**MATERIAL TOLERANCES**

**MATERIAL ITEM**
- **THICKNESS TOLERANCE**
  - **PAVEMENT (FULL DEPTH)**
  - **SUBBASE**
  - **SAND BORROW**
    - +/− " (TOTAL THICKNESS)
    - 1"
    - 1 1/2"
    - 2"
    - 3 1/2"

**NOTES FOR ALL TYPICAL SECTIONS:**
- The minimum paved path width shall be 11'-0" unless otherwise noted on the plans.
- The path shall have a uniform two percent cross slope in the direction shown in the plans, and the surface shall be drained to match.
- All shared use paths shall meet the requirements of the Americans with Disabilities Act to the extent possible given existing conditions, refer to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for specific details.
- Any tree roots encountered within the excavation limits shall be pruned and protected. The cost of this work is incidental to the work, clearing and grubbing, including individual trees and stumps.
- Stone fill type (LAP) required on any slope steeper than 1:2 shall be paid under the respective unit plans.
- Ditches shall receive the following treatments based on their slope, unless shown otherwise on the plans:
  - A) 0-1% SEED AND MULCH
  - B) 0-1% SEED AND MULCH
  - C) 1-2.5% ROLLED EROSION CONTROL PRODUCT, TYPE I AND SEED
  - D) 2.5-10% TYPE I STONE FILL - 1'-0" DEPTH
  - E) TYPE II STONE FILL - 2'-0" DEPTH
- Payment of ditch line treatments shall be under the following respective unit item parish:
  - A) 0-1% SEED AND MULCH - 563.20
  - B) 1-2.5% ROLLED EROSION CONTROL PRODUCT, TYPE I - 653.20
  - C) 2.5-10% TYPE I STONE FILL - 1'-0" DEPTH
  - D) TYPE II STONE FILL - 2'-0"

**RECOVERY AREA TABLE**

<table>
<thead>
<tr>
<th>SIDE SLOPE</th>
<th>WINCH</th>
<th>RECOVERY WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;= 1:2</td>
<td>4'-0&quot;</td>
<td>&gt;= 10'</td>
</tr>
<tr>
<td>1:2</td>
<td>3'-0&quot;</td>
<td>&gt;= 7'</td>
</tr>
<tr>
<td>1:3</td>
<td>4'-0&quot;</td>
<td>&gt;= 5'</td>
</tr>
<tr>
<td>1:4</td>
<td>5'-0&quot;</td>
<td>0</td>
</tr>
<tr>
<td>&gt;1:4</td>
<td>6'-0&quot;</td>
<td>0</td>
</tr>
</tbody>
</table>

**ALTERNATIVE SLOPE TREATMENTS**

- **SAND BORROW**
  - AS NEEDED
- **MULCH**
  - FERTILIZER & SEED, 6" TOPSOIL, SEED, FERTILIZER & MULCH

**REVISED SHEET 3 OF 77**
**Gravel Side Path Typical Section**

- 9" Subbase of Dense Graded Crushed Stone
- 2'-0" Shoulder
- Shared Use Path
- 11'-0" Paved
- Apron
- Varies

**Shared Use Path**

- 9" Shoulder
- 2'-0"

**Gravel Side Path Typical Plan**

- Adjustable Shoulder
- Shared Use Path
- Paved
- 11'-0"

**Paved Side Path Typical Section**

- 9" Subbase of Dense Graded Crushed Stone
- 2'-0" Shoulder
- Shared Use Path
- 11'-0" Paved
- Apron
- Varies

**Paved Side Path Typical Plan**

- Adjustable Shoulder
- Shared Use Path
- Paved
- 11'-0"
THREE RAIL PEDESTRIAN FENCE

NOTES:
1. Posts and rails shall conform to T.O.01 - Structural Lumber and Timber.

TYPICAL PATH CENTERLINE PAVEMENT MARKING

NOTE:
1. Not to Scale

SECTION A-A
STONE REVETMENT INSTALLATION

N.T.S.
STA. 315+70 - STA. 410+77, LT

EXISTING GROUND

LAKE CHAMPLAIN

EXISTING 2' x 2' CONCRETE BLOCK RETAINING WALL

GEOTEXTILE UNDER STONE FILL

GEOTEXTILE FOR ROADBED SEPARATOR

5'-6" SPECIAL PROVISION (STONE REVETMENT MATERIAL)

ROAD PLANT MITIGATION (SAND SEED BANK)

EXISTING GROUND (ORNAMENTAL FENCE)

SPECIAL PROVISION (STONE REVETMENT MATERIAL)

ROADBED SEPARATOR

3'-6"

