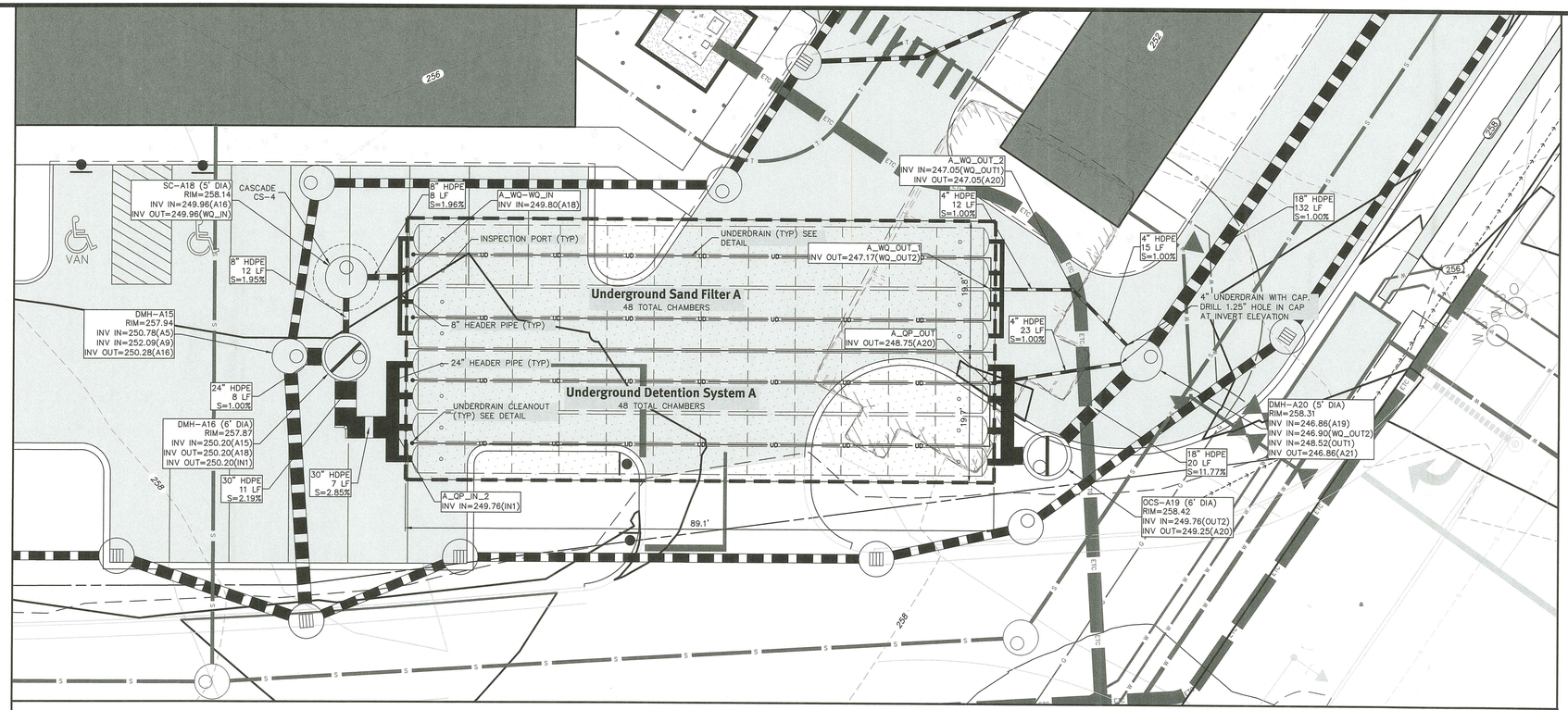

Underground Sand Filter and Detention System A

Scale: 1"=10'

0 5' 10' 20'

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

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 1 8 2023 FILE #: 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

DANA R. NISBET
No. 11876
REGISTERED PROFESSIONAL ENGINEER
CIVIL
01/20/23

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
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Existing utilities shown on this plan are approximate only. DiPrete Engineering does not warrant the accuracy of these locations. Contractor is responsible for damages incurred due to existing utilities.

No.	Date	Description	By
6	10/20/2022	RIDEM Response to Comments	DRN
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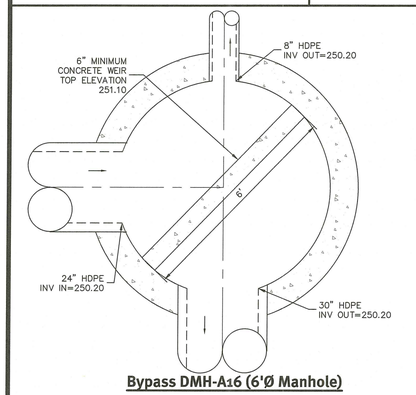
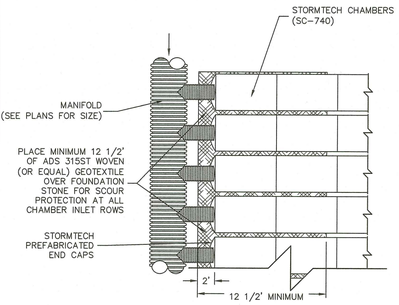
3	01/13/2023	RIDEM Response to Comments	MAH
2	1/13/2023	Regulatory Permit Submission	MAH
1	11/24/2020	Regulatory Permit Submission	MAH

Drawn By: MAH Design By: MAH



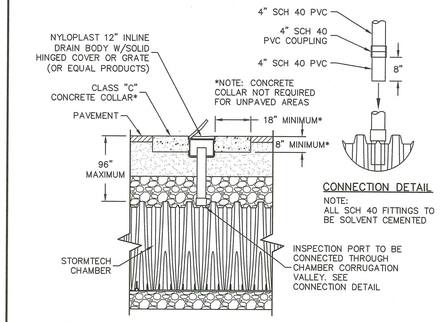
Bypass DMH-A16 (6'Ø Manhole)

SCALE 1"=2'



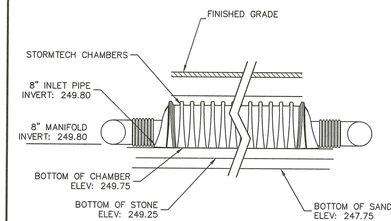
Stormtech Manifold Detail (Typ)

NOT TO SCALE



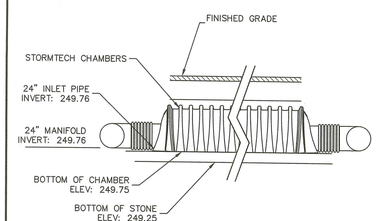
Stormtech General Inspection Port Detail (Typ)

NOT TO SCALE



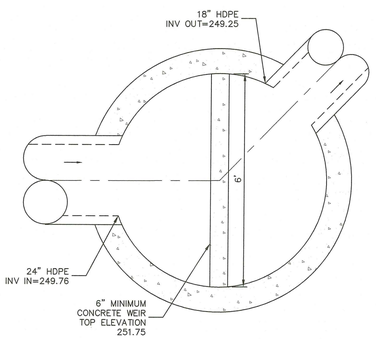
Stormtech Elevations - Water Quality Chambers

NOT TO SCALE



Stormtech Elevations - Detention Chambers

NOT TO SCALE



Outlet Control Structure A-19(6'Ø MANHOLE)

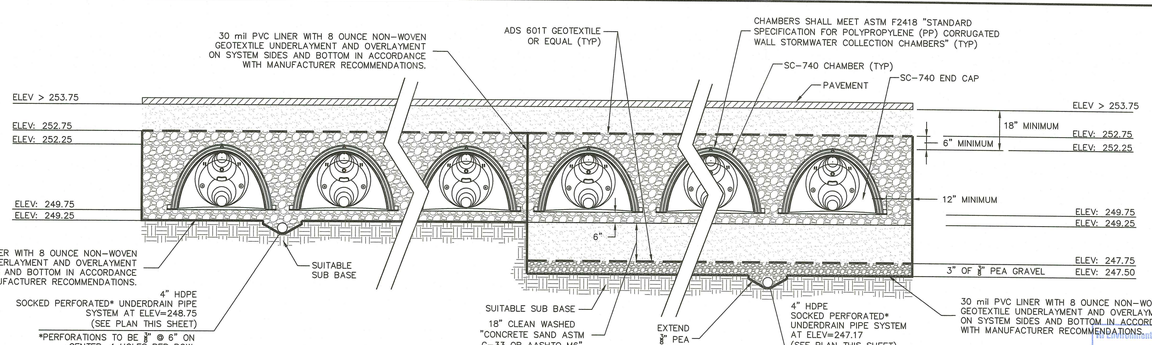
SCALE 1"=2'

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ	QP
TOP OF UIS STONE ELEVATION	252.75	252.75
BOTTOM OF UIS STONE ELEVATION	249.25	249.25
100 YEAR STORM ELEVATION	252.64	252.45
10 YEAR STORM ELEVATION	252.10	252.16
1 YEAR STORM ELEVATION	251.57	251.58
SEASONAL HIGH GWT ELEVATION*	N/A	N/A
SOIL EVALUATION*	N/A	N/A

*INFILTRATION IS NOT PROPOSED WITHIN THE LANDFILL FOOTPRINT. UNDERGROUND SYSTEM IS LINED.



Underground Detention System A Detail

NOT TO SCALE

Underground Sand Filter A Detail

NOT TO SCALE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
FEB 2 3 2023
Office of Water Resources

Underground BMP A Details

Johnston Crossing

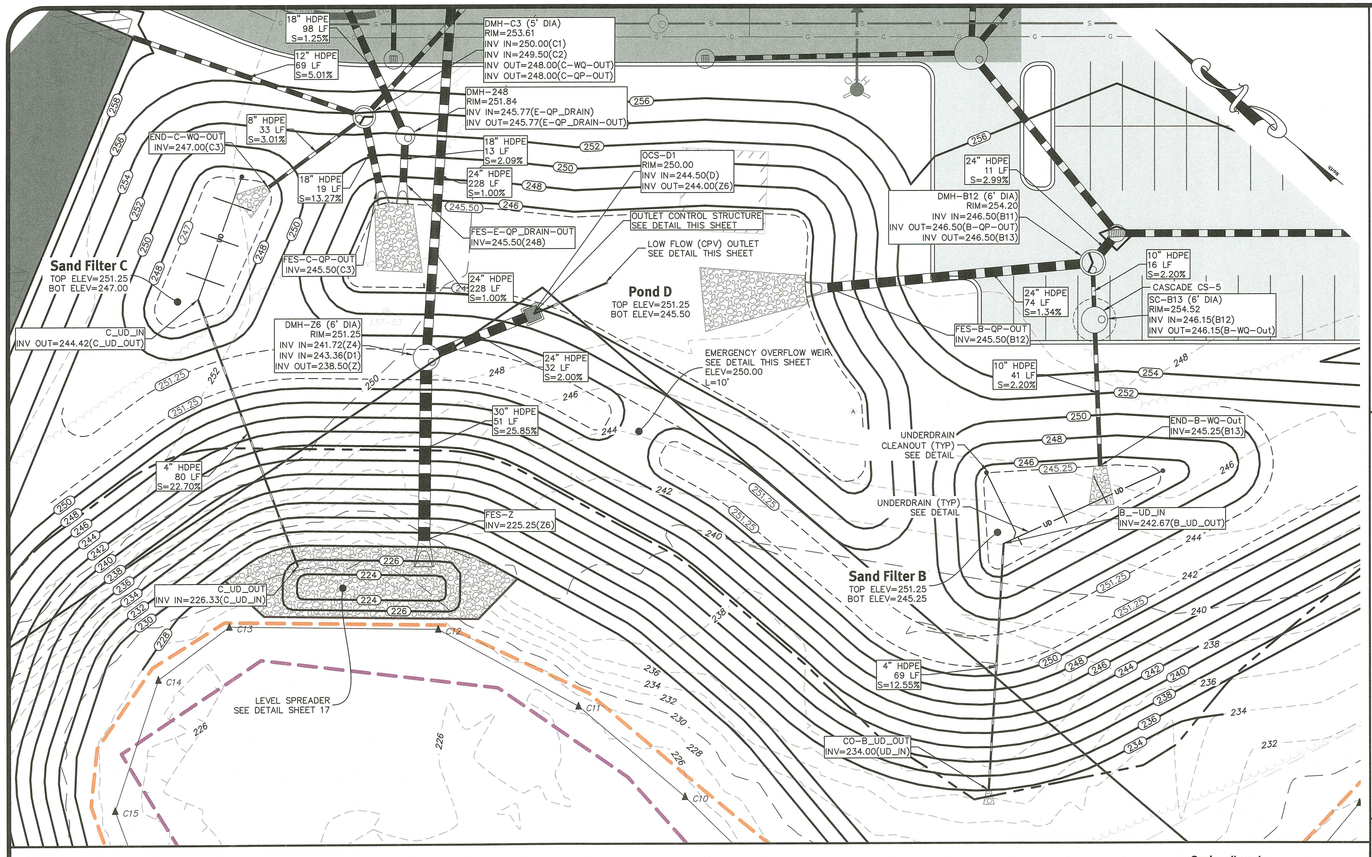
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

SHEET 15 OF 23

z:\demain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawing\2739-001-plan bmp.dwg Plotted: 1/20/2023



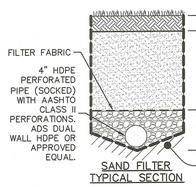
Water Quality Ponds B & C, Detention Pond D

Scale: 1"=20'

0 10' 20' 40'

DESCRIPTION	WQ-B	WQ-C
TOP OF POND ELEVATION	251.25	251.25
100 YEAR STORM ELEVATION	250.14	250.00
10 YEAR STORM ELEVATION	249.10	248.97
1 YEAR STORM ELEVATION	248.69	247.87
WQ STORM ELEVATION	247.32	246.12
BOTTOM OF POND ELEVATION	245.25	247.00
TOP SOIL DEPTH	0.50'	0.50'
SAND DEPTH	1.5'	1.50'
BOTTOM OF SAND ELEVATION	243.25	245.00
MINIMUM UNDERDRAIN INVERT	242.67	244.42
UNDERDRAIN OUTLET ELEVATION	234.00	226.33
SEASONAL HIGH GWT ELEVATION*	N/A	N/A
SOIL EVALUATION*	N/A	N/A

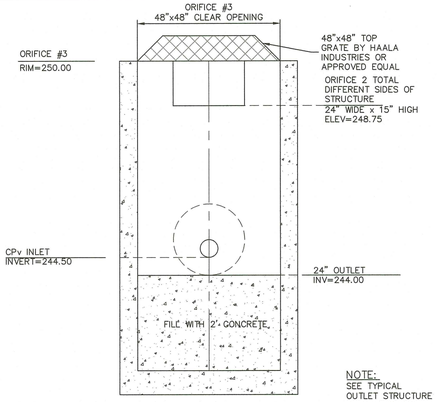
*INFILTRATION IS NOT PROPOSED WITHIN THE LANDFILL FOOTPRINT. POND SYSTEMS ARE LINED.



SAND FILTER
TYPICAL SECTION

DESCRIPTION	DP-D
TOP OF POND ELEVATION	251.25
100 YEAR STORM ELEVATION	249.97
10 YEAR STORM ELEVATION	249.00
1 YEAR STORM ELEVATION	247.09
BOTTOM OF POND ELEVATION	245.50
SEASONAL HIGH GWT ELEVATION*	N/A
SOIL EVALUATION*	N/A

*INFILTRATION IS NOT PROPOSED WITHIN THE LANDFILL FOOTPRINT. POND SYSTEMS ARE LINED.

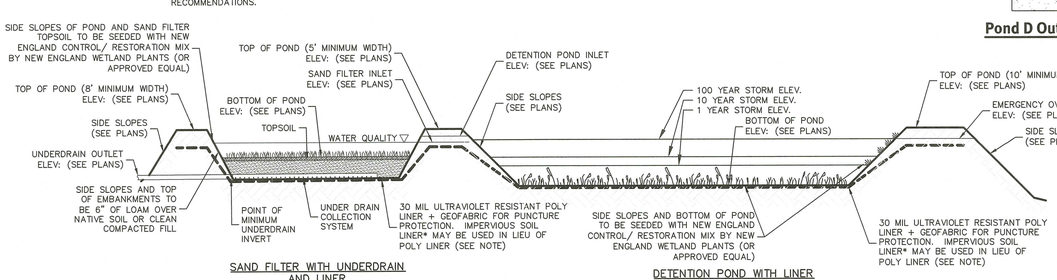


NOTE:
SEE TYPICAL OUTLET STRUCTURE DETAIL THIS SHEET

Pond D Outlet Control Structure

NOT TO SCALE

*NOTE: SOIL LINER SHALL BE 1' MINIMUM THICKNESS AND HAVE A MAXIMUM PERMEABILITY OF 0.03 FT/DAY (1*10^-5 CM/SEC). LINER MAY BE COMPRISED OF NATIVE MATERIALS WITH MIN OF 90% PASSING THE #200 SIEVE OR CLAY WITH A MINIMUM OF 15% PASSING THE #200 SIEVE. SOIL LINER TO EXTEND UP SIDES TO EXISTING GRADE AT A MINIMUM. POLY LINER JOINTS MUST BE WATERTIGHT AND SEALED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

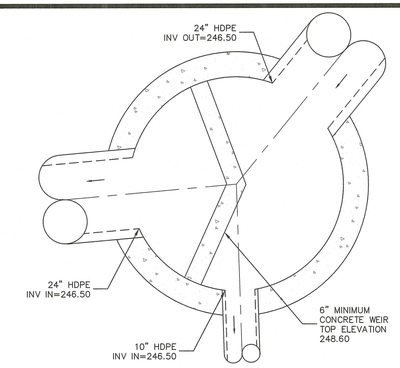


SAND FILTER WITH UNDERDRAIN AND LINER
NOT TO SCALE

DETENTION POND WITH LINER
NOT TO SCALE

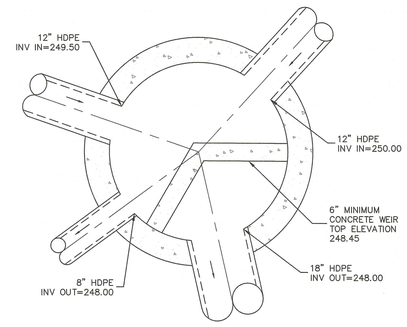
Sand Filter BMP System

NOT TO SCALE



Bypass DMH-B13 (6'Ø Manhole)

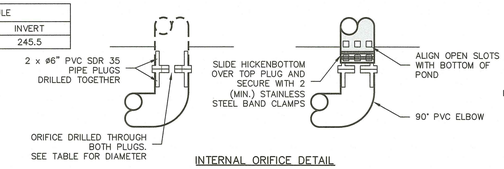
SCALE 1"=2'



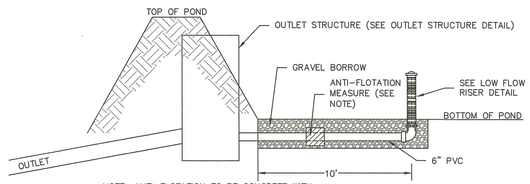
Bypass DMH-C3 (5'Ø Manhole)

SCALE 1"=2'

INTERNAL ORIFICE SCHEDULE		
LOCATION	DIAMETER	INVERT
POND D	2.25"	245.5

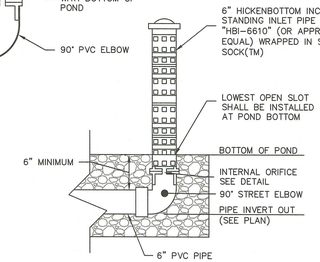


INTERNAL ORIFICE DETAIL

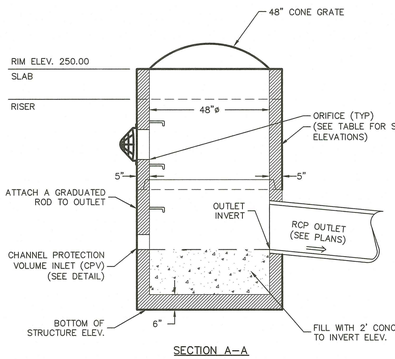


Low Flow (CPv) Outlet

NOT TO SCALE

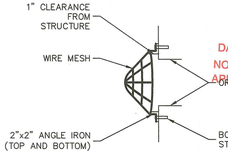


LOW FLOW RISER DETAIL

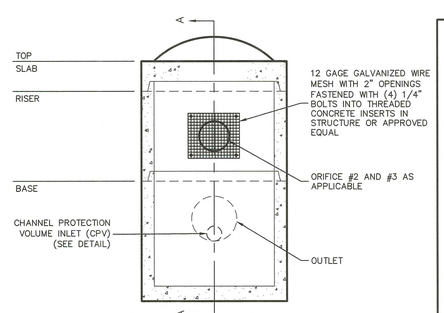


SECTION A-A

NOTE:
ALL 2" WEEP HOLES USED TO PLACE STRUCTURE MUST BE FILLED WITH CONCRETE.

