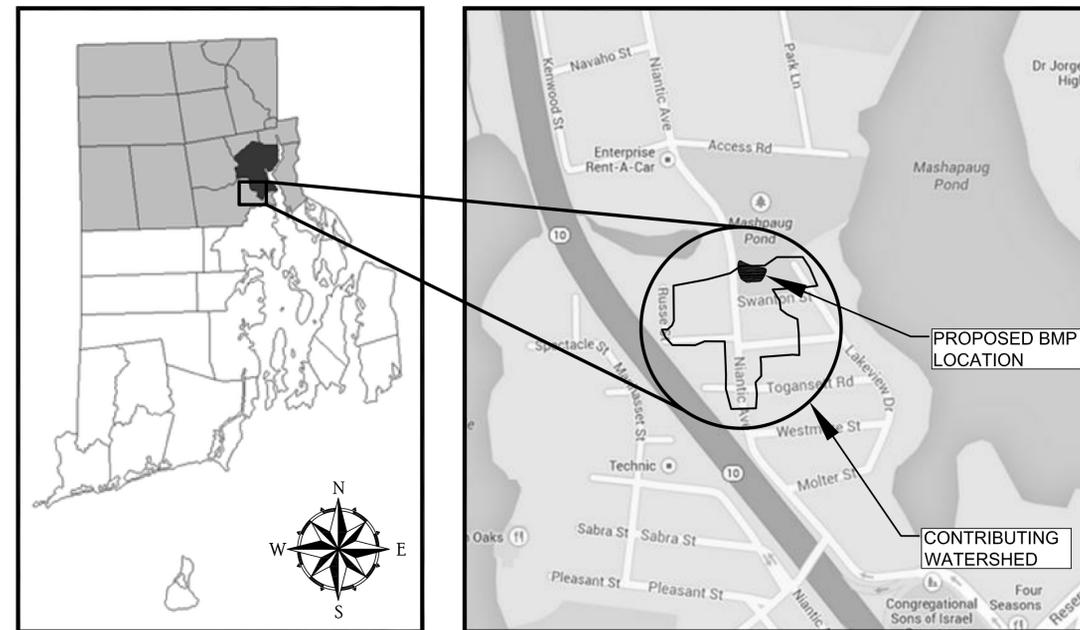


EPA Green Infrastructure City of Providence Education and Outreach Project MASHAPAUG POND STORMWATER BMP

PROVIDENCE, RHODE ISLAND
NIANTIC AVENUE & SWANTON STREET

APRIL 2014,
DRAFT, NOT FOR CONSTRUCTION

| <u>SHEET</u> | <u>TITLE</u> |
|--------------|--|
| C-1 | EXISTING CONDITIONS AND EROSION CONTROLS |
| C-2 | PROPOSED CONDITIONS |
| C-3 | LANDSCAPING AND SURFACE TREATMENTS |
| C-4 | CONSTRUCTION DETAILS |
| C-5 | CONSTRUCTION DETAILS |



SITE LOCATION

SCALE: 1" = 400'



