CIVIL ENGINEERING ASSOCIATES, INC.
10 Mansfield View Lane
South Burlington, VT 05403
Phone: 802-864-2323
E-Mail: dmarshall@cea-vt.com

October 11, 2023

Mr. Ryan Morrison, Zoning Administrator
Town of Stowe
P.O. Box 730
Stowe, VT 05672

Re: Development Application – Turf Care Center Redevelopment
Stowe Country Club, LLC
Project 7200 – 744 Cape Cod Road at 400 Cape Cod Road

Dear Mr. Morrison:

In accordance with guidance provided by the Development Review Board at the October 3, 2023 Site Plan and Conditions Use hearing, the applicant had revised and supplemented the application materials.

Generally, the following revisions were made to the application package.

1. Added the roof eave lines to the proposed buildings to provide a more accurate representation of the building setback compliance.
2. Building A was relocated to the south to provide full compliance with the 60' rear yard setback requirement.
3. The plans have been cleaned up to remove ambiguities and to present the proposed conditions in a clearer manner. The plan numbers were made sequential and the most up to date building plans have been substituted.
4. Added stockade fencing along the south side of the site to further screen the building from Cape Cod Road.
5. Added limitations on area light illumination during nighttime hours.
6. We have created renderings of the landscape as seen from various view points along Cape Cod Road (Attachments 3 and 4)
7. We have added detail to the building floor plans to better indicate floor sloping, floor curb locations as part of the spill containment efforts for each building.
8. Provided a written narrative describing the spill containment measures to be employed in the project (Attachment 6).

9. Added P1 and P2 drawings to depict the self-contained nature of the floor and drainage systems.
10. Updated the aesthetics of the buildings by:
    - Faux window punchouts have been added to the south side of Building C (along Cape Cod Road) to create additional interest and to break-up the length of the building.
    - Utilizing and exterior comprised of "Charcoal" insulated panels and LP SmartSide "Midnight Shadow" vertical Board and Batten siding. The Board and Batten (See Attachment 6) will be installed on:

      Building A: south, east and west sides (everything but the back)
      Building C: south, east and west sides (everything but the front)

      The LP Smartside Features include advanced durability through the use of engineered wood technology offering superior protection against the elements.

LP Smartside Board & Batten Color – Midnight Shadow (see Attach. 5 for aesthetic)

Garage Doors – color selected - Gray

Eight (8) windows on the back of building "C" – black (these are dummy windows)

Please find outlined below the revisions that have been integrated with short narratives describing the intent of each.

Civil Plan Sheets

C1.0 – Existing Conditions Plan (1"=30')– The plan has been revised to show the current property line based upon the recent administrative approval of a lot line adjustment between tis parcel and the golf course parcel to he north.

C1.10 – Existing Conditions Plan (1'=20') – This plan was revised similarly as Sheet C1.0.

C1.20 – Demolition Plan – This is a new sheet to provide a concise representation of the demolition components.

C2.00 – Proposed Conditions Plan

- Removed references to work on the adjacent property to the west .
- Removed the old property line and depicted the current property lines
- Added the roof overhang on the buildings and moved Building A to comply with the 60' rear yard setback requirement.
- Added a Proposed parking summary table at the bottom right of the plan.
- Added a stockade fence along the south side of Building C.
- The front yard setback from Building C was revised to 39 feet to reflect the inclusion of the eave on the south side of the building.

L1.00 – Landscaping Plan

- Removed old property line
- Added stockade fence along the south side of Building C.
- Consolidated notes from Sheet L1.01 on this sheet and eliminated L1.01.
- Added likeness image of stockade fence.

C2.20 – Proposed Drainage Plan

- Updated the proposed grading to be consistent with the berm grading shown on Sheet L1.0.
- Add a note about retaining the existing gravel along the west property line.
- Removed the old property line and depicted the current property lines
- Added a stockade fence along the south side of Building C.

C2.30 – Proposed Utility Plan

- Moved the meter pad and disconnect switch 10’ away from the building.
- Removed the old property line and depicted the current property lines
- Added a stockade fence along the south side of Building C.

C2.40 – Site Lighting Plan

- Formalized the Lumen Count and Density calculations.
- Added narrative regarding operation of the lights after hours.

C3.00 – EPSC P Plan

- Updated the proposed grading to be consistent with the berm grading shown on Sheet L1.0.
- Removed the old property line and depicted the current property lines
- Added a stockade fence along the south side of Building C.

C4.00 – Site Details

- Added note to Dumpster Enclosure Detail regarding inclusion of a roof and screening on all four sides.

A1 – Building A Turf Care Maintenance Facility

- Added code compliance references and building features tables.
- Added Board & Batten siding on south side

A3 – Building C Environmental Management Center

- Added code compliance references and building features tables.
- Added dummy windows on south elevation
- Added Board & Batten siding on south, east and west sides
- Updated overhead doors
- Added hatching to the solid wall portions of the building.
- Removed CarbTrol treatment system for clarity

A1.1, A2.2, A3.3, E3 – Eliminated for Clarity

E2 – Building C Environmental Management Center Electrical Plan

- Added hatching to the solid wall portions of the building.

M2 – Building C Environmental Management Center Electrical Plan

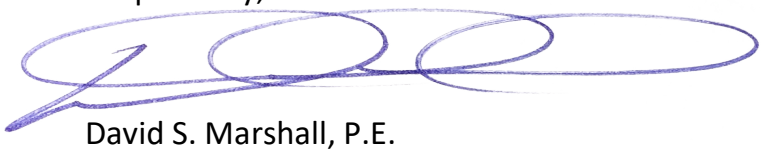
- Added hatching to the solid wall portions of the building.

P1 – Building C Environmental Management Center Drainage Plan – Plan Added

P2 – Building C Environmental Management Center Plumbing for Carbtrol System – Plan Added

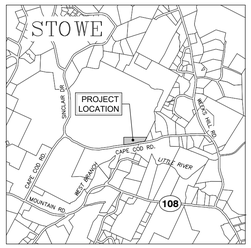
This completes our summary of the revised and supplemental information materials, if you should have any questions or require any additional information, please feel free to contact me at dmarshall@cea-vt.com or 802-864-2323 x310.

Respectfully,



David S. Marshall, P.E.
Principal Engineer

Enclosures:
1 - Revised Civil Plan Set - Last Rev 10.10.23
2 - Revised Architectural Plan Set – Last Rev. 10.10.23
3 - Rendering Central NE View from Cape Cod Road
4 - Rendering of NW View from Cape Cod Road
5 - Board & Batten Siding Example
6 - Combined Spill Control Info Package



LOCATION MAP

1" = 2000'

LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- 100 EXISTING CONTOUR
- EXISTING CURB
- EXISTING FENCE
- EXISTING GRAVEL
- EXISTING PAVEMENT
- EXISTING GUARD RAIL
- E EXISTING ELECTRIC
- FM EXISTING FORCEMAIN
- G EXISTING GAS
- ST EXISTING STORM
- S EXISTING GRAVITY SEWER
- T EXISTING TELEPHONE
- W EXISTING WATER
- EXISTING SWALE
- STREAM
- WETLANDS
- WETLANDS BUFFER
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING YARD DRAIN
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING SHUT OFF
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE/POLE
- EXISTING SIGN
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- IRON ROD/PIPE FOUND
- CONCRETE MONUMENT FOUND
- TP TEST PIT
- P PERCOLATION TEST
- PROJECT BENCHMARK

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

NOTES

1. *UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION.*
2. *THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.*
3. *PROPERTY LINE INFORMATION ON THE NORTH AND WEST SIDES IS APPROXIMATE AND THE GOLF COURSE PERIMETER BOUNDARY SURVEY PREPARED BY LITTLE RIVER SURVEY COMPANY DATED 9/1994. THE SOUTH AND EAST LINES ARE BASED ON INTERPRETATION OF LINE EXTENSIONS FROM THE LITTLE RIVER SURVEY AND PARCEL MAPPING.*
4. *SITE INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY CIVIL ENGINEERING ASSOCIATES, INC MAY 2023. CIVIL ENGINEERING ASSOCIATES, INC. SURVEY ORIENTATION IS "GRID NORTH", VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) AND NAVD88 (VERTICAL) ESTABLISHED FROM GPS OBSERVATIONS ON SITE.*
5. *PROJECT BENCHMARK IS LAKE CHAMPLAIN ESTABLISHED FROM THE UNITED STATES GEOLOGICAL SURVEY GAUGING STATION 04294500 LOCATED IN BURLINGTON, VERMONT. (DATUM NGVD 29)*
6. *CONTOUR INFORMATION IS BASED UPON TOPOGRAPHICAL SURVEY PERFORMED BY CIVIL ENGINEERING ASSOCIATES, INC. MAY 2023. HORIZONTAL AND VERTICAL DATUM BASED ON VCS NAD 83 AND NAVD 88.*

SITE ENGINEER:

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SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER

CAPE COD ROAD
STOWE, VT 05672

ISSUE
PRICING SET

RELEASE DATE
6.2.23

REVISIONS

10/10/23	PER TOWN COMMENTS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	1"=30'

EXISTING CONDITIONS PLAN

C1.00

LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- EXISTING CONTOUR
- EXISTING CURB
- EXISTING FENCE
- EXISTING GRAVEL
- EXISTING PAVEMENT
- EXISTING GUARD RAIL
- EXISTING ELECTRIC
- EXISTING FORCEMAIN
- EXISTING GAS
- EXISTING STORM
- EXISTING GRAVITY SEWER
- EXISTING TELEPHONE
- EXISTING WATER
- EXISTING SWALE
- STREAM
- WETLANDS
- WETLANDS BUFFER
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING YARD DRAIN
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING SHUT OFF
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE/POLE
- EXISTING SIGN
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- IRON ROD/PIPE FOUND
- CONCRETE MONUMENT FOUND
- TEST PIT
- PERCOLATION TEST
- PROJECT BENCHMARK

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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6.2.23

REVISIONS
10/10/23 PER TOWN COMMENTS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	1"=20'

EXISTING CONDITIONS PLAN

C1.10

LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- EXISTING CONTOUR
- EXISTING CURB
- EXISTING FENCE
- EXISTING GRAVEL
- EXISTING PAVEMENT
- EXISTING GUARD RAIL
- EXISTING ELECTRIC
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- IRON ROD/PIPE FOUND
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- TEST PIT
- PERCOLATION TEST
- PROJECT BENCHMARK

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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PRICING SET

RELEASE DATE
8.8.23

REVISIONS
10/10/23 PER TOWN COMMENTS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	1"=20'

DEMOLITION PLAN

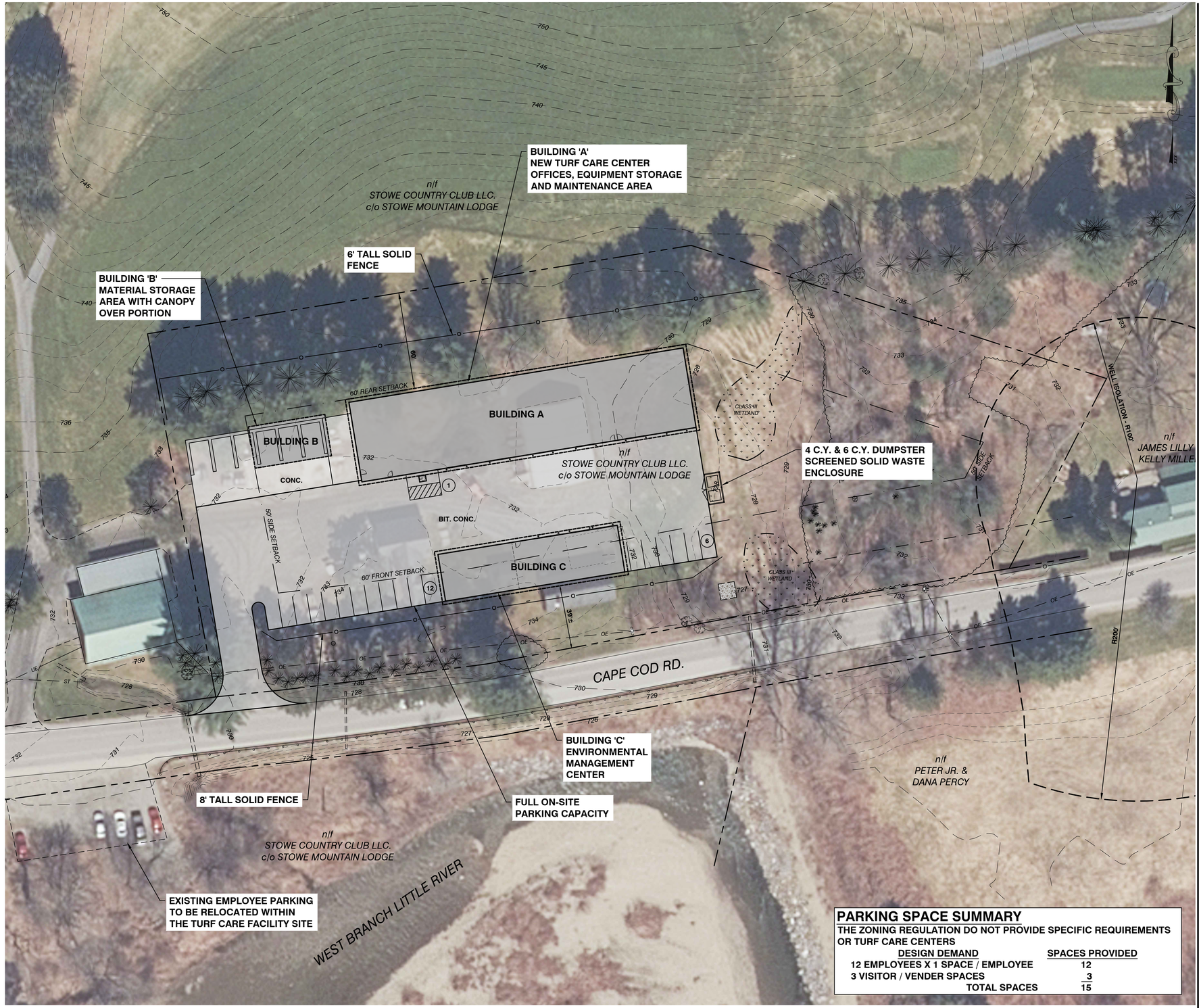
C1.20

LEGEND

- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- PROPOSED CONTOUR
- PROPOSED CURB
- PROPOSED FENCE
- PROPOSED GRAVEL
- PROPOSED PAVEMENT
- PROPOSED GUARD RAIL
- PROPOSED ELECTRIC
- PROPOSED FORCEMAIN
- PROPOSED GAS
- PROPOSED STORM
- PROPOSED GRAVITY SEWER
- PROPOSED TELEPHONE
- PROPOSED WATER
- PROPOSED SWALE
- PROPOSED SEWER MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED YARD DRAIN
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED SHUT OFF
- PROPOSED UTILITY POLE
- PROPOSED LIGHT POLE
- PROPOSED GUY WIRE/POLE
- PROPOSED SIGN
- PROPOSED EDGE OF BRUSH/WOODS
- REBAR SET
- CONCRETE MONUMENT SET

GENERAL NOTES

1. *UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATING FIRM TO LOCATE OWNER OWNED UNDERGROUND UTILITIES PRIOR TO START OF ANY EXCAVATION.*
2. *ALL EXISTING UTILITIES NOT INCORPORATED INTO THE FINAL DESIGN SHALL BE REMOVED OR ABANDONED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.*
3. *THE CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS (WITH TIES) FOR ALL UNDERGROUND UTILITIES. THOSE PLANS SHALL BE SUBMITTED TO THE OWNER AT THE COMPLETION OF THE PROJECT.*
4. *THE CONTRACTOR SHALL REPAIR/RESTORE ALL DISTURBED AREAS (ON OR OFF THE SITE) AS A DIRECT OR INDIRECT RESULT OF THE CONSTRUCTION.*
5. *ALL GRASSED AREAS SHALL BE MAINTAINED UNTIL FULL VEGETATION IS ESTABLISHED.*
6. *MAINTAIN ALL TREES OUTSIDE OF CONSTRUCTION LIMITS.*
7. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY FOR COMPLETE AND OPERABLE FACILITIES AND UTILITIES.*
8. *THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ITEMS AND MATERIALS INCORPORATED INTO THE SITE WORK. WORK SHALL NOT BEGIN ON ANY ITEM UNTIL SHOP DRAWING APPROVAL IS GRANTED.*
9. *IN ADDITION TO THE REQUIREMENTS SET IN THESE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLETE THE WORK IN ACCORDANCE WITH ALL PERMIT CONDITIONS AND ANY LOCAL PUBLIC WORKS STANDARDS.*
10. *THE TOLERANCE FOR FINISH GRADES FOR ALL PAVEMENT, WALKWAYS AND LAWN AREAS SHALL BE 0.1 FEET. UNLESS NOTED OTHERWISE, ALL EXISTING MANHOLE COVERS, VALVES, CURB STOPS AND OTHER ITEMS TO REMAIN SHALL BE ADJUSTED TO THE NEW FINISH GRADE.*
11. *ANY DEWATERING NECESSARY FOR THE COMPLETION OF THE SITEWORK SHALL BE CONSIDERED AS PART OF THE CONTRACT AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.*
12. *THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN TOWN ROAD R.O.W. WITH TOWN AUTHORITIES.*
13. *THE CONTRACTOR SHALL INSTALL THE ELECTRICAL, CABLE AND TELEPHONE SERVICES IN ACCORDANCE WITH THE UTILITY COMPANIES REQUIREMENTS.*
14. *EXISTING PAVEMENT AND TREE STUMPS TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE LOCATION. ALL PAVEMENT CUTS SHALL BE MADE WITH A PAVEMENT SAW.*
15. *IF THERE ARE ANY CONFLICTS OR INCONSISTENCIES WITH THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR VERIFICATION BEFORE WORK CONTINUES ON THE ITEM IN QUESTION.*
16. *PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.*
17. *IF THE BUILDING IS TO BE SPRINKLERED, BACKFLOW PREVENTION SHALL BE PROVIDED IN ACCORDANCE WITH AWWA M14. THE SITE CONTRACTOR SHALL CONSTRUCT THE WATER LINE TO TWO FEET ABOVE THE FINISHED FLOOR. SEE MECHANICAL PLANS FOR RISER DETAIL.*
18. *THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING TESTING AND INSPECTION SERVICES INDICATED IN THE CONTRACT DOCUMENTS, TYPICAL FOR CONCRETE AND SOIL TESTING.*
19. *THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT AND FIELD ENGINEERING REQUIRED FOR COMPLETION OF THE PROJECT. CIVIL ENGINEERING ASSOCIATES WILL PROVIDE AN AUTOCAD FILE WHERE APPLICABLE.*
20. *THE OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ANY AND ALL SAFETY FENCES OR RAILS ABOVE EXISTING AND PROPOSED WALLS. THE OWNER SHALL VERIFY LOCAL, STATE AND INSURANCE REQUIREMENT GUIDELINES FOR THE INSTALLATION AND VERIFY ANY AND ALL PERMITTING REQUIREMENTS.*



PARKING SPACE SUMMARY

THE ZONING REGULATION DO NOT PROVIDE SPECIFIC REQUIREMENTS OR TURF CARE CENTERS

DESIGN DEMAND	SPACES PROVIDED
12 EMPLOYEES X 1 SPACE / EMPLOYEE	12
3 VISITOR / VENDER SPACES	3
TOTAL SPACES	15

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

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ISSUE
PRICING SET

RELEASE DATE
6.2.23

REVISIONS

10/10/23	PER TOWN COMMENTS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	1"=30'

PROPOSED CONDITIONS PLAN

C2.00

PROPOSED 6'-8' HIGH STOCKADE FENCE

PROPOSED 8' HIGH STOCKADE FENCE

TREE REMOVAL (TYP.)

RETAIN EXISTING GRAVEL CONNECTION FOR TURF CARE VEHICLES ACCESS TO THE GOLF COURSE

HEDGEROW TO BE REMOVED FOR IMPROVED DELIVERY ACCESS

EVERGREEN SCREENING FOR SOLID WASTE ENCLOSURE

TREE REMOVAL FOR WASTEWATER DISPOSAL SYSTEM

EXISTING WOODED AREA TO REMAIN

EARTHEN BERM

VEGETATION TO BE REMOVED IN THE RIGHT-OF-WAY TO IMPROVE SITE LINE

EXISTING RED PINE ROW TO REMAIN FOR SHADE RETENTION

CLASS III WETLAND

PLANT LIST

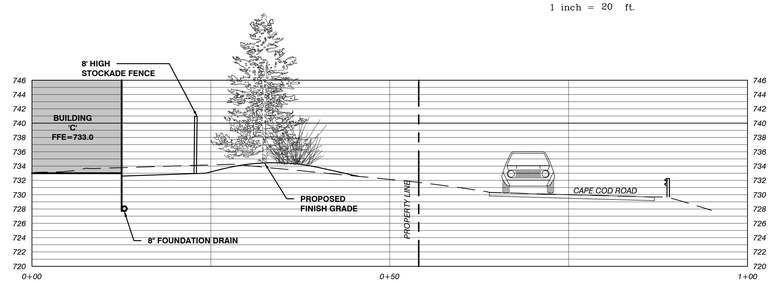
Key	Quan	Scientific Name	Common Name	Size
CoR	6	Cornus racemosa	Gray Dogwood	3 gal.
CoS	2	Cornus sericea	Redtwigged Dogwood	3 gal.
PhG	9	Physocarpus opulifolius 'Ginger Wine'	Ginger Wine Ninebark	3 gal.
PhS	6	Physocarpus opulifolius 'Summer Wine'	Summer Wine Ninebark	3 gal.
PiG	4	Picea glauca	White Spruce	5-6 ft.
PiNS	2	Picea glauca 'North Star'	North Star White Spruce	6 gal.
Pio	2	Picea omorika	Serbian Spruce	5-6 ft.
Qua	1	Quercus alba	White Oak	3" Cal.
ThN	4	Thuja occidentalis 'Nigra'	Dark Green Arborvitae	4-5 ft.
ThS	4	Thuja occidentalis 'Emerald Green'	Emerald Green Arborvitae	5-6 ft.
ThT	3	Thuja occidentalis 'Techney'	Techney Arborvitae	4-5 ft.
Tm	8	Taxus x media 'Hicksii'	Hicks Yew	5 gal.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.



CROSS SECTION A-A

SCALE: 1"=10'

CoR - Gray Dogwood

CoS - Redtwigged Dogwood

PhG - Ginger Wine Ninebark

PhS - Summer Wine Ninebark

PiG - White Spruce

Pio - Serbian Spruce

Qua - White Oak

ThN - Dark Green Arborvitae

ThS - Emerald Green Arborvitae

Tm - Hicks Yew

PiNS - North Star White Spruce

ThT - Techney Arborvitae

Stockade Fence

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SCALE	1"=20'

LANDSCAPE PLAN

L1.00

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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10/10/23 PER TOWN COMMENTS

PROJECT NO.	23158
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SCALE	1"=20'

PROPOSED DRAINAGE PLAN

C2.20

Stowe Country Club, Turf Care Center
Test Pits
May 18, 2023

D. Marshall

TP 1 (South East)
0"- 3" Brown, loose, sandy loam, granular, single grain, 1-5%, round
3"- 24" Brown, loose, coarse sand, granular, single grain, 6-15%, round
24"- 44" Pinkish gray, medium compact, coarse sand, granular, single grain, 15-35%, round
44"- 68" Brown, medium compact, coarse sand, granular, single grain, 15-35%, round
68"- 74" Light gray, loose, coarse sand, granular, single grain, 1-5%, round

Depth to SHGWT - None *Depth of Heavy Roots 24"* *Depth of Fine Roots 37"*
Depth to Seeps- None *Depth to Ledge-None* *Ground Slope 1%*

TP 2
0"- 4" Brown, loose, fine sandy loam, blocky, weak, 1-5%, round
4"- 10" Strong brown, loose, loamy sand, granular, single grain, 6-15%, round
10"- 26" Brown, loose, coarse sand, granular, single grain, 16-35%, round
26"- 43" Pinkish gray, medium compact, coarse sand, granular, single grain, 16-35%, round
43"- 51" Strong brown, loose, coarse sand, granular, single grain, 16-35%, round
51"- 75" Light gray, loose, coarse sand, granular, single grain, 6-15%, round

Depth to SHGWT - None *Depth of Heavy Roots 32"* *Depth of Fine Roots 48"*
Depth to Seeps- None *Depth to Ledge-None* *Ground Slope 1%*

TP 3
0"- 3" Light brown, loose, fine sandy loam, blocky, weak, 1-5%, round
3"- 22" Light brown, loose, loamy sand, granular, single grain, 6-15%, round
22"- 32" Brown, loose, coarse sand, granular, single grain, 16-35%, round
32"- 48" Dark brown, medium compact, coarse sand, granular, single grain, 16-35%, round
48"- 57" Brown, medium compact, coarse sand, granular, single grain, 16-35%, round
57"- 67" Strong brown, loose, coarse sand, granular, single grain, 16-35%, round
67"- 73" Light gray, loose, coarse sand, granular, single grain, 6-15%, round

Depth to SHGWT - None *Depth of Heavy Roots 19"* *Depth of Fine Roots 49"*
Depth to Seeps- None *Depth to Ledge-None* *Ground Slope 1%*

1,000 GAL. SINGLE COMPARTMENT STEP TANK
RIM 731.0
INV. 726.6 (IN)

1½" SDR 26 PVC FORCE MAIN

4" SDR 35 PVC (2.0% MIN. SLOPE)

INV. 727.0

COMPRESSOR

1,000 GAL. BURIED PROPANE TANK

BUILDING A

BUILDING B

BUILDING C

ELECTRIC METER & PANEL

4" SDR 35 PVC (2.0% MIN. SLOPE)

1,000 GAL. FLOOR DRAIN HOLDING TANK
RIM 729.0
INV. 726.5 (IN)

INV. 726.8

4" SDR 35 PVC (2.0% MIN. SLOPE)

CLASS III WETLAND

TREES SHOWN NEAR DISPOSAL FIELD ARE SMALL CALIPER (4"-7") MIXED SPECIES TO BE REMOVED AS NECESSARY

IN-LINE VALVE FOR CONTROLLING DELIVERY RATE TO THE DISPOSAL SYSTEM

1½" SDR 26 PVC FORCE MAIN

PRIMARY CONVENTIONAL IN-GROUND DISPOSAL SYSTEM

TP #1

TP #2

TP #3

10' MIN.

REPLACEMENT SYSTEM

SETBACK 25'

CLASS III WETLANDS

RETAIN EXISTING GRAVEL CONNECTION FOR TURF CARE VEHICLES ACCESS TO THE GOLF COURSE

IRRIG. COVER

1" TYPE K COPPER OR CTS WATER SERVICE LINE & 1" COMM. LINE CONDUIT

(3) 4" CONDUIT FOR POWER AND COMMUNICATIONS

(3) 3" CONDUIT FOR POWER AND COMMUNICATIONS

POLE MOUNTED METER BOARD w/ DISCONNECT

1" TYPE K COPPER OR CTS WATER SERVICE LINE

(3) 4" CONDUIT FOR POWER AND COMMUNICATIONS

EXISTING WELL

POLE MOUNTED XFMR, POWER AND COMMUNICATION DROP

18" HDPE INV. 726.2

18" HDPE INV. 724.7

CB (1' DIA.) RIM 731.1

CB (1' DIA.) RIM 729.9

24" HDPE INV. 726.7

8" HDPE INV. 727.5

STONE WALL

24" CMP INV. 725.6

12" CMP INV. 727.2

12" CMP INV. 724.4

24" CMP INV. 724.2

CAPE COD RD.

