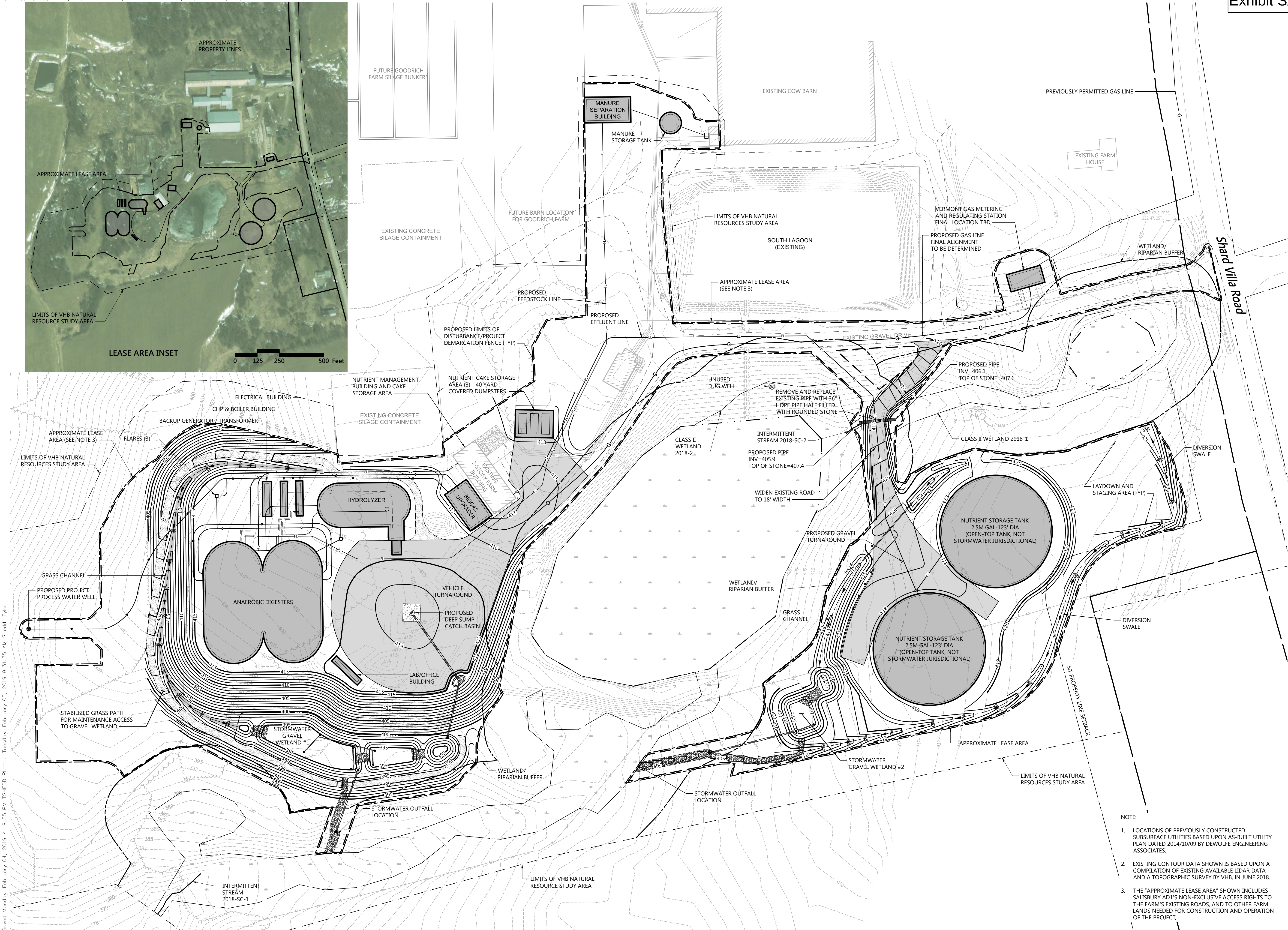




40 IDX Dr
Building 100 Suite 200
South Burlington, VT 05403
802.497.6100

LEGEND

	EFFLUENT LINE
	FEEDSTOCK LINE
	GAS LINE
	MINOR CONTOUR
	MAJOR CONTOUR
	APPROXIMATE PROPERTY LINE
	WETLAND BOUNDARY
	WETLAND BUFFER
	RIPARIAN BUFFER
	STREAM
	EDGE OF GRAVEL
	LIMIT OF DISTURBANCE
	EXISTING TREELINE



Goodrich Farm /
Salisbury AD1

615 Shard Villa Road
Salisbury, Vermont

0 25 50 100 Feet

No.	Revision	Date	Appr.

Designed by	TAS	Checked by	PBS
Issued for		Date	

Revised 248 Submittal Feb. 6, 2019

Not Approved for Construction

Final Project
Design Site Plan

Drawing Number

C-1.01

Sheet of

Project Number
58073.00

NOTE:

- LOCATIONS OF PREVIOUSLY CONSTRUCTED SUBSURFACE UTILITIES BASED UPON AS-BUILT UTILITY PLAN DATED 2014/10/09 BY DEVOLFE ENGINEERING ASSOCIATES.
- EXISTING CONTOUR DATA SHOWN IS BASED UPON A COMPILATION OF EXISTING AVAILABLE LIDAR DATA AND A TOPOGRAPHIC SURVEY BY VHB, IN JUNE 2018.
- THE "APPROXIMATE LEASE AREA" SHOWN INCLUDES SALISBURY AD1'S NON-EXCLUSIVE ACCESS RIGHTS TO THE FARM'S EXISTING ROADS, AND TO OTHER FARM LANDS NEEDED FOR CONSTRUCTION AND OPERATION OF THE PROJECT.

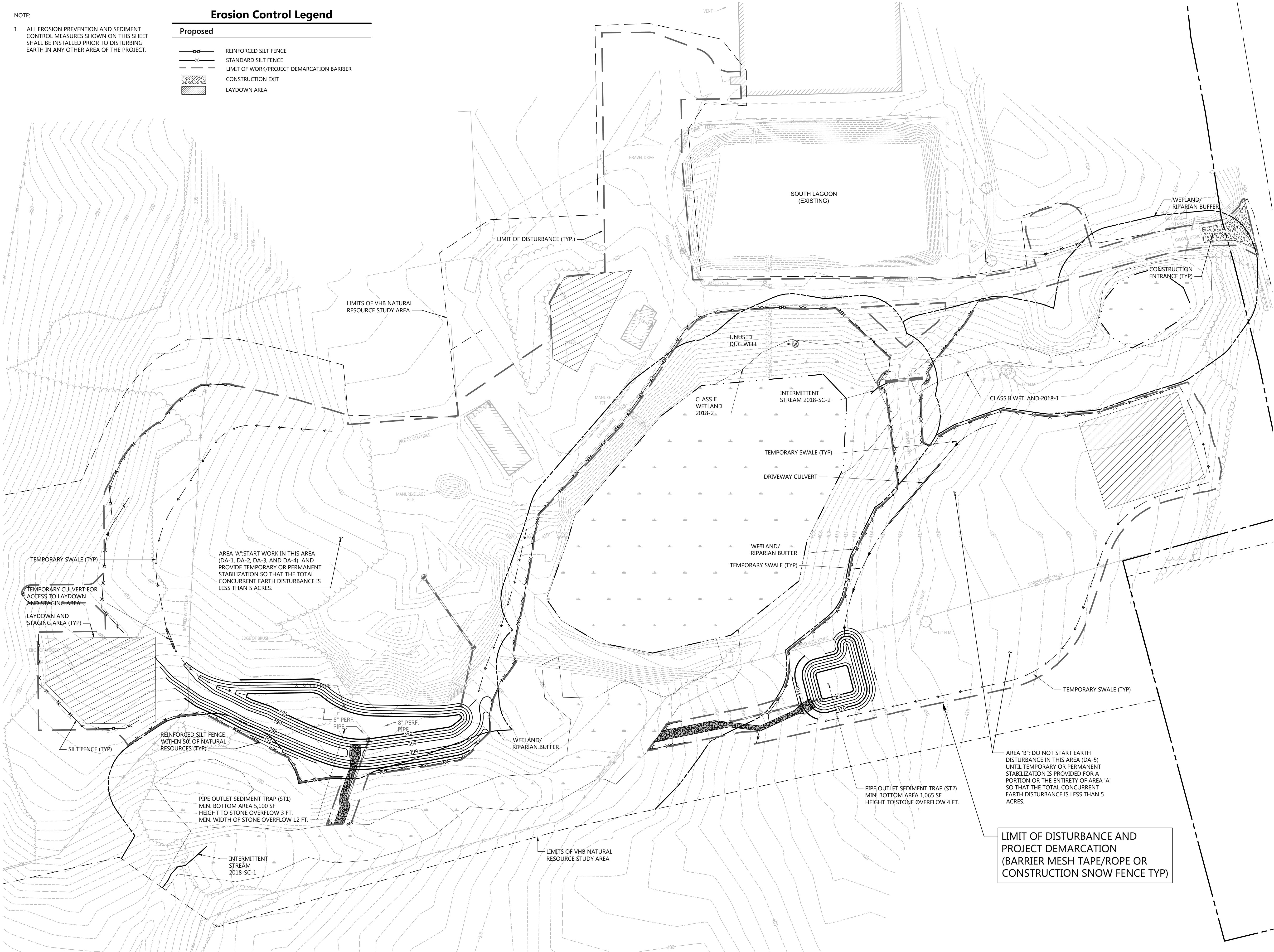
NOTE:

1. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHOWN ON THIS SHEET SHALL BE INSTALLED PRIOR TO DISTURBING EARTH IN ANY OTHER AREA OF THE PROJECT.

Erosion Control Legend

Proposed

- REINFORCED SILT FENCE
STANDARD SILT FENCE
LIMIT OF WORK/PROJECT DEMARCATION BARRIER
CONSTRUCTION EXIT
LAYDOWN AREA



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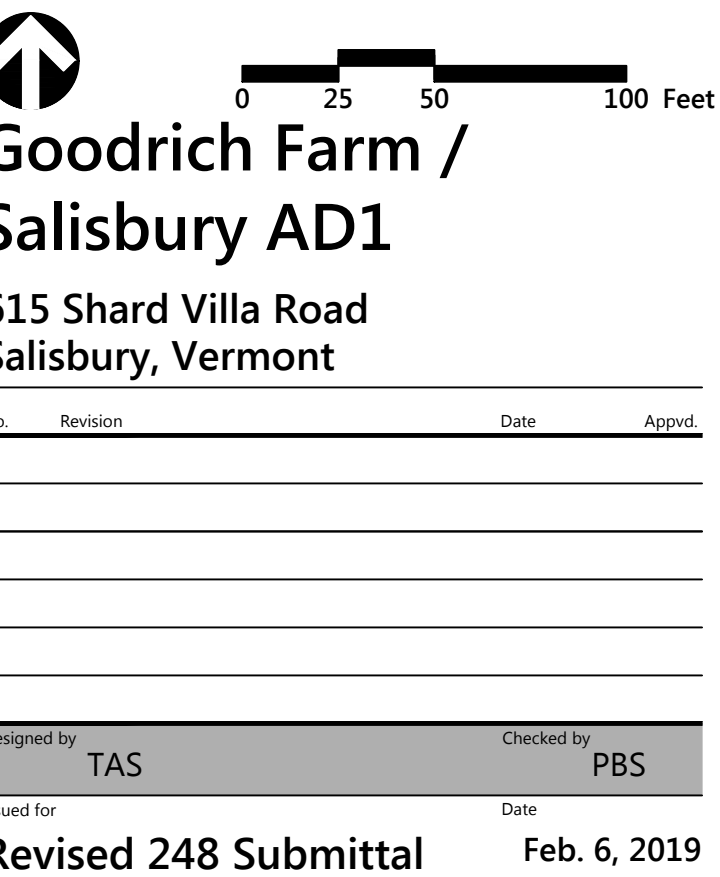
Goodrich Farm / Salisbury AD1
615 Shard Villa Road
Salisbury, Vermont

No.	Revision	Date	Appr.