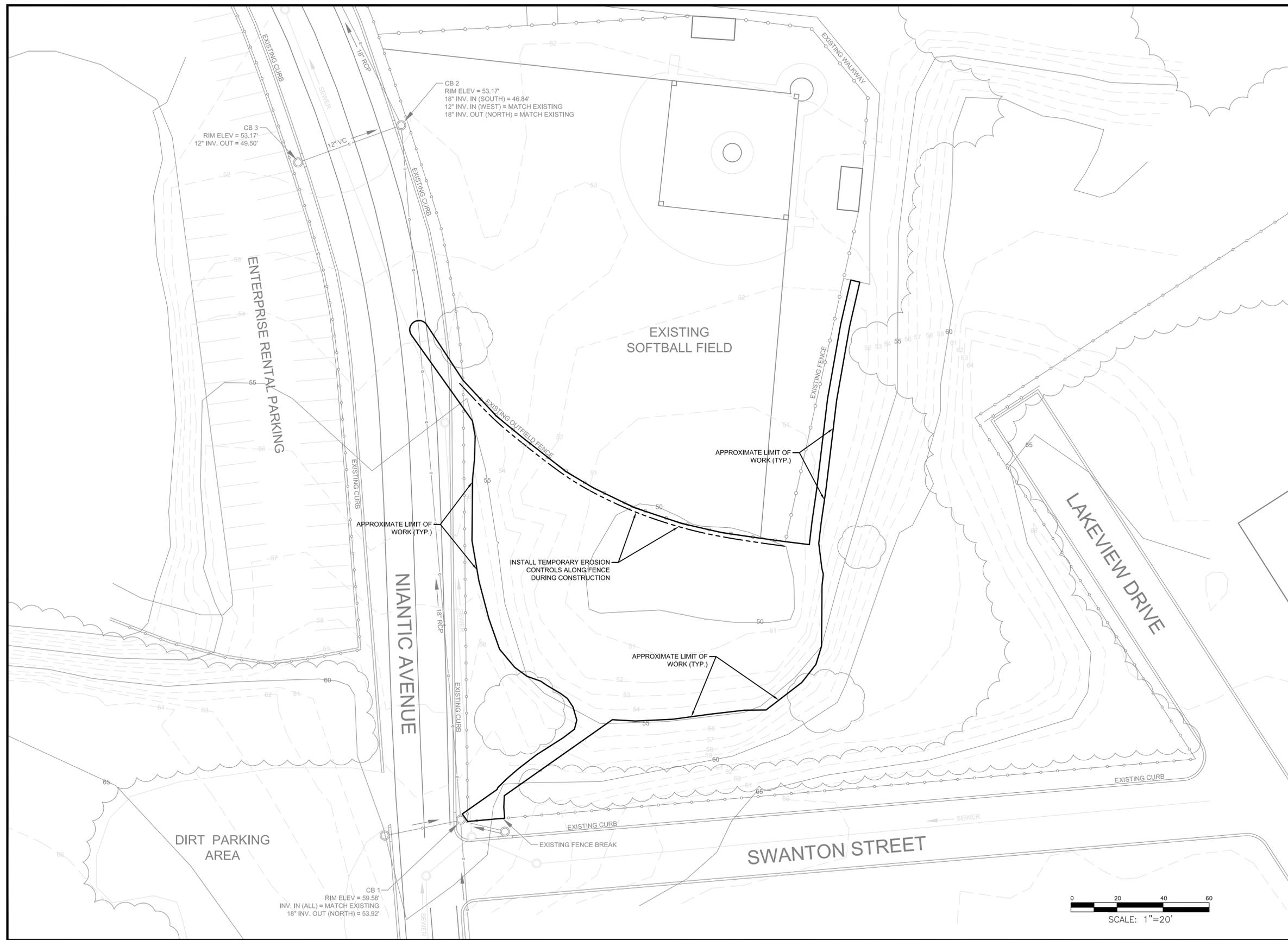
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109



481 GREAT ROAD, SUITE 3
ACTON, MA 01720



21 DEPOT STREET
MERRIMACK, NH 03054



EXISTING CONDITIONS AND EROSION CONTROLS

SCALE: 1" = 20'

General Notes

1. THE LOCATION OF UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED OR INSPECTED. THE CONTRACTOR, PRIOR TO COMMENCEMENT OF CONSTRUCTION, SHALL VERIFY THE LOCATION OF ALL UTILITIES AND CONTACT "DIG-SAFE" AT 1-888-344-7233.
2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PREVENT ANY DAMAGE TO ADJACENT PROPERTIES. ALL AREAS WHICH ARE AFFECTED BY THE CONTRACTOR'S OPERATIONS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO THE OWNER.
3. ANY CHANGE IN FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER TO INSURE THAT ANY MODIFICATIONS TO THE ORIGINAL DESIGN ARE PROPER AND ADEQUATE TO SERVE THE PROJECT'S NEEDS AND COMPLY WITH THE APPLICABLE STANDARDS AND REGULATIONS.
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7. REMOVE ALL TEMPORARY EROSION CONTROLS FROM THE SITE AT THE CONCLUSION OF CONSTRUCTION ACTIVITIES.
8. STORMWATER SHALL NOT BE DIRECTED INTO THE BASIN UNTIL ALL PLANTINGS ARE SUITABLY ESTABLISHED. CONTRACTOR SHALL EITHER TIE INTO THE EXISTING CATCH BASIN LAST OR INSTALL A REMOVAL PLUG.



| No. | Revision/Issue | Date |
|-----|----------------|-------|
| 2 | Final Design | 04/14 |
| 1 | Conceptual | 02/14 |