WEST BRANCH LITTLE RIVER

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER

CAPE COD ROAD
STOWE, VT 05672

ISSUE
PRICING SET

RELEASE DATE
6.2.23

REVISIONS
10/10/23 PER TOWN COMMENTS

PROJECT NO. 23158
MADE BY SAL
REVIEWED BY DSM
SCALE 1"=20'

PROPOSED UTILITY PLAN

C2.30

LIGHTING CALCULATION SUMMARY

LUMINAIRE SCHEDULE						
TYP	SYMBOL	DESCRIPTION	LUMENS	MOUNTING HEIGHT	QTY	TOTAL LUMENS
W1	□	LSI INDUSTRIES INC. (SLICE MEDIUM) (1) SLM-LED-9L-SIL-2-UNV-DIM-30-70CRI-ALSCS04-EXT-BRZ	9,411	WALL - 11'	5	47,055
W2	□	LSI INDUSTRIES INC. (SLICE MEDIUM) (1) SLM-LED-9L-SIL-3-UNV-DIM-30-70CRI-ALSCS04-EXT-BRZ	9,548	WALL - 11'	1	9,548
W3	□	LSI INDUSTRIES INC. (SLICE MEDIUM) (1) SLM-LED-9L-SIL-5W-UNV-DIM-30-70CRI-ALSCS04-EXT-BRZ	9,261	WALL - 11'	1	9,261
P1	□ ○	LSI INDUSTRIES INC. (SLICE MEDIUM) (1) SLM-LED-12L-SIL-2-UNV-DIM-30-70CRI-ALSCS04-EXT-BRZ	12,533	POLE - 14'	2	25,066
P2	□ ○	LSI INDUSTRIES INC. (SLICE MEDIUM) (1) SLM-LED-12L-SIL-3-UNV-DIM-30-70CRI-ALSCS04-EXT-BRZ	12,714	POLE - 14'	1	12,714

103,644 TOTAL LUMENS
51,461 DEVELOPMENT AREA
103,644 LUMENS / SF DEVELOPMENT AREA

LIGHTING LEVEL LEGEND

- 10.0 FOOTCANDLES
- 5.0 FOOTCANDLES
- 1.0 FOOTCANDLES
- 0.5 FOOTCANDLES
- 0.1 FOOTCANDLES

GENERAL PHOTOMETRIC SCHEDULE	
AVERAGE FOOT-CANDLES	0.70
MAXIMUM FOOT-CANDLES	11.8

Site Lighting Programming

The area lights will be set on a timer in which the lights will be turned off one-hour after astronomical sunset. Lights will be enabled to be turned on no sooner than one-hour before astronomical sunrise.

During nighttime hours all of the exterior lights will be programmed to turned on from a signal from a motion detector. The lights will stay on for 15 minutes before resorting to the off mode.

Motion sensors will be set so that they are not triggered by pass-by traffic on Cape Cod Road.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER

CAPE COD ROAD
STOWE, VT 05672

ISSUE
PRICING SET

RELEASE DATE
6.2.23

REVISIONS
10/10/23 PER TOWN COMMENTS

PROJECT NO. 23158
MADE BY SAL
REVIEWED BY DSM
SCALE 1"=30'

SITE LIGHTING PLAN

C2.40

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER

CAPE COD ROAD
STOWE, VT 05672

ISSUE
PRICING SET

RELEASE DATE
6.2.23

REVISIONS
10/10/23 PER TOWN COMMENTS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	1"=30'

EPSC PLAN

C3.00

Introduction
This project is subject to the terms and conditions of the authorization from the State of Vermont to discharge construction related storm water runoff.

Coverage under the State Construction General Permit 3-9020 is required for any construction activity that disturbs 1 or more acres of land, or is part of a larger development plan that will disturb 1 or more acres.

This project has been deemed to qualify as a Low Risk Site which is subject to the erosion prevention and sediment control (EPSC) standards set for in the State of Vermont's **Low Risk Site Handbook for Erosion Prevention and Sediment Control**

The following narrative and implementation requirements represent the minimum standard for which this site is required to be maintained as regulated by the State of Vermont.

Any best management practices (BMPs) depicted on the project's EPSC Site plan which go beyond the Handbook requirements are considered to be integral to the management of the site and represent components of the municipal EPSC approval for the project which shall be implemented.

The EPSC plan depicts one snap shot in time of the site. All construction sites are fluid in their day to day exposures and risks as it relates to minimizing sediment loss from the site. **It is the responsibility of the Contractor to implement the necessary BMP's to comply with the Low Risk Handbook standards outlined on this sheet based on the interim site disturbance conditions which may or may not be shown on the EPSC Site Plan.**

Specific BMP's which are critical to allowing the project to be considered a Low Risk site include the items checked below:

- Limit the amount of disturbed earth to two acres or less at any one time.
- There shall be a maximum of 7 consecutive days of disturbed earth exposure in any location before temporary or final stabilization is implemented.

1. Demarcate Limits of Disturbance
Purpose:
Delineating the site will help to: limit the area of disturbance to only what is necessary for construction, prevent unauthorized disturbance, preserve existing vegetation, and limit erosion potential on the site.

Requirement:
You must physically mark the limits of construction activity using one of the methods described below.

How to comply:
Before initiating any earth disturbing activities, install a perimeter fence, orange barrier tape, or flagging on stakes or trees to physically demarcate the approved limits of earth disturbance.

2. Pollution Prevention
Purpose:
Many construction sites require storage of chemicals and materials that have detrimental effects if released into our waterways. A storage plan for these potential pollution sources as well as a spill prevention and clean up plan are required to mitigate these risks.

Requirement:
Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained in accordance with the following requirements.

How to comply:
1. Minimize the exposure of the following to precipitation and to stormwater: building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site.

2. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

3. Limit Concurrent Earth Disturbance
Purpose:
Limit the amount of soil exposed at one time to reduce the potential erosion on the construction site.

Requirement:
The maximum area of concurrent earth disturbance is specified on the site's written authorization to discharge. Earth disturbance at any one time cannot exceed the maximum concurrent disturbance identified in the authorization. Areas that are at final stabilization ornthat have been temporarily stabilized in accordance with Section 4 of this handbook, are not counted toward the maximum concurrent disturbance area.

How to comply:
Plan ahead and phase the construction activities to ensure that no more than the permitted maximum concurrent acreage is disturbed and unstabilized at one time. Be sure to properly stabilize exposed soil using one of the methods introduced in Section 4 of this handbook before beginning work in a new section of the site.

4. Site Stabilization
Purpose:
Seeding and mulching, applying erosion control matting, and hydroseeding are all methods to temporarily stabilize exposed soil and prevent soil erosion prior to vegetative growth. Mulches and matting protect the soil surface while grass is establishing. Areas of earth disturbance may also be stabilized with stone, such as rip-rap or gravel, or other impervious surfaces such as pavement and concrete.

Requirements for Temporary Stabilization:
All areas of earth disturbance must have temporary or final stabilization within 14 days of initial disturbance, as stated in the project authorization. After this time, disturbed areas must be temporarily stabilized or permanently stabilized in advance of any runoff producing event. A runoff producing event is an event that produces runoff from the construction site.

The following exception applies:
Temporary 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), provided any dewatering, if necessary, is conducted in accordance with Part 13.

How to comply:
As required by the authorization, temporary stabilization for areas of earth disturbance shall be completed utilizing one or more of the methods below:

Straw Mulch
Mulching Rates
April 16 - Oct. 14 -- Straw: 1 inch deep (1-2 bales/1,000 s.f.)
Oct. 15 - April 15 -- Straw: 2 inch deep (2-4 bales/1,000 s.f.)
*seed may also be incorporated

Wood Chip Mulch or Stump Grindings
Cover entire area with 2-7 inches or more of wood chip mulch or stump grindings.

Hydroseed
As per manufacturer's instructions. Must include mulch component. Not acceptable stabilization for winter construction period.

Requirements for Dust Control:
Construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing during dry periods where off-site damage may occur if dust is not controlled shall be sprayed with water to prevent dust mobilization. Chemical applications, including the use of chloride, shall not be applied without written approval from the VT DEC.

Requirements for Final Stabilization:
All areas of disturbance must have permanent stabilization within 48 hours of reaching final grade. Bring the site or sections of the site to final grade as soon as possible after construction is completed. This will reduce the need for additional sediment and erosion control measures and will reduce the total disturbed area. Prepare bare soil for seeding by grading the top 4 to 6 inches of soil and removing any large rocks or debris, and apply seed per suppliers specifications.

5. Stabilized Construction Access
Purpose:
A stabilized construction access helps remove mud and sediment from vehicles and equipment to prevent tracking onto streets.

Requirements:
If there will be any vehicle or equipment traffic off of the construction site, you must install a stabilized construction access at the start of construction.

How to install:
Rock Size: Use a mix of 1 to 4 inch stone
Depth: 8 inches minimum
Width: 12 feet minimum, flared at road for vehicle turning
Length: 40 feet minimum (or length of driveway for residential projects, if shorter)
Geotextile: Place filter cloth under entire stone bed

Maintenance:
Redress with clean stone or scarify to open voids as required to keep sediment from tracking onto the street.
- Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day.
- Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal.
- You are prohibited from hosing or sweeping tracked out sediment into any stormwater conveyance, storm drain inlet, or water of the state.

6. Divert Upland Runoff
Purpose:
Diversion berms intercept stormwater runoff contributing from above the construction site and direct it around the disturbed area. This prevents offsite runoff from entering the construction site, thus reducing the potential for erosion and reducing the drainage area contributing to the site.

Requirements:
If stormwater runoff contributes to the construction site from upslope areas and the site meets the following two conditions, you are required to first install a diversion berm and stabilized swale before disturbing any additional soil.
1. One or more acres of soil will be disturbed at any one time.
2. Average slope of the disturbed area is 20% or steeper.*

Diversion Berm installation:
1. Construct berm to the minimum specification above.
2. Compact the berm with a shovel or earth-moving equipment.
3. Seed and mulch berm or cover with erosion control matting immediately after installation.
4. Stabilize the flow channel with seed and mulch or erosion control matting. Line the channel with 4 inch stone if the channel slope is greater than 20%.
5. Ensure the berm drains to an outlet stabilized with ripra p. Ensure that there is no erosion at the outlet.
6. The diversion berm shall remain in place until the disturbed areas are completely stabilized.

7. Install Perimeter Controls
Purpose:
Silt Fence and Erosion Control Berms intercept runoff and allow suspended sediment to settle or filter out. Filter Socks and Straw Wattles also filter construction runoff and are acceptable for use in specific situations. Silt Fence, Erosion Control Berms, Filter Socks and Straw Wattles are all acceptable perimeter controls based on site specific conditions. Permittee(s) must ensure the right practice is selected for erosion prevention and sediment control.

Requirements:
Perimeter controls must be installed:
- On the downhill side of the construction activities
- Between any ditch, swale, storm drain, or surface water and the disturbed soil
- Perimeter controls not labeled as biodegradable shall be removed once the drainage area has reached final stabilization

How to Comply:
Select and install a perimeter control from the following options: Silt Fence, Erosion Control Berms, Filter Socks, or Straw Wattles.

Where to place:
- Place perimeter controls on the downhill side of disturbed soil. If space is available, place perimeter control 10 ft from the bottom of the slope, otherwise place along the contour at the bottom of the slope.
- Ensure the perimeter control catches all runoff from distrubed soil.
- Maximum drainage area is¼ acre for 100 feet of silt fence and erosion control berm.
- Install perimeter controls across the slope (not up and down slope)
- Install multiplerows of perimeter control on long slopes to intercept flow.
- Do not install perimeter controls across ditches, channels, or streams.
- Maximum slope length (in feet) above a filter sock or straw wattle

Silt Fence
A temporary barrier of geotextile fabric installed on the contours across a project site to intercept sediment laden runoff from small drainage areas of disturbed soil.

Silt Fence Installation:
- Dig a trench 6 inches deep across the slope
- Unroll silt fence along the trench
- Ensure stakes are on the downhill side of the fence
- Join fencing by rolling the end stakes together
- Drive stakes in against downhill side of trench
- Drive stakes until 16 inches of fabric is in trench
- Push fabric into trench; spread along bottom
- Fill trench with soil and pack down
- Gravel can be used to create ground contact with filter fabric when bedrock, ledge, or nearby tree roots do not allow for trenching. (A secondary perimeter control can be effective in these locations as well.)

Silt Fence Maintenance:
Remove accumulated sediment before it is halfway up the fence. Ensure that silt fence is trenched in ground and there are no gaps. Replace any silt fence that is torn, ripped, or otherwise damaged that

8. Storm Inlet Protection
Purpose:
Existing or new storm inlets on construction sites constitute a site perimeter and must be protected from sediment laden runoff. The practices below allow stormwater to settle and filter through the practice and not bypass the in let entirely.

Requirements:
Stormwater inlets shall be 4 inches above grade or an acceptable inlet control/protection should be installed.

Inlet Protection Installation:
Proprietary Inlet Protection:
Shall provide for storage and removal of sediment and be sized appropriately for the drainage area, while allowing stormwater to filter through. These may be used if installed and maintained in accordance with the manufacturer's specifications.

Stone and Block Inlet Protection:
Concrete blocks placed around an inlet with a circle of filtering stone sloped against the blocks.
Filter Fabric and Stone Inlet Protection:
Vertical filter fabric installed around drop inlet with stone around fabric for stormwater filtering and creating ground contact with filter fabric. Alternatively, fabric may be buried below ground.

9. Water Bars
Purpose:
Some sites may benefit from the use of water bars on the construction site. When installed these may capture and redirect runoff to a stable low gradient location. Water bars limit the erosive velocity of water by diverting surface runoff at pre-designed intervals.

Requirements:
These can be constructed per the following detail, with side slopes no steeper than 4:1 where vehicles cross with a minimum design height of 12 inches, measured from channel bottom to ridge top.

Water Bar installation:
Water bars should have stable outlets, either natural or constructed. The spacing should follow Table 1:

Table 1. Water Bar Spacing

Slope (%)	Distance between structures (ft)
< 5	125
5 - 10	100
10 - 20	75
20 - 35	50
> 35	25

10. Slow Down Channelized Runoff
Purpose:
Stone check dams reduce erosion in drainage channels by slowing down the stormwater flow.

Requirements:
If there is a concentrated flow(e.g. in a ditch or channel) of stormwater on your site, then you are required to install stone check dams. Hay bales and silt fence must not be used as check dams.

Check Dam installation:
Height: No greater than 2 feet. Center of dam should be 9 inches lower than the side elevation
Side slopes: 2:1 or flatter (see p.63 for slope calculation)
Stone size: Use a mixture of 2 to 9 inch stone, the larger stone should act as armoring, while the smaller stone helps to filter the channelized runoff. The small stone should be placed primarily in the interior of the check dam and the large stone should be placed in an armoring layer on the outside.
Width: Dams should span the width of the channel and extend up the sides of the banks
Spacing: Space the dams so that the bottom (toe) of the upstream dam is at the elevation of the top (crest) of the downstream dam. This spacing is equal to the height of the check dam divided by the channel slope.

Check Dam Maintenance:
Correct all observed damage immediately after every ru naff event.
Remove all sediment accumulated behind the check dams and dispose of in an upland location. If significant erosion is observed between check dams, the channel shall be stone lined.

Rock Outlet Protection:
Waterways or outlets with concentrated stormwater runoff shall be stabilized with riprap, proprietary stabilization product or permanent material. This additional stabilization is applicable in areas where the channel slope and velocity or soil type require additional stabilization. All outlets from concentrated stormwater flows will require a stabilized bed. Stone shall be sized so it is not mobilized during high flows.

11. Slope Stabilization
Purpose:
Surface covering designed to protect and stabilize an area prone to erosion where seeding and mulching may be inadequate, generally slopes 3:1 or greater. The erosion potential may be due solely to slope angle; however,
a more gradual slope and poor soil structure can also require additional stabilization.

Requirements for Temporary Stabilization:
Use of one of the listed slope protection practices below on slopes 3:1 and greater or as needed on flatter slopes based on soil type.

Riprap: A layer of stone designed to protect and stabilize areas subject to erosion.Rolled Erosion Control Product:

A preformed protective blanket of straw or other plant residue, formed into a mat, with a supporting mesh framework on one or both sides. This mesh cannot be made of a material with welded joints.

Erosion Control Matting:
Install per manufacturer's instructions.

12. Winter Construction Requirements: October 15 - April 15
Purpose:
'Winter construction' as discussed here, describes the period from October 15 through April 15, when erosion prevention and sediment control is significantly more difficult. There are specific requirements for sites that conduct earth disturbance during the defined Winter Construction Period and for sites where disturbed areas have not reached final stabilization by October 15.

Rains in late fall, thaws throughout the winter, and spring melt and rains can produce significant flows over frozen and saturated ground, greatly increasing the potential
for erosion. A construction site can be managed to anticipate these conditions to prevent erosion and thus minimize the risk to water quality during this time period.

Requirements for Winter Shutdown:
For projects or areas of a site that will have completed earth disturbance activities prior to the winter construction period (October 15 through April 15), the following requirements must be adhered to:

1. For areas to be stabilized for the winter through the establishment of vegetation, seeding and mulching shall be completed no later than September 15 to ensure adequate growth and cover before the start of the winter period.

2. If seeding is not completed by September 15, additional non-vegetative protection must be used to stabilize the site for the winter period. Areas of disturbance not seeded and mulched by September 15 are required to temporarily stabilize by one of the following methods:

Implement Rolled Erosion Control Products (i.e. matting) over the areas of earth disturbance.

Apply a 2" mulch layer to areas of earth disturbance, equivalent to double the standard rate. Mulch should be tracked in open areas vulnerable to wind.

Seeding with winter rye is recommended to allow for early germination during wet spring conditions.

Requirements for Winter Construction
If construction activities involving earth disturbance continue into the winter construction period, the following requirements apply:

1. Enlarged access points, stabilized to provide for snow stockpiling.
2. Snow shall be managed with adequate storage and control of meltwater, requiring cleared snow to be stored down slope of all areas of disturbance and out of stormwater treatment structures.
3. For areas of disturbance within 100 ft of a waterbody, the following must be installed across the slope, down gradient of the earth disturbance: a combination of one practice from group A placed in front of a practice from group B, or two group B practices, or a single row of Reinforced Silt Fence

Group A	Group B
Filter Socks	Silt Fence
Straw Wattles	Erosion Control Berms

4. Drainage structures must be kept open and free of snow and ice dams.
5. Silt fence and other practices requiring earth disturbance must be installed ahead of frozen ground.
6. Mulch used for temporary stabilization must be applied at a minimum of 2 inches with an 80-90% cover.
7. To ensure cover of disturbed soil in advance of a precipitation or melt event, areas of disturbed soil must be stabilized prior to any runoff producing event.

Stabilization is not required if the work is occuring in a self-contained excavation (i.e. no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation, utility trenches), provided any dewatering, if necessary, is conducted in accordance with Part 13.

8. Prior to stabilization, snow or ice must be removed to the extent practicable.
9. Use stone to stabilize areas such as the perimeter of buildings under construction or where construction vehicle traffic is anticipated. Stone paths should
be sufficient width to accommodate vehicle or equipment traffic.

13. Dewatering Activities
Purpose:
To minimize and prevent discharges of sediment as a result of dewatering activities.

Requirements:
Stormwater and groundwater from dewatering activities shall be uncontaminated and shall be filtered or passed through a sediment trapping device, or both, and routed in a manner that does not result in visually turbid discharges to waters. Pump intake for dewatering must be at or near the surface of the ponding area to prevent disturbance of the settled material. Visually turbid water must not be pumped directly to storm drains or other conveyance that leads to waters without implementing one or more of the practices described below.

How to comply:
Implement one or more of the following practices when dewatering:
Implement sock filters or sediment filter bags on dewatering pump discharge hoses or pipes.
Route dewatering pump into silt fence enclosures or into staked hay bale enclosures lined with fabric.
Route dewatering pump to vegetated area at least 50 feet from surface waters and at a slope no greater than 5%. Remove accumulated sediment after the water has dispersed or infiltrated and stabilize the area with seed and mulch as necessary. A sufficient area of vegetation greatly improves the efficacy of filtering/settling of turbid water discharged from a dewatering enclosure.

14. Concrete Washout
Purpose:
Concrete wash water often contains a slurry of heavy metals, can be caustic, and has a high pH. As a result, concrete washwater is not a permitted discharge.

Requirements:
Concrete washwater and excess washout concrete should go in a lined washout. This washout should be accessible to the cement truck and at least 50 feet away from stormwater inlets and surface water.

Concrete Washout Installation:
If cement washout is going to occur on site, a lined concrete washout as shown below shall be used onsite. Care should be given to assure that the washout does not overtop during a storm event. Proprietary lined and
contained concrete washout basins may also be utilized in accordance with manufacturer's specifications.

Concrete Washout Maintenance:
Concrete washout shall be pumped to a concrete truck as necessary, for disposal or reuse at a batch plant. Washout may also be allowed to evaporate/harden for disposal in accordance with all applicable local, state, and federal regulations.

15. Permanent Controls
Permanent stormwater treatment practices are constructed to maintain water quality, preserve existing water table elevations, prevent downstream flooding, and are often required for a project under a Vermont operational stormwater discharge permit applicable to the construction or redevelopment of impervious surfaces.*

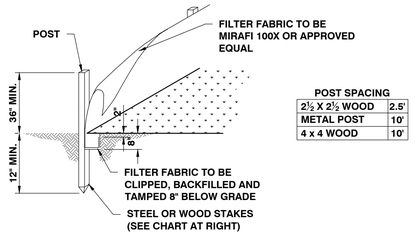
Permanent Stormwater Treatment Practices (STPs) include infiltration and filtering practices as well as detention ponds and treatment wetlands. It is critical that infiltration practices do not receive runoff until the site area has reached final stabilization.

The outlet of permanent controls that are used as temporary storage and sediment basins during construction constitutes a potential discharge point and therefore must be managed to minimize and prevent sediment laden stormwater discharges. These practices will often need to be reshaped to meet the operational design criteria for volumes, grades and geometry once final grading and stabilization has occurred.

16. Inspection, Maintenance, and Discharge Reporting
Site inspections are required to ensure that all erosion prevention and sediment control practices are sufficient and functioning properly. Regular inspections and maintenance of practices will help to reduce costly repairs and minimize the risk to water quality from construction stormwater discharges.

Requirements:
Inspect the site at least once every 7 days and after every rainfall or snowmelt that results in stormwater runoff. Perform maintenance to ensure that practices are functioning according to the specifications outlined in this handbook. In the event of a visibly turbid discharge from the construction site, you must take immediate action to inspect and maintain existing erosion prevention and sediment control practices. Additional erosion prevention and sediment control measures must be installed as necessary, including temporary stabilization, to minimize and prevent the discharge of sediment laden stormwater runoff. If after maintaining and supplementing BMPs, a discharge of visibly discolored stormwater from the construction site to surface waters continues, the permittee is required to notify DEC within 24 hours.

While documentation of a routine inspection is not required, example inspection forms and forms for required discharge reporting are available at the Stormwater Program website. Permittees shall review Construction General Permit 3-9020 for all discharge reporting requirements. A copy of the Low Risk Site Handbook shall be kept on-site. Daily inspections are required from October 15 through April 15.



POST SPACING	
2½ X 2½ WOOD	2.5'
METAL POST	10'
4 x 4 WOOD	10'

NOTES:

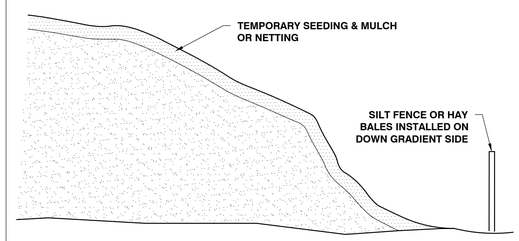
1. INSTALL MIRAFI ENVIROFENCE, OR APPROVED EQUAL OR AS DETAILED HEREIN.

2. INSTALL SILT FENCES AT TOES OF ALL UNPROTECTED SLOPES AND AS PARALLEL TO CONTOURS AS POSSIBLE. THIS INCLUDES ALL FILLED OR UNPROTECTED SLOPES CREATED DURING CONSTRUCTION, NOT NECESSARILY REFLECTED ON THE FINAL PLANS. CURVE THE ENDS OF THE FENCE UP INTO THE SLOPE. REMOVE SEDIMENT WHEN ACCUMULATED TO HALF THE HEIGHT OF THE FENCE. SILT FENCES ARE TO BE MAINTAINED UNTIL SLOPES ARE STABILIZED.

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6", FOLDED AND STAPLED.

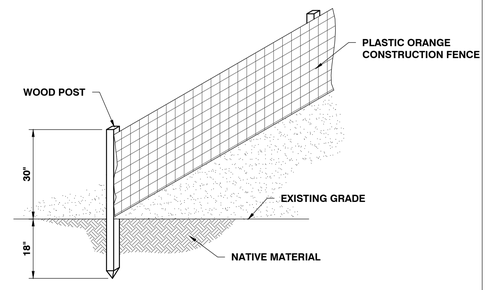
SILT FENCE DETAIL
N.T.S.

E-003 Silt Fence | E-003 | REVISED 08/01/2014



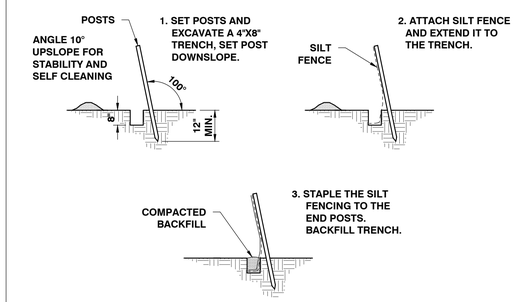
TEMPORARY STOCKPILE DETAIL
N.T.S.

E-005 Stockpile | E-005 | REVISED 08/01/2014



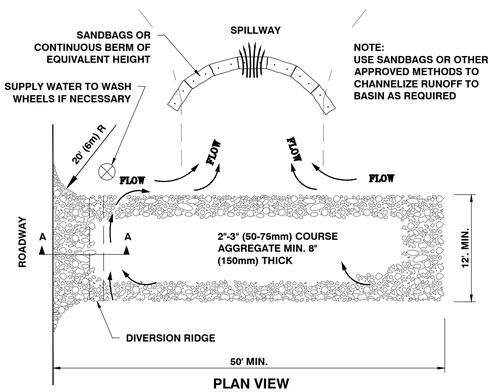
CONSTRUCTION FENCE DETAIL
N.T.S.

E-002 Constr. Fence | E-002 | REVISED 08/01/2014



SILT FENCE CONSTRUCTION DETAIL
N.T.S.

E-007 Infilt Sect | E-007 | REVISED 08/01/2014



PLAN VIEW

SECTION A-A

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

E-004 Constr. Ent | E-004 | REVISED 08/01/2014

NOTES:

1. **THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.**
2. **WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.**
3. **WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.**

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

MULCH NOTE:

MULCH FOR PURPOSES OTHER THAN HYDROSEEDING WILL BE CLEAN STRAW, FREE FROM WEEDS. HAY MULCH WILL NOT BE ALLOWED TO AVOID THE SPREAD OF NON-NATIVE SPECIES SUCH AS WILD PARSNIP.

SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER
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STOWE, VT 05672

ISSUE
PRICING SET

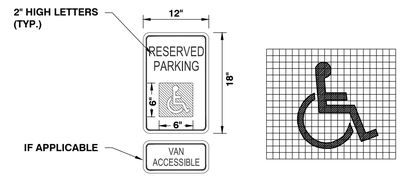
RELEASE DATE
6.2.23

REVISIONS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	AS SHOWN

EPSC NARRATIVE AND DETAILS

C3.10



COLOR: LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE
MATERIAL: AS PER VAOT STANDARD E-143M
POST: 2" (14 ga.) SQUARE STEEL SIGN POST
INSTALL IN ACCORDANCE w/VAOT
STANDARD E-164

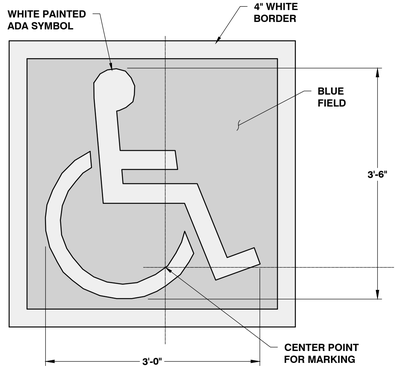
ACCESSIBLE PARKING SIGN DETAIL

N.T.S.