STONE FILL, TYPE I

1:1

STONE FILL

3'-0"

1'-0"

VARIUS

4'-0"

2'-0"

11'-0"

3'-0"

6'-0"

RAILROAD

REMOVAL AND RESET FENCE

SUITABLE EXCAVATED MATERIAL OR EARTH AS NEEDED

GRADE CRUSHED STONE

9", SUBBASE DENSE

10'-0"

2'-0"

5" SPECIAL PROVISION (STONE SCREENINGS) (TYP)

2 1/2 LIFTS OF BURLINGTON CONCRETE PAVEMENT, TYPE IV

REMOVAL AND RESET 10" CONCRETE BLOCK (INCIDENTAL TO STONE REVETMENT MATERIAL)

REMOVAL AND RESET 10" CONCRETE BLOCK (INCIDENTAL TO STONE REVETMENT MATERIAL)

GEOTEXTILE UNDER SHLDR.

BLOCK RETAINING WALL

EXISTING 2' x 2' CONCRETE BLOCK RETAINING WALL

SCREENINGS) (TYP)

REDISTRIBUTION AREA (ITEM RARE PLANT MITIGATION SAND SEED BANK)

5'-6"

10'-0"

ROADWAY REMOVE AND RESET FENCE

SPECIAL PROVISION (STONE REVETMENT MATERIAL)

SPECIAL PROVISION (STONE REVETMENT MATERIAL)

REMOVAL AND RESET FENCE

REMOVAL AND RESET FENCE

PROJECT NAME: BURLINGTON BIKE PATH PHASE 3A
PROJECT NUMBER: 580800

FILE NAME: BURLINGTON BIKE PATH PHASE 3A

PLOT DATE: 4/23/2019

DRAWN BY: CALIFD

CHECKED BY: CALIFD

DATE SHEET 12 OF 15

SHEET 5 OF 15
NOTES:
1. SEE VTRANS SPECIFICATION 656.11, TREE PROTECTION, FOR STEPS TO MINIMIZE SOIL AND ROOT DISTURBANCE AND GUIDANCE TO CONSTRUCT PROTECTION MEASURES FOR TREES CLOSE TO CONSTRUCTION AREAS.
2. NO WORK, NOR HEAVY EQUIPMENT STORAGE SHALL BE WITHIN A TREE PROTECTION ZONE.

TREE PROTECTION

3'-0" MIN. PLASTIC OR WOODEN SNOW FENCE

EXISTING GRADE

3"-8" STRUCTURAL TIMBER, TREATED

8" x 8" STRUCTURAL TIMBER, TREATED

LIMIT OF TREE PROTECTION ZONE (TPZ)

FENCE POST 18" LENGTH MIN.

BURied FENCE POST 1/2 OF OVERALL LENGTH (3' MIN.)

EXISTING FENCE TO REMAIN UNDISTURBED

EXISTING GROUND

DO NOT BURY FENCE POST

TREATED 8"x8" STRUCTURAL TIMBER

TW0 1-1/2" LOTS OF BITUMINOUS CONCRETE PAVERMENT, TYPE IV

9" SUBBASE OF DENSE GRADED CRUSHED STONE

8" SAND BORROW

H.T.S.

CONCRETE PAVEMENT, TYPE IV

TWO 1-1/2" LISTS OF BITUMINOUS CONCRETE PAVERMENT, TYPE IV

TOPSOIL, SEED, FERTILIZER & MULCH

SPECIAL SEED, FERTILIZER & MULCH

TREATED 8"x8" STRUCTURAL TIMBER, TREATED

8'-8" STRUCTURAL TIMBER, TREATED

6" SAND BORROW

TIMBER RETAINING WALL

N.T.S.

STA. 424+77 - STA. 426+05, RT N.T.S.
1. ALL RAILING COMPONENTS TO BE POWDER COATED BLACK.

2. ALL JOINTS TO BE WELDED AND GROUND SMOOTH.

3. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR FENCE ASSEMBLY, LAYOUT AND ATTACHMENT TO STEEL POST FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.

4. ALL POSTS TO BE +/- 8' o.c. SPACING, FIELD VERIFY LANDSCAPE ARCHITECT.

NOTES:

- ALL UNDER GROUND CONDUITS SHALL BE SCHEDULE 40 PVC.
- ACTUAL TRENCH WILL INCLUDE MORE CONDUITS.
- USE UTILITY CONDUIT INSTALLATION PER UTILITY REQUIREMENTS.
- CONDUITS NOT PART OF CONCRETE ENCASED DUCTBANK.
- FIELD COORDINATED WITH NEW AND EXISTING UTILITIES.