WaterVision, LLC
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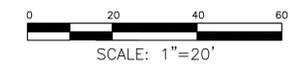
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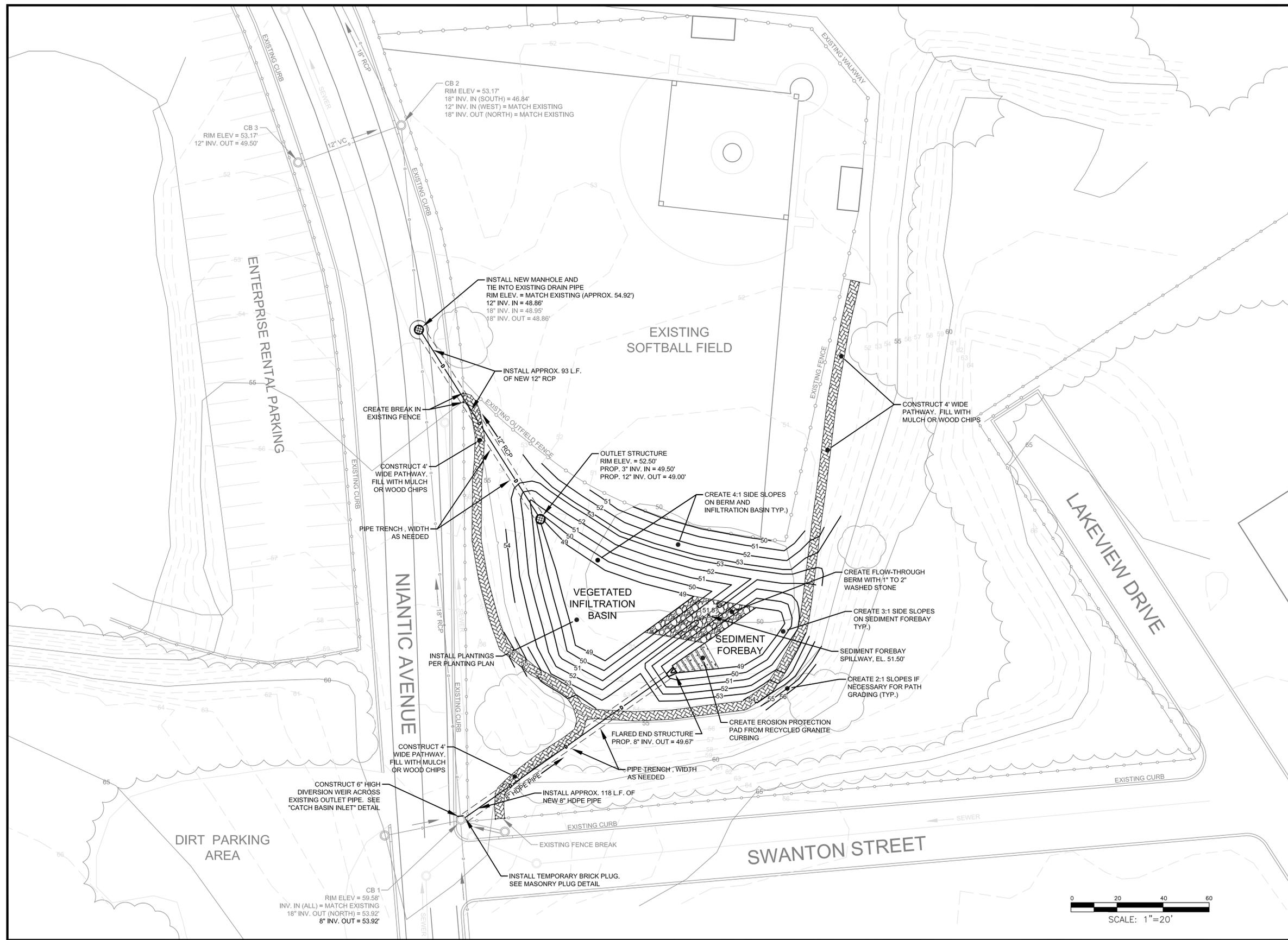
MASHAUG POND STORMWATER BMP - VEGETATED INFILTRATION BASIN

Nantatic Avenue & Swanton Street

Project No.: 677-1
 Date: APRIL 2014
 Drawn By: NC
 Checked By: ML
 Scale: 1" = 20'

Sheet
C-1
 Sheet 2 OF 6





PROPOSED CONDITIONS

SCALE: 1" = 20'

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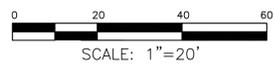
CEI COMPREHENSIVE ENVIRONMENTAL INCORPORATED
 21 DEPOT STREET
 MERRIMACK, NH 03054