SIGN SHALL BE POSTED AT THE HEAD OF EACH ACCESSIBLE SPACE.
MOUNTING HEIGHT IS 60" MINIMUM TO BOTTOM OF SIGN.

S-015b HC Sign

S-015b REVISED 2/27/2020



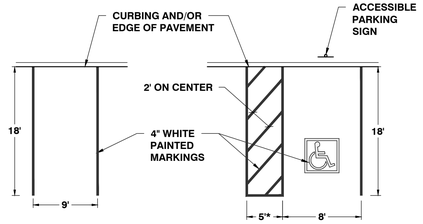
NOTE: PAVEMENT MARKINGS TO MEET STATE STANDARDS E-191

ACCESSIBLE PARKING MARKING DETAIL

N.T.S.

S-015a HC Pave Marking

S-015a REVISED 2/27/2020



*8' FOR VAN ACCESSIBLE SPACE
(UNLESS OTHERWISE NOTED ON PLANS)

STANDARD PARKING SPACE ACCESSIBLE PARKING SPACE

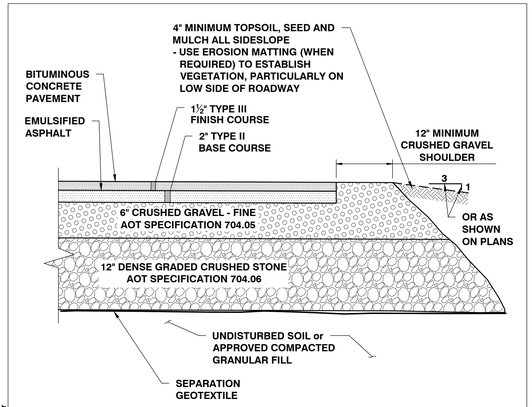
TRAFFIC MARKING PAINT TO BE READY-MIXED TRAFFIC PAINT SUITABLE FOR MARKING ON EITHER BITUMINOUS OR PORTLAND CEMENT CONCRETE PAVEMENT. READY-MIXED LOW VOC TRAFFIC PAINT SHALL CONSIST OF 100% ACRYLIC TYPE, FAST DRYING TRAFFIC PAINT.

LINE STRIPING DETAIL

N.T.S.

S-015 Parking Space Striping

S-015 REVISED 2/27/2020

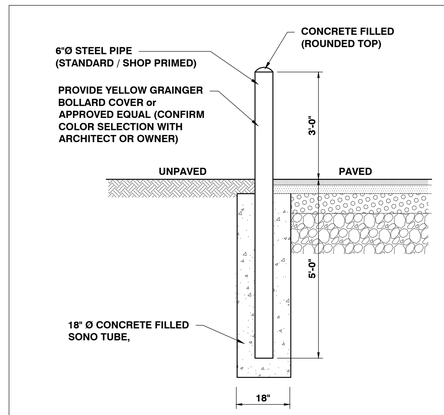


TYPICAL PAVEMENT SECTION

(FULL DEPTH CONSTRUCTION SECTION) N.T.S.

S-003 Pave Sec-Shoulder

S-003 REVISED 12/03/2020

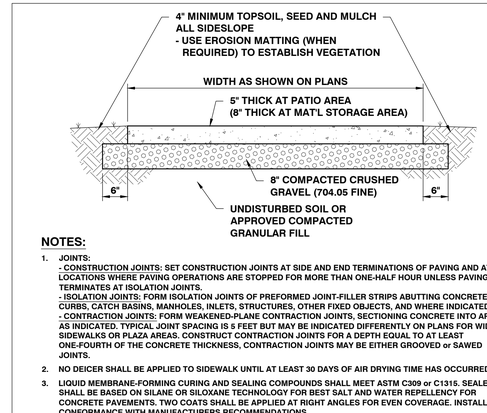


BOLLARD DETAIL

N.T.S.

S-011 Bollard

S-011 REVISED 05/08/2015



NOTES:

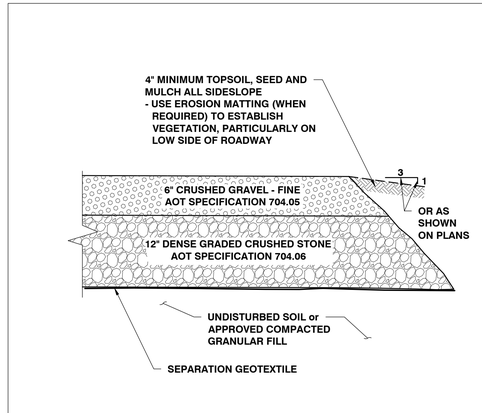
1. JOINTS:
   - CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVING AND AT LOCATIONS WHERE PAVING OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVING TERMINATES AT ISOLATION JOINTS.
   - ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, OTHER FIXED OBJECTS, AND WHERE INDICATED.
   - CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. TYPICAL JOINT SPACING IS 5 FEET BUT MAY BE INDICATED DIFFERENTLY ON PLANS FOR WIDER SIDEWALKS OR PLAZA AREAS. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, CONTRACTION JOINTS MAY BE EITHER GROOVED or SAWED JOINTS.
2. NO DEICER SHALL BE APPLIED TO SIDEWALK UNTIL AT LEAST 30 DAYS OF AIR DRYING TIME HAS OCCURRED.
3. LIQUID MEMBRANE-FORMING CURING AND SEALING COMPOUNDS SHALL MEET ASTM C309 or C1315. SEALERS SHALL BE BASED ON SILANE OR SILOXANE TECHNOLOGY FOR BEST SALT AND WATER REPELLENCY FOR CONCRETE PAVEMENTS. TWO COATS SHALL BE APPLIED AT RIGHT ANGLES FOR EVEN COVERAGE. INSTALL IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS.
4. INSTALL POLYURETHANE ELASTOMERIC SEALANT AT ALL SAWED JOINTS.

CONCRETE SLAB DETAIL

N.T.S.

S-002 Conc Walk

S-002 REVISED 7/01/2019

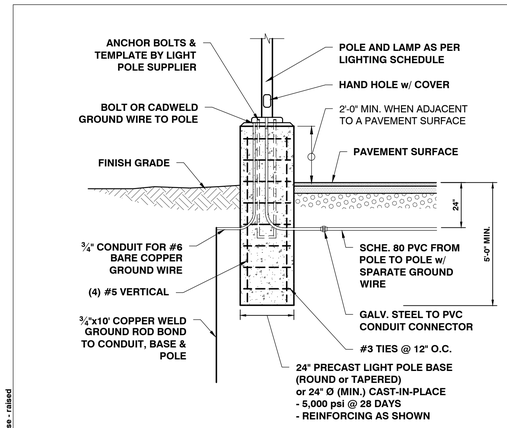


TYPICAL GRAVEL SURFACE SECTION

N.T.S.

S-004 Gravel Sec

S-004 REVISED 12/03/2020

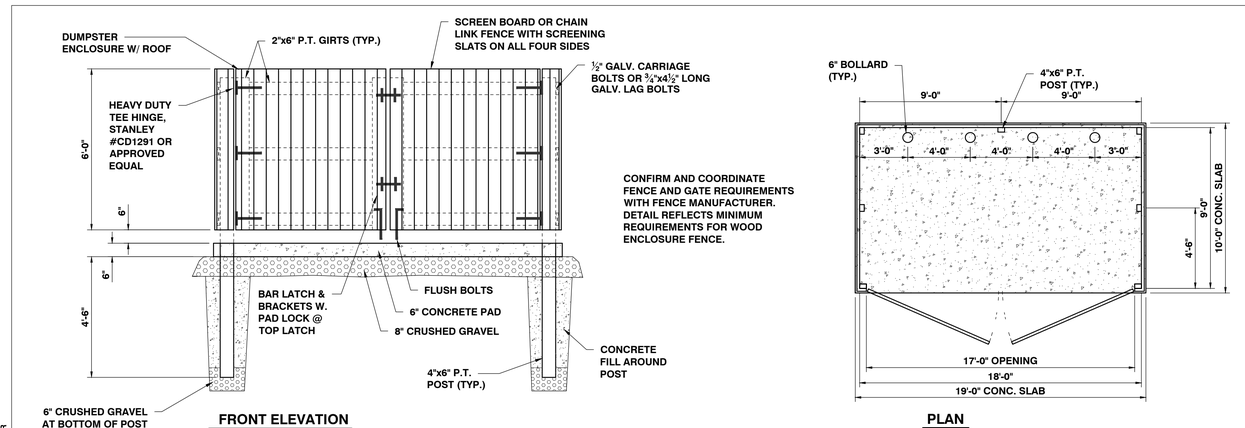


POLE LIGHT BASE DETAIL

(ADJACENT TO PAVEMENT) N.T.S.

L-003 Light Pole Base - raised

L-003 REVISED 12/19/2014



FRONT ELEVATION PLAN

DUMPSTER ENCLOSURE

N.T.S.

DET-010 DUMPSTER

M-010 REVISED 09/07/2020

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
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ISSUE
PRICING SET

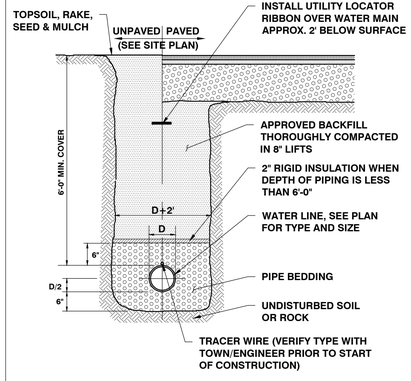
RELEASE DATE
6.2.23

REVISIONS
10/10/23 PER TOWN COMMENTS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	AS SHOWN

SITE DETAILS

C4.00



NOTES:

1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
2. BEDDING MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE.
3. APPROVED BACKFILL SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION (6" IN ROADWAYS, 1 1/2"" MAXIMUM DIAMETER WITHIN 24" OF THE OUTSIDE OF THE PIPE), OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIAL.
4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS OR HIGH WATER TABLE, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL SHALL CONSIST OF CRUSHED STONE, OR SAND WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.
8. CONTRACTOR TO INSTALL TRACER WIRE ALONG ALL SECTIONS OF NEW WATER LINE. TERMINATE TRACER WIRE AT ALL VALVE BOXES AND HYDRANTS. COORDINATE INSTALLATION WITH TOWN AND ENGINEER.

TYPICAL WATER TRENCH DETAIL

N.T.S.

W-001 Trench

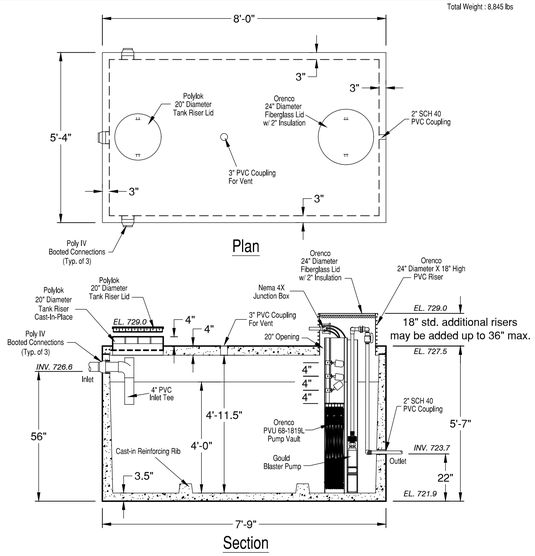
W-001

REVISED 12/08/2016

1000 Gallon (Single Compartment) Step

Seamless Step / Pump Tank (1000Step)

Total Weight : 8,845 lbs



SPECIFICATIONS:
- Concrete Minimum Strength 5000psi @ 28 days
- Steel Reinforcement Grade 60
- Poly IV Booted Connections
- Top Seam Construction
- Weights Subject to Variation

CAMP

PRECAST CONCRETE PRODUCTS
78 PRECAST ROAD MILTON, VT 05468 •802.893.2401
TOLL FREE 1.888.299.2401 FAX 802.893.1542

CAMP Precast Concrete Products www.CAMPPRECAST.com Revision Date : 3/1/2006 Section :5

The tanks shall be tested by the following procedure and in conformance with the State of Vermont - Environmental Protection Rules:

1. **Exfiltration Leakage Test: All pipes and other openings into the tank shall be suitably plugged and the plugs braced to prevent blowout. The tank shall then be filled with water to the top of the riser section. A period of time may be permitted, if the Contractor so wishes, to allow for absorption. At the end of this period, the tank shall be refilled to the top of the riser, if necessary, and the measuring time of at least four hours begun. At the end of the test period, the tank shall be refilled to the top of the riser, measuring the volume of water added. This amount shall be converted to gallons per vertical foot depth for 24 hours. The leakage for each tank shall not exceed four gallon/vertical foot/day. If leakage exceeds the allowable rate, repairs shall be made as approved by the Engineer and the tank retested. If the Contractor elects to backfill prior to testing, the testing shall be at his own risk, and it shall be incumbent upon the Contractor to determine the reason for any failure of the test. No adjustment in the leakage allowance will be made for unknown causes such as leaking plugs, absorption, etc. It will be assumed that all loss of water during the test is a result of leaks through the joints or through the concrete. Furthermore, the Contractor shall take any steps necessary to assure the Engineer that the water table is below the bottom of the tank throughout the test.**

OR

2. **Vacuum test in accordance with ASTM C1227-03, Standard Specification for Precast Concrete Septic Tanks, except as noted below:**

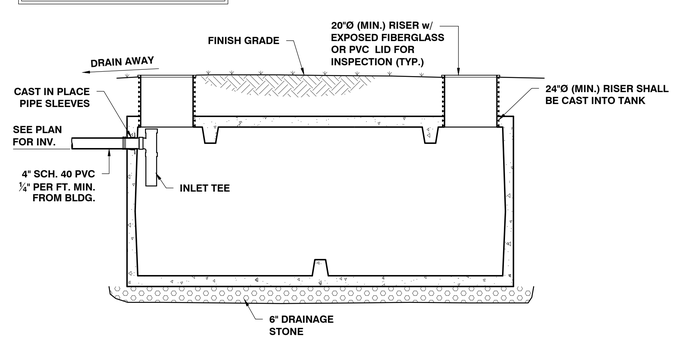
   - seal the empty tank and apply a vacuum to 5 inches (100mm) of mercury. The tank is approved if 90% of vacuum is held for 5 minutes.

TANK TESTING NOTES

SWR-103-Tank Testing Notes

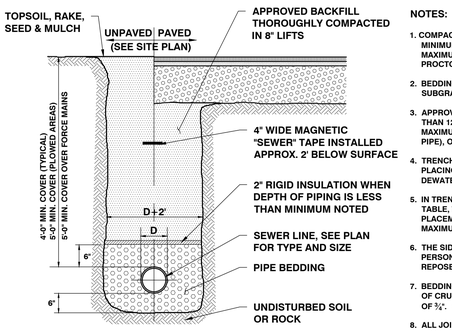
SWR-103

GENERAL NOTES:
- **ALL TANKS TO BE WATER-PROOF w/ BOOTED CONNECTIONS**



1,000 GALLON HOLDING TANK

N.T.S.



NOTES:

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4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS OR HIGH WATER TABLE, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL FOR WASTEWATER LINES SHALL CONSIST OF CRUSHED STONE, GRAVEL, OR SAND WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.
8. ALL JOINTS TO BE INSPECTED BY OWNER/ENGINEER/TOWN PRIOR TO BACKFILL.

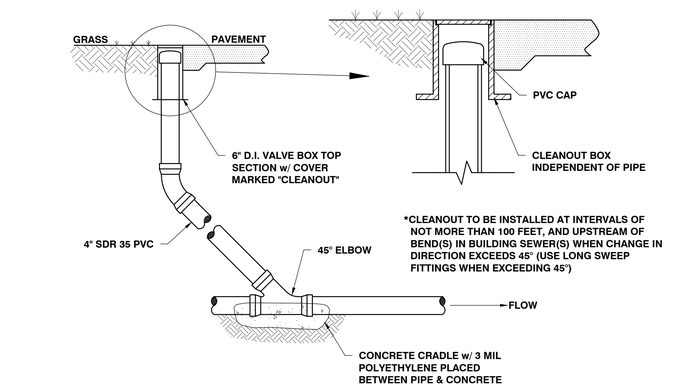
TYPICAL SEWER TRENCH DETAIL

N.T.S.

SWR-001 Trench

SWR-001

REVISED 12/08/2016



TYPICAL CLEANOUT DETAIL

N.T.S.

SWR-007B CO

SWR-007B

REVISED 8/28/2017

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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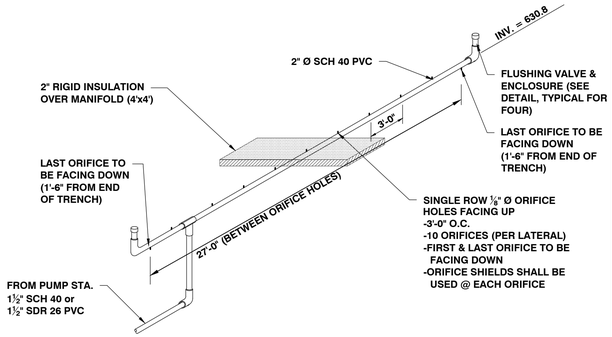
REVISIONS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	AS SHOWN

WATER AND SEWER DETAILS

C4.10

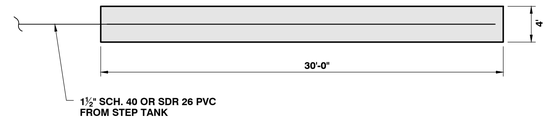


TRENCH PIPING DETAIL

N.T.S.

DET-022 Trench Piping

DET-022 REVISED 7/10/2018

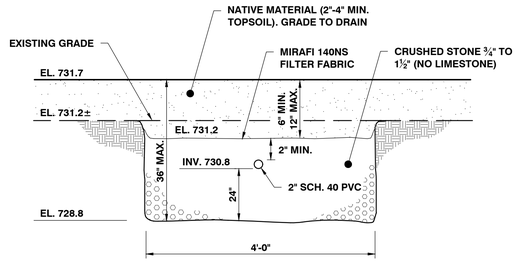


TYPICAL TRENCH PLAN

N.T.S.

SWR-023 Typical Trench

SWR-023 REVISED 10/31/2014



TYPICAL DISPOSAL FIELD TRENCH SECTION

N.T.S.

	Horizontal Distance (Feet)		
	Leach field	Septic Tank	Sewer
Drilled Well Serving 1 Home - Up Slope of Disposal Field	100 (Min.)[1]	50	50
Drilled Well Serving 1 Home - Down Slope of Disposal Field	200 (Min.)[1]	50	50
Shallow Well or Spring, Up Slope of Disposal Field	150 (Min.)[1]	75	75
Shallow Well or Spring, Down Slope of Disposal Field	500 (Min.)[1]	75	75
Lakes, Ponds and Impoundment	50	25	25
Rivers, Streams	50	25	10
Drainage Swales, Roadway Ditches	25	-	-
Municipal Water Main	50	50	10
Service Water Lines	25	25	10
Roadways, Driveways, Parking Lots	10	5	5[4]
Top of embankment or slope > 30%	25	10	-
Property Line	10 (25 Downslope)[2]	10	10
Trees	10	10	10
Replacement Area	10	-	-
Foundation, Footing Drains, Perimeter of a Building	35 (75 Downslope)[3]	10	-

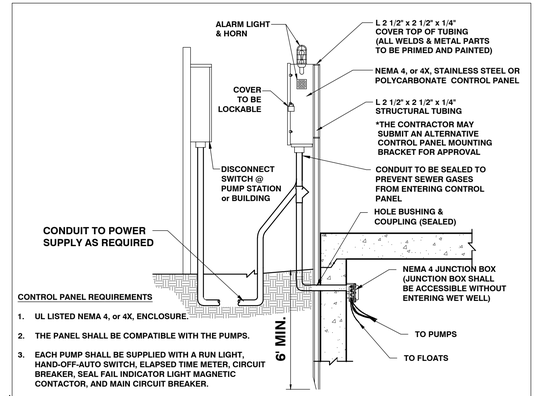
1. **Isolation distances to well locations may vary due to site conditions - contact Engineer for verification with the Vermont Water Supply Rule Regulations.**
2. **For mound disposal systems, the limit of mound fill must be 25 feet from any downhill property line and 10 feet from side or uphill property lines.**
3. **If a curtain or foundation drain is downslope of the leach field, the leach field cannot be closer than 75 feet to the drain. If the drain is upslope of the leach field, it shall be 35' if possible and 20' minimum.**
4. **Sewers under roads, driveways or parking lots may require protective conduits or sleeves.**

MINIMUM ISOLATION DISTANCES

(CONTACT ENGINEER FOR ANY CLARIFICATIONS OR CONFLICTS)

WR-100 Sewer Iso

SWR-100 REVISED 08/23/2022



CONTROL PANEL REQUIREMENTS

1. **UL LISTED NEMA 4, or 4X, ENCLOSURE.**
2. **THE PANEL SHALL BE COMPATIBLE WITH THE PUMPS.**
3. **EACH PUMP SHALL BE SUPPLIED WITH A RUN LIGHT, HAND-OFF-AUTO SWITCH, ELAPSED TIME METER, CIRCUIT BREAKER, SEAL FAIL INDICATOR LIGHT MAGNETIC CONTACTOR, AND MAIN CIRCUIT BREAKER.**
4. **ALARM INDICATION - ALARM LIGHT AND HORN (OR BELL) w/ BATTERY BACK-UP. THE AUDIO ALARM SHALL HAVE AN AUTOMATICALLY RESETTING MANUAL SILENCE SWITCH AND MANUAL TEST SWITCH.**
5. **ALARM ACTIVATION -**
   PUMP FAILURE
   HIGH WATER
   LOW WATER

CONTROL PANEL DETAIL

N.T.S.

SWR-028 CONTROL PANEL

SWR-028 REVISED 3/13/2018

DISPOSAL FIELDS & FORCE MAINS

PART 1 – GENERAL

1.01 Summary

A. Section includes:

1. Wastewater Disposal Field
2. Force Main Materials

1.02 References

A. All work shall be done in accordance with the State of Vermont Environmental Protection Rules effective April 12, 2019.

PART 2 – PRODUCTS

2.01 General

A. Disposal Fields: Schedule 40 PVC pipe meeting the requirements of the latest revision of ASTM Specification D–1785. Fittings used in the disposal fields shall be compatible with distribution lines material.

B. Force Mains: PVC pipe shall conform in all respects to the latest revisions of ASTM Specifications D–2241. All pipe fittings shall be SDR 26 (or SCH 40) clearly marked as follows:

– Manufacturer's Name and Trademark
– Nominal Pipe Size (as shown on plans)
– Material Designation

Joints shall be push–on type using elastomeric gaskets factory installed conforming to ASTM Specification D–3212.

C. Crushed stone shall be clean, durable and no smaller than 3/4 or larger than 11/2 inches in diameter. and no larger than 1–1/2 inch in diameter. No more than 1.5 percent of fines passing the #200 sieve as determined using the AASHTO test method T 11–85 and a hardness value of three or greater on the Moh's Scale of Hardness.

PART 3 – EXECUTION

3.01 Disposal Field Installation Procedure

A. The wastewater system shall be inspected during critical stages of construction by a qualified consultant. This shall include at a minimum the staking of the disposal field, the trenches after the initial 24 inches of stone and distribution piping is placed, and a final inspection of the entire system. The Contractor will be responsible for contacting the Engineer to set up the inspection schedule.

B. Construction of the system shall not take place when the soil moisture is high in the system area. If the soil at 6 inches below grade can be rolled into the shape of a wire, the soil moisture content is too high for construction to begin.

C. When the trench has been excavated, the sides and bottom shall be raked to scarify any smeared soil surfaces. Construction equipment not needed to construct the system should be kept off the area to be utilized for the absorption trench system to prevent undesirable compaction of the soils.

D. At least 24 inches of washed stone shall be placed in the bottom of the trench.

E. The pressure distribution pipe should be laid level on top of the stone and flushing valves installed at the ends of the pipe. Upon completion of the distribution piping, the qualified consultant shall test the system with clean water. The test shall show that a minimum pressure of three feet of head is present at the ends of the pipe and that the difference in discharge rate between the two orifices with the greatest difference in discharge rates is not greater than 15 percent. After connecting the distribution pipe to the force main, the distribution pipe shall be covered with at least two inches of clean stone aggregate. The stone aggregate shall be covered completely with filter fabric.

F. The distribution pipe shall be covered with at least 2 inches of clean stone aggregate. The stone aggregate shall be covered completely with filter fabric.

G. The filter fabric shall be covered with a minimum of 6 inches of soil but not more than 12 inches, with the upper 4 to 6 inches of soil being loam and the remainder of the fill being of a fine sandy loam to medium sand texture. A vegetated cover free of large brush and trees shall be maintained over the system.

H. The area surrounding the disposal field shall be graded to provide diversion of surface run–off waters if required.

3.02 Testing Report

A. Testing of pressure distribution shall be done in the Engineer's presence. Pressure shall be measured to insure a minimum of 1 psi.

B. The distribution line shall then be carefully placed on the bedding with no slope, orifice shields snapped into place, and covered with at least 2" of crushed stone.

C. All work shall be done in accordance with the State of Vermont Environmental Protection Rules.

D. Force Main

1. General: All force mains shall pass the hydrostatic pressure test and leakage test described herein. Prior to testing, all anchors and braces shall be installed. All concrete thrust blocks and restraints shall be in place and cured at least seven days. All buried pipe shall be backfilled. Suitable test plugs shall be installed and air release valves shall be installed at the high points.
2. Hydrostatic Test: The following procedure shall be used:
   a. All air release valves shall be opened and the pipe shall be filled with water at a rate not to exceed the venting capacity of the air release valves.
   b. The water pressure shall be raised to 150 percent of the designed operating pressure or 60 psi minimum at the highest point.
   c. Failure to hold the designated pressure within 5 psi of the specified test pressure for the two hour period constitutes a failure of the section tested.
3. Leakage Test: The following procedure shall be used:
   a. Leakage shall be defined as the quantity of water that must be supplied into the pipe being tested to maintain pressure within 5 psi of the specified test pressure.
   b. No pipe installation shall be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND(P)^{0.5}}{7{,}400} \qquad L = \frac{SD(P)^{0.5}}{133{,}100}$$

Whichever is less

S = Length of Pipe Testing
L = Allowable Leakage in Gal/Hr
D = Nominal Diameter of Pipe (")
P = Average Test Pressure (psi)
N = Number of Joints in the Pipeline Tested

All testing shall be conducted in accordance with AWWA C600–87 or latest revision.

E. Prior to use of the system, the qualified consultant shall submit a written report to the Owner stating that the system has been installed according to the approved plans and permit. The report shall specifically address the inspection of the site preparations and include numerical results of the orifice discharge rate comparison.

