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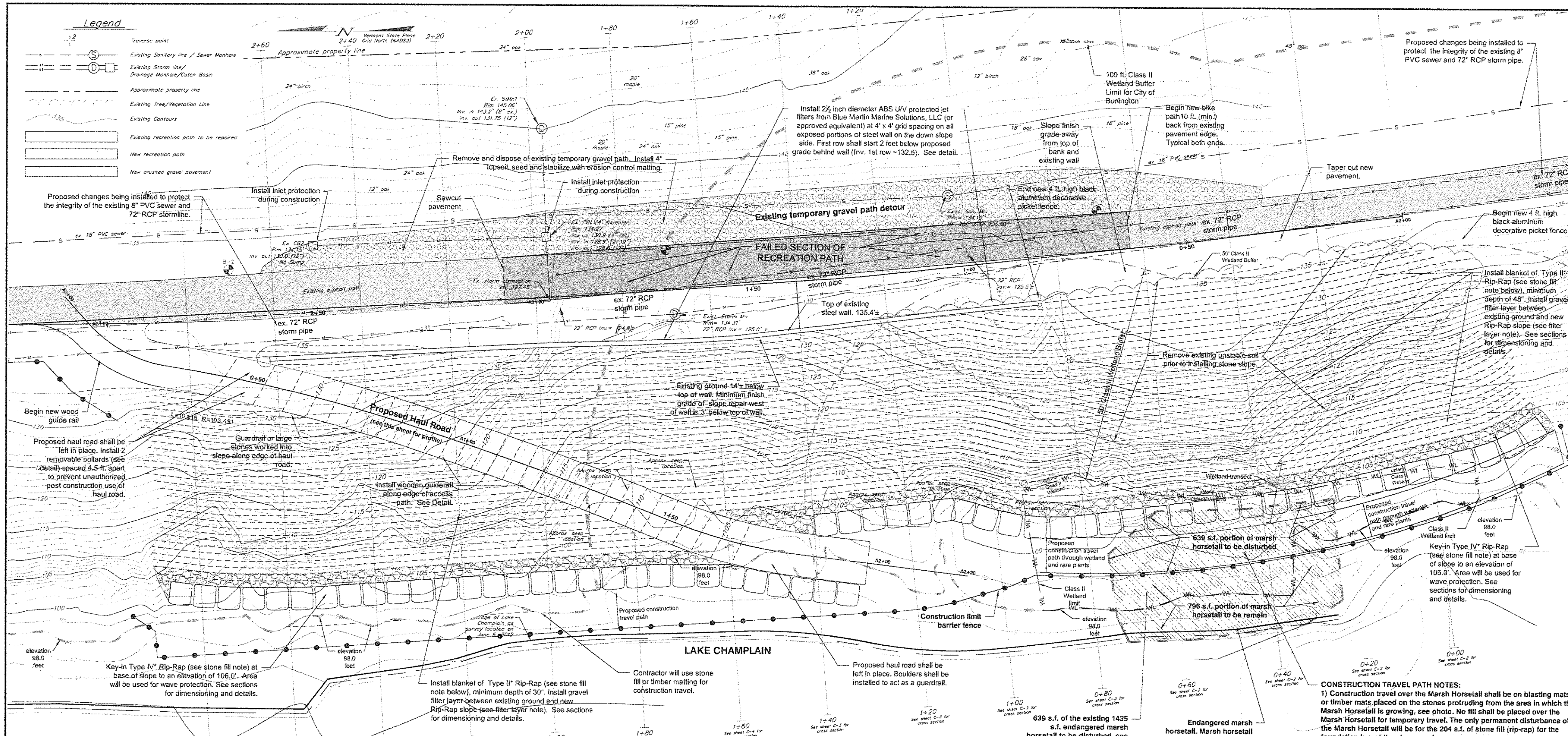
SEP 11 2012
DEPARTMENT OF PLANNING & ZONING



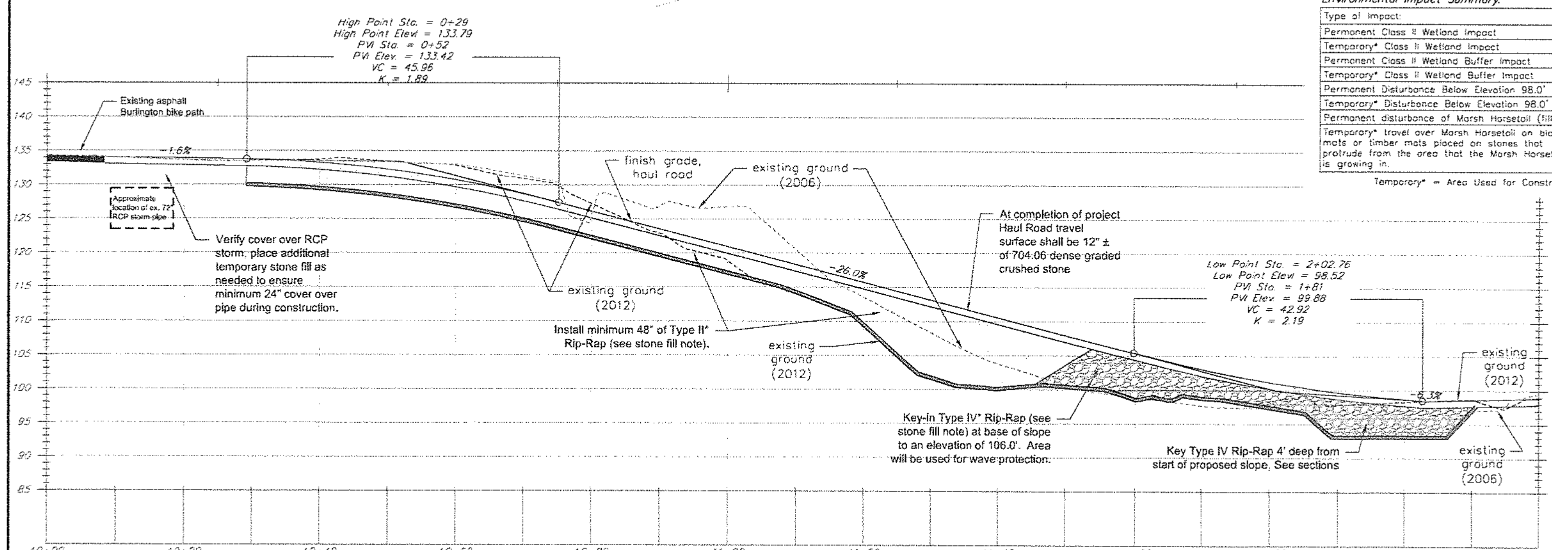
CONSTRUCTION TRAVEL PATH NOTES:
1) Construction travel over the Marsh Horsetail shall be on blasting mats or timber mats placed on the stones protruding from the area in which the Marsh Horsetail is growing, see photo. No fill shall be placed over the Marsh Horsetail for temporary travel. The only permanent disturbance of the Marsh Horsetail will be for the 204 s.f. of stone fill (rip-rap) for the foundation key of the slope repair.
2) Construction travel over the wetland areas downhill of the stone fill (rip-rap) foundation key for the slope repair shall be on blasting mats, timber mats, or on temporary gravel fill placed on geotextile fabric. If stone fill on geotextile fabric is used the temporary gravel and fabric shall be removed at the end of the project.