- Refer to specification for additional requirements.
-炒面

- Topsoil should be stockpiled on site in a controlled area at least 50 feet from surface waters, wetlands, floodplains, or other critical resources.

- Stockpiled topsoil shall also be amended, if needed, to meet the organic content requirements identified above.

- Water or Roll soils in turf areas to 85% of maximum dry density.

SOIL DEPTH AND QUALITY STANDARD

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 stormwater disconnection areas during path construction. 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.

- Topsoil shall be stockpiled on site in a controlled area at least 50 feet from surface waters, wetlands, floodplains, or other critical resources.

- Stockpiled topsoil shall be amended, if needed, to meet the organic content requirements identified above.

- Water or roll soils in turf areas to 85% of maximum dry density.

- Scarify or till the subgrade to a depth of 4 inches. Except for within the drip line of existing trees, the entire subgrade shall be disturbed by scarification.

- Place a utility or stockpiled topsoil mix that contains 4% organic matter. Soil 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.

- Use test holes solely by the weight of the inspector and shall be a minimum of 9 test holes per acre of area subject to this standard. These test holes shall be excavated to a depth of 6 inches using only a shovel driven solely by the weight of the inspector and shall be a minimum of 50 feet apart.

- 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 9 test holes per acre of area subject to this standard. These test holes shall be excavated to a depth of 6 inches using only a shovel driven solely by the weight of the inspector and shall be a minimum of 50 feet apart.

- The maximum contributing flow path length across the stormwater disconnection area to any discharge location shall be 75 feet or less.

- The amount of contributing impervious area to any point discharge location cannot exceed 1,000 square feet.

- The length of the contributing impervious flow path length for slopes 8% or less, and twice the contributing impervious flow path length for slopes 8% - 15%.

- Runoff cannot come from a designated hotspot land use.

- Import topsoil mix of sufficient organic content and depth.

- When grading for disconnection areas, the contractor shall not disturb the ground within 4' of the trunk base for all trees with a diameter of 6" or greater and intend to remain throughout construction.

- The contractor shall not disturb the ground within 4' of the trunk base for all trees with a diameter of 6" or greater and intend to remain throughout construction.

- 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 greater than 2 inches in diameter.

- Water or roll soils 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 9 test holes per acre of area subject to this standard. These test holes shall be excavated to a depth of 6 inches using only a shovel driven solely by the weight of the inspector and shall be a minimum of 50 feet apart.

- 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 9 test holes per acre of area subject to this standard. These test holes shall be excavated to a depth of 6 inches using only a shovel driven solely by the weight of the inspector and shall be a minimum of 50 feet apart.

- Water or roll soils in turf areas to 85% of maximum dry density.
1. Polyurethane sealer shall be used on all joints exposed to the atmosphere.
2. Construction joints shall be every 29'-8" and expansion joints shall be every 89'-4".
3. Polyurethane sealer shall be used on all joints exposed to the atmosphere.
4. Two 1½" lifts of bituminous concrete pavement, Type IV, shall be used.
5. Special provision for exposed aggregate concrete.
7. Reinforcing steel, Level I (black steel) at a rate of 0.10 gal/sq ft.
8. Polyurethane sealer shall be applied between stone fill, Type I.
9. Two 1½" lifts of bituminous concrete pavement, Type IV, shall be used.
10. Geotextile under stone fill, Type I.

NOTE: The only portions of the concrete that require an exposed aggregate finish are the surfaces of the 2' wide shoulders. Special provision for exposed aggregate concrete.
BEGIN PROJECT
STA. 0+14.72

12' INCH WHITE LINE
STA 0+29, LT
REMOVING SIGNS
STA 0+27, RT
REMOVING SIGNS
STA 0+29, LT
REMOVING SIGNS
STA 0+30 - 5+50, LT
REMOVING AND RESETING FENCE
STA 0+27, RT
REMOVING SIGNS
STA 0+29, LT
REMOVING SIGNS
STA 0+27, RT
REMOVING AND RESETING FENCE

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 0+31 - 5+50, LT
STA 0+30 - 5+50, RT
REMOVING AND RESETING FENCE

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS LONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

STATIONING AND ELEVATIONS IN FEET (TYP.)

STATIONING AND ELEVATIONS IN FEET (TYP.)

PROJECT NUMBER: 5809.00

DESIGNED BY: B. DUNNAGAN
CHECKED BY: B. M. ROBERTS
DATE: 4/23/2019

FILE NAME: BURLINGTON BIKE PATH
PROJECT NAME: BURLINGTON BIKE PATH PHASE 3A
PLAN AND PROFILE (SHEET 1 OF 12)
18

The grades shown to the nearest tenth are the original ground elevations along the proposed alignment.