SWR-102 Disposal Field Force Main Notes

SWR - 102

P:\AutoCAD\ Projects\2023\23158 - SPR TCO\1-CADD Files\dwg\23158 - Details.dwg, 6/2/2023 11:24:49 AM

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER
CAPE COD ROAD
STOWE, VT 05672

ISSUE
PRICING SET

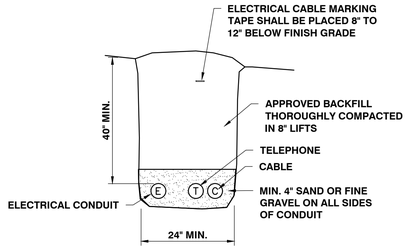
RELEASE DATE
6.2.23

REVISIONS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	AS SHOWN

WASTEWATER DETAILS

C4.20



CONDUIT SHALL BE ENCASED IN A 4" ENVELOPE OF CONCRETE UNDER THE FOLLOWING CONDITIONS:

A. FOR INSTALLATION UNDER THE TRAVEL PORTION OF THE ROAD.

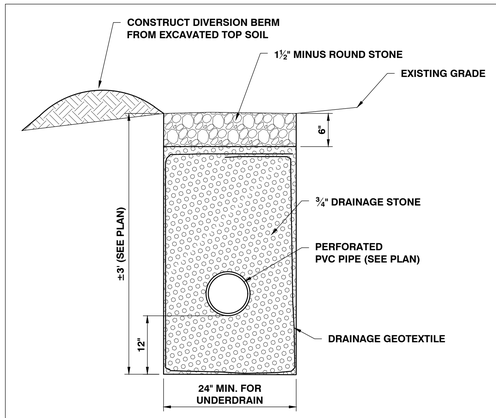
B. WITHIN 10' OF WATER, SEWER, GAS AND DRAIN CROSSING.

ELECTRICAL TRENCH - PRIMARY

N.T.S.

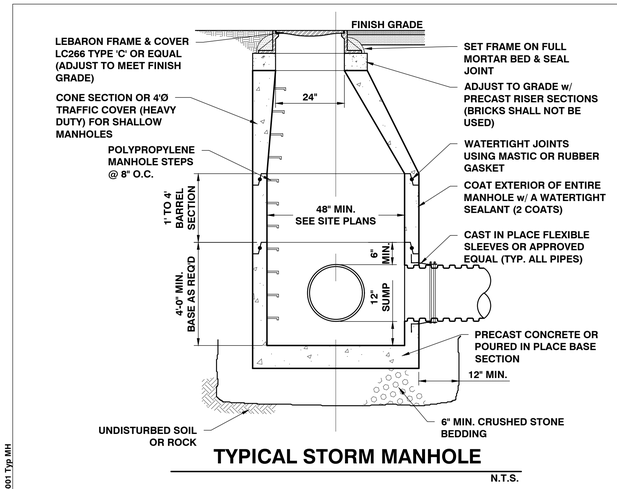
M-007 Elec. Trench Primary

M-007 REVISED 08/01/2014



TYPICAL CURTAIN DRAIN SECTION

N.T.S.

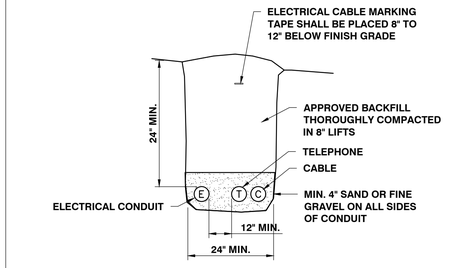


TYPICAL STORM MANHOLE

N.T.S.

ST-001 Typ MH

ST-001 REVISED 4/2/2018

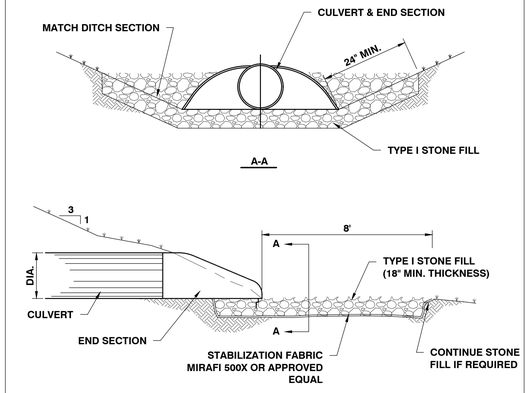


ELECTRICAL TRENCH - SECONDARY

N.T.S.

M-008 Elec. Trench Secondary

M-008 REVISED 08/01/2014

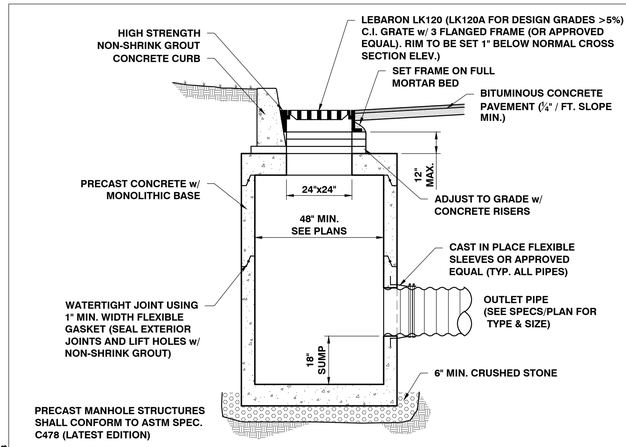


END SECTION DETAIL

N.T.S.

ST-011 End Section

ST-011 REVISED 01/14/2015

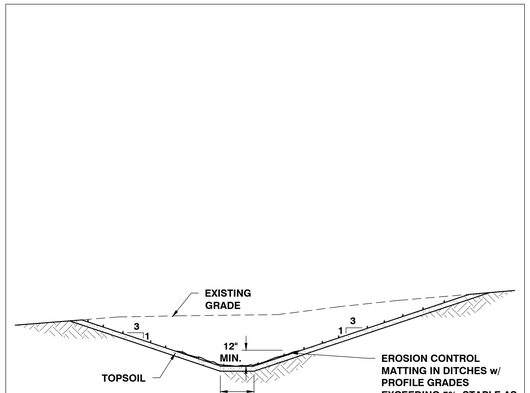


TYPICAL CATCH BASIN @ CURB

(SIMILAR WITHOUT CURB) N.T.S.

ST-002 Typ CB

ST-002 REVISED 12/03/2020

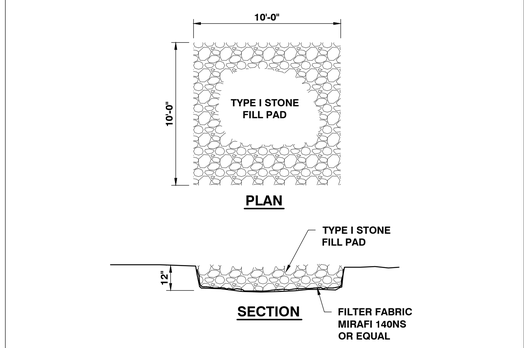


GRASS LINED DITCH

N.T.S.

ST-014 Grass Ditch

ST-014 REVISED 10/07/2015

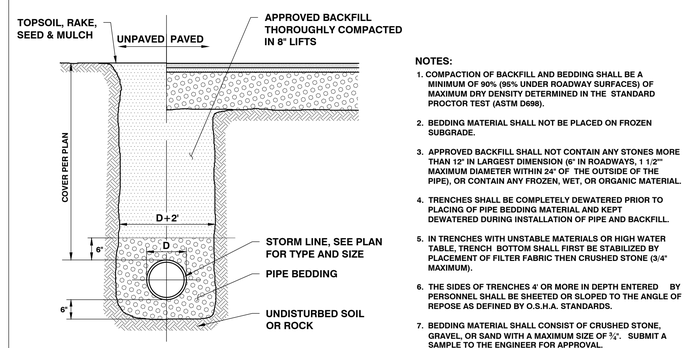


STONE FILL PAD

N.T.S.

ST-013 Stone Pad

ST-013 REVISED 08/01/2014



NOTES:

1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
2. BEDDING MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE.
3. APPROVED BACKFILL SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION (6" IN ROADWAYS, 1 1/2"" MAXIMUM DIAMETER WITHIN 24" OF THE OUTSIDE OF THE PIPE), OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIAL.
4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS OR HIGH WATER TABLE, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL SHALL CONSIST OF CRUSHED STONE, GRAVEL, OR SAND WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.

TYPICAL STORM TRENCH

N.T.S.

ST-003 Storm Trench

ST-003 REVISED 12/08/2016

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

SPRUCE PEAK REALTY
STOWE COUNTRY CLUB
TURF CARE CENTER

CAPE COD ROAD
STOWE, VT 05672

ISSUE
PRICING SET

RELEASE DATE
6.2.23

REVISIONS

PROJECT NO.	23158
MADE BY	SAL
REVIEWED BY	DSM
SCALE	AS SHOWN

MISC. DETAILS

C4.30

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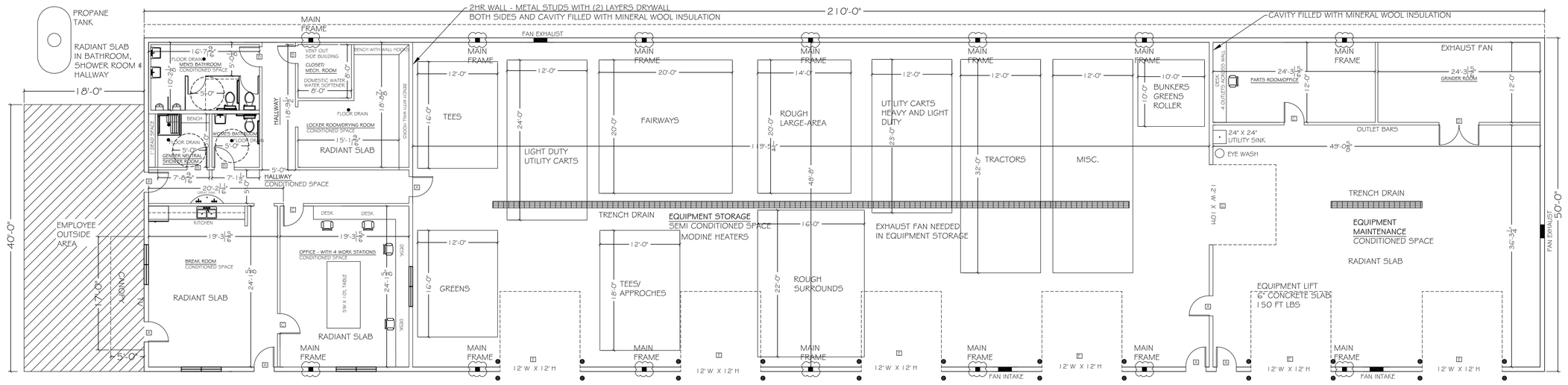
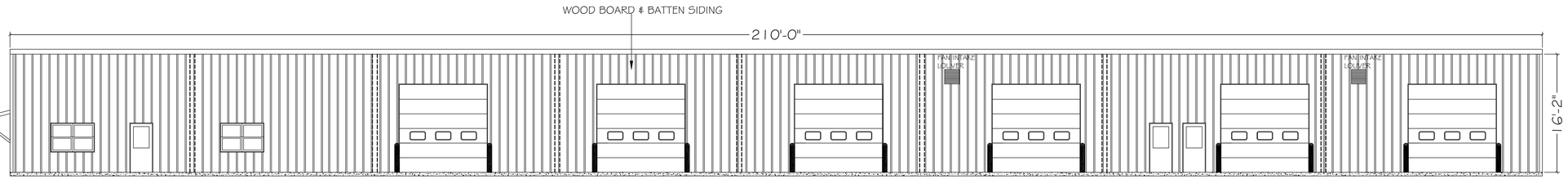




CODE REVIEW
NEW CONSTRUCTION

APPLICABLE CODES
2015 VERMONT FIRE & BUILDING SAFETY CODE (VT AMENDMENTS TO APPLICABLE CODES)
2015 IBC
2015 NFPA 101 LIFE SAFETY CODE
2015 NFPA 1
2017 VERMONT ELECTRICAL RULES
2018 VERMONT PLUMBING RULES
2012 VERMONT ACCESS RULES (VT AMENDMENTS TO ADA)
2010 ADA AMERICANS WITH DISABILITY ACT ACCESSIBILITY STANDARDS
2020 VERMONT ENERGY CODE

CONSTRUCTION TYPE
2B

OCCUPANCY CLASSIFICATION
BUSINESS - IBC CHAPTER 3, BUSINESS GROUP B / NFPA 101 CHAPTER 38, NEW BUSINESS OCCUPANCIES
STORAGE - IBC CHAPTER 3, MODERATE HAZARD STORAGE S-1 / NFPA 101 CHAPTER 42, STORAGE OCCUPANCIES, LOW & ORDINARY HAZARD

OCCUPANCY LOAD
BUSINESS - NFPA 10, TABLE 7.3.1.2 - 1005F/PERSON - 1900 SF/100 = 19
MAX PROBABLE POPULATION - NFPA 101, 42.1.7

HEIGHT & AREA
ALLOWABLE AREA (NON-SPRINKLERED) - 17,500 SF - IBC TABLE 506.2
PROPOSED AREA (NON-SPRINKLERED) - 10,585 SF
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE (NON-SPRINKLERED) - 55 FT - IBC TABLE 504.3
PROPOSED BUILDING HEIGHT (NON-SPRINKLERED) - 16'-6"
ALLOWABLE # OF STORIES (NON-SPRINKLERED) - 2 - IBC TABLE 504.4
PROPOSED # OF STORIES (NON-SPRINKLERED) - 1

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS
(PRIMARY STRUCTURAL FRAME, EXTERIOR/INTERIOR BEARING WALLS, EXTERIOR/INTERIOR NON-BEARING WALLS, FLOOR, ROOF)
ALLOWABLE RATING IN HOURS - 0 - IBC TABLE 601
PROPOSED RATING IN HOURS - 0

FIRE SEPARATION OF OCCUPANCIES
NFPA TABLE 6.1.14.4.1
2 HR REQUIRED BETWEEN BUSINESS & STORAGE LOW/ORDINARY HAZARD

NUMBER OF EXITS
ALLOWABLE # OF EXITS - 2 - NFPA 101, 38.2.4 & 42.2.4.1 W/ TABLE 42.2.5
PROPOSED # OF EXITS BUSINESS - 2
PROPOSED # OF EXITS STORAGE - 2

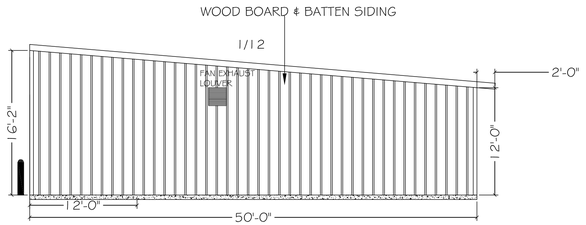
DOOR TYPES
DOOR A - 3'-0"x6'-8", FIBERGLASS INSULATED, LEVER HARDWARE, 1/2 GLASS
DOOR B - 3'-0" X 6'-8" METAL NON-INSULATED LEVER HARDWARE, NO GLASS
DOOR C - 3'-0"x6'-8", METAL NON-INSULATED, LEVER HARDWARE, 1/2 GLASS
DOOR D - 6'-0"x6'-8", METAL NON-INSULATED, LEVER HARDWARE, 1/2 GLASS
DOOR E - 12'-0"x12'-0", METAL INSULATED OVERHEAD DOOR (R-10), MANUAL OPERATION OR POWERED
DOOR G - 12'-0" X 10'-0" METAL INSULATED OVERHEAD DOOR (R-17), MANUAL OPERATION

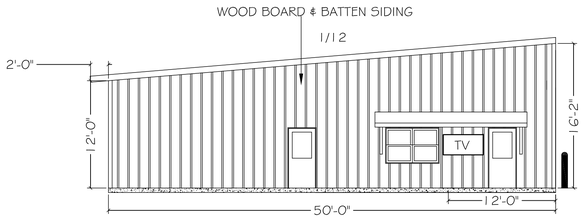
ENERGY CODE REVIEW
BELOW GRADE WALLS
CONCRETE FOUNDATION, CONDITIONED (R-15 CONTINUOUS)
CONCRETE FOUNDATION, SEMI-CONDITIONED (R-7.5 CONTINUOUS)

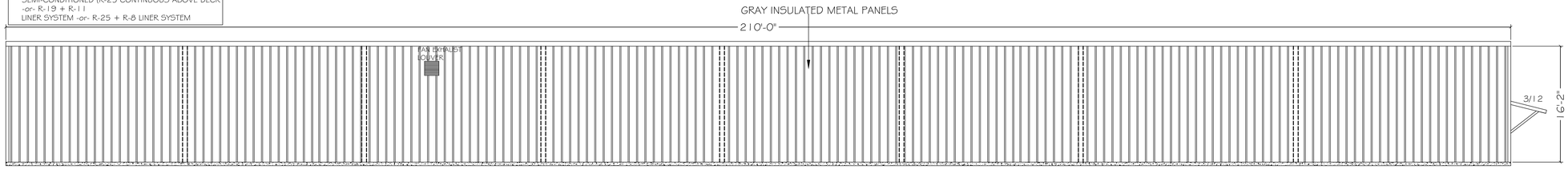
FLOOR TYPES
SLAB-ON-GRADE, SEMI-CONDITIONED, INSULATED 24 IN FROM
EXTERIOR (R-10)
SLAB-ON-GRADE, CONDITIONED AT RADIANT HEAT, INSULATE ENTIRE
AREA UNDER RADIANT (R-20)

WALL TYPES
EXTERIOR, CONDITIONED (R-13+R-17 CONTINUOUS -or- R-22.1 CONTINUOUS)
EXTERIOR, SEMI-CONDITIONED (R-15.8 CONTINUOUS)

ROOF TYPES
CONDITIONED (R-40 CONTINUOUS ABOVE DECK -or- R-25 + R-11 + R-11 LINER SYSTEM)
SEMI-CONDITIONED (R-25 CONTINUOUS ABOVE DECK -or- R-19 + R-11 LINER SYSTEM -or- R-25 + R-8 LINER SYSTEM







REVISION DATE: 10/10/2023
PRINT DATE: 10/10/2023

#	Revisions	By
1	5-16-2023	RM
2	5-19-2023	RM
3	5-30-2023	RM
4	6-6-2023	RM
5	6-8-2023	RM

BUILDING "A" TURF CARE MAINTENANCE FACILITY FLOOR PLAN & ELEVATIONS

STOWE COUNTRY CLUB TURF CARE CENTER

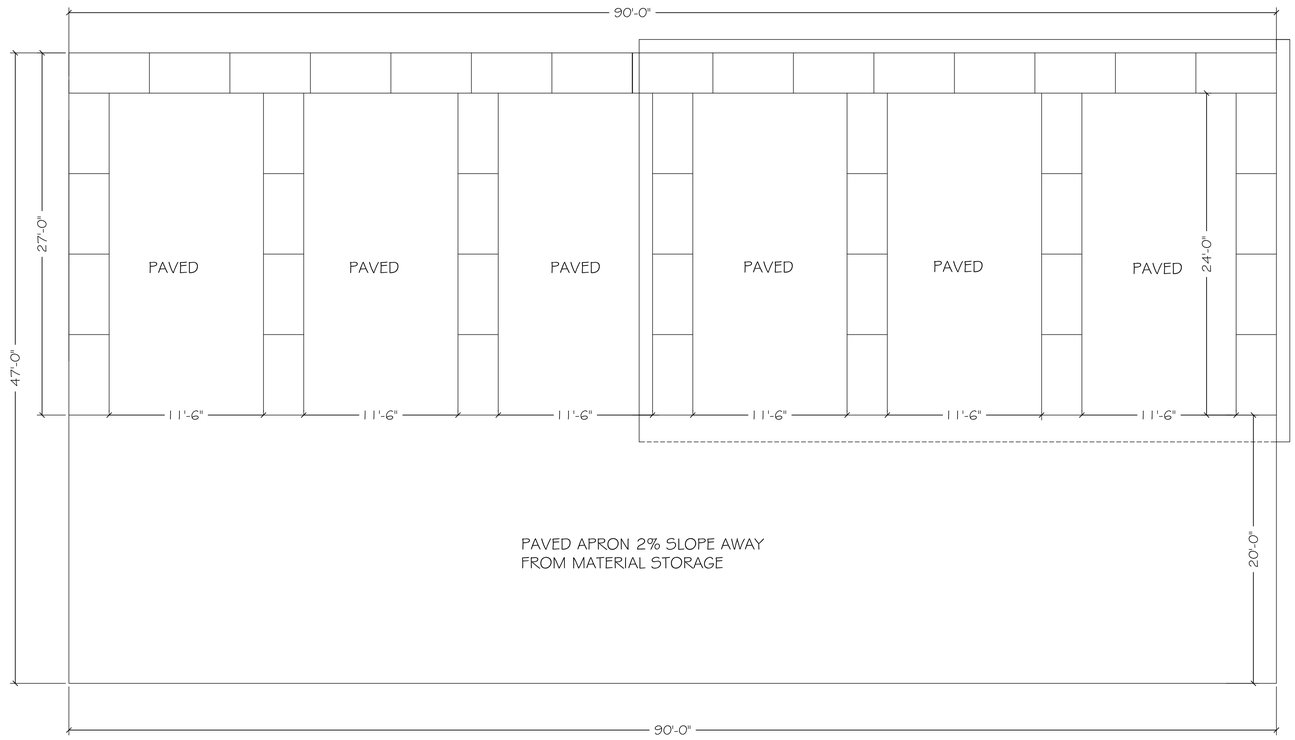
Stowe, Vermont

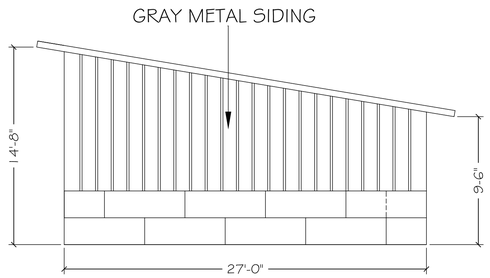
930 East Barre Rd.
P.O. Box 449
East Barre, Vermont 05649
P. 802-479-1078
F. 802-479-1070

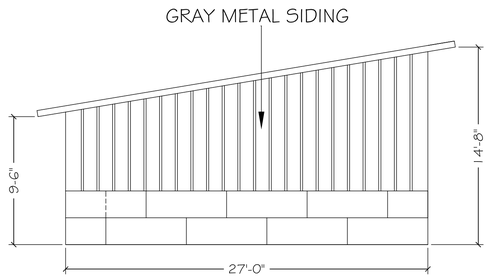
LAJEUNESSE CONSTRUCTION, INC.

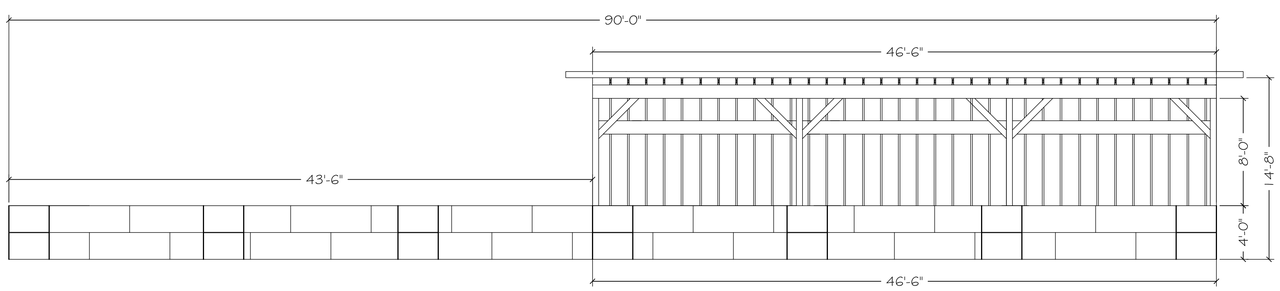
FLOOR PLAN & ELEVATIONS	
Date: 4-28-2023	
Scale: 1/8" = 1'-0"	
Drawn By: RM	

A1









REVISION DATE: 10/10/2023
PRINT DATE: 10/10/2023

#	Revisions	By
1	6-8-2023	RM
2		
3		
4		
5		

STRUCTURE "B" BULK
MATERIAL STORAGE
FLOOR PLAN & ELEVATIONS

STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

930 East Barre Rd.
P.O. Box 449
East Barre, Vermont 05649
P. 802- 479- 1078
F. 802- 479- 1070

LAJEUNESSE CONSTRUCTION, INC.