Designed by: TAS
Checked by: JRZ
Issued for: Revised 248 Submittal
Date: Feb. 6, 2019

Not Approved for Construction
Drawing Title: Pre-Construction EPSC Plan

Drawing Number: C5.02
Sheet: of
Project Number: 58073.00



Not Approved for Construction

Drawing Title

Construction Drainage Area Map

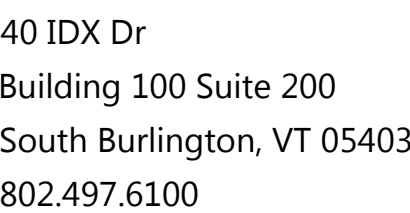
Drawing Number

C5.03

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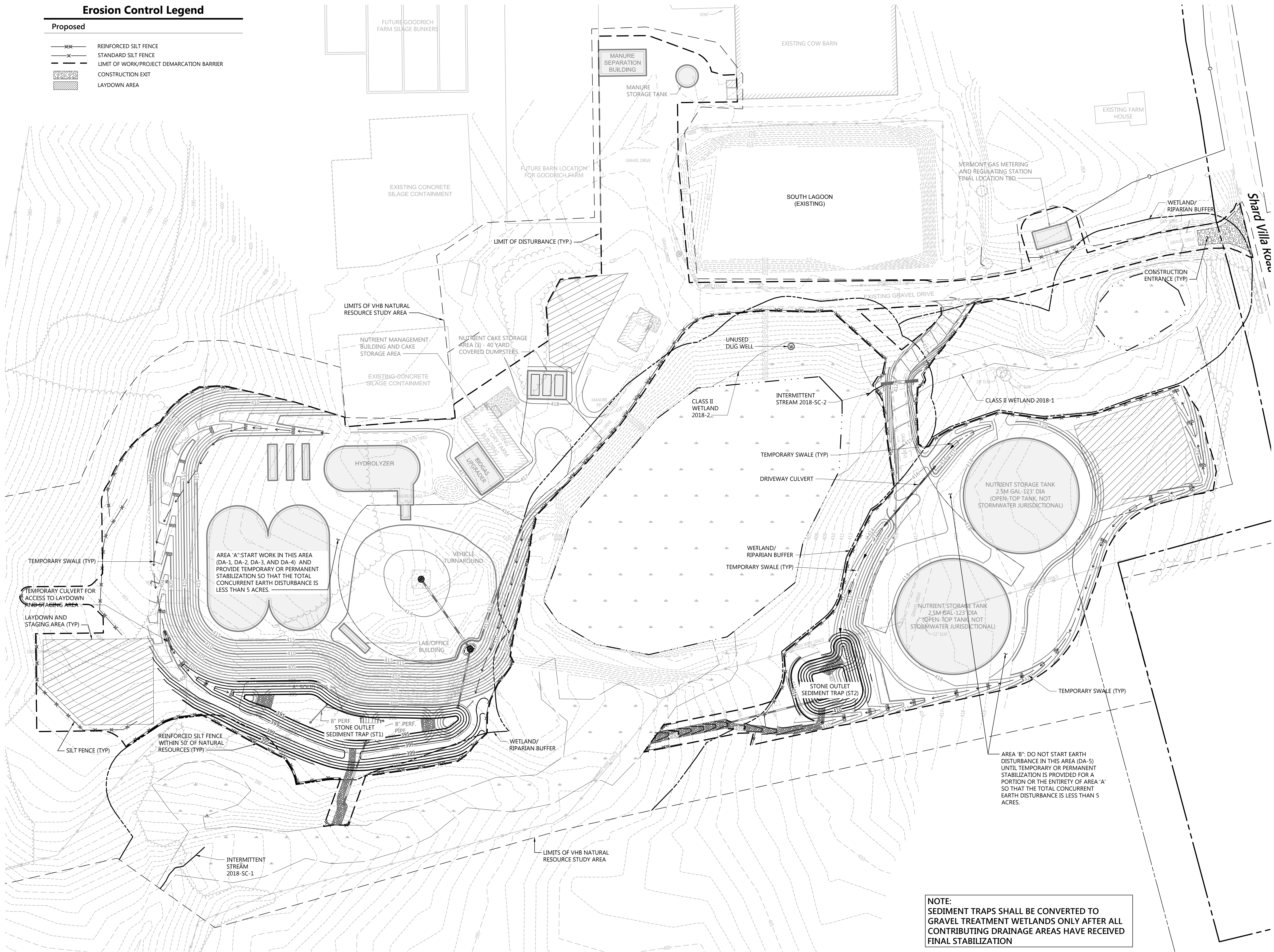
Project Number

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Proposed

- | | |
|---|---|
|  | REINFORCED SILT FENCE |
| | STANDARD SILT FENCE |
|  | LIMIT OF WORK/PROJECT DEMARCATION BARRIER |
|  | CONSTRUCTION EXIT |
|  | LAYDOWN AREA |



NOTE:
SEDIMENT TRAPS SHALL BE CONVERTED TO
GRAVEL TREATMENT WETLANDS ONLY AFTER ALL
CONTRIBUTING DRAINAGE AREAS HAVE RECEIVED
FINAL STABILIZATION



A horizontal number line is shown with tick marks at 0, 25, 50, and 100. The word "Feet" is written at the end of the line. The segments are labeled as follows: a bracket from 0 to 25 is labeled "25", a bracket from 25 to 50 is labeled "25", and a bracket from 50 to 100 is labeled "50".

615 Shard Villa Road
Salisbury, Vermont

No.	Revision	Date	Appvd.
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Designed by	TAS	Checked by	PBS
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Erosion Prevention and Sediment Control Plan

Drawing Number

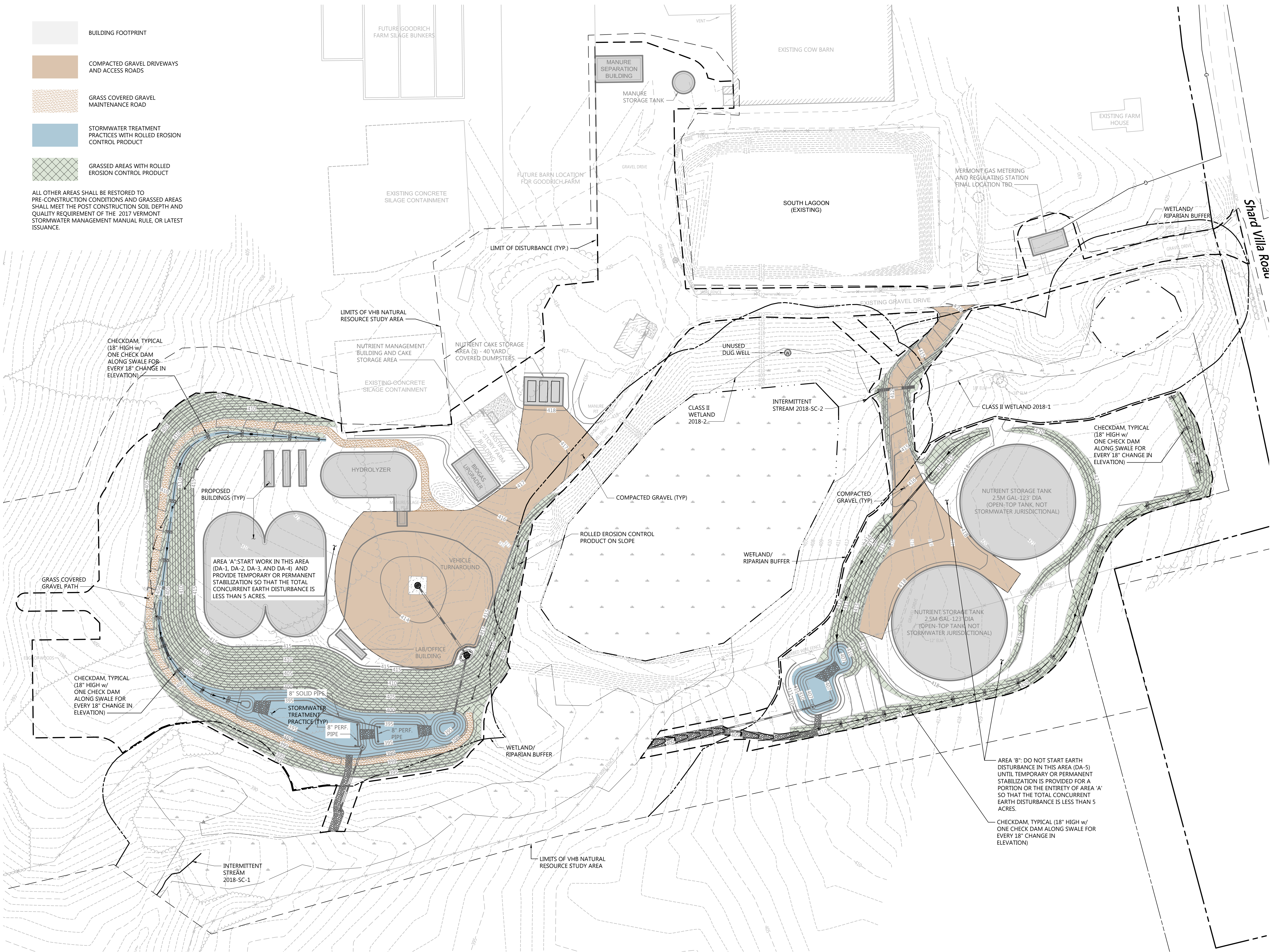
C5.04

Sheet 0

Project Number
58073.00

- BUILDING FOOTPRINT
- COMPACTED GRAVEL DRIVEWAYS AND ACCESS ROADS
- GRASS COVERED GRAVEL MAINTENANCE ROAD
- STORMWATER TREATMENT PRACTICES WITH ROLLED EROSION CONTROL PRODUCT
- GRASSED AREAS WITH ROLLED EROSION CONTROL PRODUCT

ALL OTHER AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AND GRASSED AREAS SHALL MEET THE POST CONSTRUCTION SOIL DEPTH AND QUALITY REQUIREMENT OF THE 2017 VERMONT STORMWATER MANAGEMENT MANUAL RULE, OR LATEST ISSUANCE.



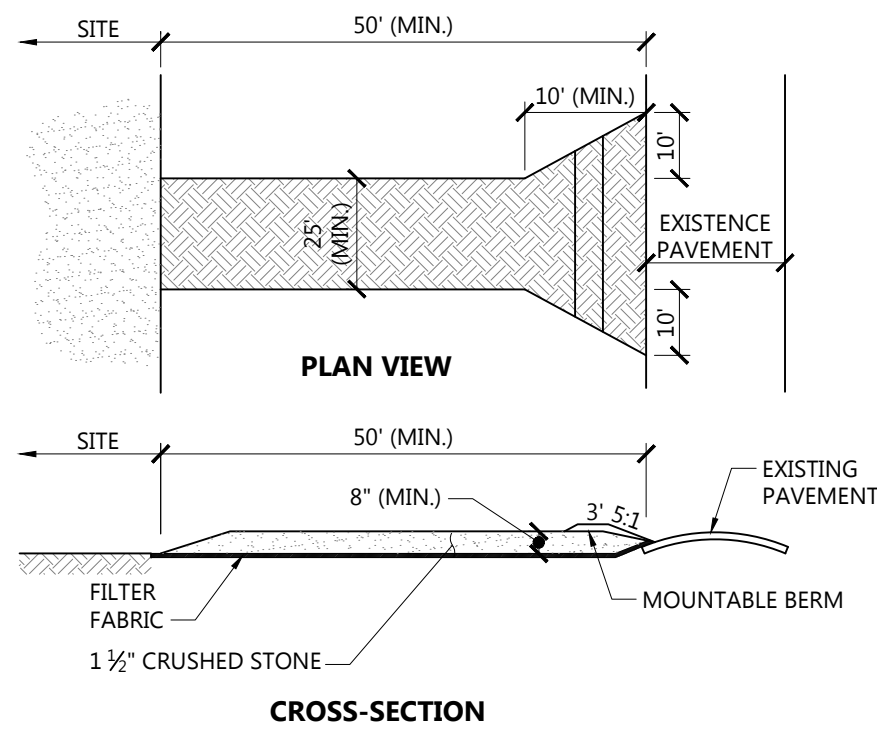
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Goodrich Farm / Salisbury AD1
615 Shard Villa Road
Salisbury, Vermont

No.	Revision	Date	Appr.

Designed by: TAS Checked by: PBS
Issued for: Date: Feb. 6, 2019
Revised 248 Submittal

