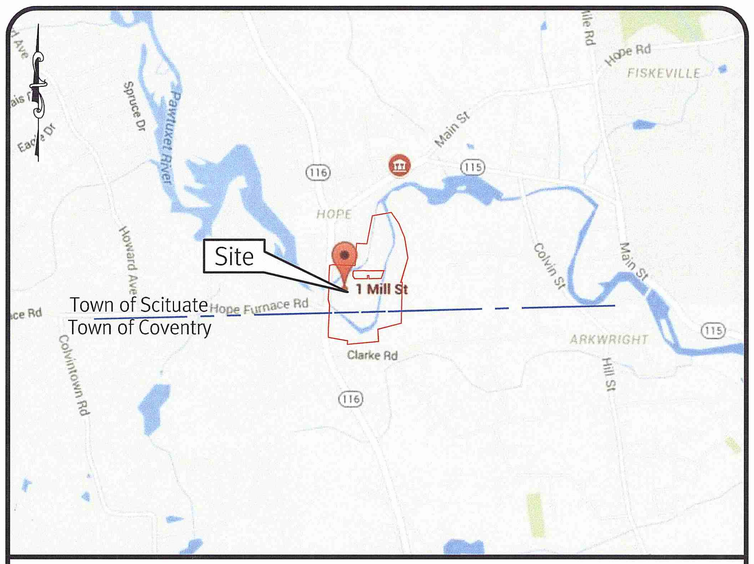
Revised Permitting Submission

Hope Mills

Main Street (Route 116)
Scituate, Rhode Island

Town of Scituate Assessor's Plat 3 Lot 8
Town of Scituate Assessor's Plat 5 Lots 1, 114 & 117
Town of Coventry Assessor's Plat 101 Lot 5



Location Map 1" = 1000'

Sheet Index

1. Cover Sheet
2. General Notes & Legend Sheet
3. Aerial & USGS Map
4. Existing Conditions Plan
5. FEMA Plan
6. Soil Erosion Control Plan
7. Overall Site Layout Plan
8. Site Plan
9. Grading & Drainage Plan
10. Utility Plan
11. RIDOT Plan
12. OWTS Overall Plan
13. OWTS Enlarged Detail Plan
14. Detail Sheet - 1
15. Detail Sheet - 2
16. Detail Sheet - 3
17. OWTS Detail Sheet - 1
18. OWTS Detail Sheet - 2
19. OWTS Detail Sheet - 3
20. OWTS Detail Sheet - 4

1 of 1 Wetland Creation Area

Landscape Index
(by Searle Design Group)

L100 Overall Site Improvement Plan
L101 Site Improvement Plan
L102 Site Improvement Plan
L103 Site Improvement Plan & Legend
L104 Site Improvement Plan
L200 Overall Planting Plan
L201 Planting Plan
L202 Planting Plan and Schedule
L203 Planting Plan
L204 Planting Plan
L205 Planting Plan
L206 Planting Plan
L207 Visual Buffer Planting
L208 Planting Schedule & Notes
L209 Landscape Details

Environmental Management
JAN 13 2017
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

SESC / O&M
The Soil Erosion and Sediment Control Plan (SESC) and Operations and Maintenance Plan (O&M) are required documents with this plan set and must be maintained by the contractor and owner onsite.

RIDOT
The Proposed Improvements Will Not Increase the Rate of Stormwater Runoff Onto the State Highway. All Work Within the State Right of Way Must Conform to the RI Standard Specifications, Details, and Addendums.

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9110
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1/13/2017

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4	1-13-2017	Revised Permitting Submission	R.B.S.
3	12-16-2016	Revised Permitting Submission	R.B.S.
2	10-6-2016	OWTS Resubmission	R.B.S.
1	9-16-2016	Permitting Submission	R.B.S.

Design By: R.B.S.
Drawn By: R.B.S.

Cover Sheet
Hope Mills
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 1 OF 20

z:\demain\projects\1272-002 hope mill\autocad drawings\1272-002-cvar.dwg Plotted: 1/13/2017

General Notes:

1. THE SITE IS LOCATED ON THE TOWN OF SCITUATE ASSESSOR'S PLAT 3 LOT 8 AND ASSESSOR'S PLAT 5 LOTS 1, 114 & 117 AND ON THE TOWN OF COVENTRY ASSESSOR'S PLAT 101 LOT 5.

2. THE SITE HAS APPROXIMATELY 23.83± ACRES IN SCITUATE AND IS ZONED M AND APPROXIMATELY 8.39± ACRES IN COVENTRY AND IS ZONED R20 FOR AN APPROXIMATE COMBINED AREA OF 32.22±.

3. THE OWNER/APPLICANT IS: BOYAJIAN, HARRINGTON, RICHARDSON & FURNESS (IN RECEIVERSHIP) ATTORNEY PETER FURNESS, ESQ. 182 WATERMAN STREET PROVIDENCE, RI 02906

4. THIS SITE IS LOCATED IN FEMA FLOOD ZONES X(SHADED), X(UNSHADED), AE AND FLOODWAY AE. REFERENCE FEMA FLOOD INSURANCE RATE MAPS 44003C0102H, 44007C0402H, 44003C0106H AND 44007C0406H MAP REVISED OCTOBER 2, 2015. THE BOUNDARIES OF WHICH, AS SHOWN APPROXIMATELY HEREON, HAVE BEEN DIGITIZED FROM THE ABOVE REFERENCED FLOOD INSURANCE RATE MAP:

   ZONE AE – THIS SITE IS LOCATED IN FEMA FLOOD ZONE AE. ZONE AE ARE SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD. BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

   ZONE X (UNSHADED) – THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.

   ZONE X(SHADED) – THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE OF FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

5. THIS PLAN IS SUBSTANTIALLY CORRECT IN ACCORDANCE WITH A CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND MAY BE SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE.

6. SOIL MAPPING OBTAINED FROM SOIL SURVEY OF RHODE ISLAND, PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

7. THE SITE IS NOT WITHIN A:
   - GROUNDWATER PROTECTION AREA (RIDEM)
   - GROUNDWATER PROTECTION OVERLAY DISTRICT (TOWN)

8. THE SITE IS WITHIN A:
   - NATURAL HERITAGE AREAS (RIDEM)
   - HISTORICAL CANDIDATE SITE (STATE)
   - COMPOSITE CONSERVATION OPPORTUNITY AREA/CORRIDOR (RIDEM)

9. THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE PROJECT PLANS AND THE CONTRACTOR/ OWNER MUST MAINTAIN THESE DOCUMENTS AS PART OF A FULL PLAN SET:

   • SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC). THE SESC CONTAINS THE FOLLOWING:
   - EROSION CONTROL MEASURES
   - SHORT TERM MAINTENANCE
   - ESTABLISHMENT OF VEGETATIVE COVER
   - CONSTRUCTION POLLUTION PREVENTION
   - SEQUENCE OF CONSTRUCTION

   • OPERATIONS AND MAINTENANCE PLAN (O&M). THE O&M CONTAINS THE FOLLOWING:
   - LONG TERM MAINTENANCE
   - LONG TERM POLLUTION PREVENTION

10. THIS PLAN SET REFERENCES RIDOT STANDARD DETAILS (DESIGNATED AS RIDOT STD X.X.X.). RIDOT STANDARD DETAILS ARE AVAILABLE FROM RIDOT AND ONLINE AT: HTTP://WWW.DOT.RI.GOV/BUSINESS/CONTRACTORSANDCONSULTANTS.PHP.

11. DETAILED SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INCORPORATED AT THE PRELIMINARY DESIGN STAGE AND WILL CONFORM TO RIDEM BEST MANAGEMENT PRACTICES.

12. THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PRIVATE OWTS.

13. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF SCITUATE AND TOWN OF COVENTRY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF PERMEABLE PAVEMENT. THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.

14. THE SITE INFRASTRUCTURE IS PROPOSED TO BE BUILT IN 1 PHASE AND RENOVATION OF THE EXISTING MILL BUILDING AND CONSTRUCTION OF THE NEW BUILDINGS ARE TO BE BUILT IN PHASES.

15. SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON DECEMBER 17 & 29, 2015.

16. ORIGINAL PLANS, PREPARED BY ROBINSON DESIGN, RECEIVED COMMISSION MASTER PLAN APPROVAL ON NOVEMBER 21, 2006 AND ZONING BOARD CASE #987 ON DECEMBER 12, 2006 FOR DIMENSIONAL AND USE RELIEF. AN AMENDED MASTER PLAN WAS APPROVED ON JANUARY 19, 2016.

Survey Information:

1. COORDINATES, IN U.S. SURVEY FEET, ARE REFERENCED IN THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83), AS DETERMINED BY DEA'S SURVEY BY REAL TIME KINEMATIC G.P.S. OBSERVATIONS.

2. ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DEA'S SURVEY BY REAL TIME KINEMATIC G.P.S. OBSERVATIONS.

3. PLANIMETRIC FEATURES, CONTOUR LINES, AND SPOT ELEVATIONS WERE STEREO COMPILED AT A SCALE OF 1"=40' BY COL-EAST, NORTH ADAMS, MA, SUB CONSULTANTS TO THE OWNER/DEVELOPER, FROM BLACK AND WHITE PHOTOGRAPHY TAKEN FEB. 28, 2006 AT A SCALE OF 1"=300' AND FIT TO GROUND CONTROL POINTS SURVEYED BY DEA IN MARCH OF 2006. SURVEY PERFORMED ON THE GROUND BY DEA USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS AND/OR TOTAL STATION SURVEY ON MARCH, 2006.

Soil Information:

(REFERENCE: SOIL SURVEY OF RHODE ISLAND, U.S.D.A. SOIL CONSERVATION SERVICE)

SOIL NAME	DESCRIPTION
CB	CANTON-URBAN LAND COMPLEX
CdC	CANTON AND CHARLTON FINE SANDY LOAMS, 8 TO 15 PERCENT SLOPES
ChB	CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES
ChC	CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 8 TO 15 PERCENT SLOPES
Rf	RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY LOAMS
UD	UDORTHENTS-URBAN LAND COMPLEX

1. SOIL MAPPING OBTAINED FROM SOIL SURVEY OF RHODE ISLAND, PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

2. SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON DECEMBER 29, 2015.

3. WETLANDS SHOWN ON PLAN WERE DELINEATED FLAGGED AND BY NATURAL RESOURCE SERVICES, INC. ON NOVEMBER 11 & 21 OF 2005.

Plan Reference:

1. REFERENCE "ALTA/ACSM LAND TITLE SURVEY" FOR MAIN STREET (ROUTE 116) ASSESSOR'S PLAT 101 LOT 5 COVENTRY, RI, ASSESSOR'S PLAT 3 LOT 8 & ASSESSOR'S PLAT 5 LOTS 1, 114, & 117 SCITUATE, RI BY DIPRETE ENGINEERING ASSOCIATES, INC. DATED DECEMBER 9, 2009 SCALE 1" =80' SHEET 1 OF 1 FOR CLASS I SURVEY

Grading and Utility Notes:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ONSITE. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RI DEPT. OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

2. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.

3. CONSTRUCTION TO COMMENCE SPRING 2017 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.

4. ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND TOWN OF SCITUATE AND TOWN OF COVENTRY STANDARD SPECIFICATIONS AND DETAILS.

5. SEQUENCE OF CONSTRUCTION SHOWN IN SESC MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.

6. THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.

7. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE.

8. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

9. ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH APPLICANT, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.

10. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION INCLUDING ALL REVISIONS.

11. ALL RETAINING WALLS AND STEEP SLOPES ARE SHOWN SCHEMATICALLY ONLY AND DIPRETE ENGINEERING IS NOT PROVIDING THE DESIGN OF THESE ITEMS. THE ACTUAL WALLS AND SLOPES ARE TO BE BUILT UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS TO BE SUBMITTED PRIOR TO CONSTRUCTION.

12. ALL CUT AND FILL AREAS ARE TO BE DONE UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER WITH TESTING AND CERTIFICATION TO BE PROVIDED TO THE APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING ASSOCIATES, INC. IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.

13. ALL COMPONENTS OF THE DRAINAGE, SEWER AND WATER SYSTEMS MUST BE ASBUILT PRIOR TO COVERING. ENGINEER TO BE NOTIFIED PRIOR TO COVERING TO SURVEY ASBUILT LOCATIONS. ENGINEER WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

14. NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.

15. ALL LOAM IN DISTURBED AREAS TO BE STOCKPILED FOR FUTURE USE.

16. ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, SHALL BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION. STUMPS SHALL BE GROUND ONSITE OR REMOVED.

17. NO STUMP DUMPS ARE PROPOSED ONSITE.

18. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD AND ARE APPROXIMATE ONLY. PRIOR TO CONSTRUCTION, THE PROPER UTILITY ENGINEERING DEPARTMENTS SHALL BE CONTACTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 72 HOURS PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.

19. IF CONCRETE TRUCKS ARE WASHED OUT ONSITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.

RIDEM Site Suitability Notes:

1. THERE ARE NO KNOWN EXISTING OR PROPOSED PRIVATE WELLS WITHIN 200 FT. OF THE PROPOSED DEVELOPMENT EXCEPT WHERE SHOWN.

2. THERE ARE NO KNOWN EXISTING OR PROPOSED OWTS WITHIN 200 FT. OF THE DEVELOPMENT EXCEPT WHERE SHOWN.

3. THERE ARE NO KNOWN PUBLIC WELLS WITHIN 500 FT. OF THE PROPOSED DEVELOPMENT.

4. THERE ARE NO KNOWN EXISTING OR PROPOSED WELLS WITHIN 200 FT. OF A PROPOSED OWTS EXCEPT WHERE SHOWN.

5. UNITS ARE TO BE SERVICED BY PUBLIC WATER AND OWTS.

RIDOT Notes:

1. ALL WORK WITHIN THE STATE'S R.O.W. WILL CONFORM TO RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013 INCLUDING ALL REVISIONS AND THE RI STANDARD DETAILS.

2. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, INCLUDING ALL REVISIONS.

3. NO LANE OR SHOULDER CLOSURES SHALL BE PERFORMED WITHIN THE STATE'S R.O.W. DURING PEAK TRAFFIC HOURS.

4. SEWER AND WATER CONNECTIONS WITHIN THE STATE R.O.W. WILL REQUIRE A SEPARATE RIDOT UTILITY PERMIT. CONTRACTOR TO OBTAIN BEFORE CONSTRUCTION.

5. THE DRAINAGE SYSTEM IS DESIGNED TO DECREASE BOTH STORM WATER RUNOFF RATE DISCHARGE, AND STORM WATER RUNOFF VOLUME TO THE STATE RIGHT-OF-WAY FROM PRE-DEVELOPMENT TO POST-DEVELOPMENT. THERE WILL BE NO INCREASE IN RUNOFF TO THE STATE RIGHT OF WAY FROM THE PROPOSED DEVELOPMENT.

Traffic Notes:

1. DURING CONSTRUCTION TRAFFIC CONES ARE TO BE USED FOR SEPARATION OF ACTIVE TRAFFIC FROM WORK ZONE.

2. DURING CONSTRUCTION FLAGGERS SHALL BE EMPLOYED TO ENSURE SAFETY FOR INTERACTION OF CONSTRUCTION VEHICLES AND ACTIVE TRAFFIC.

3. ALL SIGNS, FLAGGERS, TRAFFIC CONTROL DEVICES, AND TEMPORARY TRAFFIC ZONE ACTIVITIES SHALL MEET THE REQUIREMENTS OF THE MUTCD LATEST EDITION AND SUBSEQUENT ADDENDA.

4. TEMPORARY CONSTRUCTION SIGNS SHALL BE MOUNTED ON RIDOT APPROVED SUPPORTS AND SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE.

5. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION.

Dimensional Regulations:

(TOWN OF SCITUATE)	REQUIRED:	PROVIDED:
ZONING:	M DISTRICT (GENERAL MANUFACTURING)	M DISTRICT
MINIMUM LOT AREA:	N/A	N/A
MINIMUM FRONTAGE AND LOT WIDTH:	N/A	N/A
MINIMUM FRONT YARD:	40'	137'
MINIMUM SIDE YARD:	40'	27'
MINIMUM REAR YARD:	40'	455'
MAXIMUM STRUCTURE HEIGHT:	N/A	N/A
MAXIMUM LOT COVERAGE:	25%	6.18%
MINIMUM DISTANCE OF STRUCTURE FROM RESIDENTIAL DISTRICT:	100'	79'

Development Data:

TOTAL SITE AREA:	32.22± ACRES
TOTAL NUMBER OF BUILDINGS:	3
TOTAL NUMBER OF UNITS:	193
PAVEMENT WIDTH:	24.0'
PARKING WIDTH:	8.5'
PARKING LENGTH:	18.0'

Parking Regulations:

PARKING USE: MULTIFAMILY
NUMBER OF UNITS:

PHASE	1 BED UNITS	2 BED UNITS	TOTAL UNITS	TOTAL BEDS
1	12	46	58	104
2	20	40	60	100
3	20	55	75	130
TOTAL	52	146	193	334

PER ZONING ORDINANCE

PARKING REQUIREMENT:	1 SPACE PER UNIT
TOTAL NUMBER OF UNITS:	193 UNITS
PARKING CALCULATION:	193 UNITS x 1 SPACE
PARKING SPACES REQUIRED:	193 SPACES
ADA PARKING REQUIRED:	6 SPACES
REQUIRED PARKING SPACES:	193 SPACES
PARKING SPACES PROVIDED:	227 SPACES

ADA Notes:

1. ALL IMPROVEMENTS SHALL COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE.

2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE 4.5% OR 0.045 '/, AND MAXIMUM CROSS SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE 0.015'/,.

3. MAXIMUM SLOPE IN ALL DIRECTIONS FOR ALL ACCESSIBLE PARKING SPACES AND LOADING AREAS SHALL BE 0.015'/,.

4. A 5'x5' LANDING WITH A MAXIMUM SLOPE OF 1.5% OR 0.015'/, IN ALL DIRECTIONS SHALL BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/EGRESSES.

5. SIDEWALK CURB RAMPS SHALL COMPLY WITH DIPRETE ENGINEERING DETAILS THAT MEET OR EXCEEDING RIDOT STANDARDS 43.3.0, 43.3.1, & 43.4.1 AS SHOWN ON THE DETAIL SHEET.

6. PLEASE NOTE THAT THE GRADING AND PLAN VIEWS AS WELL AS THE STANDARD DETAILS MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS AND RAMPS TO ADA STANDARDS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA STANDARDS. IN THE EVENT OF ANY CONFLICTS THE CONTRACTOR SHALL NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

Layout and Materials:

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.

2. CURB RADII ARE 3 FEET UNLESS OTHERWISE NOTED.

3. CURBING SHALL BE PRECAST CONCRETE UNLESS OTHERWISE NOTED.

4. SIDEWALK SHALL BE CONCRETE UNLESS OTHERWISE NOTED.

5. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

6. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.

7. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.

8. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

General Data:

SHEET MATCH LINE — See Sheet xx
SETBACK — X' 'TYPE OF SETBACK'
ZONING BOUNDARY — ZONE X / ZONE X
FEMA BOUNDARY — FEMA ZONE X / FEMA ZONE X
ABUTTERS RADIUS — xxx' Radius

Boundary Data:

PROPERTY LINE
PR PROPERTY LINE
IINTERNAL LOT LINE
CLOSING LINE — CLOSING LINE
TOWN/CITY LINE — City of Name / City of Name
STATE HIGHWAY LINE
STATE FREEWAY LINE
ASSESSOR LINE
EASEMENT — TYPE OF EASEMENT

Wetland Data:

WETLAND EDGE
WETLAND HATCH
STREAM CENTERLINE
ASSF
EDGE OF WATER
50' PERIMETER WETLAND — 50' PERIMETER WETLAND
100' RIVERBANK WETLAND — 100' RIVERBANK WETLAND
200' RIVERBANK WETLAND — 200' RIVERBANK WETLAND
WETLAND FLAG — A5

Erosion Data:

LIMIT OF WORK — LIMIT OF WORK
STAKED SILT FENCE — STAKED SILT FENCE
CONSTRUCTION ENTRANCE
RIP-RAP
GRAVEL

Testing Data:

SOIL EVALUATION — SEV

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

RECEIVED JAN - 5 2017

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
1	1-4-2017	Revised Permittee Submission	R.B.S.
2	12-16-2016	DWS Meeting Submission	R.B.S.
3	11-21-2016	Revised Permittee Submission	R.B.S.
0	9-26-2016	Permittee Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

General Notes & Legend Sheet

Hope Mills

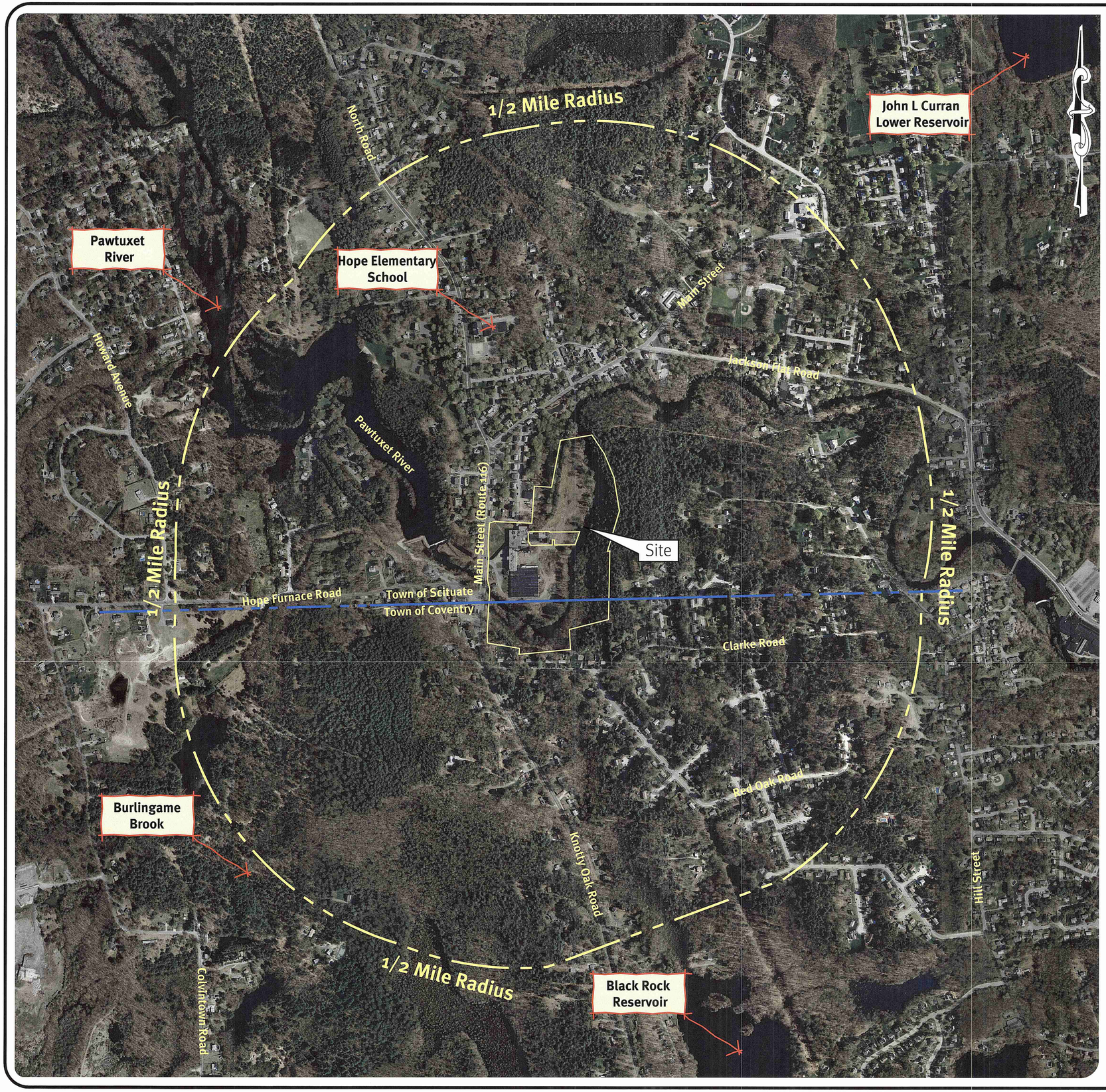
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

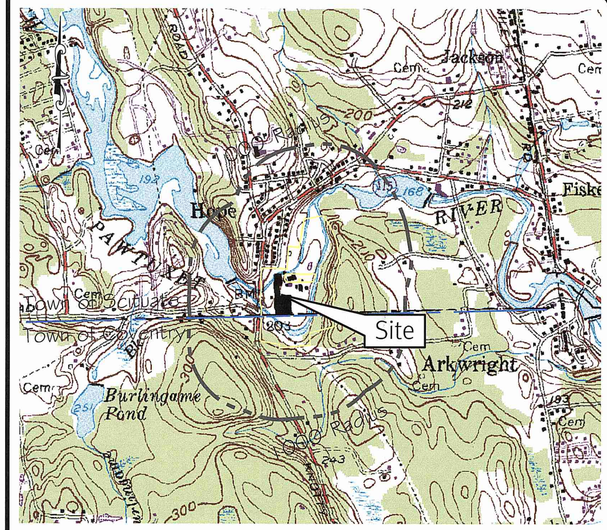
Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 2 OF 20

\\testorage\domain\projects\1272-002 hope mill\autocad drawing\1272-002-cvar.dwg Plotted: 1/4/2017





USGS Map Scale: 1"=1000'

Photo obtained from the RI-GIS.

Legend:

PROPERTY LINE

1000' RADIUS LINE

HALF MILE RADIUS LINE

TOWN LINE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

JAN - 5 2017

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SET FORTH IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Scale: 1"=400'
0 200' 400' 800'

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and shall coordinate the work in the implementation of this plan and design.

No.	Date	Description	By:
1	1-4-2017	Revised Permitting Submission	R.B.S.
2	12-20-2016	Revised Permitting Submission	R.B.S.
3	11-28-2016	Revised Permitting Submission	R.B.S.
4	4-15-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

Aerial & USGS Map

Hope Mills

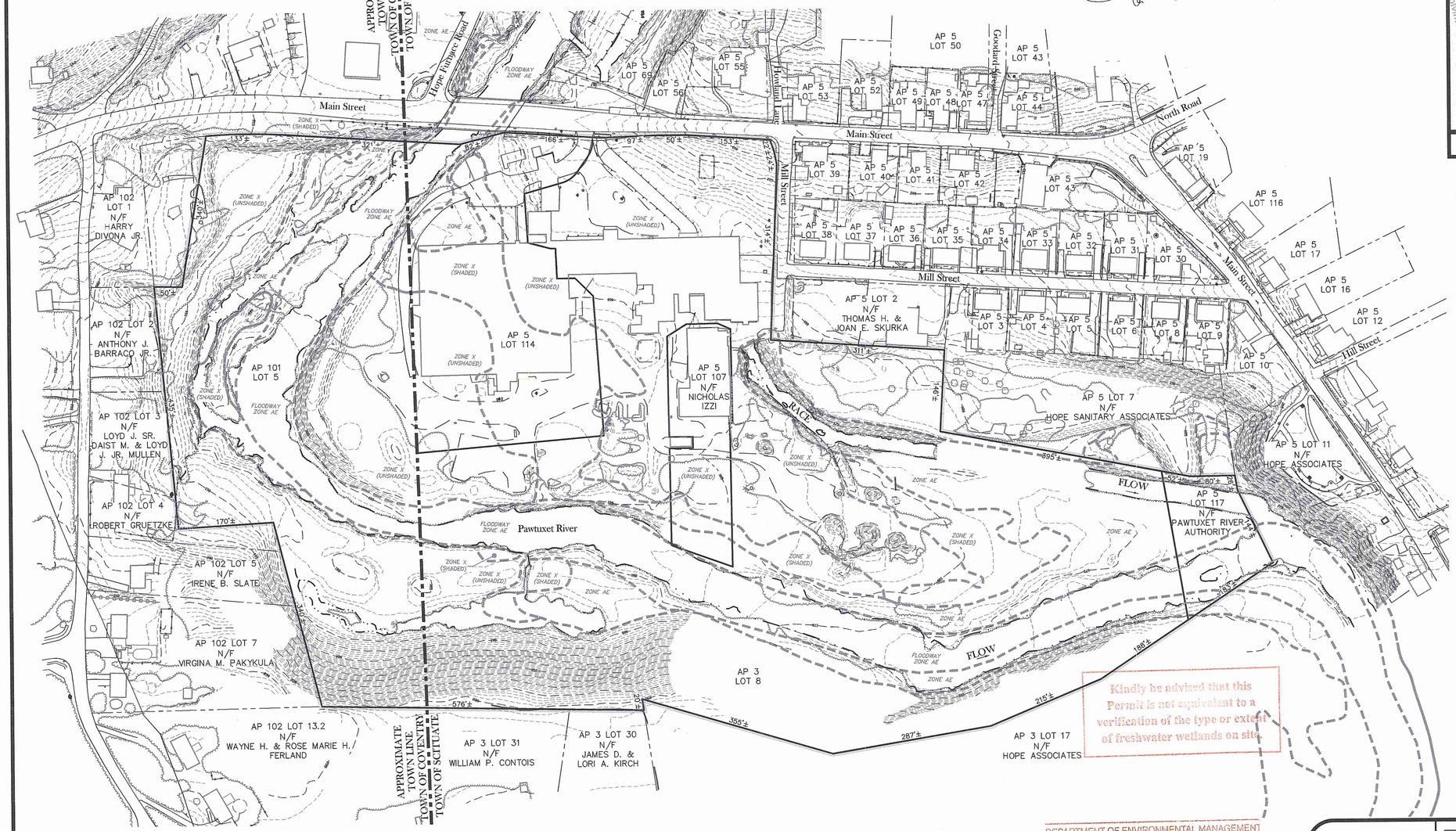
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 6 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

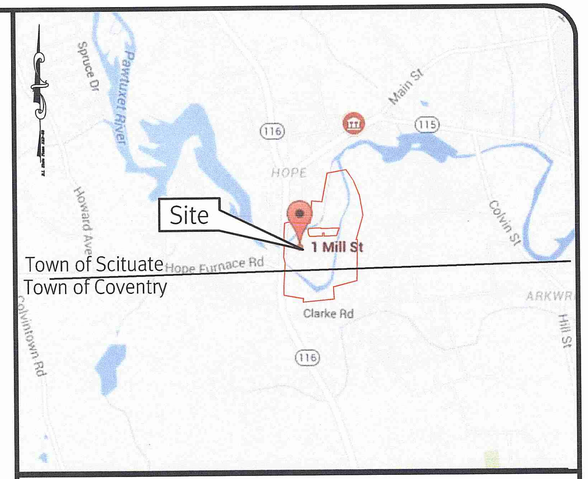
Prepared for:
Paramount Development Group
Attention Richard Deriosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 3 OF 20

\\deastorage\desmain\projects\1272-002 hope mill\autocad drawings\1272-002-cvar.dwg Plotted: 1/4/2017





LOCUS MAP (NOT TO SCALE)

General Notes

1. THE SITE IS FOUND ON TOWN COVENTRY'S ASSESSOR'S PLAT 101 LOT 5, TOWN SCITUATE'S ASSESSOR'S PLAT 3 LOT 8 & TOWN SCITUATE'S ASSESSOR'S PLAT 5 LOTS 1 & 114. OWNER OF RECORD IS NOW OR FORMERLY: NEW ENGLAND DEVELOPMENT, LLC, 300 OLD KINGS HIGHWAY, SOUTH DARIEN, CY 06820 AND IS CURRENTLY IN RECEIVERSHIP UNDER ATTORNEY PETER FURNESS, 182 WATERMAN STREET, PROVIDENCE, RI 02906.
2. THIS SITE IS LOCATED IN FEMA FLOOD ZONES X(SHADED), X(UNSHADED), AE AND FLOODWAY AE. REFERENCE FEMA FLOOD INSURANCE RATE MAPS 44003C0102H, 44007C0402H, 44003C0106H AND 44007C0406H MAP REVISED OCTOBER 2, 2015. THE BOUNDARIES OF WHICH, AS SHOWN APPROXIMATELY HEREON, HAVE BEEN DIGITIZED FROM THE ABOVE REFERENCED FLOOD INSURANCE RATE MAP:

   ZONE AE – THIS SITE IS LOCATED IN FEMA FLOOD ZONE AE. ZONE AE ARE SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD. BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

   ZONE X (UNSHADED) – THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.

   ZONE X(SHADED) – THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE OF FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE. THIS PLAN SHOWS GENERAL GRADING ONLY AND ADDITIONAL DETAIL IS LIKELY TO BE REQUIRED AROUND THE BUILDING.
4. THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DEA THAT UTILITY SERVICE IS AVAILABLE.
5. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS BY OTHERS, OR INFORMATION PROVIDED TO DEA AND ARE SUBJECT TO CHANGE. NO ONE SHOULD RELY ON THE UTILITY LOCATIONS SHOWN FOR CONSTRUCTION AND DIG SAFE SHOULD BE NOTIFIED PRIOR TO ANY WORK.

Survey Notes

1. COORDINATES, IN U.S. SURVEY FEET, ARE REFERENCED IN THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83), AS DETERMINED BY DEA'S SURVEY BY REAL TIME KINEMATIC G.P.S. OBSERVATIONS.
2. ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DEA'S SURVEY BY REAL TIME KINEMATIC G.P.S. OBSERVATIONS.
3. PLANIMETRIC FEATURES, CONTOUR LINES, AND SPOT ELEVATIONS WERE STEREO COMPILED AT A SCALE OF 1"=40' BY COL-EAST, NORTH ADAMS, MA, SUB CONSULTANTS TO THE OWNER/DEVELOPER, FROM BLACK AND WHITE PHOTOGRAPHY TAKEN FEB. 28, 2006 AT A SCALE OF 1"=300' AND FIT TO GROUND CONTROL POINTS SURVEYED BY DEA IN MARCH OF 2006. SURVEY PERFORMED ON THE GROUND BY DEA USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS AND/OR TOTAL STATION SURVEY ON MARCH, 2006.

Plan References

1. "SURVEY OF LAND FOR ROBERT LAFFERRIERE AND L & L ASSOCIATES MAIN STREET (ROUTE 116) SCITUATE AND COVENTRY, RHODE ISLAND." BY BENJAMIN T. ADDY, PLS. DATED APRIL 11, 2001 SCALE 1" = 80' SHEET 1 OF 1.

Legend

◇	UTILITY POLE
⊗	SEWER MANHOLE
———	PERIMETER PROPERTY LINE
- - - -	F.E.M.A. ZONE LINE
.....	STONE WALL
-x-x-x-x-	FENCE
———	1' CONTOUR LINE
— — — —	5' CONTOUR LINE
D.E.A.	DIPRETE ENGINEERING ASSOCIATES
A.P.	ASSESSORS PLAT
N/F	NOW OR FORMERLY
ROW	RIGHT OF WAY
N.T.S.	NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SCALE: 1"=100'
0 50' 100' 200'

CERTIFICATION:

THIS PLAN IS SUBSTANTIALLY CORRECT IN ACCORDANCE WITH A CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. IT IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND MAY BE SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE.