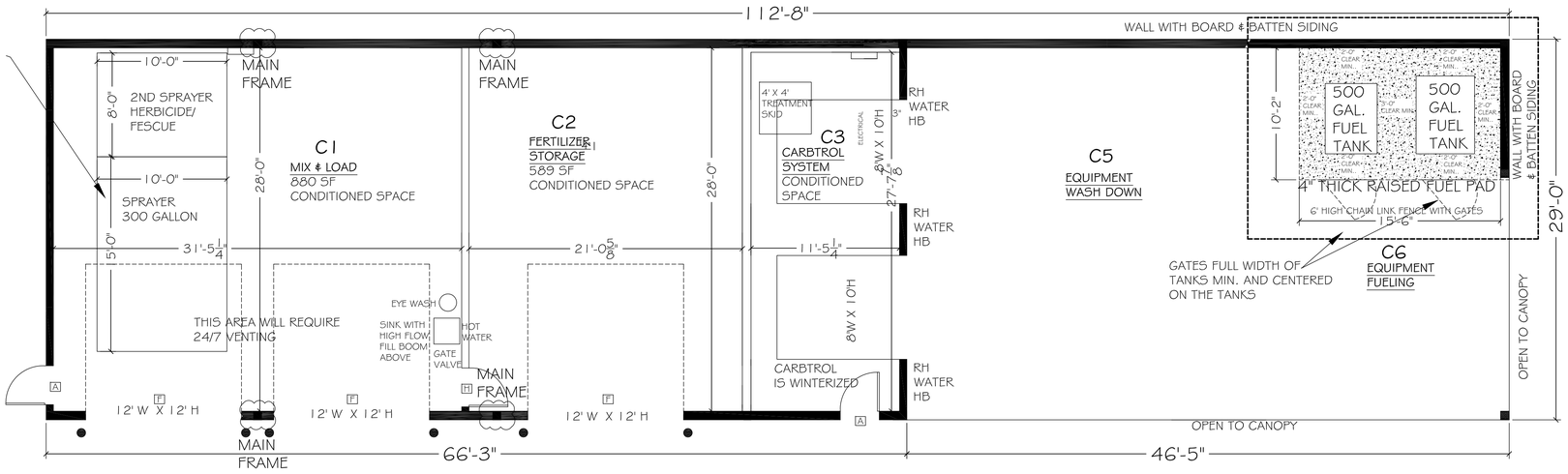
FLOOR PLAN & ELEVATIONS
Date: 4-28-2023
Scale: 3/16"= 1'-0"
Drawn By: RM

A2

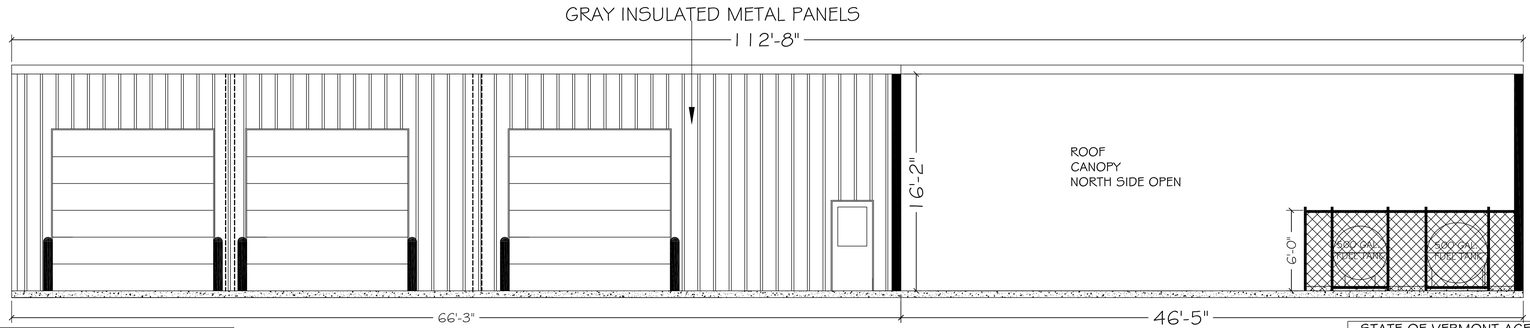
STATE OF VERMONT AGENCY OF AGRICULTURE
FOOD & MARKETS - PESTICIDE RULES

12.04 (A) (2) - SURFACE CURBED OR WITH SUFFICIENT SLOPE TO CATCH BASIN

12.04 (A) (3) - SURFACE & CATCH BASIN SIZED FOR 125 PERCENT CAPACITY OF THE LARGEST MOBILE CONTAINER USED



PROVIDE 8" CURB AT PERIMETER WALLS - TYPICAL ALL ROOMS
FLOORS WILL HAVE 2% PITCH TO ALL SUMP PUMPS



CODE REVIEW
NEW CONSTRUCTION

APPLICABLE CODES
2015 VERMONT FIRE & BUILDING SAFETY CODE (VT AMENDMENTS TO APPLICABLE CODES)
2015 IBC
2015 NFPA 101 LIFE SAFETY CODE
2015 NFPA 1
2017 VERMONT ELECTRICAL RULES
2018 VERMONT PLUMBING RULES
2012 VERMONT ACCESS RULES (VT AMENDMENTS TO ADA)
2010 ADA AMERICANS WITH DISABILITY ACT ACCESSIBILITY STANDARDS
2020 VERMONT ENERGY CODE

CONSTRUCTION TYPE
2B

OCCUPANCY CLASSIFICATION
STORAGE - IBC CHAPTER 3, MODERATE HAZARD STORAGE GROUP S-1 & LOW HAZARD STORAGE GROUP S-2/ NFPA 101 CHAPTER 42, STORAGE OCCUPANCIES, LOW & ORDINARY HAZARD

OCCUPANCY LOAD
MAX PROBABLE POPULATION - NFPA 101, 42.1.7

HEIGHT & AREA
ALLOWABLE AREA (NON-SPRINKLERED) - 17,500 SF - IBC TABLE 506.2
PROPOSED AREA (NON-SPRINKLERED) - 3,305 SF
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE (NON-SPRINKLERED) - 55 FT - IBC TABLE 504.3
PROPOSED BUILDING HEIGHT (NON-SPRINKLERED) - 16'-6"
ALLOWABLE # OF STORIES (NON-SPRINKLERED) - 2 - IBC TABLE 504.4
PROPOSED # OF STORIES (NON-SPRINKLERED) - 1

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS
(PRIMARY STRUCTURAL FRAME, EXTERIOR/INTERIOR BEARING WALLS, EXTERIOR/INTERIOR NON-BEARING WALLS, FLOOR, ROOF)
ALLOWABLE RATING IN HOURS - 0 - IBC TABLE 601
PROPOSED RATING IN HOURS - 0

FIRE SEPARATION OF OCCUPANCIES
NONE

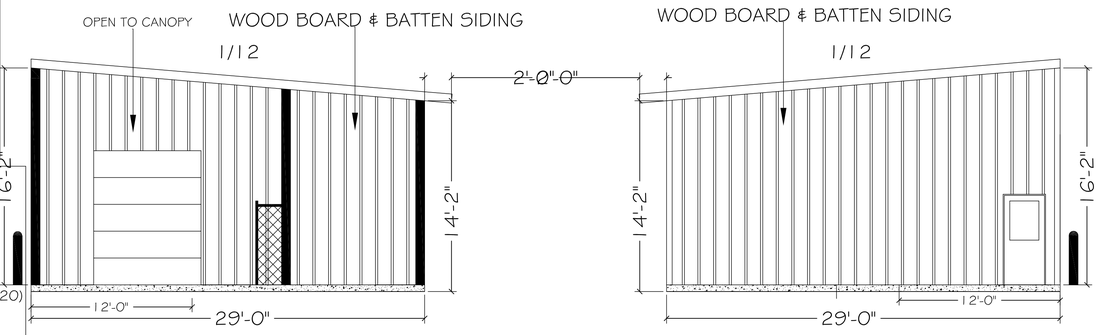
NUMBER OF EXITS
ALLOWABLE # OF EXITS - 1 PER SECTION IF COMMON PATH OF TRAVEL IS LESS THAN 50 FT - NFPA 101, 42.2.4.1 W/ TABLE 42.2.5
PROPOSED # OF EXITS STORAGE - 1 PER SECTION

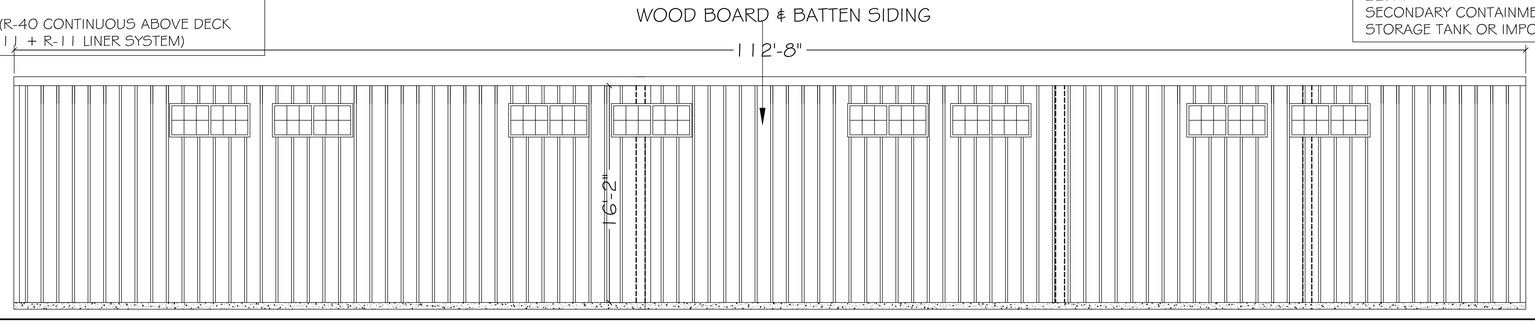
DOOR TYPES

DOOR A - 3'-0"x6'-8", FIBERGLASS INSULATED, LEVER HARDWARE, 1/2 GLASS
DOOR F - 12'-0"x12'-0", METAL INSULATED OVERHEAD DOOR (R-17), MANUAL OPERATION OR POWERED
DOOR H - 8'-0" X 10'-0" METAL INSULATED OVERHEAD DOOR (R-17), MANUAL OPERATION

ENERGY CODE REVIEW

BELOW GRADE WALLS
CONCRETE FOUNDATION, CONDITIONED (R-15 CONTINUOUS)
FLOOR TYPES
SLAB-ON-GRADE, CONDITIONED AT RADIANT HEAT, INSULATE ENTIRE AREA UNDER RADIANT (R-20)
WALL TYPES
EXTERIOR, CONDITIONED (R-13+R-17 CONTINUOUS -or- R-22.1CONTINUOUS)
ROOF TYPES
CONDITIONED (R-40 CONTINUOUS ABOVE DECK -or- R-25 + R-11 + R-11 LINER SYSTEM)





STATE OF VERMONT AGENCY OF NATURAL RESOURCES - ABOVE GROUND STORAGE TANK RULES
9-304 (A): INSTALLATION TO FOLLOW NFPA 1, NFPA 30 & 31 OR OTHER APPROVED METHOD

9-304 (C) (1): TANK SYSTEM PROTECTED FROM SNOW & ICE BY ROOF OR SECONDARY CONTAINMENT

9-304 (C) (2): CONCRETE PAD TO BE MIN 4" THICK AND EXCEED TANK DIMENSIONS BY 10%

NFPA 1
42.3.3.6 PHYSICAL PROTECTION FOR ALL OUTSIDE ABOVEGROUND TANKS
(.1) CHAIN LINK FENCE AT LEAST 6' HIGH
(.2) 10' BETWEEN FENCE AND TANKS
(.3) SECURE GATE

NFPA 1
42.3.3.1.7 SPILL CONTROL FOR ABOVEGROUND TANKS NOT IN VAULT TO COMPLY WITH NFPA 30

NFPA 30
22.11
SECONDARY CONTAINMENT-TYPE ABOVEGROUND STORAGE TANK OR IMPOUNDING

REVISION DATE: 10/10/2023
PRINT DATE: 10/10/2023

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1	5-16-2023	RM
2	5-19-2023	RM
3	5-30-2023	RM
4	6-6-2023	RM
5	6-8-2023	RM

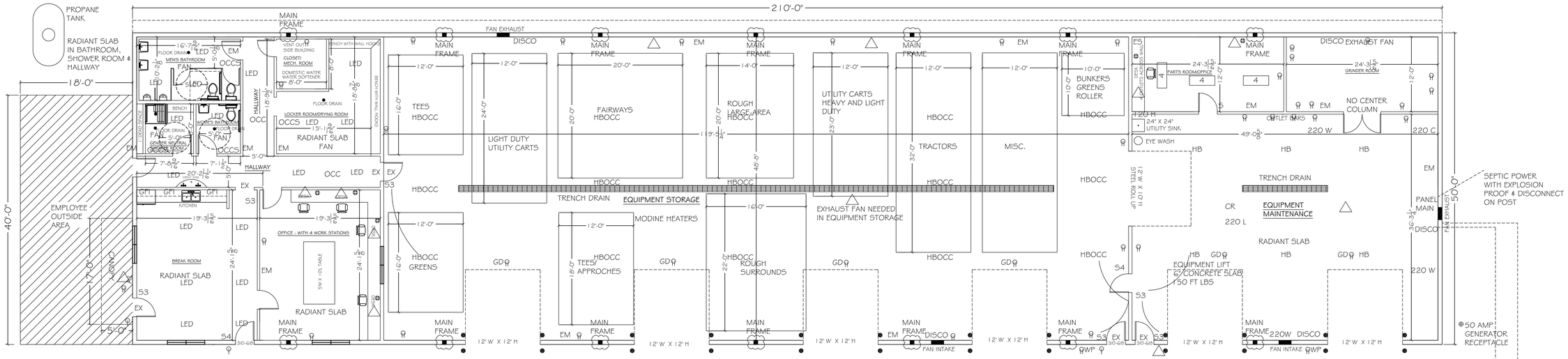
BUILDING "C" ENVIRONMENTAL MANAGEMENT CENTER
FLOOR PLAN & ELEVATIONS

STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

930 East Barre Rd.
P.O. Box 449
East Barre, Vermont 05649
P. 802-479-1078
F. 802-479-1070
LAJEUNESSE CONSTRUCTION, INC.

FLOOR PLAN & ELEVATIONS
Date: 4-27-2023
Scale: 3/16"= 1'-0"
Drawn By: RM

A3



⏚	RAB DOWN CAST WALL PACK WITH PHOTO CELL
△	DATA PORT
⏚	DUPLEX ⏚ 20 AMP
⏚	QUAD ⏚ 20 AMP
LED	2' X 4' SATCO FLAT PANEL
OCC	CEILING MOUNT OCCUPANCY SENSOR
OCCS	WALL MOUNT OCCUPANCY SENSOR
4	4' LED STRIP LIGHT
FAN	PANASONIC WHISPER GREEN SELECT FAN WITH OCCUPANCY SENSOR & HUMIDISTAT
WP	WEATHER PROOF RECEPTACLE
GDO	GARAGE DOOR
S3	THREE WAY SWITCH
S	SINGLE POLE SWITCH
EM	EMERGENCY LIGHT
EX	EXIT/EMERGENCY
CR	CORD REEL
⏚	20 AMP 120V RECEPTACLE

HB	HIGH BAY LED
HBOCC	HIGH BAY LED WITH OCC SENSOR
DISCO	DISCONNECT FOR EXHAUST FANS
220 L	LIFT POWER
220 W	WELDER
220 C	COMPRESSOR
ES	EMERGENCY STOP/DISCONNECT FOR FUEL PUMPS
120 H	HOT WATER ON DEMAD 12V
▭	LIGHT FIXTURE

DATED: 7/6/2023
PRINT DATE: 10/10/2023

#	Revisions	By
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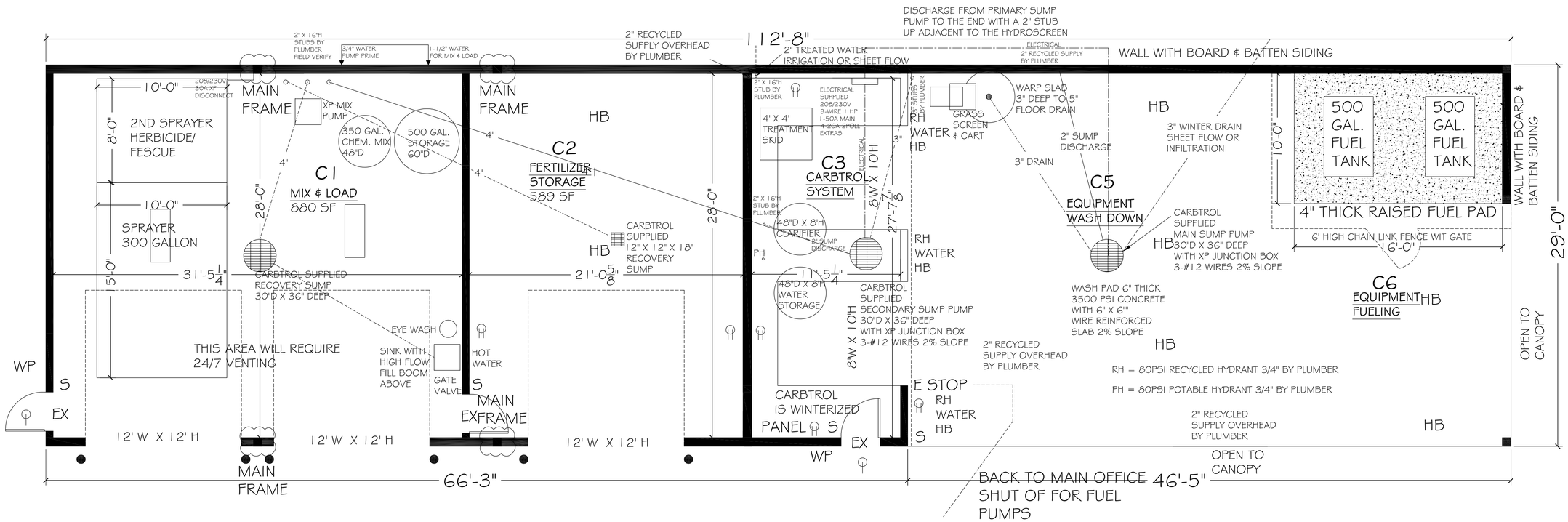
BUILDING "A" ENVIRONMENTAL MANAGEMENT CENTER
ELECTRICAL PLAN

STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

TANNER ELECTRIC LLC

ELECTRICAL PLAN
Date: 6.26.2023
Scale: 1/8"=1'-0"
Drawn By: MT

E1



PROVIDE 8" CURB AT PERIMETER WALLS - TYPICAL ALL ROOMS
FLOORS WILL HAVE 2% PITCH TO ALL SUMP PUMPS

DATED: 7/6/2023
PRINT DATE: 10/10/2023

#	Revisions	By
1		
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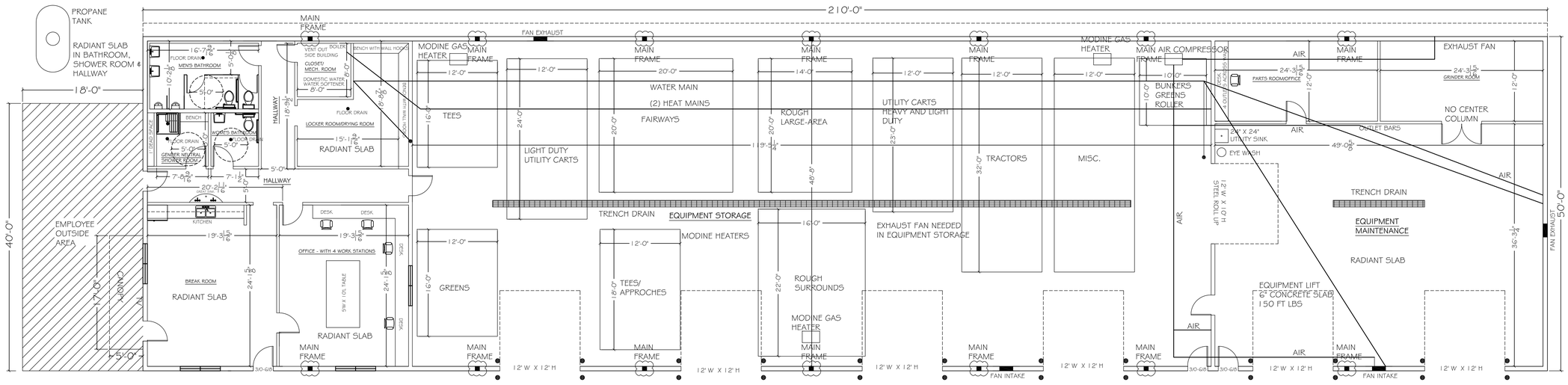
BUILDING "C" ENVIRONMENTAL MANAGEMENT CENTER
ELECTRICAL PLAN

STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

TANNER ELECTRIC LLC

ELECTRICAL PLAN
Date: 6-26-2023
Scale: 1/4"= 1'-0"
Drawn By: MT

E2



DATED: 7/6/2023
PRINT DATE: 10/10/2023

#	Revisions	By
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BUILDING "A" ENVIRONMENTAL MANAGEMENT CENTER
PLUMBING & HVAC PLAN

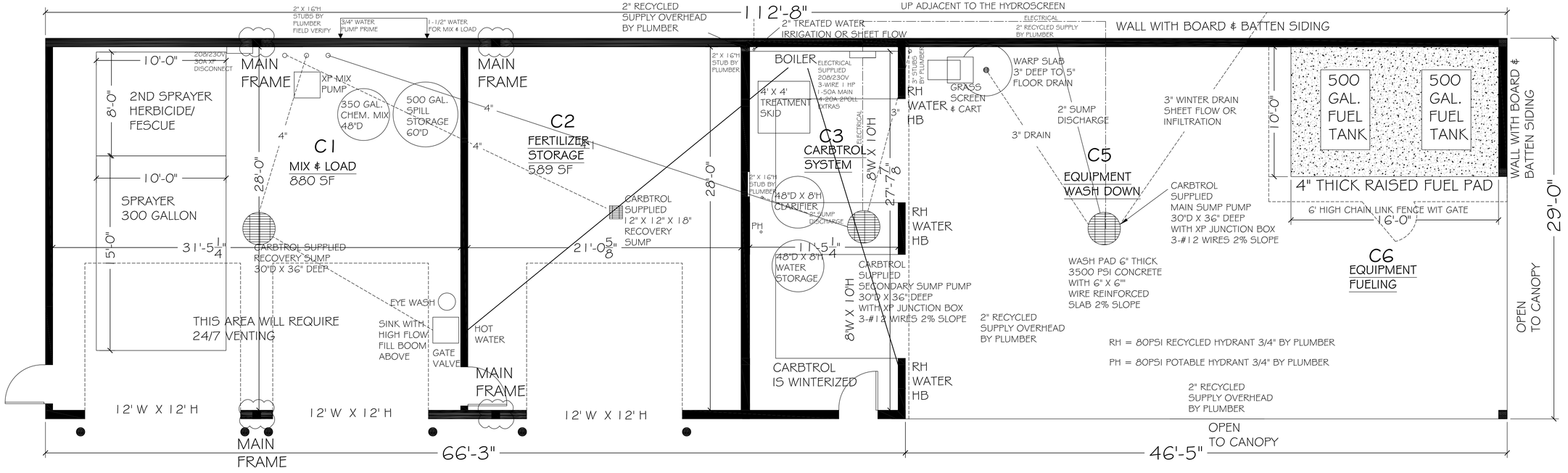
STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

P&C PLUMBING AND HEATING

P&C PLUMBING & HEATING
Honest. Professional. Affordable.
802-505-8770

PLUMBING & HVAC
Date: 6-26-2023
Scale: 1/8"= 1'-0"
Drawn By: MP & DC

M1



PROVIDE 8" CURB AT PERIMETER WALLS - TYPICAL ALL ROOMS
FLOORS WILL HAVE 2% PITCH TO ALL SUMP PUMPS

DATED: 7/6/2023
PRINT DATE: 10/10/2023

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BUILDING "C" ENVIRONMENTAL MANAGEMENT CENTER
PLUMBING & HVAC PLAN

STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

P&C PLUMBING AND HEATING

P&C PLUMBING & HEATING
Honest. Professional. Affordable.
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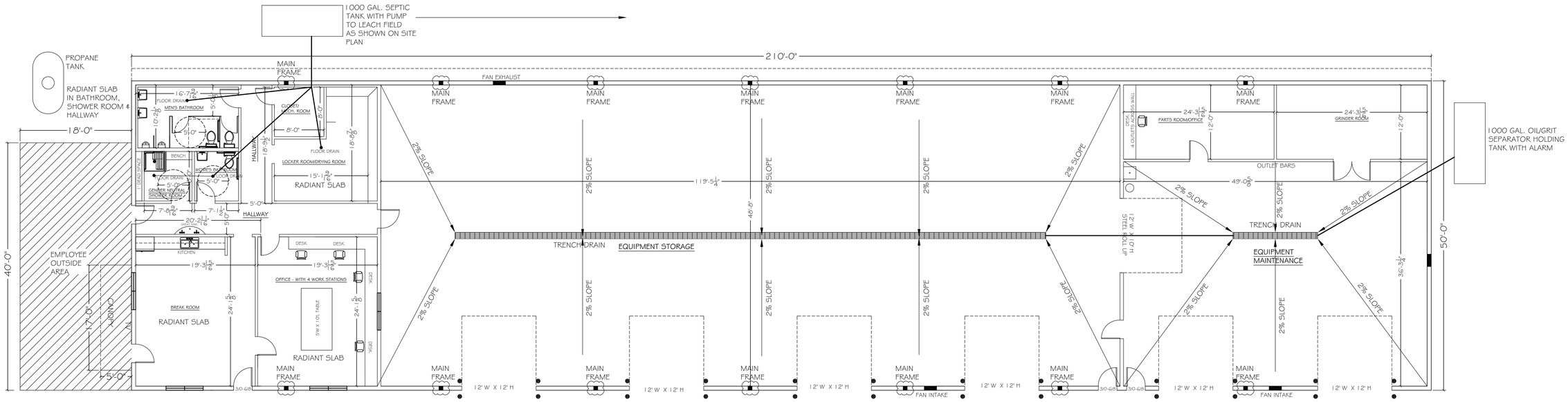
PLUMBING & HVAC
Date: 6-26-2023
Scale: 1/4"= 1'-0"
Drawn By: MP & DC

M2



DATED: 10/10/2023
PRINT DATE: 10/10/2023

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BUILDING "A" ENVIRONMENTAL MANAGEMENT CENTER
DRAINAGE PLAN

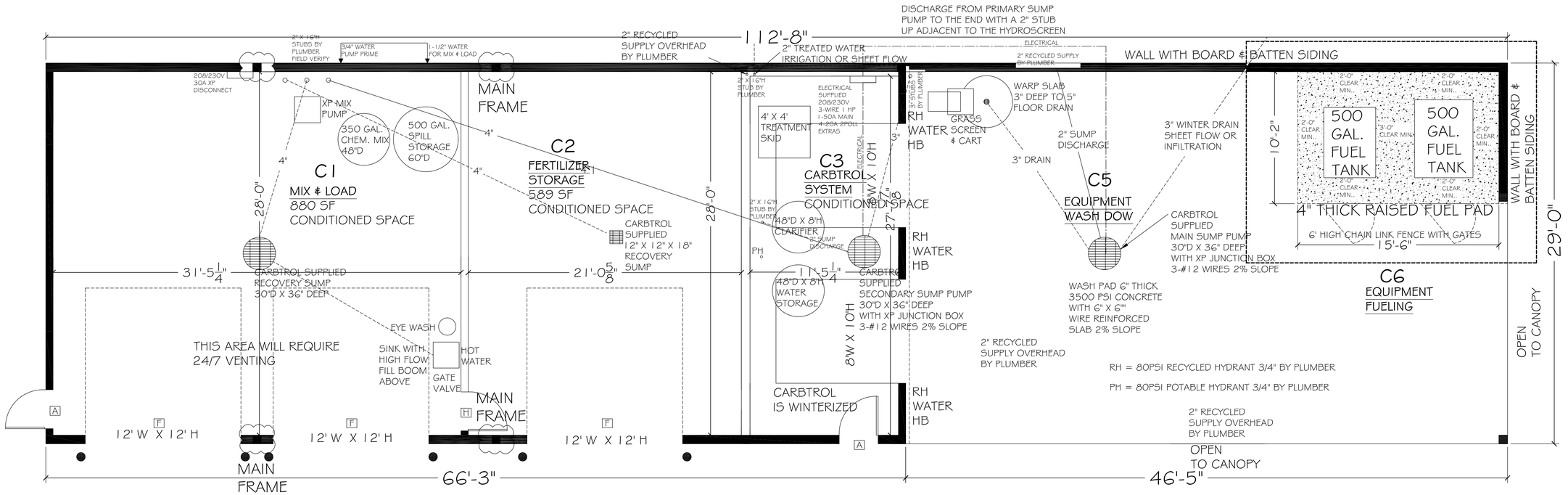
STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

930 East Barre Rd.
P.O. Box 449
East Barre, Vermont 05649
P. 802-479-1078
F. 802-479-1070

LAJEUNESSE CONSTRUCTION INC.

PLUMBING & HVAC
Date: 6-26-2023
Scale: 1/8"=1'-0"
Drawn By: MP & DC

P1



PROVIDE 8" CURB AT PERIMETER WALLS - TYPICAL ALL ROOMS
FLOORS WILL HAVE 2% PITCH TO ALL SUMP PUMPS

DATED: 10/10/2023
PRINT DATE: 10/10/2023

#	Revisions	By
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BUILDING "C" ENVIRONMENTAL MANAGEMENT CENTER
PLUMING FOR CARBTROL SYSTEM

STOWE COUNTRY CLUB
TURF CARE CENTER
Stowe, Vermont

CARBTROL CORP.

PLUMBING & HVAC | Date: 6-26-2023 | Scale: 1/4"= 1'-0" | Drawn By: MP & PD

P2

3 - Rendering Northeast View from Cape Cod Road

4 - Rendering of Northwest View from Cape Cod Road


Tyvek
4x4

Stowe Country Club-Turf Care Center
Spill Prevention Control and Countermeasures (SPCC)

Current Spill Prevention Control and Countermeasures (SPCC) systems:

- Currently have a SPCC Plan. Please see Attachment D.
- The Equipment wash area at the east end of the site currently utilizes a 25-foot vegetative buffer to filter wash water before entering the drainage way (Attachment A). This is an acceptable practice. However, it is not the best approach.
    - The drainage way discharges to a culvert under Cape Cod Road and into the West Branch Little River
- The Pesticide/fertilizer mix and load area utilizes the 25-foot vegetative buffer before reaching the drainage way. This is an acceptable practice. However, it is not the best approach.
- Pesticide/fertilizer storage has minimal containment ability. This is currently Stored in the wooden shed (See Attachment B) located between the house and handball court building.
- Maintenance equipment is stored in a tent with a gravel base (See Attachment C) . This is not a preferred method for spill containment.
- Fuel storage has concrete tanks for secondary containment and are double walled.

Proposed New Turf Care Center SPCC Systems:

- The construction of this redeveloped facility will enable the SPCC Plan updated to reflect the improved systems.
- Equipment washing will utilize the Carbtrol System. This is a closed loop system. Carbtrol utilizes carbon and sand filters with hydrogen peroxide purification as the method of treatment. Zero potential for off-site runoff. Please see Attachment E, the attached system description. This system is currently utilized at the Stowe Mountain Golf Club Turf Care Facility.
- Pesticide/fertilizer mix and load area will be located in a room with a concrete curbed floor.
    - The floor is pitched to a center drain.
    - The Center drain will have a gate valve to provide the ability to utilize storage capacity of sloped floor and center sump drain (300 gallons).