SITE PLAN
Scale: 1" = 10'

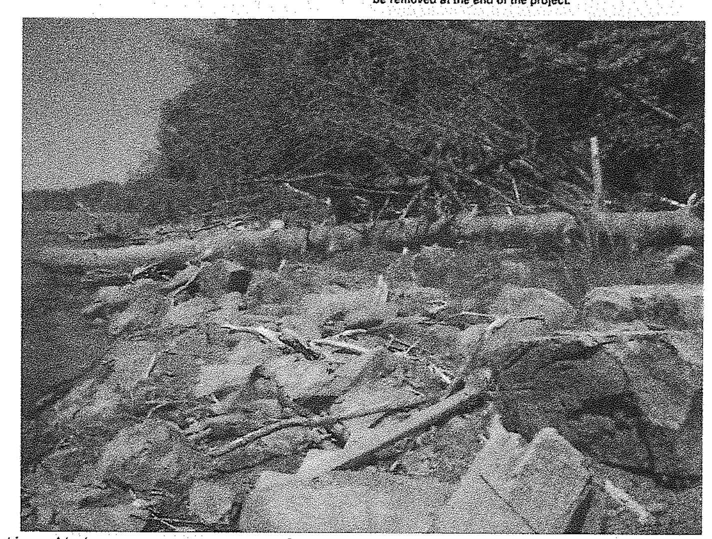
Environmental Impact Summary:

Type of Impact:	Amount (sq. ft.)
Permanent Class II Wetland Impact	857
Temporary* Class II Wetland Impact	701
Permanent Class II Wetland Buffer Impact	9,367
Temporary* Class II Wetland Buffer Impact	1,371
Permanent Disturbance Below Elevation 98.0'	805
Temporary* Disturbance Below Elevation 98.0'	940
Permanent disturbance of Marsh Horsetail (fill)	204
Temporary* travel over Marsh Horsetail on blasting mats or timber mats placed on stones that protrude from the area that the Marsh Horsetail is growing in.	435

Temporary* = Area Used for Construction Travel



Haul Road Profile
Scale: 1" = 10' Vertical
1" = 10' Horizontal



Stone on beach with Marsh Horsetail

Stone Fill Specifications:

VAOT 706.04 Stone for stone fill shall be approved, hard, blasted, angular rock other than serpentine rock containing the fibrous variety chrysotile (asbestos). The least dimension of stone shall be greater than 33% of the longest dimension. Stone fill shall be reasonably well graded from smallest to the maximum size stone specified so as to form a compact mass when in place.

Type II* – The longest dimension of the stone shall vary from 2 to 36 inches, and at least 50% of the volume of the stone in place shall have a least dimension of 12 inches.

Type IV* – (Modified MAX SIZE 48") The longest dimension of the stone shall vary from 3 to 48 inches, and at least 50% of the volume of the stone in place shall have a least dimension of 20 inches.

Filter Layer Notes:

1. Minimum 6" separation between existing ground and in place stone fill (rip-rap). This layer will be VAOT 704.05A Fine Gravel.
2. It is assumed that at least 12" of gravel will need to be placed in order to maintain the 6" minimum depth after stone rip-rap is placed.
3. Additional gravel will be necessary to achieve the in place 6" minimum gravel depth for the filter layer. This shall be considered part of the work and shall NOT be basis for an additional charge.

General Notes:

1. The location, size, and invert elevation on the underground pipes shown on this plan were taken from as-built plans provided by the City of Burlington. The location of above ground structures were field surveyed by Krebs & Lansing (unless noted otherwise). Invert elevations for underground structures were adjusted to account for any discrepancy between the surveyed elevations and the rim elevations provided by the City of Burlington
2. Elevations are based on the NAVD88 vertical datum.
3. No attempt was made to identify or locate any underground utility lines. Notify DIG SAFE before beginning any excavation or construction activity.
4. Property lines shown on this plan are based on a boundary survey by Trudell Consulting Engineers and are considered approximate
5. Geotechnical slope stabilization design by GeoDesign
6. Fence requirements and design along top of existing wall to be completed by City of Burlington Public Works and is not part of project.

Construction Notes:

1. The methods and materials of construction shall conform to the latest standards of the City of Burlington and the State of Vermont. All work shall be in conformance with all permits and approvals issued for the project. In case of conflict, the more stringent specification shall apply as determined by the Engineer. All work shall be done in a workmanlike manner and completed in the time specified by Owner.
2. The Contractor shall be responsible for all work and materials shown and required to make the job complete. These drawings do not show every fitting or appurtenance. Materials shall be as specified on the drawings. Manufacturer's product specifications and a gradation analysis and laboratory compaction results shall be submitted by the contractor for aggregate material prior to deliver to the site. Testing shall be performed by a qualified testing agency in accordance with standard methods specified by VAOT standard Specifications for Construction. Samples of Stone Fill materials shall be made available for review by the engineer prior to delivery to site and shall be sufficiently large to allow verification of gradation requirements.
3. The location and size of existing underground utilities is not warranted to be exact or complete. The Contractor shall field locate all utilities and shall contact the affected utility company, the Engineer and the City of Burlington prior to making any hook ups. The Contractor shall be solely responsible for all existing utilities and their uninterrupted services. All off-site backfill, sheeting and shoring, dewatering, clearing and grubbing, erosion control, dust control, traffic control, grading, and all incidentals shall be included as part of the required work.
4. Repair of all disturbed areas, grading, seeding, mulching, repair of roads and curbs, paving, and other incidentals are included as part of the required work. All disturbed areas shall be loamed and mulched until permanent ground cover is established.
5. The Contractor shall verify all horizontal control and temporary bench marks before use.
6. The workmen and public shall be protected by the Contractor from any and all hazards connected with the construction work. Open trenches, materials, or equipment within the working limits are to be guarded by the use of adequate barricades or flag men. All barricades left in position overnight are to be properly lighted. When work narrows the usable pavement (traveled way), flag men shall be employed to aid the flow of traffic so that there will be no undue delays. The Contractor shall be held responsible for the safety of all workmen and the general public and all damages to property occurring from or upon the work occasioned by negligence or shall be held responsible for the safety of all workmen and the general public and all damages to property occurring from or upon the work occasioned by negligence or day or night within the working area. All work shall be in conformance to OSHA regulations, Title 19, Parts 1926.651 and 1926.652, and applicable to VOSHA regulations.
7. Contractor shall contact Dig Safe prior to any excavation.
8. The Contractor shall sawcut all existing pavement to be removed. The Contractor shall minimize the pavement area disturbance. Contractor shall be responsible for all pavement repair and restoration necessary to complete the work.
9. Temporary silt fence shall be erected prior to any clearing or construction. Fencing may be erected in phases, but in no case shall construction of clearing proceed fencing. Special areas may be designated by the Owner for preservation of existing trees. These areas shall be the Contractor's responsibility to insure no damage is done to designated trees.
10. Existing plantings are located in general areas as shown on the plans. Contractor shall protect plantings scheduled to remain so as not to damage these or their root systems.
11. Contractor shall verify all Utility intersections by excavation in advance of work. The Engineer and Owner must be contacted with conflicts. Failure to comply with project requirements shall severely limit the Contractor from pursuing any claim to compensation resulting from conflicts with the existing utilities.
12. Contractor shall comply with all permits and approvals issued for this project.
13. Remove all sloughed/disturbed soil, vegetation, deleterious material, soil and ice from slope prior to placement of the filter material layer.
14. Excavation of 1H:1V slope shown on sections shall be performed in 20 foot maximum sections.
15. Compaction equipment within 15 feet of the backside of wall shall be as follows.
    1. 0–15 feet: vibratory plate compactor
    2. 5–15 feet: no compaction equipment larger than two drum, walk behind vibratory roller
16. Layout of permanent and temporary limits of disturbance shall be performed by a licensed land surveyor. Limits shall be maintained throughout construction.

City of Burlington Public Works Dept.

Consultants:
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K&L
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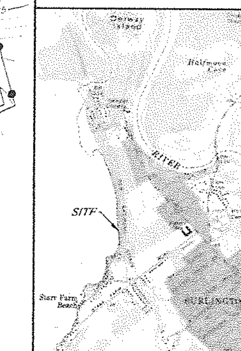

Location Map
N.T.S.