The grades shown to the nearest thousandth are the finish grades along the proposed alignment.

Stationing and elevations in feet (typ.).

4 Inch Yellow Line
STA S+50 - T+25, RL (Dashed)
STA T+25 - 10+25, BL (Solid)
STA 10+25 - 11+25, BL (Dashed)

Removing and Replacing Fence
STA S+50 - 10+25, RL

BITUMINOUS BIKE PATH
WOODED

CHAIN LINK FENCE
WOODED

HEDGE ROW

BITUMINOUS BIKE PATH

CONCRETE WALK CURB

5' CHAIN LINK FENCE

SIDES SHOULDERS ON BOTH
2' AGGREGATE
10' PAVED PATH WITH

SCALE
0 20 40
IN FEET
0 10 20

BL (DASHED) BL (SOLID) BL (DASHED)
THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

STATIONING AND ELEVATIONS IN FEET (TYP.)

4 INCH YELLOW LINE
STA 11+25 - 12+75, BL (DASHED)
STA 12+75 - 15+25, BL (SOLID)
STA 15+25 - 16+75, BL (DASHED)

REMOVING AND RESETTING FENCE
STA 16+00 - 18+50, LT

STATION AND ELEVATION (SHEET 3 OF 12)

STA 15+25 - 16+75, BL (DASHED)
STA 12+75 - 15+25, BL (SOLID)
STA 11+25 - 12+75, BL (DASHED)
4 INCH YELLOW LINE
GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

STATIONING AND ELEVATIONS IN FEET (TYP.)

ELEV 168.06
PVI 17+14.02

ELEV 166.00
PVI 17+50.00

ELEV 163.94

ELEV 162.99
PVI 18+26.57

ELEV 161.42

ELEV 160.7
PVI 18+95.00

ELEV 159.60
PVI 18+38.75

ELEV 158.57

ELEV 157.16
PVI 19+06.25

ELEV 156.50

ELEV 155.87

ELEV 154.61

ELEV 153.80

ELEV 152.34
PVI 19+50.00

ELEV 151.00

ELEV 149.70

ELEV 149.50

ELEV 147.1'

ELEV 147.6'

ELEV 147.5'

ELEV 146.50

ELEV 145.00

ELEV 144.00

ELEV 143.00

ELEV 142.00

ELEV 141.00

ELEV 140.00

ELEV 139.00

ELEV 138.00

ELEV 137.00

ELEV 136.00

ELEV 135.00

ELEV 134.00

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ELEV 81.00

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ELEV 63.00

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ELEV 14.00

ELEV 13.00

ELEV 12.00

ELEV 11.00

ELEV 10.00

ELEV 9.00

ELEV 8.00

ELEV 7.00

ELEV 6.00

ELEV 5.00

ELEV 4.00

ELEV 3.00

ELEV 2.00

ELEV 1.00

ELEV 0.00

PLAN AND PROFILE (SHEET 4 OF 12)
Ground Elevations Long the Proposed Alignment.

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

STATIONING AND ELEVATIONS IN FEET (TYP.)

PROJECT NUMBER: 5883.00
PROJECT NAME: BURLINGTON BIKE PATH PHASE 3A
FILE SHEET NUMBER: 555 PG. 566
PLOT DATE: 4/23/2019
DRAWN BY: B. M. ROBERTS
CHECKED BY: E. P. DETRICK
DESIGNED BY: S. A. SAULEY
PLANNED AND PROFILE SHEET 8 OF 22
PLAN AND PROFILE (SHEET 11 OF 12)

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL
GROUND ELEVATIONS LONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH
GRADES ALONG THE PROPOSED ALIGNMENT.

STATIONING AND ELEVATIONS IN FEET (TYP.)

PROJECT NAME: BURLINGTON BIKE PATH PHASE 3A
PROJECT NUMBER: 5809.00
FILE NO.: WORKSHOP-110
PROJECT LEADER: C. GOODWIN
DRAWN BY: E. FLETCHER
CHECKED BY: A. E. DETRICK
DESIGNED BY: A. E. DETRICK
PLAN AND PROFILE SHEET 27 OF 77
**BID ALTERNATE (STONE FILL, TYPE II)**