MICHAEL E. GAMITT
No. 381
1/8/16
PROFESSIONAL LAND SURVEYOR

NO.	DATE	DESCRIPTION	BY
1	1-8-16	EXISTING CONDITIONS PLAN	R.B.S.
0	4-18-06	EXISTING CONDITIONS PLAN	B.A.S.

Job #: 1272-002

EXISTING CONDITIONS PLAN

Main Street (Route 116)

COVENTRY ASSESSOR'S PLAT 101 LOT 5 &
SCITUATE ASSESSOR'S PLAT 3 LOT 8, PLAT 5 LOTS 1 & 114
SCITUATE AND COVENTRY, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

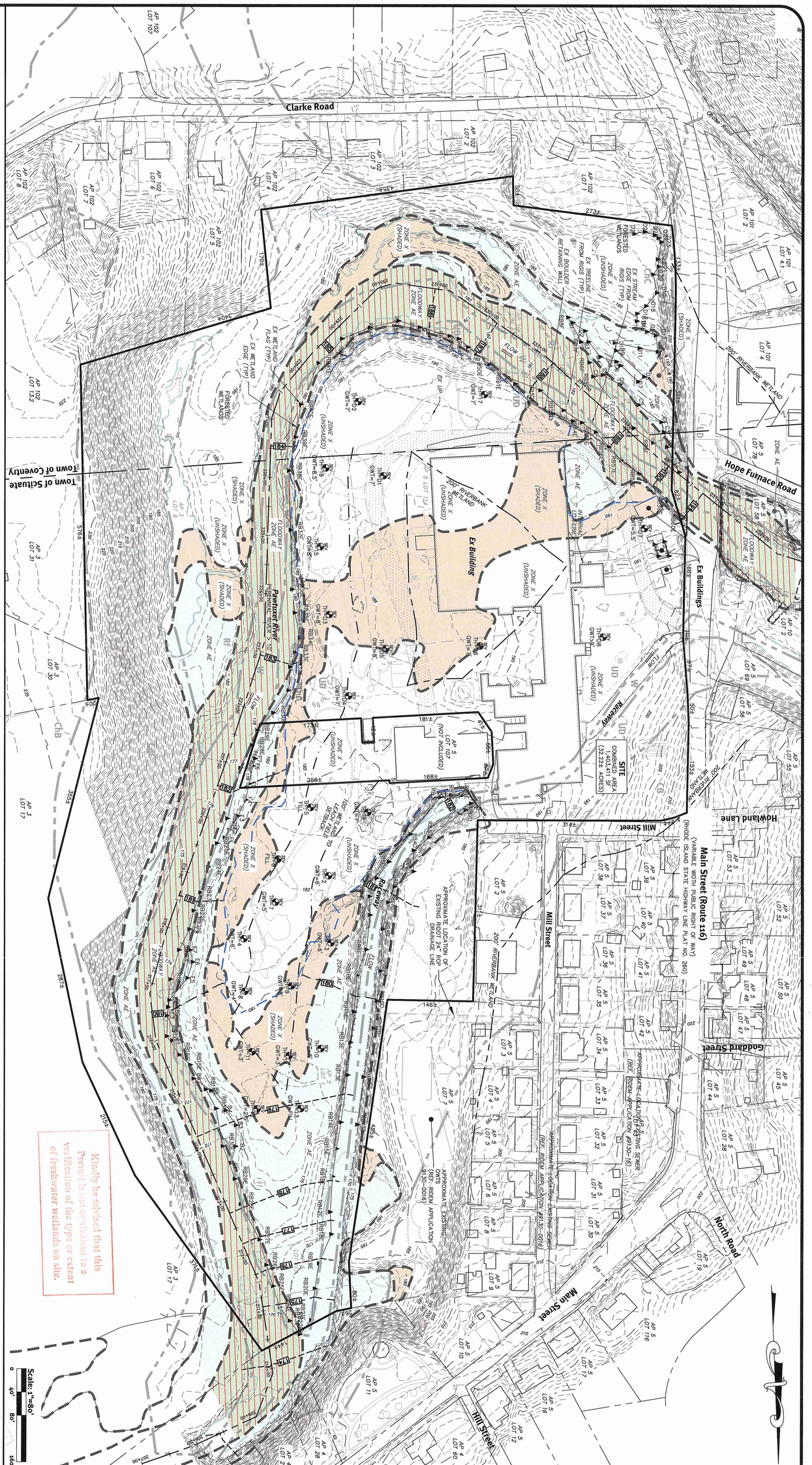
PREPARED FOR
Paramount Development Group
60 STATE STREET, SUITE 700
BOSTON, MA 02109
(617) 548-8333

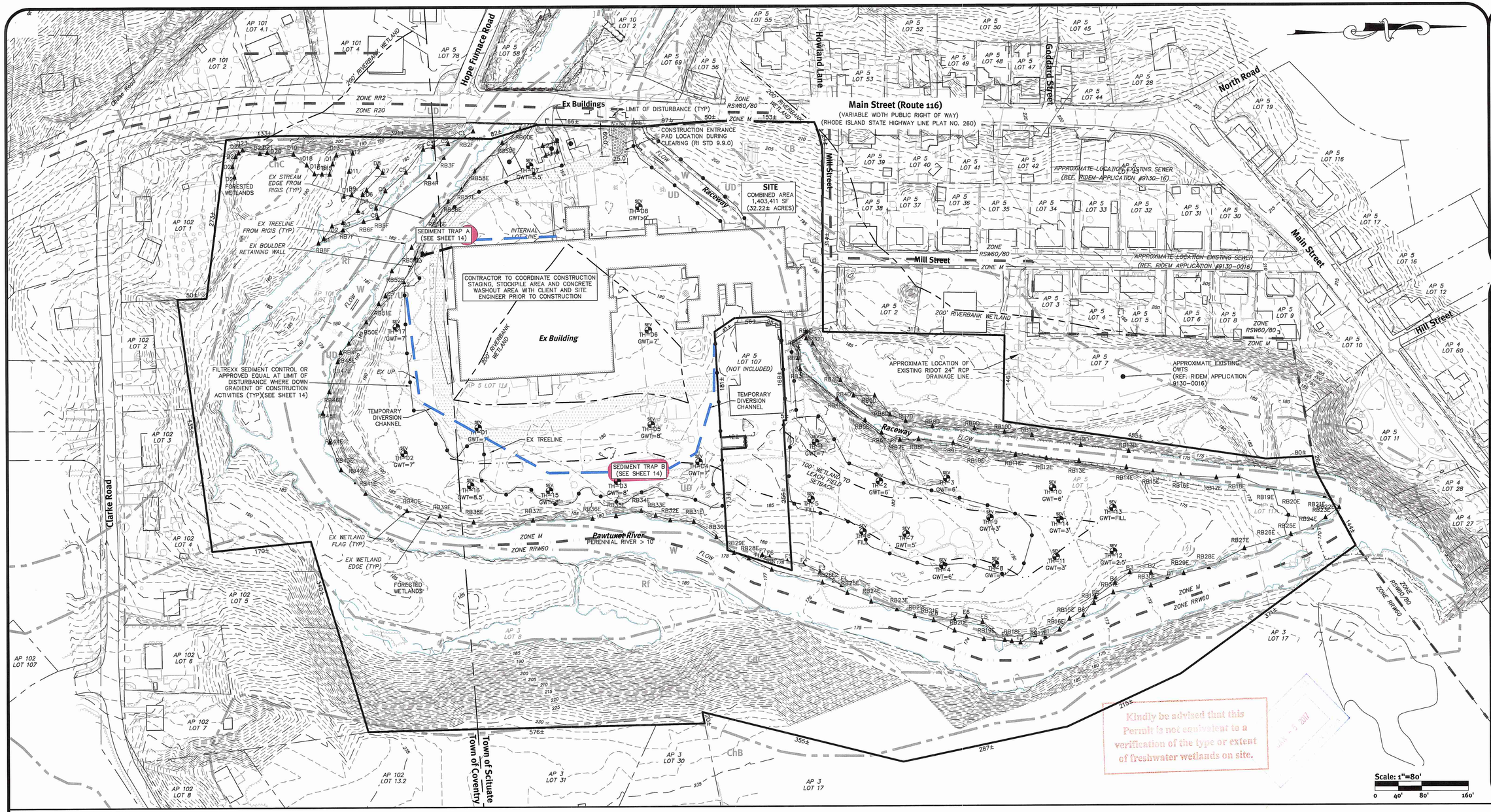
APRIL, 2006
DWN. BY: B.A.S.

SHEET 1 OF 2

Copyright 2016 by DiPrete Engineering Associates, Inc.

z:\demain\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/4/2017


Clarke Road
Hope Furnace Road
Ex Buildings
Ex Building
Howland Lane
Mill Street
Main Street (Route 116)
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
(RHODE ISLAND STATE HIGHWAY LINE PLAT NO. 260)
Goddard Street
North Road
Main Street
Hill Street
Town of Scituate
Town of Coventry
Pawtuxet River
SITE
COMBINED AREA
(12.224 ± ACRES)
200' RIVERBANK WETLAND
100' RIVERBANK WETLAND
FLOODWAY ZONE AE
ZONE AE
ZONE X (SHADED)
ZONE X (UNSHADED)
EX WETLAND EDGE (TYP)
EX STREAM
EX FORESTED WETLANDS
EX BOUNDARY
EX UP
EX OHW
EX SEWER MANHOLE
EX SEWER LINE
EX DRAINAGE MANHOLE
EX CATCH BASIN
EX DRAIN LINE
EX GAS LINE
EX WATER LINE
EX UTILITY POLE
EX GUY WELL
EX HYDRANT
EX GAS VALVE
EX WATER VALVE
EX GAS METER
EX TREE LINE
EX RIDGE (TYP)
EX CONTOUR
EX SPOT GRADE
EX TEST PIT
EX PERC TEST
EX BENCH MARK
EX MONITORING WELL
EX SOIL BORING
EX ROCK OUTCROP
EX RETAINING WALL
EX STONE WALL
EX CHAIN LINK FENCE
EX WOOD FENCE
EX GUARD RAIL
EX CONCRETE
EX BITUMINOUS
EX GRAVEL
EX BUILDING
EX SHED
EX GARAGE
EX CONCRETE PAD



Soil Erosion Control Legend:

- DIVERSION RUNOFF CONVEYANCE MEASURE
- TRIBUTARY DRAINAGE AREA
- TEMPORARY SEDIMENT TRAP
- SILT FENCE OR APPROVED EQUAL EROSION CONTROL MEASURE
- LIMIT OF DISTRUBANCE
- CONSTRUCTION ENTRANCE (RI STD 9.9.0)

Soil Erosion Control Plan

1. ALL EROSION CONTROL, DIVERSIONS, TEMPORARY SEDIMENTATION TRAP, ETC. SHALL BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL LATEST EDITION.
2. SILT FENCE (OR AN APPROVED EROSION CONTROL DEVICE) AND DIVERSIONS SHALL BE USED TO CONTROL RUNOFF DURING CONSTRUCTION OF THE PROPOSED PAVEMENT AREAS. AFTER INITIAL PAVEMENT GRADING IS COMPLETE AND THE PERMANENT DRAINAGE INFRASTRUCTURE HAS BEEN CONSTRUCTED, THE DRAINAGE NETWORK SHALL BE BROUGHT ONLINE AND THE DIVERSIONS SHALL BE DECONSTRUCTED.
3. ONCE THE SEDIMENTATION TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE AREAS SHALL BE BROUGHT TO FINAL DESIGN GRADES.
4. INLET PROTECTION SHALL BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED.
5. SEE SECTION 1.2 OF THE RI SESC HANDBOOK FOR SEQUENCE OF CONSTRUCTION ACTIVITY.
6. SEE SECTION 2.2 OF THE RI SESC HANDBOOK FOR PROJECT PHASING.
7. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER.
8. PERMEABLE PAVEMENT AREAS SHALL BE STAKED OFF, DEMARCATED AND PROTECTED FROM CONSTRUCTION TRAFFIC DURING ALL CONSTRUCTION PHASES.
9. REFER TO DETAIL SHEET 14 FOR FURTHER INFORMATION

General Notes

1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP SHALL HAVE AN INITIAL STORAGE VOLUME OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES SHALL NOT EXCEED 1.5:1.
4. THE OUTLET SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET.
8. SIDE SLOPES OF THE EMBANKMENT SHALL BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE I, COLUMN V FILTER STONE.

Inspection, Maintenance and Removal Requirements

1. INSTALL "SEDIMENT STORAGE" STAKE WITH A MARKER AT ONE HALF OF THE WET STORAGE VOLUME.
2. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
3. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
4. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
5. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
6. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

Installation Notes

1. CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9–INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES, SEEDING FOR TEMPORARY VEGETATION COVER; SEEDING FOR PERMANENT VEGETATIVE COVER; OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION.

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 2 6 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9170
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	Design By: R.B.S.
3	1-6-2017	Revised Permitting Submission	S.E.K.
2	12-20-2016	Revised Permitting Submission	S.E.K.
1	11-18-2016	Revised Permitting Submission	R.B.S.
0	9-15-2016	Permitting Submission	R.B.S.
			Drawn By: R.B.S.

Soil Erosion Control Plan

Hope Mills

Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Denosia
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 6 OF 20

z:\demain\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/4/2017

Ex Buildings

Main Street (Route 116)
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
(RHODE ISLAND STATE HIGHWAY LINE PLAT NO. 260)

Building 1
Building 2
Building 3
Building 4
Building 6
Building 7
AP 5 LOT 107 (NOT INCLUDED)
Building 9
Building 14
Building 15

INTERNAL LOT LINE

Raceway

Pawtuxet River
PERENNIAL RIVER > 10'

200' RIVERBANK WETLAND

100' WETLAND TO LEACH FIELD SETBACK

APPROXIMATE LOCATION EXISTING SEWER (REF. RIDEM APPLICATION #9130-16)

APPROXIMATE LOCATION EXISTING SEWER (REF. RIDEM APPLICATION #9130-0016)

APPROXIMATE EXISTING OWTS (REF. RIDEM APPLICATION 9130-0016)

APPROXIMATE LOCATION OF 24" RCP RIDOT DRAINAGE LINE

EX STREAM EDGE FROM RIGIS (TYP)

EX TREELINE FROM RIGIS (TYP)

EX BOULDER RETAINING WALL

EX UP

EX WETLAND FLAG (TYP)

EX WETLAND EDGE (TYP)

FORESTED WETLANDS

Hope Furnace Road
Howland Lane
Goddard Street
North Road
Mill Street
Main Street
Hill Street
Clarke Road

Town of Scituate
Town of Coventry

Scale: 1"=80'
0 40' 80' 160'

Environmental Management
JAN 13 2017
Office of Water Resources

JASON P. CLOUGH
No. 9710
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1/13/17

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

PLAN SET MUST BE REPRODUCED 'IN COLOR ONLY'

This regulatory submission set shall not be used for construction purposes unless stamped 'issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4	1-13-2017	Revised Permitting Submission	R.B.S.
3	12-6-2016	Revised Permitting Submission	R.B.S.
2	10-18-2016	OWTS Requirements	R.B.S.
1	10-6-2016	Revised Permitting Submission	R.B.S.
0	9-15-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
SEE ATTACHED LETTER OF APPROVAL
JAN 24 2017 FILE # 16-0250
NO CLEARING ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Overall Site Layout Plan

Hope Mills

Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 102 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 7 OF 20

z:\domain\projects\1272-002 hope mill\autocad drawings\1272-002-dsn.dwg Plotted: 1/13/2017

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

STATE OF RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES FRESHWATER WETLANDS PROGRAM APPROVED WITH CONDITIONS AS SHOWN ON THE LETTER OF APPROVAL DATE: JAN 24 2017 FILE # 16-0250 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH No. 9170 REGISTERED PROFESSIONAL ENGINEER CIVIL

Environmental Management JAN 13 2017 Office of Water Resources

PLAN SET MUST BE REPRODUCED IN COLOR ONLY

This regulatory submission set shall not be used for construction purposes unless stamped 'issued for construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4	1-23-2017	Revised Permitting Submission	R.B.S.
3	1-4-2017	Revised Permitting Submission	R.B.S.
2	11-16-2016	OWTS Recommission	S.E.K.
1	10-18-2016	Revised Permitting Submission	R.B.S.
0	9-15-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

Site Plan

Hope Mills

Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

z:\dlemain\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/13/2017

Drainage Structure Notes:

ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.

ALL FRAME AND GRATES SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.

REFER TO ALL RHODE ISLAND STANDARD DETAIL 4.4.0 (OR A MODIFIED VERSION) FOR ALL STRUCTURES LABELED DOUBLE CATCH BASIN (DCB). DOUBLE FRAME AND GRATES TO BE NEENAH FOUNDRY CORP OR APPROVED EQUAL. ALL DCB'S TO BE EQUIPPED WITH SNOUT OIL-DEBRIS HOODS OR APPROVED EQUAL. (SEE SHEET 15)

REFER TO ALL RHODE ISLAND STANDARD DETAIL 4.2.0 (OR A MODIFIED VERSION) FOR ALL STRUCTURES LABELED DRAINAGE MANHOLE (DMH). REFER TO RHODE ISLAND STANDARD DETAIL 6.2.1 FOR ALL HEAVY-DUTY ROUND FRAME AND COVERS.

Town of Scituate
Town of Coventry

Pawtuxet River
PERENNIAL RIVER > 10'

Main Street (Route 116)
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
(RHODE ISLAND STATE HIGHWAY LINE PLAT NO. 260)

Howland Lane

Mill Street

Raceway

SITE
COMBINED AREA
1,403,411 SF
(32.22± ACRES)

Building 1 (PER ARCH PLANS) AREA=10,780± SF
Building 2 (PER ARCH PLANS) AREA=15,610± SF
Building 3 (PER ARCH PLANS) AREA=46,215± SF
Building 4 (PER ARCH PLANS) AREA=2,980± SF
Building 6 (PER ARCH PLANS) AREA=1,310± SF
Building 7 (PER ARCH PLANS) AREA=1,580± SF
Building 9 (PER ARCH PLANS) AREA=1,600± SF
Building 14 (SEE ARCH PLANS) AREA=10,400± SF FFE=189.25
Building 15 (SEE ARCH PLANS) AREA=10,400± SF FFE=189.25

Ex Building AREA=220± SF
Ex Building AREA=790± SF
Ex Building AREA=1,130± SF

AREA INACCESSIBLE DUE TO SAFETY CONCERNS ADDITIONAL SURVEY REQUIRED TO COMPLETE DESIGN PRIOR TO CONSTRUCTION

EX SMOKE STACK TO REMAIN THRESHOLD ELEV=190.1

EXISTING WINDOW WELL DRAINAGE TO BE MAINTAINED

ROOF LEADERS FROM BUILDINGS 1, 2, 3, 4, 6, 7, 9, 14, 16 TO BE CONNECTED TO THE 12" PERFORATED HDPE PIPE SHOWN. FURTHER COORDINATION REQUIRED WITH ARCHITECT AND MEP FOR BUILDING TIE-IN LOCATIONS

DCB-1
RIM=186.75
INV OUT=184.07(DCB-2)

DCB-2
RIM=186.52
INV IN=183.83(DCB-1)
INV OUT=183.83(DMH-3)

DCB-4
RIM=186.98
INV IN=183.83(DMH-3)
INV OUT=183.83(BYPASS DMH-5)

DCB-12
RIM=186.81
INV IN=184.22(BYPASS DMH-5)
INV OUT=184.22(FES-13)

DCB-14
RIM=186.80
INV IN=184.21(BYPASS DMH-7)
INV OUT=184.21(FES-15)

DMH-3 (FLAT TOP)
RIM=187.76
INV IN=183.83(DCB-2)
INV OUT=183.83(DCB-4)

DMH-5
RIM=187.82
INV IN=183.83(DCB-4)
INV IN=183.83(DMH-6)
INV OUT=184.65(DCB-12)

DMH-6 (FLAT TOP)
RIM=188.74
INV IN=183.83(BYPASS DMH-7)
INV IN=183.83(DMH-9)
INV OUT=183.83(BYPASS DMH-5)

DMH-9
RIM=190.28
INV OUT=185.73(DMH-6)

BYPASS DMH-7
RIM=189.23
INV OUT=183.83(DMH-6)
INV OUT=184.65(DCB-14)

FES-13
INV IN=184.00(DCB-12)

FES-15
INV IN=184.00(DCB-14)

12" SOLID HDPE
32 LF
S=0.77%

12" SOLID HDPE
89 LF
S=0.00%

12" PERFORATED HDPE
179 LF
S=0.00%

12" PERFORATED HDPE
246 LF
S=0.00%

12" PERFORATED HDPE
164 LF
S=1.16%

12" PERFORATED HDPE
118 LF
S=0.00%

12" PERFORATED HDPE
61 LF
S=0.00%

18" SOLID HDPE
108 LF
S=0.40%

18" SOLID HDPE
55 LF
S=0.40%

18" SOLID HDPE
108 LF
S=0.40%

18" SOLID HDPE
53 LF
S=0.40%

TH-1 GWT=7'
TH-2 GWT=6'
TH-3 GWT=6'
TH-4 GWT=6'
TH-5 GWT=5'
TH-6 GWT=4'
TH-7 GWT=5.5'
TH-8 GWT=5'
TH-9 GWT=3'
TH-10 GWT=7'
TH-11 GWT=8'
TH-12 GWT=8'
TH-13 GWT=8'
TH-14 GWT=8'
TH-15 GWT=8'
TH-16 GWT=8.5'
TH-17 GWT=7'
TH-D1 GWT=7'
TH-D2 GWT=7'
TH-D3 GWT=8'
TH-D5 GWT=8'
TH-D6 GWT=8'
TH-D8 GWT=5'

RIP RAP
(SEE SHEET 15)

100' WETLAND LEACH FIELD SETBACK

200' RIVERBANK WETLAND

EX WETLAND FLAG (TYP)

EX WETLAND EDGE (TYP)

EX STREAM EDGE FROM RIGIS (TYP)

EX TREELINE FROM RIGIS (TYP)

EX BOULDER RETAINING WALL

INTERIOR LOT LINE

3:1 SLOPE

AP 5 LOT 107 (NOT INCLUDED)

AP 5 LOT 39
AP 5 LOT 40
AP 5 LOT 41
AP 5 LOT 42
AP 5 LOT 38
AP 5 LOT 37
AP 5 LOT 36
AP 5 LOT 35
AP 5 LOT 34
AP 5 LOT 2

APPROXIMATE LOCATION OF EXISTING RIDOT 24" RCP DRAINAGE LINE

SEE SHEET 11 FOR RIDOT DESIGN

SEE SHEET 12 FOR OWTS DESIGN

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
JAN 24 2017
FILE # 16-0130
CHANGES ALLOWED WITHOUT PRIOR APPROVAL
REVISED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management
JAN 13 2017
Office of Water Resources

Scale: 1"=40'
0 20' 40' 80'

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9710
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4	1-25-2017	Revised Permitting Submission	R.B.S.
3	1-13-2017	Revised Permitting Submission	R.B.S.
2	12-16-2016	OWTS Requirements	S.E.K.
1	11-21-2016	Revised Permitting Submission	R.B.S.
0	9-15-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. | Design By: R.B.S.

Grading & Drainage Plan

Hope Mills

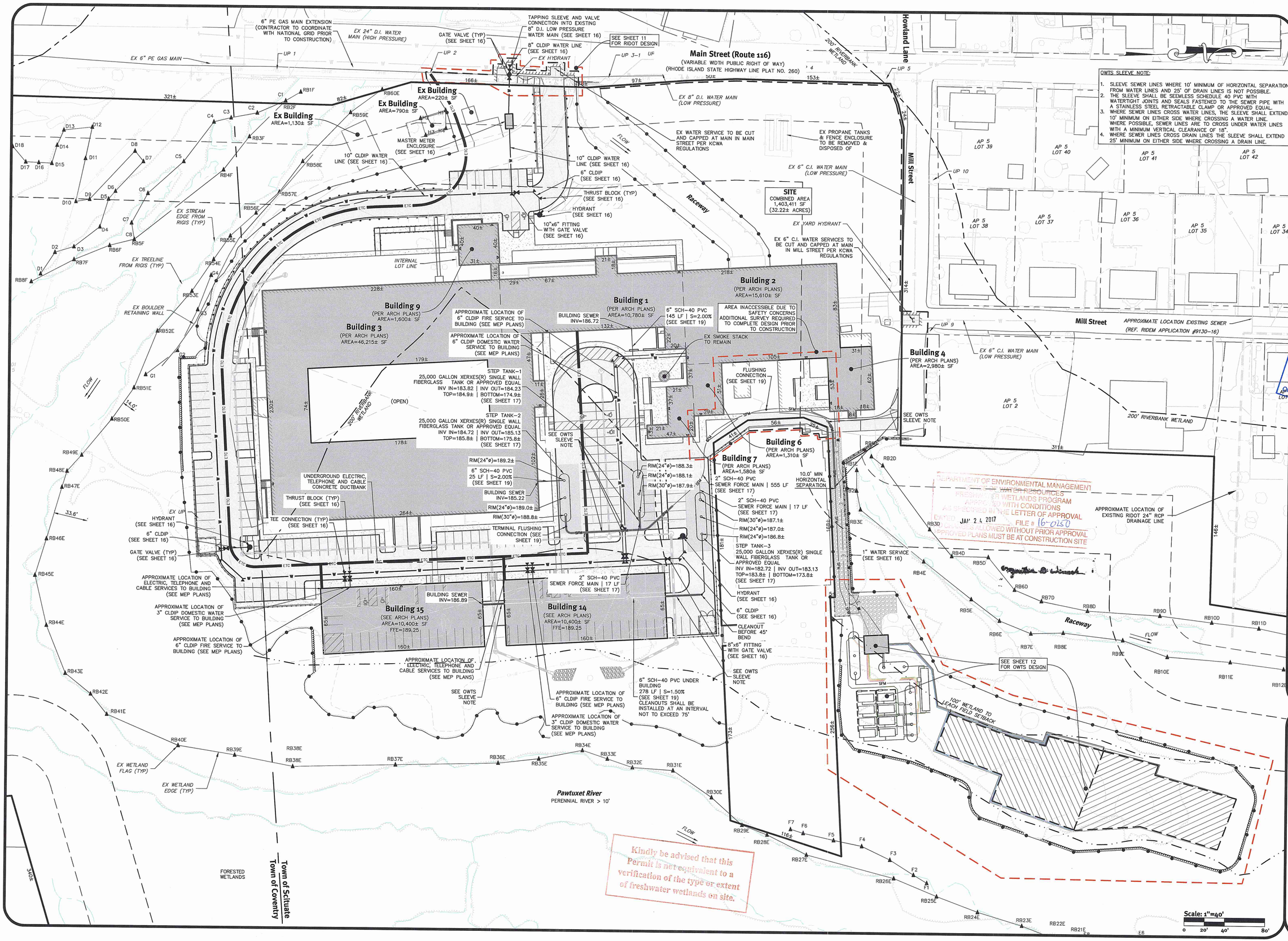
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 9 OF 20

z:\domain\projects\1272-002 hope mill\autocad drawings\1272-002-dsn.dwg Plotted: 1/13/2017



DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9710
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4	1-23-2017	Revised Permitting Submission	R.B.S.
3	1-4-2017	Revised Permitting Submission	R.B.S.
2	12-16-2016	OWTS Recommission	R.B.S.
1	11-18-2016	Revised Permitting Submission	R.B.S.
0	9-15-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

Utility Plan

Hope Mills

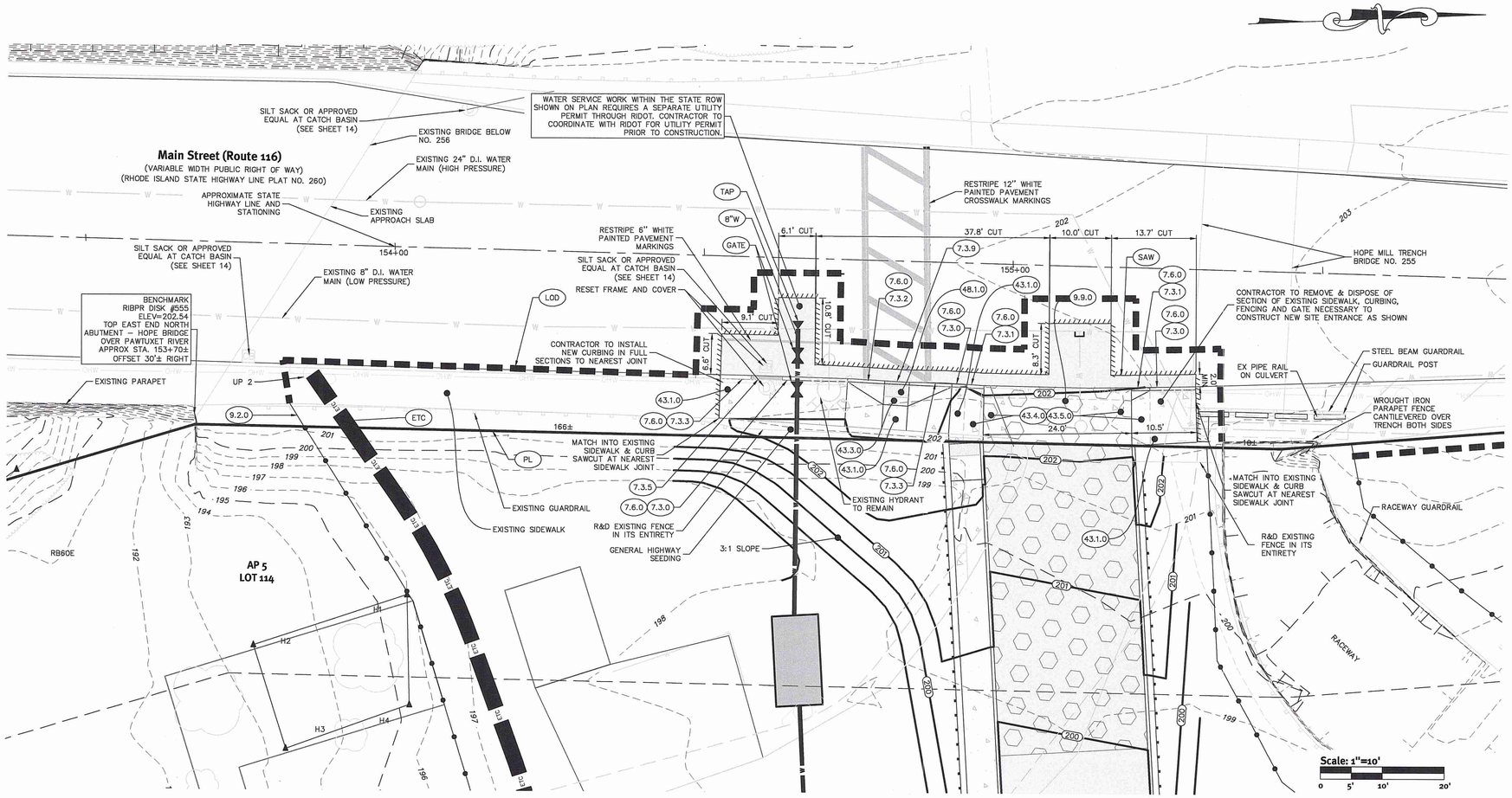
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 6 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
105 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

SHEET 10 OF 20

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

z:\dimain\projects\1272-002 hope mill\autocad drawings\1272-002-dsn.dwg Plotted: 1/13/2017



RIDOT Notes:

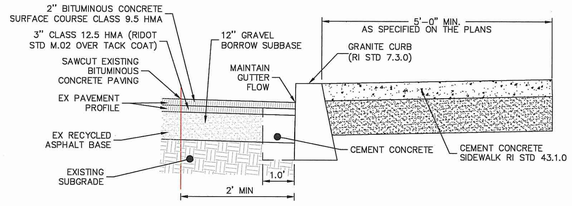
1. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD AND ARE APPROXIMATE ONLY. PRIOR TO CONSTRUCTION, THE PROPER UTILITY ENGINEERING DEPARTMENTS SHALL BE CONTACTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 72 HOURS PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
2. ALL WORK WITHIN THE STATE'S R.O.W. WILL CONFORM TO RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013 INCLUDING ALL REVISIONS AND THE RI STANDARD DETAILS.
3. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, INCLUDING ALL REVISIONS.
4. NO LANE OR SHOULDER CLOSURES SHALL BE PERFORMED WITHIN THE STATE'S R.O.W. DURING PEAK TRAFFIC HOURS.
5. SEWER, WATER, GAS, ELECTRIC, COMMUNICATION, ETC. CONNECTIONS WITHIN THE STATE R.O.W. WILL REQUIRE A SEPARATE RIDOT UTILITY PERMIT. CONTRACTOR TO OBTAIN PRIOR TO CONSTRUCTION.
6. THERE WILL BE NO INCREASE IN RUNOFF TO THE STATE RIGHT OF WAY FROM THE PROPOSED DEVELOPMENT.
7. THERE WILL BE NO DIRECT TIE-IN TO THE STATE'S DRAINAGE SYSTEM.

Traffic Notes:

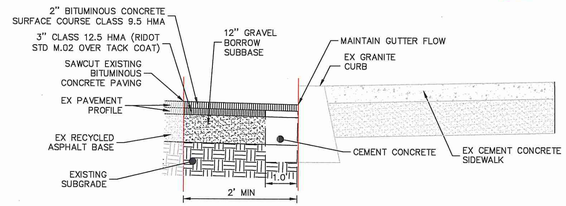
1. DURING CONSTRUCTION TRAFFIC CONES ARE TO BE USED FOR SEPARATION OF ACTIVE TRAFFIC FROM WORK ZONE.
2. DURING CONSTRUCTION FLAGGERS SHALL BE EMPLOYED TO ENSURE SAFETY FOR INTERACTION OF CONSTRUCTION VEHICLES AND ACTIVE TRAFFIC.
3. ALL SIGNS, FLAGGERS, TRAFFIC CONTROL DEVICES, AND TEMPORARY TRAFFIC ZONE ACTIVITIES SHALL MEET THE REQUIREMENTS OF THE MUTCD LATEST EDITION AND SUBSEQUENT ADDENDA.
4. TEMPORARY CONSTRUCTION SIGNS SHALL BE MOUNTED ON RIDOT APPROVED SUPPORTS AND SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE.
5. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION.