  - A 500-gallon empty storage tank will be utilized if any large spill occurs.
  - Redundant spill containment capacity is provided by the Carbtrol system (500 gallons).
  - Day to day small spills are captured and cleaned by the Carbtrol system.
  - Zero potential for off-site runoff.

- Pesticide/fertilizer storage is in the mix and load room and adjacent to the fertilizer storage room.
  - These rooms have concrete curbed floors with center sump drains piped to the Carbtrol system.
  - Sloped floor capacity and Carbtrol system are utilized for secondary spill containment.
- Golf course equipment will be stored in areas with concrete floors. This will allow for best spill containment.
- Fuel storage will utilize double walled tanks for primary containment. In addition, they are stored on a concrete sloped floor with a center drain.
  - This center drain is piped to the Carbtrol system.
  - Day to day small fuel spills are captured and cleaned by the Carbtrol system.
  - Large spills will utilize the storage capacity of the Carbtrol System (500 gallons)

The goal of this system is to replace an unenclosed system with a fully enclosed system, consolidated within the new building, that will be provided a significant reduction in any chance of discharges leaving the property and migrating to the West Branch.

Supplementary Systems

1. The Turf Care Maintenance Facility (Building A) **floor drain system** is collected and conveyed to a 1000-gallon storage tank located on the east end of the building.
   a. The storage tank is outfitted with a water level alarm which is triggered when 80% of the storage capacity is met.
   b. When the fill condition is met, the contents are pumped by a local hauler for disposal at a certified facility.

Again, the goal is to create a fully enclosed system with no design discharges to the surrounding environment.

Attachment A - Existing Vegetative Buffer at Equipment Wash-off Area

B - E isti g Pesticide Storage Facility

Attachment C - Existing Equipment Storage

HALEY ALDRICH

www.haleyaldrich.com

REPORT ON

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN STOWE COUNTRY CLUB GOLF COURSE MAINTENANCE FACILITY STOWE, VERMONT

by Haley & Aldrich, Inc.
Bedford, New Hampshire

for Stowe Country Club
Stowe, Vermont

File No. 131315-005
June 2022

Attachment D - SPCC Plan-Stowe Country Club-Final

HALEY & ALDRICH, INC.
3 Bedford Farms Drive
Bedford, NH 03110
603.625.5353

28 June 2022
File No. 131315-005

Stowe Country Club
7412 Mountain Road
Stowe, Vermont 05672

Attention: Kevin Komer, CGCS
Director of Agronomy

Subject: Spill Prevention Control and Countermeasures Plan
Stowe Country Club Golf Course Maintenance Facility
Stowe, Vermont

Ladies and Gentlemen:

Please find one hard copy and an electric copy of the Spill Prevention Control and Countermeasures Plan, developed by Haley & Aldrich, Inc. for the Stowe Country Club Golf Course Maintenance Facility located at 418 Cape Cod Road in Stowe, Vermont. If you have any questions or comments regarding the plan, please contact the undersigned at 617.886.7580.

Sincerely yours,
HALEY & ALDRICH, INC.

Jessica Wey
Staff Engineer

Douglas M. Lindsay, P.G. (NH), LSP (MA)
Associate | Senior Project Manager

Jeffery A. Miller, P.E.
Associate | Senior Project Manager

Enclosures

\\haleyaldrich.com\share\man_common\131315_Stowe\005 Stowe Country Club SPCC Plan\SPCC Plan\Text\2022-0628-HAI-SPCC Plan-Stowe Country Club-F.docx

Employees' Responsibility to Report Oil Spills

Any release of oil at the Stowe Country Club Golf Course Maintenance Facility requires IMMEDIATE REPORTING to the SPCC Coordinator, Alternate Coordinators, or Night Shift Coordinators. If you are unable to immediately reach a Coordinator, you should instead report the oil release to Vermont Department of Environmental Conservation (VDEC).

SPCC Coordinator:	Kevin Komer Director of Agronomy	802.253.3458 - office 802.793.9108 - cell
Alternate Coordinator:	Andrew Chuber Equipment Manager	913.683.8831 - cell
The Lodge at Spruce Peak Spruce Loss Prevention		802.760.4760 - office 802.461.6690 - cell
VDEC		802.828.1138 and 800.641.5005

The SPCC Coordinator or Alternate in conjunction with Senior Management will determine the appropriate actions to respond to the release and will supervise the response.

SPCC Coordinators' Responsibility to Report Oil Spills

The SPCC Coordinator in conjunction with Senior Management will determine if an oil spill incident requires notification of federal and/or state officials. If the oil spill causes a sheen on surface waters or a violation of water quality standards, the U.S. Environmental Protection Agency (EPA) National Response Center (NRC) must be contacted at the phone number below. Small, incidental releases of oil (less than 2 gallons) that do not affect surface waters and that are expeditiously contained and cleaned up are not required to be reported to Vermont Department of Environmental Conservation (VDEC); nevertheless, the SPCC Coordinator has the discretion to report such releases. All other oil spills must be reported to VDEC.

At any time of day or night, contact NRC at **800.424.8802**.

Contact VDEC at **802.828.1138** and **800.641.5005**.

"**Oil**" is oil of any kind in any form, including but not limited to crude oil, petroleum, petroleum-refined products, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. The term also includes non-petroleum oils such as vegetable and animal oils.

When notifying VDEC and/or NRC of confirmed or suspected releases of oil, provide as much of the following information as is available:

- Exact address or location and phone number of the facility;
- The date and time of the release;
- The type of material released;
- Estimate of the total quantity released;
- The source of the release;
- A description of all affected media;
- The cause of the release;
- Any damages or injuries caused by the release;
- Actions being taken to stop, remove, and mitigate the effects of the release;
- Whether an evacuation may be needed;
- The names of individuals and/or organizations who have also been contacted; and
- Name and location of receiving waters, (if applicable).

Whenever a facility has discharged more than 1,000 gallons of oil in a single spill event, or discharged more than 42 gallons of oil in each of two spill events within any twelve-month period, then the SPCC Plan Coordinator in conjunction with Senior Management shall submit the following to the Regional Administrator (EPA, Region 1), or their designee, within 60 days:

- Name of the facility;
- Your name;
- Location of the facility;

- Maximum storage or handling capacity of the facility and normal daily throughput;
- Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of such discharge as described in federal regulation 40 Code of Federal Regulations (CFR) 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;
- Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
- Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

A copy of this information must also be submitted to the VDEC.

Additional Emergency Contact Phone Numbers:

Stowe Fire Department	911
Stowe Police Department	911
Stowe Rescue and Hazardous Terrain	911
The Lodge at Spruce Peak Spruce Loss Prevention	802.760.4760 - office 802.461.6690 - cell
Environmental Products and Services (cleanup contractor)	1.800.577.4557 802.862.1212 (Vermont)

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1. Introduction

This Spill Prevention Control and Countermeasures (SPCC) Plan is required for the Stowe Country Club Golf Course Maintenance Facility (the site) because the aboveground oil storage capacities at the resort are greater than the applicability thresholds under the federal SPCC regulations (40 Code of Federal Regulations [CFR] 112). An SPCC Plan is required for facilities which have an aggregate aboveground storage capacity of oil greater than 1,320 gallons or a completely buried storage capacity of oil greater than 42,000 gallons. Upon the installation of two new 500-gallon aboveground storage tanks (ASTs; replacing existing 350-gallon ASTs) during the summer of 2022, Stowe Country Club Golf Course Maintenance Facility's aboveground oil storage capacity will be approximately 1,495 gallons. Stowe Country Club does not own or operate underground storage tanks (USTs).

This plan has been prepared in accordance with good engineering practices. This SPCC Plan has the full approval of management to commit the necessary resources to fully implement the plan. Section 9 provides a cross-reference of the sections of 40 CFR 112.7 and 112.8 to the applicable sections in this plan.

1.1 PLAN ADMINISTRATION

1.1.1 SPCC Plan Coordinators

The SPCC Plan coordinators for Stowe Country Club are:

Primary Coordinator:

Kevin Komer
Director of Agronomy
Stowe Country Club Golf Course Maintenance Facility
418 Cape Cod Road
Stowe, Vermont 05672
Office Phone: 802.253.3458
Cell Phone: 802.793.9108

The Primary Coordinator is responsible for overall administration of this SPCC Plan, including amendments, certifications, reporting, recordkeeping, training, and spill response.

Alternate Coordinators:

The Equipment Manager of Stowe Country Club, Andrew Chuber, is the Alternate SPCC Coordinator. Please see the cover sheet that identifies names and phone numbers of each coordinator.

The Alternate Coordinator is responsible for coordinating inspections and assisting the Primary Coordinator with spill response and maintaining records of inspections and spill incidents.

The Lodge at Spruce Peak Loss Prevention is also listed on the cover sheet and will be responsible for coordinating oil spill response activities if a release is detected during off hours.

1.1.2 Plan Amendments

This SPCC Plan must be amended whenever there is a change in facility design, construction, operation, or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines (40 CFR 112.5(a)). Such changes may include, but are not limited to:

- addition to or reduction of oil storage capacity;
- replacement, reconstruction, or movement of containers or piping systems;
- changing types of oil materials stored, used, or generated;
- modifications to containment areas;
- drainage system modifications; or
- revisions of standard operations or maintenance procedures at a facility.

An amendment made under this section must be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment. A registered Professional Engineer must certify all non-administrative amendments to the plan.

1.1.3 Review and Re-certification of Plan

Regardless of whether changes have occurred at the facility, this SPCC Plan must also be reviewed and evaluated at least once every five years (40 CFR 112.5(b)). As a result of this action, the SPCC Plan must be amended within 6 months to include more effective prevention and control technology if such technology will significantly reduce the likelihood of a spill event at the facility, as long as such technology has been field-proven at the time of the review. The plan shall also be amended to reflect changes in the facility, as described above. The technical amendments to the SPCC Plan must be re-certified by a registered Professional Engineer.

The five-year SPCC Plan review and evaluation must be documented by signing a statement as to whether the Plan will be amended. The following statement will suffice: *"I have completed review and evaluation of the SPCC Plan for Stowe Country Club on (date) and will (will not) amend the Plan as a result."* This statement must be included in the plan (Appendix A).

1.1.4 Submission of Plan

A copy of this SPCC Plan must be maintained and accessible at the Stowe Country Club Golf Course Maintenance Facility and shall be made available to the Regional Administrator of the U.S. Environmental Protection Agency (EPA), or his designee, if requested. This plan does not, under typical circumstances, have to be submitted to the EPA or to the Vermont Department of Environmental Conservation (VDEC).

However, whenever a facility has discharged more than 1,000 gallons of oil in a single spill event, or discharged more than 42 gallons of oil in each of two spill events within any twelve-month period, then the SPCC Plan Coordinator shall submit the following to the Regional Administrator (EPA, Region 1), or his designee, within 60 days:

- Name of the facility;

- Your name;
- Location of the facility;
- Maximum storage or handling capacity of the facility and normal daily throughput;
- Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of such discharge as described in 40 CRF 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;
- Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
- Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

A copy of this information must also be submitted to the VDEC.

If, after review by the agencies, the SPCC Plan is required to be amended, such amendments to the plan must be made within 30 days of notification. Amendments must be implemented as soon as possible, but not later than six months after the amendments become part of the plan (unless other dates are specified in the notice).

Note: Additional details regarding the requirements and deadlines for Plan submittal are located in 40 CFR 112.4 (a) through (f).

1.1.5 Locations of Plan

A copy of this SPCC Plan must be maintained at the Stowe Country Club Golf Course Maintenance Facility and shall be made available to the VDEC and the Regional Administrator of the EPA, if so requested. Copies of this SPCC Plan are maintained at the following locations (or with the following individuals):

1. Kevin Komer, Director of Golf Maintenance, Primary SPCC Coordinator; Stowe Country Club Golf Course Maintenance Facility
2. Andrew Chuber, Equipment Manager, Alternate SPCC Coordinator; Stowe Country Club Golf Course Maintenance Facility

1.2 DESCRIPTION OF FACILITY

Stowe Country Club is an approximately 175.5-acre recreational facility located approximately one mile northwest of the town of Stowe, in Lamoille County, Vermont off Cape Cod Road (Figure 1). Stowe Country Club comprises a golf course and a maintenance facility which is the focus of the SPCC Plan.

Site activities related to the storage and handling of oil include:

- Equipment fueling – gasoline and diesel fuel

- Building heat – fuel oil
- Drums – hydraulic oil, engine oil, motor oil, and waste oil
- Oil-filled electrical equipment – hydraulic oil

1.3 SURFACE WATER DRAINAGE

Water from storm events and snow melt from the mountain peaks is conveyed generally east from the Mt. Mansfield area and generally south from the Stowe Country Club area via unnamed brooks and intermittent streams to the West Branch of the Waterbury River (presently known as West Branch Little River). The West Branch Little River is located approximately 150 feet south of the subject site across Cape Cod Road. Drainage from the equipment washing area on the eastern side of the maintenance facility area is conveyed east to a grassy area using a swale. Surface runoff from the Stowe Country Club Golf Course is conveyed to various small ponds located throughout the course.

1.4 OIL STORAGE INVENTORY

A list of oil storage locations regulated under this SPCC Plan is provided in Table I. The list includes the following information:

- Building or other location;
- Inside or outside storage;
- Type of container or tank (underground storage tank, aboveground storage tank, transformer, drum, etc.);
- VT UST Registration Number, if applicable;
- Container/tank capacity;
- Tank contents;
- Containment; and
- Presence of storm drains or surface water in the vicinity.

A brief description of the locations of oil stored at the Stowe Country Club Golf Course Maintenance Facility follows. Figure 1 is a Project Locus map. Figure 2 is a Site Plan that identifies oil storage locations. Structural and non-structural controls implemented to prevent and contain oil spills are described in Section 3 of the plan.

1.4.1 Exterior Gasoline and Diesel Fuel ASTs

Two 350-gallon single-wall steel ASTs, containing diesel fuel and gasoline, are currently located in the northwest corner of the site adjacent to a material pile storage area (Figure 2). The two ASTs have a secondary containment structure and are used to fuel equipment such as lawn mowers used on the golf course. The ASTs appear to be in good condition, and the containment structures do not have signs of oil leakage from the tank. No nearby drains exist in the area.

During the summer of 2022, the two 350-gallon ASTs will be replaced by two 500-gallon ASTs, and they will still contain diesel fuel and gasoline. The 500-gallon ASTs will be double-walled so secondary containment will not be required. Per the recommendation from the Vermont State Fire Marshal, the two 500-gallon ASTS will have a roof covering.

1.4.2 Olsen House Heating Fuel AST

One 275-gallon single-wall steel AST containing #2 heating oil is located within the basement of the Olsen House and is used for building heat (Figure 2). The tank has a secondary containment structure, and no drains exist in the basement area. The tank appears to be in good condition, and the secondary containment structure does not show signs of oil leakage from the tank.

1.4.3 Barn Equipment Storage Area Drums

Three 55-gallon drums containing hydraulic oil, motor oil, and waste oil are located within the Barn Equipment Storage Area (Figure 2). The drums are stored on portable spill containment pallets. Only two of the drums at a time are filled with oil, and the third drum is used as backup storage. No drains exist in the barn equipment storage area. Various 5-gallon buckets are stacked around the drums. Three of the buckets are full and contain gear oil, auto transmission fluid, and hydraulic fluid.

1.4.4 Shop Area Drums

Two 55-gallon drums containing engine oil and hydraulic oil are located within the shop area adjacent to the flammable storage cabinet (Figure 2). The drums are stored on portable spill containment pallets. No drains exist in the shop area.

1.4.5 Oil-filled Electrical Equipment

1.4.5.1 Hydraulic Lift

A hydraulic lift containing 12 quarts of hydraulic oil in the reservoir is located within the shop area nearby the 55-gallon drums and flammable storage cabinet (Figure 2). The lift appears to be in good condition with no signs of oil leakage.

1.5 OIL SPILL HISTORY

According to site personnel and available records, large oil spills or oil releases in the 2- to 20-gallon range have not occurred at the Stowe Country Club Golf Course Maintenance Facility.

1.6 POTENTIAL SPILL/RELEASE SOURCES

The sources of potential oil releases at the Stowe Country Club Golf Course Maintenance Facility are listed below. This section is intended to provide the information required in section 112.7(b) [Fault Analysis] of the SPCC regulations. Controls and countermeasures implemented by Stowe Country Club Golf Course Maintenance Facility to mitigate or respond to potential releases to the environment are described in Sections 3 and 4, respectively. Potential release volumes, direction of flow, and ultimate discharge locations for reasonably foreseeable oil releases are included in Table II.

1.6.1 Bulk Fuel Loading

Fuel loading (adding fuel oil, diesel fuel, or gasoline to an AST or UST) occurs at the locations listed below by drainage area. Under the SPCC regulations, a “bulk storage container” is any container used to

store oil; oil-filled electrical equipment is an operational use of oil and is not included in the definition of bulk storage container.

- Exterior 500-gallon fueling gasoline and diesel fuel ASTs
- Interior Olsen House 275-gallon #2 heating oil AST

A release could occur at the AST or UST locations if the delivery truck's hoses are not properly connected, if hoses or valves fail, if disconnection is not properly performed (i.e., still pumping when hose is disconnected), or if the tank is overfilled due to failure of the high-level alarm.

1.6.2 Vehicle and Equipment Fueling

Facility equipment such as lawn mowers, tractors, and a 1-ton dump truck used on site can be fueled at the exterior gasoline and diesel fuel ASTs located in the northwest portion of the property. Fuel is transferred to vehicles using a typical service station fuel pump setup. A release could occur if the operator fueling the vehicle/equipment overfills a tank or if the automatic shutoff of the fuel nozzle fails.

1.6.3 Leaky Valves or Piping

Valves may leak if they are not entirely closed or may leak if they are old and/or corroded. Piping may leak due to corrosion or through fittings. Generally, leaks of these types are slow and will likely be mitigated through regular inspections. Quick connect piping systems are not currently used at Stowe Country Club.

1.6.4 Tank Failure, Rupture, or Puncture

A release from a tank (including aboveground fuel tanks, transformers) may occur if the tank integrity is weak (e.g., slow leak through a weld seam in a tank), or if the tank ruptures due to an outside force (e.g., vehicle hitting a tank). These scenarios are unlikely; however, they deserve attention due to the proximity of some of these tanks to surface waters.

1.6.5 Mishandling of Drums

Oil is stored in 55-gallon drums at the barn equipment storage area and shop area. A release of oil could occur at any of these facilities if a drum is knocked over or punctured during delivery or handling.

1.7 VOLUME AND FLOW PREDICTIONS

Table II includes a summary of maximum volume and ultimate discharge locations from tanks, equipment, and activities at the facility that present a reasonable potential for releasing oil in harmful quantities (meaning an amount capable of creating a sheen or violating surface water quality standards etc.) to waters of the United States. An example sheen inspection form is included as Appendix B.

1.7.1 Bulk Fuel Loading

As shown on Figure 2, bulk oil deliveries occur at the exterior gasoline and diesel fuel ASTs located in the northwest corner of the site. Trucks deliver fuel to these ASTs which are located on an unpaved surface

and within secondary containment once per week. Storm drains are not located proximate to oil tanks within the site boundary. If a release occurred from one of the exterior ASTs, oil could be conveyed across the parking lot to the entrance to the yard, into a vegetated ditch which leads to a 12-inch corrugated metal culvert within the Town of Stowe Right-of-Way (ROW). Because the Town ROW culvert leads directly to the West Branch Little River, a storm drain safety seal cover, mat, or plug should be applied during fuel loading to prevent potential spills from reaching the storm drain system that leads to surface water.

Bulk fuel loading occurs for the interior Olsen House #2 heating oil tank through an outside fill port approximately once per month. The fill port for the Olsen House AST is located on the western side of the Olsen House. A release during filling of the Olsen House heating oil tank would likely be contained within the basement area which does not have a floor drain.

1.7.2 Vehicle and Equipment Fueling

Facility equipment such as lawn mowers can be fueled at the exterior 500-gallon gasoline and diesel fuel ASTs located in the northwest portion of the property on an impervious surface.

1.7.3 Leaking Valve or Pipe

Leaky valves or piping could cause a release of oil from any one of a number of ASTs. Generally, these types of releases are small in volume and would be confined within secondary containment structures and detected during regular inspections. The actual volume of a release of this type should depend on the severity of the leak and the time it takes to discover the release.

1.7.4 Tank Failure, Rupture, or Puncture

A release of oil due to tank failures, ruptures, or punctures is an unlikely occurrence; however, due to the proximity of the ASTs to surface waters (West Branch Little River), contemplation of this type of release is warranted. A release of oil could occur if the welded seams for a tank are weak or corroded and eventually fail, or if a vehicle strikes a tank. Such a release scenario could result in a release of oil up to the maximum capacity of the tank.

1.7.5 Mishandling of Drums

Oil drums are typically stored and handled at the barn equipment storage area and shop area.

Mishandling of drums (e.g., dropping a drum during delivery, tipping over a drum, or puncturing a drum) could result in the release of the drum contents to the ground surface. If the release occurred within the confines of one of these buildings, engineering controls such as berms, floor drain plugs, portable spill control pallets, and dead-end sumps, coupled with operational controls such as spill absorbent materials readily at hand, would likely prevent the oil from discharging to the environment. A release occurring outside one of these buildings during drum handling activities (such as receiving virgin oil or shipping off used oil) would be subject to immediate response by the Spruce Peak personnel engaged in the activity.

2. Spill Containment and Equipment

2.1 COMPATIBILITY OF TANKS AND STORED MATERIALS

The material and construction of oil storage tanks and containers used at the Stowe Country Club Golf Course Maintenance Facility are compatible with the material stored and conditions of storage such as pressure and temperature.

2.1.1 Best Management Practices for New or Updated Tank Installations

If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or if it has discharged oil or failed due to brittle fracture failure or other catastrophe, an evaluation of the container for risk of discharge or failure due to brittle fracture or other catastrophe is performed. Based on this evaluation, appropriate action will be taken.

Each new or updated container installation will be performed in accordance with good engineering practice to avoid discharges. At least one of the following devices must be provided:

- High-liquid level alarm with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.
- High-liquid level pump cut-off devices set to stop flow at a predetermined container content level.
- Direct audible or code signal communication between the container gauge and the pumping station.
- A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If this alternative is used, a person must be present to monitor gauges and the overall filling of bulk storage containers.
- Liquid level sensing devices must be regularly tested to ensure proper operation.

2.1.2 Existing Tanks

2.1.2.1 Aboveground Storage Tanks

Two 350-gallon single-wall steel ASTs containing diesel fuel and gasoline are currently located within secondary containment in the northwest corner of the site adjacent to a material pile storage area. During the summer of 2022, the two 350-gallon ASTs will be replaced with two 500-gallon ASTs, and the new tanks will still contain diesel fuel and gasoline. The 500-gallon ASTs will be double-walled so additional secondary containment will not be required.

One 275-gallon single-wall steel AST containing #2 heating oil is located within a secondary containment structure in the basement of the Olsen House and is used for building heat.

2.1.2.2 Oil-filled Electrical Equipment

A hydraulic lift containing 12 quarts of hydraulic oil in the reservoir is located within the shop area nearby the 55-gallon drums and flammable storage cabinet.

2.1.2.3 Drum Storage

55-gallon drums are stored and handled at the Stowe Country Club Golf Course Maintenance Facility. Drums typically contain various equipment maintenance oils and lubricants and are stored on portable spill containment pallets. One 55-gallon sized pill kit containing spill equipment is located in the barn equipment storage area near the drums.

2.2 TRANSFER OPERATIONS

Piping transfers of oil at Stowe Country Club Golf Course Maintenance Facility include fuel oil transfers from exterior fueling ASTs and a #2 heating oil AST within the Olsen House to fuel burning equipment occur through aboveground single-wall piping.

2.3 TANK TRUCK UNLOADING PROCEDURES

Bulk deliveries of petroleum products at the Stowe Country Club Golf Course Maintenance Facility include delivery of gasoline, fuel oil, and diesel fuel. Fuel delivery schedules vary, depending on usage; however, all deliveries of fuel are made during hours when a Stowe Country Club employee, who has been trained in SPCC procedures, is on site during the delivery.

Bulk fuel delivery procedures include the following (refer to Appendix C for fueling procedures):

- Fuel service delivery truck driver notifies an authorized Stowe Country Club Golf Course Maintenance Facility representative one hour prior to delivery.
- The Stowe Country Club Golf Course Maintenance Facility representative advises the driver of road conditions and determines if access is clear.
- All fuel deliveries must occur between 6:00 a.m. and 6:00 p.m. unless exceptions to this schedule are approved by the Facility Equipment Manager.
- Pre-fueling inspections are conducted.
- Fueling is performed following satisfactory pre-fueling inspections.
- Visual inspection of fuel ports, for the presence of spills, and the tank level is performed.

3. Spill Countermeasures

Spill countermeasures are required for all spills ranging from small, incidental spills to large, catastrophic releases. Section 3.1 describes procedures to follow for incidental spills that do not require reporting to regulatory agencies (i.e., spills less than 2 gallons that are contained and do not affect surface waters). Section 3.2 includes procedures developed to respond to larger spills that require notification to regulatory agencies (i.e., spills greater than 2 gallons, or smaller spills that affect surface waters).

3.1 SMALL, INCIDENTAL RELEASES OF OIL

A small, incidental release of oil is one in which less than 2 gallons is released, surface waters are not affected, and the oil is expeditiously contained and cleaned up. Such a release is not subject to reporting to VDEC.

When such a release occurs, the cause of the release must be determined and fixed in a manner to mitigate further releases of oil. Contaminated materials resulting from the release (e.g., soil, speedy-dry, and/or sorbent pads/booms) must be contained, stored, and disposed of appropriately.

3.2 OTHER RELEASES OF OIL

A release of oil greater than 2 gallons, or a smaller release that adversely affects surface waters, requires reporting to the VDEC. If such a release violates applicable water quality standards or causes a sheen on the surface of the water, additional reporting to the EPA NRC is required.

Releases of oil that cannot be expeditiously contained and cleaned up by Stowe Country Club Golf Course Maintenance Facility personnel may necessitate implementation of the Oil Spill Contingency Plan (see below). The procedures in the Oil Spill Contingency Plan may be adjusted based on the severity of the release (e.g., amount released, and proximity to catch basins or surface waters).

3.2.1 Oil Spill Contingency Plan

3.2.1.1 Spill Response Procedures

If an imminent or actual emergency situation exists with respect to a release of oil, the SPCC Coordinator or his designee will be contacted immediately. The SPCC Coordinator is responsible for coordinating all emergency response measures and has the authority to commit all resources required to implement the emergency response procedures in this SPCC Plan.

The SPCC Coordinator must have complete knowledge of:

- This SPCC Plan;
- Property layout;
- All operations and activities at the property, and the location and characteristics of oil stored and used on site; and
- Location of relevant records within the facility.

The following actions shall be taken by the SPCC Coordinator during a release event. These actions may be modified based on the severity of the release.

A. Situation Assessment - The SPCC Coordinator shall immediately identify the character, exact source, amount, and real extent of any released materials. He/she may do this by observation, knowledge, and review of facility records, and if necessary, through chemical analysis.

B. Situation Evaluation - Concurrently, the SPCC Coordinator must evaluate the potential threat to human health or to the environment presented by the situation. This assessment must consider both direct and indirect effects of the release, including fire or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire or heat-induced explosions).

C. Safe Distances and Refuge - The SPCC Coordinator will determine safe distances from an oil spill after identifying the type of oil and quantity spilled and an evaluation of the potential health and safety impact to the employees and/or guests in the vicinity of the spill area. If necessary, the SPCC Coordinator may initiate a local evacuation around the spill area or a facility evacuation (See Section 3.2.2).

D. Agency Notifications - The SPCC Coordinator or his designee is responsible for making required notifications to federal, state, and local agencies. If the SPCC Coordinator determines that the situation poses a potential threat to human health or the environment, or additional resources are needed to assist in the response, local authorities (Stowe Police and Fire Departments) will be notified immediately.