Project:
City of Burlington Recreation Path Improvements

Project No.	12146
Scale	1" = 10'
Drawn by	DMR/GTD
Checked by	
Date	9/11/12

GRAPHIC SCALE 1" = 10'

Revisions
No. Date

Drawing Title
SITE PLAN SLOPE REPAIR

Drawing No.
C-1

12146\DWGS\base2012.dwg

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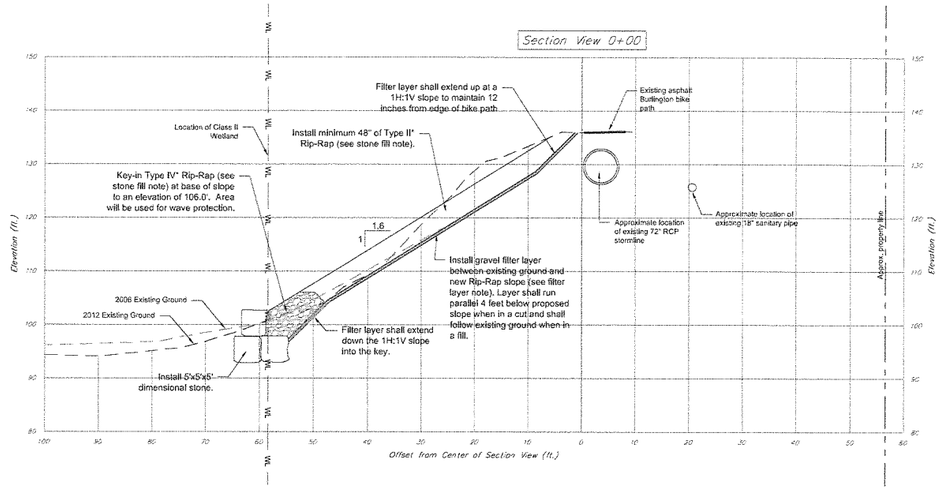
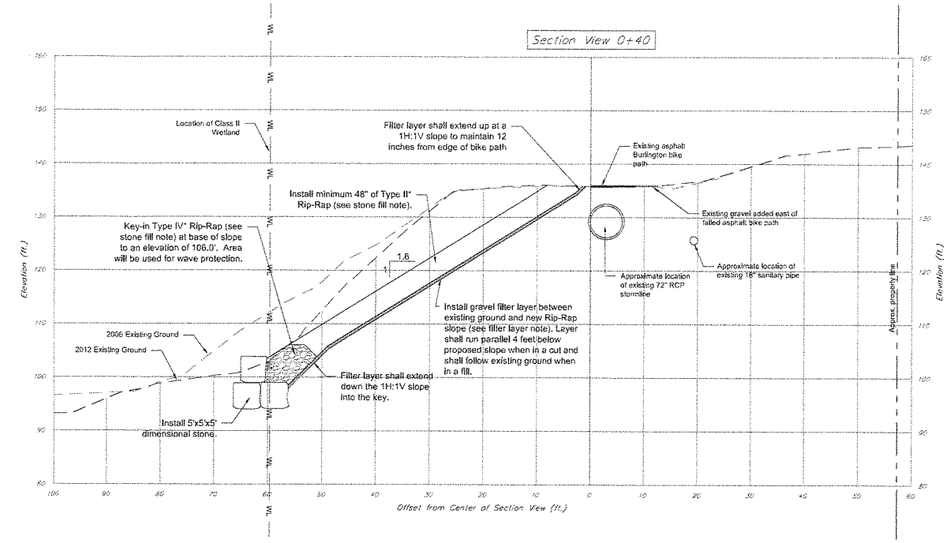
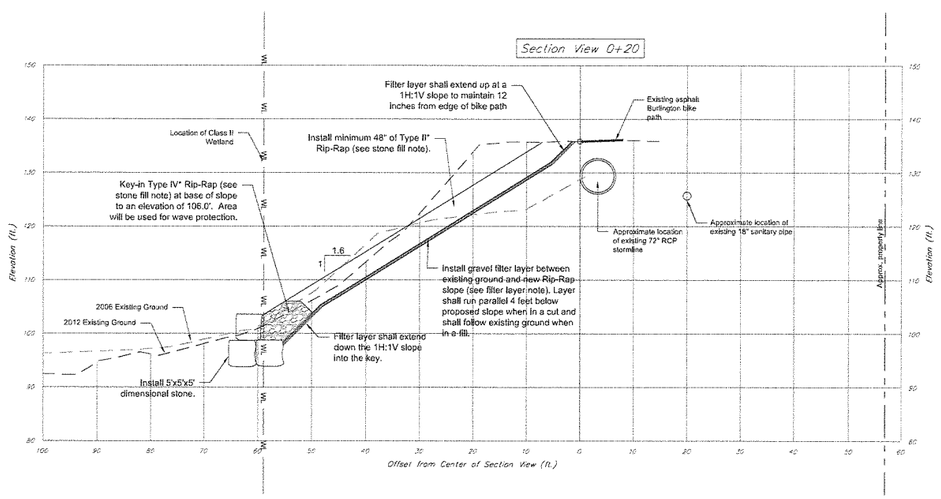
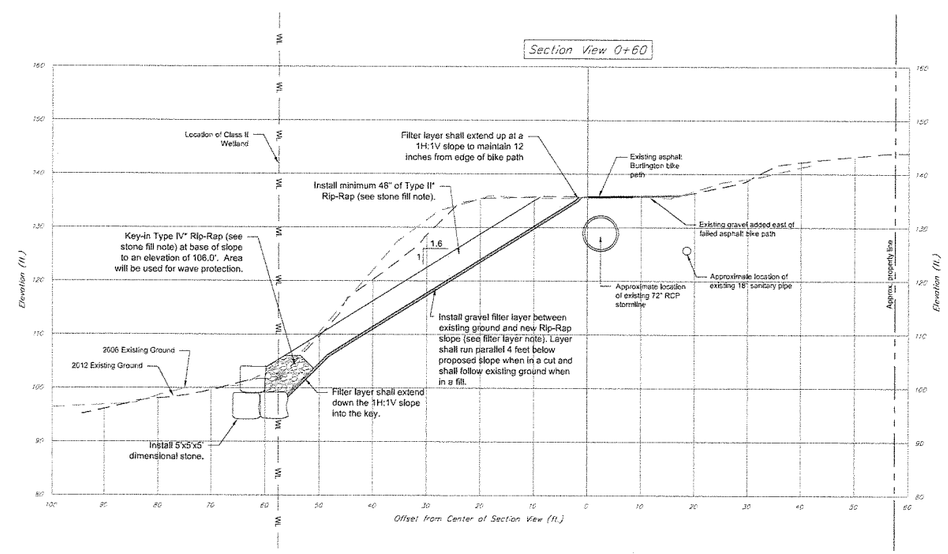
City of Burlington Public Works Dept.









Stone Fill Specifications:

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Type II *– The largest dimension of the stone shall vary from 2 to 36 inches, and at least 50% of the volume of the stone in place shall have a least dimension of 12 inches.*

Type IV *– (Modified MAX SIZE 48") The largest dimension of the stone shall vary from 3 to 48 inches, and at least 50% of the volume of the stone in place shall have a least dimension of 20 inches.*

Filter Layer Notes:

1. *Minimum 6" separation between existing ground and in place stone fill (rip-rap). This layer will be VAOT 704.05A Fine Gravel.*
2. *It is assumed that at least 12" of gravel will need to be placed in order to maintain the 6" minimum depth after stone rip-rap is placed.*
3. *Additional gravel will be necessary to achieve the in place 6" minimum gravel depth for the filter layer. This shall be considered part of the work and shall NOT be basis for an additional charge.*

Consultants:

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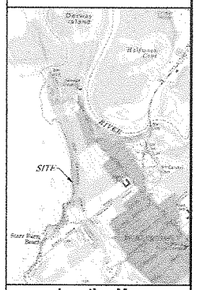

Location Map
N.T.S.