Not Approved for Construction
Final Stabilization and Post-Construction Plan

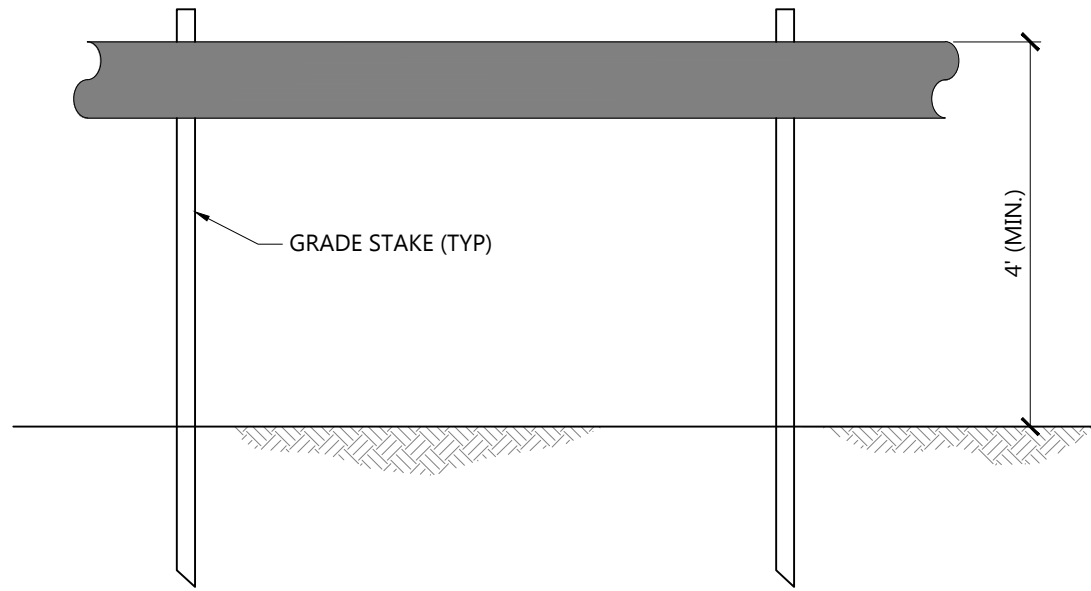


NOTES

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

Stabilized Construction Exit

N.T.S. Source: VHB 1/16 LD_682-VT

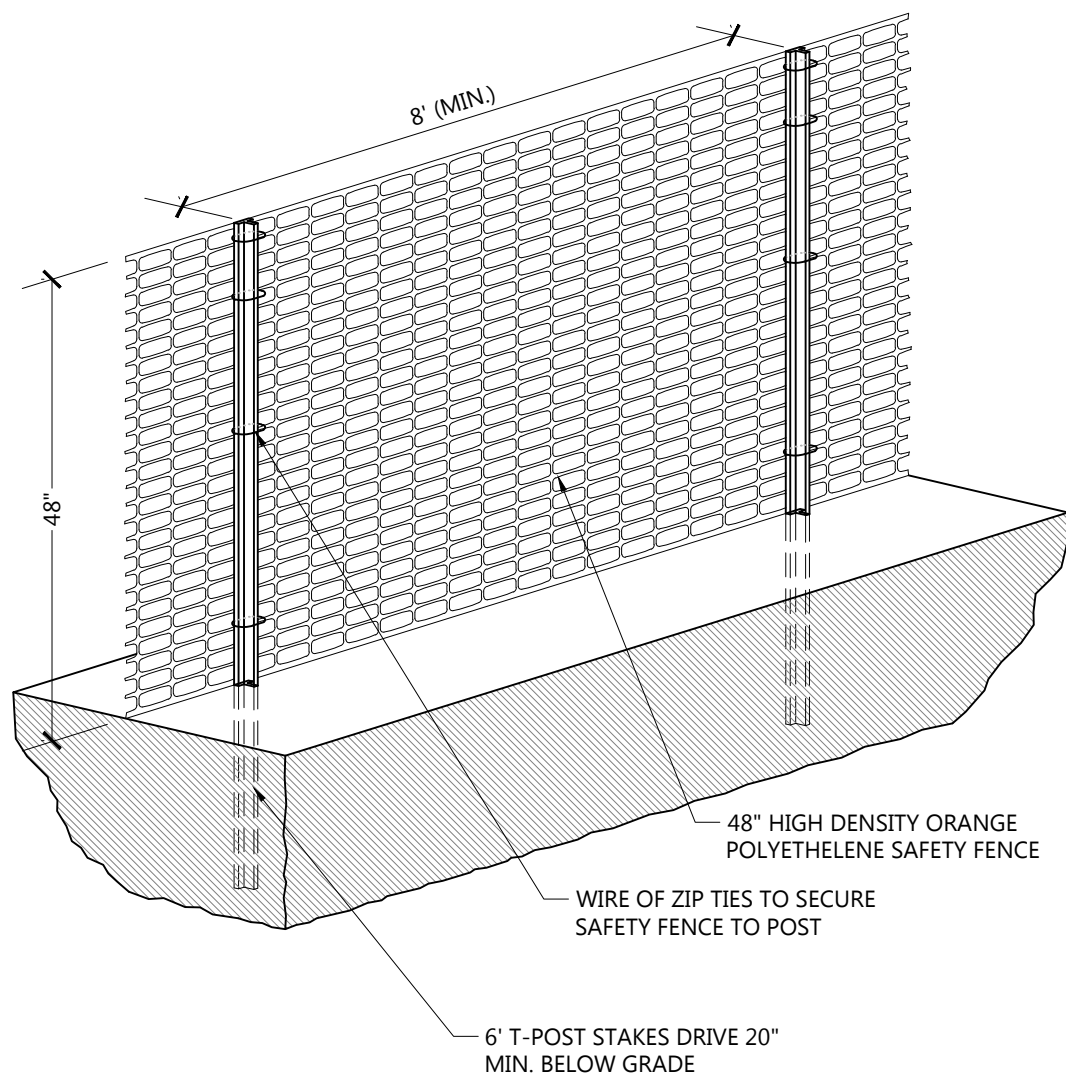


NOTES

1. BARRIER MESH TAPE OR ROPE SHALL BE INSTALLED ALONG THE PERIMETER OF THE PROJECT AREA TO DEMARCAT THE LIMIT OF DISTURBANCE. NO EARTHWORK OR STORAGE OF MATERIALS SHALL BE CONDUCTED BEYOND THIS LIMIT WITHOUT PRIOR APPROVAL FROM THE OSPC.
2. USE 3" ORANGE BARRIER MESH TAPE OR 1/2" YELLOW POLYPROPYLENE ROPE.
3. WITHIN 50' OF WATER RESOURCE AREAS, USE 2-3 ROWS OF TAPE OR ROPE. BEYOND 50' OF WATER RESOURCE AREAS USE 1 ROW OF TAPE OR ROPE.
4. TAPE OR ROPE MAY BE FASTENED TO STAKES, TREES, OR OTHER APPROPRIATE FIXED OBJECTS.
5. PROJECT DEMARCATION SHALL NOT CROSS ACTIVE ACCESS ROUTES (E.G. ROADS). PROJECT DEMARCATION MAY CROSS RESOURCES AREAS WITH EXCEPTION OF LARGER WATER BODIES WHERE IT IS NOT FEASIBLE OR ADVISABLE.
6. PROJECT DEMARCATION SHALL REMAIN IN PLACE AND BE MAINTAINED/REPLACED AS NEEDED UNTIL FINAL STABILIZATION IN THE AREA HAS BEEN ACHIEVED.

Project Demarcation - Barrier Mesh Tape or Rope

N.T.S. Source: VHB 08/16 LD_VT

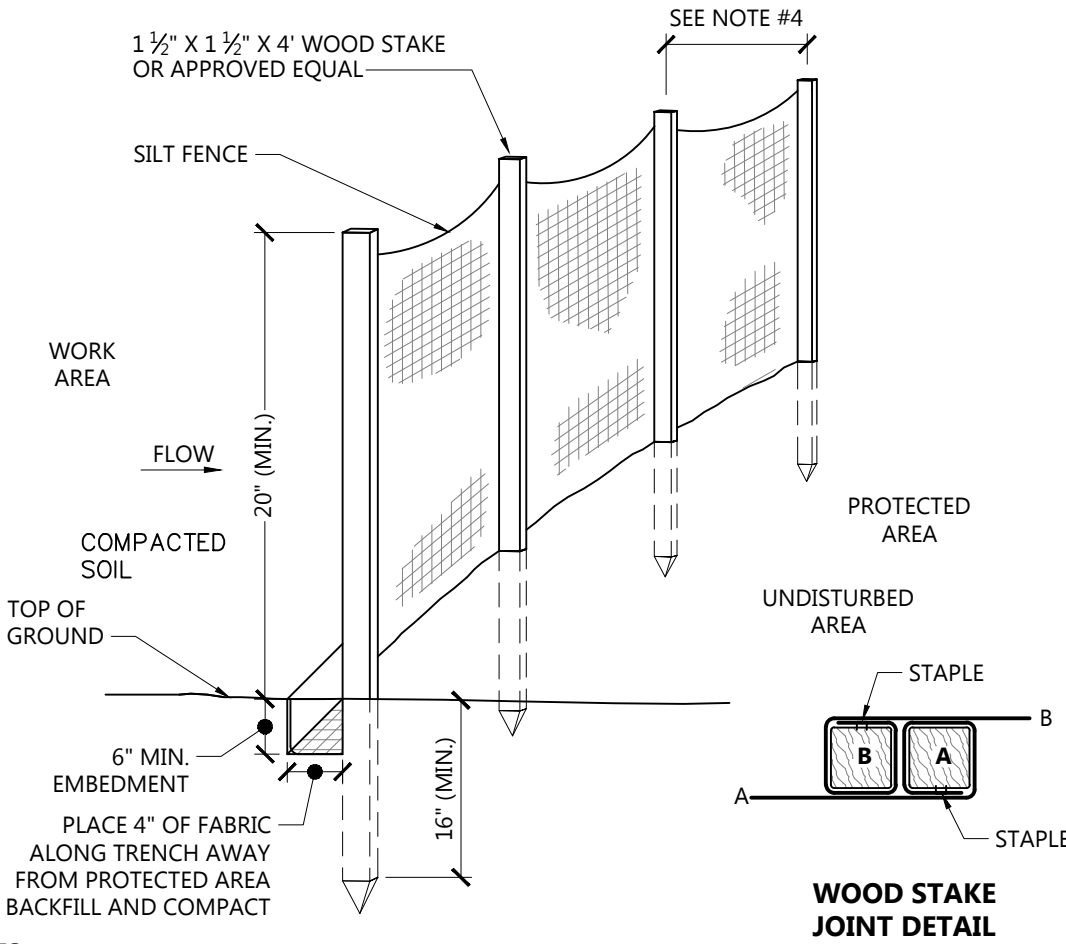


NOTES

1. CONSTRUCTION/SNOW FENCE SHALL BE INSTALLED WITHIN 50' OF A WATER RESOURCE, (STREAM, BROOK, LAKE, POND, ETC.) UNLESS THE AREA IS DENSELY WOODED, IN WHICH CASE 2 TO 3 ROWS OF ORANGE BARRIER MESH TAPE OR ROPE MAY BE USED.
2. CONSTRUCTION/SNOW FENCE SHALL NOT CROSS ACTIVE ACCESS ROUTES (E.G. ROADS). CONSTRUCTION/SNOW FENCE MAY CROSS RESOURCE AREAS WITH THE EXCEPTION OF LARGER WATER BODIES WHERE IT IS NOT FEASIBLE OR ADVISABLE.
3. CONSTRUCTION/SNOW FENCE SHALL REMAIN IN PLACE AND BE MAINTAINED/REPLACED AS NEEDED UNTIL FINAL STABILIZATION IN THE AREA HAS BEEN ACHIEVED.

Construction/Snow Fence

N.T.S. Source: VHB 08/16 LD_651-VT

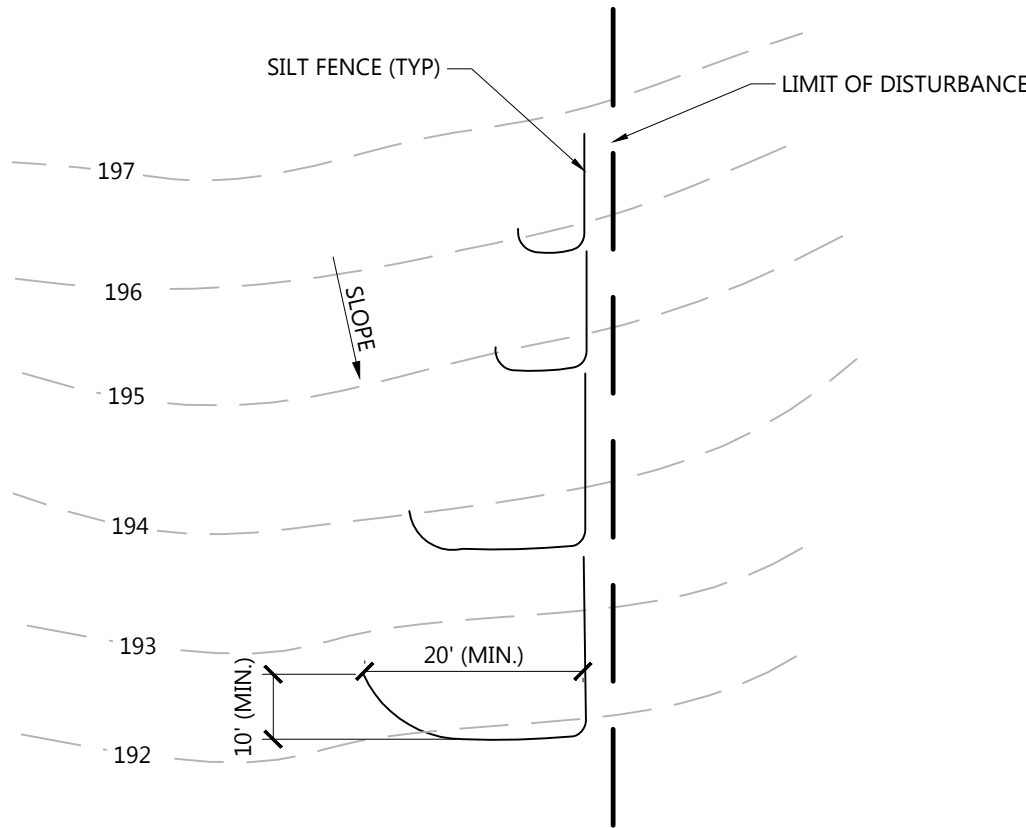


NOTES

1. WOVEN WIRE FENCE REINFORCEMENT IS REQUIRED WITHIN 50 FT UPSLOPE OF RECEIVING WATERS.
2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6" MESH OPENING SHALL BE USED.
3. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUIVALENT.
4. POST SPACING FOR WIRE BACKED FENCE SHALL BE 10 FT. MAX. FOR FILTER CLOTH FENCE WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4 FT. FOR FILTER CLOTH FENCE WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6 FT.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6 INCHES AND FOLDED.
6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUIVALENT.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.
8. SILT FENCE SHALL NOT BE USED TO DEMARCAT LIMITS OF DISTURBANCE.
9. AREA DRAINING TO SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 LF