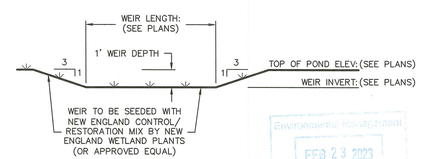


TRASH RACK DETAIL



Typical 4' Square Outlet Structure

NOT TO SCALE



Emergency Overflow Weir

NOT TO SCALE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED: MAR 1 0 2023 FILE #: 21-0010
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Environmental Management
FEB 23 2023
Office of Water Resources

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CIVIL
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0	11-24-2020	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Pond BMPs B C And D Details

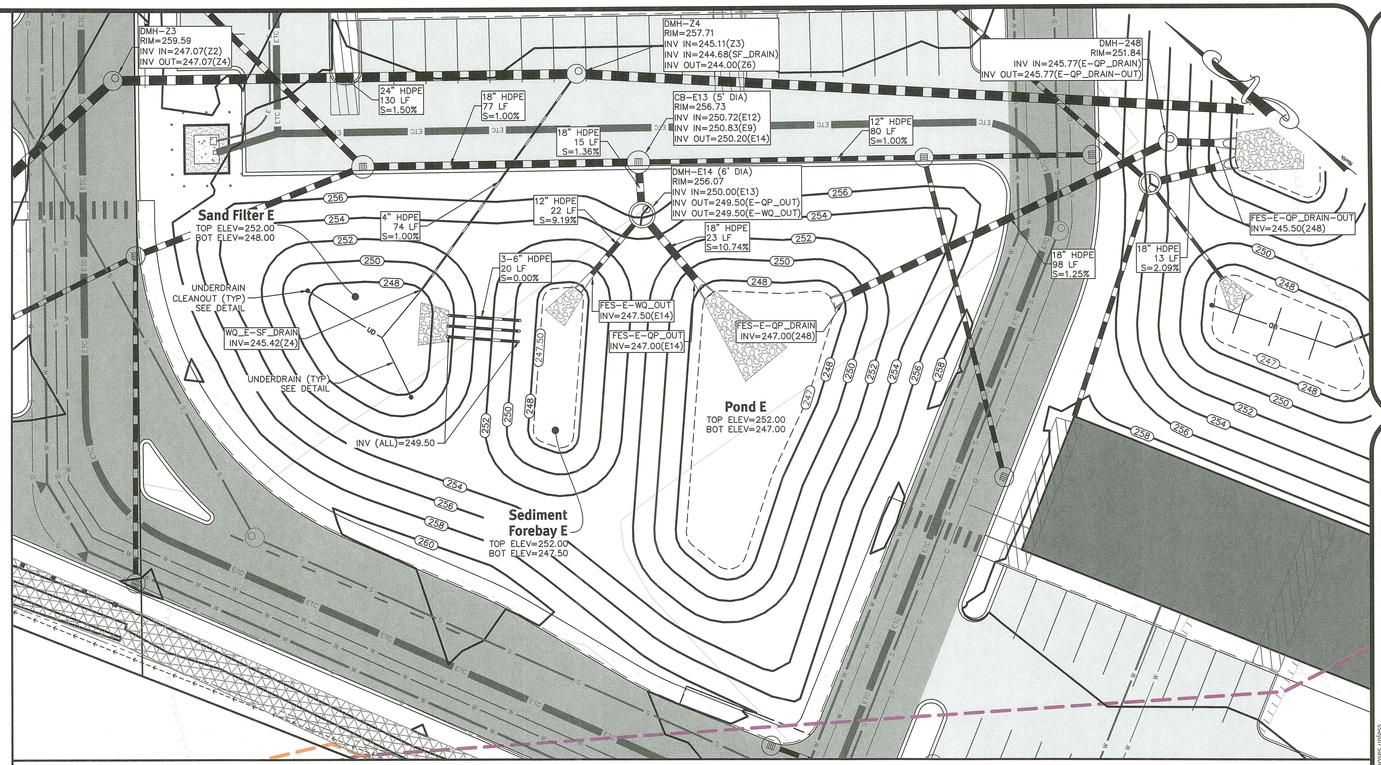
Johnston Crossing
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

SHEET 16 OF 23

z:\demain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan-bmp.dwg Plotted: 1/20/2023

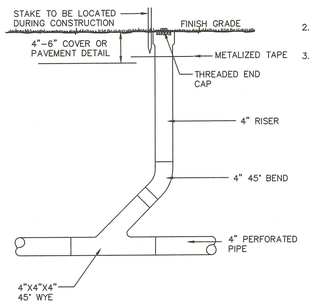


Pond System E

Scale: 1"=20'

0 10' 20' 40'

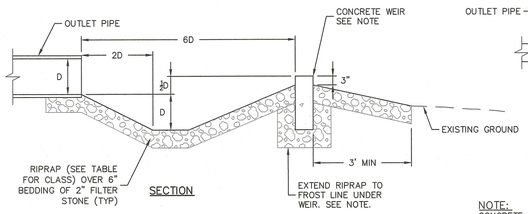
NOTES:
1. ENCASE CLEANOUT IN CONCRETE WHEN INVERT IS 12' OR MORE BELOW FINISH GRADE.
2. AT TERMINAL CLEANOUT REPLACE WYE WITH 45° BEND.
3. SUBDRAIN AREA TO BE STAKED, MARKED, AND REMAIN UNDISTURBED PRIOR TO CONSTRUCTION. THERE IS TO BE NO CONSTRUCTION TRAFFIC ON SUBDRAIN AREA PRIOR TO CONSTRUCTION.



4" Underdrain Cleanout (TYP)

NOT TO SCALE

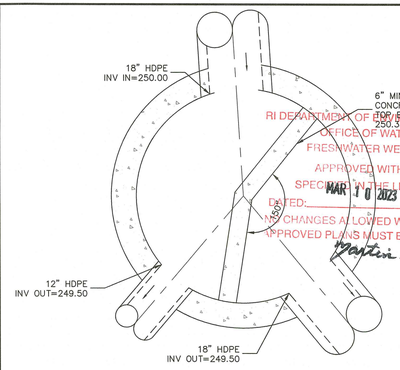
LOCATION	PIPE INVERT	PIPE DIA (D)	WIDTH (6D)	LENGTH (L)	CONCRETE CURB WEIR ELEV	RIPRAP CLASS
FES-A	226.75	1.50	12'	33'	227.50	R-4
FES-Z	225.25	2.50	15'	60'	226.50	R-4



Level Spreader

NOT TO SCALE

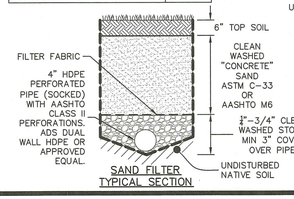
NOTE:
CONCRETE WEIR MAY BE:
- MONOLITHIC, CAST IN PLACE CONCRETE WITH INVERT BELOW THE FROST LINE (MINIMAL MAINTENANCE)
- SERIES OF PRECAST CONCRETE CURB SECTIONS, NO END CHAMFERS, (FREQUENT MAINTENANCE TO KEEP WEIR LEVEL) -- MUST INCLUDE GRAVEL BASE DOWN TO FROST DEPTH
- TIMBER NOT PERMITTED



BYPASS-E14 (6'Ø MANHOLE)

SCALE 1"=2'

DESCRIPTION	SNDF-E
TOP OF POND ELEVATION	252.00
100 YEAR STORM ELEVATION	251.79
10 YEAR STORM ELEVATION	250.97
1 YEAR STORM ELEVATION	250.43
WQ STORM ELEVATION	249.27
BOTTOM OF POND ELEVATION	248.00
TOP SOIL DEPTH	0.50
SAND DEPTH	1.50
MINIMUM UNDERDRAIN INVERT	245.42
UNDERDRAIN OUTLET ELEVATION	245.42
BOTTOM OF SAND ELEVATION	246.00
SEASONAL HIGH GWT ELEVATION*	N/A
SOIL EVALUATION	N/A



SAND FILTER TYPICAL SECTION

Sand Filter BMP System

NOT TO SCALE

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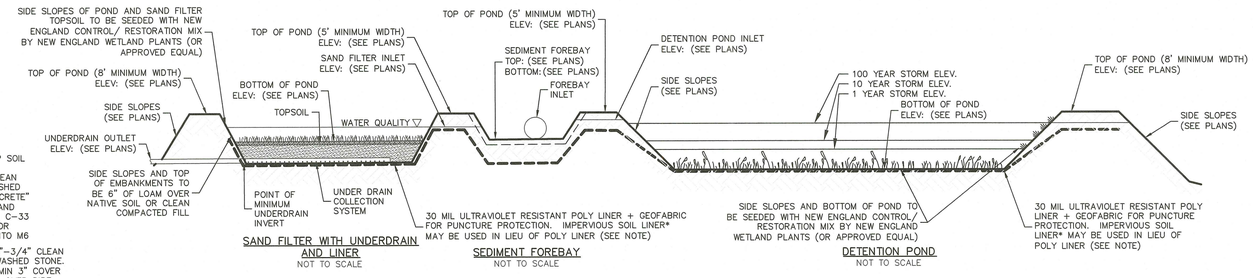

Sand Filter BMP System

NOT TO SCALE

DESCRIPTION	DP-E
TOP OF POND ELEVATION	252.00
100 YEAR STORM ELEVATION	250.56
10 YEAR STORM ELEVATION	249.01
1 YEAR STORM ELEVATION	247.52
BOTTOM OF POND ELEVATION	247.00
SEASONAL HIGH GWT ELEVATION	N/A*
SOIL EVALUATION	N/A

*SHOWN NOT APPLICABLE, SYSTEM IS LINED

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES

NOTE PER DEM:

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Environmental Management
FEB 23 2023
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

DANA R. NISBET
No. 11876
REGISTERED PROFESSIONAL ENGINEER
CIVIL
01/20/23

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2	03-31-2021	RIDEM Response to Comments	MAH
1	12-31-2020	RIDEM Application Submission	MAH
0			

Drawn By: MAH | Design By: MAH

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Justin D. Wenck

Pond BMP E Details

Johnston Crossing

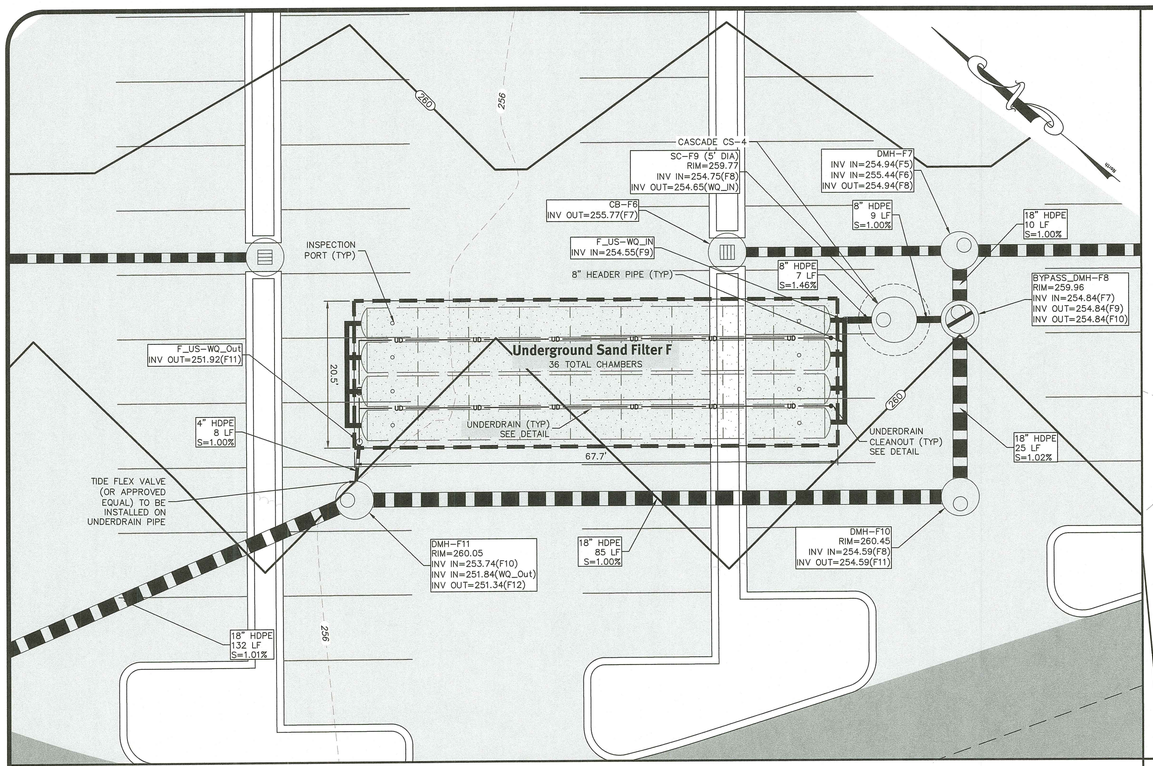
AP 54 Lots 34 and 80
213 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
353 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

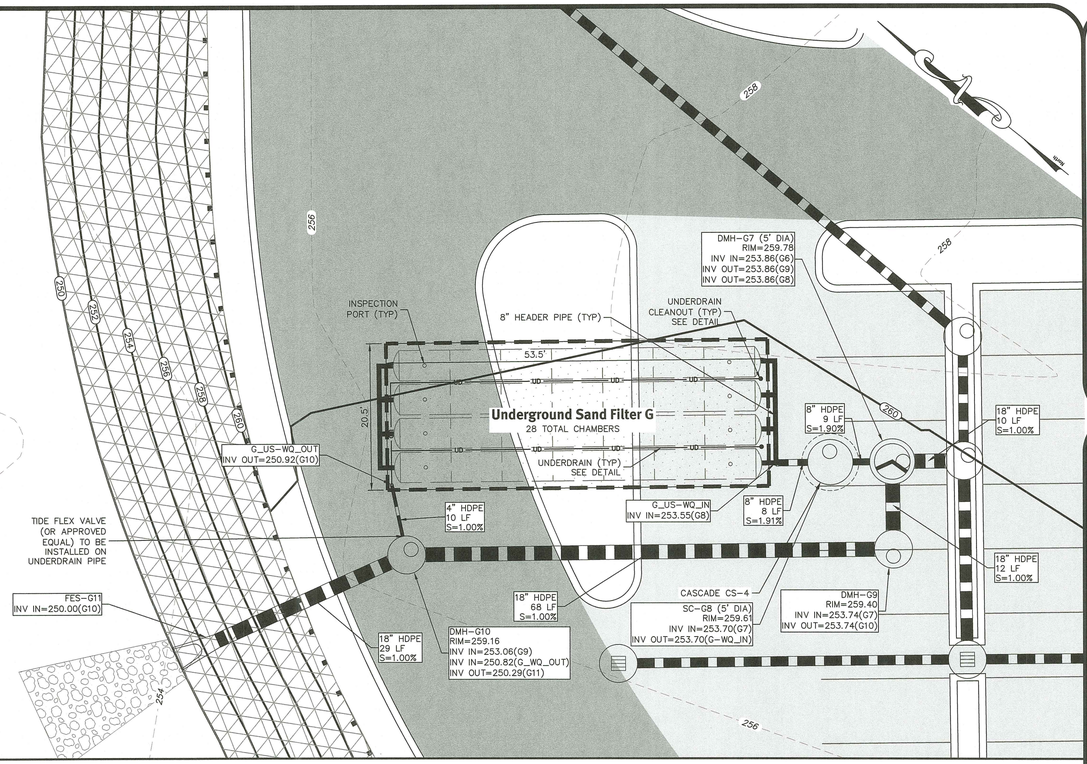
SHEET 17 OF 23

z:\domain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawing\2739-001-plan-bmp.dwg Plotted: 1/20/2023



Underground Treatment System F

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



Underground Treatment System G

Scale: 1"=10'
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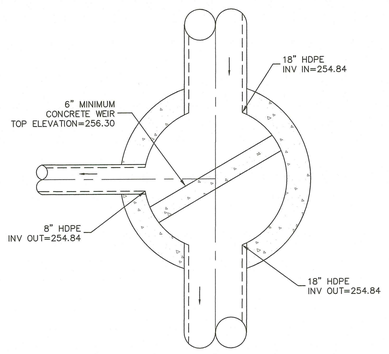
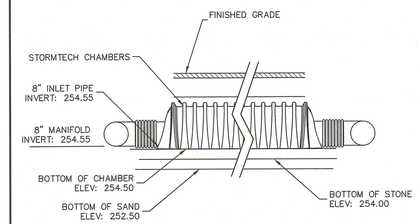


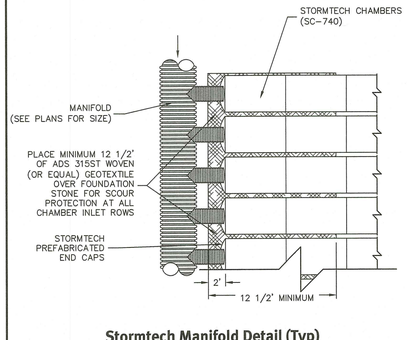
Bypass DMH-F8 (4'Ø Manhole)

SCALE 1"=2'



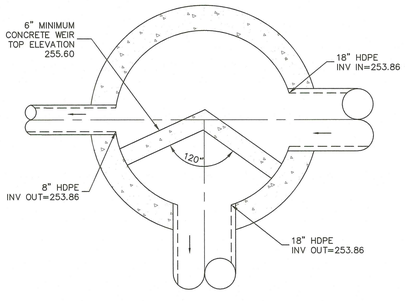
Underground Sand Filter F - Stormtech Elevation

NOT TO SCALE



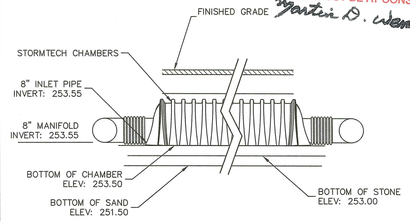
Stormtech Manifold Detail (Typ)

NOT TO SCALE



Bypass DMH-G7 (5'Ø Manhole)

SCALE 1"=2'



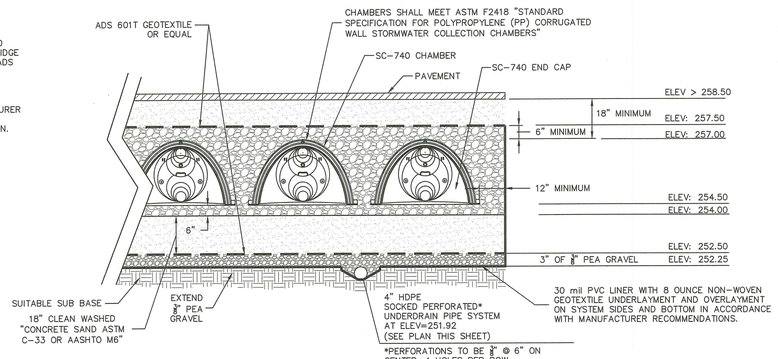
Underground Sand Filter G - Stormtech Elevation

NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	257.50
BOTTOM OF UIS STONE ELEVATION	254.00
100 YEAR STORM ELEVATION	257.08
10 YEAR STORM ELEVATION	256.60
1 YEAR STORM ELEVATION	256.33
SEASONAL HIGH GWT ELEVATION	244.63
SOIL EVALUATION	TP-4



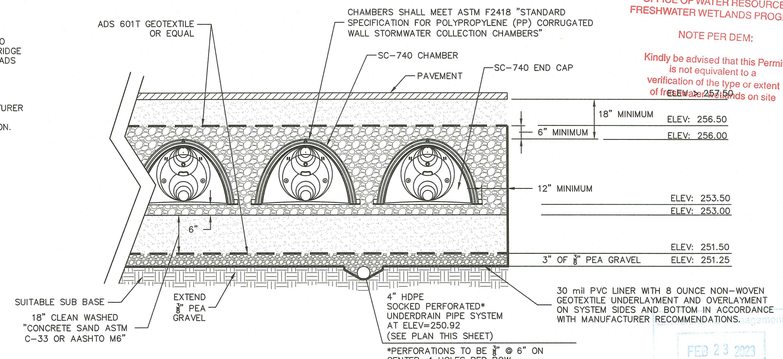
Underground Sand Filter F Detail

NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	256.50
BOTTOM OF UIS STONE ELEVATION	253.00
100 YEAR STORM ELEVATION	256.25
10 YEAR STORM ELEVATION	255.99
1 YEAR STORM ELEVATION	255.68
SEASONAL HIGH GWT ELEVATION	244.63
SOIL EVALUATION	TP-4



Underground Sand Filter G Detail

NOT TO SCALE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 10 2023 FILE #: 2000
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site
FEB 23 2023
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

DANA R. NISBET
No. 11876
01/20/2023
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

This plan set must not be used for construction purposes unless stamped 'Issued for Construction' and stamped by a registered Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering Clock & Seal. Engineering does not warrant plans by any other party.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering is not responsible for damage incurred due to locations of existing utilities.