Project:
City of Burlington Recreation Path Improvements

Project No. 12146
Scale 1" = 10'
Drawn by DMP/GTD
Checked by
Date 9/11/12

0' 5' 10' 20' 30'
GRAPHIC SCALE 1" = 10'
(horizontal and vertical)

Revisions
No. Date

Drawing Title
CROSS SECTIONS SLOPE REPAIR

Drawing No.
C-2

12146\DWGS\bpsx2012.dwg

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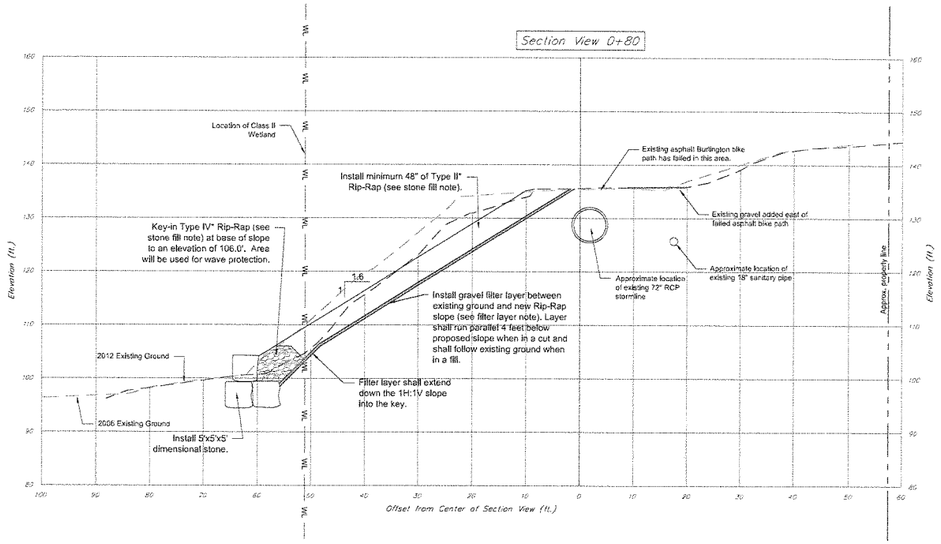
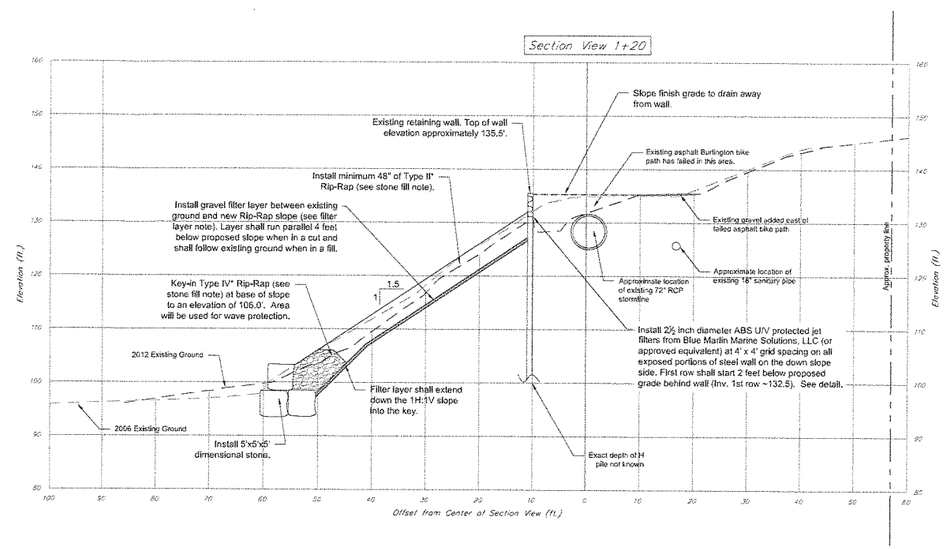
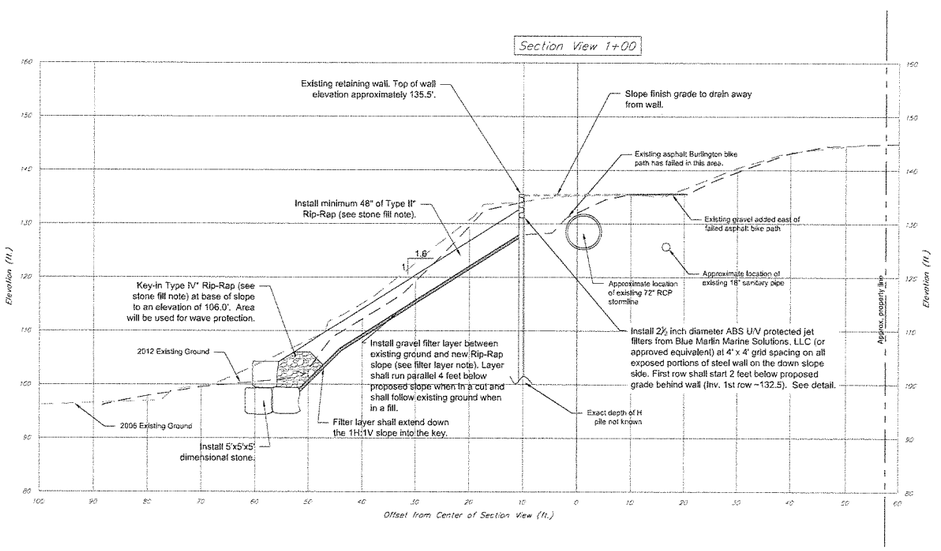
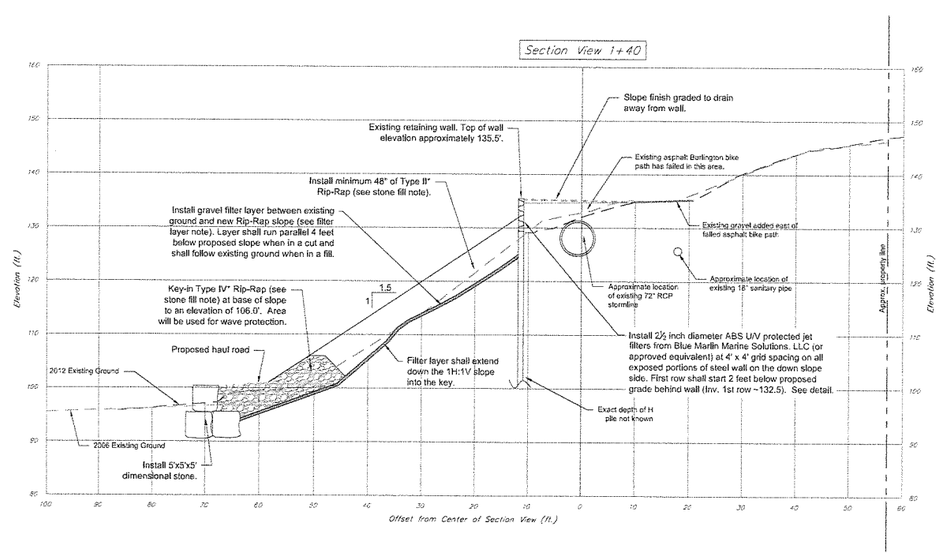
SEP 11 2012
DEPARTMENT OF PLANNING & ZONING
City of Burlington Public Works Dept.









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Type IV* – (Modified MAX 5.2% 48") The longest dimension of the stone shall vary from 3 to 48 inches, and at least 50% of the volume of the stone in place shall have a least dimension of 20 inches.

Filter Layer Notes:

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2. It is assumed that at least 12" of gravel will need to be placed in order to maintain the 6" minimum depth after stone rip-rap is placed.
3. Additional gravel will be necessary to achieve the in place 6" minimum gravel depth for the filter layer. This shall be considered part of the work and shall NOT be paid for as additional charge.

Consultants:

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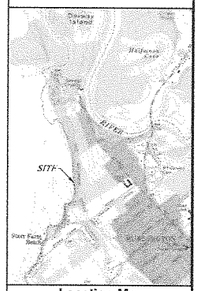


Location Map
N.T.S.

Project:
City of Burlington Recreation Path Improvements

Project No. 12146
Scale 1" = 10'
Drawn by DMR/GTD
Checked by
Date 8/11/12

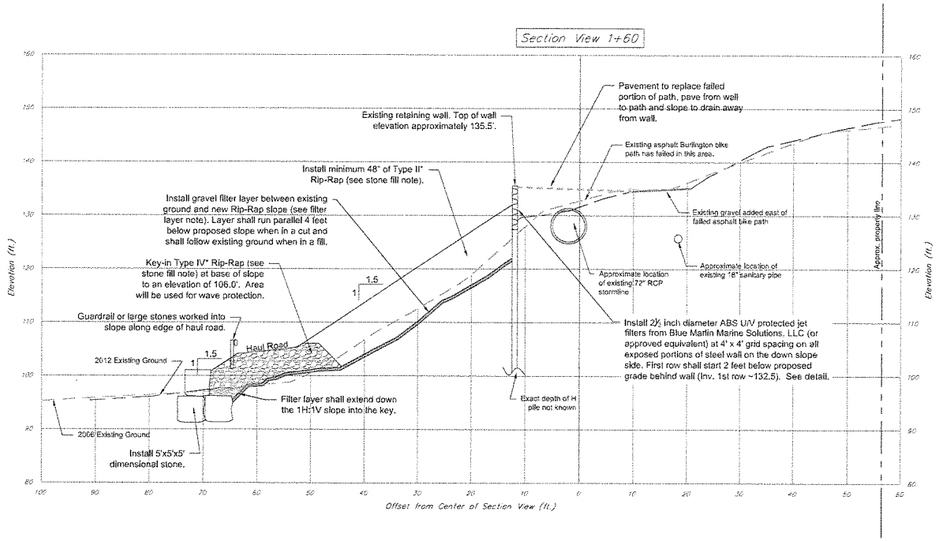
0' 5' 10' 20' 30'
GRAPHIC SCALE 1" = 10'
(horizontal and vertical)