Key Legend

8"W	8" CLDIP WATER SERVICE
GATE	GATE VALVE
TAP	TAPPING SLEEVE AND VALVE
ETC	UNDERGROUND ELECTRIC, TELEPHONE AND CABLE CONDUIT
7.3.0	RI STANDARD 7.3.0 GRANITE CURB
7.3.1	RI STANDARD 7.3.1 3'-0" GRANITE TRANSITION CURB
7.3.2	RI STANDARD 7.3.2 6'-0" GRANITE TRANSITION CURB
7.3.3	RI STANDARD 7.3.3 GRANITE WHEELCHAIR RAMP TRANSITION CURB
7.3.5	RI STANDARD 7.3.5 GRANITE INLET STONE
7.3.9	RI STANDARD 7.3.9 GRANITE RAMP STONE
7.6.0	RI STANDARD 7.6.0 CURB SETTING DETAIL
9.2.0	RI STANDARD 9.2.0 SILT FENCE
9.9.0	RI STANDARD 9.9.0 CONSTRUCTION ENTRANCE
43.1.0	RI STANDARD 43.1.0 CEMENT CONCRETE SIDEWALK
43.3.0	RI STANDARD 43.3.0 WHEELCHAIR RAMP
43.4.0	RI STANDARD 43.4.0 DEVELOPMENT FOR 3'-0" TRANSITION CURB
43.5.0	RI STANDARD 43.5.0 CEMENT CONCRETE DRIVEWAY
48.1.0	RI STANDARD 48.1.0 DETECTABLE WARNING PANEL PLACEMENT
LOD	LIMIT OF DISTURBANCE
PL	PROPERTY LINE
SAW	SAW CUT AND MATCH LINE (SEE DETAILS BELOW)



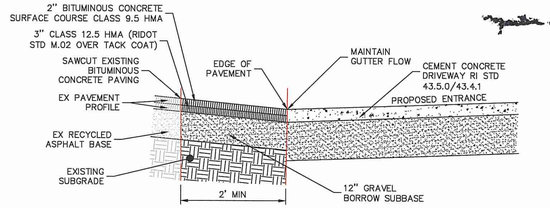
ROW Pavement Cross Section at New Curb
(NOT TO SCALE)



ROW Pavement Cross Section at Existing Curb
(NOT TO SCALE)

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. TACK COAT SHALL BE USED BETWEEN HOT MIX ASPHALT LAYERS AND EXPOSED SAWCUT FACES.



ROW Pavement Cross Section at Driveway Access
(NOT TO SCALE)

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 2 1 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management
JAN 13 2017
Office of Water Resources

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1/13/17

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4.	1-13-2017	Revised Permitting Submission	R.B.S.
3.	12-12-2016	Revised Permitting Submission	R.B.S.
2.	11-18-2016	DWPS Transmission	R.B.S.
1.	11-18-2016	Revised Permitting Submission	R.B.S.
0.	9-30-2016	Permitting Submission	R.B.S.

Design By: R.B.S.
Drawn By: R.B.S.

RIDOT Plan

Hope Mills

Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Deroian
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 11 OF 20

z:\deman\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/13/2017

Site Testing:

R.I.D.E.M. DIVISION OF OWTS APPROVAL
a. GROUND WATER VERIFICATION NO. 1530-1388 DATE: 12/17/2015
b. SITE SUITABILITY REPORT N/A DATE: N/A

SITE TESTING DATE OF EXCAVATION 12/17/2015

SEV
TH 2

SOIL STRATA:
A 0–6" C S 10YR 3/2 sl, 1–sbk, fri
Bw 6–27" C S 10YR 4/6 lsl, 1–sbk, fri
C 27"–96" 2.5YR 5/4 vgls, 0–m, fri

SOIL CATEGORY: 3, 3, & 6m
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 72"

SEV
TH 3

SOIL STRATA:
A 0–6" C S 10YR 3/2 sl, 1–sbk, fri
Bw 6–22" C S 10YR 4/6 ls, 1–sbk, fri
C1 22–78" C S 2.5YR 5/3 s, 0–sg, L
C2 78"–108" 2.5YR 5/4 gcbls, 0–m, fri

SOIL CATEGORY: 3, 3, 1, & 6m
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 72"

SEV
TH 4

SOIL STRATA:
A 0–6" C S 10YR 3/2 ls, 1–sbk, fri
Bw 6–29" C S 10YR 4/6 ls, 1–sbk, fri
C 29"–96" 2.5YR 5/4 vcbls, 0–m, fri

SOIL CATEGORY: 3, 3, & 6m
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 72"

SEV
TH 7

SOIL STRATA:
Bw 0–6" C S 10YR 4/6 sl, 1–sbk, fri
C 6"–96" 2.5YR 5/4 gcbls, 0–m, fri

SOIL CATEGORY: 3 & 6m
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 60"

SEV
TH 8

SOIL STRATA:
A 0–6" C S 10YR 3/2 sl, 1–sbk, fri
Bw 6–18" C S 10YR 4/6 stls, 0–m, fri
C 18"–96" 2.5YR 5/4 vsts, 0–sg, L

SOIL CATEGORY: 3, 3, & 1
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 48"

SEV
TH 9

SOIL STRATA:
A 0–6" C S 10YR 3/2 sl, 1–sbk, fri
Bw 6–20" C S 10YR 4/6 stls, 1–sbk, fri
C 20"–96" 2.5YR 5/4 vcbstls, 0–m, fri

SOIL CATEGORY: 3, 3, & 1
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 48"

SEV
TH 11

SOIL STRATA:
A 0–6" C S 10YR 3/2 sl, 1–sbk, fri
Bw 6–32" C S 10YR 4/6 ls, 1–sbk, fri
C 32"–108" 2.5YR 5/4 gs, 0–sg, L

SOIL CATEGORY: 3, 3, & 1
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 36"

SEV
TH 12

SOIL STRATA:
A 0–5" C S 10YR 3/2 sl, 1–sbk, fri
Bw 5–25" C S 10YR 4/6 ls, 1–sbk, fri
C 25"–96" 2.5YR 5/4 vstcos, 0–sg, L

SOIL CATEGORY: 3, 3, & 1
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 30"

SEV
TH 14

SOIL STRATA:
A 0–5" C S 10YR 3/2 sl, 1–sbk, fri
Bw 5–28" C S 10YR 4/6 ls, 1–sbk, fri
C 28"–96" 2.5YR 5/4 vstcos, 0–sg, L

SOIL CATEGORY: 3, 3, & 1
UNTREATED : 0.23 GALS/SQ FT LOADING RATE DAY
TREATED : 0.9 GALS/SQ FT LOADING RATE DAY
GROUNDWATER TABLE: 36"

DiPrete Engineering
Two Stafford Court, Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9110
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
1	1-4-2017	Revised Permittee Submission	R.B.S.
2	12-16-2016	OWTS Resubmission	R.B.S.
3	11-28-2016	Revised Permittee Submission	R.B.S.
4	9-26-2016	Permittee Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

OWTS Overall Plan

Hope Mills

Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

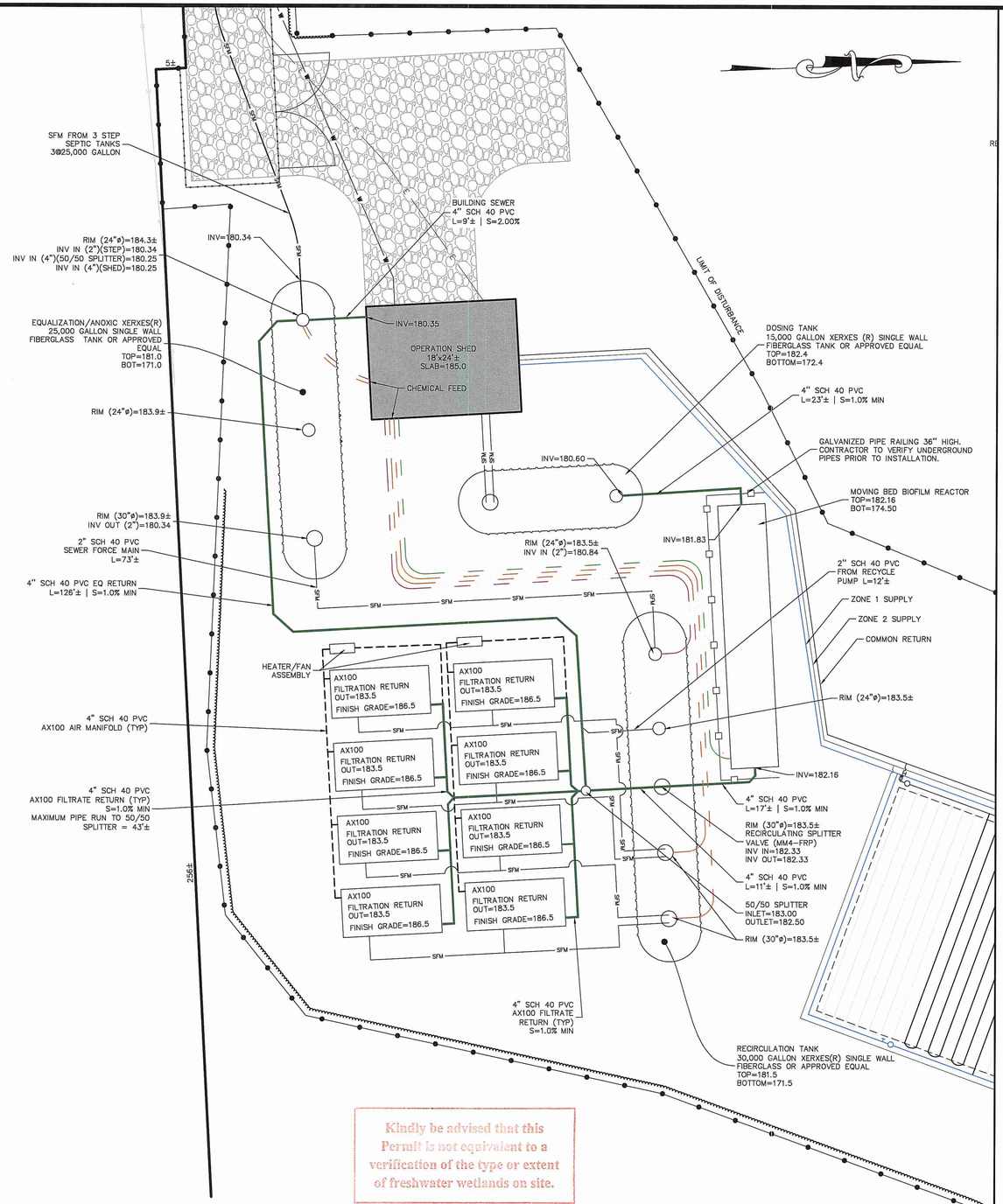
Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 12 OF 20

Scale: 1"=20'
0 10' 20' 40'

z:\domain\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/4/2017



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Legend

- PUMPED SEWER FORCE MAIN — SFM —
- 4" GRAVITY EFFLUENT LINE
- ZONE 1 SUPPLY (LEACH FIELD)
- ZONE 2 SUPPLY (LEACH FIELD)
- COMMON RETURN (LEACHFEILD)
- AX100 AIR MANIFOLD
- CHEMICAL FEED* – MICRO C FEED
- CHEMICAL FEED* – KOH FEED
- CHEMICAL FEED* – ALKALINITY FEED

*PROVIDE 1" SCH 40 PVC CONDUIT FOR CHEMICAL FEEDS

Scale: 1"=10'
0 5' 10' 20'

OWTS General Notes:

1. DIPRETE ENGINEERING CERTIFIES TO THE SOIL CONDITIONS AND LOADING RATE ONLY IN AREA TESTED. INSTALLER TO NOTIFY DESIGNER IF SOIL CONDITIONS ARE FOUND DIFFERENT THAN STATED ON OWTS APPLICATION.
2. THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS A CLASS I SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES INC. THE PLAN ITSELF CONFORMS ONLY TO A CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD.
3. TOPOGRAPHY OBTAINED FROM AERIAL PHOTOGRAMMETRY WITH GROUND CONTROL BY DIPRETE ENGINEERING. ELEVATIONS IN U.S. SURVEY FEET ARE REFERENCED TO NAVD '88.
4. NO DRAINS OR WATERLINES TO BE INSTALLED WITHIN 25' OF LEACHING AREA.
5. NO GARBAGE GRINDERS SHALL BE INSTALLED.
6. THERE ARE NO EXISTING OR PROPOSED WELLS WITHIN 200' OF THE PROPOSED OWTS.
7. THERE ARE NO KNOWN EXISTING OR PROPOSED DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS OTHER THAN SHOWN.
8. THERE ARE NO EXISTING OR PROPOSED OWTS WITHIN 100' OF A PROPOSED OR EXISTING WELL.
9. THERE ARE NO PROPOSED OR EXISTING PUBLIC WELLS WITHIN 500' OF THE PROPOSED OWTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE. THIS PLAN SHOWS GENERAL GRADING ONLY AND ADDITIONAL DETAIL MAY BE REQUIRED.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.
12. THE FINAL LANDSCAPING, SOIL STABILIZATION AND EROSION CONTROL IS TO BE COMPLETED BY THE OWNER PER THE APPROVED PLAN. ALTERATIONS TO THIS DESIGN ARE TO BE IDENTIFIED BY THE HOMEOWNER IN WRITING TO THE DESIGN ENGINEER FOR APPROVAL AND POSSIBLE RESUBMISSION TO THE RIDEM.
13. THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
14. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS BY OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. NO ONE SHOULD RELY ON THE UTILITY LOCATIONS SHOWN FOR CONSTRUCTION AND DIG SAFE MUST BE NOTIFIED PRIOR TO ANY WORK.
15. THIS SITE WILL BE REVIEWED UNDER RIDEM APPLICATION # TBD , DATED TBD .
16. THE OWTS SHOULD BE MAINTAINED BY THE OWNER THROUGH AN OPERATIONS AND MAINTENANCE CONTRACT WITH A QUALIFIED VENDOR.
17. DESIGNER REQUIRES INSPECTIONS THROUGHOUT CONSTRUCTION INCLUDING BOTTOM INSPECTION, COVER INSPECTION, AND FINAL INSPECTION.
18. OWTS COMPONENTS REQUIRING ELECTRICAL SERVICE SHALL INCLUDE AN EMERGENCY BACK UP POWER SUPPLY. ALL ELECTRIC SERVICES AND THE BACKUP POWER SUPPLY SHALL BE COORDINATED WITH THE PROJECT ARCHITECT AND ELECTRICAL ENGINEER.
19. STEP TANK CONTROL CONDUITS TO BE RUN FROM THE OPERATIONS SHED TO STEP TANKS IN CONJUNCTION WITH SEWER FORCE MAIN TRENCH.

OWTS Construction Notes:

1. CONSTRUCTION SHALL CONFORM TO THE RHODE ISLAND SPECIFICATIONS SET FORTH IN THE "DEPARTMENT OF ENVIRONMENTAL MANAGEMENT – RULES AND REGULATIONS" ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION & CONSTRUCTION OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST EDITION.
2. THE FILL AROUND THE SYSTEM SHALL BE COARSE SAND, OR BANK RUN GRAVEL.
3. INSTALLER TO REMOVE ALL TREES AND SHRUBS FROM LEACHING AREA, AND 10' ON ALL SIDES.
4. ALL SEWER PIPING TO BE SCH 40 PVC OR APPROVED EQUAL.
5. TREATMENT TANK RISERS TO BE AT FINISH GRADE
6. MAXIMUM 3:1 SLOPE FOR 25' FROM LEACHFIELD.
7. BENCHMARK TO BE SET WITHIN 150' OF PROPOSED SYSTEM PRIOR TO CONSTRUCTION. BENCH MARK = TBD ELEV.= XXX.XX'
8. ALL STAGES OF THE OWTS INSTALLATION MUST BE SUPERVISED BY THE DESIGN ENGINEER.
9. DIG SAFE IS REQUIRED TO BE NOTIFIED PRIOR TO START OF ANY CONSTRUCTION.

Sequence of Construction:

1. CONTRACTOR TO OBTAIN ALL REQUIRED FEDERAL, STATE AND MUNICIPAL PERMITS, AND TO NOTIFY "DIG SAFE" PRIOR TO CONSTRUCTION.
2. SET EROSION CONTROL AT LIMIT OF WORK. MAINTAIN CONTINUOUS FENCE LINE DURING CONSTRUCTION AND REPAIR AS NEEDED.
3. CONTACT DESIGNER 24 HR. PRIOR TO OWTS CONSTRUCTION.
4. BEGIN OWTS BOTTOM EXCAVATION.
5. CONTACT DESIGNER 24 HR. PRIOR TO OWTS BOTTOM EXCAVATION COMPLETION FOR INSPECTION.
6. BEGIN OWTS CONSTRUCTION.
7. CONTACT DESIGNER 24 HR. PRIOR TO OWTS COMPLETION FOR INSPECTION.
8. COVER OWTS COMPONENTS AND COMPLETE FINISH GRADING.
9. CONTACT DESIGNER 24 HR. PRIOR TO OWTS FINAL GRADING FOR INSPECTION.
10. COMPLETE SOIL STABILIZATION BY LOAM AND SEEDING DISTURBED AREAS.

Fiberglass Tank Notes:

1. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL FIBERGLASS TANKS AND BE APPROVED BY DESIGN ENGINEER PRIOR TO MANUFACTURING.
2. INSTALLER TO BE CERTIFIED BY TANK MANUFACTURER PRIOR TO TANK INSTALLATION.
3. ALL TANKS TO BE WATER TESTED ON SITE AND INSPECTED BY DESIGN ENGINEER.

Design Calculations:

1. PHASE 1 DESIGN FLOW = 104 BEDROOMS X 115 GAL/BR = 11,960 GALLONS/DAY
   PHASE 2 DESIGN FLOW = 100 BEDROOMS X 115 GAL/BR = 11,500 GALLONS/DAY
   PHASE 3 DESIGN FLOW = 130 BEDROOMS X 115 GAL/BR = 14,950 GALLONS/DAY
   TOTAL DESIGN FLOW = 334 BEDROOMS X 115 GAL/BR = 38,410 GALLONS/DAY
2. SOIL CATEGORY 6M LOADING RATE 2.3 GALS/SF/DAY
   DESIGN GWT = VARIES FROM 36" TO 72" IN AREA OF LEACHFIELD
   DESIGN DEPTH TO IMPERVIOUS = 8' TO 9' IN AREA OF LEACHFIELD
3. PRETREATMENT PERFORMED BY 3–25,000 GALLON STEP TANKS, 1–25,000 GALLON EQUALIZATION/ANOXIC TANK, 1–30,000 GALLON RECIRCULATION TANK, 8–AX–100 TREATMENT UNITS AND ONE MAXBBR–42 GI MOVING BED BIOFILM REACTOR.
4. TANK CALCULATIONS:
   PHASE 1 = 11,960 GALLONS/DAY
   1–STEP TANK @ 25,000 GALLONS
   PHASE 2 = 11,500 GALLONS/DAY
   1–STEP TANK @ 25,000 GALLONS
   PHASE 3 = 14,950 GALLONS/DAY
   1–STEP TANK @ 25,000 GALLONS
   1–EQUALIZATION/ANOXIC TANK @ 25,000 GAL
   1–RECIRCULATION TANK @ 30,000 GAL
   1–DOSING CHAMBER @ 15,000 GAL
5. LEACH FIELD – PERC RITE DRIP SYSTEM
   SOIL CATEGORY 6M (VGLS)
   LOADING RATE = 2.3 GAL/SF/DAY
   MINIMUM LEACHING AREA REQUIRED = 38,410 GALLONS/DAY / 2.3 GAL/SF/DAY = 16,700 SF
   LEACHING AREA PROVIDED = 17,900 SF

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9110
REGISTERED PROFESSIONAL ENGINEER CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped "Issued for Construction" and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
3	1-6-2017	Revised Permitting Submission	R.B.S.
2	12-16-2016	OWTS Resubmission	R.B.S.
1	10-28-2016	Revised Permitting Submission	R.B.S.
0	9-30-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

OWTS Enlarged Detail Plan

Hope Mills

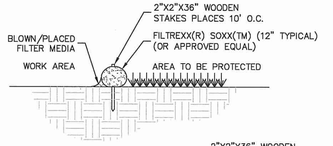
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
155 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

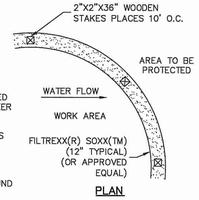
DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 13 OF 20

z:\deman\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/4/2017



SECTION



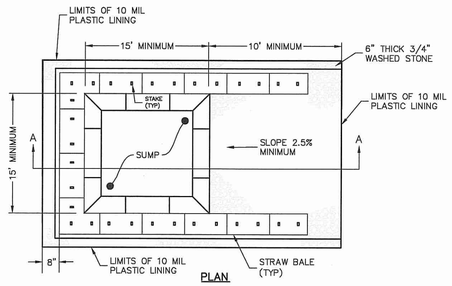
PLAN

NOTES:

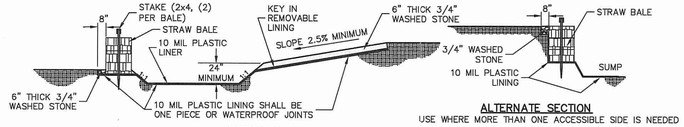
1. ALL MATERIAL TO MEET FILTREXX(R) SPECIFICATIONS
2. FILTER MEDIA(TM) FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER
4. STAKES ARE NOT TO BE USED IN PAVEMENT AREAS.
5. SELF WEIGHT OF FILTREXX SYSTEM IS ADEQUATE TO PREVENT SYSTEM OF MOVEMENT ONCE POSITIONED ALONG AREA SHOWN IN PLAN ABOVE.
6. CONTRACTOR TO PLACE FILTREXX SEDIMENT CONTROL OR EQUAL AROUND ALL CURB INLET LOCATIONS AS SPECIFIED ON PLANS.

Filtrexx Sediment Control or Approved Equal

NOT TO SCALE



PLAN



SECTION A–A

ALTERNATE SECTION
USE WHERE MORE THAN ONE ACCESSIBLE SIDE IS NEEDED

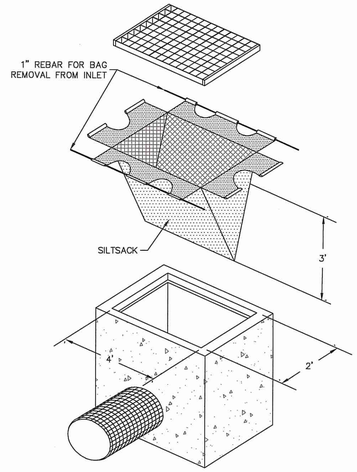
WASHOUT SIGN

NOTES:

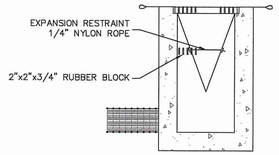
1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12."
4. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAWCUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT AND GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, AND SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.

Concrete Washout Area

(NOT TO SCALE)



NOTE:
REGULAR FLOW=40 GAL./MIN/SF
HIGH FLOW=200 GAL./MIN/SF



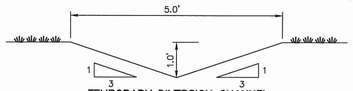
Silt Sack Detail

NOT TO SCALE

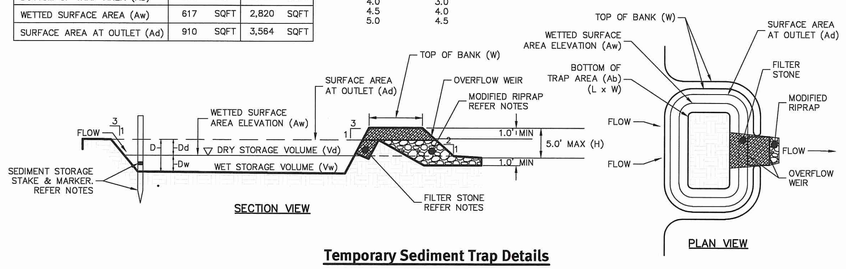
SEDIMENT TRAP DIMENSIONS	TRAP A		TRAP B	
TRIBUTARY DRAINAGE AREA	0.66	AC	2.88	AC
WET STORAGE DEPTH (Dw)	3.00	FT	3.00	FT
DRY STORAGE DEPTH (Dd)	2.00	FT	2.00	FT
TOTAL DEPTH (D)	5.00	FT	5.00	FT
BOTTOM OF TRAP AREA (Ab)	380	SQFT	2,132	SQFT
WETTED SURFACE AREA (Aw)	617	SQFT	2,820	SQFT
SURFACE AREA AT OUTLET (Ad)	910	SQFT	3,564	SQFT

TOP WIDTH VS HEIGHT
H=HEIGHT OF EMBANKMENT
W=TOP WIDTH OF EMBANKMENT

H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	3.0
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5



TEMPORARY DIVERSION CHANNEL

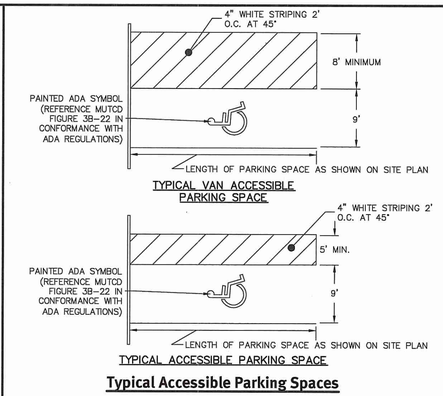


SECTION VIEW

PLAN VIEW

Temporary Sediment Trap Details

NOT TO SCALE



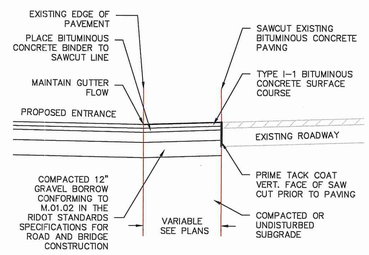
TYPICAL VAN ACCESSIBLE PARKING SPACE

TYPICAL ACCESSIBLE PARKING SPACE

Typical Accessible Parking Spaces

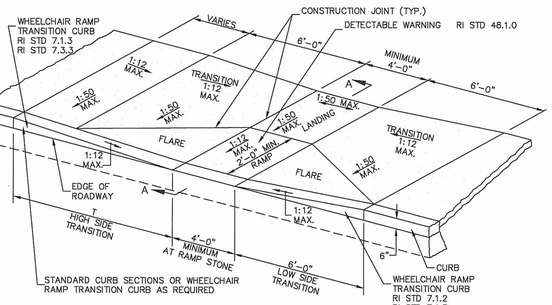
NOT TO SCALE

NOTE:
MINIMUM COMPACTION FOR GRAVEL SUB–BASE OR SUBGRADE: 95% MODIFIED PROCTOR.



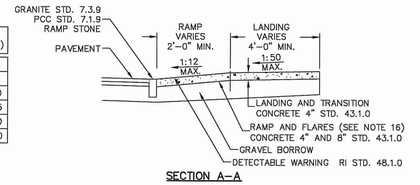
Entrance Access Sawcut & Match

NOT TO SCALE



ISOMETRIC VIEW

ROADWAY PROFILE GRADE	T (FT.)
0.00	7.5
0.01	9.0
0.02	11.0
0.03	13.5
0.04	19.0
0.05	30.0



SECTION A–A

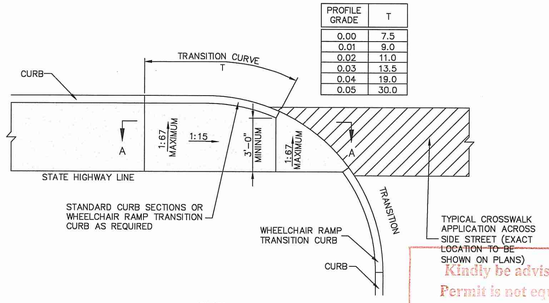
NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP WILL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
3. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP–GRADE OF ALL WHEELCHAIR RAMPS.
5. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'–0" SHALL BE MAINTAINED.
8. THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT EXCEED 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
9. WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'–0")
10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
11. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
12. THE WHEELCHAIR RAMP SHALL BE CENTERED RADIALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'–0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS.
16. 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID–BLOCK) LOCATIONS.
17. MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.3.0.
18. NOT FOR WORK WITHIN STATE RIGHT OF WAY.

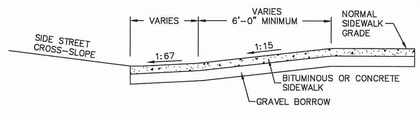
Wheelchair Ramp (ADA)

NOT TO SCALE

PROFILE GRADE	T
0.00	7.5
0.01	9.0
0.02	11.0
0.03	13.5
0.04	19.0
0.05	30.0



PLAN



SECTION A–A

NOTES:

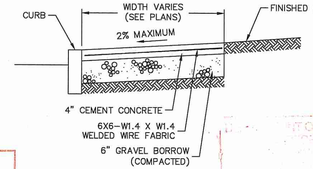
1. SHALL BE IN ACCORDANCE WITH SECTION 904 OF THE R.I. STANDARD SPECIFICATIONS.
2. THIS DETAIL IS TO BE USED ONLY WHEN STATE RIGHT–OF–WAY IS LIMITED TO BACK OF SIDEWALK, AND SIDEWALK IS NARROW WITH NO PEDESTRIAN TRAFFIC FROM SIDE STREET.
3. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, IF POSSIBLE, THE OBSTRUCTION WILL BE PLACED SUCH THAT IT FALLS OUTSIDE OF THE RAMP.
4. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
5. DRAINAGE FACILITIES ARE TO BE LOCATED UP–GRADE OF ALL WHEELCHAIR RAMPS.
6. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
7. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
8. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
9. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'–0" (GREATER LENGTHS PREFERRED).
10. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'–0" SHALL BE MAINTAINED.
11. MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.3.1.
12. NOT FOR WORK WITHIN STATE RIGHT OF WAY.

Wheelchair Ramp For Limited Right-Of-Way Areas (ADA)

NOT TO SCALE

NOTES:

1. PROVIDE EXPANSION JOINTS AT MINIMUM 25' O.C. WITH 1/4" PREMOLDED JOINT FILTER.
2. PROVIDE TOOLED DUMMY JOINTS AT 4' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
4. CLASS "B" CONCRETE SHALL BE USED.
5. CONCRETE SIDEWALK DETAIL FOR ONSITE SIDEWALKS ONLY.
6. NOT FOR WORK WITHIN STATE ROW.

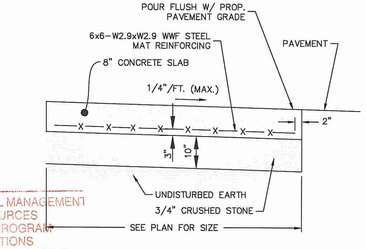


Concrete Sidewalk

NOT TO SCALE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

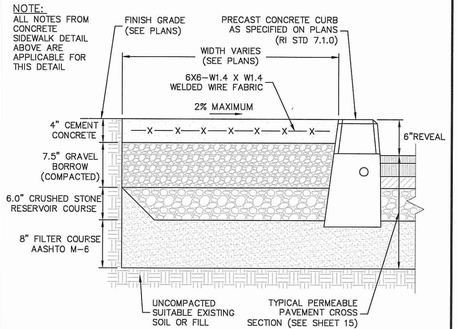
STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
SEE LETTER OF APPROVAL
16-0250 FILE # JAN 2 4 2017
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



Concrete Dumpster Pad

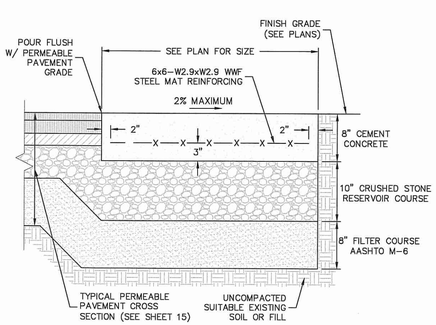
NOT TO SCALE

NOTE:
ALL NOTES FROM CONCRETE SIDEWALK DETAIL ABOVE ARE APPLICABLE FOR THIS DETAIL



Concrete Sidewalk w/Stone Reservoir

NOT TO SCALE



Concrete Dumpster Pad w/Stone Reservoir

NOT TO SCALE

DETAILS ON SHEET 14 OF 20 ARE NOT TO BE USED WITHIN STATE RIGHT OF WAY.

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9710
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
JAN 13 2017
Office of Water Resources

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
4	1-13-2017	Revised Permitting Submission	R.B.S.
3	12-15-2016	Revised Permitting Submission	R.B.S.
2	11-15-2016	OWM Resubmission	R.B.S.
1	10-18-2016	Revised Permitting Submission	R.B.S.
0	9-16-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. | Design By: R.B.S.

z:\deman\projects\1272-002 hope mill\autocad drawings\1272-002-dtst.dwg Plotted: 1/13/2017

Detail Sheet - 1

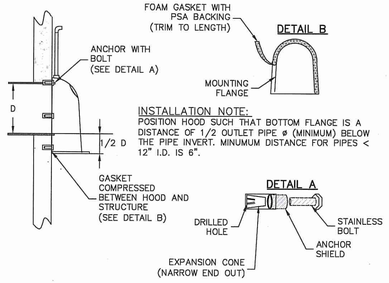
Hope Mills
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No. 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 14 OF 20

INSTALLATION DETAIL



INSTALLATION NOTE:
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE ø (MINIMUM) BELOW THE PIPE INVERT. MINUMUM DISTANCE FOR PIPES < 12" I.D. IS 6".

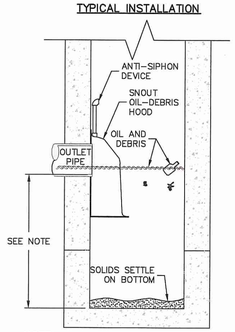
NOTES:
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE
   AS MANUFACTURED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   53 MT. ARCHER RD.
   LYME, CT 06371
   (860) 434-0277, (860) 434-3195 FAX
   TOLL FREE: (800) 504-8008 OR (888) 354-7585
   WEB SITE: www.bestmp.com
   OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
   INSTALLATION KIT SHALL INCLUDE:
   A) INSTALLATION INSTRUCTIONS
   B) PVC ANTI-SIPHON VENT PIPE AND ADAPTER
   C) OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
   D) 3/8" STAINLESS STEEL BOLTS
   E) ANCHOR SHIELDS

TO BE INSTALLED IN ALL CATCH BASINS

Oil Separator Detail

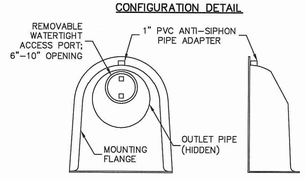
NOT TO SCALE

TYPICAL INSTALLATION



NOTE:
SUMP DEPTH OF 36" MINIMUM FOR < OR = 12" ø OUTLET. FOR OUTLETS > OR = 15", DEPTH = 2.5 - 3.0 X ø.