E. Site Security and Control - Once the spill area has been identified and employees have been evacuated (if necessary), the site boundaries must be clearly defined. Every effort shall be made to define the spill area using physical barriers (e.g., walls, doors, and/or cones). When physical barriers are not suitable for defining the spill area, caution tape shall be used to mark locations for restricted access. Only those personnel directly involved with spill activities will be permitted to enter the area. Boundaries will be defined for three specific locations as noted below in order of increasing proximity to the spill:

    - Support Zone: Restricted area defining the outer boundary of spill response activities. All necessary response personnel, tools, and equipment will be within the Support Zone. Access is restricted to spill response personnel.
    - Contamination Reduction Zone: This is the decontamination area. The Contamination Reduction Zone shall be placed between the Exclusion Zone (see below) and Support Zone. Access is restricted to decontamination personnel and trained spill responders entering or exiting the Exclusion Zone. Decontamination personnel shall be equipped with necessary personal protective equipment (see Section 3.3) to guard them from contaminants that may be present on materials and spill response personnel leaving the Exclusion Zone. The Contamination Reduction Zone shall be continually manned during spill response activities. Activities in this area are confined to those necessary to minimize contamination of any object or person leaving the Exclusion Zone and the spread of contamination outside the Exclusion Zone.

- Exclusion Zone: This is the spill area. Access is restricted to trained spill responders with appropriate personal protection to guard against the spilled material. Activity within this area is confined to hazard control, spill characterization, and cleanup activities. Movement of personnel from the Support Zone into the Exclusion Zone shall be permitted only under instruction from the SPCC Coordinator. All such movement will be performed with suitable personal protective equipment (PPE) for the hazards involved. The SPCC Coordinator may deny access, as needed, to maintain control of the situation and to prevent the spread of contamination outside of the Exclusion Zone. The number of access points to the Exclusion Zone shall be minimized.

F. Control and Containment - During the emergency, the SPCC Coordinator will implement necessary actions to contain and control the situation and limit its spread. Containment will include the use of absorbent material, artificial and natural barriers to collect and contain oil, removing and isolating containers, and if necessary, the shutdown of processes and operations.

G. Decontamination Procedures - Whenever access is made into the Exclusion Zone, appropriate decontamination personnel will be stationed inside the Contamination Reduction Zone. Such personnel shall be appropriately trained to provide decontamination services to personnel, equipment, or other materials exiting the Exclusion Zone.

H. Decontamination shall occur at a level necessary to minimize the contamination of the response personnel, Support Zone, and outlying areas. Decontamination shall occur for all equipment, tools, waste containers, and personnel leaving the Exclusion Zone. The decontamination procedure and the materials needed are dependent on the nature of the contaminants and the level of PPE used by spill responders. Waste materials and discharge rinse water from decontamination shall be treated as contaminated waste and disposed appropriately.

I. Disposal - Materials generated during an oil spill cleanup that require disposal could include oil, oil-contaminated speedy-dry, sorbent pads, sorbent booms, PPE, soil, water, etc. These materials must be managed, stored, and disposed of appropriately. Generally, in cases of a large release of oil, the oil spill cleanup contractor will provide transportation and disposal services.

J. Actions Following an Emergency - The SPCC Coordinator shall be responsible for and will implement the following post-emergency activities:

- Where appropriate, all operational equipment will be checked to ensure integrity prior to restarting operations.
- Hazardous materials, including contaminated soil and water, will be collected and stored for treatment and/or disposal. The SPCC Coordinator will ensure that no incompatible materials are stored together.
- All emergency equipment will be cleaned and checked prior to the resumption of operations.
- The VDEC and appropriate local authorities shall be notified that all hazardous material resulting from the emergency has been properly handled and that all emergency equipment is in order before resuming operations.

- The incident shall be recorded via a memorandum to file, recording the date, time, and details of the occurrence.

3.2.2 Facility Evacuation Plan

Due to the size and nature of operations at the Stowe Country Club Golf Course Maintenance Facility, it is unlikely that a large-scale evacuation would be necessitated by an oil spill. However, it is possible that localized evacuation may be needed to allow spill response personnel uninhibited access to contain and clean up a spill. Such localized evacuations can initially be implemented by Stowe Country Club Golf Course Maintenance Facility employees, at the direction of the SPCC Coordinator, and thereafter by Stowe Fire or Police Department personnel. If a building owned by the Stowe Country Club Golf Course Maintenance Facility requires evacuation, primary and alternate evacuation routes are depicted on plans posted strategically on walls throughout the buildings.

3.2.3 Duties and Responsibilities of the SPCC Coordinator

The SPCC Coordinator is responsible for coordinating all oil spill emergency response measures and has the authority to commit all resources required to implement the SPCC Plan. If the SPCC Coordinator is not available at the time of the oil release, the Alternate SPCC Coordinator shall undertake the duties of the SPCC Coordinator.

3.3 SPILL RESPONSE AND PERSONAL PROTECTIVE EQUIPMENT

Oil spill containment and cleanup kits are maintained at several locations throughout Stowe Country Club to enable Stowe Country Club Golf Course Maintenance Facility employees to affect a prompt response to incidental oil spills. Each kit contains the following types of equipment:

- Oil absorbent booms, pillows, and sheets;
- Loose sorbent;
- PPE (gloves, tyveks, over-boots, and safety glasses).

Note: The equipment listed above is intended to be used to contain and clean up small, incidental oil spills, and to enable employees to mount an incipient response to larger oil spills. At the discretion and direction of the SPCC Coordinator, larger spills will be handled by an outside contractor.

One large oil spill containment and cleanup kit capable of responding to a 65-gallon spill can be found in the barn equipment storage area close to the three 55-gallon drums.

Storm drains are not located proximate to oil tanks at the facility. If a release occurred from one of the exterior 500-gallon ASTs, oil would be conveyed across the parking lot to the entrance to the yard, into a vegetated ditch which leads to a storm drain within the Town of Stowe ROW. Because the Town ROW 12-inch corrugated metal culvert leads directly to the West Branch Little River, the application of storm drain mats or plugs during tank filling operations is considered necessary.

3.4 SPILL RESPONSE CONTRACTOR

Stowe Country Club maintains an active contract for emergency response to oil spills with the following contractor:

Environmental Products and Services	1.800.577.4557 802.862.1212 (Vermont)

3.5 SPILL REPORTING

Refer to the beginning of this document (pages i-ii) and Appendix D for emergency spill reporting procedures and contact phone numbers.

3.5.1 Federal Reporting

Title 40 of the CFR at Part 110, Discharge of Oil, requires that any person in charge of the facility, as soon as they have knowledge of a discharge that violates 40 CFR 110.6, Prohibited Discharge, must "immediately" notify the EPA NRC in Washington, D.C.

A prohibited discharge to the waters of the United States or its adjoining shoreline is defined to be a discharge in harmful quantities. Harmful quantities are defined at 40 CFR Part 110.3, to include discharges that:

- Violate water quality standards; or
- Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon the adjoining shoreline.

3.5.2 State Reporting

In addition to the federal reporting requirements, the Vermont Agency of Natural Resources requires all releases, including spills and overfills, that meet any of the following criteria shall be immediately reported to the Secretary by the owner of the tank:

- A release of heating fuel, motor fuel, or used oil that exceeds 2 gallons;
- A release of heating fuel, motor fuel, or used oil that is less than or equal to 2 gallons and poses a potential or actual threat to human health or the environment; or
- A release of heating fuel, motor fuel, or used oil that equals or exceeds its corresponding reportable quantity under CERCLA as specified under 40 CFR 302.4.

4. Inspections, Tests, and Records

4.1 GENERAL REQUIREMENTS

40 CFR 112.7(e) requires routine inspections, tests, and recordkeeping for oil storage tanks, piping, and equipment. Inspections and tests must be conducted in accordance with written procedures. Written procedures and a record of the inspections and tests must be kept and signed by the appropriate supervisor or inspector for a period of three years. Inspection forms are included in Appendix E. A photo log of the tank locations, photos provided by Stowe Country Club, is included as Appendix F.

4.2 SPECIFIC TESTING AND INSPECTION REQUIREMENTS

4.2.1 Tank Testing Requirements

40 CFR 112.8(c)(6) includes the following specific tank testing requirements:

- Each aboveground container must be tested for integrity on a regular schedule and whenever material repairs are made.
- The frequency and type of testing must take into account the container size and design.
- Testing must include visual inspection combined with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing.
- Comparison records for visual and non-destructive tests must be kept on file.
- Each container's supports and foundations must be inspected on a regular basis.
- The outside of each container must be frequently inspected for signs of deterioration, discharges, or accumulation of oil inside secondary containment areas.

On a more frequent basis, if Stowe Country Club Golf Course Maintenance Facility employees observe stormwater in containment berms that requires draining, a written log documenting that no petroleum product (e.g., sheen or odor) was observed prior to pumping will be maintained for at least three years.

All other aboveground tanks and containers larger than 55-gallon capacity will be subject to routine visual inspections monthly and during filling plus another testing technique on a 10-year schedule. Fifty-five-gallon drums will be inspected monthly and removed from oil storage service when moderate corrosion or other damage to the container is noted that could result in a leak.

4.2.2 Transfer Piping Inspection Requirements

40 CFR 112.8(d)(4) includes the following specific inspection requirements:

- All aboveground valves, piping, and appurtenances must be regularly inspected.
- During the inspection, the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces must be assessed.

- Integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement must be conducted.

4.3 INSPECTION OF OIL STORAGE CONTAINERS, TANKS, AND PIPING

Inspections of aboveground containers, tanks, and piping will note any abnormal conditions such as:

- Evidence of leaky, worn, or deteriorating transfer lines;
- Evidence of leaky valves;
- Rust accumulation on tanks, valves, or lines;
- Unsafe conditions which could contribute to a spill of oil; and
- Deficiencies in spill kit inventory.

Completed inspection forms will be signed and dated by the inspector and kept on file for at least three years.

4.3.1 Monthly Inspections

The designated SPCC inspector will use an inspection form (Appendix E) to document monthly inspections of the following areas:

- Aboveground storage tanks and associated equipment (refer to section 1.4);
- Oil-filled electrical equipment (refer to section 1.4.26 for listing);
- Residential-type heating oil ASTs and associated piping (refer to section 2.1.2.3 for listing); and
- Spill Kits (see Appendix E for complete listing).

5. SPCC Training

Training for the purposes of this SPCC Plan is provided to all new employees with responsibilities for oil handling or storage or for oil spill response within one month of hire. Training is provided to current employees with those same responsibilities on an annual basis, or when changes in oil storage/handling are such that additional training is appropriate. The SPCC Plan Coordinator is responsible for assuring that the appropriate personnel complete the training requirements presented below.

The training program includes the following topics:

- Pollution control laws and regulations;
- Location, requirements, and contents of this SPCC Plan;
- Identification of the SPCC and Alternate SPCC Coordinators;
- Proper oil unloading and transfer procedures;
- Inspection and documentation responsibilities;
- Operation and maintenance of equipment to prevent discharges;
- Oil spill response techniques and notification procedures;
- Spill incident reporting and documentation;
- Security issues; and
- A review of any recent spill incidents, equipment malfunctions, procedural, or organizational revisions, or any other related changes to the oil pollution prevention program.

All training modules and training records will be maintained by the SPCC Coordinator for at least three years.

6. Security

During the winter and summer, Spruce Peak Loss Prevention personnel associated with Stowe Mountain Lodge are on call and conduct monitoring as a nightly drive-through security service at the maintenance facility. Security personnel conduct routine patrols to detect vandalism and other conditions adverse to the welfare of guests, employees, and the physical facility. Security personnel are cognizant of oil storage locations through their communications with the SPCC Coordinators.

Due to the nature of operations at Stowe Country Club Golf Course Maintenance Facility, fencing is an impractical means of securing aboveground oil storage locations throughout the property. However, the combination Spruce Peak Loss Prevention personnel monitoring, security devices on product pumps, and generally limited access to oil storage locations are considered appropriate to provide equivalent environmental protection.

7. Conformance to Applicable Federal SPCC Standards

Stowe Country Club Golf Course Maintenance Facility's operations conform to applicable oil spill prevention, control, and countermeasures requirements.

If changes are made at the facility that materially affect the oil storage capacity on site, or the potential for a discharge of oil, the SPCC Plan will be amended within six months of the change.

8. Plan Certifications

8.1 PROFESSIONAL ENGINEER CERTIFICATION

I have reviewed this Spill Prevention Control and Countermeasures (SPCC) Plan and the Plan satisfies the requirements of 40 CFR Part 112, Oil Pollution Prevention. Being familiar with the provisions of the Oil Pollution Prevention regulations, I attest that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and is adequate for the facility. Procedures for required inspections and testing have been established. This certification in no way relieves the owner or operator of this facility of his duty to prepare and fully implement this plan in accordance with the Oil Pollution Prevention regulations.

Jeffery A. Miller, P.E.
Printed Name of Licensed Professional Engineer

Signature of Licensed Professional Engineer

License No: 134753

State of: Vermont

Date: 16 June 2022

Seal

8.2 FACILITY CERTIFICATION

I certify that Stowe Country Club has the necessary personnel and equipment resources available to respond to a discharge within appropriate response times and/or have a written contractual agreement with an oil spill removal organization that identifies and ensures the availability of the necessary personnel and equipment within the appropriate response times. I hereby approve this SPCC Plan and authorize the commitment of the resources necessary to implement this plan.

Printed Name of Stowe Country Club Official

Title

Signature of Stowe Country Club Official

Date

9. Cross-Reference to SPCC Plan Regulations

Refer to Table III for SPCC rule cross-reference to this plan.

TABLES

TABLE I
SUMMARY OF OIL STORAGE AND USE
SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
STOWE COUNTRY CLUB GOLF COURSE MAINTENANCE FACILITY
STOWE, VERMONT

	Tank Name	Figure #	Drainage Area	Location	Type of Storage	ID	VT UST Registration No.	Capacity (gallons)	Tank Content	Used For	Tank Construction	Containment / Diversionary Structure	Notes
Aboveground Oil Tanks (ASTs)	Diesel AST	2	N/A	outside	AST	--	n/a	500	Diesel	Fueling Equipment	Double-Wall Steel	N/A	A current 350-gallon AST is to be replaced by a 500-gallon AST in the summer of 2022. The existing tank is single-walled steel with secondary containment to be replaced with a double-walled tank. No nearby drains.
	Gasoline AST	2	N/A	outside	AST	--	n/a	500	Gasoline	Fueling Equipment	Double-Wall Steel	N/A	A current 350-gallon AST is to be replaced by a 500-gallon AST in the summer of 2022. The existing tank is single-walled steel with secondary containment to be replaced with a double-walled tank. No nearby drains
	Olsen House Heating Oil AST	2	N/A	inside	AST	--	n/a	275	#2 Fuel Oil	Building Heat	Single Wall Steel	Secondary Containment	No nearby drains
	Total AST Capacity							***1,275***					
Drums	Barn Equipment Storage Area Drums	2	N/A	inside	Drums (3)	--	n/a	110	Hydraulic Oil, Motor Oil, and Waste Oil	Waste	Single wall	Spill containment pallets	Of the 3 drums in the Equipment Storage Area, only 2 drums are typically filled with a third empty as backup storage. Therefore, the storage capacity is 110 gallons. No nearby drains.
	Shop Area Drums	2	N/A	inside	Drums (2)	--	n/a	110	Engine Oil and Hydraulic Oil	Equipment	Single wall	Spill containment pallets	No nearby drains
	Total Drum Capacity							***220***					
Oil Filled Operational Equipment	Shop Area Hydraulic Lift		N/A	inside	Oil-Filled Equipment	--	n/a	12 Quarts	Hydraulic Oil	Hydraulic Lifting	n/a	n/a	The hydraulic lift is contained within the Shop Area building. Any spills would be contained within the building as there are no nearby drains.
	Total Oil-Filled Operational Equipment Capacity							***12 quarts***					
	Total Oil Storage On-Site							***1,495***					

TABLE II
PREDICTION OF POTENTIAL OIL RELEASES
SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
STOWE COUNTRY CLUB GOLF COURSE MAINTENANCE FACILITY
STOWE, VERMONT

Location	Drainage Area	Source	Type of Release	Opportunity for Discharge to Surface Water	Potential Release Amount (Maximum)
Exterior Diesel AST	Stowe Country Club	Diesel AST	Overfill during tank loading/unloading	If a release occurred from one of the exterior 500-gallon ASTs, oil would be conveyed across the parking lot to the entrance to the yard, into a vegetated ditch which leads to a 12-inch corrugated metal culvert within the Town of Stowe ROW. Because the Town ROW culvert leads directly to the West Branch Little River, the application of storm drain mats or plugs during tank filling operations is considered necessary.	500 gallons
			Truck/Equipment transfer line rupture		
Exterior Gasoline AST	Stowe Country Club	Gasoline AST	Overfill during tank loading		500 gallons
			Truck/Equipment transfer line rupture		
Olsen House Heating AST	Stowe Country Club	#2 Heating Oil AST	Overfill during tank loading	Release contained within basement area	275 gallons

TABLE III
SPCC RULE CROSS-REFERENCE
SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
STOWE COUNTRY CLUB GOLF COURSE MAINTENANCE FACILITY
STOWE, VERMONT

SPCC Rule	Description of Section	Section(s) in Plan
§ 112.7	General requirements for SPCC Plans for all facilities and all oil types.	Section 8.2
§ 112.7(a)	General requirements; discussion of facility's conformance with rule requirements; deviations from Plan requirements; facility characteristics that must be described in the Plan; spill reporting information in the Plan; emergency procedures.	Section 7, Figures (all), Table I, section 2, Section 3, pages i-ii
§ 112.7(b)	Fault analysis.	Table II
§ 112.7(c)	Secondary containment.	Section 2.1.2
§ 112.7(d)	Contingency planning.	Section 3
§ 112.7(e)	Inspections, tests, and records.	Section 4
§ 112.7(f)	Employee training and discharge prevention procedures.	Section 5
§ 112.7(g)	Security (excluding oil production facilities).	Section 6
§ 112.7(h)	Loading/unloading (excluding offshore facilities).	N/A
§ 112.7(i)	Brittle fracture evaluation requirements.	N/A
§ 112.7(j)	Conformance with state requirements.	pages i-ii
§ 112.8(a) § 112.12(a)	General and specific requirements.	Sections cited above
§ 112.8(b) § 112.12(b)	Facility drainage.	Section 2.1.2.4
§ 112.8(c) § 112.12(c)	Bulk storage containers.	Section 2.1.2.4
§ 112.8(d) § 112.12(d)	Facility transfer operations, pumping, and facility process.	Section 2.2, Section 4.2.2
§ 112.9 § 112.13	Requirements for onshore production facilities.	N/A
§ 112.9(a) § 112.13(a)	General and specific requirements.	N/A
§ 112.9(b) § 112.13(b)	Oil production facility drainage.	N/A
§ 112.9(c) § 112.13(c)	Oil production facility bulk storage containers.	N/A
§ 112.9(d) § 112.13(d)	Facility transfer operations, oil production facility.	N/A
§ 112.10 § 112.14	Requirements for onshore oil drilling and workover facilities.	N/A
§ 112.10(a) § 112.14(a)	General and specific requirements.	N/A
§ 112.10(b) § 112.14(b)	Mobile facilities.	N/A
§ 112.10(c) § 112.14(c)	Secondary containment - catchment basins or diversion structures.	N/A
§ 112.10(d) § 112.14(d)	Blowout prevention (BOP).	N/A
§ 112.11 § 112.15	Requirements for offshore oil drilling, production, or workover facilities.	N/A

TABLE III
SPCC RULE CROSS-REFERENCE
SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
STOWE COUNTRY CLUB GOLF COURSE MAINTENANCE FACILITY
STOWE, VERMONT

SPCC Rule	Description of Section	Section(s) in Plan
§ 112.11(a) § 112.15(a)	General and specific requirements.	N/A
§ 112.11(b) § 112.15(b)	Facility drainage.	N/A
§ 112.11(c) § 112.15(c)	Sump systems.	N/A
§ 112.11(d) § 112.15(d)	Discharge prevention systems for separators and treaters.	N/A
§ 112.11(e) § 112.15(e)	Atmospheric storage or surge containers; alarms.	N/A
§ 112.11(f) § 112.15(f)	Pressure containers; alarm systems.	N/A
§ 112.11(g) § 112.15(g)	Corrosion protection.	N/A
§ 112.11(h) § 112.15(h)	Pollution prevention system procedures.	N/A
§ 112.11(i) § 112.15(i)	Pollution prevention systems; testing and inspection.	N/A
§ 112.11(j) § 112.15(j)	Surface and subsurface well shut-in valves and devices.	N/A
§ 112.11(k) § 112.15(k)	Blowout prevention.	N/A
§ 112.11(l) § 112.15(l)	Manifolds.	N/A
§ 112.11(m) § 112.15(m)	Flowlines, pressure sensing devices.	N/A
§ 112.11(n) § 112.15(n)	Piping; corrosion protection.	N/A
§ 112.11(o) § 112.15(o)	Sub-marine piping; environmental stresses.	N/A
§ 112.11(p) § 112.15(p)	Inspections of sub-marine piping.	N/A

FIGURES

SITE COORDINATES: 44°28'41"N, 72°41'57"W

MAP SOURCE: USGS

HALEY ALDRICH

SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN
STOWE COUNTRY CLUB GOLF COURSE
MAINTENANCE FACILITY
STOWE, VERMONT

PROJECT LOCUS

APPROXIMATE SCALE: 1 INCH = 2,000 FEET
JULY 2022

FIGURE 1

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NOTE

1. IMAGE, DATED 19 SEPTEMBER 2021, TAKEN ELECTRONICALLY FROM GOOGLE EARTH PRO.

0 40 80

APPROXIMATE SCALE IN FEET

HALEY ALDRICH

SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN
STOWE COUNTRY CLUB GOLF COURSE
MAINTENANCE FACILITY
STOWE, VERMONT

SITE PLAN - STOWE COUNTRY CLUB GOLF COURSE MAINTENANCE FACILITY

SCALE: AS SHOWN
JULY 2022

FIGURE 2

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APPENDIX A

SPCC Plan Review Log

LOG OF SPCC PLAN REVIEW AND REVISIONS

Date of Review	Reason for Review	Was Plan Revised?	PE Certification Required for Revision?	PE Certification Done?
4/26/2022	Stowe Country Club Golf Course Maintenance Facility increased its oil storage capacity so that it exceeds the limit that requires an SPCC plan of 1,320-gallons.	Yes	Yes	

"I have completed review and evaluation of the SPCC Plan for Stowe Country Club on ______________(date), and will (will not) amend the Plan as a result."

Name ____ Date_________________________

Signature____

"I have completed review and evaluation of the SPCC Plan for Stowe Country Club on ______________(date), and will (will not) amend the Plan as a result."

Name ____ Date_________________________

Signature____

"I have completed review and evaluation of the SPCC Plan for Stowe Country Club on ______________(date), and will (will not) amend the Plan as a result."

Name ____ Date_________________________

Signature____

"I have completed review and evaluation of the SPCC Plan for Stowe Country Club on ______________(date), and will (will not) amend the Plan as a result."

Name ____ Date_________________________

Signature____

"I have completed review and evaluation of the SPCC Plan for Stowe Country Club on ______________(date), and will (will not) amend the Plan as a result."

Name ____ Date_________________________

Signature____

APPENDIX B

Example Sheen Inspection Log

APPENDIX B EXAMPLE SHEEN INSPECTION LOG
FOR SECONDARY CONTAINMENT STRUCTURES
(for use when water has accumulated in containment structure)

Date of Inspection:_____

Name of Inspector:_____ Signature of Inspector:_____

1. Description of Secondary Containment and Oil-Containing Unit (include location):

_____

_____

_____

2. Type of Oil in Unit:_____
3. Oil Capacity of Unit:_____
4. Depth of water accumulated in Containment Cell (inches): _____
5. Remaining capacity in Containment Cell (inches): _____

	YES	NO	N/A
6. Is there an odor from the liquid accumulated in the cell?	☐	☐	☐
7. Is there any visual evidence of leaks in the unit?	☐	☐	☐
8. Is there a sheen on the liquid in the containment cell?	☐	☐	☐
9. Is there anything unusual about the liquid in the cell?	☐	☐	☐

9. If yes, describe: _____

_____

_____

If a "yes" answer was recorded for any item above, the SPCC Coordinator must be notified, and corrective action must be taken prior to pumping liquid out of containment cell.

	YES	NO	Date:
10. Was the SPCC Coordinator notified?	☐	☐	
11. Was the liquid pumped out of containment cell?	☐	☐	

12. Where was the liquid discharged?_____
13. Approximate volume of liquid discharged? _____
13. Name of disposal company(if any) _____

_____

Signature of SPCC Coordinator or Designee: _____

Construction Discharge Water Form

WO#

Date

Open WO

Project

Project Description

Other:

Location

Estimated Project Duration

Operator:

Supervisor:

Manager:

Site Description

Grade

Vegetation @ site

Estimated Open Terrain

Excavation required Yes ☐ No ☐

Water Course

Water Infiltration Anticipated Yes ☐ No ☐

Approx. Flow

De-watering Method Used

Distance to nearest drainage _____ Feet

Water Clarity - Pre Treatment

Water Clarity - Post Treatment

De-siltation Method

Nearest potentially impacted waterway _____ Feet

Any drop-inlets, culverts or other paths for silty water to enter a waterway Yes ☐ No ☐

Method used to prevent silty effluent from entering waterway

Visual Waterway Inspection

Check periodically through out project to ensure there is no silt infiltration into the waterway

Increase frequency of checks with turbidity level

Times	*Ok*	Times	*Ok*	Times	*Ok*	Times	*Ok*	Times	*Ok*	Times	*Ok*	Times	*Ok*
	☐		☐		☐		☐		☐		☐		☐
	☐		☐		☐		☐		☐		☐		☐
	☐		☐		☐		☐		☐		☐		☐

Risk Assessment

☐ **Cat 1** Project involves work within the confines of a water way. VT 1272 Permit required. **Director Level Authority Only**

☐ **Cat 2** Drainage entry point is within 50' of site. Water-infiltration is above 25gal / min. Extreme turbidity of pretreated water. **Director Level Authority Only**

☐ **Cat 3** Drainage entry point is 100' from site Water-infiltration is below 25gal / min

☐ **Cat 4** Drainage entry point is 500' from site Little water-infiltration

Site Closure

Date Completed

Time

Inspected by:

Site Clean-up description:

	Yes	No	N/A
Was site mulched	☐	☐	☐
Does site require Silt Fence	☐	☐	☐
Has site been posted for travel	☐	☐	☐

Accountability

" I attest that I have managed the site with reference to water quality to the best of my ability. I have not willing or with any knowledge contributed to the degradation of the surrounding waterway

Initiating Supervisor

Approved by:

Director Level

Manager Level

APPENDIX C

Fueling Procedures

Stowe Country Club Golf Course Maintenance Facility	**Bulk Fueling Procedures for Oil Storage Tanks**

Bulk Fueling Procedures for Heating Oil, Gasoline, and Diesel Fuel Tanks:

Additional Precautions for the following tanks: Exterior Gasoline and Diesel Fuel Tanks (500-gallons each) and Olsen House Heating Oil AST (275-gallon)

DOCUMENT OWNERS: Director of Agronomy (Kevin Komer)

PURPOSE: To ensure the safe and secure bulk transfer of fuel to Stowe Country Club fuel storage tanks

DATE OF ISSUANCE: April 25, 2022	DATE OF REVISION:

Personnel - The procedure requires a minimum of two people, typically one authorized Stowe Country Club employee and the fuel vendor company employee.

Fuel Vendor - Fuel truck deliveries will not be permitted at the locations identified above without prior communication.

1. Prior to delivery fuel vendor will contact the Primary SPCC Coordinator, Kevin Komer, for heating oil deliveries or Lift Maintenance for diesel fuel deliveries. Telephone number: **(802) 253-3458**;
2. Stowe Country Club (equipment technician) ensures the fill location is accessible to the fuel truck.