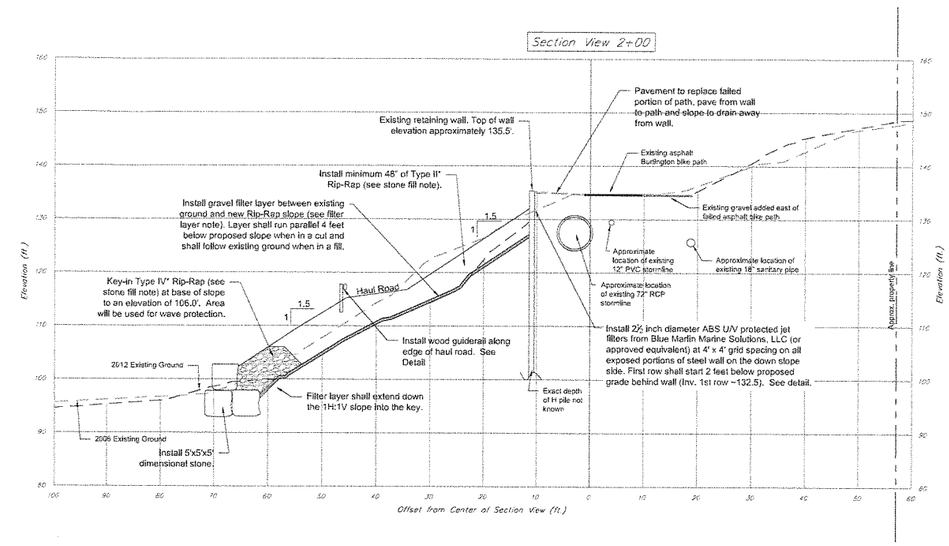
Revisions
No. Date

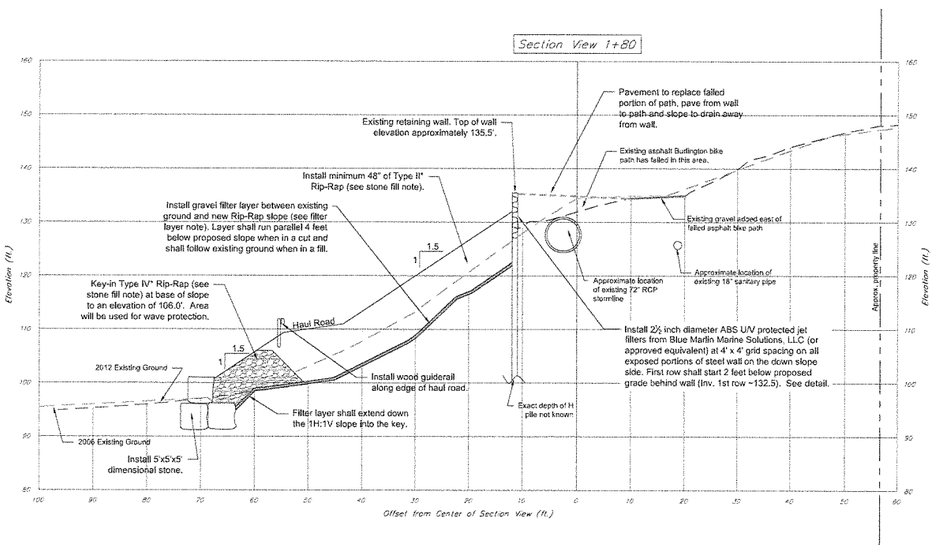
Drawing Title
CROSS SECTIONS SLOPE REPAIR

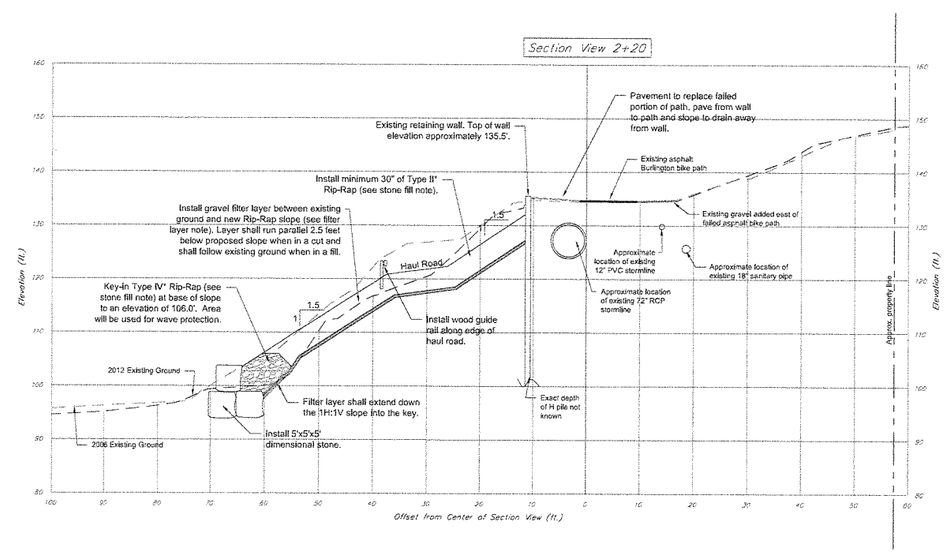
Drawing No.
C-3

12146\DWGS\bess2012.dwg









Stone Fill Specifications:

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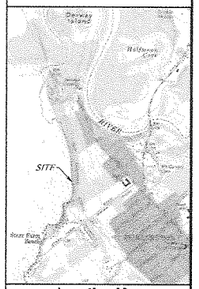


Location Map
N.T.S.

Project:
City of Burlington Recreation Path Improvements

Project No. 12145
Scale 1" = 10'
Drawn by DMB/CTD
Checked by
Date 9/11/12

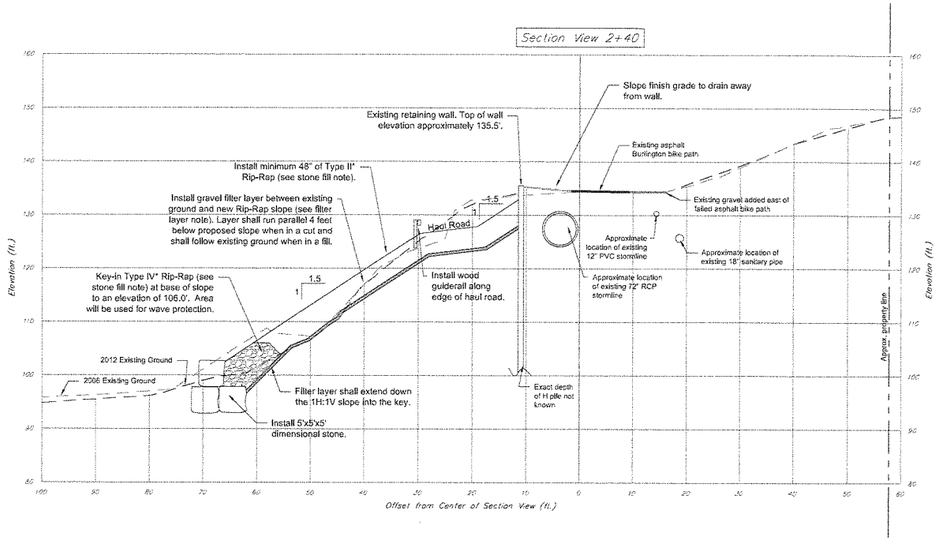
0' 5' 10' 20' 30'
GRAPHIC SCALE 1" = 10'
(horizontal and vertical)