**TYPICAL SECTION**

**N.T.S.**

STA 412485 - 416400, LT

---

**ADJUST EXISTING STONE REVETMENT MATERIAL TO HAVE A SIMILAR APPEARANCE TO THE REVETMENT NORTH OF THE BID ALTERNATIVE. USE ADDITIONAL STONE AS NEEDED TO FILL IN GAPS AND MAKE THE REVETMENT NATURAL. USE STONE FILL TYPES III AND IV TO FILL LARGE Voids AND STONE FILL TYPE II TO FILL SMALL GAPS.**
<table>
<thead>
<tr>
<th>DECIDUOUS TREE</th>
<th>QTY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>Acer x freemanii <code>Sienna</code></td>
<td>Sienna Glen Maple</td>
<td>2 1/2 - 3&quot; CAL./ B&amp;B</td>
</tr>
</tbody>
</table>

Notes:
Refer to planting details, notes and specifications for plant related installation requirements.
PLANT SCHEDULE

<table>
<thead>
<tr>
<th>DECORATIVE</th>
<th>QTY</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARS</td>
<td>7</td>
<td>Acer rubrum <code>Red Sunset</code></td>
<td>Red Sunset Maple</td>
<td>2 1/2 - 3&quot; CAL.</td>
</tr>
<tr>
<td>AF</td>
<td>11</td>
<td>Acer x freemanii <code>Sienna</code></td>
<td>Sienna Glen Maple</td>
<td>2 1/2 - 3&quot; CAL./ B&amp;B</td>
</tr>
<tr>
<td>AG</td>
<td>7</td>
<td>Amelanchier x grandiflora <code>Autumn Brilliance</code></td>
<td><code>Autumn Brilliance</code> Serviceberry</td>
<td>6 - 8&quot; HT./Multi-Stem</td>
</tr>
<tr>
<td>BN</td>
<td>7</td>
<td>Betula nigra <code>Heritage</code></td>
<td>Multi-Stem Heritage River Birch</td>
<td>12 -14&quot; HT.</td>
</tr>
<tr>
<td>QB</td>
<td>6</td>
<td>Quercus bicolor</td>
<td>Swamp White Oak</td>
<td>10 GAL.</td>
</tr>
</tbody>
</table>

Notes:
Refer to planting details, notes and specifications for plant material installation requirements.
### Plant Schedule

<table>
<thead>
<tr>
<th>Unit</th>
<th>Qty</th>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Size</th>
<th>Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN2</td>
<td>31</td>
<td>Physocarpus opulifolius</td>
<td>Ninebark</td>
<td>18-24&quot;</td>
<td>36&quot; o.c.</td>
</tr>
<tr>
<td>CA2</td>
<td>38</td>
<td>Cornus stolonifera <code>Arctic Fire</code></td>
<td>Arctic Fire Dogwood</td>
<td>18-24&quot;</td>
<td>48&quot; o.c.</td>
</tr>
</tbody>
</table>

**Notes:**
Refer to planting details, notes and specifications for plant material installation requirements.
NOTES:
1. COLOR TO BE BLACK POWDER COAT.
2. LOCATION TO BE VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. REFER TO SPECIFICATIONS.

3'-0" TYP.

PLAN

ELEVATION

BIKE RACK

SCALE 1" = 1'

NOTES:
1. COLOR TO BE BLACK POWDER COAT.
2. LOCATIONS TO BE VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

EXPOSED AGGREGATE CONCRETE PAD, REFER TO TYPICAL BIKE PATH DETAILS

IN-GROUND MOUNT
CORE DRILLED AND SET W/ EPOXY GROUT

SURFACE MOUNT,
INSTALL USING MANUFACTURER'S RECOMMENDATIONS FOR NEW SIDEWALK INSTALLATIONS.

BIKE RACK

SCALE 1" = 1'

NOTES:
1. COLOR TO BE BLACK POWDER COAT.
2. LOCATION TO BE VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. REFER TO SPECIFICATIONS.

EXPOSED AGGREGATE CONCRETE WALK, REFER TO TYPICAL BIKE PATH DETAILS

LOOP BIKE RACK
REFER TO SPECIFICATIONS
NOTES:
1. BENCH LENGTH TO BE 6 FEET
2. COLOR TO BE BLACK POWDER COAT
3. REFER TO LANDSCAPE PLANS FOR LOCATIONS
4. BENCH TO BE SET ON A 4'x7' PRECAST CONCRETE PAD.
5. INSTALL BENCH PER MANUFACTURER'S RECOMMENDATIONS.

