, "Koss, Meagan" <Meagan.Koss@vermont.gov>, "Brady, James" <James.Brady@vermont.gov>, "Borg, Jaron" <Jaron.Borg@vermont.gov>, "Wood, Andrew" <Andrew.Wood@vermont.gov>

Hello Hinesburg ARPA P3 team,

I am following up on information you provided previously related to natural resources review for the Hinesburg Cheesefactory P3 3-Acre Stormwater project. In an effort to help foresee concerns and streamline the Act 250 amendment application we requested James Brady and Andy Wood with the Fish & Wildlife Department review the available site figures. The following notes are related to the 30% designs provided in August; if anything has changed in the site plan since then please let us know!

- Andy Wood with the Wildlife Division notes the site is within summer range for the state & federally endangered Indiana Bat. From the plans and aerials, it is unclear if the limits of disturbance will encompass any existing trees surrounding the lagoon. Please confirm if any trees will be cleared for this project. A site visit may be required to evaluate trees prior to clearing.
- James Brady with the Fish Division notes the project is located to the east of the LaPlatte River, South of Patrick Brook, and north of an unnamed tributary to the LaPlatte River. The current site design includes proposed impacts within the stream channels and riparian zones to the west and south of the lagoon. Potential concerns exist regarding in-stream fish populations, which may also determine jurisdiction for other permitting needs. Further discussion with James about the proposed impacts is recommended prior to final project design. Jaron Borg, River Management Engineer with the Watershed Management Division is copied here and should be looped in on the outcome of any discussions with Fisheries.

ANR staff will have limited availability in the coming weeks due to the holidays but will be happy to connect with you in the New Year. If at any time it would be more efficient to set up a group call to discuss these requests, I am happy to do so. Don't hesitate to reach out with additional questions or coordination concerns.

Best,

Kathleen Taft (s/h) | Regulatory Policy Analyst
Vermont Agency of Natural Resources | Office of Planning
Davis 2, 1 National Life Dr | Montpelier, VT 05620-3901
802-461-8812 (c) | kathleen.taft@vermont.gov

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com>

Request Project Review: Hinesburg - The Cheese Plant Commercial Suites

23 messages

Nisha Nadkarni <nisha@watershedca.com> Thu, Feb 11, 2021 at 10:55 AM
To: Tina.Heath@vermont.gov

Hinesburg – The Cheese Plant Commercial Suites

Full Name: Nisha Nadkarni
Phone Number: 508-768-8029
Mailing Address: 208 Flynn Avenue Suite 2H, Burlington, VT 05406

Project Location Description: The project is located on the Cheese Plant Commercial Suites property. The proposed BMP location is on the field west of Stella Rd and ~500 east of the LaPlatte River.

Description of Project: A gravel wetland is proposed to capture and treat stormwater runoff from the roofs, parking lot, and roads onsite before discharging into the LaPlatte River.

Date of Prior Visit(s) with Wetland Staff: 9/25/2020
Permit #(s) if applicable: N/A

Additional Notes: The field in which the proposed BMP location is on is specified as wetlands by wetland consultant, April Moulaert, but not formally delineated (See Attachment 2).

Attachments (4):
1 – Hinesburg_CheesePlant_SiteMap.pdf
2 – Hinesburg_CheesePlant_WetlandDelineation+Notes.pdf
3 – Hinesburg_CheesePlant_WetlandEvaluationForm.pdf
4 – Hinesburg_CheesePlant_ExistingConditions_01-29-21.pdf