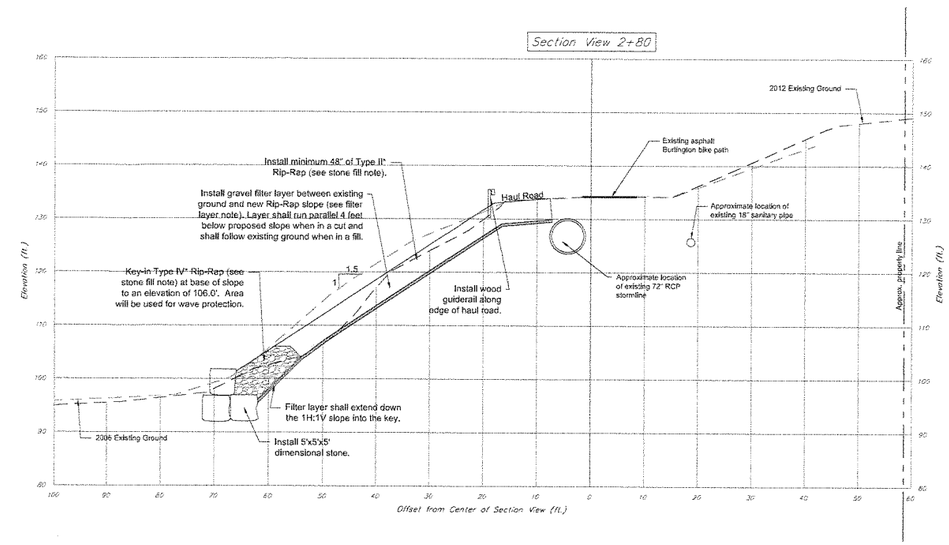
Revisions
No. Date

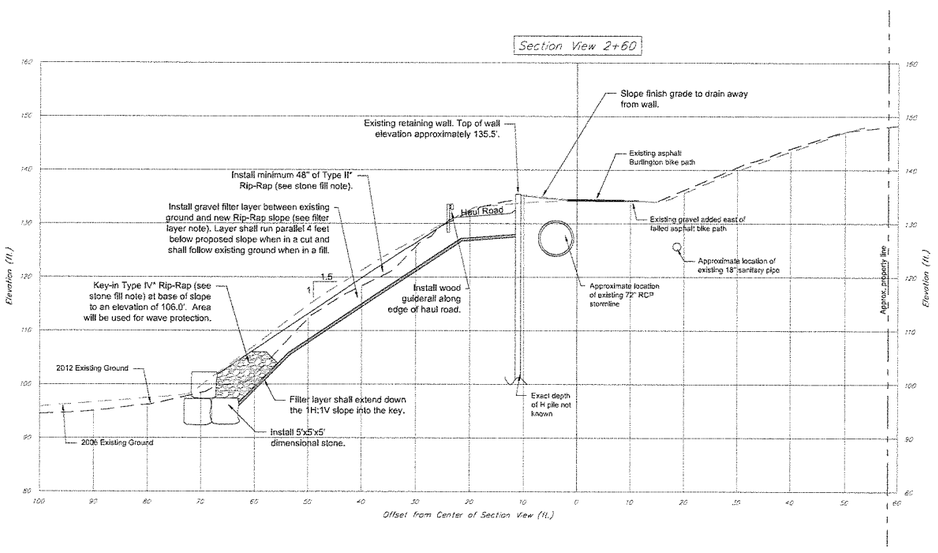
Drawing Title
CROSS SECTIONS SLOPE REPAIR

Drawing No.
C-4

12145\DWGS\bcts2012.dwg







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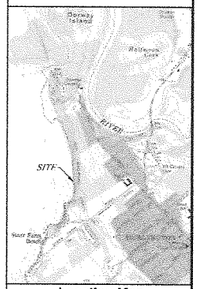

Location Map
N.T.S.

Project:
City of Burlington Recreation Path Improvements

Project No. 12146
Scale 1" = 10'
Drawn by DMR/GTD
Checked by
Date 9/11/12

0' 5' 10' 20' 30'
GRAPHIC SCALE 1" = 10'
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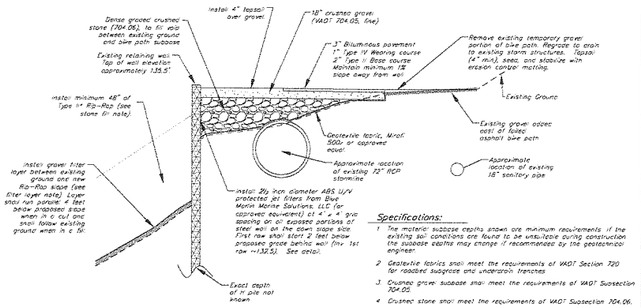
Revisions

No.	Date	

Drawing Title
CROSS SECTIONS SLOPE REPAIR

Drawing No.
C-5

12146\DWGS\bsts2012.dwg



10' Wide Bike Path Section

Station 1+60

N.T.S.

Specifications:

1. The material subbase depths shown are minimum requirements if the existing soil conditions are found to be unsuitable during construction the subbase depths may change if recommending by the geotechnical engineer
2. Geotextile fabrics shall meet the requirements of VAOT Section 720 for roadbed subgrade and underdrain trenches
3. Crushed gravel subbase shall meet the requirements of VAOT Subsection 704.05
4. Crushed stone shall meet the requirements of VAOT Subsection 704.06.

Bike Path Construction Notes

1. New road shall be constructed to the line and grade shown on the drawings. The road and utility locations shall be as typically detailed unless otherwise shown.
2. All road and parking construction shall be completed in accordance with the Vermont Agency of Transportation "Standard Specifications for Construction" 2011, hereafter called Vermont Highway Specifications, Specifications found on these plans, and project specifications. In case of conflict, the more stringent specification shall apply as determined by the Engineer
3. The Contractor shall follow Vermont Highway Specifications (2011) Section 203.11 for placing and spreading embankments
4. Fill material for road embankment shall meet Note #13 below and be approved by the Engineer. Fill shall be placed in 12" lifts, wetted and compacted with satisfactory compaction equipment to 95% of maximum density (Standard Proctor).
5. Road in fill sections shall be placed and compacted a minimum of 3 feet above top of any utility to be installed before trench is excavated for pipe placement. In trenches and cut sections, the Contractor shall provide all necessary sheeting, shoring and bracing to maintain compliance with all OSHA/VOSHA regulations.
6. Methods for construction of subgrade shall conform to Vermont Highway Specifications (2011) 203.12 or as determined by the Engineer.
7. Any subgrade or subbase disturbed by Contractor, or rendered unsuitable by construction machinery, shall be removed and replaced with approved granular backfill at the Contractor's expense. The subgrade shall be compacted to attain at least 95% of the maximum density (Standard Proctor) before placing base or embankment materials.
8. The Owner will pay for on site soils testing (compaction, sieve, and proctor). The Contractor shall pay for failing tests
9. Sand borrow and cushion shall conform to Vermont Highway Specifications (2011) 703.03. Gravel borrow shall conform to the Vermont Highway Specifications 703.04.
10. Gravel subbase for pavement shall conform to Vermont Highway Specifications (2011) 704.03, coarse.
11. Leveling course shall conform to Vermont Highway Specifications (2011) 704.05, fine grading. Shoulders shall conform to Section 704.12, Aggregate for Shoulders.
12. Bituminous concrete pavement shall conform to Vermont Highway Specifications (2011) Section 404 and 406. Binder course shall be Type I - C, and fine wearing course shall be Type II - C or as specified.
13. Embankment fill for all impervious areas, EXCLUDING BUILDINGS, shall be a sand specification as follows:

Sieve	% Finer
6"	100
2"	90-100
#4	60-100
#200	30 maximum

14. Dense graded crushed stone, crushed gravel and sand borrow shall not be contaminated by work. Construction traffic shall not travel over exposed areas of this material.
15. Contractor is responsible for all pavement markings (i.e. parking striping, handicap markings, stop bars, etc.) shown or implied on the Plans.