CONFIGURATION DETAIL



FRONT VIEW SIDE VIEW

SNOUT OIL-WATER-DEBRIS SEPARATOR

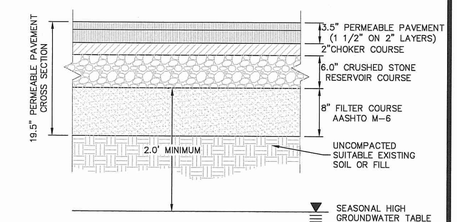
HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES		
DESCRIPTION	DATE	SCALE
OIL- DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYP)	09/08/00	NONE
	DRAWING NUMBER	SP-SN
	US Patent # 6126817	

STANDARD SIEVE SIZE (INCHES)	CHOKER COURSE (AASHTO NO. 57)	FILTER COURSE (AASHTO NO. M-6)	RESERVOIR COURSE (AASHTO NO. 3)	PERVIOUS PAVEMENT
6				
2 1/2			100	
2			90-100	
1 1/2	100		35-70	
1	95-100		0-15	
3/4	-		-	100
1/2	25-60		0-5	85-100
3/8	-	100		55-75
#4	0-10	70-100		10-25
#8	0-5	-		5-10
#200	0	0-4		2-4

PERMEABLE PAVEMENT MATERIAL GRADATION (% PASSING)

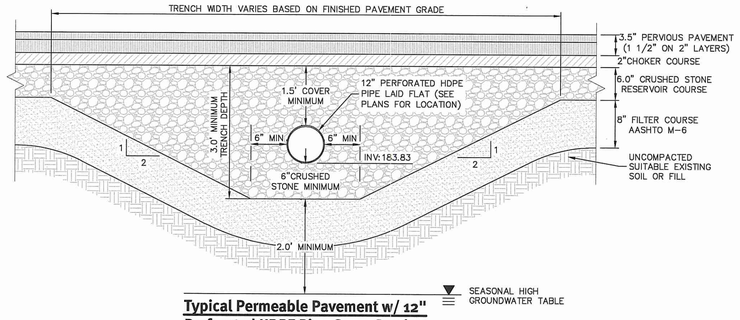
NOTES:
1. ALL MATERIALS, METHODS OF CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO APPLICABLE REQUIREMENTS OF ASSHTO, ASTM STANDARDS, AND RIDOT STANDARDS.
2. ALL AREAS WHICH DRAIN TO PERMEABLE SURFACES SHALL BE COMPLETELY STABILIZED, INCLUDING LANDSCAPED AREAS, OR EROSION CONTROL MEASURES SHALL BE INSTALLED UPGRADIENT OF THE PERMEABLE SURFACE BEFORE PLACEMENT OF PERMEABLE SURFACE.
3. PERMEABLE SURFACE SHALL NOT BE PLACED IN THE RAIN OR WHEN TEMPERATURES ARE BELOW 60°F.
4. CHOKER COURSE, FILTER COURSE, AND RESERVOIR COURSE SHALL BE COMPACTED TO 95% COMPACTION PER ASTM D698.
5. CONTRACTOR SHALL SUBMIT ALL MIX DESIGNS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
6. ALL STONE AND GRAVEL MATERIAL BELOW THE PERMEABLE PAVEMENT SHALL BE WASHED.
7. STRIPING PAINT SHALL BE LATEX, WATER-BASE EMULSION, READY-MIXED AND COMPLYING WITH PAVEMENT MARKING SPECIFICATIONS PS 71-P-1952.

Permeable Pavement Notes



Typical Permeable Pavement Cross Section

NOT TO SCALE



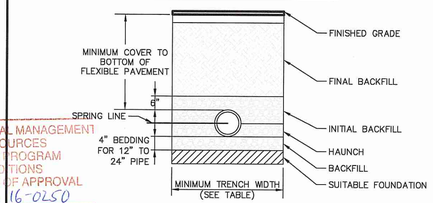
Typical Permeable Pavement w/ 12" Perforated HDPE Pipe Cross Section

NOT TO SCALE

HDPE INSTALLATION NOTES:

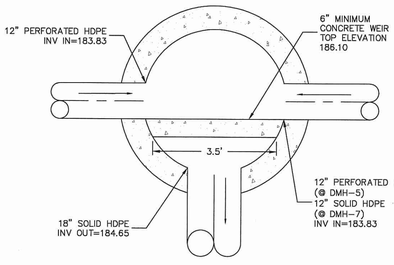
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS, LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100MM) FOR 4"-24" (100MM-600MM); 6" (150MM) FOR 30"-60" (750MM-900MM).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

PIPE DIAMETER	MINIMUM TRENCH WIDTH
6"	23"
8"	26"
12"	30"
15"	34"
24"	39"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"



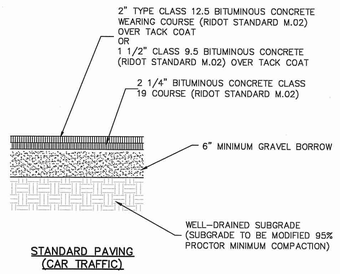
HDPE TRENCH DETAIL

NOT TO SCALE



Bypass DMH-5 & DMH-7 (4'Ø MANHOLE)

SCALE 1"=2'

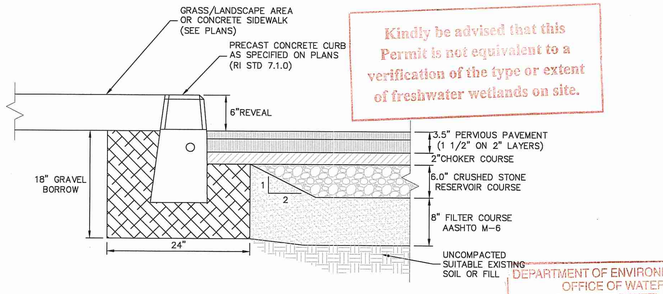


STANDARD PAVING (CAR TRAFFIC)

NOTE:
THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS. ENGINEER TO DETERMINE DESIGN BASED ON GEOTECHNICAL DATA OF SPECIFIC PROJECT AND DAILY TRAFFIC DESIGN REQUIREMENT.

Typical Pavement Section

NOT TO SCALE

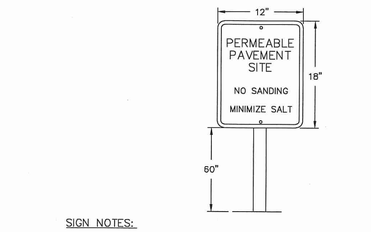


Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Typical Permeable Pavement at Curb Cross Section

NOT TO SCALE

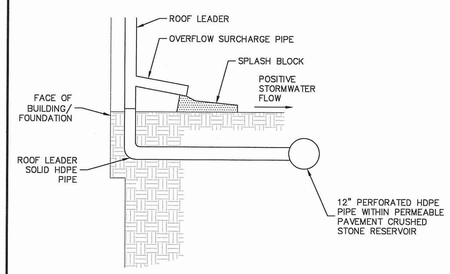


SIGN NOTES:
1. SIGNS TO BE INSTALLED AT LOCATIONS SHOWN ON SITE PLAN.
2. ALL SIGNS TO BE INSTALLED 6" BEHIND BACK OF CURB.
3. SEE RI STD DETAIL 24.6.0 ON THIS SHEET FOR MOUNTING DETAIL.

Permeable Pavement Sign

NOT TO SCALE

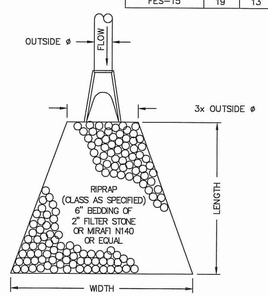
NOTE:
CONTRACTOR TO COORDINATE ROOF LEADER AND COLLECTION PIPE LOCATIONS ON AND AROUND BUILDINGS WITH ARCHITECTURAL AND ENGINEERING PLANS. SPLASH BLOCK AND LOCATION TO BE COORDINATED WITH ARCHITECT.



Typical Roof Leader Collection Pipe Detail

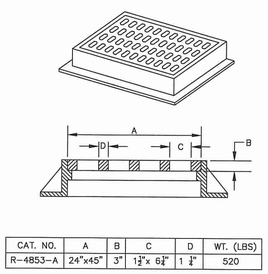
NOT TO SCALE

FLARED END	LENGTH	WIDTH	CLASS
FES-13	19'	13'	R-2
FES-15	19'	13'	R-2



Riprap Apron/ FE Detail

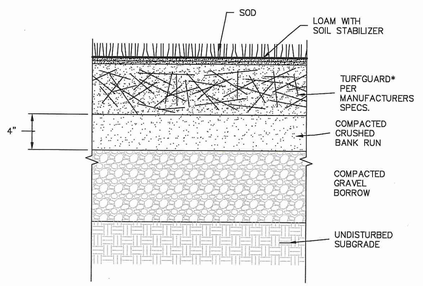
NOT TO SCALE



CAT. NO.	A	B	C	D	WT. (LBS)
R-4853-A	24"x45"	3"	1 1/2"x 6 1/2"	1 1/2"	520

DOUBLE FRAME & GRATE NEENAH FOUNDRY CORP. (OR EQUAL)

NOT TO SCALE



* TURFGUARD BY NETLON TURF SYSTEMS
www.conwedplastics.com

REINFORCED TURF

NOT TO SCALE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
JAN 18 2017
Office of Water Resources

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	Drawn By: R.B.S. / Design By: R.B.S. / By:
4	1-13-2017	Revised Permitting Submission	R.B.S.
3	12-19-2016	Revised Permitting Submission	S.P.K.
2	12-16-2016	DWR Resubmission	R.B.S.
1	11-18-2016	Revised Permitting Submission	R.B.S.
0	10-28-2016	Permitting Submission	R.B.S.

Detail Sheet - 2

Hope Mills

Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114, & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

SHEET 15 OF 20

DE Job No. 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

z:\domain\projects\1272-002 hope mill\autocad drawing\1272-002-dtst.dwg Plotted: 1/13/2017

Chlorination & Disinfection Policy*

1. ALL NEW OR REPAIRED POTABLE WATER SYSTEM DISTRIBUTION MAINS, SERVICE PIPE AND THE NECESSARY CONNECTING PIPES, FITTINGS, CONTROL VALVES, AND ALL APPURTENANCES IN OR ADJACENT TO ANY RESIDENCE, BUILDING OR PREMISES SHALL BE PURGED OF DELETERIOUS MATTER AND SHALL BE DISINFECTED PRIOR TO UTILIZATION OR PERMANENT CONNECTION TO THE KENT COUNTY WATER AUTHORITY (KCWA) SYSTEM. THAT PORTION OF THE CUSTOMER'S SERVICE PIPE AFTER THE CURB STOP SHALL BE DISINFECTED UNDER THE SUPERVISION OF THE LOCAL PLUMBING OFFICIAL. THE OWNER MUST PROVIDE WRITTEN LABORATORY CERTIFIED DOCUMENTATION OF THE DISINFECTION RESULTS TO THE KCWA BEFORE MAKING ANY PERMANENT CONNECTION TO THE KCWA SYSTEM OR BEFORE REACTIVATION OF ANY EXISTING WATER SERVICE CAN BE AUTHORIZED. PLEASE REFER TO APPENDICES FOR PROGRAM REQUIREMENTS OF THE CUSTOMER WATER SERVICE DISINFECTION POLICY.
2. THE PROPOSER OR THE CONTRACTOR FOR THE PROPOSER, IN ACCORDANCE WITH CHAPTER 5, DISTRIBUTION SYSTEM CHLORINATION, AMERICAN WATER WORKS ASSOCIATION MANUAL #20, SHALL PERFORM CHLORINATION. TABLET CHLORINATION SHALL NOT BE ALLOWED.
3. THE OWNER OR CUSTOMER IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION PROCESS OR PROCEDURE.
4. THE DISINFECTION MUST RESULT IN ELIMINATION FROM THE VARIOUS PARTS OF THE NEW PIPE LINE ANY EVIDENCE OF THE EXISTENCE, THEREIN, OF BACTERIA INDICATIVE OF ANY CONTAMINATION, AS DETERMINED BY TEST OF THE BACTERIAL CONTENT OF SAMPLES OF WATER TAKEN FROM THE NEW WATER MAIN. THE DISINFECTION MAY BE ACCOMPLISHED BY INTRODUCING INTO ALL THE VARIOUS PARTS OF THE NEW WATER MAINS, A LIQUID SOLUTION CONTAINING 1% AVAILABLE CHLORINE IN SUCH VOLUME THAT THE RATE OF DOSAGE TO THE WATER MAINS SHALL BE AT LEAST 50 PARTS PER MILLION OF AVAILABLE CHLORINE. TABLET CHLORINATION IS NOT ALLOWED. THE CONTACT PERIOD FOR THIS DISINFECTION SHALL BE AT LEAST 24 HOURS, AND A LONGER PERIOD WILL BE REQUIRED IF TESTS OF RESIDUAL CHLORINE SHOW IT TO BE NECESSARY FOR PROPER DISINFECTION.
5. THE NEW WATER SYSTEM SHALL BE FLUSHED OUT AFTER DISINFECTION AND REFILLED WITH FRESH WATER. ALL CHLORINATED WATER USED IN THE DISINFECTION PROCESS SHALL BE DE-CHLORINATED PRIOR TO DISCHARGE TO THE SURROUNDING AREA.
6. WATER MUST SIT IN THE MAIN FOR AT LEAST 24 HOURS PRIOR TO TAKING A TEST SAMPLE. WATER UTILIZED FOR THIS PURPOSE, FLUSHING OR PRESSURE TESTING, WHICH IS OBTAINED DIRECTLY FROM THE KCWA SYSTEM, MUST FLOW THROUGH AN ISOLATED CONNECTION TO THE KCWA SYSTEM VIA AN APPROVED METER, TESTABLE BACKFLOW PREVENTION DEVICE AND JUMPER LINE. THE CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS FOR SECURING THE WATER FOR TEST PURPOSES AND SHALL BEAR THE EXPENSE OF THESE ARRANGEMENTS. THE INSTALLER SHALL FURNISH AND INSTALL SUITABLE TEMPORARY TESTING PLUGS, CAPS, PUMPS, PIPE CONNECTIONS AND OTHER APPURTENANCES, AS NECESSARY, TO OBTAIN SAMPLES AT POINTS NO FURTHER THAN 1,000' APART.
7. AFTER FINAL FLUSHING AND BEFORE THE NEW WATER MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES FOR COLIFORM BACTERIA HETEROTROPHIC PLATE COUNT (HPC), TAKEN 24 HOURS APART, SHALL BE COLLECTED FROM THE TERMINATION OF THE NEW MAIN. AT LEAST ONE SAMPLE SHALL BE COLLECTED EVERY 1,000' OF NEW MAIN, PLUS ONE SET OF TWO SAMPLES FROM THE END OF THE LINE. AT LEAST ONE SET OF TWO SAMPLES SHALL BE TAKEN FROM EACH BRANCH. SAMPLES SHALL BE COLLECTED BY KCWA EMPLOYEES, GIVEN A TWO-DAY NOTICE AND TESTED BY A LABORATORY APPROVED BY KCWA. A FEE SHALL BE IMPOSED FOR THE SAMPLING TESTING FOR EACH TEST. THE FEE SHALL BE AT THE CURRENT RATE SCHEDULE IN EFFECT AT THE TIME OF TESTING. PAYMENT SHALL BE PRIOR TO SAMPLE COLLECTION BY THE KCWA. THE WATER SAMPLE TEST RESULTS MUST INDICATE THAT THE WATER QUALITY IN THE NEW MAIN IS CONSISTENT IN QUALITY WITH KCWA SYSTEM WATER.

* TAKEN FROM SECTION 3.23 OF THE "RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY" DATED SEPTEMBER 20, 2006.

KCWA Water Installation Notes

1. INSTALLATION OF WATER MAIN AND SERVICE SHALL CONFORM TO THE "RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY" SEPTEMBER 20, 2006, OR LATEST EDITION, AND IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION INSTALLATION MANUAL AND ANSI/AWWA C600.
2. DISTRIBUTION PIPING SHALL BE CL 52 DUCTILE IRON, DOUBLE CEMENT LINED, WITH PUSH ON JOINTS. PIPE SHALL MEET ANSI/AWWA C151 A21.51. JOINTS SHALL MEET ANSI/AWWA C11/A21.11.
3. FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CL350 CEMENT MORTAR LINED AND MEET ANSI/AWWA/C153/A21.53. MECHANICAL JOINTS SHALL MEET ANSI/AWWA/C111/A21.11 AMERICAN MANUFACTURER ONLY.
4. VALVES SHALL BE MECHANICAL JOINT, DOUBLE DISC PARALLEL SEAT OR RESILIENT SEAT GATE STYLES AS FOLLOWS
   A. MUELLER CORPORATION DOUBLE DISC PARALLEL SEAT.
   B. AMERICAN DARLING VALVE RESILIENT SEAT MODEL CRS-80.
5. PRESSURE TEST OF THE WATER SYSTEM SHALL BE 1.5 TIMES THE MAXIMUM WORKING PRESSURE OR 150 PSI. NOTIFY KENT COUNTY WATER AUTHORITY 2 DAYS PRIOR TO TEST AS APPLICABLE.
6. NOTIFY THE KENT COUNTY AUTHORITY 5 DAYS PRIOR TO CONSTRUCTION COMMENCEMENT.
7. CHLORINATION OF SYSTEM AND SAMPLING SHALL CONFORM TO SEC. 3.5 OF REQUIREMENTS FOR SERVICE AND MAIN INSTALLATION.
8. NOTIFY ENGINEER PRIOR TO COVERING OF WATER SERVICE TO SURVEY AS-BUILT LOCATION AND TO COMPLETE REQUIRED AS-BUILT PLAN. ENGINEER WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE CONTRACTOR.
9. WATER SERVICE INSTALLATIONS GREATER THAN 200' MUST HAVE A METER PIT.
10. TOTAL LENGTH OF WATER MAIN TO THE SHUT-OFF VALVE IS 1,200'
11. TEMPORARY FLUSHING CONNECTIONS AND BLOW-OFFS SHALL BE SIZED TO PROVIDE 2.5-FEET PER SECOND FLOW PER AWWA STANDARD 651
12. CONTRACTOR RESPONSIBLE TO COORDINATE WITH PLUMBING OFFICIAL FOR DISINFECTION OF SERVICE PIPE EXTENDING FROM CURB BOX TO HOME PER STATE PLUMBING CODE AND KENT COUNTY WATER AUTHORITY REGULATIONS. WATER SERVICE CANNOT BE ACTIVATED WITHOUT COPY OF LAB RESULTS AND PLUMBING INSPECTOR'S VERIFICATION.
13. PRESSURE-REDUCING VALVES ARE REQUIRED AT ALL BUILDINGS PER RI BUILDING CODE.

Existing Water Main Notes

1. EXISTING WATER MAIN LOCATED WITHIN MAIN STREET TO BE PRESSURE TESTED AND CHLORINATED PRIOR TO CONNECTION OF NEW WATER MAIN.
2. PRESSURE TESTING AND CHLORINATION TO BE WITNESSED AND APPROVED BY KENT COUNT WATER AUTHORITY.
3. ONCE THE EXISTING WATER MAIN PASSES PRESSURE TESTING AND CHLORINATION IT MAY BE CONNECTED TO THE PROPOSED WATER MAIN.
4. CONTRACTOR SHALL CONDUCT TESTS PITS AS NECESSARY TO LOCATE EXISTING WATER INFRASTRUCTURE TO PRODUCE FINAL ASBUILTS FOR KCWA. LOCATIONS OF TEST PITS TO BE COORDINATED WITH KCWA AND WITH DESIGN ENGINEER.
5. CONTRACTOR SHALL CONDUCT TEST PITS TO VERIFY SEPARATION OF THE EXISTING WATER MAIN AND THE EXISTING SEWER MAIN.

KCWA As-Built Note

ALL COMPONENTS OF THE WATER SYSTEMS AND ANY CROSSING UTILITIES MUST BE ASBUILT PRIOR TO COVERING. ENGINEER TO BE NOTIFIED PRIOR TO COVERING TO SURVEY ASBUILT LOCATIONS. ENGINEER WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

Customer Water Service Disinfection Policy

1. THE OWNER, PLUMBER AND/OR PLUMBING OFFICIAL SHALL COORDINATE ACTIVITIES BY CONTACTING THE KENT COUNTY WATER AUTHORITY FIVE WORKING DAYS PRIOR TO CONDUCTING THE DISINFECTION PROCESS TO:
   - OBTAIN AUTHORIZATION TO TEMPORARILY CONNECT TO THE PUBLIC WATER SYSTEM IF AN ALTERNATIVE SUPPLY IS NOT USED.
   - ARRANGE FOR A REPRESENTATIVE OF THE AUTHORITY TO EXAMINE THE ISOLATED CONNECTION TO THE PUBLIC WATER SYSTEM.
   - OBTAIN A READING FROM THE TEMPORARY METER (IF USED).
   - COORDINATE ACTIVATION OF THE WATER CONNECTION TO COMPLETE THE DISINFECTION AND SAMPLE RETRIEVAL PROCESS.
2. THE SERVICE PIPE SHALL BE FLUSHED WITH CLEAN POTABLE WATER SUPPLIED BY THE CONTRACTOR OR FROM AN ISOLATED CONNECTION TO THE KENT COUNTY WATER AUTHORITY SYSTEM UNTIL ALL DELETERIOUS MATERIAL IS REMOVED. IF THE CONTRACTOR CHOOSES TO USE THE PUBLIC WATER SYSTEM, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A SUITABLE, ISOLATED CONNECTION TO THE AUTHORITIES SYSTEM FROM THE NEW SERVICE PIPE.
3. FILL THE SERVICE PIPING THEREOF WITH A CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION CHLORINE. ONCE THE CHLORINE CONCENTRATION IN THE EFFLUENT DISCHARGE REVEALS THE PROPER CONCENTRATION, THE SYSTEM SHALL BE VALVED OFF AND ALLOWED TO STAND FOR THE REQUIRED TIME.
4. FOLLOWING THE REQUIRED STANDING TIME, THE SERVICE PIPE SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SERVICE PIPING. TWO SETS OF SAMPLES OF ACCEPTABLE SAMPLES, TAKEN AT A MINIMUM OF 24 HOUR APART SHALL BE ANALYZED. THE CUSTOMER SHALL ELICIT THE SERVICES OF A LABORATORY CERTIFIED BY THE RHODE ISLAND DEPARTMENT OF HEALTH TO ANALYZE THE WATER SAMPLES USING MEMBRANE FILTER TECHNIQUE SM9222B19EDT FOR COMPLIANCE WITH RHODE ISLAND DEPARTMENT OF HEALTH COLIFORM REGULATIONS, AND STANDARD HETEROTROPHIC PLATE COUNT TEST. THIS REQUIRES TWO (2) SAMPLE BOTTLES PER SET OF SAMPLES, ONE FOR THE COLIFORM TEST AND ONE OF THE HETEROTROPHIC PLATE COUNT. THE RI DEPARTMENT OF HEALTH HAS A LISTING OF CERTIFIED LABORATORIES. THE SAMPLE RETRIEVAL SHALL BE CONDUCTED UNDER THE PURVIEW OF THE LOCAL PLUMBING OFFICIAL PER THE REQUIREMENTS CONTAINED IN THE RHODE ISLAND STATE PLUMBING CODE.
5. THE DISINFECTION PROCESS SHALL BE REPEATED UNTIL THE RESULTS OF THE BACTERIOLOGICAL TESTING CONFIRM COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF HEALTH DRINKING WATER QUALITY STANDARDS AND HETEROTROPHIC PLATE COUNT CONSISTENT WITH KENT COUNTY WATER AUTHORITY QUALITY.
6. THE WATER SERVICE APPLICANT MUST PROVIDE THE AUTHORITY WITH COPIES OF THE SATISFACTORY LABORATORY TEST RESULTS AND INSPECTION VERIFICATION LETTER (PER SECTION 107 OF PLUMBING CODE) FROM THE LOCAL PLUMBING OFFICIAL BEFORE PERMISSION WILL GRANTED TO COMPLETE THE PERMANENT CONNECTION TO THE PUBLIC WATER SYSTEM.
7. ALL CONNECTION MATERIALS SHALL BE KEPT FREE OF ANY POTENTIAL CONTAMINATION AND BE SWABBED WITH CHLORINE SOLUTION PRIOR TO CONNECTION TO THE NEWLY DISINFECTED SERVICE.

* TAKEN FROM APPENDIX C-2 OF THE "RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY" DATED SEPTEMBER 20, 2006.

Sewer Line/Water Line Separation Policy

KENT COUNTY WATER AUTHORITY RULES AND REGULATIONS 3.14.6
A MINIMUM OF TEN-FEET HORIZONTAL AND EIGHTEEN-INCH VERTICAL SEPARATION SHALL BE MAINTAINED IN THE PLACEMENT OF WATER MAINS, SERVICES OR APPURTENANCES WITHIN THE VICINITY OF SEWER FACILITIES OR VICE VERSA. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT, HORIZONTAL SEPARATION OR IN THE CASE OF CROSSING THE EIGHTEEN-INCH, VERTICAL SEPARATION, A DEVIATION FROM THIS RESTRICTION MAY BE ALLOWED ON A CASE BY CASE BASIS WITH PRIOR APPROVAL FROM THE GENERAL MANAGER/CHIEF ENGINEER AS TO THE PROPOSED MATERIALS AND INTERVENTIONS TO BE TAKEN TO PROTECT THE WATER SYSTEM FROM THE POSSIBILITY OF CONTAMINATION.

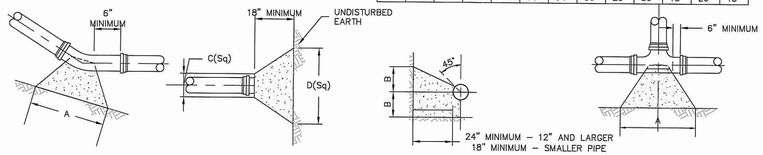
KENT COUNTY WATER AUTHORITY RULES AND REGULATIONS 3.21.18
WATER MAINS SHALL BE LAID WITH A MINIMUM OF TEN-FOOT HORIZONTAL CLEARANCE FROM ANY EXISTING SEWER FACILITIES. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. WATER MAINS CROSSING UNDER SEWERS SHALL BE FORBIDDEN. WATER MAINS CROSSING OVER SEWERS SHALL BE LAID TO PROVIDE A MINIMUM, VERTICAL SEPARATION OF EIGHTEEN-INCHES BETWEEN THE INVERT OF THE WATER MAIN AND THE CROWN OF THE SEWER. RE-ALIGNMENT OF AN EXISTING WATER MAIN OR RELOCATION OF THE SEWER MAY BE NECESSARY TO ACHIEVE THIS VERTICAL SEPARATION. THE GENERAL MANAGER/CHIEF ENGINEER MUST APPROVE ANY DEVIATION FROM THESE REQUIREMENTS. CONCRETE ENCASEMENT SHALL NOT BE ALLOWED IN THE DESIGN FOR SEWER AND WATER CROSSINGS.

Leakage & Pressure Testing For Water Mains

1. GENERAL
   1.1. HYDROSTATIC AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL COMPLETED SECTIONS OF NEWLY INSTALLED WATER MAIN PIPELINE IN ACCORDANCE WITH AWWA C600, THE KENT COUNTY WATER AUTHORITY, AND AS SPECIFIED BELOW.
   1.2. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR TESTING. CONTRACTOR TO NOTIFY KENT COUNTY WATER AUTHORITY 48 HOURS IN ADVANCE OF TEST DATE.
2. TESTING PROCEDURES
   2.1. ALL AIR SHALL BE EXPELLED AT THE HIGH POINTS AND THE PIPELINE SLOWLY FILLED WITH POTABLE WATER, AND MUST SIT FOR 24 HOURS BEFORE CONDUCTING TEST.
   2.2. THE INTERNAL PRESSURE SHALL BE BUILT UP TO 150 PSI AND MAINTAINED FOR A PERIOD OF NOT LESS THAN ONE (1) HOUR.
   2.3. ALL LEAKS IN THE PIPELINE SHALL BE STOPPED; CRACKED OR DEFECTIVE PIPE, FITTINGS OR ACCESSORIES SHALL BE REMOVED AND REPLACED WITH NEW BY THE CONTRACTOR.
   2.4. THE PIPELINE SHALL BE RETESTED AS MAY BE REQUIRED AND NECESSARY UNTIL THE LEAKAGE FALLS WITHIN THE ALLOWABLE DETERMINED FOR THE PIPE NETWORK, AT WHICH TIME THE PIPELINE MAY BE CONSIDERED READY FOR:
   2.4.A. WATER MAINS – DISINFECTION STEP
   2.4.B. SEWER FORCE MAIN – READY FOR USE
   2.5. COMPLIANCE WITH STATE PLUMBING CODE IN REFERENCE TO RESIDENTIAL BACK FLOW PREVENTION. MUST BE VERIFIED BY PLUMBER INSPECTOR, PRIOR TO METER INSTALLATION.

NOTES:
1. ALL CONCRETE SHALL BE 4,000 P.S.I. @ 28 DAYS
2. CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH
3. FORMS TO BE USED AS NECESSARY.
4. ALL BOLTS AND NUTS TO BE PROTECTED FROM CONCRETE AND EASILY ACCESSIBLE WHEN THRUST BLOCK INSTALLED
5. REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF RHODE ISLAND SHALL VERIFY CALCULATIONS DURING DESIGN TO MEET CONDITIONS OF PROJECT AND KCWA REQUIREMENTS
6. FROM THE KENT COUNTY WATER AUTHORITY DETAIL DATE: 09/2006

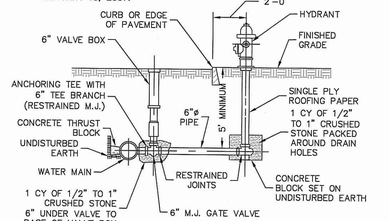
SIZE	TEES		PLUGS		90° BEND		45° BEND		22.5° BEND		11.25° BEND	
	A	B	C	D	A	B	A	B	A	B	A	B
4"	16"	8"	8"	16"	18"	9"	14"	7"	10"	5"	8"	4"
6"	22"	11"	10"	22"	26"	13"	20"	10"	14"	7"	10"	5"
8"	30"	15"	12"	30"	34"	17"	26"	13"	18"	9"	14"	7"
10"	36"	18"	14"	36"	42"	21"	32"	16"	24"	12"	16"	8"
12"	44"	22"	16"	44"	52"	26"	38"	19"	28"	14"	20"	10"
16"	58"	29"	20"	58"	68"	34"	50"	25"	36"	18"	26"	13"



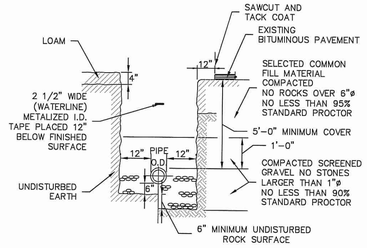
PLAN BENDS | PLAN & ELEVATION PLUGS | BENDS & TEES SECTIONS | PLAN TEES

KCWA Thrust Block
NOT TO SCALE

NOTES:
1. KCWA COLOR SCHEME FOR HYDRANT.
2. INSTALLATION SHALL NOT OBSTRUCT SIDEWALK TO PEDESTRIAN OR PHYSICALLY IMPAIRED.
3. REMOVAL OF EXISTING HYDRANT MAY REQUIRE ADDITIONAL RESTRAINT DESIGNED BY A PROFESSIONAL ENGINEER.
4. MECHANICAL JOINT PIPE WITH RESTRAINED JOINTS FOR BRANCHES OVER ONE LENGTH OF PIPE.
5. FROM KENT COUNTY WATER AUTHORITY DETAIL DATE: 09/2006
6. ALL HYDRANTS TO CONFORM TO 4.10 HYDRANTS IN ERRATUM TO RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY APPROVED FEBRUARY 15, 2007.

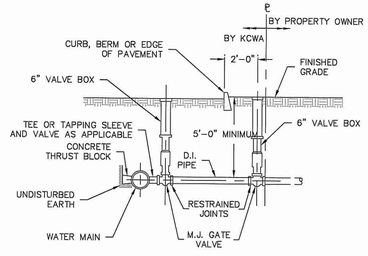


KCWA Hydrant
NOT TO SCALE



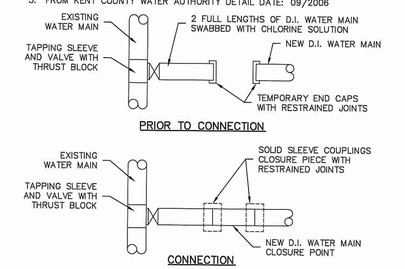
KCWA Trench Installation In Rock & Soil
NOT TO SCALE

NOTES:
1. MATERIALS PER KCWA SPECIFICATIONS
2. FROM KENT COUNTY WATER AUTHORITY DETAIL DATE: 09/2006



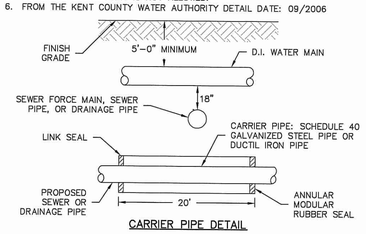
KCWA Service Connection Greater Than 4"
NOT TO SCALE

NOTES:
1. PRIOR TO FINAL APPROVAL FOR PERMANENT CONNECTION FROM KCWA, CONTRACTOR SHALL PERFORM PRESSURE TESTING AND CHLORINATION.
2. SLEEVE FOR CLOSURE TO BE SWABBED WITH CHLORINE SOLUTION.
3. FROM KENT COUNTY WATER AUTHORITY DETAIL DATE: 09/2006



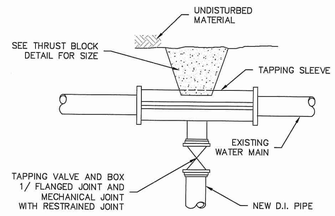
KCWA Connection Of New Water Main To Existing Water Main
NOT TO SCALE

NOTES:
1. THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHOULD BE A MINIMUM OF 18".
2. THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHALL BE A MINIMUM OF 10'.
3. IF 1 OR 2 CAN NOT BE MAINTAINED THE PROPOSED UTILITY SHALL BE INSTALLED WITHIN A CARRIER PIPE UPON WRITTEN APPROVAL BY THE KCWA.
4. SEWER MAIN AND SERVICES ARE NOT ALLOWED TO CROSS OVER THE TOP OF THE WATER MAIN.
5. CONCRETE ENCASEMENT IS NOT ALLOWED.
6. FROM THE KENT COUNTY WATER AUTHORITY DETAIL DATE: 09/2006



KCWA Utility Separation
NOT TO SCALE

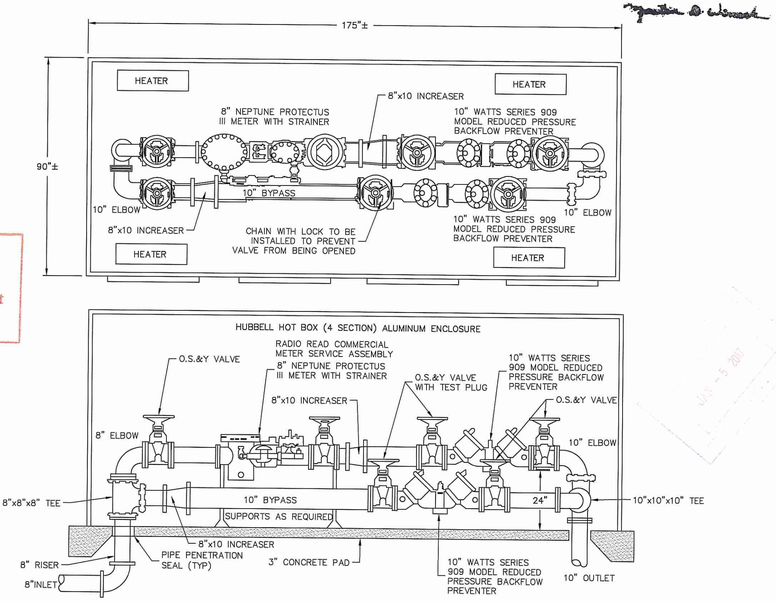
NOTES:
1. TAPPING SLEEVE AND VALVE TO BE SWABBED WITH CHLORINE SOLUTION
2. FROM KENT COUNTY WATER AUTHORITY DETAIL DATE: 09/2006
2. SEE ERRATUM TO RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY 4.9.1.3 TAPPING SLEEVE AND VALVE APPROVED FEBRUARY 15, 2007.