No.	Date	Description	By:
5	01-20-2023	RIDEM Response to Comments	DRN
4	10-20-2022	RIDEM Permit Modification	DRN
3	10-13-2022	RIDEM Response to Comments	MAH
2	10-3-2022	RIDEM Response to Comments	MAH
1	9-26-2022	Regulatory Permit Submission	MAH
0	1-24-2020		

Drawn By: MAH Design By: MAH

Underground BMP F & G Details

Johnston Crossing

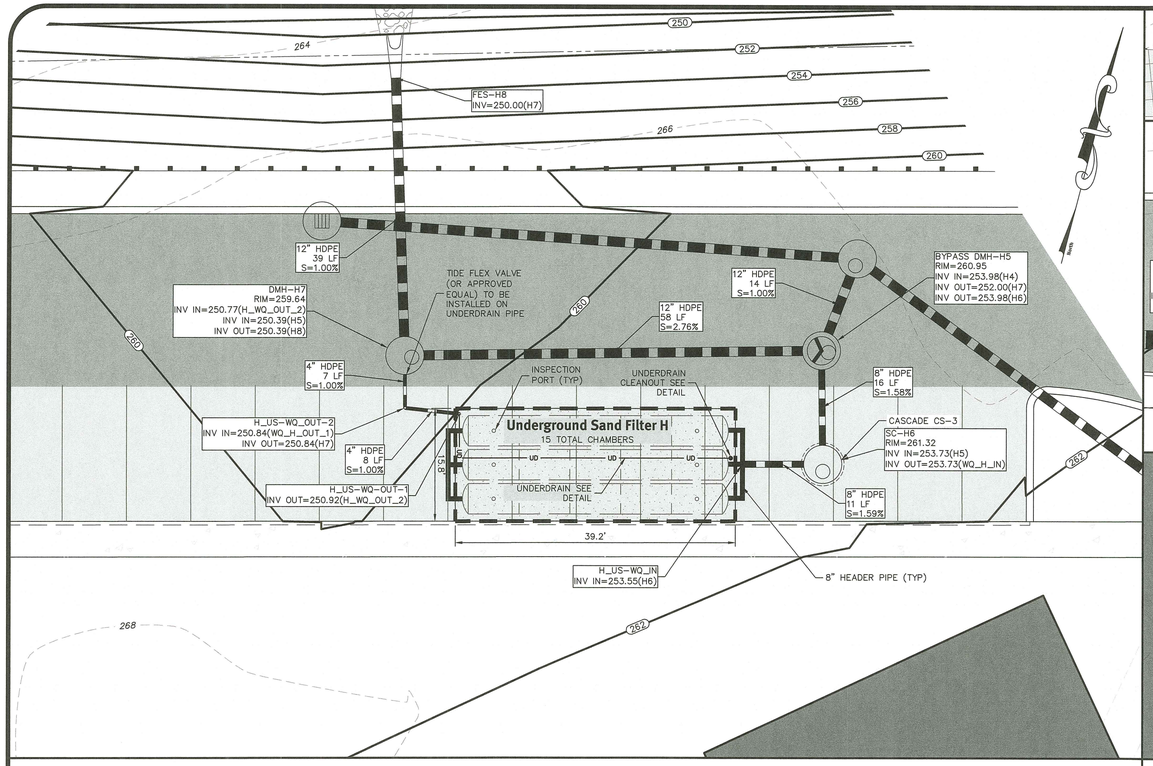
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001 Copyright 2023 by DiPrete Engineering Associates, Inc.

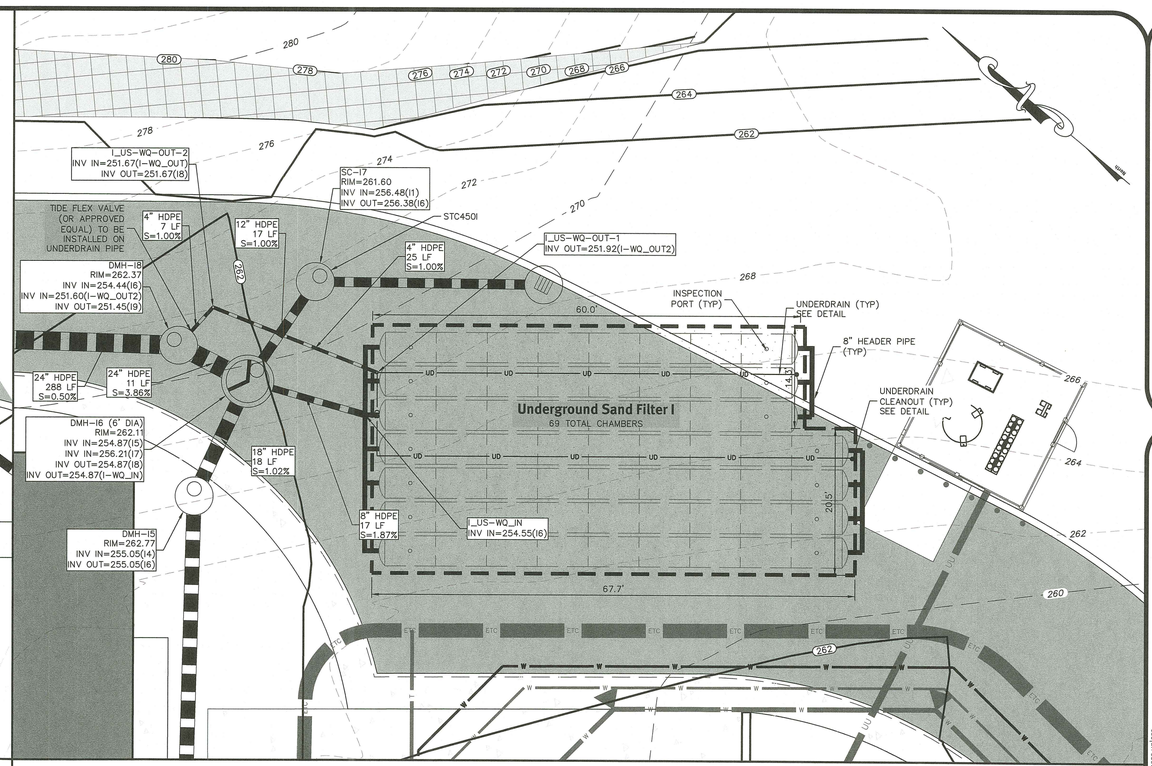
SHEET 18 OF 23

z:\dems\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan-bmp.dwg Plotted: 1/20/2023



Underground Treatment System H

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



Underground Treatment System I

Scale: 1"=10'
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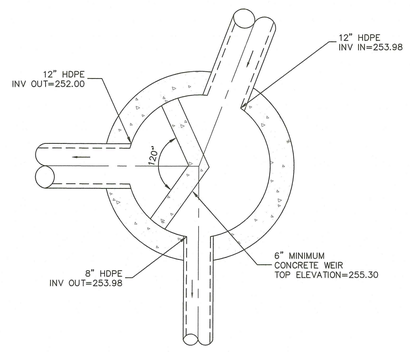
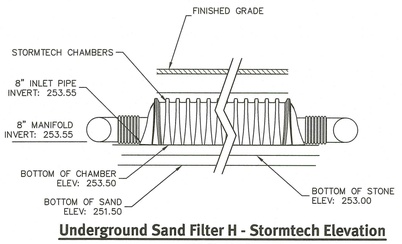


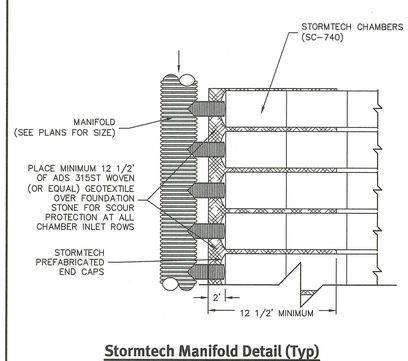
Bypass DMH-H5 (4'Ø Manhole)

SCALE 1"=2'



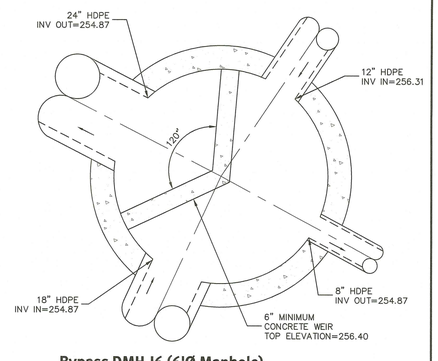
Underground Sand Filter H - Stormtech Elevation

NOT TO SCALE



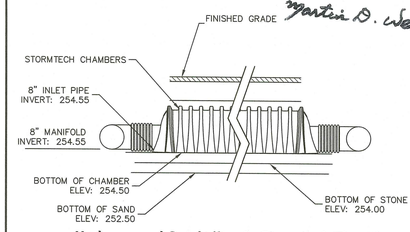
Stormtech Manifold Detail (Typ)

NOT TO SCALE



Bypass DMH-I6 (6'Ø Manhole)

SCALE 1"=2'



Underground Sand Filter I - Stormtech Elevation

NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
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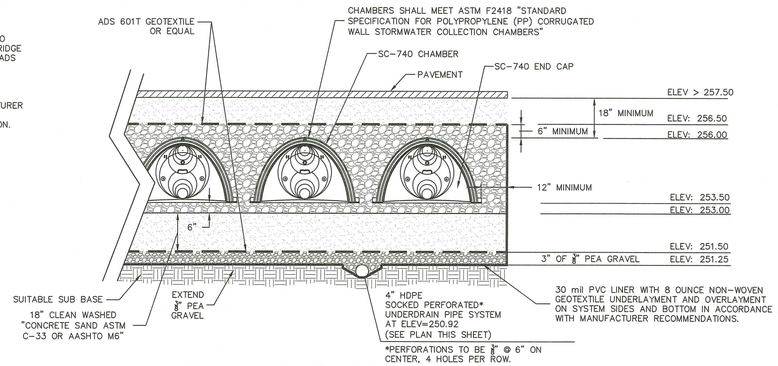
DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	256.50
BOTTOM OF UIS STONE ELEVATION	253.00
100 YEAR STORM ELEVATION	256.38
10 YEAR STORM ELEVATION	255.72
1 YEAR STORM ELEVATION	255.39
SEASONAL HIGH GWT ELEVATION	256.57
SOIL EVALUATION	TH-5



Underground Sand Filter H Detail

NOT TO SCALE

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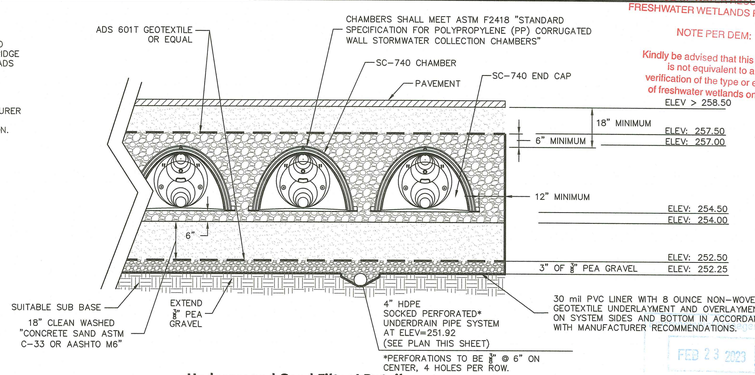
DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	257.50
BOTTOM OF UIS STONE ELEVATION	254.00
100 YEAR STORM ELEVATION	257.15
10 YEAR STORM ELEVATION	256.56
1 YEAR STORM ELEVATION	256.18
SEASONAL HIGH GWT ELEVATION*	N/A
SOIL EVALUATION*	N/A

*SYSTEM WILL REQUIRE LEDGE EXCAVATION AND BE LINED.



Underground Sand Filter I Detail

NOT TO SCALE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 10 2023 FILE #: 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

FED 23 2023
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

DANA R. NISBET
No. 11876
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
01/20/2023

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.
Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to inaccurate utilities.
DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other engineer.

No.	Date	Description	Drawn By:	Design By:
7	01-20-2023	RIDEM Response to Comments	DRN	MAH
6	09-20-2022	RIDEM Permit Modification	DRN	MAH
5	03-23-2022	RIDEM Response to Comments	MAH	MAH
4	02-23-2022	RIDEM Response to Comments	MAH	MAH
3	12-22-2021	Regulatory Permit Submission	MAH	MAH
2	10-13-2021	RIDEM Response to Comments	MAH	MAH
1	09-20-2021	RIDEM Response to Comments	DRN	MAH
0	01-24-2020	Regulatory Permit Submission	MAH	MAH

Underground BMP H & I Details

Johnston Crossing

AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
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tel (401) 487-8804

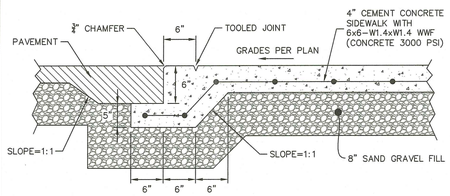
DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

SHEET 19 OF 23

z:\dem\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan-bmp.dwg Plotted: 1/20/2023

NOTE:

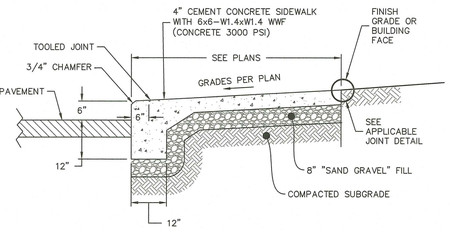
1. SEE SITE PLAN FOR SIDEWALK WIDTH AND GRADES.
2. SURFACE TEXTURE SHALL BE A LIGHT BROOMING, TRANSVERSE TO THE LENGTH OF THE WALK. CARE MUST BE TAKEN TO ENSURE A UNIFORM GRADE, FREE OF SAGS AND SHORT GRADE CHANGES.
3. ALL IMPROVEMENTS SHALL MUST WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE, CURRENT EDITION.
4. PROVIDE EXPANSION JOINTS AT MAX. 16 FT. O.C. WITH PREFORMED JOINT FILLER AND SEALANT.
5. PROVIDE CONTROL JOINTS AT 5' O.C.
6. MUST BE IN ACCORDANCE WITH THE R.I. STANDARD SPECIFICATIONS, CURRENT EDITION.



SECTION

Monolithic Concrete Sidewalk (Flush)

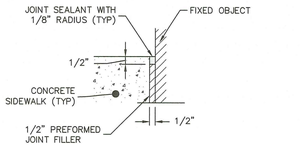
NOT TO SCALE



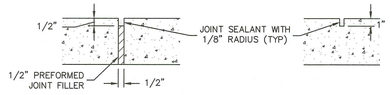
SECTION

Monolithic Concrete Sidewalk (6" Reveal)

NOT TO SCALE



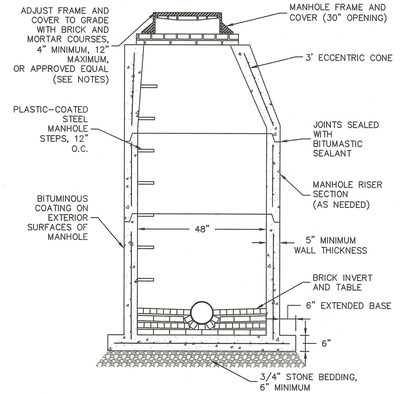
FIXED OBJECT JOINT



EXPANSION JOINT CONTROL JOINT

NOTES:

1. MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM–C478.
2. INVERT AND TABLE SHALL CONSIST ENTIRELY OF BRICK AND MORTAR. NO SAND FILLER SHALL BE ALLOWED.
3. MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE, IN ACCORDANCE WITH THE SEWER AUTHORITY SANITARY RULES AND REGULATIONS. UNDER NO CIRCUMSTANCES WILL EXFILTRATION TESTING BE ACCEPTED.
4. BOLTED AND GASKETED COVERS SHALL BE USED ON MANHOLES IN OFF–ROAD AREAS.
5. TAPPING OF MANHOLES MUST BE AUTHORIZED AND INSPECTED BY THE SEWER AUTHORITY. THE ONLY APPROVED METHOD FOR TAPPING MANHOLES SHALL BE BY CORE–DRILLING THE MANHOLE AND INSTALLING A "KOR–N–SEAL" BOOT.
6. PRECAST CONCRETE GRADE RINGS, HDPE GRADE RINGS, OR OTHER RIM ADJUSTMENT PRODUCTS MAY BE USED IN LIEU OF BRICK AND MORTAR WITH THE PERMISSION OF THE SEWER AUTHORITY.

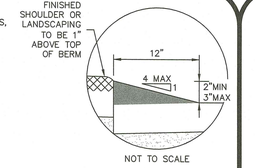


Sewer Manhole

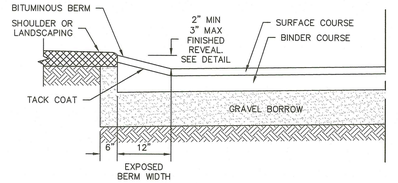
NOT TO SCALE

NOTES:

1. FOR ALL NEW PAVEMENT AREAS, BITUMINOUS BERM MUST BE CONTIGUOUS, PLACED AT THE SAME TIME AS THE BINDER COURSE, THEN OVERLAID WITH SURFACE COURSE. BERM CANNOT BE INSTALLED IN A SEPARATE EXTRUDED OPERATION.
2. ALL DIMENSIONS SHOWN ARE REQUIRED. ANY DEVIATIONS FROM DIMENSIONS SHOWN MUST BE APPROVED IN WRITING BY DESIGN ENGINEER AND PROJECT OWNER PRIOR TO BERM INSTALLATION.
3. BERM INSTALLATION MUST BE IN ACCORDANCE WITH ALL APPLICABLE SPECIFICATIONS, AND AUTHORITIES HAVING JURISDICTION.

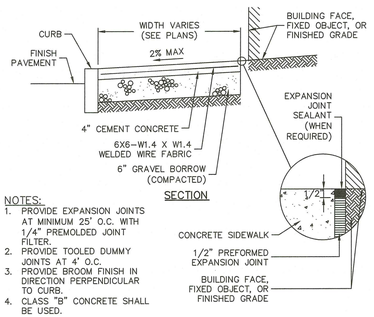


NOT TO SCALE



Bituminous Berm

NOT TO SCALE



SECTION

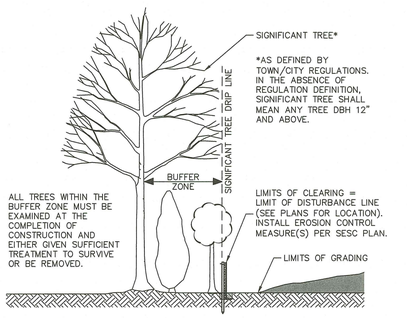
NOTES:

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.

JOINT DETAIL

Concrete Sidewalk

NOT TO SCALE



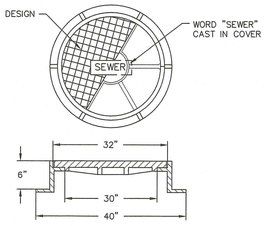
NOTE: LIMIT OF DISTURBANCE (LOD) MUST BE STAKED OUT PRIOR TO CONSTRUCTION. IF ANY SIGNIFICANT TREE DRIP LINE IS ENCROACHING PAST THE LOD, CONTRACTOR MUST CONTACT SITE ENGINEER PRIOR TO CONSTRUCTION.

Limit of Disturbance at Vegetation

NOT TO SCALE

NOTE:

1. SEWER MANHOLE FRAME AND COVER SHALL BE LEBARON MODEL LC326–2 OR APPROVED EQUAL.

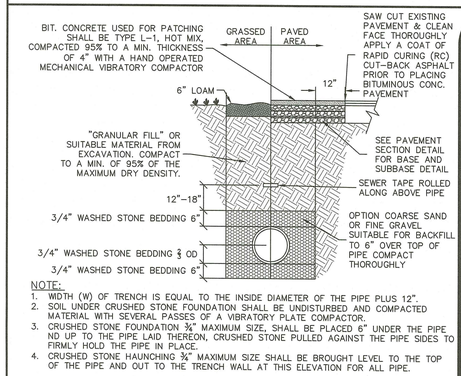


Water-Tight Sewer Manhole Frame & Cover Detail

NOT TO SCALE

NOTES:

1. MINIMUM OF 4" OF BITUMINOUS CONCRETE SURFACE COURSE SHALL BE PLACED ON ALL ROADWAYS.
2. ALL BITUMINOUS CONCRETE SHALL BE PLACED IN ACCORDANCE WITH SECTION 904 OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
3. ALL BITUMINOUS CONCRETE SHALL BE PLACED BY MECHANICAL SPREADING AND SHALL BE COMPACTED BY ROLLING.
4. ALL BITUMINOUS CONCRETE SHALL BE PLACED ON A DRY, CLEAN, AND DUST FREE SURFACE.
5. ALL BITUMINOUS CONCRETE SHALL BE PLACED AT A MINIMUM TEMPERATURE OF 250°F.
6. ALL BITUMINOUS CONCRETE SHALL BE PLACED AT A MINIMUM AIR TEMPERATURE OF 40°F AND RISING.
7. ALL BITUMINOUS CONCRETE SHALL BE PLACED AT A MAXIMUM AIR TEMPERATURE OF 90°F AND FALLING.
8. ALL BITUMINOUS CONCRETE SHALL BE PLACED AT A MAXIMUM AIR TEMPERATURE OF 90°F AND FALLING.



NOTE:

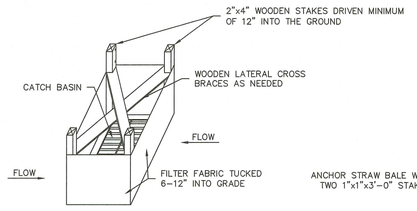
1. WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".
2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.
3. CRUSHED STONE FOUNDATION ¾" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4. CRUSHED STONE HAUNCHING 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 (within Site)

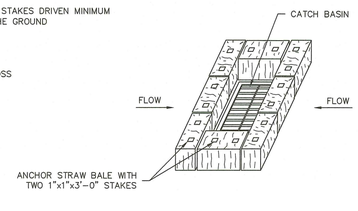
NOT TO SCALE

STRUCTURE A18	CS–4
STRUCTURE B13	CS–5
STRUCTURE F9	CS–4
STRUCTURE G8	CS–4
STRUCTURE H6	CS–3
STRUCTURE I7	STC4501

Stormceptor Sizing Table



SILT FENCE INSTALLATION FOR CATCH BASINS AT LOW POINTS



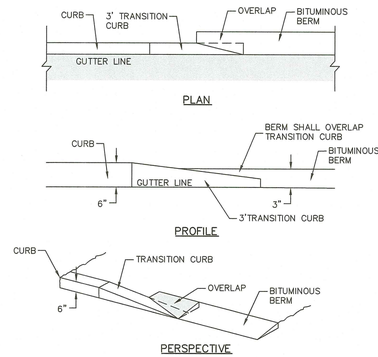
STRAW BALE FILTER INSTALLATION FOR CATCH BASINS AT LOW POINTS

NOTES:

1. STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.
2. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM.
3. REFER TO LONG TERM/SHORT TERM MAINTENANCE NOTES AND OPERATION & MAINTENANCE PLAN FOR TIMING OF PLACEMENT AND REMOVAL OF EROSION CONTROL ELEMENTS.