Nisha Nadkarni (she/her)
Water Quality Scientist

Watershed Consulting Associates, LLC
Stormwater Management | Water Quality | Erosion Control
208 Flynn Avenue, Suite 2H P.O. Box 4413
Burlington, VT 05406
Mobile: 508.768.8029 | Main: 802.497.2367

nisha@watershedca.com
www.watershedca.com

4 attachments

Hinesburg_CheesePlant_WetlandEvaluationForm.pdf
1226K

Hinesburg_CheesePlant_WetlandDelineation+Notes.pdf
2603K

Hinesburg_CheesePlant_ExistingConditions_01-29-21.pdf
4198K

Hinesburg_CheesePlant_SiteMap.pdf
3565K

Heath, Tina <Tina.Heath@vermont.gov> Wed, Feb 17, 2021 at 2:08 PM
To: Nisha Nadkarni <nisha@watershedca.com>

Hi Nisha,

Thanks for contacting me about the proposed BMP. I will additional information in order to continue my jurisdictional review. Below is a list of questions:

- What is the project purpose of this BMP? There is nothing described in the original email. Is this a retrofit or for redevelopment?
- Is this BMP specific to the Cheese Plant? Or is it for the entire drainage area?
- What is the history of the site/ drainage area? Please provide a description of the property and its current stormwater management situation, if any.
- Does the property have an existing stormwater permit? If so What is the status of this permit?
- Is this project seeking state funding?
- What is the estimate of proposed impacts?
- What other alternatives locations and designs have been looked at, on-site and off-site?
- I noticed the attached evaluation form. When assessing for impacts, the wetland needs to be evaluated as part of the entire wetland complex, which would be the wetlands associated with the LaPlatte complex. It appears only the subject wetland was evaluated.

Best,

Tina

VERMONT

Due to the coronavirus (COVID-19), the Agency of Natural Resources is taking additional safety measures to protect our employees, partners and customers. We anticipate we will be working remotely until a least March 31, 2021 and encourage you to communicate electronically or via phone to the greatest extent possible. Thank you for your patience and understanding that responses may occasionally be delayed.

Tina Heath | District Wetland Ecologist – Chittenden County

Vermont Department of Environmental Conservation

Watershed Management Division

Wetlands Program

111 West Street

Essex Junction, Vermont 05452

802-490-6202

https://dec.vermont.gov/watershed/wetlands

From: Nisha Nadkarni <nisha@watershedca.com>
Sent: Thursday, February 11, 2021 10:56 AM

To: Heath, Tina <Tina.Heath@vermont.gov>
Subject: Request Project Review: Hinesburg - The Cheese Plant Commercial Suites

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Tue, Feb 23, 2021 at 4:07 PM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

This project is funded by a larger P3 (Public-Private Partnership) project to meet the Stormwater General Permit 3-9050 requirements for sites with >3 impervious acres. Since my first email to you, the BMP location has changed so that it is no longer in the presumed class II wetland area south of The Cheese Plant facility. Please refer to the attached map (Hinesburg_CheesePlant_DAs+Notes.pdf) for the information discussed below.

The facility was previously owned by the Saputo Cheese Plant and is now owned and occupied by The Cheese Plant. There are three abandoned lagoons to the west of the main facility that Saputo previously constructed and utilized for wastewater treatment. Since Saptuo left in 2010, all hazardous waste has been thoroughly cleaned out and removed from the lagoons (confirmed in the Act 250 permit for this site). Currently, a gravel wetland retrofit is proposed in the southern lagoon. This has a footprint of roughly 0.33 acres that the practice would be retrofitted into.

The drainage area includes The Cheese Plant property, a segment of VT Route 116, and the residential development on Kelleys Field Road. Currently, most stormwater runoff volume from the drainage areas is diverted into a swale that discharges directly into the La Platte River. The eastern side of the Cheese Plant discharges into Patrick Brook, a tributary of the La Platte River. The proposed gravel wetland would intercept these discharge points for treatment.

The portion of the facility that Saputo used to occupy has a stormwater permit (3690-9010.R) that is expiring in August 2021. However, The Cheese Plant now occupies the entire building, but has not obtained any additional stormwater permits. The Stormwater General Permit 3-9050 will cover the portion of the facility previously permitted under 3690-9010.R and the remaining Cheese Plant property that was not previously permitted.