Silt Fence/ Reinforced Silt Fence Barrier

N.T.S. Source: VHB 08/16 LD_650-VT

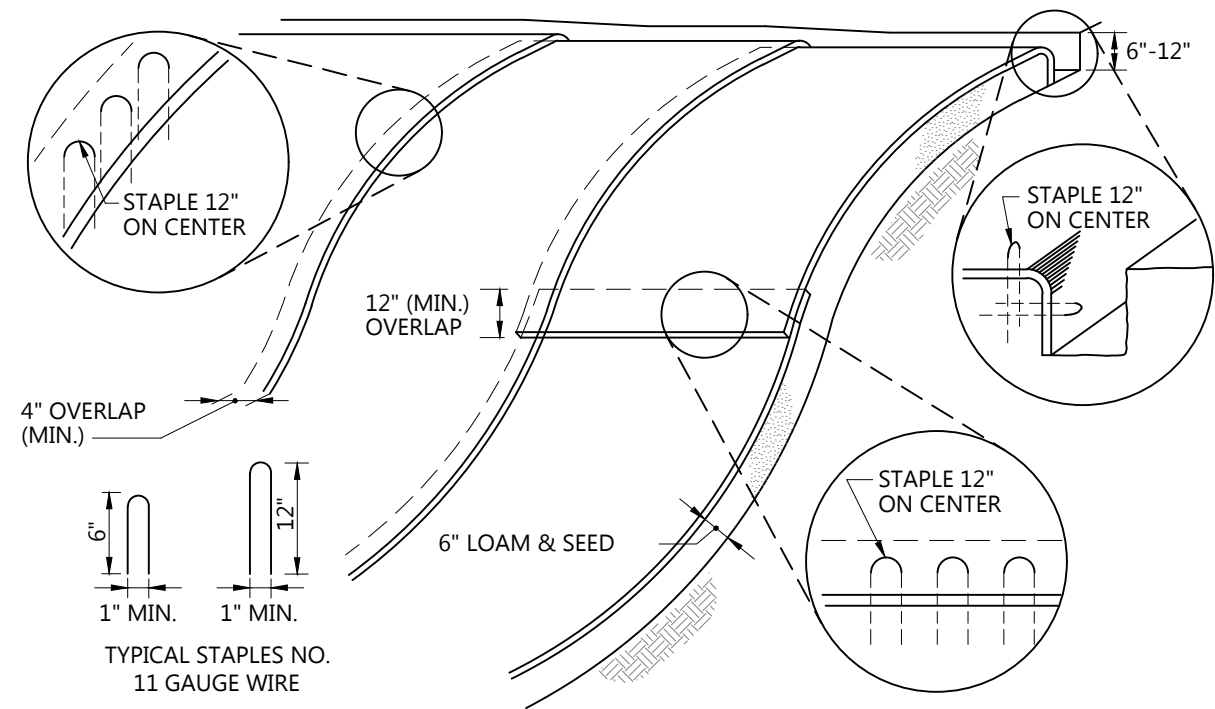


NOTES

1. SILT FENCE SHALL BE INSTALLED IN SHORTER RUNS WITH "J-HOOKS" TO AVOID CONCENTRATION OF FLOWS AT ONE LOCATION BY TRAPPING RUNOFF AT MULTIPLE POINTS ALONG A SLOPE.
2. MINIMUM WIDTH OF J-HOOK RECOMMENDED AT 20 FT WITH A DEPTH OF 10 FT. WHERE SPACE IS LIMITED (E.G., ALONG NARROW RIGHTS OF WAY), NARROWER HOOKS CAN BE USED WITH A HIGHER SPACING FREQUENCY.
3. START DOWN-GRADIENT SILT FENCE LINE AS CLOSE AS POSSIBLE TO UP-GRADIENT J-HOOK.

Installation of "J-Hooks" on Slopes

N.T.S. Source: VHB 08/16 LD_VT

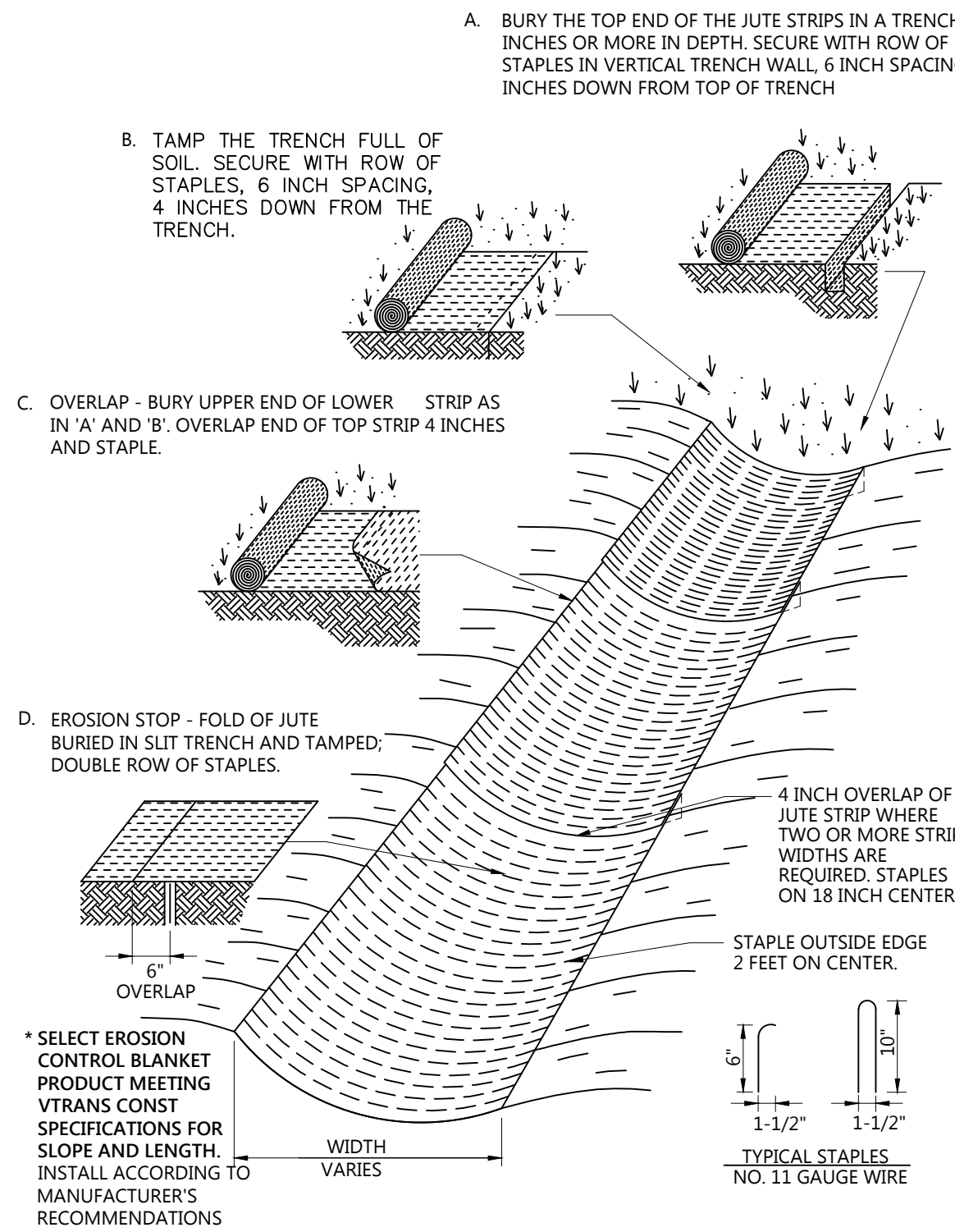


NOTES

1. APPLY TO SLOPES 3H:1V OR GREATER AND WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. INSTALL EROSION CONTROL BLANKET THAT MEETS VTRANS CONST SPECIFICATIONS FOR SLOPE AND LENGTH.
3. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
4. APPLY TOP SOIL, FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
5. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'x225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'x150' ROLL OF MATERIAL.
6. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION PREVENTION AND SEDIMENT CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE, DO NOT STRETCH AND ENSURE CLOSE CONTACT WITH THE GROUND SURFACE.
7. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.
8. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" TO 12" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
9. ROLL THE BLANKET DOWN IN THE DIRECTION OF THE WATER FLOW.
10. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4" OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
11. WHEN BLANKETS MUST BE SPICED, PLACE UPPER BLANKET END OVER LOWER END WITH 12" (MIN.) OVERLAP AND STAPLE BOTH TOGETHER.

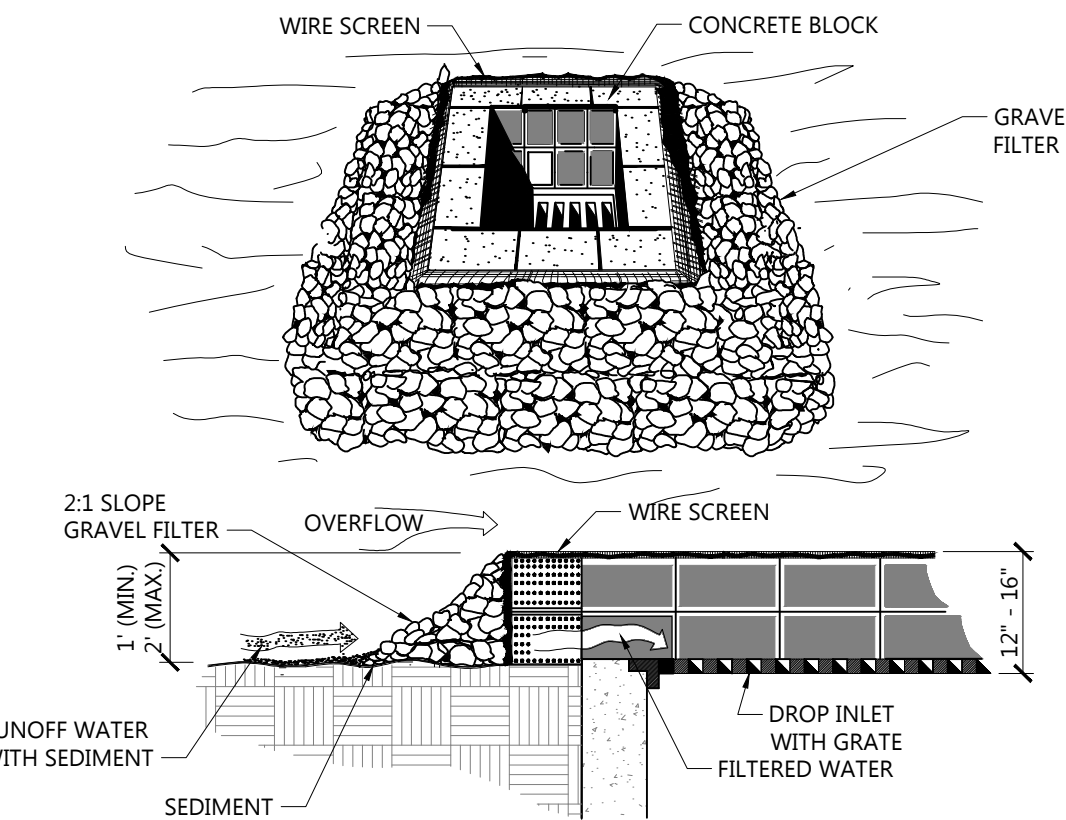
Erosion Control Blanket Slope Installation

N.T.S. Source: VHB 08/16 LD_703-VT



Erosion Control Blanket Swale Installation

N.T.S. Source: VHB 08/16 LD_681-VT



NOTES

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2" MINIMUM BELOW THE REST OF THE INLET AND BLOCKS SHALL BE PLACED AGAINST THE INLET FOR SUPPORT.
2. CONCRETE BLOCKS SHOULD BE PLACED LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET. THE ENDS OF EACH BLOCK SHOULD BE ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED DEPENDING ON THE DESIGN BY STACKING VARIOUS COMBINATIONS OF DIFFERENT SIZED BLOCKS. THE BARRIER SHOULD BE A MINIMUM OF 12 INCHES HIGH AND A MAXIMUM OF 16 INCHES HIGH.
3. HARDWARE CLOTH OR 1/2" WIRE MESH SHOULD BE PLACED OVER THE OPENINGS OF THE CONCRETE BLOCKS AND EXTENDED AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCK.
4. USE CLEAN STONE OR GRAVEL 1/2" TO 3/4" IN DIAMETER PLACED 2" BELOW TOP OF THE BLOCK ON A 2H:1V SLOPE OR FLATTER.
5. A 1 FOOT THICK LAYER OF FILTER STONE WILL BE PLACED AGAINST THE 3" STONE.
6. MAXIMUM DRAINAGE AREA PER SEDIMENT TRAP IS 1 ACRE.
7. INSTALL MARSH MAT OR APPROVED EQUAL AT ALL CATCH BASIN GRATES.
8. BLOCK AND STONE INLET PROTECTION REQUIRED AT ALL CATCH BASIN INLETS WHERE THE FINISHED GRADE IS WITHIN 6" OF THE RIM OF THE STRUCTURE OR FRAME.