Catch Basin Erosion Control

NOT TO SCALE



Curb to Berm Transition

NOT TO SCALE

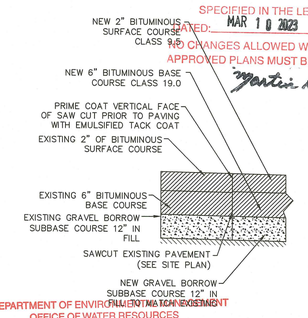
NOTES:

EXISTING PAVEMENT INFORMATION OBTAINED FROM "STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION PLAN, PROFILE AND SECTIONS OF PROPOSED STATE HIGHWAY RECONSTRUCTION OF HARTFORD AVENUE (ROUTE 6A) I–295 TO ATWOOD AVENUE." PREPARED BY VANASSE HANGEN BRUSTLIN, INC. CONTRACT NUMBER 2009–CH–009.

CONTRACTOR TO PERFORM ASPHALT CORES PRIOR TO CONSTRUCTION AND PROVIDE EXISTING ASPHALT THICKNESS TO DESIGN ENGINEER FOR REVIEW.

THE PROPOSED THICKNESSES ARE MINIMUMS, AND IF THE EXISTING THICKNESSES ARE FOUND TO BE GREATER THE RESTORATION MUST FOLLOW THE STRUCTURE TO WHICH IT IS MATCHED TO ENSURE SIMILAR STRUCTURAL CAPACITIES. ALSO, IF CONCRETE BASE IS FOUND TO BE PRESENT IN THE ROADWAY, RESTORATION SHALL INCLUDE CLASS XX CONCRETE BASE IN–KIND THICKNESS IN ACCORDANCE WITH RI STANDARD SPECIFICATIONS.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 10 2023 FILE #: 21-0169
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

SECTION THROUGH TRENCH

NOTE PER DEM:

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

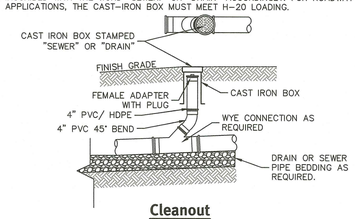
Environmental Management
FEB 23 2023
Office of Water Resources

SAW CUT AND MATCH DETAIL FOR UTILITY INSTALLATION WTHIN HARTFORD AVENUE

NOT TO SCALE

NOTES:

1. ALL PIPE AND FITTINGS SHALL BE GASKETED SDR–35 (OR) SCH–40 PVC FOR SEWER, OR HDPE PIPE FOR DRAINAGE.
2. PIPE BEDDING AND BACKFILL FOR CLEANOUTS SHALL MEET APPLICABLE DRAINAGE AND SEWER SPECIFICATIONS UNLESS OTHERWISE NOTED BY ENGINEER.
3. FOR SEWER CLEANOUTS, A MINIMUM OF ONE CLEANOUT SHALL BE PLACED ON EACH LATERAL, 5' FROM THE STRUCTURE. FOR LONGER RUNS, CLEANOUTS SHALL BE LOCATED EVERY 100'. FOR DRAIN CLEANOUTS SEE PLANS FOR LOCATION AS REQUIRED.
4. ALL CLEANOUTS SHALL BE SLEEVED WITH A CAST–IRON BOX SET FLUSH WITHIN THE FINAL GRADE OF GRASS, HARDSCAPE, ROADWAYS OR CONCRETE AREAS. CAST IRON BOX NOT REQUIRED FOR STORMWATER BMP AREAS. COVERS SHALL BE INSCRIBED WITH THE WORD "SEWER." OR "DRAIN" ACCORDINGLY. FOR ROADWAY APPLICATIONS, THE CAST–IRON BOX MUST MEET H–20 LOADING.

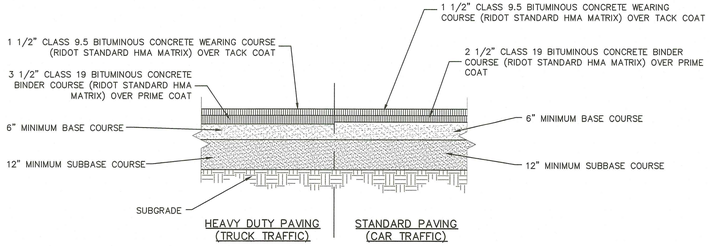


Cleanout

NOT TO SCALE

NOTE:

THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS PER THE GEOTECHNICAL REPORT FOR FORMER HI–LO LANDFILL 2113 HARTFORD AVENUE JOHNSTON, RHODE ISLAND. PREPARED BY GZA, DATED AUGUST 2019. PAVEMENT SECTION MUST COMPLY WITH GZA SPECIFICATIONS. CONTRACTOR MUST USE THE LATEST GEOTECHNICAL REPORT.



Typical Pavement Section

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

DANA R. NISBET
No. 11876
REGISTERED PROFESSIONAL ENGINEER
CIVIL

This plan set must not be used for construction purposes unless signed and sealed by a Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any others.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to inaccurate utilities.

No.	Date	Description	By:
4.	03-20-2023	RIDEM Response to Comments	MAH
3.	02-23-2023	RIDEM Permit Modifications	MAH
2.	01-31-2022	RIDEM Response to Comments	MAH
1.	12-14-2021	RIDEM Regulatory Permit Submission	MAH
0.	11-24-2020	Regulatory Permit Submission	MAH

Design By: MAH
Drawn By: MAH
CHK'D

Detail Sheet - 1

Johnston Crossing

AP 54, Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001

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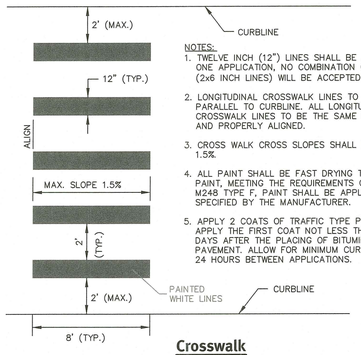
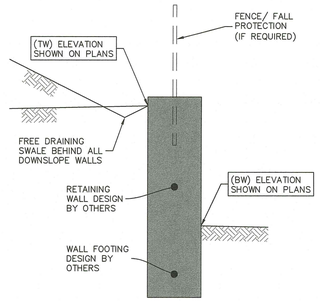
SHEET 20 OF 23

z:\domain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan.dwg Plotted: 1/20/2023



NOTES:
1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (2x6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.
3. CROSS WALK CROSS SLOPES SHALL NOT EXCEED 1.5%.
4. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F, PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
5. APPLY 2 COATS OF TRAFFIC TYPE PAINT. APPLY THE FIRST COAT NOT LESS THAN FIVE DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.

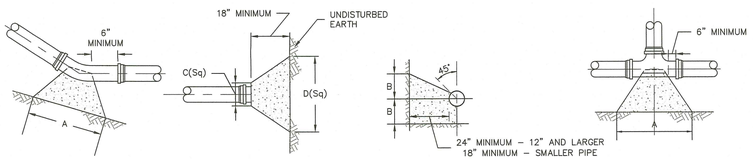
Crosswalk
NOT TO SCALE



Typical Retaining Wall Section
NOT TO SCALE

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.

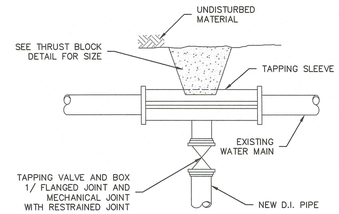
SIZE	TEES		PLUGS		90° BEND		45° BEND		22.5° BEND		11.25° BEND	
	A	B	C	D	A	B	A	B	A	B	A	B
6"	30"	10"	10"	30"	36"	12"	24"	9"	18"	7"	12"	5"
8"	36"	13"	12"	36"	42"	16"	36"	12"	24"	9"	18"	6"
10"	48"	17"	14"	48"	54"	20"	42"	15"	30"	11"	24"	8"
12"	54"	20"	16"	54"	66"	24"	48"	18"	36"	13"	24"	9"
16"	72"	27"	20"	72"	84"	32"	66"	23"	48"	17"	36"	12"



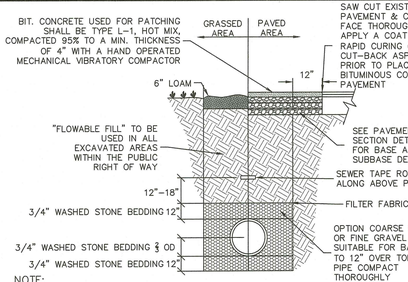
PLAN BENDS | PLAN & ELEVATION PLUGS | BENDS & TEES SECTIONS | PLAN TEES

Thrust Block
NOT TO SCALE

NOTES:
1. TAPPING SLEEVE AND VALVE TO BE SWABBED WITH CHLORINE SOLUTION.



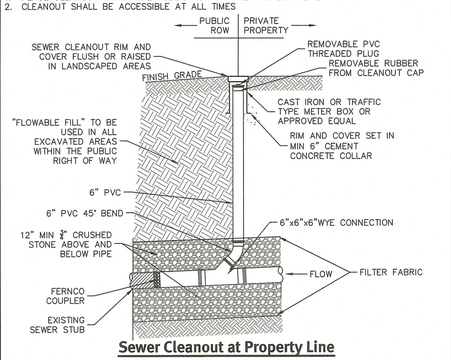
Tapping Sleeve & Valve
NOT TO SCALE



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 12" 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.

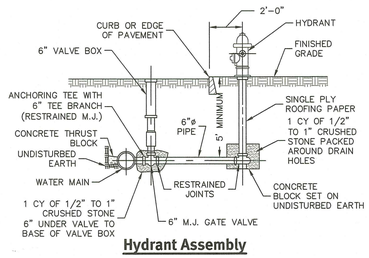
Sewer Trench Detail (within ROW)
NOT TO SCALE

NOTES:
1. PLACE CLEANOUT WITHIN THE PUBLIC ROW AT THE PROPERTY LINE
2. CLEANOUT SHALL BE ACCESSIBLE AT ALL TIMES



Sewer Cleanout at Property Line
NOT TO SCALE

NOTES:
1. TOWN STANDARD 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.



Hydrant Assembly
NOT TO SCALE

Sewer Line/Water Main Separation Policy For Design Of Sanitary Sewers

A. LATERAL PLACEMENT OF SEWERS AND WATER MAINS

SEWERS SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED OUTSIDE EDGE–TO–OUTSIDE EDGE. THERE IS NO MINIMUM VERTICAL SEPARATION REQUIRED PROVIDED THE 10' HORIZONTAL SEPARATION IS MAINTAINED.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10' HORIZONTAL SEPARATION, THE DIVISION MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATER MAIN, PROVIDED THAT:

1. THE SEWER AND WATER MAIN ARE LAID IN SEPARATE TRENCHES, OR
2. THE SEWER AND WATER MAIN MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATER MAIN PLACED ON A BENCH OF UNDISTURBED EARTH, AND
3. IN EITHER CASE, THE CROWN OF THE SEWER SHALL BE AT LEAST 18" BELOW THE INVERT OF THE WATER MAIN.

IN SITUATIONS WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE FOLLOWING PROTECTION SHALL BE PROVIDED:

4. ENCASEMENT OF THE SEWER PIPE IN CONCRETE (MINIMUM 6" THICKNESS) OR A CARRIER PIPE FOR AT LEAST 10' EITHER SIDE OF THE AREA NOT COMPLYING WITH THE MINIMUM HORIZONTAL AND VERTICAL SEPARATION, OR
5. DESIGN AND CONSTRUCTION OF THE SEWER EQUAL TO WATER MAIN PIPE (CEMENT–LINED DUCTILE IRON OR OTHER AWWA–APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE), AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS.

B. SEWERS CROSSING WATER MAINS

SEWERS CROSSING OVER WATER MAINS SHOULD BE AVOIDED, BUT IF CONDITIONS WARRANT THIS SITUATION, THEN ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE. SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18" BETWEEN THE INVERT OF THE WATER MAIN AND THE CROWN OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.

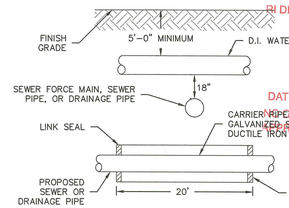
WHERE CONDITIONS PREVENT AN 18" VERTICAL SEPARATION FROM BEING MAINTAINED, THE FOLLOWING METHODS SHALL BE SPECIFIED:

A. THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER MAIN PIPE (CEMENT–LINED DUCTILE IRON PIPE, PVC OR OTHER AWWA APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE) FOR A DISTANCE OF 12' ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS, OR

B. EITHER THE WATER MAIN OR THE SEWER MAY BE ENCASED IN CONCRETE (MINIMUM 6" THICKNESS) OR A CARRIER PIPE FOR A DISTANCE OF 12' ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE DESIGNED AND CONSTRUCTED OF MATERIALS WHICH ARE SATISFACTORY TO THE DIVISION, OR

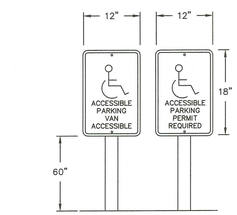
C. ANY OTHER METHODS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER, WHICH ENSURE ADEQUATE WATER TIGHTNESS AND ARE SATISFACTORY TO THE DIVISION.

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 TOWN SEWER AND WATER DEPARTMENTS



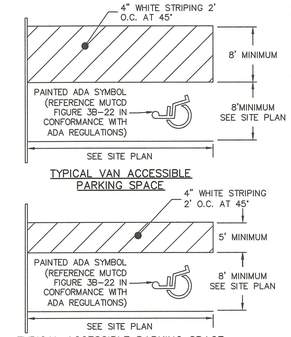
CARRIER PIPE DETAIL

Utility Separation
NOT TO SCALE



NOTES:
1. SIGN MUST BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SITE PLAN.
2. ACCESSIBLE PARKING SPACES AND SIGNAGE MUST COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR THE APPLICABLE STATE/ MUNICIPAL BUILDING CODE, WHICHEVER STANDARD CONTROLS.

Typical Accessible Parking Post & Sign
NOT TO SCALE

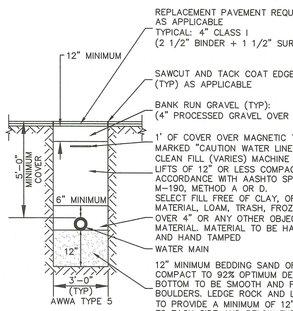


NOTES
1. ALL PAINT MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F, PAINT MUST BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
2. APPLY 2 COATS OF TRAFFIC TYPE PAINT. APPLY THE FIRST COAT NOT LESS THAN FIVE DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.
3. FOR REDEVELOPMENT SITES, PAINT COLOR AND SIZE/ STENCILING OF PAINTED ADA SYMBOL MUST MATCH ADJACENT SPACES, SO LONG AS THEY COMPLY WITH THE CURRENT EDITIONS OF ALL APPLICABLE STANDARDS AND REGULATIONS.

Typical Accessible Parking Spaces
NOT TO SCALE

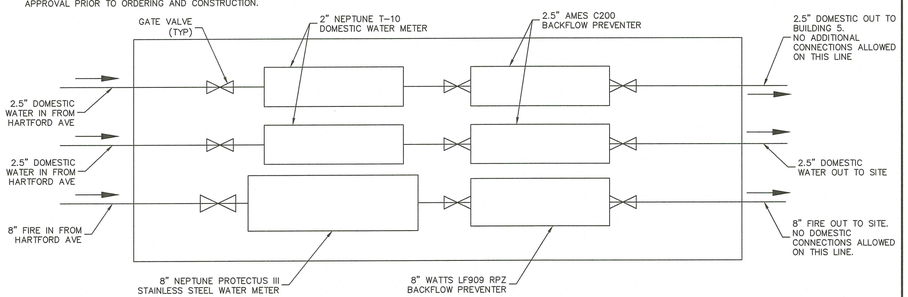
1. ALL IMPROVEMENTS MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE (CURRENT EDITION).
2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 4.5% (0.045 FT/FT), AND MAXIMUM CROSS SLOPE ACROSS ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 1.5% (0.015 FT/FT).
3. ADA PARKING SPACES AND LOADING AREAS: THE STEEPEST SLOPE OF THE SPACE, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
4. A MINIMUM 5'x5' LANDING MUST BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/ EGRESSES. THE STEEPEST SLOPE OF THE LANDING, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
5. FOR EVERY 6 (OR FRACTION OF 6) ADA PARKING SPACES, AT LEAST ONE MUST BE A VAN PARKING SPACE. FOR EXAMPLE, IF 7 ADA PARKING SPACES ARE REQUIRED, A MINIMUM OF 2 MUST BE VAN SPACES.
6. NOTWITHSTANDING THE NOTES LISTED ABOVE, TOWN OR STATE–SPECIFIC STANDARDS MAY BE MORE STRINGENT AND OVERRULE. IT IS THE RESPONSIBILITY OF THE USER OF THIS PLAN SET TO MAINTAIN COMPLIANCE WITH THE CONTROLLING STANDARD.
7. NOTE THAT THE GRADING/ PLAN VIEWS AND DETAILS CONTAINED WITHIN THIS PLAN SET MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS, RAMPS AND SPACES TO COMPLY WITH THE ABOVE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA/ CONTROLLING STANDARDS. IN THE EVENT OF ANY NON COMPLIANCE THE CONTRACTOR MUST NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

ADA Notes

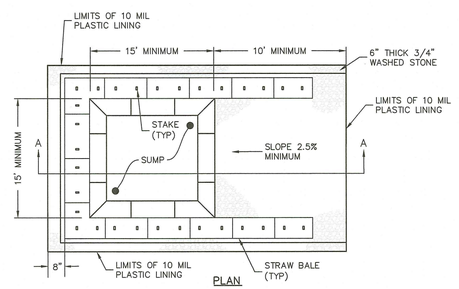


Water Trench Detail
NOT TO SCALE

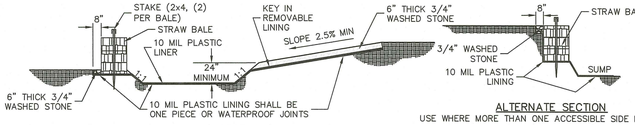
NOTES:
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR HEATED ENCLOSURE, WATER METER AND BACKFLOW DEVICE TO PROVIDENCE WATER, JOHNSTON DPW AND DESIGN ENGINEER FOR APPROVAL PRIOR TO ORDERING AND CONSTRUCTION.



Heated Enclosure Detail
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

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6066 www.diprete-eng.com
Boston • Providence • Newport

DANA R. NISBET
No. 11876
01/20/2023
REGISTERED PROFESSIONAL ENGINEER
CIVIL

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 10 2023 FILE #: 21-0168
CONSTRUCTION ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

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

This plan set must not be used for construction purposes unless signed and stamped by a registered Professional Engineer of DiPrete Engineering.
DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.
The contractor is responsible for all of the means, methods, safety requirements, and OSHA compliance in the implementation of this plan and design.
Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to existing utilities.

No.	Date	Description	Drawn By: MAH	Design By: MAH
1	07/20/2022	RI DEM Response to Comments	DRN	
2	09/21/2022	RI DEM Response to Comments	AAAJ	
3	10/21/2022	RI DEM Response to Comments	AAAJ	
4	12/21/2022	RI DEM Response to Comments	AAAJ	
5	01/20/2023	RI DEM Response to Comments	MAH	

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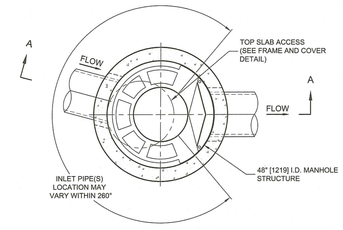
Detail Sheet - 2
Johnston Crossing
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919
Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

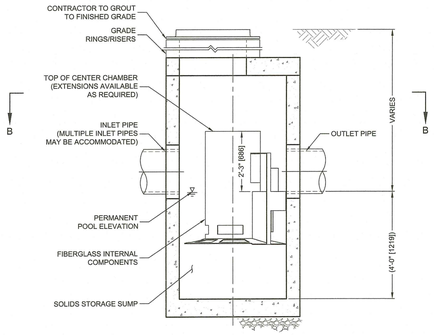
FEB 23 2023

SHEET 21 OF 23

z:\domain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan.dwg Plotted: 1/30/2023



PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE
separator™

CASCADE SEPARATOR DESIGN NOTES

CS-4 RATED TREATMENT CAPACITY IS 2.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CS-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-4
CASCADE SEPARATOR
STANDARD DETAIL

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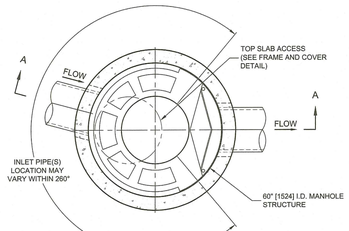
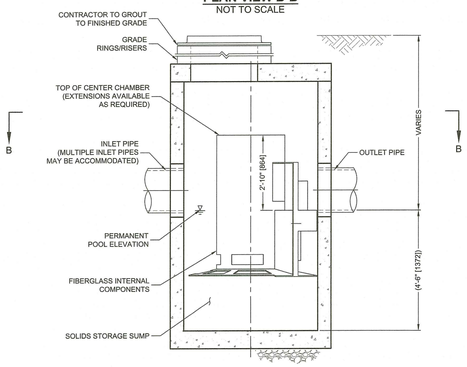


PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE
separator™

CASCADE SEPARATOR DESIGN NOTES

CS-5 RATED TREATMENT CAPACITY IS 3.50 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CS-5 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
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9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-5
CASCADE SEPARATOR
STANDARD DETAIL

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 1 0 2023 FILE #: 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
Kindly be advised that this Permit
is not equivalent to a
verification of the type or extent
of freshwater wetlands on site

Environmental Management
FEB 23 2023
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

DANA R. NISBET
No. 11876
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

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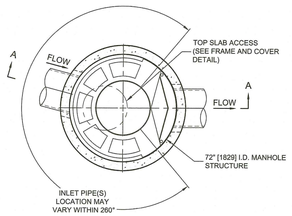
The contractor is responsible for all of the means, methods, safety and conformance of construction, and shall notify DiPrete Engineering of any discrepancies between the plan and design conditions in the field prior to implementation of this plan and design.
On this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to locations of existing utilities.