PRECAST CONCRETE BENCH PAD
SCALE 1" = 1'-0"

6" PRECAST CONCRETE PAD
4,000 PSI CONCRETE
REINFORCED W/S.W.F.
8" SUBBASE OF DENSE GRADED CRUSHED STONE

NOTES:
1. BENCH LENGTH TO BE 6 FEET
2. COLOR TO BE BLACK POWDER COAT
3. REFER TO LANDSCAPE PLANS FOR LOCATIONS
4. BENCHES TO BE SET ON A 4'x7' PRECAST CONCRETE PAD.
5. INSTALL BENCH PER MANUFACTURER'S RECOMMENDATIONS.
**Tree Protection**

1. Existing trees to remain shall be protected with temporary fencing and/or guards extending out one foot in all directions from the edge of the tree canopy.
2. Contractor shall not permit damage to any existing trees which are to remain on the site.
3. Contractor shall not permit any compaction of the root zone of any existing trees which are to remain on the site.
4. Planting Notes
   1. All proposed planting locations shall be staked as shown on the plans for relocation and approval by the landscape architect prior to installation.
   2. Contractor shall verify locations of all existing grade and mains drainage lines and notify owner's representative of conflicts.
   3. No planting materials shall be installed until all grading and construction has been completed in the immediate area.
   4. A 3' deep-balled-in specification shall be installed around all trees and shrubs and in all planting beds unless otherwise indicated on the plans, or as directed by owner's representative.
   5. All trees shall be balled and burlapped, unless otherwise noted in the specifications or approved by the owner's representative.
   7. Final quantity for each plant type shall be obtained by counting all plants shown on the plant list and on the plan. The contractor shall report any discrepancy between the number of plants shown on the plan list and plant label prior to receipt.
6. All proposed plant substitutions must be reviewed by landscape architect and approved in writing by the owner's representative.
8. All plant materials shall be guaranteed for one year following delivery and approved by owner's representative.
9. Areas designated "SHRUB & BUSH" shall receive nursery shrub or bush and are to be planted in groups of not less than 2.5' in diameter unless noted.
10. All disturbed areas not otherwise noted in contract documents shall be covered over with material as directed by owner's representative.
11. This plan is intended for planting purposes. Refer to site / civil plans for field review and approval by the landscape architect.

**Plant Maintenance Notes**

1. Contractor shall provide complete maintenance of the landscape and plantings as needed. This is for the initial one-year period. After this, the contractor shall supply supplemental irrigation for new plantings during the one-year plant guarantee period.
2. Contractor shall supply all materials, labor, and equipment for the complete landscape maintenance work. Water shall be provided by the contractor.
3. Watering shall be required during the growing season when natural rainfall is below one inch per week.
4. Water shall be applied in sufficient quantity to thoroughly saturate the soil to the root zone of each plant.
5. Contractor shall imbed irrigation lines of all plants at the end of the one-year guarantee period. Contractor shall turn off maintenance to the facility maintenance staff at that time.

**Construction Notes:**

1. All proposed planting areas shall be staked as shown on the plan for relocation and approval by the landscape architect prior to installation.
2. Contractor shall not permit damage to any existing trees which are to remain on the site.
3. Contractor shall not permit any compaction of the root zone of any existing trees which are to remain on the site.

**Planting Notes**

1. Refer to planting plan for spacing and quantities.
2. All planting beds are to be continuous and completely dug out and backfilled with the proper landscape backfill material.

**Tree Planting Plan**

- **C. Perennial Planting**
  - Scale: 1/2" = 1'-0"
  - Plant center
  - Plant row
  - Plant spacing
  - Plantings
  - Sub grade

- **D. Shrub Planting**
  - Scale: 1/2" = 1'-0"
  - Plant center
  - Plant row
  - Plantings
  - Sub grade

**Surrounding Soil**

Soil shall be compacted to less than 80% by volumetric method, and drainage shall be provided as shown on the plans, or as directed by owner's representative.

**Tree Protection Area**

- Top of root flare, root flares / main order root shall be protected.
- All trees shall be protected from damage by the contractor.
- All trees shall be protected with temporary fencing or equivalent.

**Tree Staking Layout**

- A. Tree staking along road or walks
  - Edge of walk or curb
- B. Tree staking in open spaces
  - Edge of walk or curb
- C. Tree guying

**Planting Procedure**

- 1. Examine entire tree and remove all nursery tags, rope, string, or surveyor's tape to prevent future girdling.
- 2. All tree planting beds are to be continuous and completely dug out and backfilled with the proper landscape backfill material, refer to specifications.
- 3. Diameter of the root ball unless tree is being planted in natural landscape bed/fit.