Block and Gravel Drop Inlet Protection (Paved Areas)

N.T.S. Source: VHB 1/16 LD_676-VT

Goodrich Farm /
Salisbury AD1

615 Shard Villa Road
Salisbury, Vermont

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Revised 248 Submittal Feb. 6, 2019

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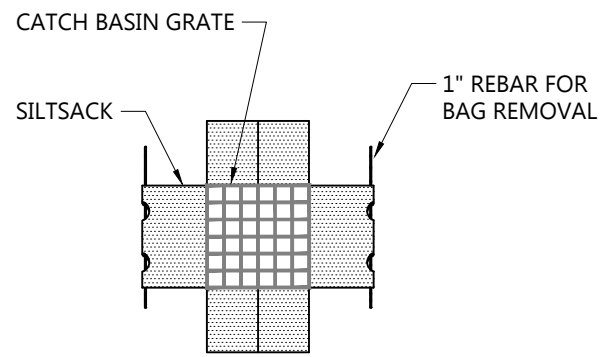
Erosion Prevention and
Sediment Control Details 1

Drawing Number

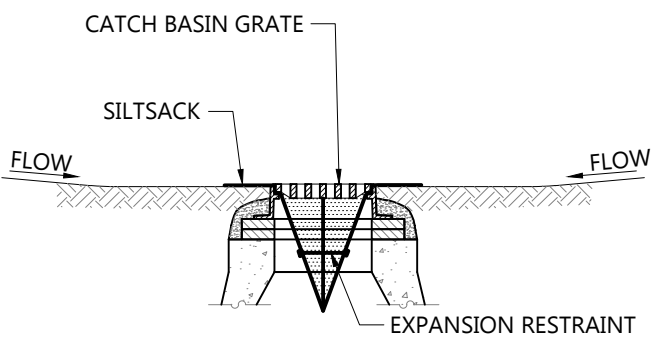
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Sheet of

Project Number
58073.00



PLAN VIEW



SECTION VIEW

NOTES

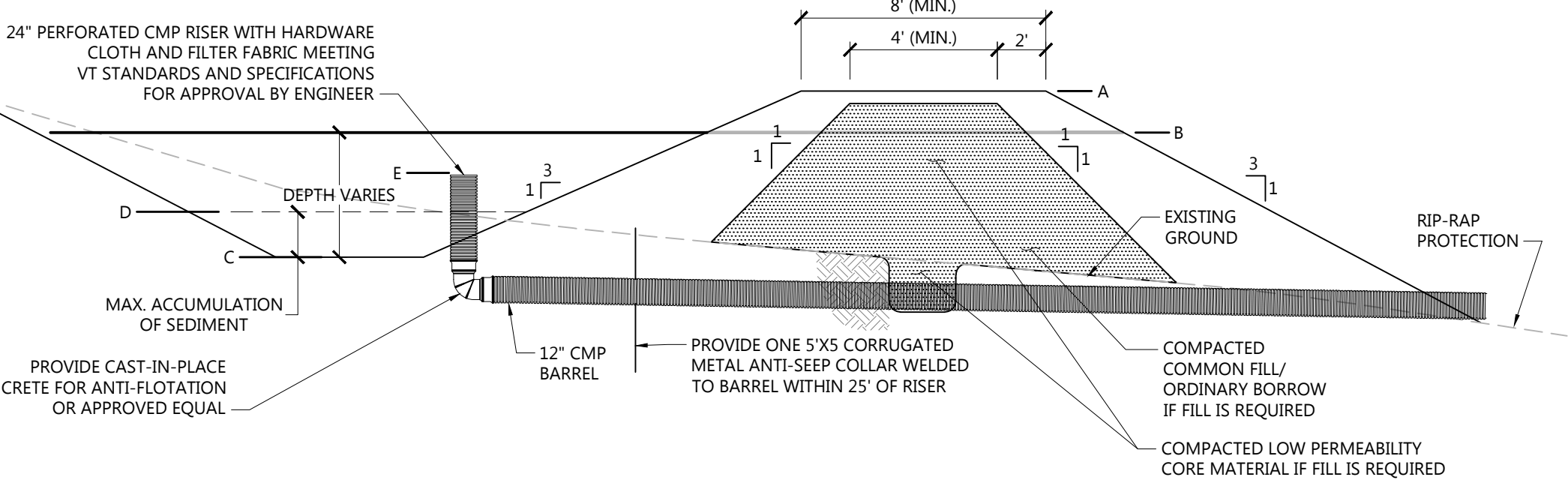
1. INSTALL SILTSACK IN ADDITION TO ANY OTHER INLET PROTECTION ON ALL CATCH BASINS.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap

N.T.S. Source: VHB 1/16 LD_674

CALCULATIONS AND DIMENSIONS TABLE

DESIGNATION	ST1	ST2
A	399'	410'
B	398'	409'
C	395'	405'
D	396'	406'
E	398'	409'
DRAINAGE AREA (ACRE)	3.0	2.3
VOLUME REQUIRED (MIN. 3,600 CF PER ACRE)	10,800 CF	8,280 CF
VOLUME PROVIDED	22,800 CF	8,326 CF
BARREL DIAMETER	24"	24"



NOTES

1. CLEAR, GRUB AND STRIP AREA UNDER EMBANKMENT OF ANY VEGETATION AND ROOT MAT. CLEAR THE POOL AREA OF WOODY VEGETATION.
2. ALL TEMPORARY FILL SLOPES SHALL BE 2:1 OR FLATTER; CUT SLOPES 1:1 OR FLATTER AND MEET OSHA REQUIREMENTS.
3. UNDERLYING SOILS SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL.
4. CONSTRUCT THE EMBANKMENT WITH FILL MATERIAL FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT DURING CONSTRUCTION. LOW PERMEABILITY CORE MATERIAL IS CONTINUOUS FOR THE FULL LENGTH OF THE EMBANKMENT. CORE MATERIAL SHALL HAVE A PERMEABILITY OF LESS THAN 1X10⁻⁶ 5 INCHES PER HOUR. RELATIVELY PERVIOUS MATERIALS SUCH AS SAND OR GRAVEL (CLASSIFIED BY U.C.S. AS GW, GP, SW, & SP) SHALL NOT BE PLACED IN THE EMBANKMENT.HAND COMPACT FILL MATERIAL AROUND THE PIPE SPILLWAY IN FOUR INCH LAYERS. PLACE A MINIMUM OF TWO FEET OF HAND COMPACTED BACKFILL OVER THE PIPE PRIOR BEFORE CROSSING THE PIPE WITH CONSTRUCTION EQUIPMENT.
5. WHERE PIPES PENETRATE THE LOW PERMEABILITY CORE, PIPE SHALL BE BEDDED IN THE LOW PERMEABILITY CORE MATERIAL.
6. FILL SHALL BE PLACED AND COMPACTED IN CONTINUOUS LIFTS WITH A THICKNESS NOT GREATER THAN 8 INCHES.
7. DURING CONSTRUCTION OF THE CUTOFF TRENCH THE TRENCH SHALL BE DEWATERED DURING PLACEMENT OF FILL.
8. THE EMBANKMENT SHALL BE STABILIZED IMMEDIATELY FOLLOWING THE CONSTRUCTION AND IN NO CASE SHALL THE EMBANKMENT REMAIN UNSTABILIZED FOR MORE THEN SEVEN (7) DAYS.
9. VOLUME SEDIMENT STORAGE SHALL BE 3,600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
10. CHECK TEMPORARY SEDIMENT BASINS AFTER PERIODS OF SIGNIFICANT RUNOFF, AND INSPECT EMBANKMENT FOR PIPING AND SETTLEMENT.
11. REMOVE SEDIMENT AND RESTORE BASIN TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP (MAX) OR AS INDICATED IN THE DETAIL. DEPOSIT SEDIMENT THAT IS REMOVED IN A SUITABLE AREA AND STABILIZE.
12. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
13. PERFORATE THE TOP TWO-THIRDS OF THE RISER WITH ONE INCH DIAMETER HOLES OR SLITS SPACED SIX INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE CORRUGATIONS. NO HOLES

WILL BE ALLOWED WITHIN SIX INCHES OF THE HORIZONTAL BARREL.

14. THE RISER SHALL BE WRAPPED WITH ONE-QUARTER TO ONE-HALF INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH HAVING AN EQUIVALENT SIEVE SIZE OF 40-80. EXTEND THE FILTER CLOTH SIX INCHES ABOVE THE HIGHEST HOLE AND SIX INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, OVER-LAP, FOLD AND STAPLE FILETER CLOTH TOGETHER TO PREVENT BYPASS.
15. HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE WITH STRAPS OR CONNECTING BANDS. PLACE STRAPS AT THE TOP AND BOTTOM OF THE CLOTH.
16. ANCHOR THE RISER WITH A 12 THICK CONCRETE BASE TO PREVENT FLOTATION. EMBED THE PIPE RISER A MINIMU OF NINE INCHES.
17. INSPECT AND REPAIR THE BASIN AFTER EACH RAIN EVENT OR AS NEEDED.
18. ONCE THE CONTRIBUTING DRAINAGE AREA TO THE SEDIMENT BASIN HAS BEEN PROPERLY STABILIZED, THE EMBANKMENT AND RESULTING SEDIMENT DEPOSITS ARE TO BE LEVELED OR OTHERWISE DISPOSED OF IN ACCORDANCE WITH THE SEDIMENT CONTROL PLAN.

Temporary Pipe Outlet Sediment Trap Detail

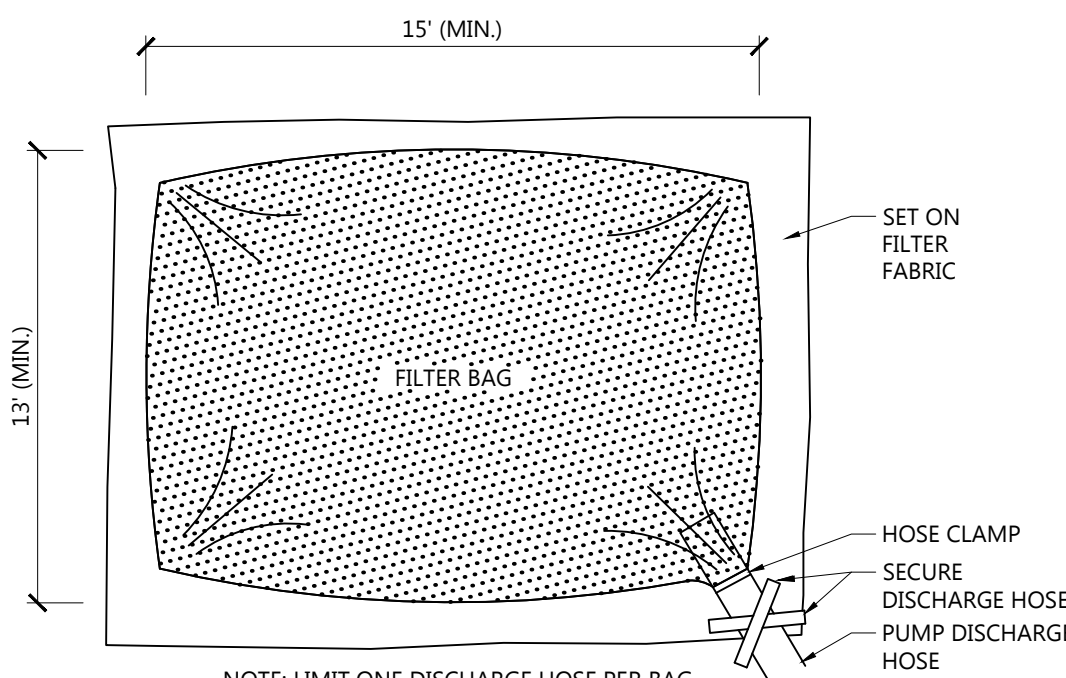
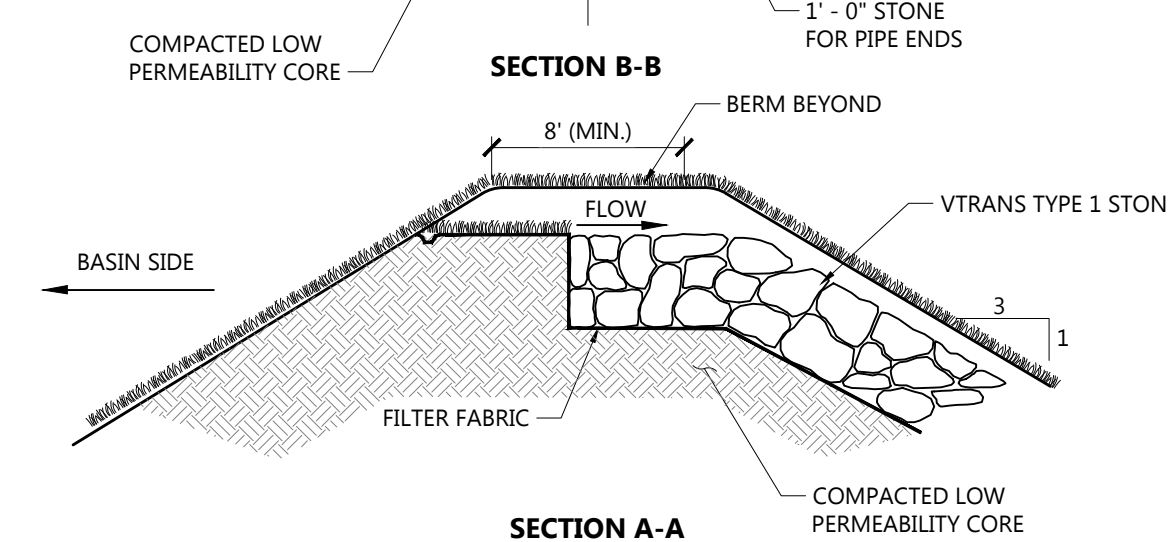
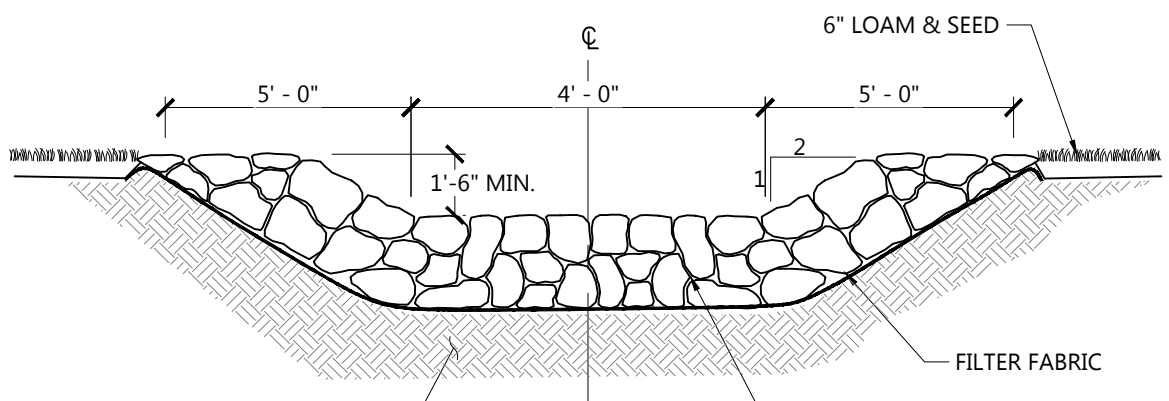
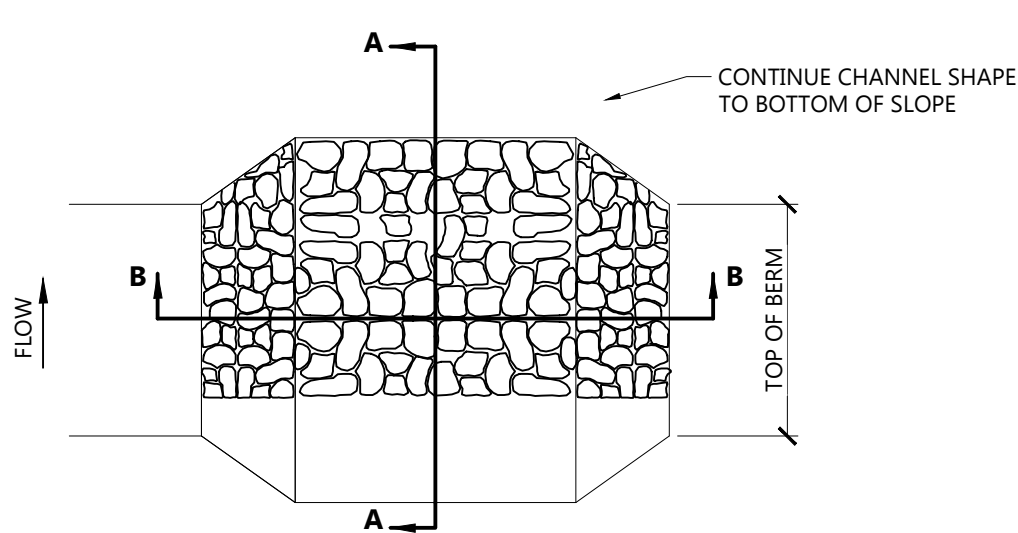
N.T.S. Source: VHB