No.	Date	Description	By
5	01-26-2023	RIDEM Response to Comments	DRD
4	10-28-2022	RIDEM Permit Application	DRD
3	10-13-2022	RIDEM Response to Comments	MAH
2	09-12-2022	RIDEM Permit Application	MAH
1	11-29-2020	Resubmission Permit Submission	MAH

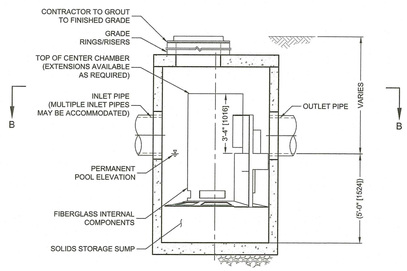
Drawn By: MAH | Design By: MAH

Detail Sheet - 3
Johnston Crossing
AP 54 Lots 34 and 80
212 Hartford Avenue, Johnston, Rhode Island 02919
Applicant:
Sitwell Park, LLC
152 Plesterin Avenue, Providence, Rhode Island 02906
tel (401) 467-8804

DE Job No: 2739-001 Copyright 2023 by DiPrete Engineering Associates, Inc.



PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE
separator™

CASCADE SEPARATOR DESIGN NOTES

CS-6 RATED TREATMENT CAPACITY IS 5.6 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CS-6 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (cfs [L/s])	
PEAK FLOW RATE (cfs [L/s])	
RETURN PERIOD OF PEAK FLOW (yrs)	
RIM ELEVATION	

PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO H520 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
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9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-6
CASCADE SEPARATOR
STANDARD DETAIL

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: MAR 1 0 2023 FILE #: 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

Environmental Management
FEB 23 2023
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

DANA R. NISBET
No. 11876
01/20/2023
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

This plan set must not be used for construction purposes unless stamped 'Issued for Construction' and signed by a registered Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering letterhead, and DiPrete Engineering does not warrant plans by any other party.

The contractor is responsible for all of the means, methods, safety precautions and procedures required for the construction and implementation of this plan and design.

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No.	Date	Description	By:
5.	01-20-2023	RIDEM Response to Comments	DRN
4.	10-17-2022	RIDEM Response to Comments	MAH
3.	01-21-2022	RIDEM Response to Comments	MAH
2.	10-12-2020	RIDEM Response to Comments	MAH
1.	01-24-2020	Resubmission Submission	MAH
	Drawn By: MAH		Design By: MAH

Detail Sheet - 4
Johnston Crossing
AP 54, Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919
Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

SHEET 23 OF 23

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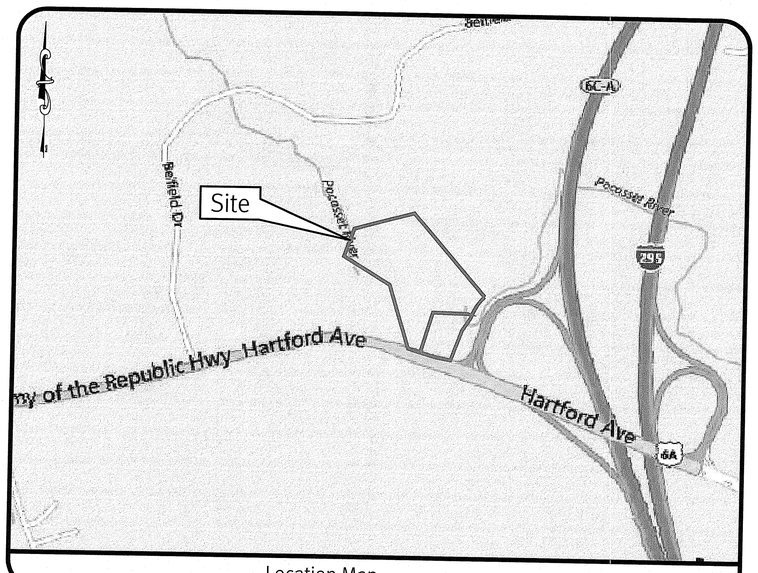
Regulatory Permit Submission

Johnston Crossing

2113 Hartford Ave.
Johnston, Rhode Island

Assessor's Plat 54 Lots 34 & 80



Sheet Index

1 Cover Sheet
2 Aerial & Half Mile Radius Sheet
3 Notes and Legend Sheet
4 Existing Conditions Plan
5 SESC Plan
6 Overall Site Layout Plan
7 Site Layout Plan - 1
8 Site Layout Plan - 2
9 Grading Plan - 1
10 Grading Plan - 2
11 Drainage Plan - 1
12 Drainage Plan - 2
13 Utility Plan - 1
14 Utility Plan - 2
15 Underground BMP A Details
16 Pond BMP B, C, & D Details
17 Pond BMP E Details
18 Underground BMP F & G Details
19 Underground BMP H & I Details
20 Detail Sheet - 1
21 Detail Sheet - 2

Plans By Others

LA-1 Wetland Restoration Plan - Wetland A
LA-2 Wetland Restoration Plan - Wetland C

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

RI Environmental Management
JAN 24 2022
Office of Water Resources

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.

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

BRIAN C. GIROUX
9341
6/21/2022
REGISTERED PROFESSIONAL ENGINEER
CIVIL

This plan set must not be used for construction purposes unless stamped 'Issued for Construction' and stamped by a registered Professional Engineer employed by DiPrete Engineering.

DiPrete Engineering and its registered Professional Engineers in responsible charge of plans on a DiPrete Engineering title block stamped by registered Professional Engineers employed by DiPrete Engineering, DiPrete Engineering does not warrant plans by any other party.

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

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to inaccuracies of existing utilities.

No.	Date	Description	By:
0	11-24-2020	Regulatory Permit Submission	MAH
1	10-21-2021	RIDEM Response to Comments	MAH
2	01-24-2022	RIDEM Approval	MAH

Drawn By: MAH | Design By: MAH

Cover Sheet
Johnston Crossing
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
352 President Avenue, Providence, Rhode Island 02906
tel (401) 487-4804

SHEET 1 OF 23

DE Job No.: 2739-001

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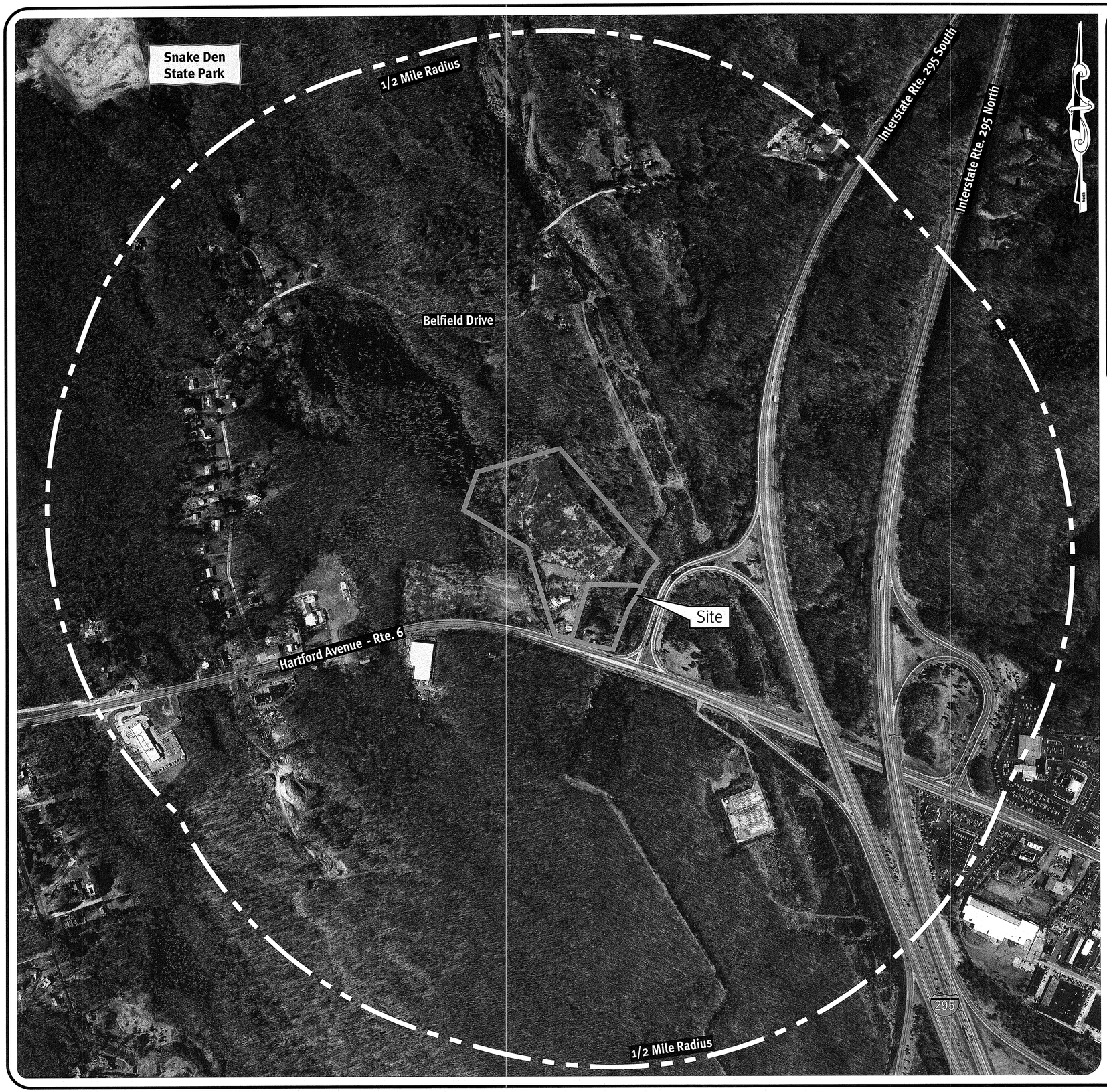
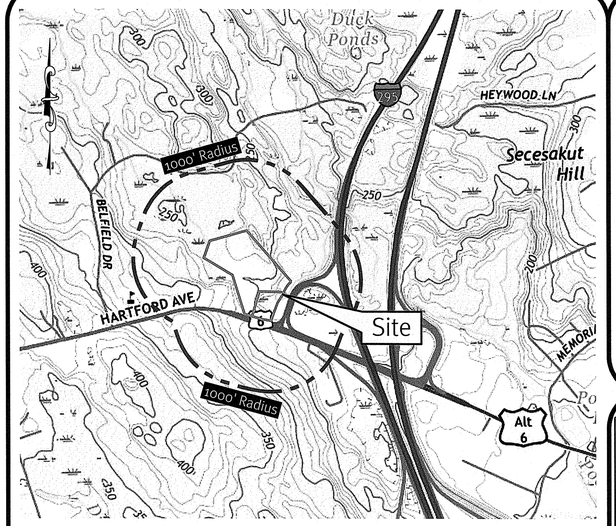


Photo Obtained from the RIGIS 2014 database.

Scale: 1"=300'
0 150' 300' 600'



USGS Map Scale: 1"=1000'

Environmental Management
JAN 24 2022
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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencen

DiPrete Engineering
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Boston • Providence • Newport

BRIAN C. GIROUX
9341
REGISTERED PROFESSIONAL ENGINEER
CIVIL

This plan set must not be used for construction purposes unless marked "Approved for Construction" and signed and dated by a Registered Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any others.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to location of existing utilities.

No.	Date	Description	By:
1	10-14-2021	Resubmission	MAH
2	01-12-2022	Resubmission	MAH
3	01-21-2022	RIDEM Response to Comments	MAH

Drawn By: MAH | Design By: MAH

Aerial & Half Mile Radius Sheet

Johnston Crossing

AP 94 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
Tel (401) 487-8800

SHEET 2 OF ~~21~~ 23

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General Notes:

1. THE SITE IS LOCATED ON THE CITY OF JOHNSTON ASSESSOR'S PLAT 54 LOTS 34 & 80.
2. THE SITE IS APPROXIMATELY 18.5± ACRES AND IS ZONED B–3.
3. THE OWNER OF AP 54 LOT 34 & 80 IS:
   SITWELL PARK LLC
   152 PRESIDENT AVE
   PROVIDENCE, RI 02906
4. THIS SITE IS LOCATED IN FEMA FLOOD ZONES X (UNSHADED) AND AE. REFERENCE FEMA FLOOD INSURANCE RATE MAP 44007C0284H, MAP REVISED OCTOBER 2, 2015. (FLOOD PLAIN DESCRIPTIONS SHOWN BELOW)

   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.
5. THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS THE RESULTS OF A CLASS I BOUNDARY RETRACEMENT SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES, INC. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY RETRACEMENT SURVEY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD SURVEY PLAN.
6. ALL WORK PERFORMED HEREIN IS TO BE GOVERNED BY CURRENT EDITIONS OF THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, TOWN OF JOHNSTON STANDARD SPECIFICATIONS AND DETAILS AND SPECIFICATIONS INCLUDED AS PART OF THE DRAWINGS. IN AREAS OF CONFLICT BETWEEN THE DIFFERENT SPECIFICATIONS, THE DESIGN PLANS AND PROJECT SPECIFICATIONS WILL TAKE PRECEDENCE OVER THE GENERAL SPECIFICATIONS AND THE DESIGN ENGINEER WILL INTERPRET THE CONSTRUCTION REQUIREMENT. THE CONTRACTOR IS ADVISED TO SUBMIT A REQUEST FOR INFORMATION (RFI) FOR ANY AREAS OF CONFLICT BEFORE COMMITTING TO CONSTRUCTION.
7. THE SITE IS WITHIN A:
   NON–COMMUNITY WELLHEAD PROTECTION AREA (RIDEM)
   NATURAL HERITAGE AREA (RIDEM)
8. 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
   - STORMWATER OPERATION AND MAINTENANCE PLAN (O&M). THE O&M CONTAINS:
     - LONG TERM MAINTENANCE
     - LONG TERM POLLUTION PREVENTION
9. 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.
10. THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
11. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF JOHNSTON SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS, CULVERTS, UNDERGROUND DRAINAGE BASINS, SAND FILTERS AND DETENTION PONDS. THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.
12. THE SITE IS PROPOSED TO BE BUILT IN MULTIPLE PHASES.
13. TEST HOLES SHOWN IN THIS PLAN SET COMPLETED BY DIPRETE ENGINEERING ON JULY 1, 2019. ADDITIONAL BORINGS, TEST PITS, AND SOIL EVALUATIONS, HAVE BEEN COMPLETED BY GZA AND ARE NOT SHOWN IN THIS PLAN SET.
14. WETLAND EDGES WERE PROVIDED BY GZA.
15. ANY PROPRIETARY PRODUCTS REFERENCED IN THIS PLAN SET ARE REPRESENTATIVE OF THE MINIMUM DESIGN REQUIREMENTS FOR THE PURPOSE IT PROPOSES TO SERVE. ALTERNATIVES TO ANY PROPRIETARY PRODUCT MAY BE SUBMITTED TO THE ENGINEER OF RECORD FOR CONSIDERATION, WHICH MUST BE ACCOMPANIED BY APPROPRIATE SPECIFICATION SHEETS/ DESIGN CALCULATIONS THAT DEMONSTRATE THE ALTERNATIVE(S) MEET THE MINIMUM DESIGN PARAMETERS OF THE PRODUCT SHOWN ON THE PLANS. NO ALTERNATIVES MAY BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
16. THIS PLAN SET MAY REFERENCE AND/ OR INCLUDE REPRODUCTIONS OF PROPRIETARY PRODUCTS/ DETAILS BY OTHERS, AND/ OR THEIR ASSOCIATED SPECIFICATIONS. ANY REFERENCED OR REPRODUCED PROPRIETARY PRODUCT OR DETAIL BY OTHERS THAT IS SHOWN ON DIPRETE PLANS IS STRICTLY FOR INFORMATION/ SPECIFICATION PURPOSES ONLY. DIPRETE ENGINEERING DOES NOT WARRANT ANY PROPRIETARY PRODUCTS, DETAILS BY OTHERS OR THEIR RESPECTIVE DESIGNS. IF A DIPRETE ENGINEERING PLAN INCLUDES A PROPRIETARY PRODUCT/ DETAIL BY OTHERS (EITHER EXPLICITLY OR IMPLIED) AND IS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND/OR REGISTERED LANDSCAPE ARCHITECT OF DIPRETE ENGINEERING, SAID STAMP DOES NOT EXTEND TO ANY PORTION OF THE PROPRIETARY PRODUCT/ DETAIL BY OTHERS OR ITS DESIGN.

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. CURBING TO BE GRANITE IN RIDOT RIGHT OF WAY, PRECAST CONCRETE, MONOLITHIC CONCRETE (ALONG SIDEWALKS AND BUILDINGS), AND BITUMINOUS BERM.
3. SIDEWALK TO BE CONCRETE.
4. 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 MUST REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
5. 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.
6. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION MUST BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
7. CONTRACTOR MUST NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS. CONTRACTOR MUST VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE STAMPED PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
8. ALL GUARDRAIL ONSITE MUST BE STEEL BACKED TIMBER GUARDRAIL WITH STEEL POSTS, IN CONFORMANCE WITH SECTION 5.4.1.7 OF THE AASHTO ROADSIDE DESIGN GUIDE. ALTERNATIVE GUARDRAILS WILL BE CONSIDERED BY THE DESIGN ENGINEER IF THEY ARE DOT APPROVED EQUAL AND ACCEPTABLE TO THE OWNER. ALTERNATIVES MUST BE APPROVED IN WRITING BY THE OWNER AND DESIGN ENGINEER PRIOR TO CONSTRUCTION.

Soil Erosion and Sedimentation Control Notes:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON SITE WHICH MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. ALL EROSION CONTROL INCLUDING (BUT NOT LIMITED TO) TEMPORARY SWALES, TEMPORARY SEDIMENT TRAPS, ETC. TO BE INSTALLED PER THE LATEST EDITION OF THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL (RISESC) HANDBOOK AND THE SOIL EROSION & SEDIMENTATION CONTROL PLAN(S). NOTE THE QUANTITY/ TYPE OF EROSION CONTROL DEVICES AND MATERIALS DEEMED REQUIRED BY DIPRETE ENGINEERING TO MEET THE OBJECTIVES OF THE RISESC HANDBOOK, BUT IS CONSIDERED A GUIDE ONLY. ADDITIONAL MEASURES/ ALTERNATE CONFIGURATIONS MAY BE REQUIRED IN ORDER TO MEET THE RISESC HANDBOOK BASED ON FACTORS INCLUDING (BUT NOT LIMITED TO) SITE PARAMETERS, WEATHER, INSPECTIONS AND UNIQUE FEATURES. THE SESC WILL CONTINUE TO EVOLVE THROUGHOUT CONSTRUCTION/PHASES. PURSUANT TO NOTE 1 ABOVE, SESC REMAINS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED AND/ OR SESC RESPONSIBILITIES ARE ASSUMED BY THE OWNER IN WRITING.
3. TEMPORARY SWALES ARE TO BE USED TO CONTROL RUNOFF DURING CONSTRUCTION OF THE PROPOSED SITE WORKS. TEMPORARY SWALES TO BE VEGETATED AFTER CONSTRUCTION. EROSION CONTROL MATS ARE TO BE INSTALLED, IF NECESSARY, TO PREVENT EROSION AND SUPPORT VEGETATION. AFTER CONSTRUCTION IS COMPLETE AND TRIBUTARY AREAS TO THE SWALES HAVE BEEN STABILIZED, THE TEMPORARY SWALES ARE TO BE CLEARED AND FINAL DESIGN, INCLUDING INSTALLATION OF THE GRASS SWALE TO BE PER THE DESIGN PLANS.
4. ONCE THE SEDIMENT TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE TEMPORARY SEDIMENTATION BASIN TO BE CLEANED AND BROUGHT TO FINAL DESIGN GRADES.
5. INLET PROTECTION IS TO BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED.
6. FOR SEQUENCE OF CONSTRUCTION, PROJECT PHASING AND CONSTRUCTION PHASING SEE SESC PLAN.
7. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER.
8. TEMPORARY SEDIMENT BASINS MUST BE DEWATERED USING A DEVICE THAT DISCHARGES WATER FROM THE TOP OF THE DEWATERING ZONE. A SKIMMER MUST BE PROVIDED FOR EACH TEMPORARY SEDIMENTATION BASIN SEE SEDIMENTATION BASIN DETAIL.
9. IF CONCRETE TRUCKS ARE WASHED OUT ON SITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.