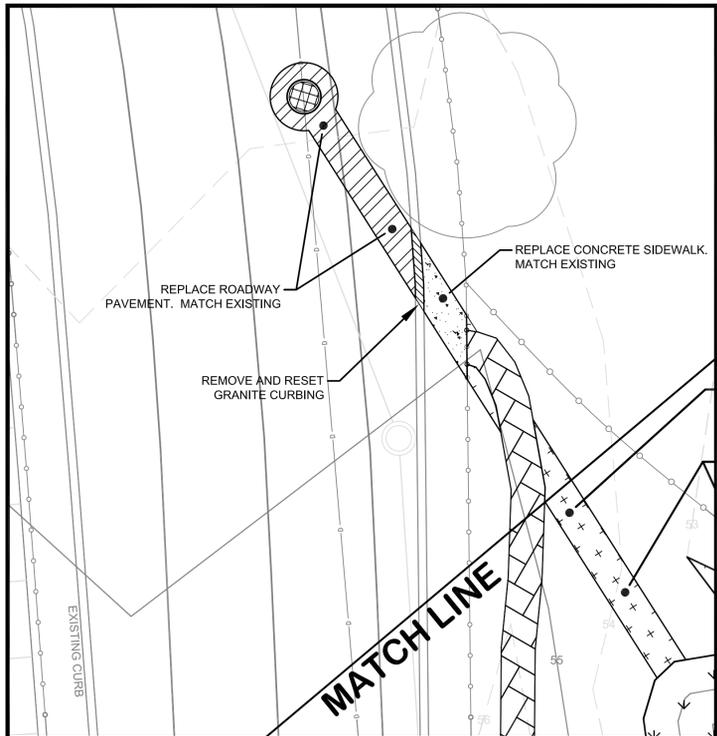
EPA Green Infrastructure
 City of Providence Education and Outreach Project

**MASHAUG POND
 STORMWATER BMP -
 VEGETATED INFILTRATION BASIN**

Nantic Avenue & Swanton Street

| | |
|--------------------|--------------|
| Project No.: 677-1 | Sheet |
| Date: APRIL 2014 | C-2 |
| Drawn By: NC | |
| Checked By: ML | |
| Scale: 1" = 20' | Sheet 3 OF 6 |





PAVEMENT AT PROP. DRAINAGE TIE-IN

SCALE: 1" = 10'

PLANTING SCHEDULE

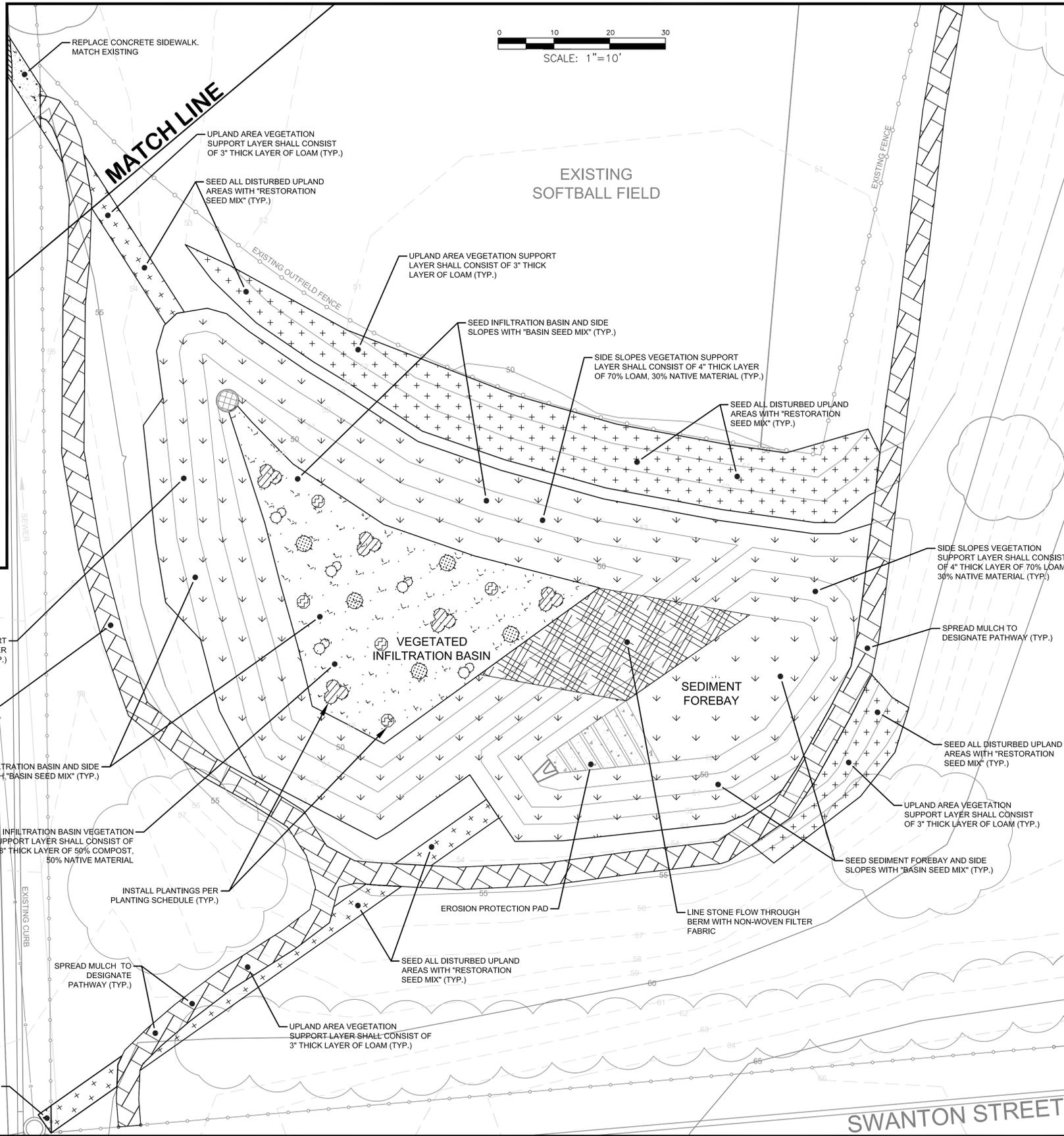
| PLANT TYPE | QUANTITY |
|--|----------|
| <i>Ceanothus americanus</i> (NEW JERSEY TEA) | 5 EA. |
| <i>Clethra alnifolia</i> (SWEET PEPPERBUSH) | 5 EA. |
| <i>Spiraea latifolia</i> (MEADOWSWEET) | 5 EA. |
| <i>Lyonia ligustrina</i> (MALEBERRY) | 5 EA. |