Training

1. All authorized Stowe Country Club employees will receive training in the following areas:
   a. Spill Response (annual)
   b. Review of Oil Spill Contingency Plans as needed; and
   c. Review of relevant fueling procedures (annual).
2. Training of fuel delivery company personnel will be conducted whenever a delivery company employee who is not familiar with Stowe Country Club's operations arrives on site.
3. It is the responsibility of Stowe Country Club Managers to conduct and document vendor training and transmit the documentation to the Environmental Management Representative for retention.

Tank Size – Maximum allowable fuel delivery volume

1. Authorized Stowe Country Club employees determines fuel volume with AST 90-percent full (**Tanks should be filled to a maximum of 90-percent full to allow for expansion.).**
2. An authorized Stowe Country Club employee determines the current volume of fuel in AST.
3. An authorized Stowe Country Club employee calculates the maximum allowable delivery volume (i.e., 90 percent volume minus current volume).

Pre-Fueling

1. An authorized Stowe Country Club employee opens the fuel port and determines the current fuel volume in the tank as well as the maximum allowable fill volume.
2. If fueling is taking place at a location where Site Specific Precautionary Measures are required to address site specific concerns (see below) Stowe Country Club ensures the designated measures are in place.
3. Delivery person hooks up fuel hoses.

Pre-Fueling (Cont.)

4. An authorized Stowe Country Club employee conducts visual inspection of the following:
    a. Drip bucket present and empty, if applicable.
    b. Transfer port and tank coupling are secure.

Fuel delivery person begins transferring fuel to the fuel tank.

During Fueling

1. An authorized Stowe Country Club employee will periodically conduct a visual inspection of the following during transfer;
    a. Delivery vehicle;
    b. Fuel deliver route (hoses and pipes); and
    c. Fuel ports.
2. ASTs should be filled to a maximum of 90% full to allow adequate space for expansion.

Post Fuel

1. The fuel delivery person closes transfer valves and disconnects the hoses.
2. An authorized Stowe Country Club employee secures port cap
3. The authorized Stowe Country Club employee and delivery truck driver conduct visual inspection of the following;
    a. Drip bucket empty, if applicable;
    b. Drain seal has been removed, if applicable;
    c. Fuel port closed and secured
    d. No visible signs of product along the transfer line.
    e. Transport carrier is secured and ready for transport
4. The authorized Stowe Country Club employee checks the spill supplies and if depleted obtains additional supplies.

Site Specific Precautionary Measures

Fueling locations identified below require additional precautionary measures to address site specific conditions and comply with Stowe Country Club's Spill Prevention Control and Countermeasure (SPCC) Plan.

I) Exterior 500 -gallon Gasoline and Diesel Oil ASTs:

Bulk oil deliveries occur at the exterior gasoline and diesel fuel ASTs located in the northwest corner of the property once per week. Trucks deliver fuel to these ASTs which are located on a paved surface and within secondary containment. Storm drains are not located proximate to oil tanks within the property boundary. If a release occurred from one of the exterior 500-gallon ASTs, oil could be conveyed across the parking lot to the entrance to the yard, into a vegetated ditch which leads to a storm drain within the Town of Stowe Right-of-Way (ROW). Because the Town ROW storm drain leads directly to the West Branch Little River, a storm drain safety seal cover, mat or plug should be applied during fuel loading to prevent potential spills from reaching the storm drain system that leads to surface water.

II) Interior Olsen House Heating Oil Tank: Bulk fuel loading occurs for the interior Olsen House heating oil tank through an outside fill port approximately once per month.

A release during filling of the Olsen House heating oil tank would likely be contained within the basement area which does not have a floor drain.

APPENDIX D

Employee Spill Response Procedure

Stowe Country Club Golf Course Maintenance Facility	**Spill Response Procedure**
DOCUMENT OWNER: Kevin Komer	PAGE 1 of 2
PURPOSE: To ensure an appropriate employee response in the event of a release of hazardous materials or oil.	
DATE OF ISSUANCE: April 25, 2022	DATE OF REVISION:

If a Spill Occurs

Initial Assessment:

Assess the Risk: Determine the nature and quantity of the spill.

Notification to outside Agencies:

a. If greater than 2 gallons of hazardous material or oil is released to soil or water, or
b. if the spill appears to pose a threat to human health or the environment

Immediately contact a Spill Coordinator, after business hours contact a Night Coordinator.
Talk directly to the Coordinator; do not rely on a message.
The coordinator will determine the need to contact other parties/agencies.

DAY COORDINATORS

	Office	Cell
Kevin Komer	**802-253-3458**	**802-793-9108**
Andrew Chuber		**913-683-8831**

NIGHT COORDINATORS (N/A)

Name	Number

Note: The Document Owner is responsible for identifying Day and Night Coordinators and providing contact information and keeping the information current. Updated versions should be provided to the Environmental Management Representative for posting on the EMS shared drive.

Notification Requirements

Release > 2.0 gallons

VTDEC requires immediate state notification of all releases to soil or water that are greater than or equal to 2.0 gallons or pose a threat to human health or the environment. This communication is handled by environmental or management personnel. A spill coordinator will contact the VT DEC directly as follows:
802-828-1138 (during business hours) 800-641-5005 (all other times)

Release to a Surface Water Body (i.e., a sheen or more)

Federal law requires immediate National Response Center notification. This is handled by environmental or management personnel. The Spill Coordinators must contact the National Response Center directly as follows: **800-424-8802.**

-OVER-

Spill Response Procedure

NO. | PAGE 2 OF 2

Notification Requirements (Continued)

The following information should be provided when reporting a release to VTDEC or the National Response Center:

- Location of the release
- Source of release
- Type of product released
- Estimated volume of release
- Time of release (if known)
- Affected media (soil, surface water)
- Response actions taken

For releases >1,000 gallons or two discharges of 42 gallons or more within 12 months
EPA Region 1 must be notified within 60 days of the release.

Response Action:

If spill conditions, training and available equipment permit, follow the sequence below:

1. **Select appropriate Personal Protective Equipment** (PPE): If available PPE does not offer adequate protection, do not perform clean up activities.
2. **Stop Product Flow**: Act quickly to stop the source of spilled material, if possible. This minimizes the spill.
3. **Contain the Spill**: Use socks, dikes, or booms to contain the spill and keep it from spreading or contaminating water sources
4. **Absorb Contained Fluids**: Place absorbent pads and pillows directly on the spill to absorb material.
5. **Dispose and Decontaminate**: Remove contaminated material in compliance with local, state, and federal regulations. Decontaminate the site, personnel, and all equipment.

In the event that the release cannot be adequately contained, Stow Country Club personnel must immediately contact Environmental Products and Services 800-9SPILL9, Stow Country Club's designated 24/7 hazardous waste emergency responder.

Documentation:

Complete all required paperwork and reporting

ADDITIONAL EMERGENCY CONTACT PHONE NUMBERS:

Stowe Fire and Police Departments	**911**
Environmental Products and Services (cleanup contractor)	**800-9SPILL9**

APPENDIX E

Example SPCC Inspection Forms

Monthly Aboveground Storage Tank and Spill Kit Inspection Checklist

Date:

ASTs

OK NG NA

- ☐ ☐ ☐ Tank Surfaces checked for signs of leakage
- ☐ ☐ ☐ Tank Condition (no rusting, corrosion, pitting)
- ☐ ☐ ☐ Tank Foundation intact
- ☐ ☐ ☐ Level gauges and alarms functioning properly
- ☐ ☐ ☐ Vents are not obstructed

Piping

OK NG NA

- ☐ ☐ ☐ No leaks at valves, flanges or fittings
- ☐ ☐ ☐ No signs of corrosion damage to pipelines or supports
- ☐ ☐ ☐ Buried Pipelines not exposed
- ☐ ☐ ☐ Signs and barriers in place
- ☐ ☐ ☐ Fill port capped and locked

Containment

OK NG NA

- ☐ ☐ ☐ Containment walls, floor intact
- ☐ ☐ ☐ No visible oil sheen in containment area
- ☐ ☐ ☐ No standing water in containment area
- ☐ ☐ ☐ Containment area valves closed

Drainage

OK NG NA

- ☐ ☐ ☐ No oil sheens on runoff
- ☐ ☐ ☐ No soil staining or stressed vegetation

Inspection Location

- ☐ Sensation Lift 400-gallon and spill kit
- ☐ SCC Cart Barn 300-gal gasoline and spill kit
- ☐ SCC Maintenance Barn 300-gal diesel
- ☐ SCC Maintenance Barn 300-gal gasoline
- ☐ Gondola Base 130-gal diesel and spill kit.
- ☐ Gondola Booster Station 185-gal diesel and spill kit.
- ☐ Lookout Lift Summit 100-gal diesel and spill kit.
- ☐ Mobil fuel truck 100-gal diesel and spill kit.
- ☐ Sunny Spruce 170-gal diesel and spill kit
- ☐ Adventure Triple Lift 70-gal diesel and spill kit
- ☐ Quad Top 60gal & 400gal AST and spill kit

- ☐ Transfer Lift 155gal and Spill Kit
- ☐ SML I North Gen Set 600-gallon and spill kit
- ☐ SML II South Gen Set 275-gallon and spill kit
- ☐ Admin Building Emergency Generator 175-gallon diesel
- ☐ SCAMP Emergency Generator 1,500-gallon and spill kit
- ☐ Cliff House Tension System 77-gallon hydraulic & spill kit
- ☐ Diesel Pad 1K-gallon diesel day tank and spill kit
- ☐ Fueling Station 6k-gallon unleaded
- ☐ Fueling Station 15k-gallon diesel

Spill Kit and Supplies

OK NG NA

- ☐ ☐ ☐ Sorbent pads and booms in stock
- ☐ ☐ ☐ PPE; gloves, Tyvek, safety-glasses

Key

OK Satisfactory
NG Repair or adjustment required
NA Not Applicable

Remarks / Recommendations

Print Name _____ Signature _____

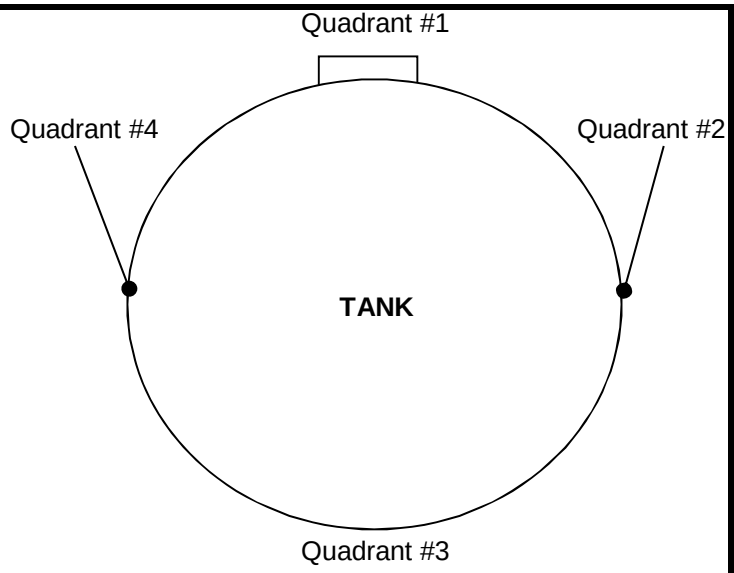
Fuel Tank Inspection Report

☐ 15K Diesel - Snowmaking
☐ 1K Diesel - Snowmaking
☐ 6K Gasoline

Week Ending: _____

Station	Condition: Satisfactory	Condition: Unsatisfactory	NA	Remarks (Use reverse side for further descriptions)
Tank				
Quadrant #1	☐	☐	☐	
Quadrant #2	☐	☐	☐	
Quadrant #3	☐	☐	☐	
Quadrant #4	☐	☐	☐	
Ground Straps	☐	☐	☐	
Interstitial Space	☐	☐	☐	
Tank Supports	☐	☐	☐	
Tank Foundation	☐	☐	☐	
Pipelines				
Piping	☐	☐	☐	
Valves	☐	☐	☐	
Flanges	☐	☐	☐	
Fill Port	☐	☐	☐	
Dispensing				
Pump #1	☐	☐	☐	
Pump #2	☐	☐	☐	
Nozzle #1	☐	☐	☐	
Nozzle #2	☐	☐	☐	
Hoses	☐	☐	☐	
Physical				
Moorman Gauge	☐	☐	☐	
Clock Gauge	☐	☐	☐	
Alarms	☐	☐	☐	

- Check appropriate box to indicate condition of each station. Describe location of any unsatisfactory conditions (use back of form if more space is needed
- Satisfactory Evaluation: No visible signs of corrosion, wear, damage or leakage
- Unsatisfactory evaluation: Describe nature and location of deficiency.
- Immediately report to Department Supervisor any product leakage, spillage or facility conditions that could result in a fuel spill or pose immediate risk to health and safety.



Gauge Reading _____

Quantity _____

Product _____

Print Name _____

Signature _____

Monthly Residential-Type Heating Oil Aboveground Storage Tank Inspection Checklist

Date _____

ASTs

OK NG NA

- ☐ ☐ ☐ Tank Surfaces checked for signs of leakage
- ☐ ☐ ☐ Tank Condition (no rusting, corrosion, pitting)
- ☐ ☐ ☐ Tank Foundation intact
- ☐ ☐ ☐ Level gauges and alarms functioning properly
- ☐ ☐ ☐ Vents are not obstructed

Inspection Location

- ☐ PC Construction Field Office; 275-gallon AST located in basement
- ☐ Property Operations Facilities Building; 275-gallon AST located outside along southeast wall.
- ☐ Olsen house @ SCC ; 275 gallon AST Located in Basement

Piping

OK NG NA

- ☐ ☐ ☐ No leaks at valves, flanges or fittings
- ☐ ☐ ☐ No signs of corrosion damage to pipelines or supports
- ☐ ☐ ☐ Buried Pipelines not exposed
- ☐ ☐ ☐ Signs and barriers in place
- ☐ ☐ ☐ Fill port capped and locked

Containment

OK NG NA

- ☐ ☐ ☐ Containment walls, floor intact
- ☐ ☐ ☐ No visible oil sheen in containment area
- ☐ ☐ ☐ No standing water in containment area
- ☐ ☐ ☐ Containment area valves closed

Drainage

OK NG NA

- ☐ ☐ ☐ No oil sheens on runoff
- ☐ ☐ ☐ No soil staining or stressed vegetation

Key

OK Satisfactory
NG Repair or adjustment required
NA Not Applicable

Remarks / Recommendations

Print Name _____ Signature _____

Stowe Mountain Club - Natural Resources Management Center
Aboveground Storage Tank and Spill Kit Inspection Checklist

Date:

ASTs

OK NG NA

- ☐ ☐ ☐ Tank Surfaces checked for signs of leakage
- ☐ ☐ ☐ Tank Condition (no rusting, corrosion, pitting)
- ☐ ☐ ☐ Tank Foundation intact
- ☐ ☐ ☐ Level gauges and alarms functioning properly
- ☐ ☐ ☐ Vents are not obstructed

Inspection Location

- ☐ 1,000-gallon diesel fuel AST
- ☐ 500-gallon gasoline AST
- ☐ 300-gallon waste oil AST

Piping

OK NG NA

- ☐ ☐ ☐ No leaks at valves, flanges or fittings
- ☐ ☐ ☐ No signs of corrosion damage to pipelines or supports
- ☐ ☐ ☐ Buried Pipelines not exposed
- ☐ ☐ ☐ Signs and barriers in place
- ☐ ☐ ☐ Fill port capped and locked

Containment

OK NG NA

- ☐ ☐ ☐ Containment walls, floor intact
- ☐ ☐ ☐ No visible oil sheen in containment area
- ☐ ☐ ☐ No standing water in containment area
- ☐ ☐ ☐ Containment area valves closed

Spill Kit and Supplies

OK NG NA

- ☐ ☐ ☐ Sorbent pads and booms in stock
- ☐ ☐ ☐ PPE; gloves, Tyvek, safety-glasses

Drainage

OK NG NA

- ☐ ☐ ☐ No oil sheens on runoff
- ☐ ☐ ☐ No soil staining or stressed vegetation

Key

OK Satisfactory
NG Repair or adjustment required
NA Not Applicable

Remarks / Recommendations

Print Name _____ Signature _____

Spill Kit Inspection Report and Checklist

Date:

Spill Kit and Supplies

OK NG

Facilities:

- ☐ ☐ Cliff House 4,000gal UST heating boiler room and generator room
- ☐ ☐ PC Construction Office 275gal AST
- ☐ ☐ Mansfield Base Lodge 2,000gal UST
- ☐ ☐ Quad Top
- ☐ ☐ Inn at the Mountain 12,000gal UST & 275gal AST
- ☐ ☐ Service Vehicles (x4)
- ☐ ☐ Spruce Camp Loading dock
- ☐ ☐ Octagon 10,000gal UST

Spill Kits:

- ☐ PPE
- ☐ Absorbents
- ☐ Response Sheet

Lifts:

- ☐ ☐ Lookout Lift top 500gal UST & 100gal AST
- ☐ ☐ Sensation Lift 2,000gal UST 400gal AST
- ☐ ☐ Adventure Triple 70gal day tank
- ☐ ☐ Gondola Base 1,000gal UST & 130gal AST
- ☐ ☐ Quad Top 400gal & 60gal AST
- ☐ ☐ Sunny Spruce 170gal AST
- ☐ ☐ Transfer Lift 130gal day tank
- ☐ ☐ Transfer Lift Spruce Side (small 5gal kit)

Snowmaking:

- ☐ ☐ Mobil Fuel Truck 100gal tank
- ☐ ☐ New Control
- ☐ ☐ Primary Pump House
- ☐ ☐ Gondola Booster 185gal AST backup generator
- ☐ ☐ Spruce Booster 700gal & 900gal transformers
- ☐ ☐ Diesel Pad 1,000gal AST

Golf Courses:

- ☐ ☐ SMC NRMC
- ☐ ☐ Stowe C. C. Cart Barn 300gal gasoline
- ☐ ☐ Stowe C.C. Maintenance Barn 300gal gasoline & 300gal diesel

Vehicle Maintenance:

- ☐ ☐ Vehicles
- ☐ ☐ Hazardous Waste Trailer
- ☐ ☐ Lift Maintenance

Stowe Mountain Lodge

- ☐ ☐ SML North
- ☐ ☐ SML South

Key

OK Satisfactory **NG** Repair or adjustment required

Remarks / Recommendations

Print Name _____ Signature _____

Monthly Oil Filled Electrical Equipment Inspection

Date: _____

Cliff House Restaurant; pad-mounted 450-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Gondola Base; pad-mounted 570-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Gondola Booster Station; pad-mounted 360-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Lookout Lift Summit; pad-mounted 315-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Performing Arts Center; pad-mounted 102-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Midway Lodge; pad-mounted 595-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Diesel Pad; pad-mounted 470-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Monthly Oil Filled Electrical Equipment Inspection

Date: _____

Snowmaking Control; pad mounted 400 gallon and 775-gallon mineral oil transformers

394-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

775-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Over EasyTransfer Lift; pad-mounted 750-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Primary Pump House; pad-mounted 610-gallon and 694-gallon mineral oil transformers

694-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

610-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Sunny Spruce Lift Base; pad-mounted 150, 417, and 840-gallon mineral oil transformers

150-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

840-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

417-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Norms VH on Liftline; pad-mounted 700-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Spruce Booster Station; pad-mounted 700 and 900-gallon mineral oil transformers

700-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

900-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Monthly Oil Filled Electrical Equipment Inspection

Date: _____

Spruce Camp @ Loading dock; pad-mounted 306-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

SML South; pad-mounted 285-gallon mineral oil transformers

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

SML North; pad-mounted 375 and 165-gallon mineral oil transformers

375-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

165-gallon AST

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition; (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

SML Plaza; pad-mounted 190-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

SMC Cottage; pad-mounted 92-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Summit Building; 950-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Quad Lift Base; pad-mounted 100-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Sensation Lift Base; pad-mounted 700-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Monthly Oil Filled Electrical Equipment Inspection

Date: _____

Comments:

Spruce Temporary Adventure Center Project; pad-mounted 200-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

SMC NRMC; pad-mounted 168-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Octagon Quad Summit; pad-mounted 563-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Meadows Quad Top; pad-mounted 240-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Easy St Trail Top; pad-mounted 240-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Liftline Booster; pad-mounted 700-gallon mineral oil transformer

OK	NG	NA	
☐	☐	☐	Tank condition (rusting, corrosion, pitting)
☐	☐	☐	Concrete pad condition (cracking or pitting)
☐	☐	☐	No evidence of a recent release (e.g, oil staining, stressed vegetation)

Comments:

Stowe Mountain Resort – Quarterly Hazardous Waste Storage Area Inspection Checklist

VARIABLE	REQUIREMENT / MAXIMUM ALLOWABLE			INSPECTION RESULT
	SQG	CEG	SMR	
Vermont Hazardous Waste Handler Site ID Number	**VTD988366480**			
WASTE STORAGE				
Quantity of hazardous waste stored on site (does not include universal waste or waste oil that is recycled)	13,200 lbs	2,200 lbs	2,200 lbs	Note: Three full soil drums ~ 2,200 lbs.
Length of time **hazardous waste** is on site	180 days	No limit	No limit	
Length of time **universal waste** is on site	1 year	1 year	1 year	
All waste stored under cover	Yes	Yes	Yes	
All waste stored on impervious surface	Yes	Yes	Yes	
All waste stored in closed containers	Yes	Yes	Yes	
All containers in good condition	Yes	Yes	Yes	
Wastes protected from freezing	Yes	Yes	Yes	
Aisle space of 24 inches or more	Yes	No	No	
"Hazardous Waste Storage Area" signs posted	Yes	No	Yes	
"No Smoking" signs posted	Yes, if ignitables are present	No	Yes	
Hazardous waste storage area inspections and logs completed	Daily	No	Weekly	
WASTE LABELING				
"Hazardous Waste" on containers	Yes	No	Yes	
Words "Federal Law Prohibits Improper Disposal" present on hazardous waste	Yes	No	Yes	
Generator's name, address and EPA ID number present on container	Yes	No	Yes	

Stowe Mountain Resort – Quarterly Hazardous Waste Storage Area Inspection Checklist

VARIABLE	REQUIREMENT / MAXIMUM ALLOWABLE			INSPECTION RESULT
	SQG	CEG	SMR	
Waste name and hazardous waste ID number present on container	Yes	No	Yes	
Date waste placed into storage present	Yes	No	Yes	
WASTE DISPOSAL				
Hazardous Waste Manifest utilized	Yes	No	Yes	
Certified transporter utilized	Yes	No	Yes	
Compliance with Federal Land Disposal Restrictions	Yes	No	Yes	
EMERGENCY RESPONSE				
Employee Spill Response Procedure posted in storage area	Yes	No	Yes	
Employee Spill Response Procedure posted near phone in Vehicle Maintenance	Yes	No	Yes	
Annual hazardous waste training	Yes	No	No	
Emergency communication device at storage area	Yes	No	No	
Fire and spill control equipment present in storage area	Yes	No	Yes	

Notes:
SQG – Indicates Small Quantity Hazardous Waste Generator:
CEG – Indicates Conditionally Exempt Hazardous Waste Generator:
SMR – Indicates Stowe Mountain Resort: and
Inspections are to be performed quarterly by the Environmental Coordinator and documented through completion of a Quarterly Inspection Checklist.

APPENDIX F

Photo Log

Stowe Country Club Golf Course Maintenance Facility
Stowe, Vermont
File No. 0131315-005
Date Photographs Taken: April 2022 – Photos taken and provided by Client

Photo 1: Stowe Country Club Maintenance Facility facing southwest toward equipment storage barn

Photo 2: Two 350-gallon gasoline and diesel fuel ASTs

Photo 3: Stowe Country Club Maintenance Facility facing southeast toward Olsen House

Photo 4: Two 55-gallon drums stored on portable spill containment pallets in the Shop Area

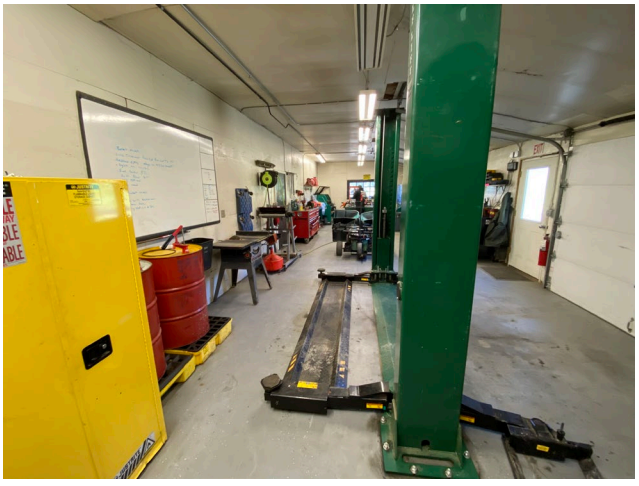


Photo 5: Shop area hydraulic lift and drums

Photo 6: Barn equipment storage area vehicles, drums, and 5-gallon buckets

Photo 7: Two 350-gallon gasoline and diesel fuel ASTs from a distance facing north

Photo 8: Two 350-gallon gasoline and diesel fuel ASTs

Photo 9: Olsen House exterior

Photo 10: 275-gallon heating oil AST within secondary containment in Olsen House basement

Photo 11: 275-gallon heating oil AST Sticker

Photo 12: Pesticide Storage Building

Photo 13: Equipment Wash Area

Photo 14: Barn equipment storage area drums

Photo 15: Inside of secondary containment for two 350-gallon gasoline and diesel fuel ASTs

Photo 16: Inside of secondary containment for two 350-gallon gasoline and diesel fuel ASTs

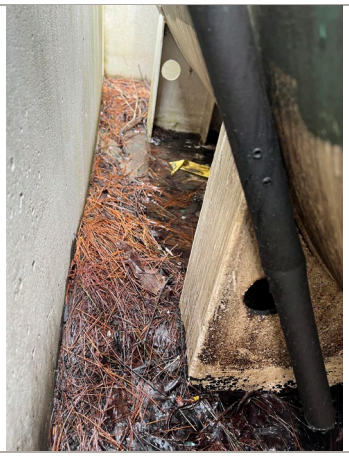


Photo 11: 350-gallon AST secondary containment

Photo 12: 275-gallon AST secondary containment

		
Photo 13: 12 inch Corrugated Metal Culvert leading to the West Branch Little River		***Photo 14: 65-gallon spill kit within the barn equipment storage area***

CARBTROL

ADVANCED WASHWATER RECYCLE SYSTEMS

(MODELS GCW-3 GCW-4)

Engineered systems provide:

**** Best Available Technology***
****Closed Loop Recycling***
****High Reliability and Low Maintenance***

Typical Applications:

**** Golf Course Maintenance***
**** Vehicle Washing***
**** Equipment Cleaning***

Carbtrol Corporation
200 Benton St
Stratford, CT 06607
800.242.1150 - www.carbtrol.com

Attachment E - Carbtrol Brochure

CARBTROL

ADVANCED WASHWATER RECYCLE SYSTEM

PRIMARY COLLECTION SUMP

Dirty wash water collects in the primary sump. At water high level, the pump engages. During pumping, the water is vigorously agitated to ensure that grass, and dirt, do not accumulate in the sump.

HYDRO SCREEN AND GRASS CART

Dirty water is pumped from primary sump to the solids separation screen. Grass and dirt are filtered by the screen and collected in a grass cart. Filtered water passes through the screen and flows into a transfer sump.

CLARIFIER & WATER STORAGE

Screened wash water is pumped from transfer sump to the clarifier where additional solids are removed by quiescent settling. The clarified water then flows to a storage tank, prior to final treatment and reuse.

TREATMENT AND RECYCLE PACKAGE

Clarified washwater is pumped to the treatment system which includes sand filtration and activated carbon adsorption. Oxidation using ozone and hydrogen peroxide provides final polishing. Water is available on demand.