KCWA Tapping Sleeve & Valve
NOT TO SCALE

METERING:
1. ALL METERS SHALL BE COMPATIBLE WITH "NEPTUNE" RADIO READ SYSTEM PROSPECTUS 3 METER EMPLOYED BY KENT COUNTY WATER AUTHORITY.
2. ALL METERS TO READ IN CUBIC FEET.
3. INFLUENT AND EFFLUENT VALVES SHALL BE PROVIDED BEFORE AND AFTER THE METER COUPLINGS. BALL VALVES ON EITHER SIDE OF BALL VALVE, CHECK VALVE COMBINATION WILL BE ACCEPTABLE.
4. RADIO READ READING BOX SHALL BE MOUNTED IN AN ACCESSIBLE LOCATION.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



Riser Detail
NOT TO SCALE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

PLAN SET MUST BE REPRODUCED IN COLOR ONLY

This regulatory submission set shall not be used for construction purposes unless stamped "issued for Construction" and signed by a DiPrete Engineering representative.

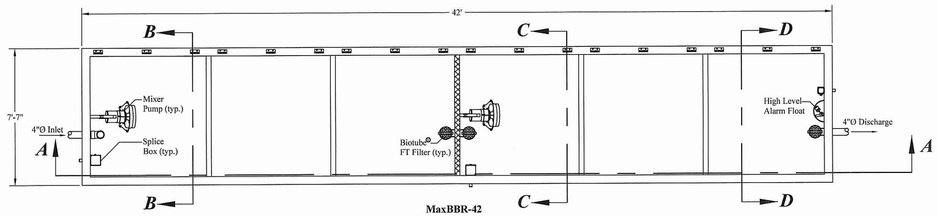
The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
3	1-6-2017	Revised Permitting Submission	R.B.S.
2	12-19-2016	Revised Permitting Submission	R.B.S.
1	10-18-2016	Revised Permitting Submission	R.B.S.
0	03-15-2016	Permitting Submission	R.B.S.

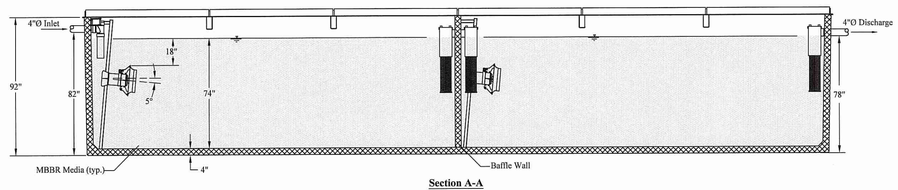
Drawn By: R.B.S. Design By: R.B.S.

Detail Sheet - 3

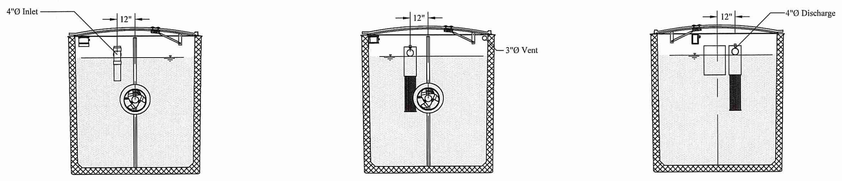
Hope Mills
Main Street (Route 162) Hope Mills, North Carolina
Cumberland County
Tax Map 0422 Parcels 0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0014, 0015, 0016, 0017, 0018, 0019, 0020, 0021, 0022, 0023, 0024, 0025, 0026, 0027, 0028, 0029, 0030, 0031, 0032, 0033, 0034, 0035, 0036, 0037, 0038, 0039, 0040, 0041, 0042, 0043, 0044, 0045, 0046, 0047, 0048, 0049, 0050, 0051, 0052, 0053, 0054, 0055, 0056, 0057, 0058, 0059, 0060, 0061, 0062, 0063, 0064, 0065, 0066, 0067, 0068, 0069, 0070, 0071, 0072, 0073, 0074, 0075, 0076, 0077, 0078, 0079, 0080, 0081, 0082, 0083, 0084, 0085, 0086, 0087, 0088, 0089, 0090, 0091, 0092, 0093, 0094, 0095, 0096, 0097, 0098, 0099, 0100, 0101, 0102, 0103, 0104, 0105, 0106, 0107, 0108, 0109, 0110, 0111, 0112, 0113, 0114, 0115, 0116, 0117, 0118, 0119, 0120, 0121, 0122, 0123, 0124, 0125, 0126, 0127, 0128, 0129, 0130, 0131, 0132, 0133, 0134, 0135, 0136, 0137, 0138, 0139, 0140, 0141, 0142, 0143, 0144, 0145, 0146, 0147, 0148, 0149, 0150, 0151, 0152, 0153, 0154, 0155, 0156, 0157, 0158, 0159, 0160, 0161, 0162, 0163, 0164, 0165, 0166, 0167, 0168, 0169, 0170, 0171, 0172, 0173, 0174, 0175, 0176, 0177, 0178, 0179, 0180, 0181, 0182, 0183, 0184, 0185, 0186, 0187, 0188, 0189, 0190, 0191, 0192, 0193, 0194, 0195, 0196, 0197, 0198, 0199, 0200, 0201, 0202, 0203, 0204, 0205, 0206, 0207, 0208, 0209, 0210, 0211, 0212, 0213, 0214, 0215, 0216, 0217, 0218, 0219, 0220, 0221, 0222, 0223, 0224, 0225, 0226, 0227, 0228, 0229, 0230, 0231, 0232, 0233, 0234, 0235, 0236, 0237, 0238, 0239, 0240, 0241, 0242, 0243, 0244, 0245, 0246, 0247, 0248, 0249, 0250, 0251, 0252, 0253, 0254, 0255, 0256, 0257, 0258, 0259, 0260, 0261, 0262, 0263, 0264, 0265, 0266, 0267, 0268, 0269, 0270, 0271, 0272, 0273, 0274, 0275, 0276, 0277, 0278, 0279, 0280, 0281, 0282, 0283, 0284, 0285, 0286, 0287, 0288, 0289, 0290, 0291, 0292, 0293, 0294, 0295, 0296, 0297, 0298, 0299, 0300, 0301, 0302, 0303, 0304, 0305, 0306, 0307, 0308, 0309, 0310, 0311, 0312, 0313, 0314, 0315, 0316, 0317, 0318, 0319, 0320, 0321, 0322, 0323, 0324, 0325, 0326, 0327, 0328, 0329, 0330, 0331, 0332, 0333, 0334, 0335, 0336, 0337, 0338, 0339, 0340, 0341, 0342, 0343, 0344, 0345, 0346, 0347, 0348, 0349, 0350, 0351, 0352, 0353, 0354, 0355, 0356, 0357, 0358, 0359, 0360, 0361, 0362, 0363, 0364, 0365, 0366, 0367, 0368, 0369, 0370, 0371, 0372, 0373, 0374, 0375, 0376, 0377, 0378, 0379, 0380, 0381, 0382, 0383, 0384, 0385, 0386, 0387, 0388, 0389, 0390, 0391, 0392, 0393, 0394, 0395, 0396, 0397, 0398, 0399, 0400, 0401, 0402, 0403, 0404, 0405, 0406, 0407, 0408, 0409, 0410, 0411, 0412, 0413, 0414, 0415, 0416, 0417, 0418, 0419, 0420, 0421, 0422, 0423, 0424, 0425, 0426, 0427, 0428, 0429, 0430, 0431, 0432, 0433, 0434, 0435, 0436, 0437, 0438, 0439, 0440, 0441, 0442, 0443, 0444, 0445, 0446, 0447, 0448, 0449, 0450, 0451, 0452, 0453, 0454, 0455, 0456, 0457, 0458, 0459, 0460, 0461, 0462, 0463, 0464, 0465, 0466, 0467, 0468, 0469, 0470, 0471, 0472, 0473, 0474, 0475, 0476, 0477, 0478, 0479, 0480, 0481, 0482, 0483, 0484, 0485, 0486, 0487, 0488, 0489, 0490, 0491, 0492, 0493, 0494,



MaxBBR-42
Top Section View
Scale: 1" = 4'-0"



Section A-A
Scale: 1" = 4'-0"



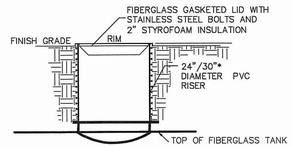
Section B-B
Scale: 1" = 4'-0"

Section C-C
Scale: 1" = 4'-0"

Section D-D
Scale: 1" = 4'-0"

42' Moving Bed Biofilm Reactor (MaxBBR-42 GL) Detail

(NOT TO SCALE)



*30" RISERS WILL REQUIRE A 24" TO 30" ADAPTER AT THE CONNECTION WITH THE FIBERGLASS TANK.

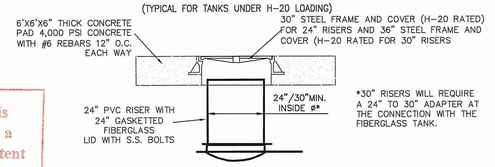
NOTE:
1. THE CONCRETE PAD IS REQUIRED FOR ALL RISERS ON THE STEP TANKS AND ANY TANKS WHICH ARE IN A VEHICULAR TRAVEL AREA.
2. THE ACCESS RISERS MUST BE BROUGHT UP TO FINISH GRADE.

Tank Riser and Cover Detail for Tank Risers in Non-Paved Areas

(NOT TO SCALE)

Concrete Pad Detail For Tank Risers in Paved Areas

(TYPICAL FOR TANKS UNDER H-20 LOADING)



NOTE:
1. THE CONCRETE PAD IS REQUIRED FOR ALL RISERS ON THE STEP TANKS AND ANY TANKS WHICH ARE IN A VEHICULAR TRAVEL AREA.
2. THE ACCESS RISERS MUST BE BROUGHT UP TO FINISH GRADE.

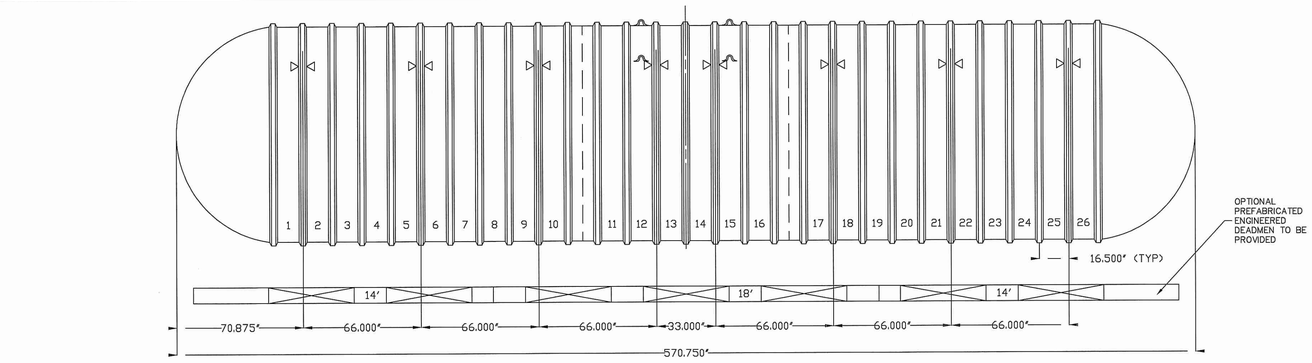
Concrete Pad Detail for Tank Risers in Paved Areas

(TYPICAL FOR TANKS UNDER H-20 LOADING) (NOT TO SCALE)

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

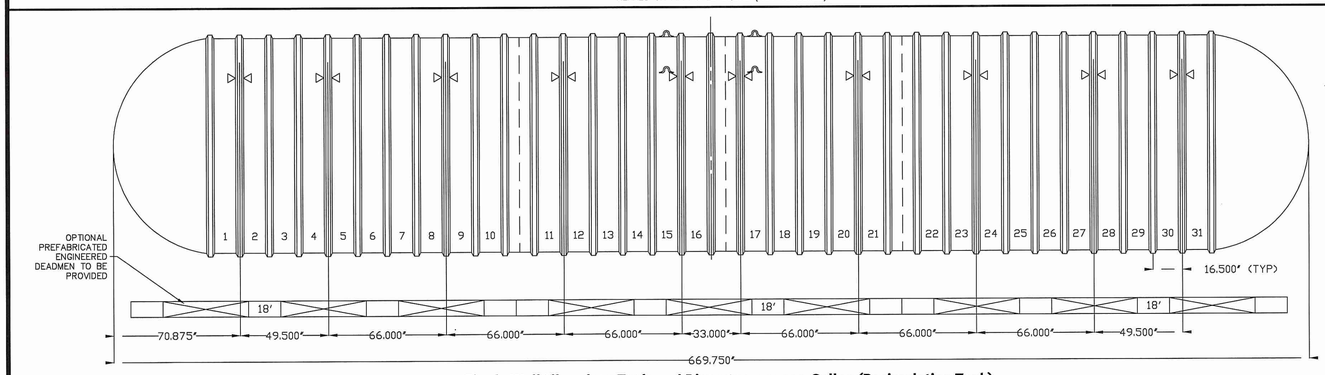
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 2 4 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

JAN - 5 2017



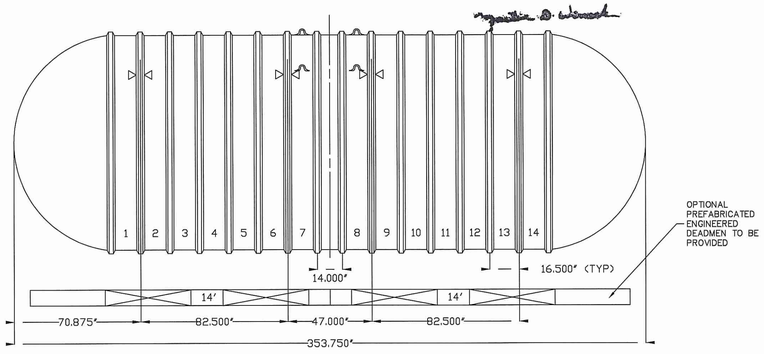
Single Wall Fiberglass Tank - 10' Diameter - 25,000 Gallon (STEP Tanks x3 and Equalization/Anoxic Tank)

XERXES OR APPROVED EQUAL (NOT TO SCALE)



Single Wall Fiberglass Tank - 10' Diameter - 30,000 Gallon (Recirculation Tank)

XERXES OR APPROVED EQUAL (NOT TO SCALE)



Single Wall Fiberglass Tank - 10' Diameter - 15,000 Gallon (Dosing Tank)

XERXES OR APPROVED EQUAL (NOT TO SCALE)

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
3	1-6-2017	Revised Permitting Submission	R.B.S.
2	12-16-2016	OWTS Resubmission	R.B.S.
1	12-15-2016	Permitting Submission	R.B.S.
0	5-25-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. | Design By: R.B.S.

OWTS Detail Sheet - 1

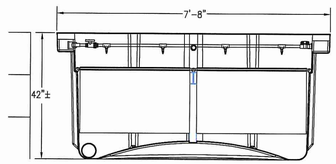
Hope Mills
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114, & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Dantzsis
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

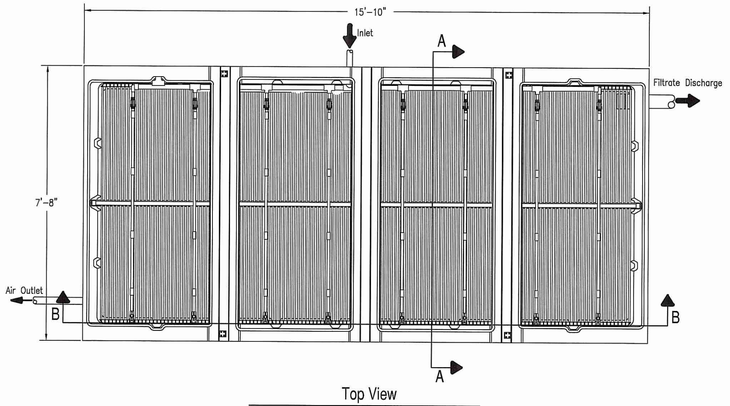
DE Job No: 1272-002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 17 OF 20

z:\domain\projects\1272-002 hope mill\autocad drawing\1272-002-dtst.dwg Plotted: 1/4/2017

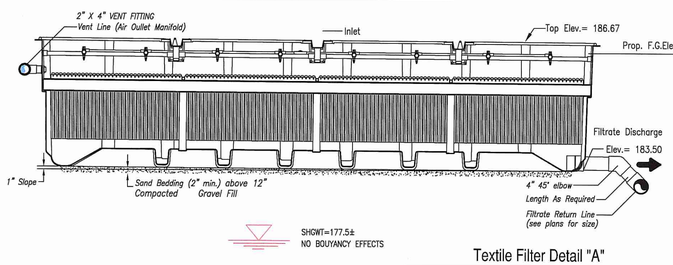


Section A-A



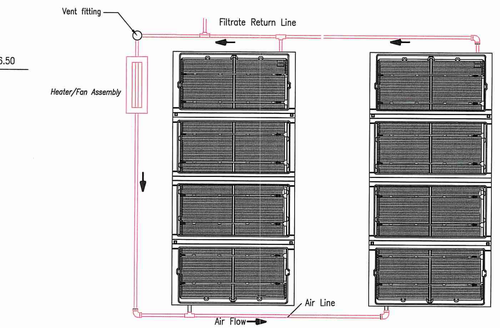
Top View

Section B-B



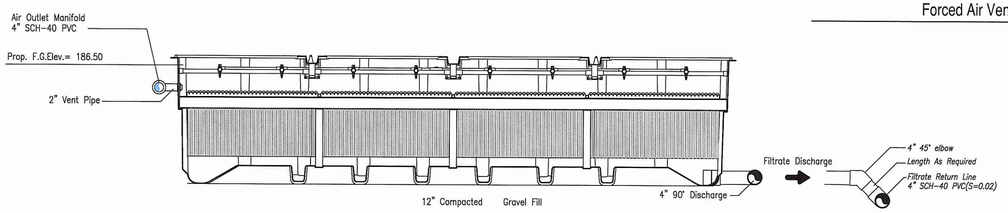
Textile Filter Detail "A"

NTS

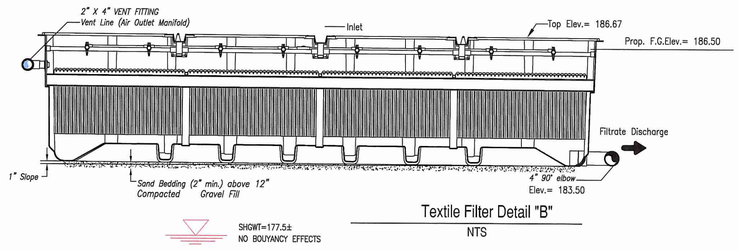


Forced Air Ventilation System Overview

NTS

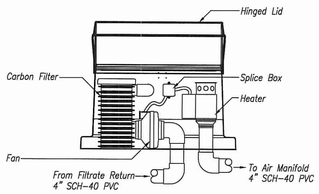


Section B-B



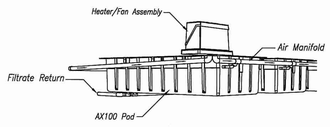
Textile Filter Detail "B"

NTS



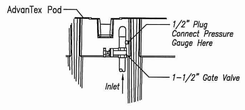
Heater/Fan Assembly

NTS



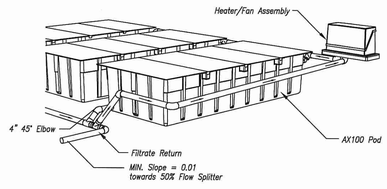
Air Manifold Isometric View

NTS



Inlet Valve & Testing Assembly

NTS



Filtrate Return Line Isometric View

NTS

AX100 Details

(NOT TO SCALE)

GENERAL STEP TANK NOTES

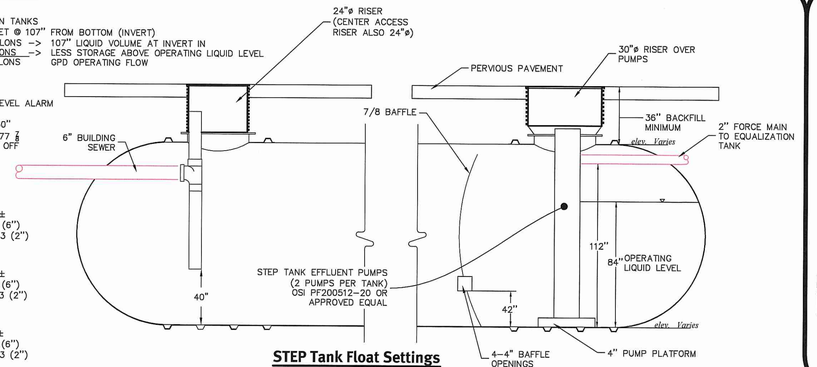
3 – 25,000 GALLON TANKS
- 6" PVC INLET @ 107" FROM BOTTOM (INVERT)
- 24,473 GALLONS –> 107" LIQUID VOLUME AT INVERT IN
- 5,000 GALLONS –> LESS STORAGE ABOVE OPERATING LIQUID LEVEL
- 19,473 GALLONS GPD OPERATING FLOW

FLOAT SETTINGS
- LAG/HIGH LEVEL ALARM (HLA)=84"
- PUMP ON=80"
- PUMP OFF=77 7/8
- REDUNDANT OFF RO=74"

STEP TANK–1
TOP=184.9±
BOTTOM=174.9±
INV IN=183.82 (6")
INV OUT=184.23 (2")

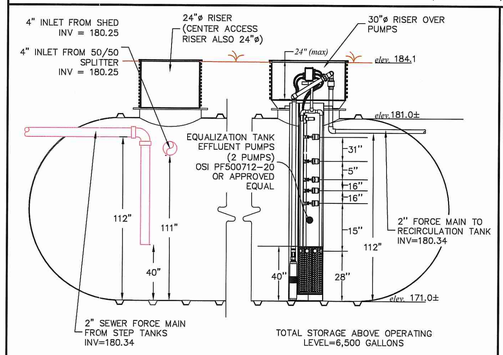
STEP TANK–2
TOP=185.8±
BOTTOM=175.8±
INV IN=184.72 (6")
INV OUT=185.13 (2")

STEP TANK–3
TOP=183.1±
BOTTOM=173.1±
INV IN=182.02 (6")
INV OUT=182.43 (2")



STEP Tank Float Settings

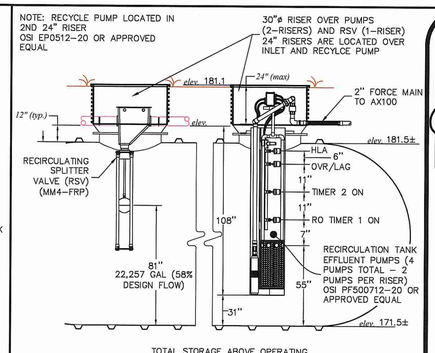
(NOT TO SCALE)



Equalization/Anoxic Tank Float Settings

(NOT TO SCALE)

NOTE: RECYCLE PUMP LOCATED IN 2ND 24" RISER OSI EP0512–20 OR APPROVED EQUAL

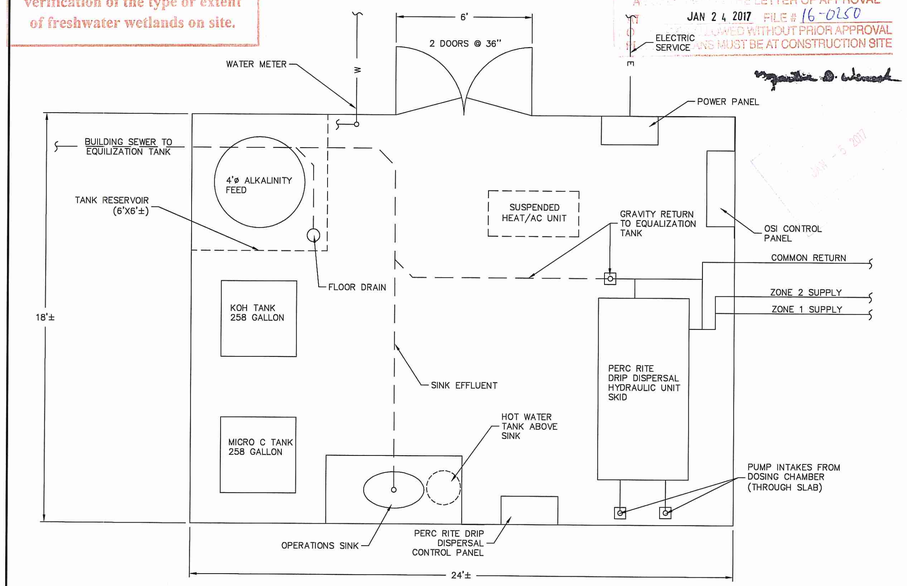


Recirculation Tank and RSV Settings

(NOT TO SCALE)

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
WETLANDS PROGRAM
WITH CONDITIONS
LETTER OF APPROVAL
JAN 24 2017 FILE # 16-0150
ELECTRIC SERVICE ...NS MUST BE AT CONSTRUCTION SITE
...AMED WITHOUT PRIOR APPROVAL



Operations Shed Schematic Layout

(NOT TO SCALE)

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUCH
No. 9110
REGISTERED PROFESSIONAL ENGINEER CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped "Issued for Construction" and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	Design By: R.B.S.
3	1-4-2017	Revised Permitting Submission	R.B.S.
2	11-28-2016	Revised Permitting Submission	R.B.S.
1	9-15-2016	Permitting Submission	R.B.S.
0	3-15-2016		Drawn By: R.B.S.

OWTS Detail Sheet - 2

Hope Mills

Main Street (Route 116), Scituate, Rhode Island
Scituate Tax Map 3, Lot 8 | Scituate AP 5, Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Detosis
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272-002. Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 18 OF 20

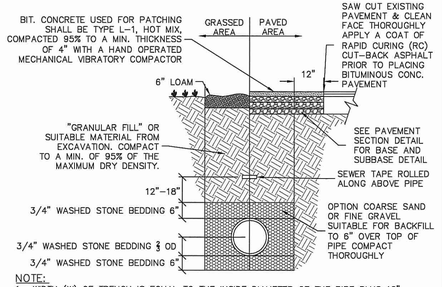
z:\domain\projects\1272-002 hope mill\autocad drawings\1272-002-dtst.dwg Plotted: 1/4/2017

General Construction Notes:

1. THE SYSTEM SHALL NOT BE INSTALLED IN WET OR FROZEN SOILS.
2. DO NOT PARK, DRIVE LARGE EQUIPMENT, OR STORE MATERIALS ON THE DISPERSAL AREA. NO ACTIVITY SHOULD OCCUR ON THE DISPERSAL AREA OTHER THAN THE MINIMUM REQUIRED TO INSTALL THE SYSTEM.
3. ALL INSTALLATION AND CONSTRUCTION TECHNIQUES SHALL CONFORM TO THE STATE AND LOCAL CODES PERTAINING TO ON–SITE WASTEWATER SYSTEMS AND THE PERMIT FOR THE SITE.
4. IF SITE CONDITIONS ARE DETERMINED TO REQUIRE THE INSTALLATION OF THE SYSTEM TO DEVIATE FROM THE DESIGN PLANS, ALL WORK SHALL STOP IMMEDIATELY AND THE DESIGNER AND INSPECTOR SHALL BE NOTIFIED. ANY ONGOING WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. DRIP TUBING MAY BE INSTALLED WITH A VIBRATORY PLOW, A STATIC PLOW, A NARROW TRENCHER (< 6" WIDE), BY HAND TRENCHING, OR BY SCARIFYING THE SURFACE AND BEDDING THE DRIP TUBING IN CLEAN SAND MEETING THE REQUIREMENTS FOR FILL MATERIAL IN THE STATE CODE. FOR SAND FILL SYSTEMS, COVER CONSISTING OF 2" OF THE SAME SAND AND THEN TOPSOIL MEETING THE APPROVED DEPTH REQUIREMENT SHALL BE PROVIDED.
6. ALL DRIP TUBING IS TO BE INSTALLED PARALLEL TO THE CONTOUR.
7. AIR RELEASE VALVES SHALL BE PLACED BELOW THE GROUND SURFACE IN AN INSULATED VALVE BOX BUT AT AN ELEVATION ABOVE THE HIGHEST DRIP LINE IN THAT PARTICULAR ZONE.
8. VEGETATIVE COVER MUST BE REPLACED FOR INSTALLATIONS WHERE IT IS REMOVED OR BURIED DURING INSTALLATION.
9. ALL CUTTING OF RIGID PVC PIPE, FLEXIBLE PVC, AND DRIP TUBING OF SIZE 2" OR SMALLER SHALL BE ACCOMPLISHED WITH PIPE CUTTERS. NO SAWING IS ALLOWED.
10. ALL RIGID PVC PIPE, FLEXIBLE PVC PIPE AND DRIP TUBING SHALL HAVE THE ENDS COVERED WITH DUCT TAPE AFTER CUTTING TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE PIPE.
11. PRIOR TO GLUING, ALL JOINTS SHALL BE INSPECTED FOR AND CLEARED OF ANY DEBRIS. ALL JOINTS SHALL BE CLEANED AND PRIMED WITH PVC PRIMER PRIOR TO BEING GLUED.
12. ALL PVC PIPE AND FITTINGS SHALL BE SCH 40.
13. WHENEVER POSSIBLE, ALL FORCE MAINS SHALL BE TESTED FOR LEAKS PRIOR TO BEING BACK– FILLED BY PRESSURIZING THE SYSTEM AND OBSERVING FOR LEAKAGE.
14. ELECTRICIAN TO PROVIDE SEPARATE CIRCUITS FOR THE PUMP AND CONTROLS/ALARM, OR AS REQUIRED BY STATE AND LOCAL CODES.
15. ALL CONDUIT ENTERING THE CONTROL PANEL SHALL BE SEALED AT BOTH ENDS TO PREVENT CONDENSATION OR GASES INSIDE THE PANEL.

Cold Climate Notes:

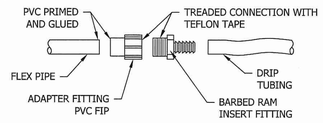
1. ALL PIPES ENTERING AND LEAVING THE HYDRAULIC UNIT SHALL ELBOW VERTICALLY DOWN 90 DEGREES TO A DEPTH BELOW THE FROST LINE PRIOR TO EXTENDING AWAY FROM THE UNIT HORIZONTALLY.
2. THE SUPPLY AND RETURN LINES SHALL BE INSTALLED BELOW THE FROST LINE. WHEN THIS IS NOT POSSIBLE, RIGID FOAM INSULATION (MIN 1" THICK) SHALL BE PLACED OVER THOSE PIPES THAT ARE ABOVE THE FROST LINE.
3. THE VERTICAL SECTIONS OF PIPE THAT TRAVEL THROUGH THE FROST ZONE AND CONNECT THE SUPPLY AND RETURN LINES TO THE MANIFOLDS SHALL BE INSULATED SCH 40 PVC PIPE. INSULATION SHALL CONSIST OF FOAM PIPE WRAP INSULATION AND 1" RIGID FOAM INSULATION STRIPS MADE INTO A BOX OR A CI WRAP URETHANE INSULATION (CONSULT OAKSON FOR SPEC)
4. AIR RELEASE VALVE ENCLOSURES SHALL BE INSULATED WITH BAGGED STYROFOAM PEANUTS AND FOIL WRAP INSULATION.
5. ALL LOOPS CONNECTING DRIP RUNS SHALL BE SLIGHTLY ELEVATED (MINIMUM 1" – 2") SO THAT THEY DRAIN INTO THE DRIP TUBING AFTER THE PUMP SHUTS OFF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THESE LOOPS STAY ELEVATED DURING AND AFTER THE LOOPS ARE BACKFILLED.
6. DENSE VEGETATIVE COVER IS TO BE ESTABLISHED OVER THE SUPPLY TRENCH, RETURN TRENCH, MANIFOLDS, AND DRIP TUBING PRIOR TO THE FIRST EXPOSURE TO FREEZING TEMPERATURES. IF VEGETATION CANNOT BE ESTABLISHED THEN THE ENTIRE DRIP DISPERSAL FIELD IS TO BE COVERED WITH A THICK LAYER (MINIMUM 6") OF MULCH, STRAW/HAY, OR FROST BLANKET UNTIL SUCH TURF COVER IS ESTABLISHED.
7. VEGETATION HEIGHT OVER THE DRIP DISPERSAL AREA SHOULD BE A MINIMUM OF 4" – 6" THROUGHOUT THE WINTER MONTHS.



NOTE:
1. WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".
2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.
3. CRUSHED STONE FOUNDATION ¾" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE ND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4. CRUSHED STONE HUNCHING ¾" MAXIMUM SIZE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE.