SURFACE TREATMENT

| TYPE | AREA |
|-------------------------------------|---------|
| REPLACEMENT PAVEMENT | 15 SY. |
| REPLACEMENT CONCRETE SIDEWALK | 5 SY. |
| MULCH OR WOOD CHIPS | 216 SY. |
| RESTORATION SEED MIX (UPLAND AREAS) | 223 SY. |
| BASIN SEED MIX (INFILTRATION BASIN) | 172 SY. |
| BASIN SEED MIX (SIDE SLOPES) | 608 SY. |
| NON-WOVEN FILTER FABRIC | 58 SY. |

VEG. SUPPORT LAYER

| TYPE | THICKNESS | COMPOSITION |
|--------------------|-----------|-------------------------|
| UPLAND AREAS | 3" | 100% LOAM |
| INFILTRATION BASIN | 8" | 50% COMPOST, 50% NATIVE |
| SIDE SLOPES | 4" | 70% LOAM, 30% NATIVE |



LANDSCAPING AND SURFACE TREATMENT

SCALE: 1" = 10'

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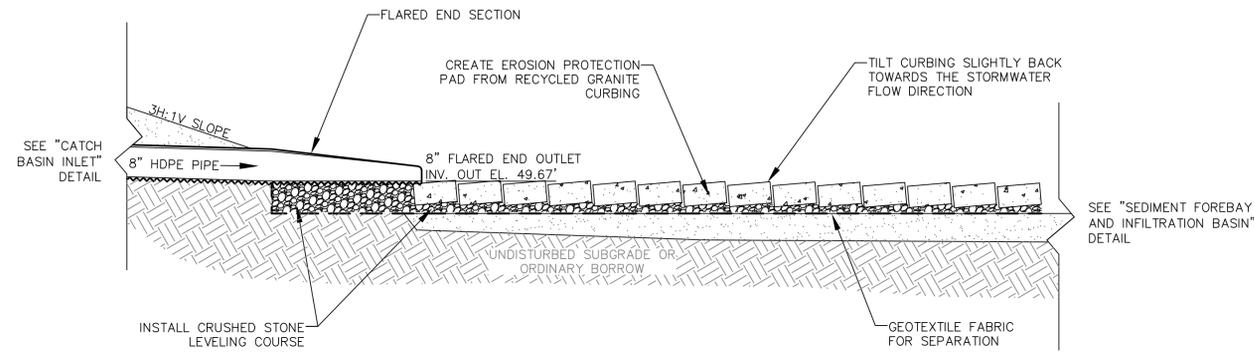
COMPREHENSIVE ENVIRONMENTAL INCORPORATED
 21 DEPOT STREET
 MERRIMACK, NH 03054

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 City of Providence Education and Outreach Project