In regards to alternative locations, the original field was previously proposed, but our feasibility analysis demonstrated that retrofitting one of the abandoned lagoons would eliminate any potential impacts to a natural area. We are hoping to get your review on whether this lagoon is deemed an allowed use as this is the most current and feasible solution in meeting future 3-acre requirements for this site.

Thanks,
Nisha

Nisha Nadkarni (she/her)
Water Quality Scientist

Watershed Consulting Associates, LLC
Stormwater Management | Water Quality | Erosion Control
208 Flynn Avenue, Suite 2H P.O. Box 4413
Burlington, VT 05406
Mobile: 508.768.8029 | Main: 802.497.2367

nisha@watershedca.com
www.watershedca.com

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Hinesburg_CheesePlant_DAs+Notes.pdf
3709K

Heath, Tina <Tina.Heath@vermont.gov> Thu, Feb 25, 2021 at 12:59 PM
To: Nisha Nadkarni <nisha@watershedca.com>

Hi Nisha, can you provide me the original grading plans of the lagoon? Once I can review the proposed design along with the original grading plan of the lagoon I will then be able to confirm if the project qualifies as an allowed use; although this is certainly a more appropriate location for a stormwater feature.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Fri, Feb 26, 2021 at 9:12 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

I've attached two plans for the lagoon area. Let me know if you need anything else.

Thanks!
-Nisha

Nisha Nadkarni (she/her)
Water Quality Scientist

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Burlington, VT 05406
Mobile: 508.768.8029 | Main: 802.497.2367

nisha@watershedca.com
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2 attachments

SP1SitePlan.pdf
1678K

4C0528-8_Site Plan, Yard Piping and Landscaping Drawing 2.pdf
697K

Heath, Tina <Tina.Heath@vermont.gov> Thu, Mar 4, 2021 at 8:11 AM
To: Nisha Nadkarni <nisha@watershedca.com>

Hi Nisha, thank you. If modifications for retrofitting are within the existing graded area/footprint then it is likely considered an allowed use. Do you have a proposed site plan for the gravel wetland in this area?

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Thu, Mar 4, 2021 at 11:43 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

The proposed design concept is currently being developed. I will send it to you when the draft is complete for your confirmation.

Thanks,
Nisha

Nisha Nadkarni (she/her)
Water Quality Scientist

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nisha@watershedca.com
www.watershedca.com

[Quoted text hidden]

Heath, Tina <Tina.Heath@vermont.gov> Thu, Mar 4, 2021 at 1:54 PM
To: Nisha Nadkarni <nisha@watershedca.com>

Thank you Nisha.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Fri, Apr 2, 2021 at 10:29 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Morning Tina,

I am following up on our conversation about the gravel wetland retrofit project at The Cheese Plant in Hinesburg. We now have the 30% design concept and would appreciate your review of the proposed work.

Thanks,
Nisha

Nisha Nadkarni (she/her)
Water Quality Scientist

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Mobile: 508.768.8029 | Main: 802.497.2367

nisha@watershedca.com
www.watershedca.com

[Quoted text hidden]

Hinesburg Cheese Plant Gravel Wetland Concept Design - 03-31-21.pdf
999K

Heath, Tina <Tina.Heath@vermont.gov> Fri, Apr 9, 2021 at 8:42 AM
To: Nisha Nadkarni <nisha@watershedca.com>

Hi Nisha,

Thanks for the plans. Will there be modifications outside of the existing structures and grading? This will help me figure out if this can be considered an Allowed Use or need a Registration (GP 3-9026).

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Fri, Apr 9, 2021 at 9:54 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Morning Tina,

We are proposing a new weir wall and a new culvert to divert the swale into the gravel wetland retrofit space.

The plan does say "new" 2 foot grass swale, however it already exists as a channelized stream discharging directly to the La Platte. Our design concept was developed under the assumption that there will be a separate larger river/wetland restoration project in the green space west of Stella Rd (proposed by the Lewis Creek Association).