Demolition Notes:

1. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR TO PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCE DURING DEMOLITION AND CONSTRUCTION TO MINIMIZE SEDIMENTS ON EXTERNAL STREETS.
3. ANY EXISTING BUILDING(S) AND PROPERTY PROPOSED TO REMAIN WHICH ARE DAMAGED BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS SPECIFIED OTHERWISE HERE IN. R&D MATERIALS MUST INCLUDE BUT ARE NOT LIMITED TO PAVEMENT, GRAVEL, CATCH BASINS, MANHOLES, GRATES/FRAMES/COVERS, AND ANY EXCESS SOIL THAT IS NOT INCORPORATED INTO THE WORK.
5. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, ALL DISTURBED AREAS INCLUDING THE CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF WORK MUST BE RESTORED TO MATCH THE DESIGN PLANS.
6. CONTRACTOR MUST DOCUMENT LOCATION OF ALL SUBSURFACE UTILITIES REMAINING IN PLACE AFTER DEMOLITION (ACTIVE AND INACTIVE/ABANDONED). LOCATION MUST BE DOCUMENTED BY FIELD SURVEY OR SWING TIES. COPIES OF LOCATION DOCUMENTATION MUST BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF DEMOLITION AND PRIOR TO START OF NEW CONSTRUCTION. A MARKER MUST BE INSTALLED TO FINISH GROUND AT ALL INSTALLED CAPS/PLUGS. THE MARKER CAN BE A POST IN CONSTRUCTION AREAS OR PAINTED ON A PERMANENT SURFACE.

Traffic Notes:

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

As-Built Notes:

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

RIDOT Notes:

1. ALL WORK TO BE DONE WITHIN THE STATE RIGHT OF WAY MUST CONFORM TO RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED MARCH 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE RHODE ISLAND STANDARD DETAILS DATED JUNE 21, 2019 WITH ALL REVISIONS.
2. ALL TRAFFIC CONTROL MUST CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, INCLUDING ALL REVISIONS.
3. NO LANE OR SHOULDER CLOSURES MUST BE PERFORMED WITHIN THE STATE'S RIGHT OF WAY DURING PEAK TRAFFIC HOURS.
4. SEWER AND WATER CONNECTIONS WITHIN THE STATE RIGHT OF WAY WILL REQUIRE A SEPARATE RIDOT UTILITY PERMIT. CONTRACTOR TO OBTAIN BEFORE CONSTRUCTION.
5. THE DRAINAGE SYSTEM IS DESIGNED TO DECREASE BOTH STORMWATER RUNOFF RATE DISCHARGE, AND STORMWATER RUNOFF VOLUME TO THE STATE RIGHT OF WAY FROM PRE–DEVELOPMENT TO POST–DEVELOPMENT TO THE MAXIMUM EXTENT PRACTICABLE. THERE WILL BE NO INCREASE IN RUNOFF TO THE STATE RIGHT OF WAY FROM THE PROPOSED DEVELOPMENT.
6. WORK WITHIN THE STATE'S ROW WILL CONFORM TO PROWAG. WORK ONSITE WILL CONFORM TO ADAAG UNLESS THE WORK IS IN STATE OWNED LAND.
7. THE RIDOT APPLICATION FOR THIS PROJECT IS NOT A SUBSTITUTE FOR THE UTILITY PERMIT, AND FURTHER, THE APPROVAL OF THE RIDOT APPLICATION FOR THIS PROJECT DOES NOT CONSTITUTE APPROVAL OF ANY UTILITY WORK, SHOWN OR UN–SHOWN, WITHIN THE STATE'S ROW.

Grading and Utility Notes:

1. CONSTRUCTION TO COMMENCE FALL 2021 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
2. THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS MUST BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUNDWATER ARE DIRECTED AWAY FROM THE STRUCTURE.
4. PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST 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. CONTRACTOR MUST NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
5. ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH OWNER, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
6. ALL RETAINING WALLS AND STEEP SLOPES ARE SUBJECT TO FINAL STRUCTURAL DESIGN. DIPRETE ENGINEERING IS NOT PROVIDING THE STRUCTURAL DESIGN OF THESE ITEMS. ALL WALLS AND STEEP SLOPES ARE TO BE DESIGNED AND BUILT UNDER THE DIRECTION OF A RHODE ISLAND LICENSED PROFESSIONAL ENGINEER SUITABLY QUALIFIED IN GEOTECHNICAL ENGINEERING AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS TO BE SUBMITTED PRIOR TO CONSTRUCTION. FINAL STRUCTURAL DRAWINGS TO BE SUBMITTED INTENT OF THE GRADING SHOWN ON THESE PLANS AND ALL WORK MUST BE WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE PLANS.
7. ALL CUT AND FILL AREAS ARE TO BE DONE UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER WITH TESTING AND CERTIFICATION TO BE PROVIDED TO THE APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.
8. NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
9. ALL LOAM IN DISTURBED AREAS TO BE STOCKPILED FOR FUTURE USE. ALL STOCKPILED LOAM MUST BE RESUED ONSITE.
10. ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, MUST BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION. STUMPS MUST BE GROUND ON SITE OR REMOVED.
11. THE SITE WILL HAVE 3" BITUMINOUS BERM AND 6" CONCRETE CURBING. SITE GRADING/CONTOURS SHOWN ON THE PLANS DO NOT NECESSARILY REFLECT THE APPROPRIATE BERM/CURBING REVEAL. CONTRACTOR TO INSTALL CURBING WITH APPROPRIATE REVEAL UNLESS OTHERWISE NOTED.
12. NO STUMP DUMPS ARE PROPOSED ON SITE.

DRAINAGE

ALL DRAINAGE PIPING TO BE HIGH–DENSITY POLYETHYLENE (HDPE) WITH WATERTIGHT JOINTS WHERE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER, UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL STORMWATER PIPE WITHIN THE STATE'S RIGHT OF WAY TO BE REINFORCED CONCRETE PIPE (RCP) PIPE.

DRAINAGE STRUCTURES TO BE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS):
- CATCH BASINS ALONG CURBING TO BE RIDOT STD. 4.4.0, TYPE F FRAME, 4' DIAMETER WITH APRON STONE.
- CATCH BASINS NOT ALONG CURBING TO BE RIDOT STD 4.4.0, 4' DIAMETER
- CATCH BASINS TO HAVE 3' SUMPS WITHOUT WEEPHOLES.
- SINGLE FRAME CATCHBASIN GRATES TO BE RIDOT STD. 6.3.2
- DOUBLE FRAME CATCHBASIN GRATES TO BE RIDOT STD. 6.3.2
- HIGH CAPACITY CATCHBASIN GRATES TO BE RIDOT STD 6.3.4 AND INSTALLED ANYWHERE GRADES ARE 6% AND STEEPER
- MANHOLES TO BE RIDOT STD. 4.2.0, 4.2.1 OR 4.2.2 AS REQUIRED
- DRAINAGE MANHOLE COVERS TO BE RIDOT STD 6.2.1
- DROP INLETS TO BE RIDOT STD. 4.5.0, 4.5.1 OR 4.5.2.
- APRON STONE, WHERE REQUIRED, TO BE RIDOT STD 7.1.7 OR 7.1.8.
- HEADWALLS TO BE RIDOT STD 2.1.0.

ALL DRAINAGE STRUCTURES MUST BE WATERTIGHT.

DRAINAGE CONNECTIONS FROM ALL YARD DRAINS (YD), AREA DRAINS (AD), TRENCH DRAINS (TD), FRENCH DRAINS (FD), WALL DRAINS (WD), AND DOWNSPOUTS (DS) ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. THE LEVEL OF DETAIL SHOWN DOES NOT INCLUDE ALL JOINTS THAT MAY BE REQUIRED FOR CONSTRUCTION. ALL FITTINGS & PIPE SLOPES TO TIE INTO MAIN TRUNK LINE TO BE FIELD FIT BY CONTRACTOR.

STORMCEPTOR UNITS BY CONTECH ENGINEERED SOLUTIONS TO BE THE FOLLOWING UNITS. UNIT SIZING CAN BE INCREASED TO THE NEXT AVAILABLE SIZE IF THESE ARE NOT AVAILABLE.

STRUCTURE A18 – STC4800, STRUCTURE B13 – STC7200, STRUCTURE F9 – STC4800, STRUCTURE G8 – STC2400, STRUCTURE H6 – STC1200, STRUCTURE I7 – 450i.

SANITARY SEWER

ALL SANITARY SEWER PIPING TO BE SDR 35 UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL SEWER IMPROVEMENTS MUST COMPLY WITH THE NARRAGANSETT BAY COMMISSION RULES AND REGULATIONS AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR APPROVAL BY ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

WATER

ALL WATER MAINS TO BE CONCRETE LINED DUCTILE IRON PIPE (CLDIP). ALL WATER MAIN IMPROVEMENTS MUST COMPLY WITH THE JOHNSTON WATER CONTROL FACILITY AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SUBMITTALS TO THE ENGINEER OF RECORD FOR APPROVAL FOR ALL WATER IMPROVEMENTS AND APPURTENANCES INCLUDING BUT NOT LIMITED TO PIPES, VALVES, FITTINGS, HEAT ENCLOSURES, AND BACKFLOWS. ALL COMPONENTS OF THE WATER SYSTEM TO BE ASBUILT PER JOHNSTON WATER CONTROL FACILITY REQUIREMENTS. ALL COMPONENTS OF THE WATER SYSTEM TO BE INSPECTED BY JOHNSTON WATER CONTROL FACILITY. CONTRACTOR TO COORDINATE ALL IMPROVEMENTS WITH JOHNSTON WATER CONTROL FACILITY TO ENSURE INSPECTOR IS ON SITE.

IN THE CASE OF ANY NEW HYDRANT INSTALLED IN OR NEXT TO AN EXISTING SIDEWALK, THE CONTRACTOR MUST INCREASE THE WIDTH OF THE SIDEWALK, AS NECESSARY, TO MAINTAIN A MINIMUM OF 3'–0" CLEAR WIDTH FROM THE OUTERMOST COMPONENTS OF THE HYDRANT TO THE EDGE OF THE SIDEWALK. THE 3'–0" SIDEWALK WIDTH IS REQUIRED ONLY ON ONE SIDE OF THE HYDRANT TO PROVIDE A CLEAR PATH ON THE SIDEWALK.

WATER IS SHOWN SCHEMATICALLY ON PLANS AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN.

ELECTRIC/TELECOM/GAS

PROPOSED GAS, ELECTRIC, CABLE AND DATA UTILITIES ARE SHOWN SCHEMATICALLY AND ARE PROPOSED TO BE UNDERGROUND. OWNER & CONTRACTOR TO COORDINATE FINAL DESIGN WITH APPROPRIATE UTILITY COMPANIES. ALL WORK TO BE IN ACCORDANCE WITH EACH UTILITY COMPANY'S STANDARDS AND DETAILS AS WELL AS LOCAL AND FEDERAL REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO, POLES, TRANSFORMERS, PULL BOXES, CONCRETE PADS, CONCRETE ENCASEMENTS AND CONDUITS. CONNECTION POINTS SHOWN AS UNDERGROUND UTILITIES. THESE UTILITIES MAY BE UNDERGROUND OR OVERHEAD FOR ELECTRIC AND TELECOM UTILITIES, AT THE EXISTING INFRASTRUCTURE, ARE CURRENTLY AND WILL BE COORDINATED WITH NATIONAL GRID PRIOR TO CONSTRUCTION.

SITE LIGHTING

SITE LIGHTING (TEMPORARY AND PERMANENT) MUST BE DIRECTED AWAY FROM AND SHIELDED FROM ENVIRONMENTALLY SENSITIVE AREAS AND ABUTTING LANDS. EXACT LOCATIONS OF LIGHT POLE TO BE COORDINATED WITH OTHER UTILITIES AND TO BE LOCATED WITHIN THE STREET RIGHTS OF WAY. FINAL LIGHTING AND CONDUIT LOCATIONS BY OTHERS.

Abbreviations Legend

ADA	AMERICANS WITH DISABILITY ACT
AHJ	AUTHORITY HAVING JURISDICTION
AP	ASSESSOR'S PLAT
BC	BOTTOM OF CURB
BT	BOTTOM OF TESTHOLE
BIT	BITUMINOUS (BERM)
BIO	BIORETENTION
BS	BASEMENT SLAB ELEVATION
BW	FINISHED GRADE AT BOTTOM OF WALL
CB	CATCH BASIN
(C)	CALCULATED
℄	CENTERLINE
(CA)	CHORD ANGLE
CLDIP	CONCRETE LINED DUCTILE IRON PIPE
CO	CLEAN OUT
CONC	CONCRETE
(D)	DEED
DCB	DOUBLE CATCH BASIN
DI	DROP INLET
DMH	DRAINAGE MANHOLE
DP	DETENTION POND
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
ESC	EROSION AND SEDIMENT CONTROL
EX	EXISTING
FES	FLARED END SECTION
FFE	FINISH FLOOR ELEVATION
GS	GARAGE SLAB ELEVATION
GWT	GROUND WATER TABLE
HW	HEADWALL
HC	HIGH CAPACITY CATCH BASIN GRATE
HDPE	HIGH DENSITY POLYETHYLENE
ID	INLINE DRAIN
INV	INVERT
IP	INFILTRATION POND
LF	LINEAR FEET
LOD	LIMIT OF DISTURBANCE
LP	LIGHT POLE
(M)	MEASURED
N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRE
PE	POLYETHYLENE
ℙ	PROPERTY LINE
PR	PROPOSED
PVC	POLYVINYL CHLORIDE
R	RADIUS
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RIHB	RHODE ISLAND HIGHWAY BOUND
RL	ROOF LEADER
ROW	RIGHT–OF–WAY
S	SLOPE
SD	SUBDRAIN
SED	SEDIMENT FOREBAY
SF	SQUARE FOOT
SFL	STATE FREEWAY LINE
SFM	SEWER FORCE MAIN
SG	SLAB ON GRADE ELEVATION
SHL	STATE HIGHWAY LINE
SMH	SEWER MANHOLE
SNDF	SAND FILTER
SS	SIDE SLOPE
STA	STATION
TC	TOP OF CURB
TD	TRENCH DRAIN
TF	TOP OF FOUNDATION
TRANS	TRANSITION
TW	TOP OF WALL (FINISHED GRADE AT TOP OF WALL)
TYP	TYPICAL
UDS	UNDERGROUND DETENTION SYSTEM
UIS	UNDERGROUND INFILTRATION SYSTEM
UP	UTILITY POLE
WO	WALKOUT ELEVATION
WQ	WATER QUALITY

Soil Information:

(REFERENCE: SOIL MAPPING OBTAINED FROM RIGIS. SOIL GEOGRAPHIC DATA DEVELOPED BY THE RHODE ISLAND SOIL SURVEY PROGRAM IN PARTNERSHIP WITH THE NATIONAL COOPERATIVE SOIL SURVEY)

SOIL NAME	DESCRIPTION
CaD	CANTON–CHARLTON–ROCK OUTCROP COMPLEX, 15 TO 35 PERCENT SLOPES
CeC	CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3 TO 15 PERCENT SLOPES
CkC	CANTON AND CHARLTON EXTREMELY STONY FINE SANDY LOAMS, 3 TO 15 PERCENT SLOPES
Du	DUMPS
Rf	RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY LOAMS
SvB	SUTTON EXTREMELY STONY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
UD	UDORTHENTS–URBAN LAND COMPLEX

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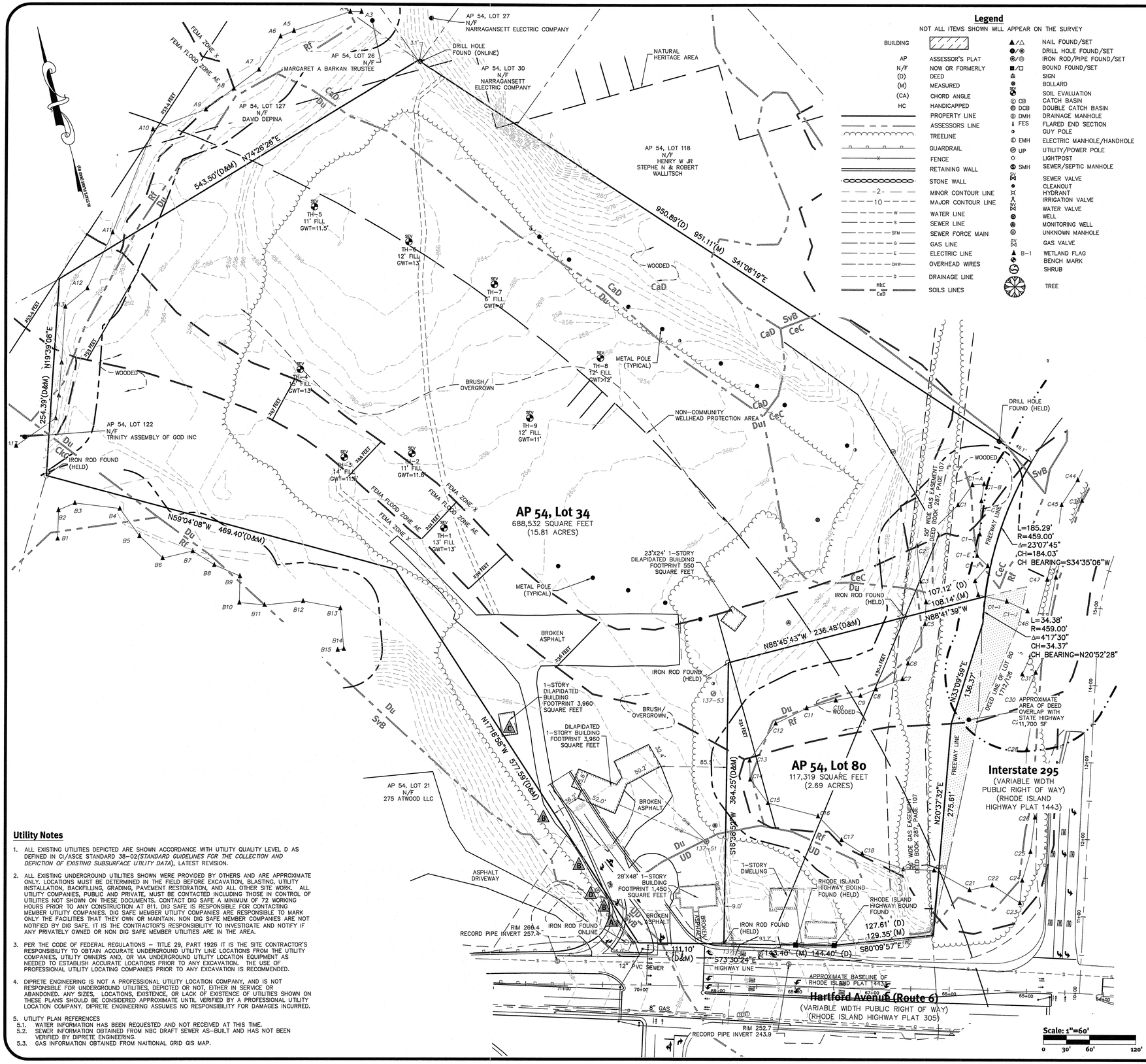
Site Callouts Legend

- 7.1.0 RIDOT STD PRECAST CONCRETE CURB
- 7.2.0 RIDOT STD PRECAST CONCRETE SLOPE FACED CURB
- 7.3.0 RIDOT STD GRANITE CURB
- 7.3.1 RIDOT STD 3" GRANITE TRANSITION CURB
- 7.3.8 RIDOT STD GRANITE APRON STONE
- 7.5.1 RIDOT STD BITUMINOUS ASPHALT BERM
- 7.6.0 RIDOT STD CURB SETTING DETAIL
- 20.1.0 PAVEMENT MARKINGS ARROWS AND ONLY
- RPM RAISED PAVEMENT MARKERS
- 4DY 4" EPOXY RESIN PAVEMENT MARKINGS– DOUBLE YELLOW
- 4W 4" PAINTED WHITE MARKINGS
- 4W45 4" WHITE STRIPING 2' ON CENTER AT 45°
- 6WS 6" WHITE EPOXY RESIN PAVEMENT MARKINGS–SKIP PATTERN
- 6W 6" WHITE EPOXY RESIN PAVEMENT MARKINGS
- 12W STOP LINE (REFERENCE MUTCD SECTION 3B.16)
- ADAS ADA SPACE PAVEMENT MARKINGS MUST COMPLY WITH ALL ADA AND MUTCD REGULATIONS AND REQUIREMENTS.
- ADAR ADA CURB RAMP MUST COMPLY WITH ALL ADA REGULATIONS AND REQUIREMENTS.
- ADAV VAN ADA SPACE PAVEMENT MARKINGS MUST COMPLY WITH ALL ADA AND MUTCD REGULATIONS AND REQUIREMENTS.
- CWK CROSSWALK PAVEMENT MARKINGS. SOLID 2' WHITE LINES SPACED 4' OC (REFERENCE MUTCD SECTION 3B.18)
- YL YIELD LINE (REFERENCE MUTCD SECTION 3B.16)
- LS LOAM AND SEED

Existing Legend

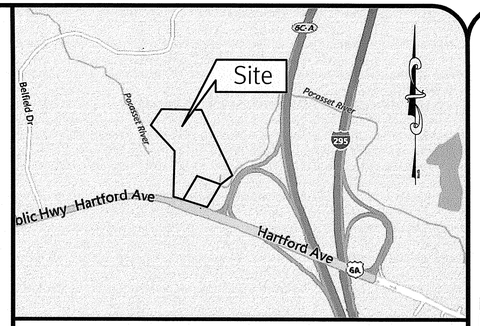
(AS SHOWN ON PROPOSED PLANS)
NOT ALL ITE



Legend

NOT ALL ITEMS SHOWN WILL APPEAR ON THE SURVEY

BUILDING		▲/△	NAIL FOUND/SET
AP	ASSESSOR'S PLAT	●/◉	DRILL HOLE FOUND/SET
N/F	NOW OR FORMERLY	⊙/◎	IRON ROD/PIPE FOUND/SET
(D)	DEED	■/□	BOUND FOUND/SET
(M)	MEASURED		SIGN
(CA)	CHORD ANGLE		BOLLARD
HC	HANDICAPPED		SOIL EVALUATION
	PROPERTY LINE	CB	CATCH BASIN
	ASSESSORS LINE	DCB	DOUBLE CATCH BASIN
	TREELINE	DMH	DRAINAGE MANHOLE
	GUARDRAIL	FES	FLARED END SECTION
	FENCE		GUY POLE
	RETAINING WALL	EMH	ELECTRIC MANHOLE/HANDHOLE
	STONE WALL	UP	UTILITY/POWER POLE
-2-	MINOR CONTOUR LINE		LIGHTPOST
10	MAJOR CONTOUR LINE	SMH	SEWER/SEPTIC MANHOLE
W	WATER LINE		SEWER VALVE
S	SEWER LINE		CLEANOUT
SFM	SEWER FORCE MAIN		HYDRANT
G	GAS LINE		IRRIGATION VALVE
E	ELECTRIC LINE		WATER VALVE
OHW	OVERHEAD WIRES		WELL
D	DRAINAGE LINE		MONITORING WELL
HkC CaD	SOILS LINES		UNKNOWN MANHOLE
		GV	GAS VALVE
		B-1	WETLAND FLAG
			BENCH MARK
			SHRUB
			TREE



Locus Map Not To Scale

General Notes

1. THE PARCEL IS FOUND ON ASSESSOR'S PLAT 54, LOTS 34 & 80 IN THE TOWN OF JOHNSTON, PROVIDENCE COUNTY, RHODE ISLAND.
2. THE OWNER OF LOT 34 PER DEED BOOK 2482, PAGE 32 IS SITWELL PARK, LLC
2. THE OWNER OF LOT 80 PER DEED BOOK 1712, PAGE 126 IS SITWELL PARK, LLC.
3. BASED ON GRAPHICAL PLOTTING ONLY, THE PARCEL IS LOCATED IN AE (253-231), AE AND X PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 44007C0284H, DATED OCTOBER 2, 2015. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD STUDY.
4. THE PARCEL IS ZONED B3 BASED ON TOWN OF JOHNSTON GIS MAP. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
5. THERE WERE NO CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
6. FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING IN JUNE 2019. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE. TOPOGRAPHIC SURVEY UPDATED OCTOBER 2020.
7. SUBJECT TO ELECTRICAL EASEMENT DEED BOOK 541, PAGE 218

Plan References:

1. RHODE ISLAND HIGHWAY PLAT 1443
2. RHODE ISLAND HIGHWAY PLAT 305

BOUNDARY SURVEY PLAN AP 54, LOT 34. PLAN BY FOSTER SURVEY. DATED JULY 20, 2005 UNRECORDED.