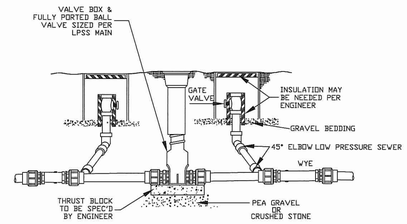
Sewer Line Trench Detail (Building Sewer)

NOT TO SCALE



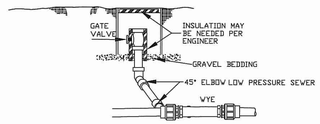
Connection of Drip Tubing to Flexible PVC Pipe

(NOT TO SCALE)



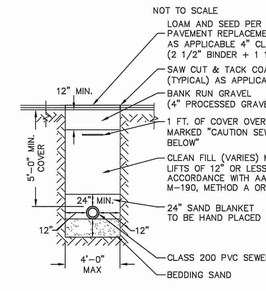
Typical In- Line Flushing Connection

(NOT TO SCALE)



Typical Terminal Flushing Connection

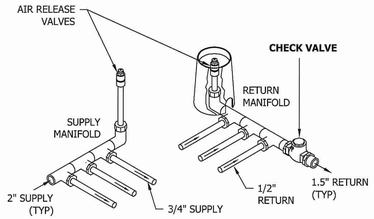
(NOT TO SCALE)



Low Pressure Sewer Trench Detail

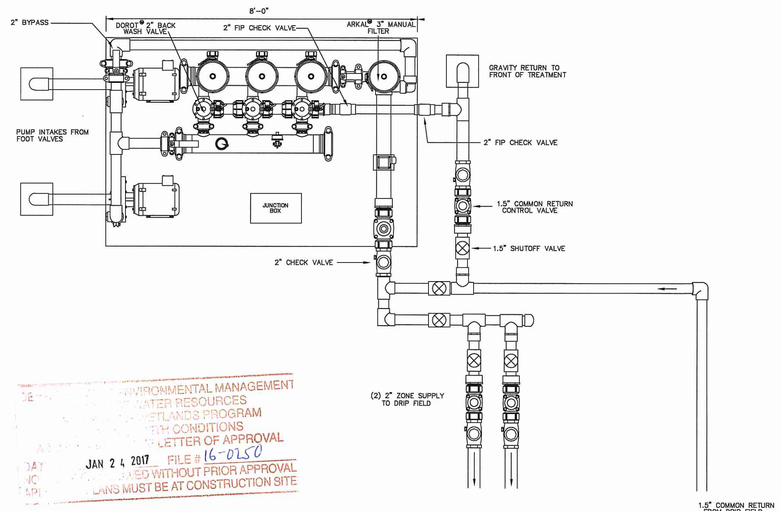
(NOT TO SCALE)

NOTES:
1. ALL RIGID AND FLEXIBLE PVC ARE TO BE LOCATED ABOVE THE DRIP LINE TO ALLOW THE PIPES TO DRAIN.
2. THE AIR RELEASE VALVES SHALL BE PLACED AT THE HIGHEST POINT ON THE SUPPLY AND RETURN LINE FOR EACH ZONE.
3. EACH ZONE TO HAVE MIN TWO AIR RELEASE VALVES.
4. RETURN LINES TO BE CONNECTED TO A COMMON RETURN LINE.



Typical Manifold Connection

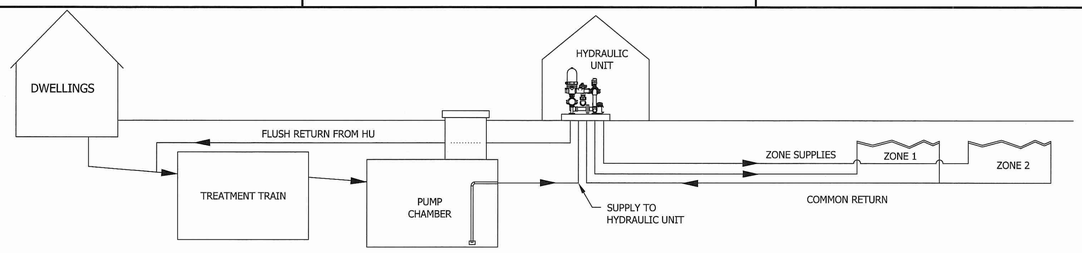
(NOT TO SCALE)



ENVIRONMENTAL MANAGEMENT
WATER RESOURCES
WETLANDS PROGRAM
WITH CONDITIONS
LETTER OF APPROVAL
JAN 24 2017 FILE # 16-0250
ISSUED WITHOUT PRIOR APPROVAL
PLANS MUST BE AT CONSTRUCTION SITE

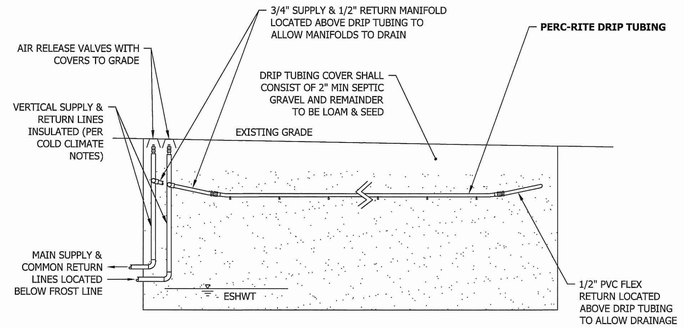
Typical Hydraulic Unit

(NOT TO SCALE)



Typical System Hydraulic Profile

(NOT TO SCALE)



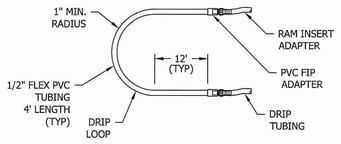
(NOT TO SCALE)

Note: All Perc-Rite components shall be obtained from Oakson, Inc, Gloucester, MA., 978-282-1322

Perc-Rite Drip Dispersal Typical Cross Section

(NOT TO SCALE)

NOTE:
ALL DRIP LOOPS ARE TO BE LOCATED 2" ABOVE THE DRIP LINE TO ALLOW FOR THE LOOPS TO DRAIN.



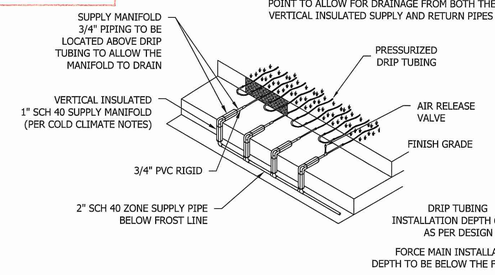
Typical Drip Loop Connection

(NOT TO SCALE)

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

JAN – 3 2017

NOTE: THE DRIP TUBING SHALL BE THE LOWEST POINT TO ALLOW FOR DRAINAGE FROM BOTH THE VERTICAL INSULATED SUPPLY AND RETURN PIPES



Standard Drip System (Side Feed Manifold)

(NOT TO SCALE)

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9110
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
3	1-4-2017	Revised Permittee Submission	R.B.S.
2	12-16-2016	OWTS Resubmission	S.K.K.
1	11-14-2016	Municipal Resubmission	R.B.S.
0	9-15-2016	Permittee Submission	R.B.S.

Drawn By: R.B.S. | Design By: R.B.S.

OWTS Detail Sheet - 3

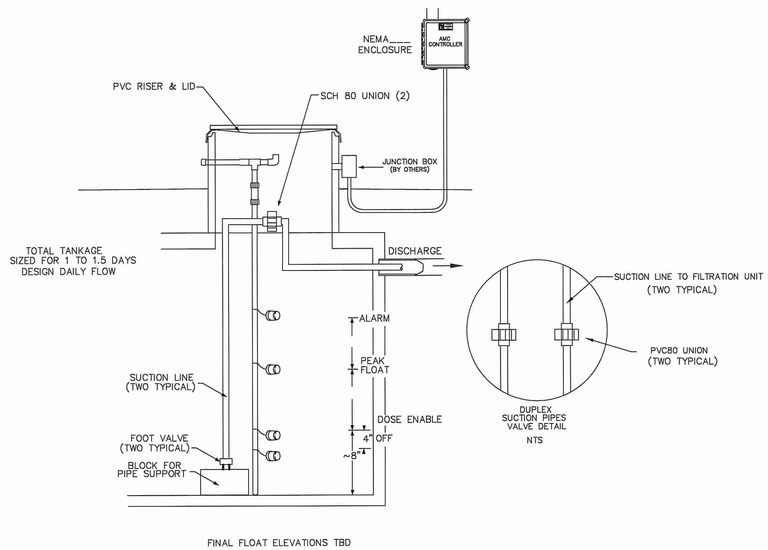
Hope Mills
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272.002 Copyright 2017 by DiPrete Engineering Associates, Inc.

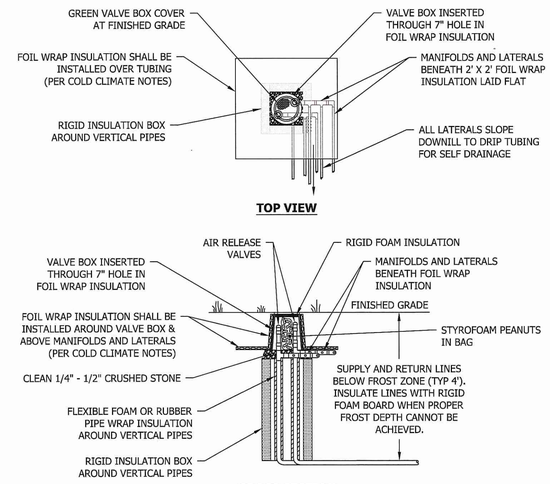
SHEET 19 OF 20

z:\demain\projects\1272-002 hope mill\autocad drawings\1272-002-dtst.dwg Plotted: 1/4/2017



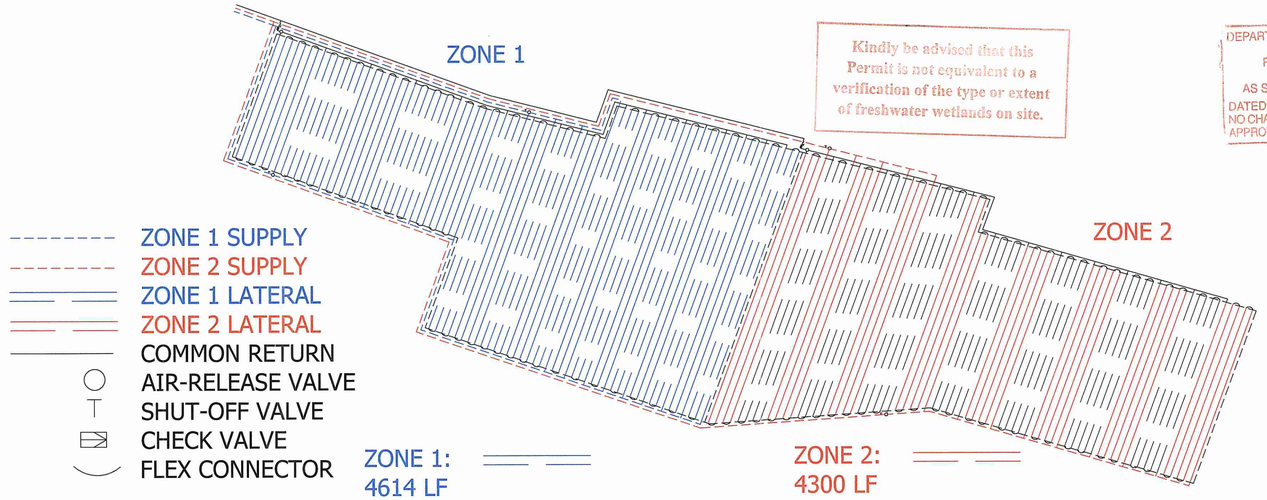
Standard Duplex Suction Pump System

(NOT TO SCALE)



Insulation Detail

(NOT TO SCALE)



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN. 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PERC RITE Drip Dispersal Leachfield System

(NOT TO SCALE)

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel.401-943-1000 fax.401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

JASON P. CLOUGH
No. 9410
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
3	1-4-2017	Revised Permitting Submission	R.B.S.
2	12-16-2016	OWTS Resubmission	S.E.K.
1	11-14-2016	Revised Permitting Submission	R.B.S.
0	9-15-2016	Permitting Submission	R.B.S.

Drawn By: R.B.S. Design By: R.B.S.

OWTS Detail Sheet - 4

Hope Mills

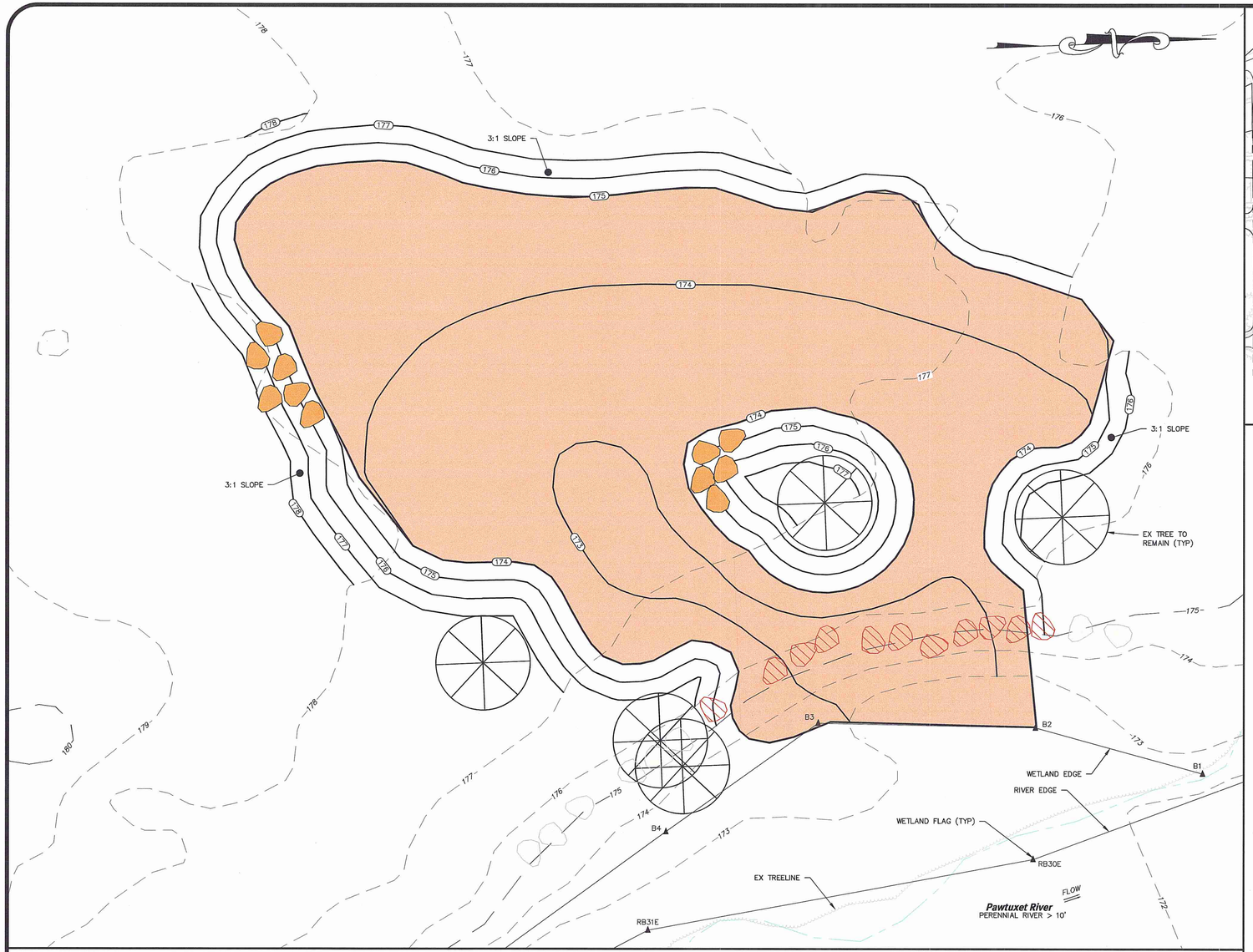
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

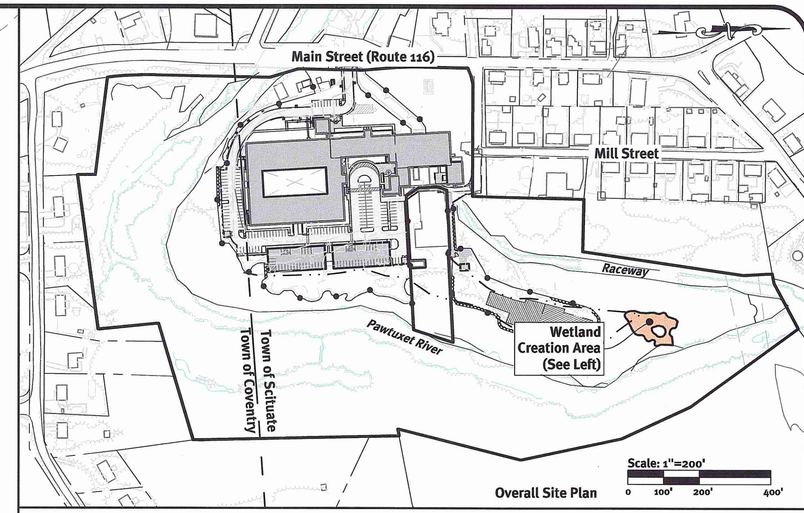
DE Job No: 1272.002 Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 20 OF 20

z:\derain\projects\1272-002 hope mill\autocad drawings\1272-002-dtst.dwg Plotted: 1/4/2017



Wetland Creation Area



Overall Site Plan

General Notes

1. STRIP SUITABLE TOPSOIL FROM THE WETLAND REPLICATION AREA PRIOR TO ROUGH GRADING. TOPSOIL SHALL BE STOCKPILED OUTSIDE OF WETLANDS FOR LATER REUSE.
2. STRIPPED TOPSOIL FROM THE WETLAND REPLICATION AREA SHALL BE SUPPLEMENTED WITH AN EQUAL VOLUME OF LOAM/COMPOST MIXTURE. THE MIXTURE SHALL CONSIST OF 90% THREE–QUARTER INCH (3/4") SCREENED LOAM AND 10% COMPOST.
3. TOPSOIL IMPORTED TO THE SITE SHALL BE INSPECTED BY THE WETLAND SCIENTIST AND BE FREE OF INVASIVE PLANT MATERIAL AND SEEDS.
4. OBSERVATIONS OF SEASONAL HIGH GROUNDWATER WITHIN THE WETLAND REPLICATION AREA ARE APPROXIMATELY TWO–AND–A–HALF TO THREE FEET (2.5' – 3') BELOW EXISTING GRADES. PROPOSED CONTOURS ARE DESIGNED TO INTERCEPT THIS ELEVATION. HYDROLOGY WITHIN THE REPLICATION SITE WILL ALSO BE SUPPLEMENTED BY HIGH WATER EVENTS WITHIN THE PAWTUXET RIVER.
5. MOUND–AND–POOL MICROTOPOGRAPHY SHALL BE CONSTRUCTED WITHIN THE SUBGRADE. ON AVERAGE, MOUNDS WILL BE ONE (1) FOOT ABOVE THE SUBGRADE AND POOLS WILL BE ONE (1) FOOT BELOW THE SUBGRADE ELEVATIONS SHOWN ON THE GRADING PLAN AND DETAILS FOLLOWING COMPACTION BY TRACKED EQUIPMENT.
6. ON AVERAGE, MOUNDS WILL BE SPACED 20 FEET APART AND SEPARATED BY UNCONNECTED POOLS TO CREATE AN EGG CARTON APPEARANCE.
7. PRIOR TO REPLACEMENT OF TOPSOIL, THE SUBGRADE SHALL BE APPROVED BY WETLAND SCIENTIST.
8. PLACE TOPSOIL TO A FINAL DEPTH OF ONE (1) FOOT AFTER SETTLEMENT OVER THE WETLAND REPLICATION AREA.
9. NO EXISTING TREES SHALL BE DISTURBED. EXISTING BOULDERS WITHIN THE WORK AREA SHALL BE REPOSITIONED AS SHOWN ON PLAN.
10. PROPOSED CONTOURS REFLECT FINISH GRADES AFTER NATURAL SETTLEMENT OF TOPSOIL.
11. WETLAND SCIENTIST SHALL APPROVE LOCATIONS FOR CONSTRUCTION VEHICLE REFUELING, MAINTENANCE AND STORAGE. UNDER NO CIRCUMSTANCES SHALL THESE ACTIVITIES BE ALLOWED WITHIN EXISTING OR PROPOSED BIOLOGICAL WETLANDS.
12. EXISTING CONTOURS BASED ON RIGIS LIDAR.
13. SEE LANDSCAPING PLANS FOR PLANTING AND SEEDING REQUIREMENTS.

Legend

- EX MAJOR FOOT CONTOUR — 160
- EX MINOR FOOT CONTOUR — 158
- WETLAND EDGE
- WETLAND FLAG — B1
- PR FOOT CONTOUR — 310
- EX BOULDER TO REMAIN IN PLACE
- EX BOULDER TO BE RELOCATED
- RELOCATED BOULDER
- FORESTED WETLAND CREATION AREA (0.19 ACRES)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

PLAN SET MUST BE REPRODUCED IN COLOR ONLY
This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:	Design By: R.B.S.
0	1-4-2017	Wetland Creation Area	R.B.S.	
				Drawn By: R.B.S.

Wetland Creation Area

Hope Mills

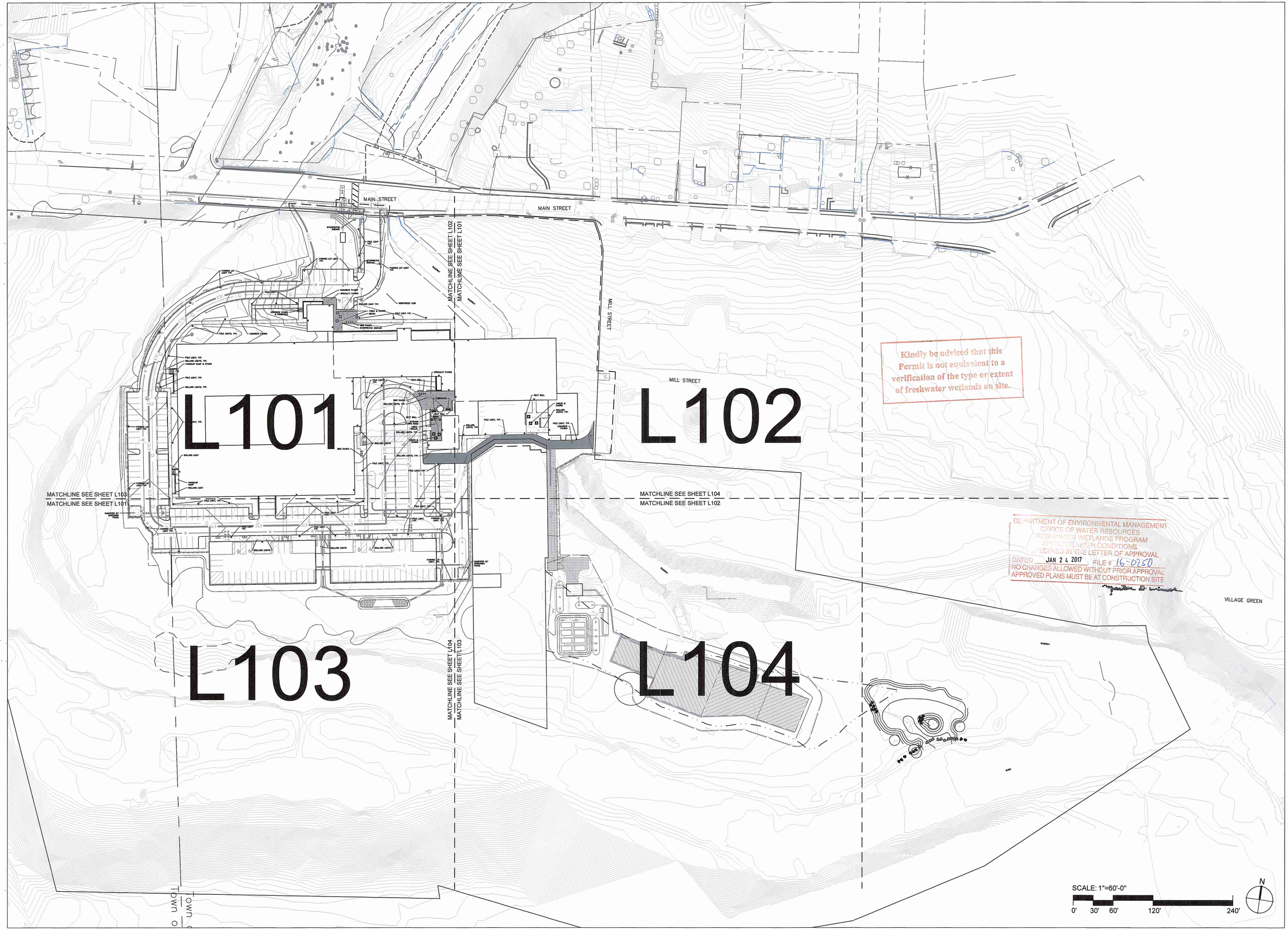
Main Street (Route 116) Scituate, Rhode Island
Scituate AP 3 Lot 8 | Scituate AP 5 Lots 1, 114 & 117 | Coventry AP 101 Lot 5

Prepared for:
Paramount Development Group
Attention Richard Derosas
165 Hunt Road, Chelmsford MA 01824 | tel. 617-548-8333

DE Job No: 1272.002 Copyright 2016 by DiPrete Engineering Associates, Inc.

SHEET 1 OF 1

z:\deme\n\projects\1272-002 hope mill\autocad drawings\1272-002-desn.dwg Plotted: 1/4/2017



SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER / CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	MB + TC
CHECKED	CS
REVISIONS:	

OVERALL SITE IMPROVEMENT PLAN
Not for Construction

L-100

INTERPRETIVE SIGNAGE
POLE LIGHT TYP.
PARKING LOT LIGHT TYP.
INTERPRETIVE SIGNAGE
PARKING LOT LIGHT TYP.
RACEWAY
PARKING LOT LIGHT TYP.
POLE LIGHT
CONCRETE PAVING
SPECIALTY PAVING
REINFORCED TURF
BOLLARD LIGHT TYP.
CONCRETE STAIRS & HANDRAILS
TABLE & CHAIRS
BENCH
POLE LIGHT TYP.
BIKE RACKS
INTERPRETIVE SIGNAGE
POLE LIGHTS, TYP.
CONCRETE PAVING
POLE LIGHT, TYP.
BOLLARD LIGHTS, TYP.
HANDICAP RAMP & STAIRS
POLE LIGHT, TYP.
BOLLARD LIGHTS, TYP.
POLE LIGHT, TYP.
PARKING LOT LIGHT TYP.
BOLLARD LIGHT
HANDICAP RAMP
BOLLARD LIGHT
POLE LIGHT, TYP.

MATCHLINE SEE SHEET L103

MATCHLINE SEE SHEET L101

MATCHLINE SEE SHEET L102

MATCHLINE SEE SHEET L101

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SPECIALTY PAVING
POLE LIGHTS TYP.
SEAT WALL
BIKE RACKS
BOLLARD LIGHTS, TYP.
(2)BENCHES
SEAT WALL
SEAT WALL
OUTDOOR LIVING ROOM
CABLE TRELLIS
BOLLARD LIGHTS, TYP.
TABLES & CHAIRS
BOLLARD LIGHTS
BIKE RACKS
BOLLARD LIGHTS, TYP.
POLE LIGHT, TYP.
POLE LIGHT, TYP.
POLE LIGHT, TYP.

SCALE: 1"=20'-0"
0' 10' 20' 40' 80'
N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT TIMBER / CARON No 478

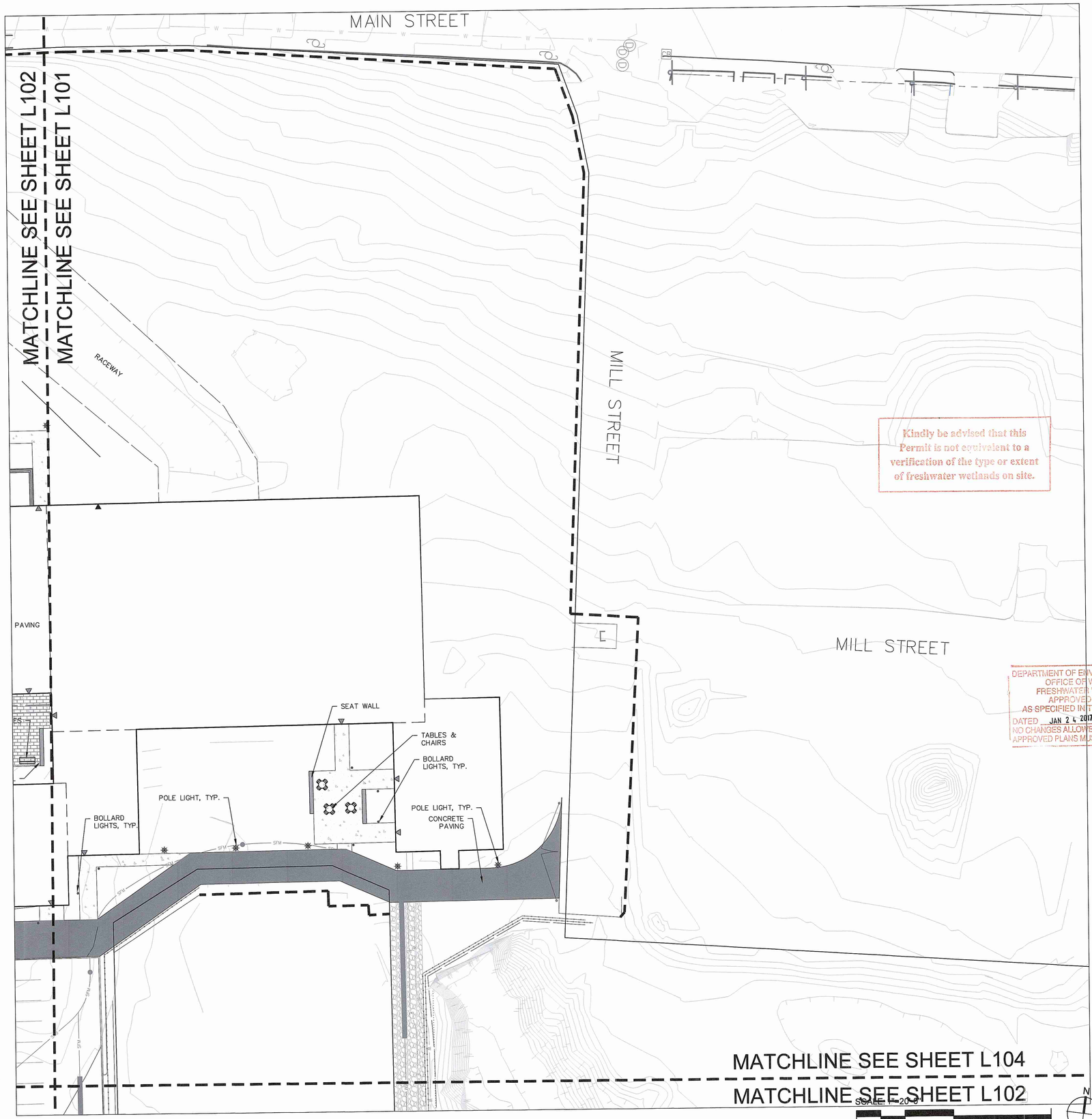
HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	MB + TC
CHECKED	CS
REVISIONS:	

SITE IMPROVEMENT PLAN
Not for Construction

L-101



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

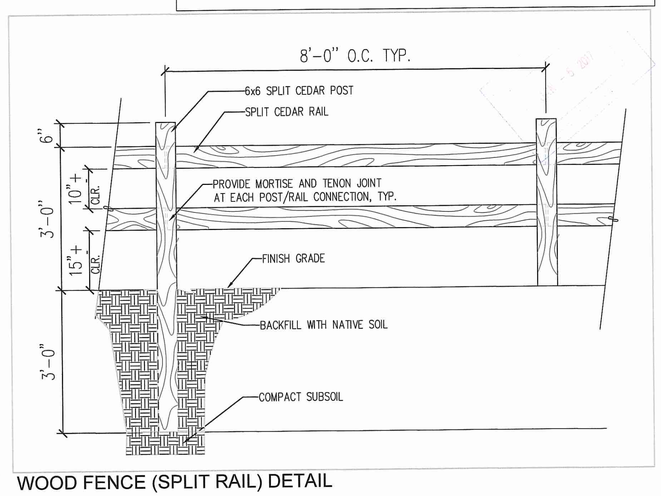
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SITE IMPROVEMENT LEGEND

SYMBOL	ITEM	DESCRIPTION
	MATCH LINE	
	SPECIALTY PAVING	CONCRETE PAVERS OR EXPOSED AGGREGATE CONCRETE PAVING
	CONCRETE PAVING	PEDESTRIAN CONCRETE PAVING, LIGHT BROOM FINISH
	SEAT WALL	CONCRETE SEAT WALL WITH WOOD CAP
	TABLES & CHAIRS	TBD
	BENCHES	TBD
	PICNIC TABLES	TBD
	SEATING BOULDERS	ROUNDED FIELDSTONE BOULDERS, WARM GRAY TO BROWN IN COLOR SIZE A – 4'X5'X3' SIZE B – 3'X4'X3' SIZE C – 3'X3'X2'
	BIKE RACK	TBD
	INTERPRETIVE SIGNAGE	SIGNAGE TO REFLECT TO HISTORY AND ECOLOGY OF THE SITE, EXACT WORKING AND CONFIGURATION TO BE FINALIZED IN COLLABORATION WITH RIDEM
	DUMPSTER	SOLID FENCE SCREENING TO SURROUND DUMPSTER AREA. CONCRETE PAD
	PARKING LOT LIGHTING	SEE LIGHTING PLAN
	POLE LIGHTING	SEE LIGHTING PLAN
	BOLLARD LIGHTING	SEE LIGHTING PLAN

GENERAL NOTES:

1.) DO NOT SCALE DRAWINGS.
2.) ALL PAVING, SCORE LINES, WALLS AND OTHER MISC. SITE IMPROVEMENTS ARE LAID OUT PERPENDICULAR AND PARALLEL TO THE BUILDING, TYP., UNLESS NOTED. CURVES COME TANGENT TYPICAL, UNLESS NOTED.
3.) VERIFY LOCATION OF ALL OVERHEAD AND UNDERGROUND UTILITIES BEFORE BEGINNING WORK.
4.) NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES FOUND IN PLANS OR DEVIATIONS FROM DOCUMENTED ON-SITE CONDITIONS. FAILURE TO NOTIFY THE ARCHITECT IN A TIMELY MANNER SHALL RESULT IN CONTRACTOR TAKING RESPONSIBILITY FOR ANY AND ALL REMEDIAL MEASURES REQUIRED.
5.) STRING DIMENSIONS OF SITE IMPROVEMENTS ARE FROM BUILDING GRID, BACK OF CURB OR COORDINATE POINT AS SHOWN ON PLAN. STAIR WIDTHS INDICATED ARE CLEAR DIMENSIONS (INSIDE TO INSIDE WALL FACE).
6. WHERE DIMENSIONS ARE IN FEET ONLY, CONTRACTOR IS TO ASSUME THEY ARE 0" (E.G. 12' = 12'-0").
7. ALL INFORMATION ON EXISTING SITE CONDITIONS BASED ON SURVEY DRAWINGS PROVIDED BY DIPRETE ENGINEERING, DATED 7/22/16.



WOOD FENCE (SPLIT RAIL) DETAIL

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER J. CATON
No. 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	MB + TC
CHECKED	CS
REVISIONS:	

SITE IMPROVEMENT PLAN & LEGEND
Not for Construction

L-102

MATCHLINE SEE SHEET L103

MATCHLINE SEE SHEET L101

PARKING LOT LIGHT, TYP.

HANDICAP RAMP

BOLLARD LIGHT

POLE LIGHT, TYP.