Winter Construction Requirements (October 15th - April 15th)

1. For areas to be stabilized by vegetation, seeding shall be completed no later than September 15th to ensure adequate growth and cover.
2. If seeding is not completed by September 15th, additional non-vegetative protection must be used to stabilize the site for the winter period. This includes the use of Erosion Control Matting or multiple layers of heavy mulch layer.
3. Where much is used for temporary stabilization it must be applied at double the standard rate, or a minimum of 3 inches with an 80%-90% cover.
4. Stabilized Construction Entrances shall be enlarged to provide for snow stockpiling
5. Limits of disturbance shall be moved or replaced to reflect any revised boundaries of winter work
6. A snow management plan shall be prepared with adequate storage and control of meltwater, requiring stockpiled snow to be stored down slope of all areas of disturbance and out of stormwater treatment structures.
7. A minimum 25 foot buffer shall be maintained from perimeter controls such as silt fence
8. Drainage structures must be kept open and free of snow and ice dams
9. Silt fence and other practices requiring earth disturbance must be installed ahead of frozen ground
10. To ensure cover of disturbed soil in advance of a melt event, areas of disturbed soil must be stabilized at the end of each work day, with the following exceptions
   - If no precipitation within 24 hours is forecast and work will resume in the same disturbed area within 24 hours, daily stabilization is not necessary
   - Disturbed areas that expose and retain runoff, such as house foundation or open utility trenches
11. Prior to stabilization, snow or ice must be removed to less than 1 inch thickness.
12. Use stone to stabilize areas such as the perimeter of buildings under construction or where construction vehicle traffic is anticipated. Stone paths shall be 10'-20' feet wide to accommodate vehicular traffic.

SOIL EROSION AND SEDIMENT CONTROL:

1. Erosion and sediment control measures shall be planned and field implemented prior to beginning clearing and grading operations. The proper implementation and maintenance of erosion/sediment control shall be the Contractor's responsibility. This responsibility shall include an evaluation of probable weather conditions and their impacts and the necessary planning for protecting ongoing work. The "On-Site Coordinator" shall review erosion control measures, planned and in place. The "On-Site Coordinator" shall have authority to stop the Contractors work and order work on erosion and sediment control measures until the erosion and sediment controls in place are deemed satisfactory. The standard to which the project will be held is "no potential for a water quality violation exists under all reasonably foreseen circumstances".

   Erosion control measures indicated on the plans are intended to address specific areas. Additional measures may be necessary depending on conditions at the time of construction. In particular, access roads and staging areas shall be reviewed for necessary erosion control measures. In addition to these plans and details, the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites" shall be used as a reference guide. All erosion control measures shall be maintained until the engineer is satisfied that permanent ground cover has been established and that further measures are not required. When erosion control measures are deemed no longer necessary, all materials installed, including runoff pits and construction aprons, and stockpiled entrance material shall be collected and disposed of in an acceptable manner.
2. Materials: The contractor shall have ready for immediate use all mulch hay, crushed stone, erosion control blankets, channel linings, filter fabric and countermeasures necessary to protect all work.
3. Tracking of Mud and Soil: The tracking of mud and soil onto existing roads adjacent to the Right-of-Way access points shall not be allowed. If necessary, a stabilized construction entrance shall be installed consisting of an 8" depth of stone 4" in or less in size, 100' in length. The entrance shall be maintained to prevent tracking of mud and soil onto existing roads
4. Timing of Stabilization: The contractor shall seed and mulch, or stabilize with erosion control matting, all disturbed areas within 48 hours of disturbance. Refer to the plans for stockpile stabilization requirements.

   There may be times when it is not possible to complete the stabilization of an area within 48 hours due to exceptional circumstances. If such a situation arises the On-Site Coordinator shall be notified. At that point the existing erosion control measures shall be reexamined by the Engineer. Additional erosion control measures will be added at that point, if they are needed to prevent movement of sediment off site or to the waters of the State. The objective of prompt stabilization is to limit the area of the site in which erosion can occur. All stabilization zones after September 15th will be accomplished by non-vegetative measures such as erosion control matting, crushed stone, pavement and/or weighted impermeable barriers.
5. Land Clearing and Stumping: The limits of clearing shall be located and marked prior to beginning work. All personnel shall be aware of the limits, and all necessary care shall be taken to preserve trees and vegetation to be retained and to protect any adjacent wetlands.

   Brush and limbs shall be cut and chipped into piles along the low side of the clearing limits. All saw logs and fire wood shall be salvaged so far as possible, or stacked in locations as directed by engineer.

   All stumps within the limits of the planned earthwork shall be excavated and disposed of in an approved suitable location. Stumps and brush outside the limits of trench excavation shall be cut flush with the ground surface. See construction conditions for wetland areas.
6. Excavation and Backfill: Subsoil and topsoil from the grading and excavation shall be separated and piled individually for reuse so far as possible. See construction conditions for wetland areas.
7. Finish grading and preparation for seeding: Finish grading shall be as required to establish the disturbed areas.

   In general, stones, rocks and debris shall be removed from the surface. All breaks in grade shall be well rounded. The surface shall be thoroughly raked, dragged, or otherwise mechanically smoothed. When necessary the soil shall be loosened to a 2" depth. The degree of finish grading shall be as necessary to produce a surface consistent with the surrounding area and the pre-construction condition. As a minimum, disturbed areas shall graded with a small roller, seeded and mulched.

   Where the existing topsoil cannot be saved for reuse, supplements topsoil should be obtained from other sources

   Topsoil: Topsoil shall be applied to restore the original depth on fields and other mowed grass areas (4-inches minimum or as specified on the plans). Topsoil shall be of a quality to support vigorous plant growth. It shall be a workable loam, free of refuse, roots, stones, sticks, weeds or other material detrimental to plant growth. Topsoil shall not contain less than 3% organic matter. Burlap, or weight.

   Seeding Schedule: The seed shall be applied, at the rates indicated, as soon as possible after disturbance. Re-seeding shall be required if a vigorous growth is not achieved, or if seeding is after September 15th.

   Note: This seed mixture is a slight variation of the "Conservation Mix" sold by Oliver Seed. The required seed mixture was chosen to match the soil types that will be encountered on this project.

SEED	#/ACRE	RECOMMENDED VARIETY
Tall Fescue	50 lbs	Ky 31
Creeping Red Fescue	54 lbs	Pennlawn, Wintergreen, Ensyre
Crown Vetch	6 lbs	Penngift, Chemung
Annual Rye	20 lbs	
Perennial Rye	15 lbs	Pinto (non endophyte)
White Clover	40 lbs	
Kentucky Bluegrass	15 lbs	
total	200 lbs per acre	

8. Mulch: Application of mulch hay shall immediately follow seeding operations, and in no case greater than 24 hours later. Use of mulch and type of mulch used shall be approved by landowner. Mulch shall be applied at the rate of 2 tons/acre, or a uniform 2" to 3" depth. Mulch shall be secured in wet areas and on slopes by the twine and peg method, netting, tracking with a dozer, disk harrow, or other approved means. In wind swept areas or on certain slopes, "North American Green" or equal erosion control matting shall be installed in accordance with the manufacturer's specifications. See Details D, H, and I.

   Mulch hay shall consist of mowed and properly cured grass or legume material, reasonably free from swamp grass, weeds, twigs, debris or other deleterious material. It shall be free from rot or mold.
9. Erosion Control Blanket: Erosion control blanket, "North American Green S75" or approved equal shall be installed on disturbed road side embankments, disturbed steep slopes, and adjacent to waterways and other critical areas. Erosion control blanket shall be installed in accordance with the manufacturer's written instructions.

City of Burlington Public Works Dept.

Consultants:

Geotechnical Engineer

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T: (802) 674-2033
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Civil Engineer

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F: (802) 878-1618
email@krebsandlansing.com

For Permit Review Only
Not for Construction

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DEPARTMENT OF PLANNING & ZONING

Location Map
N.T.S.