10/17

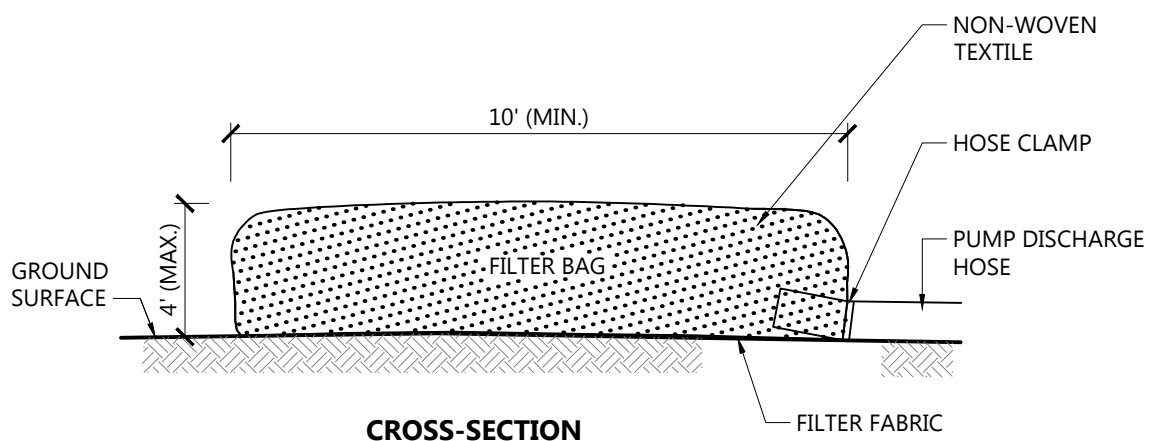
LD_VT

Overflow Stone Spillway

N.T.S. Source: VHB 1/16 REV LD_161



PLAN VIEW



CROSS-SECTION

NOTES

1. BAG TO BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. CONTRACTOR MAY PROPOSE ALTERNATE DEWATERING SYSTEM FOR REVIEW AND APPROVAL

Dewatering Filter Bag

N.T.S. Source: VHB 1/16 LD_691

MULCH MATERIAL AND APPLICATION				
MULCH MATERIAL	QUALITY STANDARDS	PER 1,000 SQ-FT	PER ACRE	DEPTH OF APPLICATION
WOOD CHIPS OR SHAVINGS	AIR DRIED, FREE OF OBJECTIONABLE MATERIAL	500 – 900 LBS	10 – 20 TONS	2" – 7"
WOOD FIBER CELLULOSE (PARTIALLY DIGESTED WOOD FIBERS)	MADE FROM NATURAL WOOD, USUALLY WITH GREEN DYE AND DISPERSING AGENT	50 LBS	2,000 LBS	N/A
GRAVEL, CRUSHED STONE	WASHED; SIZE 28 OR 3A – 1 1/2"	9 CY	405 CY	3"
HAY OR STRAW	AIR-DRIED; FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS	90 – 100 LBS, 2-3 BALES	2 TONS (100-120 BALES)	COVER ABOUT 90% SURFACE
Erosion Control Mix	WELL-GRADED MIXTURE OF PARTICLE SIZES. ORGANIC CONTENT BETWEEN 80-100% DRY WEIGHT. PARTICLE SIZE SHALL PASS 6" SCREEN (100%)	*Slopes 3/1(z);1(Vert.) = 2 inch depth plus additional 1/2 inch depth per 20 ft. of slope up to 100 ft. **Slopes between 3/1(z);1(Vert.) and 2/1(z);1(Vert.) = 4 inch depth plus additional 1/2 inch per 20 ft. of slope up to 100 ft. ***Slopes steeper than 2/1(z);1(Vert.) applicability to specific site and mulch depth to be reviewed and approved prior to use by OPSC or EPSC Specialist		

1. APPLY TACKIFIER AS NEEDED TO MINIMIZE POTENTIAL FOR MULCH TO BLOW AWAY.
2. MULCH MUST NOT CONTAIN INVASIVE PLANT SPECIES. (SEEDS OR SEEDLINGS)
3. TACKIFIER MAY BE WATER, NETTING, OR SIMILAR.
4. OTHER THAN EROSION CONTROL MIX, MULCH IS NOT TO BE INSTALLED ON SLOPES > 3:1.

Mulching Notes and Specifications

N.T.S. Source: VHB 08/16 LD_VT

TEMPORARY SEEDING

1. AREA TO BE SEEDED MUST BE ROUGH GRADED AND SLOPES PHYSICALLY STABLE.
2. SEEDING METHOD TO RESULT IN GOOD SOIL TO SEED CONTACT.
3. AFTER SEEDING, MULCH THE AREA WITH HAY OR STRAW AT 2 TONS/AC (APPROX 90 LBS/1,000 SF OR 2 BALES/1,000 SF); SEE MULCH DETAIL AND SPECIFICATIONS.
4. MULCH ANCHORING MAY BE NEEDED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE POSSIBLE.
5. WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL MAY BE USED IF APPLIED ACCORDING TO MANUFACTURERS' SPECIFICATIONS.

PERMANENT SEEDING

1. SEE SEEDING SPECIFICATIONS FOR RECOMMENDED SEED MIXES. USE RIPARIAN AND WETLAND SEEDING MIX WITHIN 50 FEET OF STREAM CROSSINGS AND IN DISTURBED WETLAND AREAS. USE UPLAND NATURAL COMMUNITY MIX WITHIN AREAS IDENTIFIED AS SIGNIFICANT NATURAL COMMUNITIES. USE PERMANENT SEEDING MIX FOR ALL OTHER DISTURBED UPLAND AREAS. SEE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR ADDITIONAL SEED MIXTURES.
2. AREA TO BE SEEDED MUST BE ROUGH GRADED AND SLOPES PHYSICALLY STABLE; CHISELING OR DISKING MAY BE NEEDED IF SOIL IS COMPACTED.
3. SEEDING METHOD TO RESULT IN GOOD SOIL TO SEED CONTACT.
4. PERMANENT SEEDING TO OCCUR PRIOR TO SEPTEMBER 15TH UNLESS WEATHER PERMITS SEEDING BEYOND SEPTEMBER 15TH.
5. AFTER SEEDING, MULCH THE AREA WITH HAY OR STRAW AT 2 TONS/AC (APPROX 90 LBS/1,000 SF OR 2 BALES/1,000 SF); SEE MULCH DETAIL AND SPECIFICATIONS.
6. MULCH ANCHORING MAY BE NEEDED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE POSSIBLE.
7. WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL MAY BE USED IF APPLIED ACCORDING TO MANUFACTURERS' SPECIFICATIONS.
8. IRRIGATION MAY BE NEEDED TO FACILITATE GRASS GROWTH AND ESTABLISH ADEQUATE GRASS COVER.

Seeding Notes and Specifications

N.T.S. Source: VHB

08/16

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Goodrich Farm / Salisbury AD1

615 Shard Villa Road
Salisbury, Vermont

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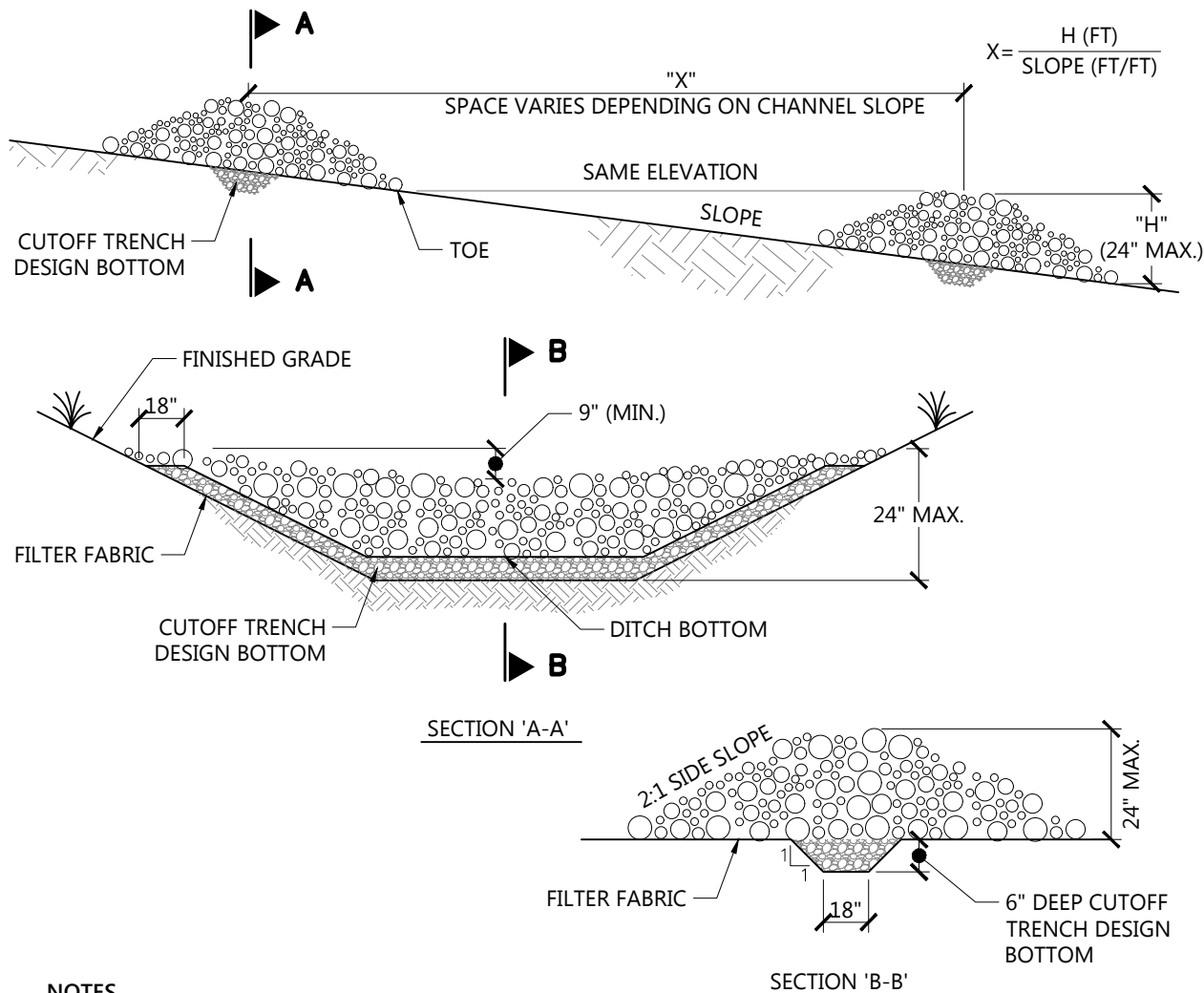
Erosion Prevention and Sediment Control Details 2