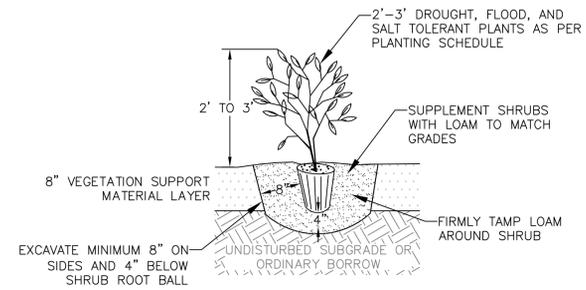
MASHAUG POND STORMWATER BMP - VEGETATED INFILTRATION BASIN
 Niantic Avenue & Swanton Street

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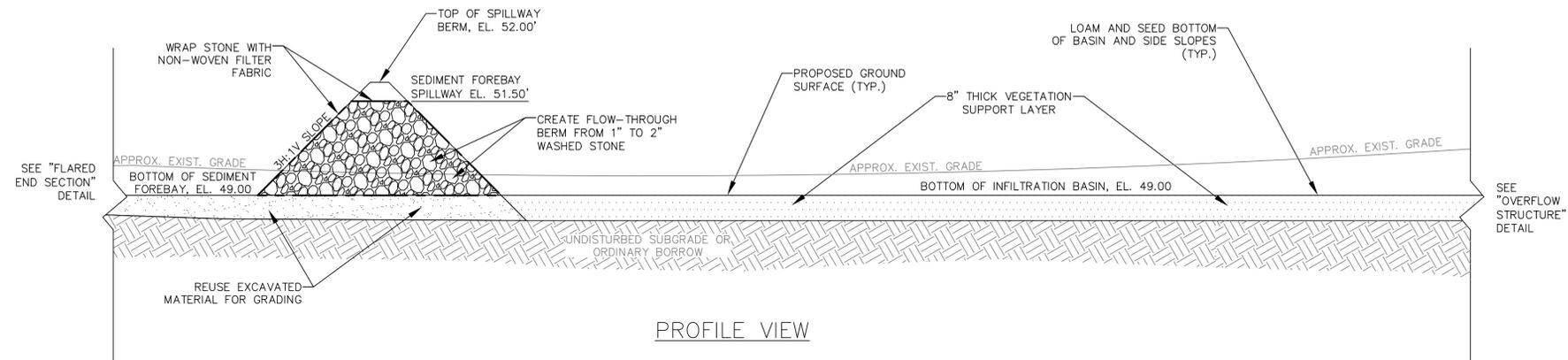
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 Sheet 4 OF 6



FLARED END SECTION



PROPOSED PLANTINGS

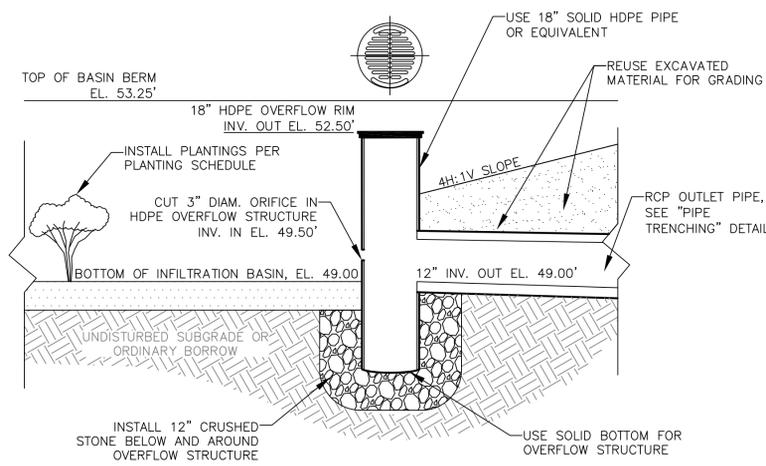


PROFILE VIEW

NOTES

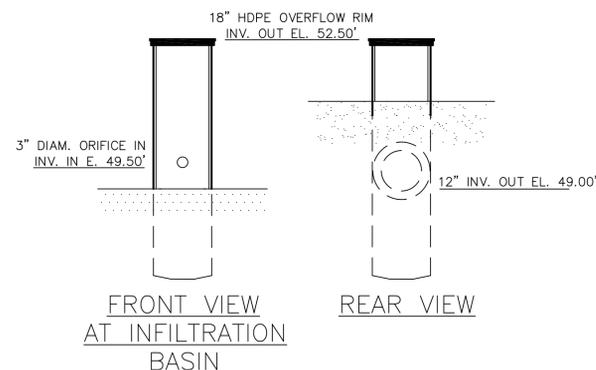
1. DETAIL SHOWN AT APPROXIMATELY 1x HORIZONTAL TO 4x VERTICAL SCALE.
2. CONTRACTOR TO RESTRICT THE COMPACTION OF THE BASIN BOTTOM AND PREVENT ANY CONSTRUCTION EQUIPMENT FROM ENTERING THE BASIN.
3. CONTRACTOR SHALL TAKE EXTRA PRECAUTION NOT TO OVERCOMPACT BASIN EMBANKMENTS AND REDUCE THE INFILTRATIVE CAPACITY OF THE SOILS.