I've attached a PDF of their final planning report. Page 7 of the report shows their proposed design layout which would essentially re-route flow from the channelized stream into the green space. That would allow us to restore the remaining segment of the channel into the proposed grass swale that would only convey runoff from our drainage areas and not the additional flow from upstream areas that the other project is capturing. The overall wetland/river restoration project is not in the scope of our project so any new modifications beyond the grass swale segment would most likely be under their project. See attached site map with the blue callouts on these locations.

Let me know if you have any questions.

Thanks!
Nisha

Nisha Nadkarni (she/her)
Water Quality Scientist

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2 attachments

Final+Report+Hinesburg+Village+Landowner+Outreach.pdf
2052K

Hinesburg_CheesePlant_Sitemap.pdf
3532K

Heath, Tina <Tina.Heath@vermont.gov> Thu, Apr 15, 2021 at 1:02 PM
To: Nisha Nadkarni <nisha@watershedca.com>

Hi Nisha,

Thanks for the details. It looks like the spillway and pipe outfall would be considered impacts if within wetland or its 50-foot buffer zone. If the size of these areas total less than 250 sq ft combined then it would be an Allowed Use; if over that threshold then the project would need a Registration under GP 3-9026.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Fri, Apr 23, 2021 at 9:42 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

The spillway itself is ~800 s.f. so we will document that a GP 3-9026 application would need to be completed for the proposed work. Thanks so much for providing your feedback on this project.

Best,
Nisha

Nisha Nadkarni (she/her)
Water Quality Scientist

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[Quoted text hidden]

Heath, Tina <Tina.Heath@vermont.gov> Mon, Apr 26, 2021 at 8:24 AM
To: Nisha Nadkarni <nisha@watershedca.com>

Thanks Nisha.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Fri, Dec 9, 2022 at 1:24 PM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

I hope you are doing well! I am reaching out to you in this older thread to confirm whether the wetland permitting needs for this stormwater treatment project are the same since some time has passed from our last email communication.

We still have the same 30% design that you reviewed in April 2021 in which you determined that the proposed disturbance within the wetland/50-ft buffer exceeds 250 sf, and therefore requires Registration under GP 3-9026. The proposed practice in the 30% is a gravel wetland retrofit of one of the site's abandoned treatment lagoons used for processing cheese waste (design plan attached). Since the lagoons stopped being used for that in 2010, they have been remediated by the previous landowner as required by their Act 250 permit. The lagoons are currently mapped as wetland on ANR as well as the berm that separates them from the La Platte River (ANR map attached - polygons are slightly off)

Our team will soon be bringing this 30% stormwater design for the Cheese Plant property to the 100% design stage, however we are first doing a formal Engineering Feasibility Analysis before continuing design work to confirm the natural resources impact and additional permitting needs. This project is being completed for the site to meet their 3-acre requirements under the Operational Stormwater Permit. I wanted to confirm if the Registration under GP-9026 is the extent of the wetland permitting needs for this proposed stormwater design.

Thank you,
Nisha

Nisha Nadkarni (she/her)
Water Resources Scientist

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nisha@watershedca.com

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2 attachments

I5. P3 - Hinesburg - Cheese Plant - 05252021.pdf
1918K

Wetland Map.pdf
539K

Heath, Tina <Tina.Heath@vermont.gov> Mon, Dec 19, 2022 at 8:22 AM
To: nisha <nisha@watershedca.com>

Hi Nisha,

Can you provide me the proposed impact numbers? That way I can confirm if the project meets the criteria to be eligible for GP 3-9026.