Drawing Number

C6.02

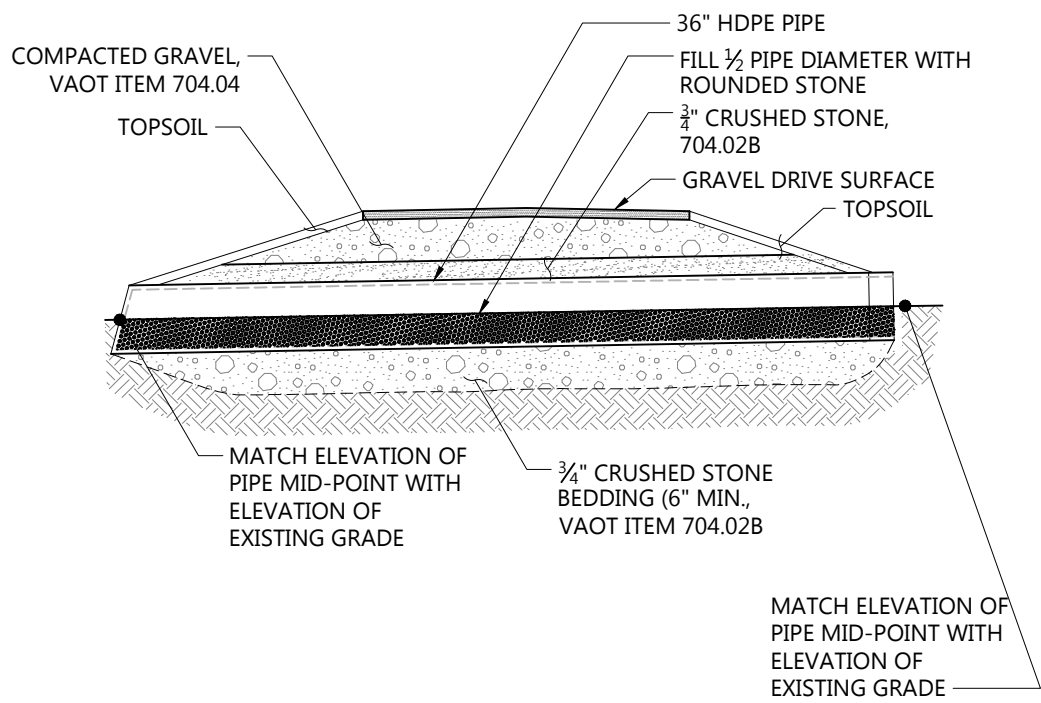
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- NOTES
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN USING A WELL GRADED STONE MATRIX 2 TO 9 INCHES IN SIZE.
 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
 6. MAXIMUM DRAINAGE AREA ABOVE CHECK DAM SHALL NOT EXCEED 2 AC.

Stone Check Dam 08/16
N.T.S. Source: VHB LD_VT



36" Stream Culvert (1/2 Embedded) 1/16
N.T.S. Source: - REV LD_

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Erosion Prevention and
Sediment Control Details 3

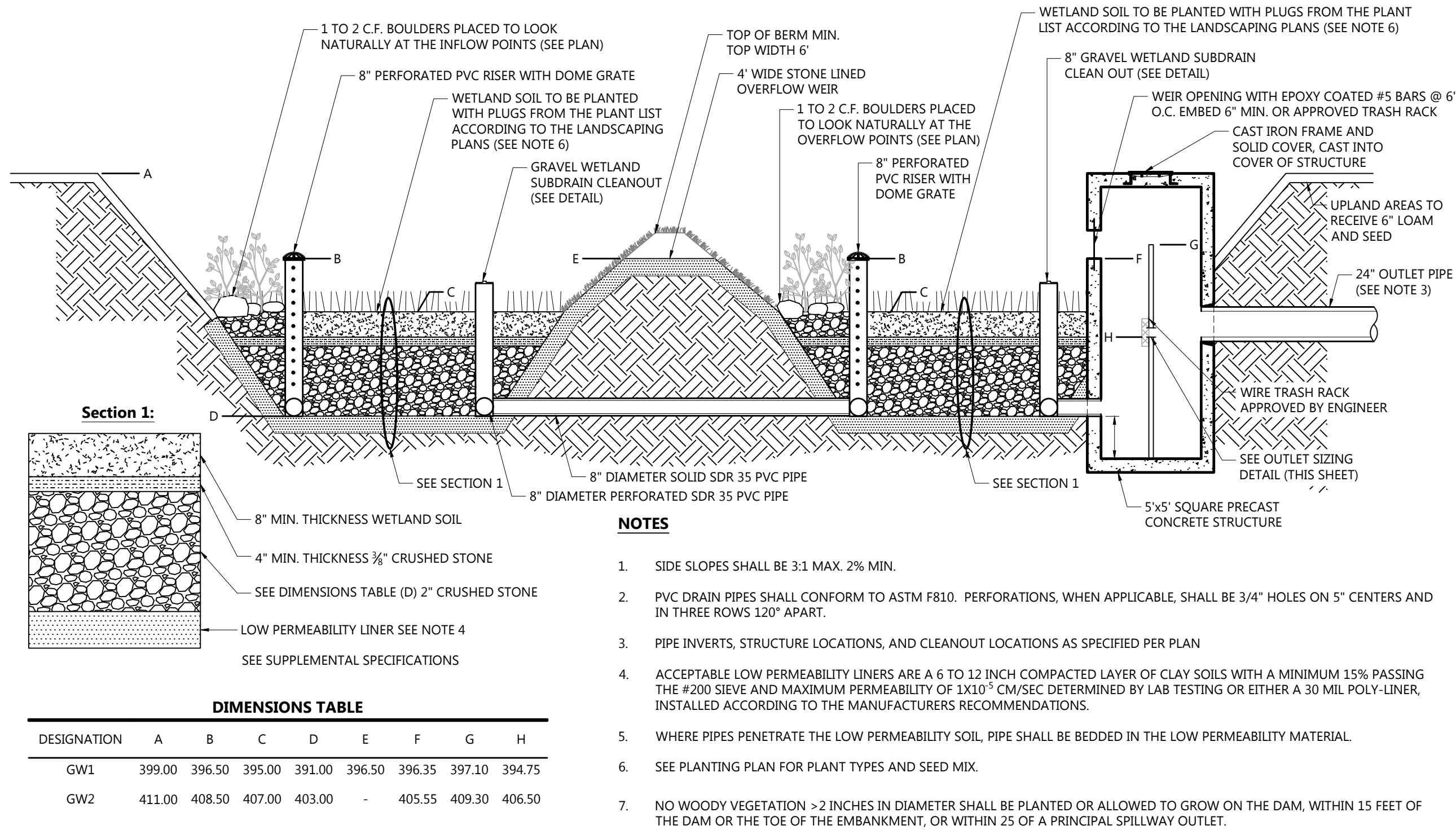
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Gravel Wetland (Multiple Bays)

N.T.S.

Source: VHB

1/16

LD_160

Supplemental Specifications:

WETLAND SOIL SHALL BE A LOW HYDRAULIC CONDUCTIVE SOIL (0.1-0.01 FT/DAY = 3.5x10⁻⁵ CM/SEC TO 3.5x10⁻⁶ CM/SEC). THE SOIL SHALL CONSIST OF COMPOST, SAND, AND SOME FINE SOILS WITH A 15% OR GREATER ORGANIC MATTER AND A MAXIMUM OF 15% CLAY CONTENT. WETLAND SOILS MAY BE PREPARED BY AMENDING NATURAL TOPSOIL WITH PEAT MOSS OR LEAF MOLD, AT A RATIO OF 75% SOIL TO 25% ORGANIC MATERIAL BY VOLUME. THE RESULTING SOIL MIX SHALL HAVE A PH RANGE OF 5.2 TO 7.0 AND BE FREE OF LARGE STONES, STUMPS, LARGE STICKS, SHRUBS, OR OTHER LITTER.

3/8-INCH CRUSHED STONE SHALL BE COMPOSED OF DURABLE CRUSHED ROCK CONSISTING OF ANGULAR FRAGMENTS, FREE FROM DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED PIECES. THE CRUSHED STONE SHALL BE FREE FROM CLAY, LOAM, OR DELETERIOUS MATERIALS. THE CRUSHED STONE SHALL CONFORM TO THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
3/8 INCH	90 - 100
No. 4	30 - 50
No. 8	5 - 20
No. 16	0 - 5

2-INCH CRUSHED STONE SHALL BE COMPOSED OF DURABLE CRUSHED ROCK CONSISTING OF ANGULAR FRAGMENTS, FREE FROM DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED PIECES. THE CRUSHED STONE SHALL BE FREE FROM CLAY, LOAM, OR DELETERIOUS MATERIALS. THE CRUSHED STONE SHALL CONFORM TO THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
2 INCH	90 - 100
1 1/4 INCH	25 - 50
3/4 INCH	0 - 15
1/2 INCH	0 - 5

LOW PERMEABILITY SOIL SHALL BE A CLAY SOIL WITH MINIMUM 15% PASSING THE No. 200 SIEVE. SOIL SHALL BE PLACED AND COMPACTED IN A MANNER TO PROVIDE AN IN-SITU PERMEABILITY RATE OF NOT MORE THAN 1.0x10⁻⁵ CM/SEC.

Quality Assurance:

THE OWNER SHALL DESIGNATE AN ENGINEER OR REPRESENTATIVE (WITH EXPERIENCE IN WETLAND DESIGN OR CONSTRUCTION) TO BE ON THE SITE DURING INSTALLATION OF THE WETLAND. THE REPRESENTATIVE SHALL OBSERVE WORK, INCLUDING EXCAVATION, SOIL PLACEMENT, EROSION CONTROL, FINAL GRADING AND PLANTING. THE REPRESENTATIVE WILL OBSERVE CONSTRUCTION MATERIALS, PLANT MATERIALS, SOILS, AND EROSION CONTROL MEASURES TO BE PLACED IN THIS AREA. THE ACTUAL LOCATIONS AND SPACING OF PLANTS MUST BE AS SHOWN ON THE PLANS OR AS INSTRUCTED BY THE REPRESENTATIVE.

PLANTING OPERATIONS SHALL BE PERFORMED BY EXPERIENCED PERSONNEL UNDER COMPETENT SUPERVISION. EDUCATION, EXPERIENCE AND CERTIFICATION OR LICENSE BY APPROPRIATE ORGANIZATION MAY BE REVIEWED TO EVALUATE COMPETENCE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER OF THE START OF WORK REQUIRING OVERSIGHT BY THE ENGINEER/REPRESENTATIVE. THE CONTRACTOR SHALL CONTACT THE ENGINEER/REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO REQUIRED INSPECTION. AT A MINIMUM THE WETLAND SHALL BE INSPECTED AT THE FOLLOWING STAGES OF CONSTRUCTION:

- ENGINEER/REPRESENTATIVE INSPECTION AND ACCEPTANCE IS REQUIRED UPON ESTABLISHMENT OF SUBGRADE, PRIOR TO INSTALLATION OF LOW PERMEABILITY SOIL LINER.
- ENGINEER/REPRESENTATIVE INSPECTION AND ACCEPTANCE IS REQUIRED AFTER INSTALLATION OF LOW PERMEABILITY SOIL LINER AND SUBDRAIN PIPING, PRIOR TO PLACEMENT OF CRUSHED STONE AND WETLAND SOIL.
- INSPECTION AND ACCEPTANCE IS REQUIRED BY ENGINEER/REPRESENTATIVE AFTER PLACEMENT OF CRUSHED STONE, WETLAND SOIL, BERMS AND OVERFLOW WEIRS, PRIOR TO SEEDING AND PLANTING.
- CONTRACTOR SHALL NOTIFY ENGINEER/REPRESENTATIVE ONCE PLANTING AND SEEDING OF WETLANDS IS COMPLETE AND STABILIZED. FOLLOWING FINAL STABILIZATION AND WITHIN 24 HOURS OF A RAIN STORM OF 0.5 INCH OR GREATER THE ENGINEER/REPRESENTATIVE SHALL INSPECT THE GRAVEL WETLAND FOR FINAL ACCEPTANCE.
- INSPECTION AND ACCEPTANCES IS REQUIRED BY REPRESENTATIVE AFTER PLANTINGS ARE ESTABLISHED

ONCE FINAL ACCEPTANCE OF THE WETLANDS IS ISSUED IN WRITING THE GRAVEL WETLAND SHALL BE MAINTAINED BY THE OWNER OR OWNER'S DESIGNEE IN ACCORDANCE WITH A STORMWATER LONG TERM OPERATIONS AND MAINTENANCE PLAN.

POST-CONSTRUCTION SOIL DEPTH AND QUALITY REQUIREMENTS

THESE REQUIREMENTS APPLY TO ALL DISTURBED AREAS WITHIN THE LIMITS OF THE SITE WHICH ARE NOT COVERED BY AN IMPERVIOUS SURFACE, INCORPORATED INTO A STRUCTURAL STORMWATER TREATMENT PRACTICE, OR ENGINEERED AS STRUCTURAL FILL ONCE DEVELOPMENT IS COMPLETE. FOR THIS PROJECT THESE AREAS INCLUDE THE DISCONNECTION AREAS AND FILTER STRIP AND AREAS DISTURBED DURING ROAD AND UTILITY INSTALLATION. IT IS ASSUMED THAT INSTALLATION OF THE ARRAY AND FENCING WILL BE DONE WITH LOW-PRESSURE EQUIPMENT AND IN A MANNER THAT MINIMIZES VEHICLE TRAVEL OVER UNDISTURBED AREAS. A DENSE AND VIGOROUS VEGETATIVE COVER SHALL BE ESTABLISHED OVER TURF AREAS. ANY AREAS NOT DESCRIBED ABOVE WHICH ARE DISTURBED OR COMPACTED DURING CONSTRUCTION SHALL ALSO BE SUBJECT TO THESE REQUIREMENTS.