DUMPSTER W/ SCREENING FENCE

PARKING LOT LIGHT TYP.

POLE LIGHT TYP.

POLE LIGHT TYP.

POLE LIGHT, TYP.

POLE LIGHT, TYP.

PARKING LOT LIGHT, TYP.

BOLLARD LIGHTS

BOLLARD LIGHTS

BOLLARD LIGHTS

PARKING LOT LIGHT, TYP.

MATCHLINE SEE SHEET L104

MATCHLINE SEE SHEET L103

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL.
DATED JAN. 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

JAN - 5 2017

SCALE: 1"=20'-0"

0' 10' 20' 40' 80'

N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER / CATON
No 478

HOPE MILLS

HOPE MILLS

MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	MB + TC
CHECKED	CS
REVISIONS:	

SITE IMPROVEMENT PLAN

Not for Construction

L-103

MATCHLINE SEE SHEET L104

MATCHLINE SEE SHEET L102

MATCHLINE SEE SHEET L104

MATCHLINE SEE SHEET L103

DUMPSTER W/ SCREENING FENCE

RACEWAY

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SCALE: 1"=20'-0"

0' 10' 20' 40' 80'

N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER J. CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	MB + TC
CHECKED	CS
REVISIONS:	

SITE IMPROVEMENT PLAN
Not for Construction

L-104

L206

L201

L202

L203

L204

L205

MAIN STREET

MILL STREET

MATCHLINE SEE SHEET L201
MATCHLINE SEE SHEET L206

MATCHLINE SEE SHEET L202
MATCHLINE SEE SHEET L205

MATCHLINE SEE SHEET L203
MATCHLINE SEE SHEET L204

Town of C

Kindly be advised that this Permit is not conclusive to a verification of the type of extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SCALE: 1"=80'-0"

0' 40' 80' 160' 320'

N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
J TABER / CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

OVERALL PLANTING PLAN

Not for Construction

L-200

MATCHLINE SEE SHEET L201
MATCHLINE SEE SHEET L206

MAIN STREET

STREET TREE PLANTING
475 LF ALONG MAIN STREET
STREET TREES AT 50'O.C +/-

MATCHLINE SEE SHEET L202
MATCHLINE SEE SHEET L201

(9) PARKING SPACES

(2) PARKING SPACES

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 2 5 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

(20) PARKING SPACES

(20) PARKING SPACES

(30) PARKING SPACES

(9) PARKING SPACES

(9) PARKING SPACES

4
A-1(a)

MATCHLINE SEE SHEET L203
MATCHLINE SEE SHEET L201

SCALE: 1"=20'-0"
0' 10' 20' 40' 80'

N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
J TABER J CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

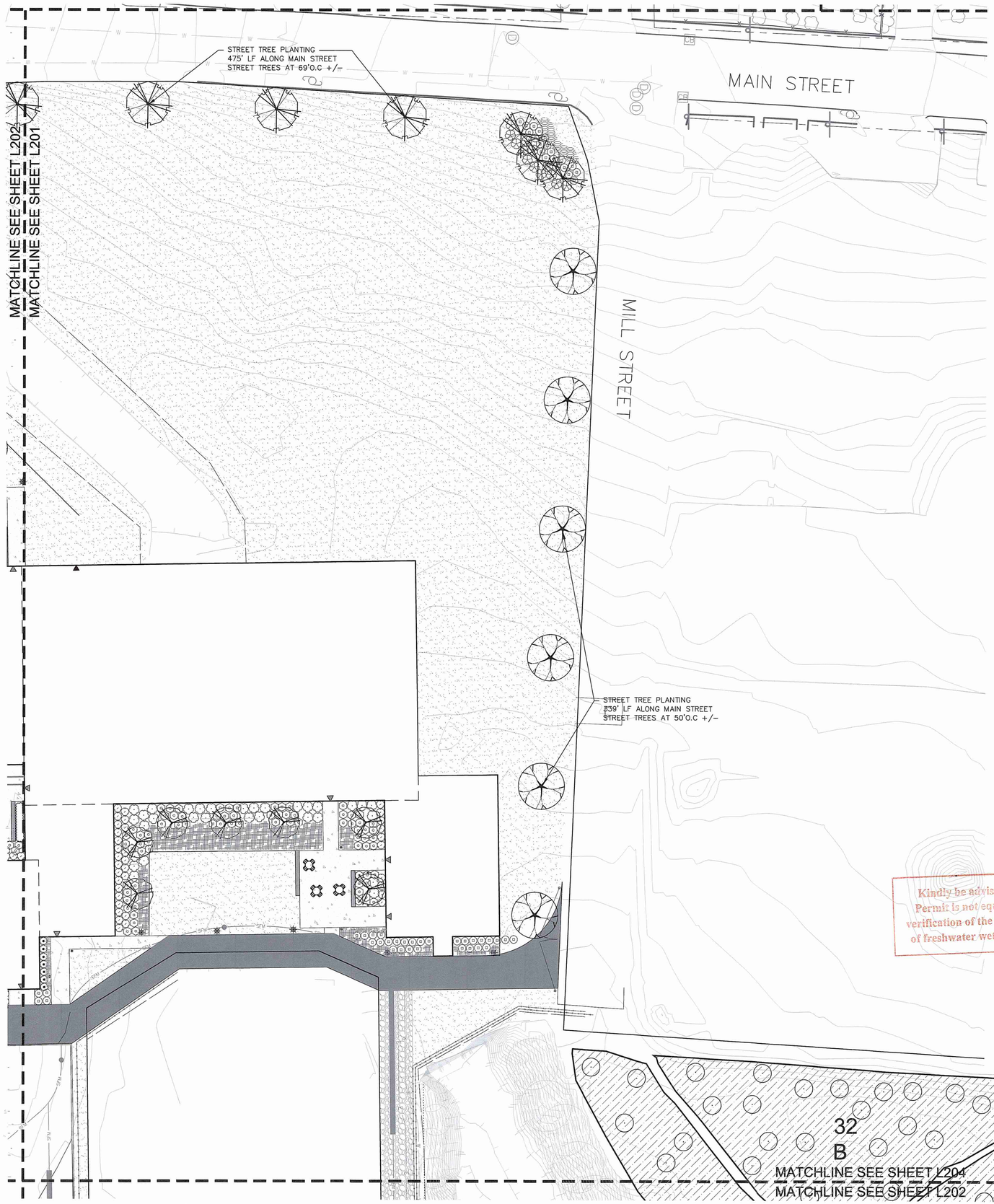
REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING PLAN

Not for Construction

L-201



HOPE MILLS PLANTING SCHEDULE

TREES	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS
	21	Acer rubrum 'October Glory' TM / October Glory Maple	2/2.5" cal.	B&B, 15' HT.MIN., BRANCHING ABOVE 5'
	51	Amelanchier canadensis 'Autumn Brilliance' / Autumn Brilliance Serviceberry	2/2.5" cal.	B&B,15' HT.MIN. SINGLE STEM, BRANCHING ABOVE 4'HT
	7	Carpinus betulus 'Fastigiata' / Pyramidal European Hornbean	2.5 Cal.	B&B BRANCHING ABOVE 3'HT.
	4	Juniperus virginiana / Eastern Red Cedar	6/7' HT.	FULL & BUSHY TO BASE
	10	Liriodendron tulipifera / Tulip Tree	2/2.5" cal.	B&B 15'HT.MIN. BRANCHING ABOVE 5'HT.
	17	Nyssa sylvatica 'Wildfire' / Black Gum	2/2.5" cal.	B&B, 15'HT. MIN. BRANCHING ABOVE 4'
	5	Ostrya virginiana / American Hophornbeam	15 gal	12'HT. MIN, BRANCHING ABOVE 4'HT.
	6	Oxydendrum arboreum / Sourwood Tree	2/2.5" cal.	B&B, BRANCHING ABOVE 5' HT.

SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS
	75	Clethra alnifolia / Summersweet Clethra	7 gal	24"HT.MIN.
	80	Clethra alnifolia 'Hummingbird' / Summersweet	3 gal	18" HT
	37	Cornus sanguinea 'Midwinter Fire' / Blood–Twig Dogwood	3 gal	18"–24"HT. MIN.
	48	Cornus sanguinea 'Midwinter Fire' / Blood–Twig Dogwood	3 gal	18"–24"HT. MIN.
	10	Hamamelis virginiana / Common Witch Hazel	B & B	4'–5' HT., FULL + BUSHY
	56	Hydrangea arborescens 'White Dome' / Wild Hydrangea	7 gal	24"HT. MIN.
	7	Hydrangea quercifolia 'Pee Wee' / Oakleaf Hydrangea	5 gal	24"HT.MIN.
	69	Hydrangea quercifolia 'Sikes Dwarf' / Oakleaf Hydrangea	7 gal	24"HT.MIN.
	17	Ilex glabra / Inkberry Holly	B & B	18–24" HT.
	494	Ilex glabra 'Shamrock' / Inkberry	5 gal	24" HT
	46	Ilex verticillata 'Winter Red' / Winter Red Holly	7 gal	4'HT. MIN.
	187	Itea virginica 'Little Henry' TM / Virginia Sweetspire	3 gal	15" HT
	77	Kalmia latifolia 'Little Linda' / Miniature Pink Mountain Laurel	5 gal	18"HT.MIN.
	23	Myrica gale / Sweetgale	2 gal	21"HT.MIN.
	8	Myrica pensylvanica / Northern Bayberry	7 gal	30"HT.MIN.
	360	Rhus aromatica 'Gro–Low' / Gro–Low Fragrant Sumac	3 gal	15"HT.MIN.
	25	Rosa palustris / Swamp Rose	1 gal	18"HT. MIN.
	178	Vaccinium angustifolium / Lowbush Blueberry	1 gal	15" HT. MIN.
	24	Vaccinium corymbosum / Highbush Blueberry	4/5' B&B	
	5	Viburnum dentatum / Viburnum	5 gal	4'HT. MIN.

GROUND COVERS	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING
	48	Aster novae–angliae 'Purple Dome' / Purple Dome New England Aster	1 gal	24" o.c.
	980	Carex pensylvanica / Pennsylvania Sedge	LP50 Plug	18" o.c.
	50	Deschampsia cespitosa 'Schottland' / Schottland Hair Grass	1 gal	24" o.c.
	30	Dryopteris erythrosora 'Brilliance' / Autumn Fern	1 gal	24" o.c.
	15	Echinacea purpurea / Purple Coneflower	LP50 Plug	24" o.c.
	300	Panicum virgatum 'Shenandoah' / Switch Grass	1 gal	24" o.c.
	98	Stormoverflow Mix 40% Juncus effusus 40% Carex stricta 5% Eupatorium maculatum 10% Scirpus tabernaemontani 5% Asclepias incarnata	LP50 plug	18" o.c.

NEW ENGLAND CONSERVATION/WILDLIFE MIX: NEW ENGLAND WETLAND PLANTS: NEW ENGLAND CONSERVATION/WILDLIFE MIX: 25 LBS/ACRESPECIES: VIRGINIA WILD RYE, (ELYMUS VIRGINICUS), LITTLE BLUESTEM,(SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM, (ANDROPOGON GERARDII), CREEPING RED FESCUE, (FESTUCA RUBRA), SWITCH GRASS, (PANICUM VIRGATUM), PARTRIDGE PEA, (CHAMAECRISTA FASCICULATA), DEER TONGUE, (PANICUM CLANDESTINUM), INDIAN GRASS, (SORGHASTRUM NUTANS), OX EYE SUNFLOWER, (HELIOPSIS HELIANTHOIDES), COMMON MILKWEED, (ASCLEPIAS SYRIACA), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), GRASS LEAVED GOLDENROD, (EUTHAMIA GRAMINIFOLIA), BLUE VERVAIN,(VERBENA HASTATA), NEW ENGLAND ASTER, (ASTER NOVAE–ANGLIAE), EARLY GOLDENROD, (SOLIDAGO JUNCEA).

Lawn Seed Mix

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 16-0250 FILE # JAN 2 , 2017
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SCALE: 1"=20'-0"
0' 10' 20' 40' 80'
N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER J. CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC

REVISIONS:

PLANTING PLAN

Not for Construction

L-202

MATCHLINE SEE SHEET L203
MATCHLINE SEE SHEET L201

4
A-1(a)

3
A-1(a)

2
A-1(a)

1
A-1(a)

5
A-1(b)

(20) PARKING SPACES

(15) PARKING SPACES

(9) PARKING SPACES

(16) PARKING SPACES

(30) PARKING SPACES

(9) PARKING SPACES

(9) PARKING SPACES

SEE SHEET L206 FOR VISUAL SCREEN AREA

EXIST. VEGETATION

MATCHLINE SEE SHEET L204
MATCHLINE SEE SHEET L203

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

JAN - 5 2017

SCALE: 1"=20'-0"

0' 10' 20' 40' 80'

N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER / CATON
No. 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING PLAN

Not for Construction

L-203

MATCHLINE SEE SHEET L204
MATCHLINE SEE SHEET L202

30
B

33
B

31
B

29
B

20
A(c)

17
A(a)

18
A(b)

11
A(a)

12
A(a)

25
A(e)

21
A(d)

24
A(e)

22
A(e)

14
A(a)

15
A(a)

13
A(a)

23
A(e)

PARKING SPACES

SFM

ROUGHLAWN SEEDING OVER SEPTIC

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS SECTION
AS SPECIFIED IN THE LETTER DATED
JAN 2 4 2017
CHANGES MADE TO YOUR PROPOSED APPROVED PLANS MUST BE SUBMITTED TO THIS OFFICE

JAN - 5 2017

MATCHLINE SEE SHEET L205
MATCHLINE SEE SHEET L204

MATCHLINE SEE SHEET L204
MATCHLINE SEE SHEET L203

SCALE: 1"=20'-0"
0' 10' 20' 40' 80'

N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02909
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TIMOTHY J. SEARLE
No. 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

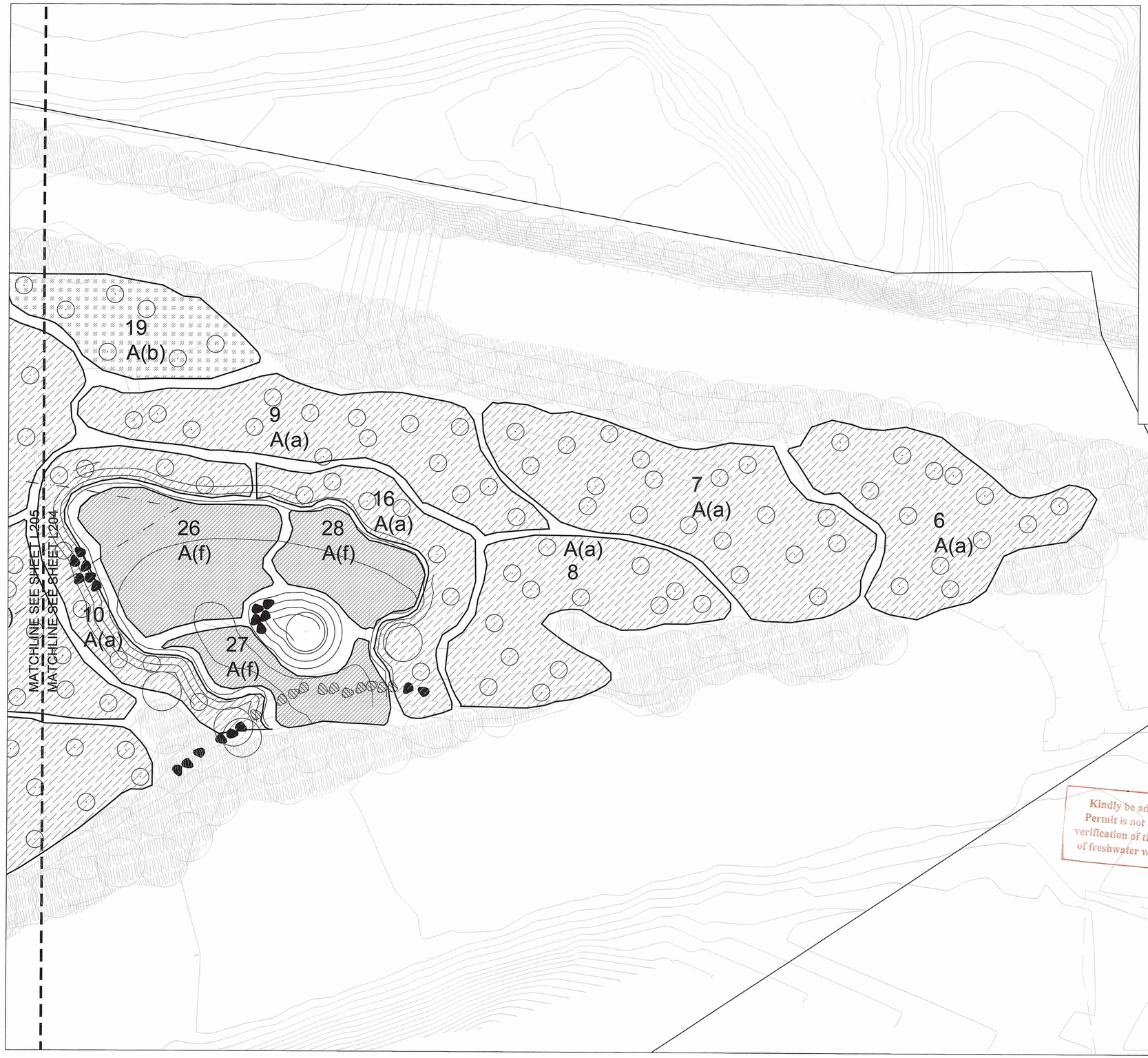
REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING PLAN

Not for Construction

L-204



WETLAND CREATION AREA NOTES

GENERAL NOTES
STRIP SUITABLE TOPSOIL FROM THE WETLAND REPLICATION AREA PRIOR TO ROUGH GRADING. TOPSOIL SHALL BE STOCKPILED OUTSIDE OF WETLANDS FOR LATER REUSE.

STRIPPED TOPSOIL FROM THE WETLAND REPLICATION AREA SHALL BE SUPPLEMENTED WITH AN EQUAL VOLUME OF LOAM/COMPOST MIXTURE. THE MIXTURE SHALL CONSIST OF 90% THREE-QUARTER INCH (3/4") SCREENED LOAM AND 10% COMPOST.

TOPSOIL IMPORTED TO THE SITE SHALL BE INSPECTED BY THE WETLAND SCIENTIST AND BE FREE OF INVASIVE PLANT MATERIAL AND SEEDS.

OBSERVATIONS OF SEASONAL HIGH GROUNDWATER WITHIN THE WETLAND REPLICATION AREA ARE APPROXIMATELY TWO-AND-A-HALF TO THREE FEET (2.5' – 3') BELOW EXISTING GRADES. PROPOSED CONTOURS ARE DESIGNED TO INTERCEPT THIS ELEVATION. HYDROLOGY WITHIN THE REPLICATION SITE WILL ALSO BE SUPPLEMENTED BY HIGH WATER EVENTS WITHIN THE PAWTUXET RIVER.

MOUND-AND-POOL MICROTOPOGRAPHY SHALL BE CONSTRUCTED WITHIN THE SUBGRADE. ON AVERAGE, MOUNDS WILL BE ONE (1) FOOT ABOVE THE SUBGRADE AND POOLS WILL BE ONE (1) FOOT BELOW THE SUBGRADE ELEVATIONS SHOWN ON THE GRADING PLAN AND DETAILS FOLLOWING COMPACTION BY TRACKED EQUIPMENT.
ON AVERAGE, MOUNDS WILL BE SPACED 20 FEET APART AND SEPARATED BY UNCONNECTED POOLS TO CREATE AN EGG CARTON APPEARANCE.

PRIOR TO REPLACEMENT OF TOPSOIL, THE SUBGRADE SHALL BE APPROVED BY WETLAND SCIENTIST.

PLACE TOPSOIL TO A FINAL DEPTH OF ONE (1) FOOT AFTER SETTLEMENT OVER THE WETLAND REPLICATION AREA.

NO EXISTING TREES SHALL BE DISTURBED. EXISITNG BOULDERS WITHIN THE WORK AREA SHALL BE REPOSTIONED AS SHOWN ON PLAN.

PROPOSED CONTOURS REFLECT FINISH GRADES AFTER NATURAL SETTLEMENT OF TOPSOIL.

WETLAND SCIENTIST SHALL APPROVE LOCATIONS FOR CONSTRUCTION VEHICLE REFUELING, MAINTENANCE AND STORAGE. UNDER NO CIRCUMSTANCES SHALL THESE ACTIVITIES BE ALLOWED WITHIN EXISTING OR PROPOSED BIOLOGICAL WETLANDS.

SEE LANDSCAPING PLANS FOR PLANTING AND SEEDING REQUIREMENTS.

For Seale plan (landscaping only)
PLANTING NOTES

PLANTING DENSITY WITHIN THE WETLAND CREATION AREA FOR SAPLINGS IS DESIGNED TO EQUAL A SPACING OF TEN (10) FOOT-ON-CENTER. PLANTING DENSITY OF SHRUBS IS DESIGNED TO EQUAL A SPACING OF FIVE (5) FOOT-ON-CENTER.

THE OUTLINES OF PLANTING ZONES SHALL BE STAKED OUT ON THE GROUND AS DIRECTED BY THE WETLAND SCIENTIST.

THE EXACT LOCATIONS OF FOR PLANTINGS WILL BE DESIGNATED ON THE GROUND BY THE WETLAND SCIENTIST, MAKING SUCH CHANGES AS MAY BE REQUIRED TO ADJUST FOR THE PLANTING TO LOCAL CONDITIONS.

Repeat note regarding fall planting here

ALL PLANT MATERIAL SHALL BE KEPT COOL AND MOIST WHILE ON SITE.

ALL CONTAINERIZED AND BALLED AND BURLAPPED PLANT MATERIAL SHALL BE FERTILIZED WITH A SLOW RELEASE FERTILIZER PER CONTRACT SPECIFICATIONS AND MULCHED WITH A TWO (2) INCH LAYER OF BARK MULCH. (be sure this matched detail)

SEEDING NOTES
THE WETLAND REPLICATION AREA SHALL BE SEEDED WITH THE NEW ENGLAND WETLAND SEED MIX AT AN APPLICATION RATE OF 18 LBS/ACRE.
SEE CONTRACT SPECIFICATIONS FOR SEEDING METHODS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

JAN – 5 2017

SCALE: 1"=20'-0"
0' 10' 20' 40' 80'
N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02909
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
JABER / CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

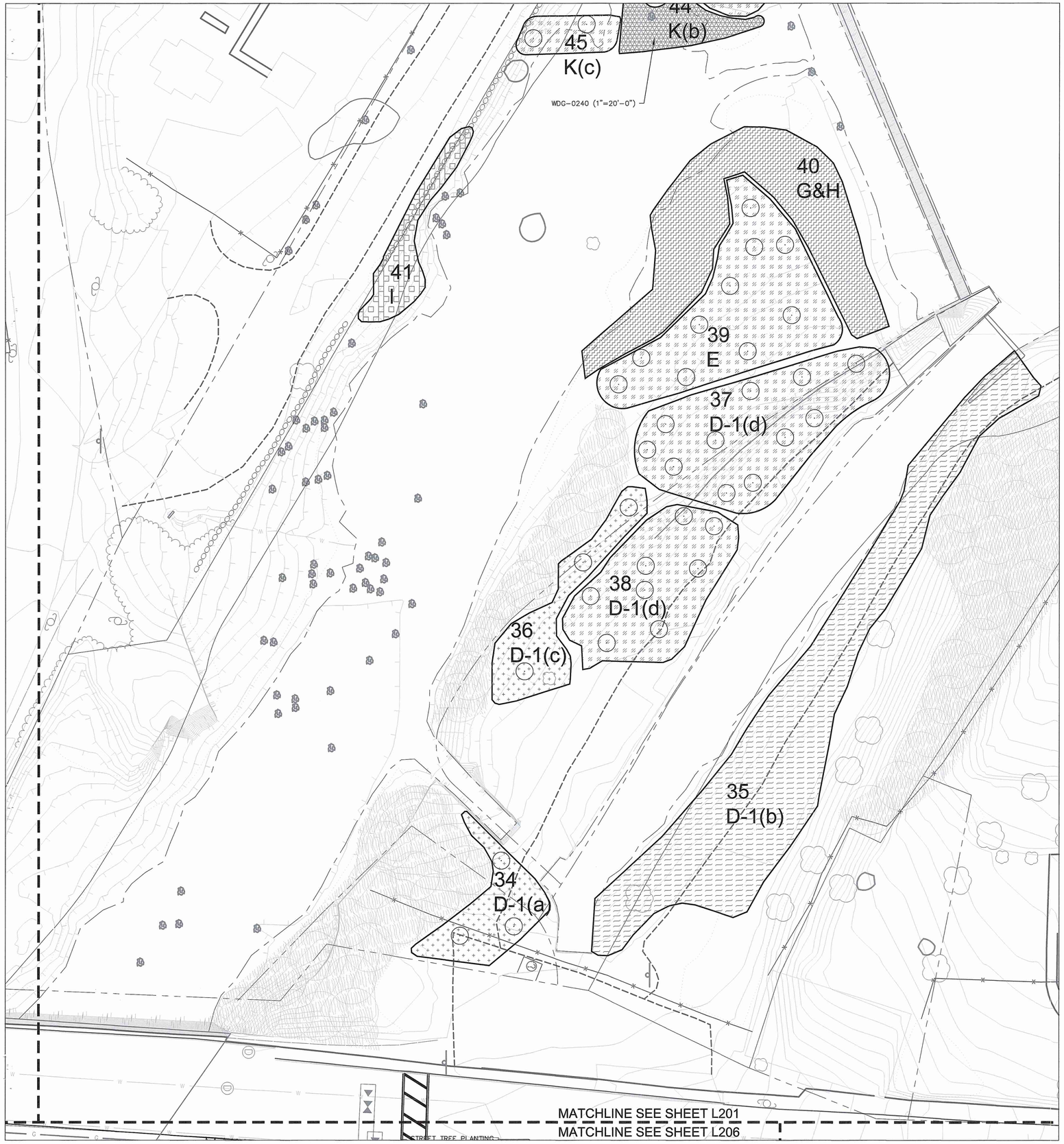
REVISED PERMITTING SUBMISSION

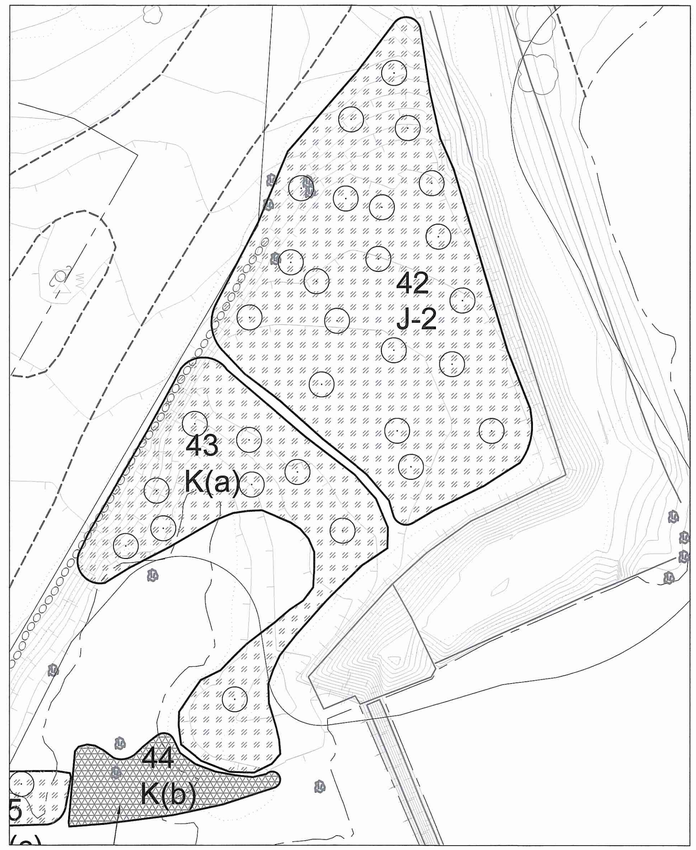
SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING PLAN

Not for Construction

L-205





Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SCALE: 1"=20'-0"
0' 10' 20' 40' 80'
N

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER / CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

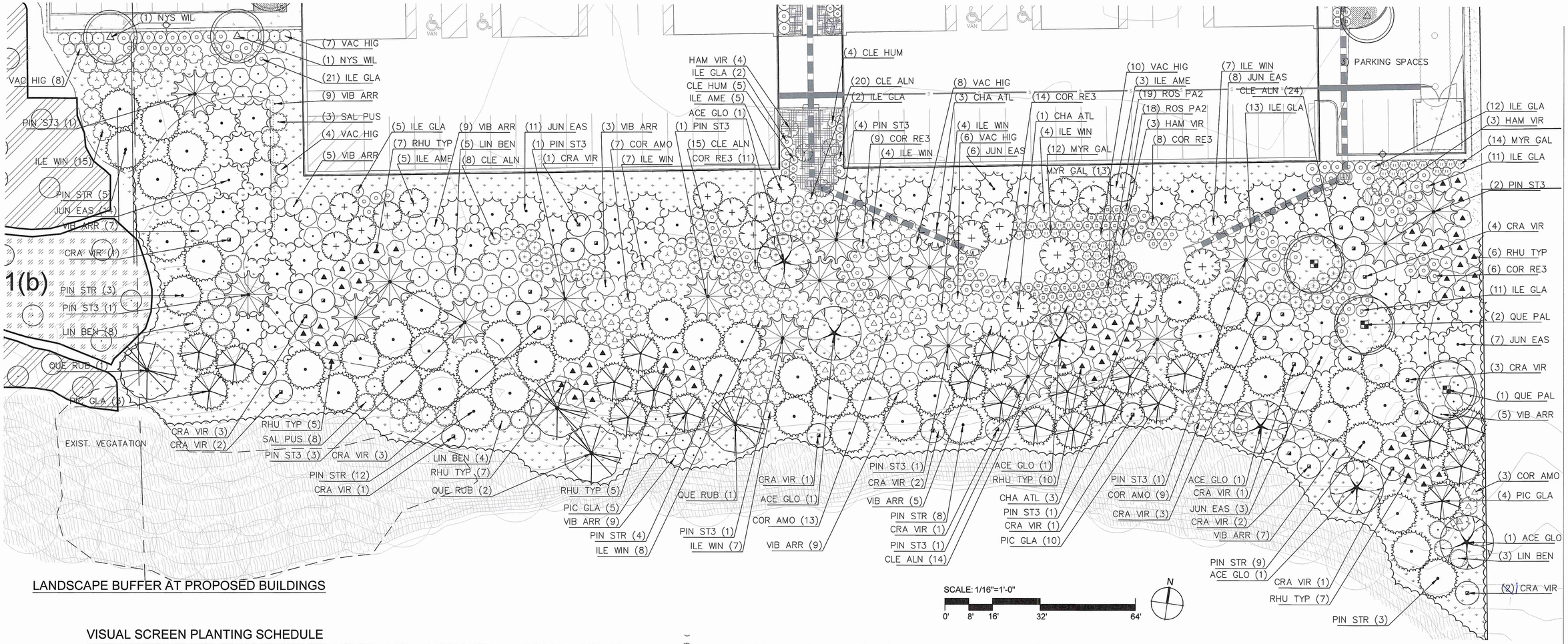
REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING PLAN

Not for Construction

L-206



LANDSCAPE BUFFER AT PROPOSED BUILDINGS

SCALE: 1/16"=1'-0"

0' 8' 16' 32' 64'

N

VISUAL SCREEN PLANTING SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS
	ACE GLO	6	Acer rubrum 'October Glory' TM / October Glory Maple	2/2.5" cal.	B&B, 15' HT.MIN., BRANCHING ABOVE 5'
	CHA ATL	8	Chamaecyparis thyoides / Atlantic White Cedar	B & B	6'–7' HT.
	CRA VIR	32	Crataegus viridis 'Winter King' / 'Winter King' Hawthorn	1.5/2"cal	B&B
	ILE AME	13	Ilex opaca / American Holly	B & B	5'–6' HT.
	JUN EAS	49	Juniperus virginiana / Eastern Red Cedar	6/7' b&b	
	NYS WIL	2	Nyssa sylvatica 'Wildfire' / Black Gum	2/2.5" cal.	B&B, 15'HT. MIN. BRANCHING ABOVE 4'
	PIC GLA	22	Picea glauca / White Spruce	B & B	7'–8' HT.
	PIN ST3	18	Pinus strobus / White Pine	B & B	12'–14'HT. MIN
	PIN STR	49	Pinus strobus / White Pine	B & B	7'–8' HT.FULL & BUSHY TO BASE
	QUE PAL	3	Quercus palustris / Pin Oak	15 gal	8'HT. MIN
	QUE RUB	4	Quercus rubra / Red Oak	B & B	2.5"Cal 14'–16' HT. MIN.
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS
	CLE ALN	92	Clethra alnifolia / Summersweet Clethra	7 gal	
	CLE HUM	9	Clethra alnifolia 'Hummingbird' / Summersweet	3 gal	18" HT
	COR AMO	31	Cornus amomum / Silky Dogwood	3 gal	3' HT. MIN.
	COR RE3	48	Cornus sericea / Red Twig Dogwood	3 gal	3' HT. MIN
	HAM VIR	10	Hamamelis virginiana / Common Witch Hazel	B & B	4'–5' HT., FULL + BUSHY
	ILE GLA	77	Ilex glabra / Inkberry Holly	B & B	18–24" HT.
	ILE WIN	56	Ilex verticillata 'Winter Red' / Winter Red Holly	7 gal	4'HT. MIN.
	LIN BEN	20	Lindera benzoin / Spicebush	3 gal	3' HT. MIN.
	MYR GAL	54	Myrica gale / Sweetgale	2 gal	21"HT.MIN.
	RHU TYP	57	Rhus typhina / Staghorn Sumac	2 gal	3' HT. MIN.
	ROS PA2	37	Rosa palustris / Swamp Rose	1 gal	18"HT. MIN.
	SAL PUS	11	Salix discolor / Pussy Willow	3 gal	3'HT. MIN.
	VAC HIG	43	Vaccinium corymbosum / Highbush Blueberry	4/5' B&B	
	VIB ARR	75	Viburnum dentatum / Viburnum	5 gal	4'HT. MIN.
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING REMARKS
	CAR SE2	190	Carex pensylvanica / Pennsylvania Sedge	LP50 Plug	18" o.c. 8" HT

NEW ENGLAND CONSERVATION/WILDLIFE MIX
NEW ENGLAND WETLAND PLANTS: NEW ENGLAND CONSERVATION/WILDLIFE MIX: 25 LBS/ACRESPECIES: VIRGINIA WILD RYE, (ELYMUS VIRGINICUS), LITTLE BLUESTEM,(SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM, (ANDROPOGON GERARDII), CREEPING RED FESCUE, (FESTUCA RUBRA), SWITCH GRASS, (PANICUM VIRGATUM), PARTRIDGE PEA, (CHAMAECRISTA FASCICULATA), DEER TONGUE, (PANICUM CLANDESTINUM), INDIAN GRASS, (SORGHASTRUM NUTANS), OX EYE SUNFLOWER, (HELIOPSIS HELIANTHOIDES), COMMON MILKWEED, (ASCLEPIAS SYRIACA), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), GRASS LEAVED GOLDENROD, (EUTHAMIA GRAMINIFOLIA), BLUE VERVAIN,(VERBENA HASTATA), NEW ENGLAND ASTER, (ASTER NOVAE–ANGLIAE), EARLY GOLDENROD, (SOLIDAGO JUNCEA).