SEDIMENT FOREBAY AND INFILTRATION BASIN



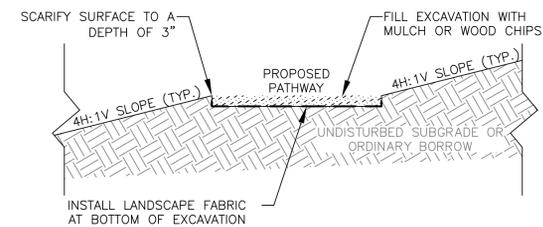
PROFILE VIEW

OVERFLOW STRUCTURE



FRONT VIEW AT INFILTRATION BASIN

REAR VIEW



PATHWAY

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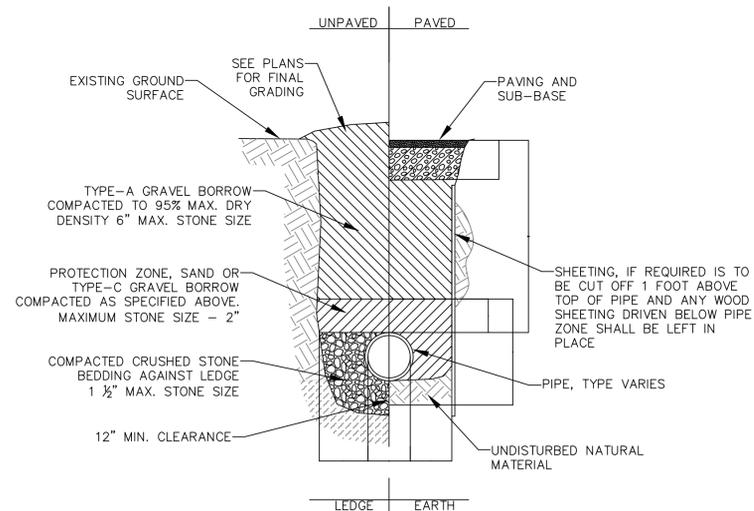
COMPREHENSIVE ENVIRONMENTAL INCORPORATED
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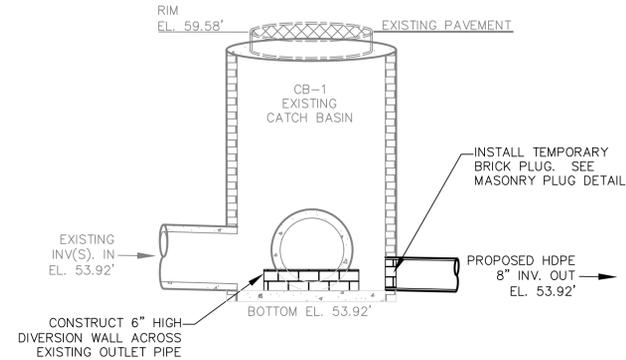
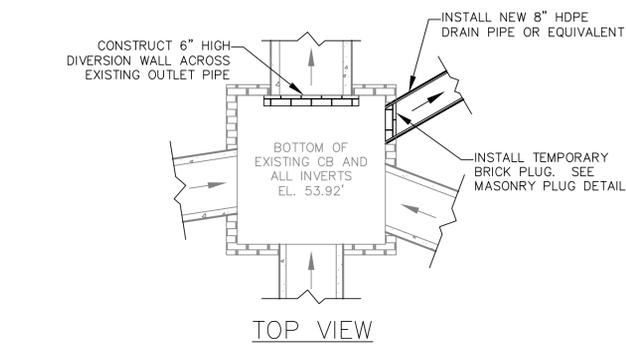
MASHAUG POND STORMWATER BMP - VEGETATED INFILTRATION BASIN
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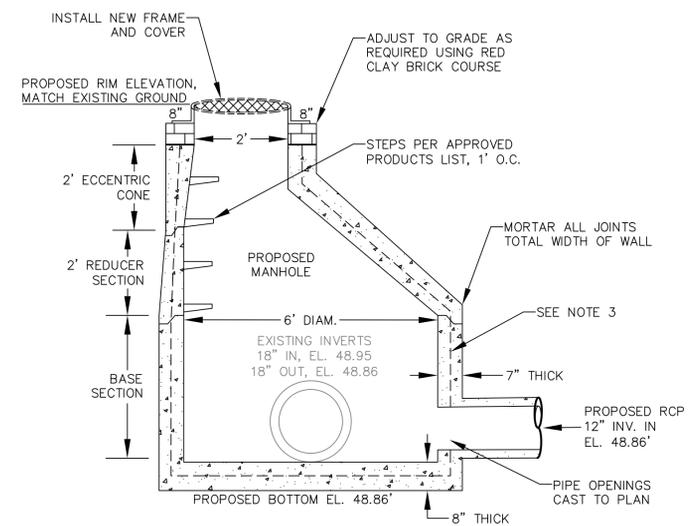
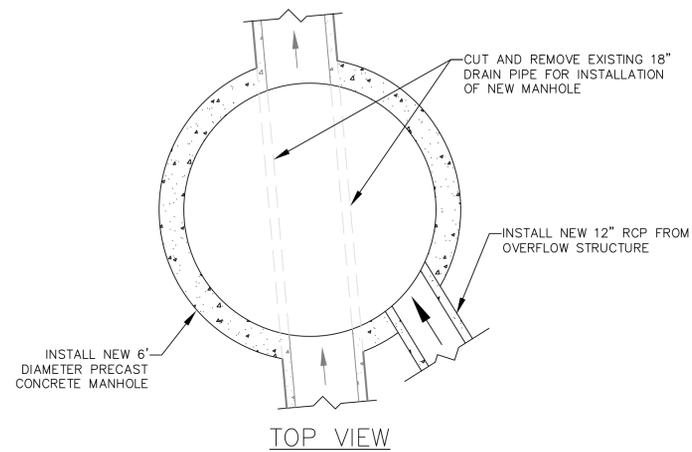
Sheet
C-4
 Sheet 5 OF 6