**Tree Guying**

- 1. Examine entire tree and remove all nursery tags, rope, string, or surveyor's tape to prevent future girdling.
- 2. All tree planting beds are to be continuous and completely dug out and backfilled with the proper landscape backfill material, refer to specifications.
LAKE CHAMPLAIN

LIGHT FIXTURE - (FIXTURE-A)

Pole:
SLA17

Mounting Arm:

Manufacturer:
UCM - (Universe Collection)

Lamp:
32 Watt LED - 4,000k

Options:

GFI w/ waterproof cover, 18" Banner Arms

Hood:
Straight, No Luminous Element

Optics:
T3

Lens:
Flat

Color:
Black

Fixed

FIXTURE AND POLE SPECIFICATIONS

PROJECT NAME: BURLINGTON BIKE PATH PHASE 3A
PROJECT NUMBER: AP10000
FILE NAME: LIGHTING PLAN
DRAWN BY: M.K. MILLARD
SHEET 37 OF 72

Feet
FIXTURE AND POLE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Fixture A</th>
<th>Pole Color: Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Options:</td>
<td>GFI w/ waterproof cover, 18&quot; Banner Arms</td>
</tr>
<tr>
<td>Post:</td>
<td>1566-47' (Wall thickness TBD based on EPA)</td>
</tr>
<tr>
<td>Mounting Arm:</td>
<td>SL-17</td>
</tr>
<tr>
<td>Pole Color:</td>
<td>Black</td>
</tr>
</tbody>
</table>

Architectural Area Lighting
UCM - Universe Collection
Single
Drop, No Luminous Element
T3
32 Watt LED - 4,000k
Flat
Black

DB6-4F14' (Wall thickness TBD based on EPA)
NOTES:

1. CONTRACTOR SHALL PROVIDE FINAL DESIGN AND INSTALLATION OF HELICAL ANCHOR SYSTEM WITH 24" DIAMETER CONCRETE COLLAR BY ENTERPRISE CONCRETE COLLARS OR APPROVED EQUAL COLLAR.
2. COORDINATE ALL COMPONENTS WITH LIGHT POLE DESIGN AND ELECTRICAL DESIGN.
3. LIGHTING FOUNDATION SHALL BE SUFFICIENT TO MEET OR EXCEED EPA RATING OF LIGHT POLE SYSTEM.
4. REFER TO SPECIAL PROVISION FOR HELICAL LIGHTING FOUNDATION

HELICAL LIGHT FOUNDATION

SOURCE: HUBBLE POWER SYSTEMS
1.1 PROJECT DESCRIPTION
This project involves the realignment of the existing path pavement, the widening and repaving of the path installation of pedestrian markings, signs, concrete sidewalks, ramps, fencing, reestablishment installation and repairs along the waterfront. There is also the construction of a bioretention basin at Leedy Park.

Note: Area of disturbance includes limits of earth disturbance within the project area, but does not include waste, borrow and staging areas. Proposed staging areas will be placed at the end of the project and will not require additional earth disturbance. All erosion prevention and sediment control measures are required for waste, borrow, and staging areas outside the project limits shall be incidental to contract items.

No stockpiles shall be located below the ordinary high water (OHW) elevation of Lake Champlain.

Total Area of Disturbance as shown on the attached EPSC Plan is approximately 3.66 acres.

This is anticipated that this project will last one construction season.

1.2 SITE INVENTORY
1.2.1 TOPOGRAPHY
Under existing conditions, a stormwater runoff from the site either infiltrates at adjacent vegetated areas or flows over land to lake Champlain or to, drained tributaries of Lake Champlain. The project area topography is relatively flat along its length, with some steeper side slopes. As the original path is built along a former railroad corridor, the attached EPSC Plans depict the existing lane cover and topography along the path.

1.2.2 DRAINAGE, WATERWAY, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES
The major watersheds associated with the project site lake Champlain. Lake Champlain is not included on the state of Vermont 303(d) list of waters. Even a portion of the project area via sheet flow to adjacent vegetated area.

1.2.3 VEGETATION
The vegetation in the project area consists of grassed shoulders and side slopes, hardwood trees, conifer trees and undergrowth. The impact to vegetation will be limited to that which is directly affected by widening the path and extending slopes as required. Upon project completion, the disturbed vegetation will be reestablished with standard seed and mulch practices.

1.2.4 SOILS
All soil data came from the J.S. Department of Agriculture soil conservation service for the county of Chittenden. Vermont. Soil on the project site are full material, H-10, 0.0-0.5, 10-50 percent, and a very low water level. The majority of the disturbance for the project will take place in full material and low slopes.