ALTERNATIVELY TO LEAVING EXISTING TOPSOIL IN PLACE WITHOUT DISTURBING OR COMPACTING IT, THERE ARE THREE METHODS THAT MAY BE USED TO SATISFY THESE REQUIREMENTS.

- AMEND EXISTING TOPSOIL IN PLACE
 - SCARIFY OR TILL SUBSOILS TO 4 INCHES OF DEPTH OR TO THE DEPTH NEEDED TO ACHIEVE A TOTAL DEPTH OF 8 INCHES OF UNCOMPACTED SOIL AFTER A CALCULATED AMOUNT OF AMENDMENT IS ADDED.
 - AMEND THE SOIL TO MEET THE ORGANIC CONTENT REQUIREMENTS. ORGANIC MATERIAL MAY BE PLACED AT A PRE-APPROVED RATE OF 1 INCH WITH AN ORGANIC MATTER CONTENT OF 40-65% AND ROTOTILLED INTO 3 INCHES OF SOIL OR AT A CALCULATED RATE ROTOTILLED INTO A DEPTH OF SOIL NEEDED TO ACHIEVE 4 INCHES OF SETTLED SOIL AT 4% ORGANIC CONTENT.
- REMOVE AND STOCKPILE EXISTING TOPSOIL DURING GRADING
 - TOPSOIL SHOULD BE STOCKPILED ON SITE IN A CONTROLLED AREA AT LEAST 50 FEET FROM SURFACE WATERS, WETLANDS, FLOODPLAINS, OR OTHER CRITICAL RESOURCE AREAS.
 - SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES, EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION.
 - STOCKPILED TOPSOIL SHALL ALSO BE AMENDED, IF NEEDED, TO MEET THE ORGANIC CONTENT REQUIREMENTS IDENTIFIED ABOVE.
 - REPLACE STOCKPILED TOPSOIL PRIOR TO PLANTING AND RAKE TO LEVEL, REMOVING ANY SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER.
 - WATER OR ROLL SOILS IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.
- IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH
 - SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES. EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION.
 - PLACE 4 INCHES OF IMPORTED TOPSOIL MIX THAT CONTAINS 4% ORGANIC MATTER. SOILS USED IN THE MIX SHALL BE SAND OR SANDY LOAM AS DEFINED BY THE USDA.
 - RAKE TO LEVEL, REMOVING ANY SURFACE ROCKS GREATER THAN 2 INCHES IN DIAMETER.
 - WATER OR ROLL SOIL IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND EXECUTING A PLAN FOR VERIFYING THAT THESE AREAS HAVE MET THIS STANDARD. THIS PLAN SHOULD INCLUDE A MINIMUM OF 8 TEST HOLES PER ACRE OF AREA SUBJECT TO THIS STANDARD. THESE TEST HOLES SHALL BE EXCAVATED TO 8 INCHES USING ONLY A SHOVEL DRIVEN SOLELY BY THE WEIGHT OF THE INSPECTOR AND SHALL BE A MINIMUM OF 50 FEET APART.

COMPOST SHALL MEET THE DEFINITION OF "COMPOST" OR MEET THE CONTAMINANT STANDARDS IN THE VERMONT SOLID WASTE MANAGEMENT RULES. IF EXCEPTIONAL QUALITY (EQ) BIOSOLIDS ARE USED AS A SOIL AMENDMENT, THEY SHALL NOT COMPRISE NO MORE THAN 35% OF THE TOTAL VOLUME OF SOIL, AND SHALL BE WELL MIXED BEFORE OR DURING APPLICATION.

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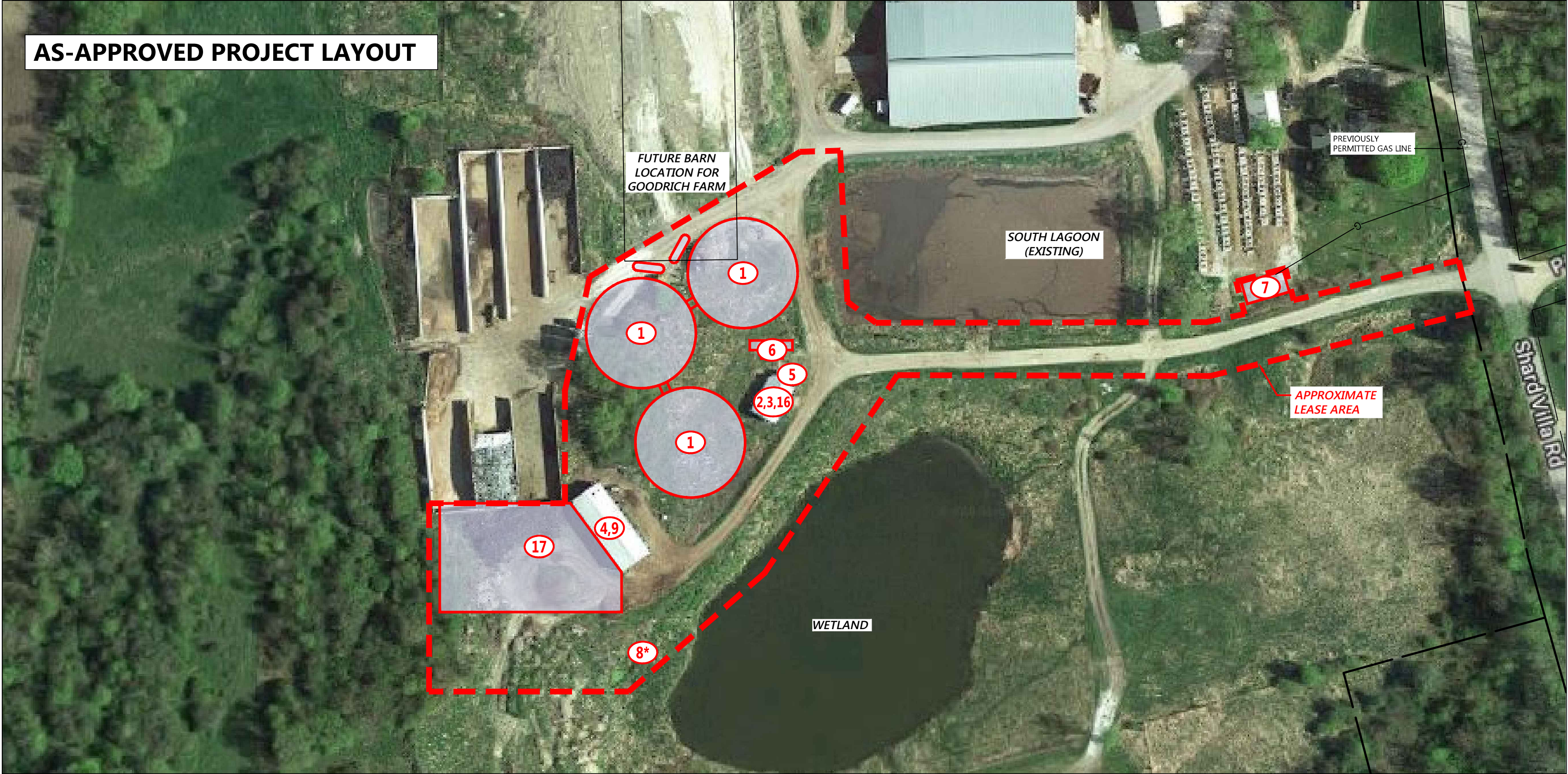
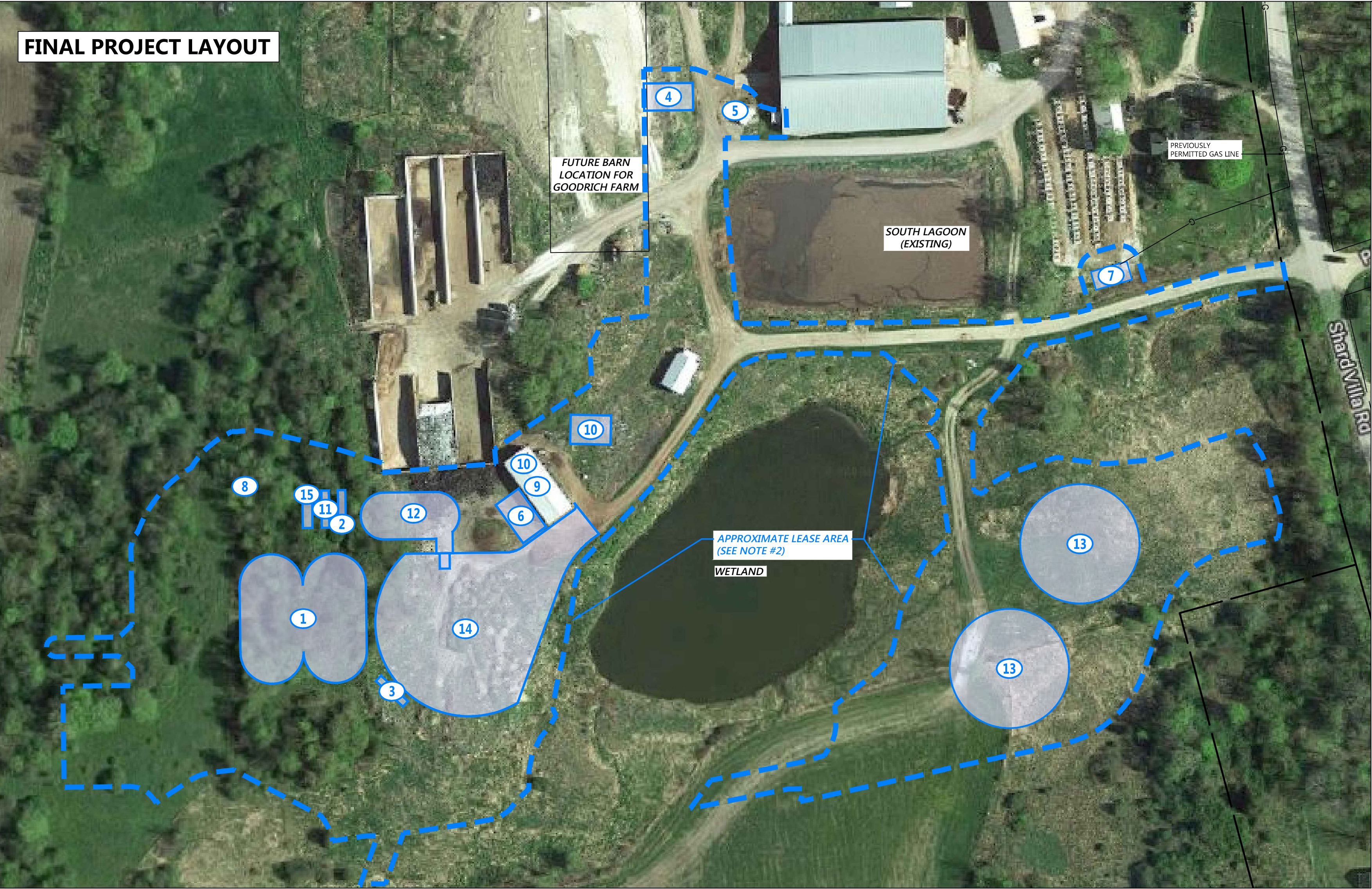
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Site Details

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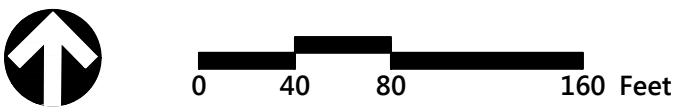
LEGEND

- PROPERTY LINE
- AS-APPROVED PROJECT LAYOUT
- FINAL PROJECT LAYOUT

- NOTES:
- NOT ALL FACILITY ELEMENTS LISTED ARE PRESENT ON BOTH THE CURRENT AND PREVIOUS FACILITY LAYOUT.
 - THE "APPROXIMATE LEASE AREA" SHOWN INCLUDES SALISBURY AD1'S NON-EXCLUSIVE ACCESS RIGHTS TO THE FARM'S EXISTING ROADS, AND TO OTHER FARM LANDS NEEDED FOR CONSTRUCTION AND OPERATION OF THE PROJECT.

* ASSUMED LOCATION

OCCUR ON BOTH LAYOUTS	OCCUR ON FINAL LAYOUT ONLY
1 DIGESTER(S)	10 NUTRIENT CAKE STORAGE AREA
2 UTILITY BUILDING	11 CHP BUILDING
3 OFFICE/LAB	12 HYDROLYZER
4 SEPARATOR BUILDING	13 NUTRIENT STORAGE TANK
5 MANURE TANK	14 TRUCK TURNAROUND
6 BIOGAS UPGRADER	15 BACK UP GENERATOR
7 VT GAS METERING STATION	
8 FLARE	16 EXISTING PUMP HOUSE
9 NUTRIENT MANAGEMENT BUILDING	17 COMPOST PAD
	OCCUR ON AS-APPROVED LAYOUT ONLY



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Salisbury AD1**

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Drawing Title
**Project Layout
Comparison Plan**

Drawing Number

CP-1

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