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

VISUAL SCREEN PLANTING NOTES

1. FINAL APPROVAL OF PLANT MATERIAL WILL NOT BE PROVIDED UNTIL DELIVERY AND REVIEWED ON SITE.
2. TREES WITH LARGE CIRCLING ROOTS OR TOO DEEP ROOT SYSTEMS WILL BE REJECTED.
3. ALL ROOT PACKAGES MUST BE FREE OF ANY WEEDS.
4. AT THE DIRECTION OF THE LANDSCAPE ARCHITECT, PRUNING MAY BE REQUIRED TO REMOVE DAMAGED, CROSSING, MISSHAPEN OR LOW BRANCHING LIMBS. TREES SHOULD NOT REQUIRE SIGNIFICANT PRUNING TO CORRECT HEALTH OR AESTHETIC DEFICIENCIES.
5. INSTALL 2" DEPTH DARK BROWN PINEBARK MULCH AROUND PLANTING PITS. INSTALL STRAW MULCH IN ALL LANDSCAPE AREAS..
6. INSTALL 6" DEPTH PLANTING SOIL MIX IN ALL LANDSCAPE BUFFER AREAS. PLANTING SOIL MIX TO BE 90% LOAM AND 10% COMPOST.
7. A TEMPORARY IRRIGATION SYSTEM WILL BE INSTALLED IN THE LANDSCAPE BUFFER AREA TO ENSURE THE PLANTS HAVE ADEQUATE WATER DURING ESTABLISHMENT.

VISUAL SCREEN PLANTING DENSITY NOTES

SQUARE FOOTAGE	REQUIRED DENSITY	PROVIDED DENSITY
48,843SF	1 TREE 20'O.C. = 140 TREES	174 TREES
	1 SHRUB 10'O.C. = 563 SHRUBS	611 SHRUBS
		288 HERBACEOUS PLANTS

MAINTENANCE NOTES

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
TABER / CATCH No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

VISUAL SCREEN PLANTING
Not for Construction

L-207

RESTORATION LEGEND

- Forested Wetland Creation– Sapling, shrub, seeding, loam, excavation, grading, invasive management
- Invasive Management
- Sapling, shrub, seeding, loam, invasive management
- Saplings,invative management
- Sapling, seed, invasive management
- Sapling, shrub, seeding, invasive management
- Fill Removal
- No Proposed Action
- Existing Trees
- Proposed Tree

SPECIES TOTAL

TREES		SHRUBS	
Quercus rubra/Red Oak	73	Vaccinium corymbosum/High Bush Blueberry	139
Quercus alba/White Oak	66	Cornus racemosa/Grey Dogwood	133
Pinus strobus/White Pine	56	Clethra alnifolia/Sweet Pepperbush	129
Fraxinus americana/White Ash	51	Hammamelis virginiana/Witch Hazel	129
Platanus occidentalis/Sycamore	50	Pyrus prunifolia/Crabapple	128
Juniperus virginiana/Red Cedar	49	Ilex verticilata/Winter Berry	126
Carya glabra/Pignut Hickory	48	Ilex glabra/Inkberry	123
Acer rubrum/Red Maple	48	Cornus sericea/Red Osier Dogwood	121
Betula lenta/Black Birch	46	Rhus typhina/Staghorn Sumac	115
Quercus palustris/Pin Oak	34	Viburnum dentatum/Arrowwood	115
Betula alleghaniensis/Yellow Birch	29	Crataegus crus–galli/Thornapple	103
Fraxinus pensylvanica/Green Ash	21	Kalmia angustifolia/Sheep Laurel	103
Nyssa sylvatica/Black Gum	20	Cornus amomum/Silky Dogwood	79
Salix nigra/Black Willow	16	Alnus rugosa/Speckled Alder	79
TOTAL	607	Lindera benzoin/Spicebush	57
		Myrica gale/Sweet gale	47
		Salix discolor/Pussy willow	33
		Rosa palustris/Swamp Rose	20
		TOTAL	1779

RESTORATION PLANT SCHEDULE

NUMBER	QTY.	TREES	SIZE	QTY.	SHRUBS	SIZE	SEED	LOAM
1	7	Pinus strobus/White Pine	B&B,4'Ht. Min.	14	Hammamelis virginiana/Witch Hazel	#3, 2' Ht. Min.	Upland	Yes
	6	Quercus rubra/Red Oak	#5,4'Ht. Min.	14	Cornus racemosa/Grey Dogwood	#2, 2' Ht. Min		
				13	Kalmia angustifolia/Sheep Laurel	#2, 15" Ht. Min.		
2	8	Betula lenta/Black Birch	#3 4'Ht. Min.	16	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	Yes
	7	Quercus alba/White Oak	#5,4'Ht. Min	15	Pyrus prunifolia/Crabapple	#3,2' HT.Min.		
				15	Craetegus crus–galli/Thorn apple	#3, 2 'HT.Min.		
3	9	Acer rubrum/Red Maple	#5, 4'Ht. Min.	17	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht. Min.	Upland	Yes
	7	Fraxinus americana/White Ash	#5, 4'Ht. Min.	17	Ilex glabra/Inkberry	B&B, 18"–24" Ht.		
				17	Cornus racemosa/Gray Dogwood	#2, 2' Ht. Min		
4	11	Carya glabra/Pignut Hickory	#5, 4'Ht. Min.	23	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.	Upland	Yes
	11	Juniperus virginiana/Red Cedar	B&B 4'Ht. Min.	23	Hammamelis virginiana/Witch Hazel	#3, 2' Ht. Min.		
				23	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht. Min.		
5	4	Quercus alba/White Oak	#5, 4'Ht. Min.		NA		Upland	No
	3	Quercus rubra/Red Oak	#5, 4'Ht. Min.					
6	7	Carya glabra/Pignut Hickory	#5, 4'Ht. Min.	14	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht. Min.	Upland	No
	6	Quercus alba/White Oak	#5, 4'Ht. Min.	14	Pyrus prunifolia/Crabapple	#3, 2' Ht.Min		
				13	Cornus sericea/Red Osier Dogwood	#2, 2' Ht. Min.		
7	10	Quercus rubra/Red Oak	#5, 4'Ht. Min.	20	Ilex glabra/Inkberry	B&B, 18"–24" Ht.	Upland	No
	7	Quercus rubra/Red Oak	#5, 4'Ht. Min.	20	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.		
				19	Viburnum dentatum/Arrowwood	#2, 2' Ht. Min		
8	7	Juniperus virginiana/Red Cedar	B&B 4'Ht. Min.	20	Ilex glabra/Inkberry	B&B, 18"–24" Ht.	Upland	No
	6	Fraxinus americana/White Ash	#5 4'Ht. Min	20	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.		
				19	Viburnum dentatum/Arrowwood	#3, 2' Ht. Min		
9	8	Pinus strobus/White Pine	B&B,4'Ht. Min.	15	Ilex glabra/Inkberry	B&B, 18"–24" Ht.	Upland	No
	7	Acer rubrum/Red Maple	#5, 4'Ht. Min.	15	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.		
				15	Cornus sericea/Red Osier Dogwood	#3, 2' Ht. Min.		
10	5	Quercus rubra/Red Oak	#5, 4'Ht. Min.	10	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	No
	4	Quercus palustris/Pin Oak	#5 4'Ht. Min	10	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht. Min		
				10	Ilex verticilata/Winter Berry	#3, 2' Ht. Min		
11	12	Juniperus virginiana/Red Cedar	B&B 4'Ht. Min.	23	Cornus sericea/Red Osier Dogwood	#3, 2' Ht.Min.	Upland	No
	11	Fraxinus americana/White Ash	#5, 4'Ht. Min.	23	Pyrus prunifolia/Crabapple	#3, 2' Ht. Min		
				23	Alnus rugosa/Speckled Alder	#3, 2' Ht. Min		
12	8	Pinus strobus/White Pine	B&B,4'Ht. Min.	15	Ilex glabra/Inkberry	B&B, 18"–24" Ht.	Upland	No
	7	Quercus alba/White Oak	#5, 4'Ht. Min.	15	Hammamelis virginiana/Witch Hazel	#3, 2' Ht. Min.		
				23	Craetegus crus–galli/Thornapple	#3, 2' Ht. Min		
13	8	Quercus rubra/Red Oak	#5, 4'Ht. Min.	17	Clethra alnifolia/Sweet Pepperbush	#3, 3' Ht. Min	Upland	No
	8	Betula lenta/Black Birch	#3 4'Ht. Min.	17	Pyrus prunifolia/Crabapple	#3, 3' Ht. Min.		
				26	Kalmia angustifolia/Sheep Laurel	#2, 18" Ht. Min.		
14	11	Carya glabra/Pignut Hickory	#5, 4'Ht. Min.	22	Ilex glabra/Inkberry	B&B, 18"–24" Ht.	Upland	No
	10	Fraxinus americana/White Ash	#5 4'Ht. Min.	21	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.		
				21	Cornus racemosa/Gray Dogwood	#2, 2' Ht. Min		
15	9	Pinus strobus/White Pine	B&B,4'Ht. Min.	18	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	No
	8	Acer rubrum/Red Maple	#5 4'Ht. Min.	17	Hammamelis virginiana/Witch Hazel	#3, 2' Ht. Min.		
				17	Alnus rugosa/Speckled Alder	#3, 2' Ht. Min		
16	4	Acer rubrum/Red Maple	#5 4'Ht. Min.	8	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	No
	8	Quercus palustris/Pin Oak	#5 4'Ht. Min.	8	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht. Min.		
				7	Cornus sericea/Red Osier Dogwood	#2, 2' Ht. Min		
17	2	Quercus palustris/Pin Oak	#5 4'Ht. Min.	5	Kalmia angustifolia/Sheep Laurel	#2, 18" Ht. Min.	Upland	No
	1	Quercus alba/White Oak	#5 4'Ht. Min.	4	Cornus racemosa/Grey Dogwood	#2, 2' Ht. Min.		
				NA				
18	12	Quercus alba/White Oak	#5 4'Ht. Min.	24	Cornus sericea/Red Osier Dogwood	#2, 2' Ht.Min.	Upland	No
	8	Platanus occidentalis/Sycamore	#5 4'Ht. Min.	24	Ilex verticilata/Winter Berry	#3, 2' Ht. Min.		
				23	Viburnum dentatum/Arrowwood	#2, 2' Ht. Min		
19	6	Acer rubrum/Red Maple	#5 4'Ht. Min.	13	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	No
	6	Platanus occidentalis/Sycamore	#5 4'Ht. Min.	13	Kalmia angustifolia/Sheep Laurel	#2, 18" Ht. Min.		
				12	Ilex verticilata/Winter Berry	#3, 2' Ht.Min.		
20	11	Quercus palustris/Pin Oak	#5 4'Ht. Min.	22	Cornus racemosa/Grey Dogwood	#2, 2' Ht.Min.	Upland	Yes
	11	Carya glabra/Pignut Hickory	#5 4'Ht. Min.	22	Hammamelis virginiana/Witch Hazel	#3, 2'Ht. Min.		
				22	Cornus amomum/Silky Dogwood	#2, 2' Ht.Min.		
21	2	Quercus alba/White Oak	#5 4'Ht. Min.	NA			Upland	No
	2	Quercus rubra/Red Oak	#5 4'Ht. Min.					
22	12	Pinus strobus/White Pine	B&B,4'Ht. Min.	23	Hammamelis virginiana/Witch Hazel	#3, 2' Ht.Min.	Upland	Yes
	11	Quercus rubra/Red Oak	#5 4'Ht. Min.	23	Cornus racemosa/Grey Dogwood	#3, 2' Ht. Min.		
				23	Kalmia angustifolia/Sheep Laurel	#2, 18" Ht. Min.		
23	4	Betula lenta/Black Birch	#3 4'Ht. Min.	3	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	Yes
	3	Quercus alba/White Oak	#5 4'Ht. Min.	8	Pyrus prunifolia/Crabapple	#3, 2' Ht. Min.		
				8	Crataegus crus–galli/Thornapple	#3, 2' Ht. Min.		
24	9	Quercus alba/White Oak	#5 4'Ht. Min.	19	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht.Min.	Upland	Yes
	9	Fraxinus americana/White Ash	#5 4'Ht. Min.	19	Ilex glabra/Inkberry	B&B, 18"–24" Ht.		
				18	Cornus racemosa/Gray Dogwood	#2, 2' Ht.Min.		
25	8	Carya glabra/Pignut Hickory	#5 4'Ht. Min.	19	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.	Upland	Yes
	7	Juniperus virginiana/Red Cedar	B&B 4'Ht. Min.	19	Hammamelis virginiana/Witch Hazel	#3, 2' Ht.Min.		
				18	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.		
26	20	Quercus rubra/Red Oak	#5 4'Ht. Min.	40	Ilex verticilata/Winter Berry	#3 2' Ht. Min.	Wetland	Yes
	19	Betula alleghaniensis/Yellow Birch	#3 4'Ht. Min.	40	Viburnum dentatum/Arrowwood	#2, 2' Ht.Min.		
				39	Alnus rugosa/Speckled Alder	#3, 2' Ht.Min.		
27	10	Nyssa sylvatica/Black Gum	#5 4'Ht. Min.	21	Cornus amomum/Silky Dogwood	#2 2' Ht. Min.	Wetland	Yes
	10	Fraxinus pensylvanica/Green Ash	#5 4'Ht. Min.	20	Lindera benzoin/Spicebush	#3, 2' Ht.Min.		
				20	Ilex verticilata/Winter Berry	#3, 2' Ht.Min.		
28	10	Salix nigra/Black Willow	#3 4'Ht. Min.	21	Myrica gale/Sweet gale	#2 18" Ht. Min.	Wetland	Yes
	10	Quercus palustris/Pin Oak	#5 4'Ht. Min.	20	Rosa palustris/Swamp Rose	#3, 2' Ht.Min.		
				20	Salix discolor/Pussy willow	#2, 2' Ht.Min.		
29	8	Quercus rubra/Red Oak	#5 4'Ht. Min.	16	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht. Min.	Upland	No
	7	Betula lenta/Black Birch	#3 4'Ht. Min..	15	Pyrus prunifolia/Crabapple	#3, 2' Ht.Min.		
				15	Cornus amomum/Silky Dogwood	#2, 2' Ht.Min.		
30	7	Juniperus virginiana/Red Cedar	B&B 5'Ht. Min	15	Ilex glabra/Inkberry	B&B, 18"–24" Ht.	Upland	No
	7	Fraxinus americana/White Ash	#5 4'Ht. M.in.	14	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.		
				14	Pyrus prunifolia/Crabapple	#3, 2' Ht.Min.		
31	11	Pinus strobus/White Pine	B&B,5'Ht. Min	22	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.	Upland	No
	10	Quercus alba/White Oak	#5 4'Ht. M.in.	22	Pyrus prunifolia/Crabapple	#3, 2' Ht.Min.		
				21	Crataegus crus–galli/Thornapple	#3, 2' Ht.Min.		
32	11	Betula lenta/Black Birch	#3 4'Ht. Min.	22	Crataegus crus–galli/Thornapple	#3, 2' Ht.Min.	Upland	No
	10	Platanus occidentalis/Sycamore	#5 4'Ht. M.in.	22	Cornus sericea/Red Osier Dogwood	#2, 2' Ht.Min.		
				21	Kalmia angustifolia/Sheep Laurel	#2, 18" Ht. Min.		
33	11	Platanus occidentalis/Sycamore	#5 4'Ht. Min.	22	Crataegus crus–galli/Thornapple	#3, 2' Ht.Min.	Upland	No
	10	Platanus occidentalis/Sycamore	#5 4'Ht. Min.	22	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.		
				21	Lindera benzoin/Spicebush	#3, 2' Ht.Min.		
34	2	Acer rubrum/Red Maple	#5, 4'Ht. Min..	5	Clethra alnifolia/Sweet Pepperbush	#3, 2' Ht.Min.	Upland	Yes
	1	Quercus alba/White Oak	#5 4'Ht. Min.	5	Vaccinium corymbosum/High Bush Blueberry	#3, 2' Ht.Min.		
				NA				
35	NA				NA		Upland	No
36	2	Acer rubrum/Red Maple	#5 4'Ht. Min.	6	Rhus typhina/Staghorn Sumac	#2 2' Ht. Min.	Upland	No
	1	Pinus strobus/White Pine	B&B,4'Ht. Min.	6	Myrica gale/Sweet gale	#2 18" Ht. Min.		
				NA				
37	2	Fraxinus pensylvanica/Green Ash	#5 4'Ht. Min..	NA			Upland	No
	1	Juniperus virginiana/Red Cedar	B&B 4'Ht. Min.					
38	4	Quercus palustris/Pin Oak	#5 4'Ht. Min.	NA			Upland	No
	4	Quercus alba/White Oak	#5 4'Ht. Min.					
39	5	Salix nigra/Black Willow	#3 4'Ht. Min.	11	Salix discolor/Pussy willow	#2, 2' Ht.Min.	Wetland	No
	5	Nyssa sylvatica/Black Gum	#5 4'Ht. Min.	10	Cornus sericea/Red Osier Dogwood	#2, 2' Ht.Min.		
				10	Ilex verticillata/Winter Berry	#3, 2' Ht.Min.		
40	NA			NA			NA	No
41	NA			NA			NA	No
42	10	Acer rubrum/Red Maple	#5 4'Ht. Min.	21	Cornus amomum/Silky Dogwood	#2, 2' Ht.Min.	Wetland	No
	10	Betula alleghaniensis/Yellow Birch	#3 4'Ht. Min.	20	Viburnum dentatum/Arrowwood	#2, 2' Ht.Min.		
				20	Myrica gale/Sweet gale	#2 18" Ht. Min.		
43	5	Nyssa sylvatica/Black Gum	#5 4'Ht. Min.	10	Cornus sericea/Red Osier Dogwood	#2, 2' Ht.Min.	Wetland	No
	4	Fraxinus pensylvanica/Green Ash	#5 4'Ht. Min.	10	Lindera benzoin/Spicebush	#3, 2' Ht.Min.		
				10	Ilex verticillata/Winter Berry	#3, 2' Ht.Min		
44	NA			NA			NA	No
45	1	Fraxinus pensylvanica/Green Ash	#5 4'Ht. Min.	3	Lindera benzoin/Spicebush	#3, 2' Ht.Min.	Wetland	No
	1	Salix nigra/Black Willow	#3 4'Ht. Min.	2	Salix discolor/Pussy willow	#2, 2' Ht.Min.		
				NA				

MAINTENANCE NOTES

1. NATIVE PLANTINGS ARE SELECTED TO THRIVE IN THE HOPE MILLS SITE CONDITIONS. ANY ADDITIONAL FERTILIZER IN THE FORM OF A SLOW RELEASE FERTILIZER SHALL BE USED ONLY DURING THE ESTABLISHMENT PERIOD OF THE FIRST THREE YEARS, AND THEN ONLY AS NEEDED. SUPPLEMENTAL WATERING WILL ONLY BE USED DURING THE ESTABLISHMENT PERIOD. IT IS THE INTENT OF THE DEVELOPER TO MAINTAIN THE LANDSCAPE OF THE ENTIRE PROPERTY USING A INTEGRATED PEST MANAGEMENT PLAN THAT DISCOURAGES THE USE OF FERTILIZERS, PESTICIDES AND HERBICIDES AND ONLY CONSIDERS THEM AS A LAST RESORT.
2. AS DEER CAN BE AN ISSUE IN RURAL AREAS, PLANTS WERE SELECTED TO AVOID THOSE THAT ARE FREQUENTLY SEVERELY DAMAGED AND FOCUSED ON THOSE THAT ARE RARELY, SELDOM OR OCCASIONALLY DAMAGED. MUCH OF THIS DEPENDS ON THE SEVERITY OF OUR WINTERS. ADDITIONAL MEASURES MAY BE NECESSARY TO ENSURE THE PLANTS GET ESTABLISHED AND AVOID FATAL DEER DAMAGE.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 2 4 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

GENERAL PLANTING NOTES

1. FINAL APPROVAL OF PLANT MATERIAL WILL NOT BE PROVIDED UNTIL DELIVERY AND REVIEW ON SITE.
2. TREES WITH LARGE CIRCLING ROOTS OR TOO DEEP ROOT SYSTEMS WILL BE REJECTED.
3. ALL ROOT PACKAGES MUST BE FREE OF ANY WEEDS.
4. AT THE DIRECTION OF THE LANDSCAPE ARCHITECT, PRUNING MAY BE REQUIRED TO REMOVE DAMAGED, CROSSING, MISSHAPEN OR LOW BRANCHING LIMBS. TREES SHOULD NOT REQUIRE SIGNIFICANT PRUNING TO CORRECT HEALTH OR AESTHETIC DEFICIENCIES.
5. INSTALL 2" DEPTH DARK BROWN PINEBARK MULCH AROUND PLANTING PITS. INSTALL STRAW MULCH IN ALL LANDSCAPE AREAS..
6. INSTALL 6" DEPTH PLANTING SOIL MIX IN ALL LANDSCAPE AREAS. RESTORATION PLANTING TO RECEIVE PLANTING SOIL MIX AS PLANTING PIT BACKFILL. PLANTING SOIL MIX TO BE 90% LOAM AND 10% COMPOST, UNLESS INDICATED TO RECEIVE LOAM IN THE PLANTING SOIL MIX.

RESTORATION PLANTING NOTES

1. PLANT QUALITY: QUALITY, SIZE AND CONDITION AS DETERMINED BY STANDARDS SET FORTH IN THE AFOREMENTIONED STANDARDS AND THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARD ANSI 260.1–1973. PLANT NAMES SHALL CONFORM TO LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY AMERICAN JOINT COMMITTEE OF HORTICULTURE NOMENCLATURE.
2. RESTORATION PLANT SIZES: SAPLING SHALL BE A MINIMUM AVERAGE OF 4' HIGH AND ½"–3/4" CAL. BRANCHING ABOVE 1.5'. SHRUBS SHALL BE A MINIMUM AVERAGE OF 18"–24" HIGH, FULL AND BUSHY.
3. DENSITY: TREES ARE SPACED ON AVERAGE 20'O.C., SHRUBS 10'O.C., EXCEPT IN THE WETLAND AREAS WHERE TREES ARE SPACED ON AVERAGE 10'O.C. AND SHRUBS ARE 5' O.C.
4. PLANTING TIME: PLANTING OF THE REFORESTATION WORK WILL OCCUR FROM SEPTEMBER 1–OCTOBER 15TH TO ENSURE BEST ESTABLISHMENT.
5. TREE SHELTERS: TUBEX TREE GUARD SHALL BE PROVIDED FOR ALL SAPLINGS TO PREVENT RODENT BROWSING. TREE GUARDS SHALL BE REMOVED AFTER 2 YEARS.
6. MAINTENANCE:
   - 6.1.1. CONTRACTOR WILL BE RESPONSIBLE FOR WATERING DURING THE FIRST YEAR WITH AN APPROVED METHOD OF TEMPORARY IRRIGATION, IT WILL BE IMPORTANT THAT THE IRRIGATION METHOD LIMITS DISTURBANCE TO THE REFORESTED AREA AND LIMIT ANY SOIL EROSION.
   - 6.1.2. CONTRACTOR WILL RESEED ANY SEEDED AREAS THAT HAVE FAILED TO GERMINATE OR THRIVE FOR THE FIRST YEAR.
   - 6.1.3. CONTRACTOR WILL COMPLY WITH INVASIVE MANAGEMENT IN THOSE AREAS AS REQUIRED UNDER THE DIRECTION OF THE WETLAND SCIENTIST FOR THREE YEARS.
   - 6.1.4. CONTRACTOR WILL REPLACE ANY PLANTS THAT HAVE DIED OR ARE DYING ONE YEAR AFTER SUBSTANTIAL COMPLETION.
7. PLANTING SOIL MIX WILL BE ADDED AS BACKFILL IN ALL PLANTING PITS.
8. PLANTING WILL BE SUPPLEMENTED WITH AN CONSERVATION/WLDLIFE SEED MIX. THIS WILL BE SEEDED AFTER PLANTING IS COMPLETE TO STABILIZE SOIL, REDUCE WEED GROWTH AND PROVIDE AND HERBACEOUS FOREST FLOOR. THOSE AREAS DESIGNATED AS UPLAND IN THE PLANTING SCEDULE RECEIVE THE FOLLOWING: NEW ENGLAND CONSERVATION/WLDLIFE MIX: 25 LBS/ACRE = SPECIES: VIRGINIA WILD RYE, (ELYMUS VIRGINICUS), LITTLE BLUESTEM, (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM, (ANDROPOGON GERARDII), CREEPING RED FESCUE, (FESTUCA RUBRA), SWITCH GRASS, (PANICUM VIRGATUM), PARTRIDGE PEA, (CHAMAECRISTA FASCICULATA), DEER TONGUE, (PANICUM CLANDESTINUM), INDIAN GRASS, (SORGHASTRUM NUTANS), OX EYE SUNFLOWER, (HELIOPSIS HELIANTHOIDES), COMMON MILKWEED, (ASCLEPIAS SYRIACA), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), GRASS LEAVED GOLDENROD, (EUTHAMIA GRAMINIFOLIA), BLUE VERVAIN, (VERBENA HASTATA), NEW ENGLAND ASTER, (ASTER NOVAE–ANGLIAE), EARLY GOLDENROD, (SOLIDAGO JUNCEA).
9. CREATED WETLAND AREA WILL BE SEEDED WITH THE FOLLOWING: NEW ENGLAND WETLAND PLANTS: NEW ENGLAND WETMIX 18LBS/ACRE SPECIES: FOX SEDGE, (CAREX VULPINOIDEA), LURID SEDGE, (CAREX LURIDA), BLUNT BROOM SEDGE, (CAREX SCOPARIA), SENSITIVE FERN, (ONOCLEA SENSIBILIS), BLUE VERVAIN, (VERBENA HASTATA), HOP SEDGE, (CAREX LUPULINA), GREEN BULRUSH, (SCIRPUS ATROVIRENS), NODDING BUR MARIGOLD, (BIDENS CER–NUA), BRISTLY SEDGE, (CAREX COMOSA), FRINGED SEDGE, (CAREX CRINITA), AMERICAN MANNAGRASS, (GLYCERIA GRANDIS), WOOL GRASS, (SCIRPUS CYPERINUS), SOFT RUSH, (JUNCUS EFFUSUS), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), BONESET, (EUPATORIUM PERFOLIATUM), MUD PLANTAIN, (ALISMA SUBCORDATUM), NEW ENGLAND ASTER, (ASTER NOVAE–ANGLIAE), RATTLESNAKE GRASS, (GLYCERIA CANADENSIS), PURPLESTEM ASTER (ASTER PUNICEUS), SOFT STEM BULRUSH, (SCIRPUS VALIDUS), BLUEFLAG (IRIS VERSICOLOR), SWAMP MILKWEED, (ASCLEPIAS INCARNATA), MONKEY FLOWER, (MIMULUS RINGENS). THE FUNCTIONALITY OF EACH MIX WILL REMAIN UNCHANGED, ALTHOUGH MIX COMPOSITION MAY VARY DURING THE YEAR.
10. ANY PLANT MATERIAL NOT MEETING THE SPECIFICATION'S REQUIREMENTS FOR QUALITY WILL BE REJECTED BY THE LANDSCAPE ARCHITECT AND THE WETLAND SCIENTIST.
11. ALL PLANTING WILL BE DONE UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECTAND/OR THE WETLAND SCIENTIST FOR THE RESTORATION AREAS AND THE VISUAL SCREEN PLANTING.

RECEIVED JAN 25 2017

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
JABER J. CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

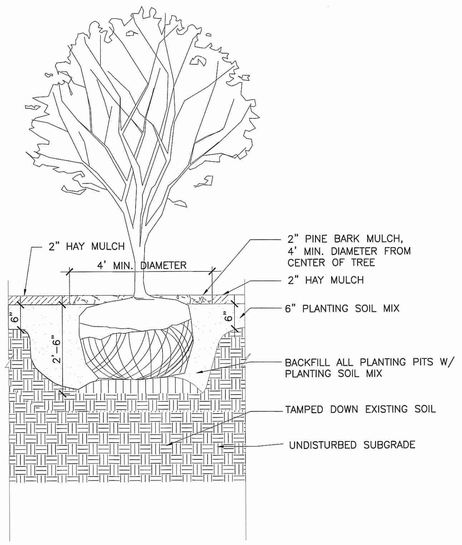
REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING SCHEDULE

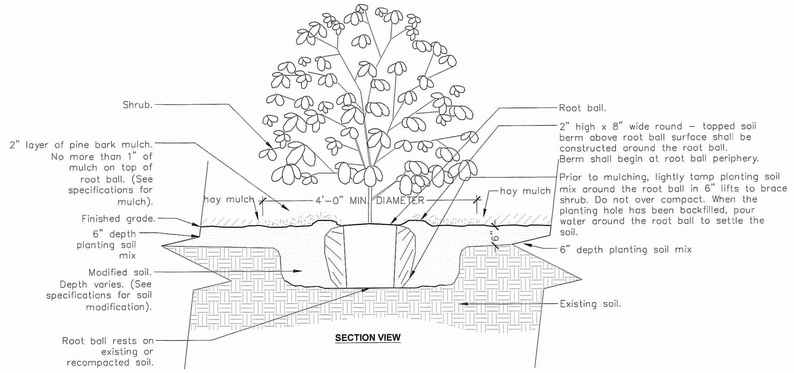
Not for Construction

L-208



1 TREE PLANTING AT LANDSCAPE SCREEN AREA

1/2" = 1'-0" P-HO-06



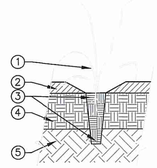
Notes:
1– Shrubs shall be of quality prescribed in the root observations detail and specifications.

2– See specifications for further requirements related to this detail.

2 SHRUB-MODIFIED SOIL AT LANDSCAPE SCREEN AREA

3/4" = 1'-0" P-HO-07

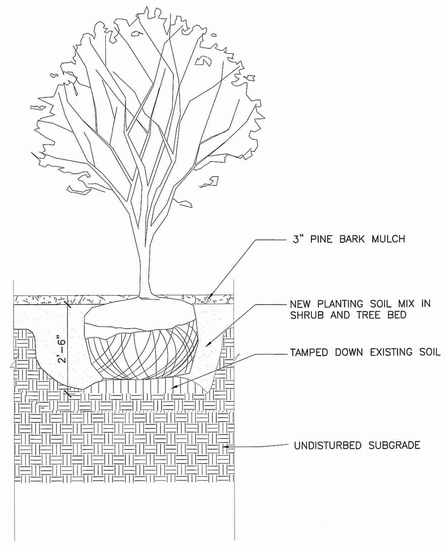
URBAN TREE FOUNDATION ©2014
OPEN SOURCE FREE TO USE



1. PLUG, AVOID BREAKING OR BURYING OF TOP GROWTH
2. TOP MULCH WITH BARK MUCH AROUND ALL PLUG AREAS, SEE SPECS, HOLD BACK FROM PLANT
3. DIG HOLE TO FULL ROOT DEPTH. PLACE PLANT SO ROOTS ARE FULLY EXTENDED DOWNWARD INTO HOLE. PLANT AT SAME DEPTH AS GROWN IN NURSERY. BACKFILL WITH SOIL FROM HOLE TO ENSURE GOOD ROOT/SOIL CONTACT
4. IMPORT TOPSOIL, SEE SPECS
5. UNDISTURBED NATIVE SOIL OR COMPACTED PLANTING BACKFILL

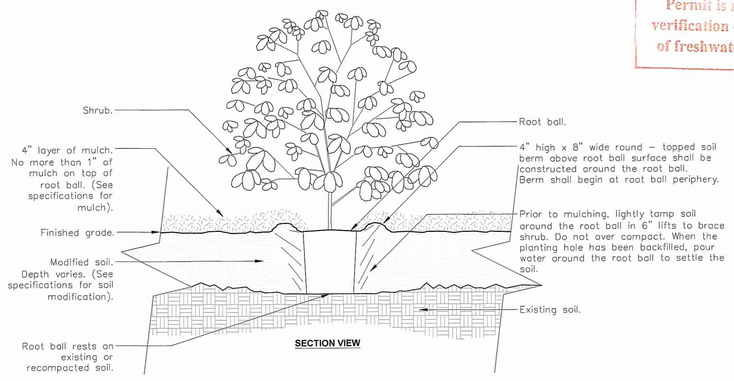
3 GENERAL PLUG PLANTING

3/4" = 1'-0" P-HO-08



1 TREE PLANTING

1/2" = 1'-0" P-HO-03



Notes:
1– Shrubs shall be of quality prescribed in the root observations detail and specifications.

2– See specifications for further requirements related to this detail.

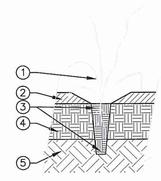
2 GENERAL SHRUB - MODIFIED SOIL

3/4" = 1'-0" P-HO-04

URBAN TREE FOUNDATION ©2014
OPEN SOURCE FREE TO USE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 24 2017 FILE # 16-0250
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



1. PLUG, AVOID BREAKING OR BURYING OF TOP GROWTH
2. TOP MULCH, SEE SPECS, HOLD BACK FROM PLANT
3. DIG HOLE TO FULL ROOT DEPTH. PLACE PLANT SO ROOTS ARE FULLY EXTENDED DOWNWARD INTO HOLE. PLANT AT SAME DEPTH AS GROWN IN NURSERY. BACKFILL WITH SOIL FROM HOLE TO ENSURE GOOD ROOT/SOIL CONTACT
4. IMPORT TOPSOIL, SEE SPECS
5. UNDISTURBED NATIVE SOIL OR COMPACTED PLANTING BACKFILL

3 PLUG PLANTING

3/4" = 1'-0" P-HO-05

SEARLE DESIGN GROUP
LANDSCAPE ARCHITECTS
50 FOREST STREET PROVIDENCE RI 02809
401.272.5783 www.searledesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
J TABER J CATON
No 478

HOPE MILLS
HOPE MILLS
MAIN STREET (ROUTE 116) SCITUATE, RHODE ISLAND

REVISED PERMITTING SUBMISSION

SCALE	AS SHOWN
DATE	01/05/17
DRAWN	RL
CHECKED	TC
REVISIONS:	

PLANTING DETAILS

Not for Construction

L-209