PIPE TRENCH



CATCH BASIN INLET

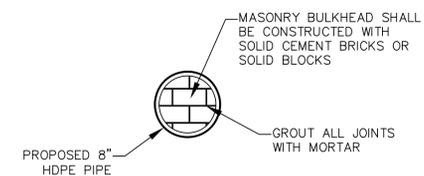


ELEVATION VIEW

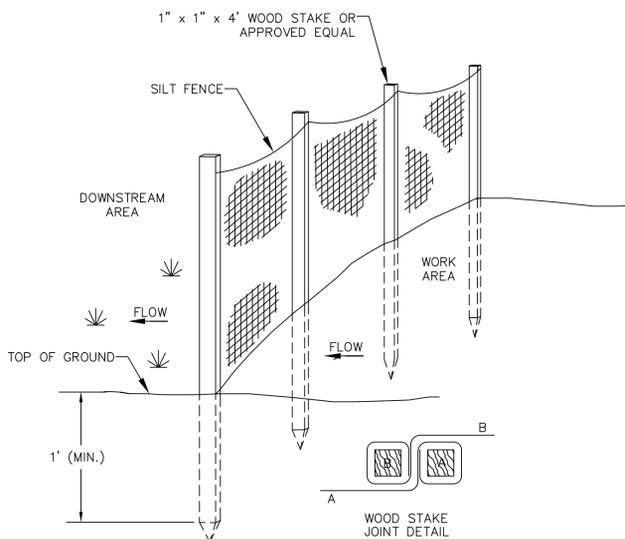
NOTES

1. MANHOLE SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE RI STANDARD SPECIFICATIONS
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.15 SQ. IN./LF. MINIMUM
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LF. (BOTH WAYS)
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED
6. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT

NEW MANHOLE TIE-IN



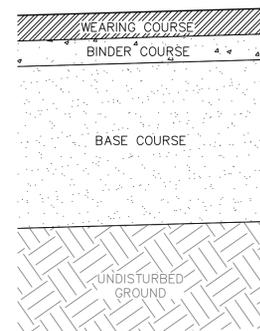
MASONRY PLUG



NOTES

1. PUT ONE HAYBALE PERPENDICULAR ALONG HAYBALE BARRIER (100' O.C.)

SILT FENCE EROSION CONTROLS



NOTES

1. PAVEMENT CROSS SECTION IS TYPICAL. CONTRACTOR TO MATCH EXISTING CONDITIONS.

REPLACEMENT PAVEMENT

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