Datum Note:

1. ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS.

List of Possible Encroachments:

A. CONCRETE WALL OVER PROPERTY LINE

B. EDGE OF PAVEMENT OVER PROPERTY LINE

C. BUILDING OVER PROPERTY LINE

D. UTILITY OVER PROPERTY LINE

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wencek

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

Utility Notes

1. ALL EXISTING UTILITIES DEPICTED ARE SHOWN ACCORDANCE WITH UTILITY QUALITY LEVEL D AS DEFINED IN CI/ASCE STANDARD 38-02*(STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA)*, LATEST REVISION.
2. ALL EXISTING UNDERGROUND UTILITIES SHOWN WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY. LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATION, BLASTING, UTILITY INSTALLATION, BACKFILLING, GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DOCUMENTS. CONTACT DIG SAFE A MINIMUM OF 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 811. DIG SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DIG SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DIG SAFE MEMBER COMPANIES ARE NOT NOTIFIED BY DIG SAFE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DIG SAFE MEMBER UTILITIES ARE IN THE AREA.
3. PER THE CODE OF FEDERAL REGULATIONS – TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY COMPANIES, UTILITY OWNERS AND, OR VIA UNDERGROUND UTILITY LOCATION EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS RECOMMENDED.
4. DIPRETE ENGINEERING IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED. ANY SIZES, LOCATIONS, EXISTENCE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE UNTIL VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.
5. UTILITY PLAN REFERENCES
   - 5.1. WATER INFORMATION HAS BEEN REQUESTED AND NOT RECEIVED AT THIS TIME.
   - 5.2. SEWER INFORMATION OBTAINED FROM NBC DRAFT SEWER AS-BUILT AND HAS NOT BEEN VERIFIED BY DIPRETE ENGINEERING.
   - 5.3. GAS INFORMATION OBTAINED FROM NATIONAL GRID GIS MAP.

Certification

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY	MEASUREMENT SPECIFICATION
COMPREHENSIVE BOUNDARY SURVEY	CLASS I
DATA ACCUMULATION SURVEY	CLASS III
TOPOGRAPHIC SURVEY	CLASS T-2

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS: PERIMETER RETRACEMENT PERFORMED BY DIPRETE ENGINEERING FOR THE PURPOSE OF SITE ENGINEERING AND PERMITTING.

ROBERT G. BABCOCK
No. 2504
PROFESSIONAL LAND SURVEYOR

11/19/20
ROBERT G. BABCOCK, RIPLS #2504, COA #LS.000A160

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

BRIAN C. GIROUX
No. 9341
REGISTERED PROFESSIONAL ENGINEER
CIVIL

This plan set must not be used for construction purposes unless stamped 'Issued for Construction' and stamped by a registered Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering letterhead. DiPrete Engineering assumes no responsibility for any revisions, additions and/or deletions to these plans by any other party.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the performance of the work.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to locations of existing utilities.

No.	Description	Date	Drawn By: MAH
1	90-Day Permit Submission	03-26-2020	Design By: MAH
2	RIDEM Response to Comments	03-12-2021	MAH
3	RIDEM Response to Comments	10-12-2021	MAH
4	RIDEM Response to Comments	01-26-2022	MAH

Existing Conditions Plan

Johnston Crossing

AP 54 Lots 34 and 80
Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 467-9804

SHEET 4 OF 23 ~~21~~

DE Job No: 2739-001 Copyright 2021 by DiPrete Engineering Associates, Inc.

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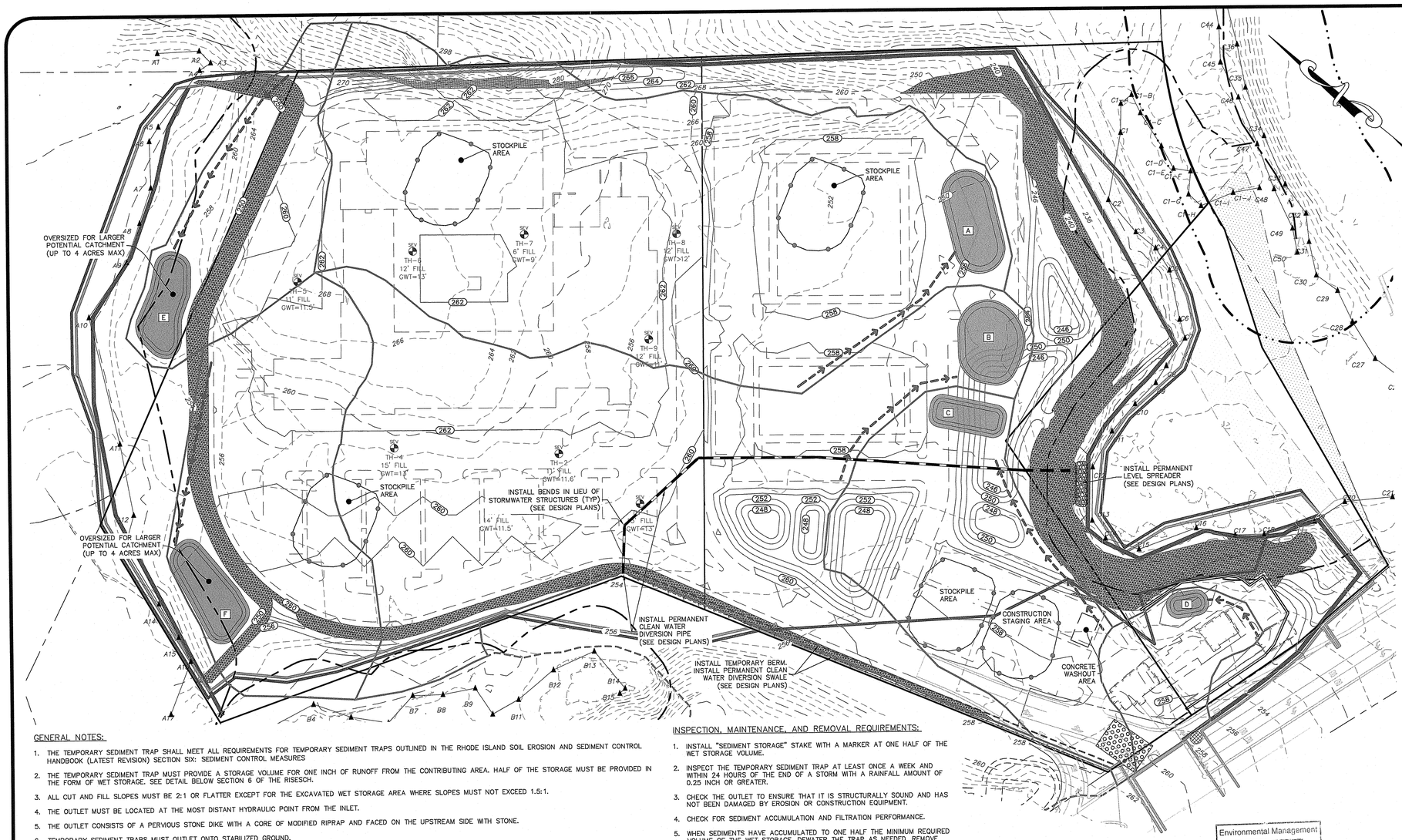

Soil Erosion Control Legend:

- DIVERSION RUNOFF CONVEYANCE MEASURE (SWALE AND/OR BERM)
- TEMPORARY SEDIMENT TRAP (A)
- EROSION CONTROL (COMPOST SOCK, SILT FENCE (RI STD 9.2.0) OR APPROVED EQUAL)
- CLASS C SILT FENCE
- LIMIT OF DISTURBANCE (REMEDIAL WORK)
- LIMIT OF DISTURBANCE (SITE DEVELOPMENT WORK)
- TRIBUTARY AREA TO SESC BMP
- CONSTRUCTION ENTRANCE (RIDOT STD 9.9.0)
- FINAL CONTOUR GRADE (308)
- INLET SEDIMENT CONTROL

General Notes:

1. SEE SOIL EROSION AND SEDIMENTATION CONTROL NOTES ON SHEET 3.
2. THESE PLANS MUST BE READ IN CONJUNCTION WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN BY DIPRETE ENGINEERING (CURRENT EDITION).
3. ANY CONSTRUCTION WASTE/ DEBRIS ENCOUNTERED DURING SEDIMENT TRAP EXCAVATION IS TO BE REMOVED FROM THE TRAP AREA IN ACCORDANCE WITH THE SEDIMENT TRAP 'INSTALLATION NOTES' ON THIS SHEET, AND A SUITABLE SOIL/ FOUNDATION MUST BE INSTALLED TO SATISFY THE PURPOSES OF A TEMPORARY SEDIMENT TRAP. ON SITE MATERIAL MAY BE USED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
4. TEMPORARY SEDIMENT TRAPS MAY NEED TO BE RELOCATED AND/ OR REINSTALLED, AS FILL IS PLACED THROUGHOUT THE DURATION OF THE EARTHWORKS OPERATION, USING THE FOLLOWING PROTOCOL:
   - 4.1. INSTALL INITIAL SEDIMENT TRAP(S).
   - 4.2. OPERATE AND MAINTAIN SEDIMENT TRAP(S) PER THE 'INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS' AS SHOWN ON THIS SHEET.
   - 4.3. AS FILL IS PLACED THROUGHOUT THE EARTHWORKS OPERATION, BUT BEFORE THE INITIAL SEDIMENT TRAPS BECOME REDUNDANT, EXTEND INITIAL/ INSTALL NEW SEDIMENT TRAPS IN SUITABLE LOCATION(S) AS DRIVEN BY THE EARTHWORKS OPERATION.
   - 4.4. BEFORE ANY SEDIMENT TRAP IS REMOVED/ DECOMMISSIONED, CLEAN OUT SEDIMENT TRAP PER THE 'INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS' GUIDANCE AS SHOWN ON THIS SHEET.
   - 4.5. BACKFILL USING COMPACTION AND FILL MATERIALS IN ACCORDANCE WITH THE GENERAL EARTHWORKS SPECIFICATION (BY OTHERS).
   - 4.6. REPEAT PROTOCOL AS NECESSARY UNTIL THE EARTHWORKS OPERATIONS ARE COMPLETE/ THE SITE IS SUITABLY STABILIZED.

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

Environmental Management
JAN 24 2022
Office of Water Resources

GENERAL NOTES:

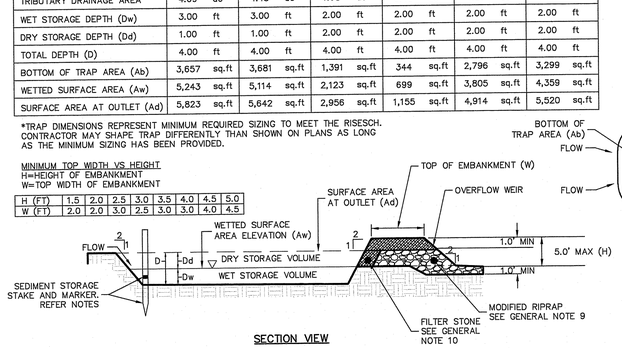
1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP MUST PROVIDE A STORAGE VOLUME FOR ONE INCH OF RUNOFF FROM THE CONTRIBUTING AREA. HALF OF THE STORAGE MUST BE PROVIDED IN THE FORM OF WET STORAGE. SEE DETAIL BELOW SECTION 6 OF THE RISESCH.
3. ALL CUT AND FILL SLOPES MUST BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES MUST NOT EXCEED 1.5:1.
4. THE OUTLET MUST 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 (BOTTOM OF DRY STORAGE TO TOP OF EMBANKMENT). TOTAL EMBANKMENT HEIGHT MUST NOT EXCEED 6 FEET (BOTTOM OF WET STORAGE TO TOP OF EMBANKMENT).
8. SIDE SLOPES OF THE EMBANKMENT MUST 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.

SEDIMENT TRAP DIMENSIONS*	TRAP A	TRAP B	TRAP C	TRAP D	TRAP E	TRAP F
TRIBUTARY DRAINAGE AREA	4.69 ac	4.43 ac	1.68 ac	0.48 ac	1.01 ac	1.77 ac
WET STORAGE DEPTH (Dw)	3.00 ft	3.00 ft	2.00 ft	2.00 ft	2.00 ft	2.00 ft
DRY STORAGE DEPTH (Dd)	1.00 ft	1.00 ft	2.00 ft	2.00 ft	2.00 ft	2.00 ft
TOTAL DEPTH (D)	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft
BOTTOM OF TRAP AREA (Ab)	3,657 sq.ft	3,681 sq.ft	1,391 sq.ft	344 sq.ft	2,796 sq.ft	3,299 sq.ft
WETTED SURFACE AREA (Aw)	5,243 sq.ft	5,114 sq.ft	2,123 sq.ft	699 sq.ft	3,805 sq.ft	4,359 sq.ft
SURFACE AREA AT OUTLET (Ad)	5,823 sq.ft	5,642 sq.ft	2,956 sq.ft	1,155 sq.ft	4,914 sq.ft	5,520 sq.ft

*TRAP DIMENSIONS REPRESENT MINIMUM REQUIRED SIZING TO MEET THE RISESCH. CONTRACTOR MAY SHAPE TRAP DIFFERENTLY THAN SHOWN ON PLANS AS LONG AS THE MINIMUM SIZING HAS BEEN PROVIDED.

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

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



Temporary Sediment Trap Detail
NOT TO SCALE

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 AS DESIGNATED BY THE GEOTECHNICAL ENGINEER.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

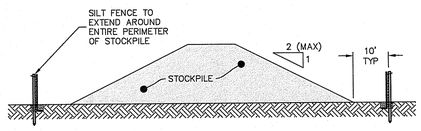
INSTALLATION NOTES:

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

GENERIC SEDIMENT TRAP SIZING

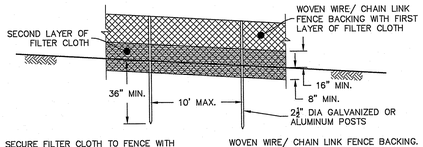
SEDIMENT TRAP TRIBUTARY AREA	≤1.0 ACRE	≤2.5 ACRES	≤5.0 ACRES
TRIBUTARY DRAINAGE AREA	1.00 ac	2.50 ac	5.00 ac
WET STORAGE DEPTH (Dw)	2.0 ft	2.0 ft	2.0 ft
DRY STORAGE DEPTH (Dd)	2.0 ft	2.0 ft	2.0 ft
TOTAL DEPTH (D)	4.0 ft	4.0 ft	4.0 ft
BOTTOM OF TRAP AREA (Ab)	600 sq.ft	1,500 sq.ft	3,000 sq.ft
WETTED SURFACE AREA (Aw)	1,224 sq.ft	2,844 sq.ft	5,544 sq.ft
SURFACE AREA AT OUTLET (Ad)	1,976 sq.ft	4,316 sq.ft	8,216 sq.ft

*TRAP DIMENSIONS REPRESENT MINIMUM REQUIRED SIZING TO MEET THE RISESCH. CONTRACTOR MAY SHAPE TRAP DIFFERENTLY THAN SHOWN ON PLANS AS LONG AS THE MINIMUM SIZING HAS BEEN PROVIDED.



NOTES:
1. ALL STOCKPILES MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 3 "STOCKPILE AND STAGING AREA MANAGEMENT" OF THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HAND BOOK (CURRENT EDITION).
2. DIVERT ALL STORMWATER AWAY FROM STOCKPILES.
3. SOIL STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE WITH SEED MIX COMPATIBLE WITH THE SOIL TYPE.
4. STOCKPILE AND SILT FENCE MUST BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF ½" OF RAINFALL. REPAIR/ REPLACE SILT FENCE (AND STOCKPILE COVERS WHERE APPLICABLE) AS NEEDED TO KEEP THEM FUNCTIONING ADEQUATELY.
5. SEDIMENT TRAPPED BY SILT FENCES MUST BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.

Stockpile Protection
NOT TO SCALE



NOTES:
1. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY MUST BE OVERLAPPED BY A MINIMUM OF 6" AND FOLDED.
2. FILTER CLOTH TO BE MIRAFI 100 OR APPROVED EQUAL

Class C Silt Fence
NOT TO SCALE

Note: This Plan Must Be Reproduced In Color

Scale: 1"=60'
0 30' 60' 120'

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

BRIAN C. GIROUX
No. 9341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/21/2022

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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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages caused due to locations of existing utilities.

No.	Date	Description	Drawn By: MAH	Design By: MAH
2	01-21-2022	RIDEM Response to Comments	MAH	
1	12-23-2021	RIDEM Response to Comments	MAH	
0	11-24-2020	Regulatory Permit Submission	MAH	

SESC Plan
Johnston Crossing
AP 54, Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
153 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

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SHEET 5 OF ~~21~~ 23

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Development Data:

TOTAL SITE AREA:	18.50± ACRES
TOTAL NUMBER OF BUILDINGS:	5

Dimensional Regulations:

CURRENT ZONING:	B3 (WITH B2 SETBACKS)	
	REQUIRED	PROVIDED
MINIMUM LOT AREA:	40,000 SF	805,851 SF
MINIMUM DISTANCE FROM RESIDENTIAL ZONE:	50'	70'
MINIMUM FRONTAGE AND LOT WIDTH:	50'	383'
MINIMUM FRONT AND CORNER SIDE YARD:	40'	40'
MINIMUM SIDE YARD:	40'	102'
MINIMUM REAR YARD:	40'	70'
MAXIMUM STRUCTURE HEIGHT:	80'	35'
MAXIMUM LOT COVERAGE:	40%	16.4%

Parking Regulations:

PARKING USE:	BUILDING 1 – RESTAURANT WITH POSSIBLE DRIVE THROUGH
PARKING REQUIREMENT:	ONE SPACE FOR EVERY FOUR SEATS
PARKING CALCULATION:	48 SEATS / 4 = 12 SPACES
PARKING PROVIDED:	12 SPACES (1 ADA)
PARKING USE:	BUILDING 2 – RETAIL
PARKING REQUIREMENT:	THREE SPACES PER 1,000 SF MAXIMUM OF FOUR SPACES PER 1,000 SF
PARKING CALCULATION:	(8,000 SF / 1,000 SF) X 3 = 24 MAXIMUM (8,000 / 1,000) X 4 = 32 SPACES
PARKING PROVIDED:	32 SPACES (2 ADA)
PARKING USE:	BUILDING 3 – RETAIL
PARKING REQUIREMENT:	THREE SPACES PER 1,000 SF MAXIMUM OF FOUR SPACES PER 1,000 SF
PARKING CALCULATION:	(12,000 SF / 1,000 SF) X 3 = 36 MAXIMUM (12,000 / 1,000) X 4 = 48 SPACES
PARKING PROVIDED:	38 SPACES (2 ADA)
PARKING USE:	BUILDING 4 – OFFICE
PARKING REQUIREMENT:	ONE SPACE FOR EVERY 300 SF OF LEASABLE AREA
PARKING CALCULATION:	60,000 SF / 300 = 200
PARKING PROVIDED:	203 SPACES (10 ADA)
PARKING USE:	BUILDING 5 – CONTINUING CARE RETIREMENT COMMUNITY*
PARKING REQUIREMENT:	1 SPACE PER BED + 10%
BEDS PROPOSED:	50 BEDS
BEDS PROPOSED (FUTURE ADDITION):	22 BEDS
PARKING CALCULATION:	72/3 + 10% = 28 SPACES
TOTAL PARKING SPACES PROVIDED:	160 SPACES (50% TO BE STAFF USE)
ADA PARKING INCLUDED IN TOTAL SPACES:	32 SPACES
TOTAL REQUIRED PARKING SPACES:	300 SPACES
TOTAL PROVIDED PARKING SPACES:	445 SPACES (47 ADA)

*ALTHOUGH CONTINUING CARE RETIREMENT COMMUNITY DOES NOT COVER A REHAB HOSPITAL, THIS IS THE MOST APPLICABLE USE PRESENTED IN TABLE 340-29 OF THE TOWN OF JOHNSTON ZONING REGULATIONS.