Note: K-values generally indicate the following:
0.0-0.23 = Low erosion potential
0.24-0.36 = Moderate erosion potential
0.37 and higher = High erosion potential

1.2.5 SENSITIVE RESOURCE AREAS
Critical habitats:
HISTORICAL OR ARCHAEOLOGICAL:
YES:
PRIME AGRICULTURAL LAND:
THREATENED AND ENDANGERED SPECIES:
NO:
WATER RESOURCE - LAKE CHAMPLAIN:
WETLANDS:
NO
1.3 RISK EVALUATION
This project falls under the jurisdiction of general permit J-902 for stormwater runoff from construction sites for low risk projects. Any modifications to the project that increase the risk to environmental resources shall be evaluated in accordance with the permit requirements. The contractor will be responsible for any additional permitting.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL
The erosion control plan are meant as a guideline for preventing erosion and controlling sediment transport. The principles utilized in this chapter have been developed as a basis for protecting resources and will need to be built upon and modified throughout the construction of the project in order to minimize sediment transport to the receiving waters. The measures include stabilization and construction practices, stormwater controls and other pollution prevention practices. They have been proposed by the designer to a basis for protecting resources and will need to be built upon and modified throughout the specific means and methods of the contractor. Refer to the low risk site handbook and provide detail for this specific guidance and construction details.

All measures shall be regularly maintained and shall be checked for sediment build-up. Sediment shall be disposed of at an approved site. If it will not be suitable, it will be deposited in the project area.

1.4.1 MARK SITE Boundaries
Site boundaries and areas construction access shall be delineated. Project demarcation fixtures (PDF) shall be used to physically mark site boundaries. Due to the fact that project falls under "NE 303 (c) 1990, barrier fence shall be used instead of project demarcation fence within 100 feet of a water resource (stream, brook, lake, pond, wetland, etc.).

1.4.2 LIMIT DISTURBANCE AREA
Preventing initial soil erosion by minimizing the exposed area is much more effective than treating already disturbed earth. Disturbance can be minimized through construction practices only if properly designed. This can limit the area that will be disturbed and exposed to erosion. Employ temporary construction stabilization practices in incremental stages or phases change. If projects fall under the 303(c) 1990, general permit, then the acreage listed on the permit authorization may be exposed at any given time.

Maintaining vegetated banks and stream banks, wetlands or other sensitive areas is a crucial erosion and sediment control measure that should be established wherever possible.

1.4.3 SITE ENTRANCE/EXIT TRIBULATION TRACKING OF SEDIMENT FROM PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL BE CONDUCTED WITH THE CONTRACTORS PROCESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE ELSE AND USEFUL MATERIALS WILL BE IMPLEMENTED FROM AREAS OF EXPOSED SOILS TO COVER SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS
SEGMENT BARRIERS SHALL BE USED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS SHOWN ON THE EPSC PLAN. BECAUSE THIS PROJECT FALLS UNDER THE 303(c) 1990, WOMEN HAVE NOT RECHTICAL TO USE IT WHEN TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ATYPICAL FOR INVERSION MEASURES WILL BE NEEDED.

1.4.5 SLOW DOWN CHANNELED RUNOFF
CHECK STATIONS SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THEREFORE INCREASED POTENTIAL OF CONCENTRATED FLOW IN CHANNELS.
STON CHECK DAMS WILL BE INSTALLED AS SHOWN ON THE EPSC PLAN, AT A MINIMUM.

1.4.7 PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

1.4.8 STABILIZED EXPOSED SLOPES DURING CONSTRUCTION
All areas of disturbance must have temporary stabilization in place within 48 hours of disturbance or in accordance with the construction general permit J-902 authorization.

SLOW EROSION OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY WASHING, SHALL BE UNITS ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MAT OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:1.5.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION
VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

1.4.10 INSPECT YOUR SITE
INSPECT THE SITE PROJECT BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STANDARDS.

1.5 SEQUENCE AND STAGING
THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR FOLLOWING THE GUIDELINES OF THE LOW RISK HANDBOOK AND CONDITIONS OF THE CONSTRUCTION GENERAL PERMIT.
THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS LONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

STATIONING AND ELEVATIONS IN FEET (TYP.)
The grades shown to the nearest tenth are the original ground elevations along the proposed alignment.

The grades shown to the nearest hundredth are the finish grades along the proposed alignment.

STATIONING AND ELEVATIONS IN FEET (TYP.1)
RELOCATE COMMEMORATIVE BOLLARD TO STA. 1005+10, LT

END PROJECT
STA. 1005+16.37

REMOVAL EXISTING PAVEMENT AND PAVE TO LIMITS OF EXISTING PATH

V T S T A T E  P L A N E  G R ID
False Northing: 0.0000
False Easting: 1640416.6667
Origin Latitude: 42°30'00.0000"N
Central Meridian: 72°30'00.0000"W
US Survey Foot Transverse Mercator
N A D 83 V T E R M O N T S T A T E P L A N E S