Project:
City of Burlington Recreation Path Improvements

Project No. 12146
Scale N.T.S.
Drawn by DMP/GTD
Checked by
Date 9/11/12

Revisions
No. Date

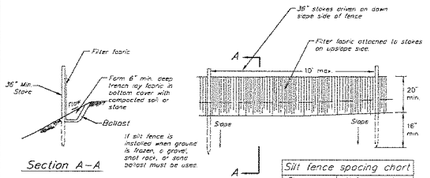
Drawing Title
DETAILS

Drawing No.
CD-1

12146\DWGS\base2012.dwg

NOTES:

1. Acceptable EPSC Measure details are provided above.
2. At a minimum, EPSC measures meet VT DEC Standards and Specifications for Erosion Prevention and Sediment Control or previously approved interchangeable practices
3. Perimeter controls shall be utilized in small areas ≤ 1 acre, in areas > 1 acre, temporary sediment traps or temporary sediment basins are to be utilized.
4. Perimeter controls shall be installed on downslope side of planned earth disturbance
5. Perimeter controls shall be installed prior to any earth disturbing activities within upslope contributing area.
6. Silt fence shall not be used as construction demarcation
7. See sheet EPSC-102 for J-hook silt fence installation detail.



Section A–A

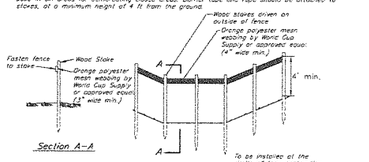
Silt fence spacing chart	
5% to 10%	50 ft. or less
10% to 20%	25 ft. or less
> 20%	15 ft. or less

Typical Temporary Silt Fence

N.T.S

NOTES:

1. Acceptable EPSC Measure details are provided below.
2. At a minimum, EPSC measures meet VT DEC Standards and Specifications for Erosion Prevention and Sediment Control or previously approved interchangeable practices.
3. Limits of disturbance (or "construction demarcation") shall be installed prior to any earth disturbing activities.
4. Barrier fence/Rope: for use where proposed disturbance borders non-wooded, vegetated areas more than 100 ft from the nearest water resource (stream, brook, lake, pond, wetland, etc.). Barrier fence is high visibility fiber-glass tape, minimum 1" in width commonly used in ski areas for demarcating closed areas. Barrier tape and rope should be attached to stakes, at a minimum height of 4 ft from the ground.



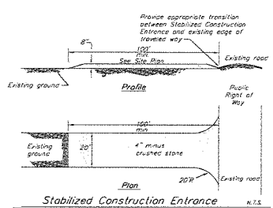
Section A–A

Typical Construction Limit Barrier

N.T.S

NOTES:

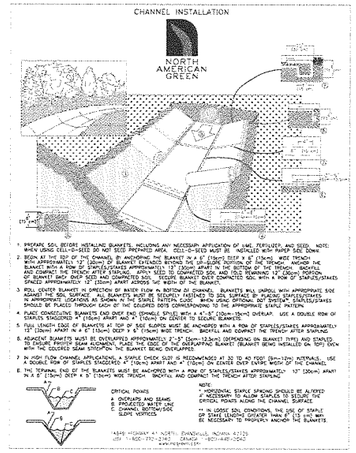
1. Minimum 1 to 2 rows of mesh barrier tape or minimum 2 to 3 rows of vinyl barrier tape to be installed along construction perimeter. See Table 11 above for specific barrier type to be used
2. Each row of barrier tape to be 4" wide minimum.
3. Barrier tape to be orange
4. Secure barrier tape to stakes or existing tree trunks with bottom row at 4' distance from ground surface (minimum).
5. Maintain and replace as needed. Remove at completion of project per OSPC.
6. In event the OSPC determines barrier tape is not sufficient, replace with orange construction fence or snow fence.

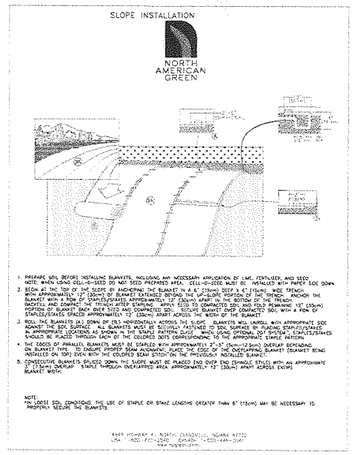


Stabilized Construction Entrance

N.T.S.

Note:
- Contractor shall stabilized construction entrance as required to prevent tracking of sediment off-site.
- Contractor to use Mirafi 500x under stone for temporary construction roads.
- Crushed stone shall be added or replaced when 80% of the voids are filled with sediment.





Erosion Control Blanket

North American Green SC150

Material Specifications

Erosion control blanket shall be a machine-produced mat with a 70% agricultural straw and 30% coconut fiber matrix.

The blanket shall be a consistent thickness with an even distribution of straw and coconut stitched between a heavy weight photodegradable polypropylene netting on the top side and a lightweight photodegradable polypropylene netting on the bottom side.

Straw/Coconut erosion control blanket shall be SC150 as manufactured by North American Green, Inc. (812-867-6832) or equivalent.

Material Content

Matrix	70% straw fiber (.35 lbs/sq.yd.) (.19 kg/m2)
	30% coconut fiber (.15 lbs/sq.yd.) (.08 kg/m2)
Netting	top side, heavyweight photodegradable with UV additives Weight approximately 2.0 lbs/1000 sq. ft. Bottom side, lightweight photodegradable Weight approximately 1.64 lbs/1000 sq. ft.
Thread	Degradable

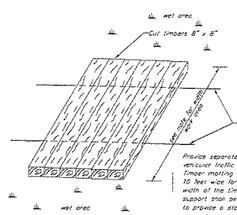
Physical Specifications (Roll)

Width	6.67 feet (2.03m)
Length	108 feet (32.92m)
Weight	40 lbs +/- 10% (18.14 kg)
Area	80 sq. yds (66.9m2)

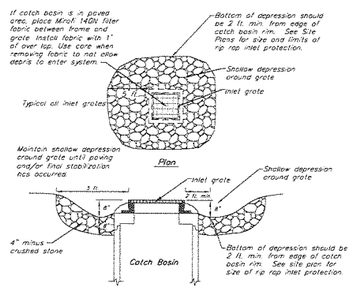
Installed as per manufacturer's specifications.

Timber Matting

N.T.S.



If catch basin is in paved area, place Mirafi 140N filter fabric between frame and grate. Install fabric with 1' of over lap. Use care when removing fabric to not allow debris to enter system.



Catch Basin Inlet Protection

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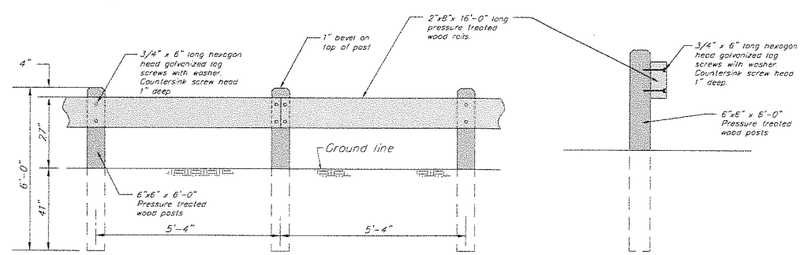
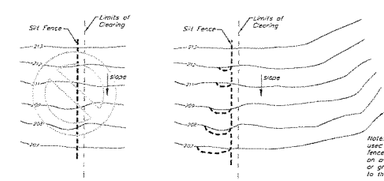


Guide Rail Detail

N.T.S.

Section Detail

Section Detail



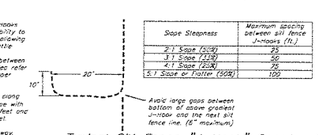
INCORRECT
Silt fence installed parallel to slope (perpendicular to contour) in one, long run.

CORRECT
Silt fence installed in shorter runs with J-hooks to avoid concentration of flows at one location by trapping runoff at multiple points along a slope.

NOTES:

1. Proper installation of J-hooks provides silt fence the ability to temporarily pond runoff, allowing time for sediments to settle
2. Long runs of silt fence between J-hooks should be avoided, refer to adjacent table for proper spacing of J-hooks
3. J-hooks should be built along contour in a "smile" shape with a minimum width of 20 feet and minimum depth of 10 feet
4. Along a narrow right of way, narrower J-hooks can be used with a higher spacing frequency

Slope Steepness	Maximum spacing between silt fence J-hooks (ft.)
2:1 Slope (50%)	25
3:1 Slope (33%)	50
4:1 Slope (25%)	75
5:1 Slope or Flatter (20%)	100



Typical Silt Fence "J-Hook" Construction

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