Thanks,

Tina

Tina Heath

District Wetland Ecologist – Chittenden County

Wetland Bioassessment Coordinator

VT Department of Environmental Conservation

Watershed Management Division, Wetlands Program

111 West Street | Essex Junction, VT 05452

802-490-6202

https://dec.vermont.gov/watershed/wetlands

During the growing season (April – October) I am in the field 2-3 days per week and may not be immediately able to respond to inquiries. I am typically able to respond within a work week. Note that the Agency of Natural Resources has embraced telework and I do not generally operate out of the Essex District Office. I am available via email, telephone, and scheduled site visits.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Mon, Dec 19, 2022 at 9:11 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Morning Tina,

The estimated total impact of the proposed project is 49,400 sf.

-Nisha

Nisha Nadkarni (she/her)
Water Resources Scientist

Watershed Consulting Associates, LLC
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Burlington, VT 05406
Mobile: 508.768.8029 | Main: 802.497.2367 x 107
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nisha@watershedca.com

[Quoted text hidden]

Heath, Tina <Tina.Heath@vermont.gov> Mon, Dec 19, 2022 at 9:20 AM
To: nisha <nisha@watershedca.com>

Nisha, can you clarify how much impact would be considered outside of the existing footprint of the lagoon and berm that would be considered new impact to wetland and buffer.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Mon, Dec 19, 2022 at 9:30 AM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

If considering the impact outside of the existing lagoon footprint and berm, the remaining impact is the retrofit of the existing swale as the pre-treatment prior to the gravel wetland which is estimated to be ~13,000 sf.

-Nisha

[Quoted text hidden]

Heath, Tina <Tina.Heath@vermont.gov> Mon, Dec 19, 2022 at 12:23 PM
To: nisha <nisha@watershedca.com>

Is this a natural swale or man-made? The numbers you provided would be well above the GP 3-9026 threshold and considered substantial impact. What I'm looking for are any new wetland or buffer zone impacts outside of all existing man-made infrastructure to review.

[Quoted text hidden]

Nisha Nadkarni <nisha@watershedca.com> Wed, Jan 25, 2023 at 3:30 PM
To: "Heath, Tina" <Tina.Heath@vermont.gov>

Hi Tina,

Apologies I lost touch on this one. The swale is not a formal man-made structure, but has been formed into a channel due to the prolonged and unmanaged stormwater discharges to it. The design would rehab the swale and direct those current SW discharges to the proposed wetland.

Thanks,
Nisha

Nisha Nadkarni (she/her)
Water Resources Scientist

Watershed Consulting Associates, LLC
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Burlington, VT 05406
Mobile: 508.768.8029 | Main: 802.497.2367 x 107
www.watershedca.com
nisha@watershedca.com

[Quoted text hidden]

Heath, Tina <Tina.Heath@vermont.gov> Thu, Jan 26, 2023 at 10:03 AM
To: nisha <nisha@watershedca.com>

Hi Nisha, thanks for clarifying. I think this project warrants a site visit in the spring to determine impacts and permit implications.

Tina Heath

District Wetland Ecologist – Chittenden County

Wetland Bioassessment Coordinator

VT Department of Environmental Conservation

Watershed Management Division, Wetlands Program

111 West Street | Essex Junction, VT 05452

802-490-6202

https://dec.vermont.gov/watershed/wetlands

During the growing season (April – October) I am in the field 2-3 days per week and may not be immediately able to respond to inquiries. I am typically able to respond within a work week. Note that the Agency of Natural Resources has embraced telework and I do not generally operate out of the Essex District Office. I am available via email, telephone, and scheduled site visits.

From: Nisha Nadkarni <nisha@watershedca.com>
Sent: Wednesday, January 25, 2023 3:30 PM
To: Heath, Tina <Tina.Heath@vermont.gov>
Subject: Re: Request Project Review: Hinesburg - The Cheese Plant Commercial Suites

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Tina,

Apologies I lost touch on this one. The swale is not a formal man-made structure, but has been formed into a channel due to the prolonged and unmanaged stormwater discharges to it. The design would rehab the swale and direct those current SW discharges to the proposed wetland.

Thanks,