Approvals Received to Date:

TOWN OF JOHNSTON MASTER PLAN APPROVAL – APRIL 3, 2020.
TOWN OF JOHNSTON PRELIMINARY PLAN APPROVAL – FEBRUARY 11, 2021

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

Environmental Management
JAN 24 2022
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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D Venneck

Underground Sand Filter I
5' LANDSCAPE SETBACK
PROPOSED FUTURE ACCESS ROAD TO AP 54 LOTS 31 AND 118
30' WIDE ACCESS EASEMENT TO ABUTTING PROPERTY
NEW PROPERTY LINE
40' REAR YARD SETBACK
50' SETBACK FROM RESIDENTIAL ZONE
Underground Sand Filter H
Future Building Addition 18,000± SF
New Lot A 8.27± ACRES
Building 5 53,675 SF
Building 4 20,000± SF
Building 3 7,000± SF
New Lot B 10.23± ACRES
Sand Filter B
Detention Pond D
Tennessee Gas Easement
Underground Sand Filter G
Underground Sand Filter F
FEMA ZONE X
FEMA FLOOD ZONE AE
Site AP 54 LOT 34 15.81± ACRES
40' SIDE YARD SETBACK
Site AP 54 LOT 80 2.69± ACRES
Sand Filter C
Underground Sand Filter and Detention System A
Building 2 8,000± SF
Building 1 10,000± SF
40' FRONT YARD SETBACK
S.F.L. PLAT NO. 144SA
STATE HIGHWAY LINE
Sand Filter E
Sediment Forebay E
Detention Pond E
30' WIDE ACCESS EASEMENT TO ABUTTING PROPERTY
50' SETBACK TO RESIDENTIAL ZONE
5' LANDSCAPE SETBACK
NEW S.H.L. PLAT NO. 2998
Hartford Avenue (Route 6) (VARIABLE WIDTH PUBLIC RIGHT OF WAY) (RHODE ISLAND HIGHWAY PLAT 305)
SITE ENTRANCE DESIGN AND OFFSITE WORK, INCLUDING BUT NOT LIMITED TO PAVEMENT STRUCTURE, STRIPING AND CURBING BY OTHERS. REFER TO PLANS ENTITLED "HIGHWAY SAFETY IMPROVEMENTS TO HARTFORD AVENUE (ROUTE 6)" BY BETA
S.H.L. PLAT NO. 305
S.H.L. PLAT NO. 144SA TO BE DISCONTINUED
S.F.L. PLAT NO. 144SA
Interstate 295 (VARIABLE WIDTH PUBLIC RIGHT OF WAY) (RHODE ISLAND HIGHWAY PLAT 1443)
AP 54 LOT 27
AP 54 LOT 30
AP 54 LOT 118
AP 54 LOT 96
AP 54 LOT 26
AP 54 LOT 127
AP 54 LOT 122
AP 54 LOT 23
AP 54 LOT 21
AP 54 LOT 38
AP 54 LOT 39
ZONE R-40
ZONE B-3
ZONE B-2
353.4 FEET
239.1 FEET
247 FEET
244 FEET
241 FEET
239.3 FEET
236 FEET
231 FEET
229.1 FEET
102'
80.21'
70'

Scale: 1"=60'
0 30' 60' 120'

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

BRIAN C. GIROUX
No. 18341
REGISTERED PROFESSIONAL ENGINEER CIVIL
8/31/2022

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DiPrete Engineering only warrants plans as a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.

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.

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No.	Date:	Description	By:
4	01-27-2022	RIDEM Responses to Comments	MAH
3	10-12-2021	RIDEM Responses to Comments	MAH
2	10-12-2021	Regulatory Permit Submission	MAH
1	12-24-2020	Regulatory Permit Submission	MAH
0	10-30-2020	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Overall Site Layout Plan

Johnston Crossing

AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant:
Sitwell Park, LLC
552 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8800

SHEET 6 OF 23 ~~21~~

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FUTURE GRAVEL ACCESS ROAD TO ABUTTING PROPERTY

NEW PROPERTY LINE

30' WIDE ACCESS EASEMENT TO ABUTTING PROPERTY

40' REAR YARD SETBACK

Building 4
20,000± SF

Building 3
12,000± SF

Building 2
8,000± SF

Building 1
8,000± SF

CONCRETE CURB (TYP)

MONO (TYP)

FLUSH CURB

40' SIDE YARD SETBACK

30.0'

24.0'

ADAR (TYP)

ADAS (TYP)

ADAV (TYP)

4W (TYP)

12W

CWK (TYP)

4WS

43.3.0

Sand Filter E
(SEE SHEET 17)

Sediment Forebay E
(SEE SHEET 17)

Detention Pond E
(SEE SHEET 17)

30' WIDE ACCESS EASEMENT TO ABUTTING PROPERTY

50' SETBACK TO RESIDENTIAL ZONE

CROSSWALK (TYP)
REFER TO SHEET 20 FOR DETAIL

Underground Sand Filter and Detention System A
(SEE SHEET 15)

Sand Filter B
(SEE SHEET 16)

Detention Pond D
(SEE SHEET 16)

Sand Filter C
(SEE SHEET 16)

New Lot B
10.23± ACRES

Tennessee Gas Easement

Interstate 295
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
(RHODE ISLAND HIGHWAY PLAT 1443)

Hartford Avenue (Route 6)
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
(RHODE ISLAND HIGHWAY PLAT 305)

S.H.L. PLAT NO. 1443A

S.H.L. PLAT NO. 305 TO REMAIN

NEW S.H.L. PLAT NO. 2998

STATE HIGHWAY LINE

SITE ENTRANCE DESIGN AND OFFSITE WORK, INCLUDING BUT NOT LIMITED TO PAVEMENT STRUCTURE, STRIPING AND CURBING BY OTHERS. REFER TO PLANS ENTITLED "HIGHWAY SAFETY IMPROVEMENT TO HARTFORD AVENUE (ROUTE 6)" BY BETA

CONTRACTOR TO COORDINATE ONSITE UTILITY WORK WITH OFFSITE HARTFORD AVENUE IMPROVEMENTS. PAVING WITHIN HARTFORD AVENUE TO BE FULL WIDTH, EXTEND 10' BEYOND EDGE OF TRENCH AND CONSIST OF 2" MICROMILLING AND OVERLAY USING MODIFIED CLASS 12.5 HMA

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

Environmental Management
JAN 24 2022
Office of Water Resources

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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D Venezia

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

BRIAN C. GIROUX
No. 19341
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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DiPrete Engineering only warrants plans on a DiPrete Engineering letterhead, stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.

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Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for the accuracy or locations of existing utilities.

No.	Date	Description	By
4	01-07-2022	RIDEM Response to Comments	MAH
3	10-12-2021	RIDEM Response to Comments	MAH
2	12-24-2020	Regulatory Permit Submission	MAH
1			

Drawn By: MAH Design By: MAH

Site Layout Plan - 1

Johnston Crossing

AP 54 LOTS 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001

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SHEET 7 OF 23 ~~21~~

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Environmental Management
JAN 24 2022
Office of Water Resources

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0102
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D Venezia

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-3100 fax 401-464-6666 www.diprete-eng.com
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BRIAN C. GIROUX
No. 19341
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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No	Date	Description	Drawn By:
2	05-31-2022	RIDEM Response to Comments	MAH
1	10-12-2021	RIDEM Response to Comments	MAH
0	11-24-2020	Regulatory Permit Submission	MAH

Design By: MAH

Site Layout Plan - 2

Johnston Crossing

AP 54 Lots 34 and 80
213 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 457-9804

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SHEET 8 OF 23 ~~21~~

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Environmental Management
JAN 24 2022
Office of Water Resources

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

Building 4
FFE=259.00
20,000± SF

Building 3
FFE=259.00
12,000± SF

Building 2
FFE=254.00
8,000± SF

Building 1
FFE=248.00
8,000± SF

Sand Filter B
(SEE SHEET 16)

Detention Pond D
(SEE SHEET 16)

Sand Filter C
(SEE SHEET 16)

Detention Pond E
(SEE SHEET 17)

Sand Filter E
(SEE SHEET 17)

Sediment Forebay E
(SEE SHEET 17)

Underground Sand Filter and Detention System A
(SEE SHEET 15)

TENNESSE GAS EASEMENT

Hartford Avenue (Route 6)
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
(RHODE ISLAND HIGHWAY PLAT 389)

SITE ENTRANCE AND OFFSITE GRADING BY OTHERS. REFER TO PLANS ENTITLED "HIGHWAY SAFETY IMPROVEMENT TO HARTFORD AVENUE (ROUTE 6)" BY BETA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Venezia

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
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BRIAN C. GIROUX
No. 9341
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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No.	Date	Description	Drawn By: MAH / Design By: MAH
3	01-21-2022	RIDEM Response to Comments	MAH
2	12-15-2021	RIDEM Response to Comments	MAH
1	10-25-2021	Regulatory Permit Submission	MAH
0	11-26-2020	Preliminary	BJH

Grading Plan - 1

Johnston Crossing

AP 54 Lots 34 and 80
215 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 457-3804

SHEET 9 OF ~~21~~ 23

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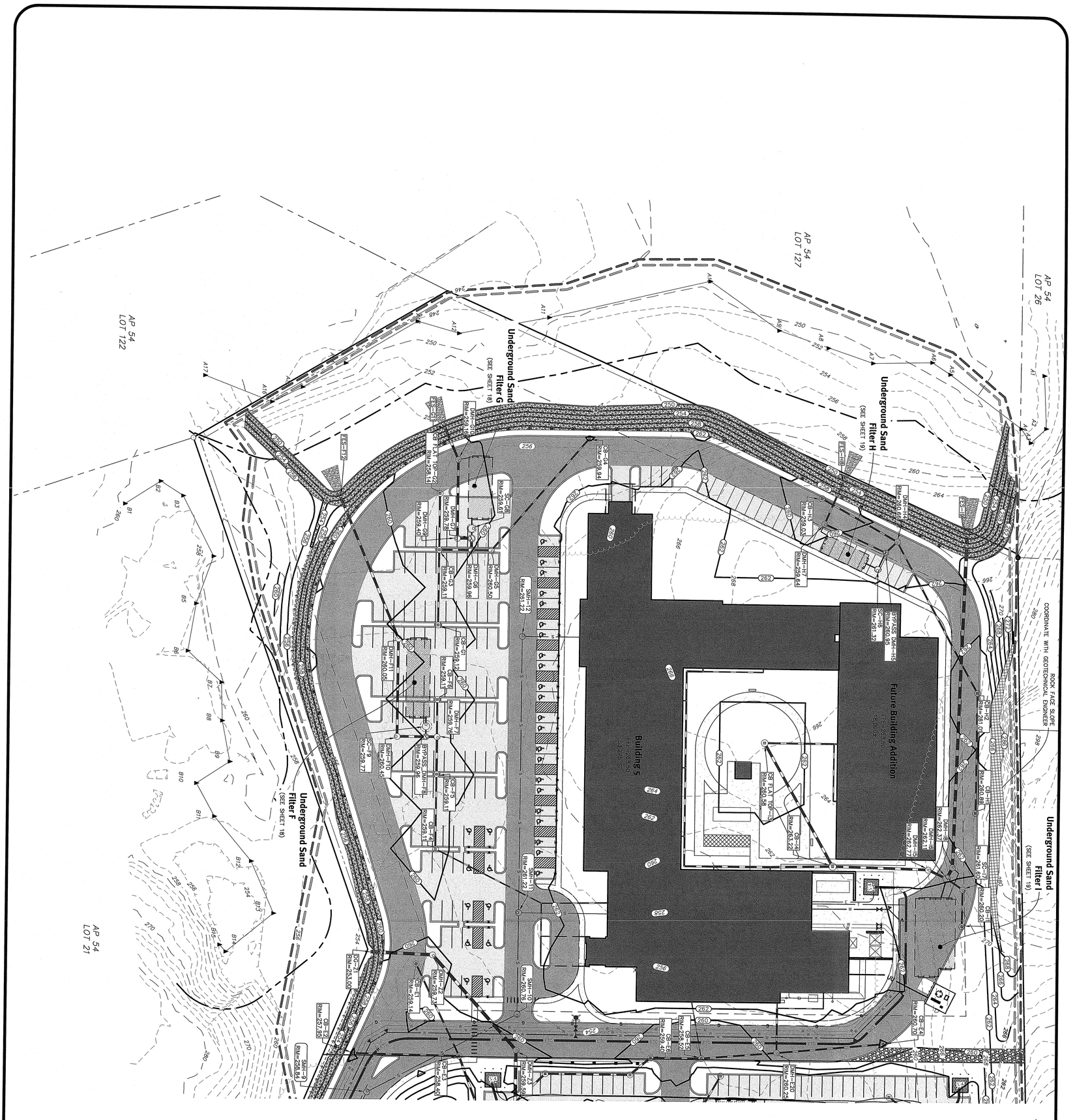
AP 54 LOT 122
AP 54 LOT 127
AP 54 LOT 26
AP 54 LOT 21
Underground Sand Filter G
(SEE SHEET 18)
Underground Sand Filter H
(SEE SHEET 19)
Underground Sand Filter F
(SEE SHEET 18)
Underground Sand Filter I
(SEE SHEET 19)
Building 5
FF: 265.50
Future Building Addition
FF: 265.50
COORDINATE WITH GEOTECHNICAL ENGINEER
ROOF FACE SLOPE
BYPASS DMH-H5
RIM=260.95
INV=251.32
DMH-H
RIM=259.64
DMH-I2
RIM=261.60
DMH-I1
RIM=262.77
DMH-I
RIM=262.20
DMH-F1
RIM=259.76
DMH-F2
RIM=259.77
DMH-F3
RIM=260.08
DMH-F4
RIM=260.05
DMH-F5
RIM=259.77
DMH-F6
RIM=259.86
DMH-F7
RIM=259.76
DMH-F8
RIM=259.95
DMH-F9
RIM=260.10
DMH-F10
RIM=260.14
DMH-F11
RIM=260.08
DMH-F12
RIM=260.05
DMH-G1
RIM=259.84
DMH-G2
RIM=259.14
DMH-G3
RIM=259.85
DMH-G4
RIM=259.28
DMH-G5
RIM=259.40
DMH-G6
RIM=259.86
DMH-G7
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DMH-G8
RIM=260.15
DMH-G9
RIM=260.08
DMH-G10
RIM=260.05
DMH-G11
RIM=260.08
DMH-G12
RIM=260.05
DMH-G13
RIM=260.08
DMH-G14
RIM=260.05
DMH-G15
RIM=260.08
DMH-G16
RIM=260.05
DMH-G17
RIM=260.08
DMH-G18
RIM=260.05
DMH-G19
RIM=260.08
DMH-G20
RIM=260.05
DMH-G21
RIM=260.08
DMH-G22
RIM=260.05
DMH-G23
RIM=260.08
DMH-G24
RIM=260.05
DMH-G25
RIM=260.08
DMH-G26
RIM=260.05
DMH-G27
RIM=260.08
DMH-G28
RIM=260.05

Environmental Management
JAN 24 2022
Office of Water Resources

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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencon

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

BRIAN C. GIROUX
No. 9341
REGISTERED PROFESSIONAL ENGINEER CIVIL
8/1/2022

This plan set must not be used for construction purposes unless signed and stamped in accordance with RI General Laws by a registered Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer. Signature and stamp on this plan are approximate only. DiPrete Engineering does not warrant plans by any other party.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to locations of existing utilities.

No.	Date	Description	By:
3	10-21-2020	RIDEM Responses to Comments	MAH
2	10-12-2021	RIDEM Responses to Comments	MAH
1	10-12-2021	Regulatory Permit Submission	MAH
0	12-04-2020	Preliminary	MAH

Design By: MAH
Drawn By: MAH

Drainage Plan - 1

Johnston Crossing

AP 5, Lots 34 and 80, Johnston, Rhode Island 02919
213 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
157 President Avenue, Providence, Rhode Island 02906
tel (401) 487-9804

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SHEET 11 OF 23

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Scale: 1"=40'

0 20' 40' 80'

Environmental Management
JAN 24 2022
Office of Water Resources

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Vencen

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

BRIAN C. GIROUX
No. 9341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
01/21/22

This plan set must not be scaled for construction purposes unless stamped and signed by a Professional Engineer. Any alteration to this plan set by a registered Professional Engineer of DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering and shall not relieve the author of any other party.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering does not warrant plans by any other party. The contractor is responsible for determining the exact locations of existing utilities.

No.	Date	Description	By:
3	01-21-2022	RIDEM Responses to Comments	MAH
2	12-23-2021	RIDEM Responses to Comments	MAH
1	11-24-2020	Resubmit to Permit Submission	MAH
0	10-26-2020	Resubmit to Permit Submission	MAH

Design By: MAH
Drawn By: MAH

Drainage Plan - 2

Johnston Crossing

AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

SHEET 12 OF ~~21~~ 23

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z:\dems\n\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan.dwg Plotted: 1/21/2022

Building 4

Building 3

Building 2

Building 1

6" PVC
41 LF
S=1.00%

CO-15
INV OUT=253.00(8)

SMH-8
RIM=256.95
INV IN=252.59(15)
INV OUT=252.49(7)

SC-B13
STC7200

END-B-WQ-OUT

DOMESTIC
WATER SERVICE

FIRE
SERVICE

6" PVC
135 LF
S=1.00%

FES-B-QP-OUT

SMH-10
RIM=260.76
INV IN=251.85(11)
INV OUT=251.75(9)

6" WATER
MAIN

6" PVC
37 LF
S=4.75%

CO-16
INV OUT=254.00(7)

SMH-7
RIM=257.46
INV IN=251.14(8)
INV IN=252.22(16)
INV OUT=251.04(6)

6" PVC
95 LF
S=1.00%

OCS-D1

FES-C-QP-DRAIN-OUT

FES-C-QP-OUT

SMH-6
RIM=256.80
INV IN=250.09(7)
INV OUT=249.99(5)

FES-E-WQ-OUT

FES-E-QP-OUT

FES-E-QP-DRAIN

6" PVC
146 LF
S=1.00%

6" PVC
170 LF
S=1.00%

CO-17
INV OUT=251.71(4)

SC-A18
STC4800

SMH-9
RIM=258.84
INV IN=250.29(10)
INV OUT=250.19(5)

6" PVC
178 LF
S=1.00%

GAS LINE PER
NATIONAL GRID
STANDARDS

8" DUCTILE
IRON FIRE
SERVICE

(2) 2.5" DOMESTIC
WATER SERVICES

SMH-5
RIM=256.96
INV IN=248.41(9)
INV IN=248.29(6)
INV OUT=248.19(4)

6" PVC
162 LF
S=1.00%

6" PVC
84 LF
S=6.00%

SMH-4
RIM=257.98
INV IN=246.56(5)
INV IN=246.66(17)
INV OUT=246.46(3)

6" PVC
123 LF
S=1.00%

SMH-3
RIM=260.19
INV IN=245.24(4)
INV OUT=245.14(2)

ALL UTILITIES (DRAINAGE, SEWER,
WATER, GAS, ELECTRIC) WITHIN
HARTFORD AVENUE AND PROPOSED
ACCESS ROAD TO BE INSTALLED UP
TO THE NEW S.H.L. (OR BEYOND)
PRIOR TO THE COMMENCEMENT OF
THE HARTFORD AVENUE SAFETY
IMPROVEMENTS WORK. COORDINATE
INSTALLATION OF ONSITE UTILITIES
WITH OFFSITE HARTFORD AVE
SAFETY IMPROVEMENTS

HEATED ENCLOSURE
(SEE DETAIL SHEET 21)

8" FIRE
SERVICE

(2) 2.5" DOMESTIC
WATER SERVICES

GAS CONNECTION TO BE
COORDINATED WITH NGRID

SMH-1
RIM=247.95
INV IN=242.54(2)
INV OUT=242.43(120)

CO-1A
RIM=247.95
INV IN=241.96(1)
INV OUT=241.95(1A)

CLEANOUT TO BE BROUGHT TO
GRADE AT THE PROPERTY LINE. SEE
CLEANOUT DETAIL ON SHEET 21

6" PVC
27 LF
S=1.90%

EXTEND EXISTING STUB TO
CO-1A. SEWER TRENCH IN
ROW TO CONFORM TO TRENCH
DETAIL ON SHEET 21

6" PVC
25 LF
S=1.90%

EXISTING-STUB
INV=241.44(120)

EXISTING HYDRANT

6" PVC
14 LF
S=6.00%

6" PVC
124 LF
S=1.00%

6" PVC
126 LF
S=1.00%

CONTRACTOR TO
COORDINATE WITH NBC AND
VERIFY LOCATION AND INVERT OF
EXISTING STUB PRIOR TO CONSTRUCTION

SMH-2
RIM=258.20
INV IN=243.90(3)
INV IN=252.15(18)
INV OUT=243.80(1)

CO-18
INV OUT=253.00(2)

ELECTRIC CONNECTION TO BE
COORDINATED WITH NGRID
TELECOM AND DATA CONNECTIONS
TO BE COORDINATED WITH
APPROPRIATE UTILITY COMPANIES

APPROXIMATE LOCATION OF
EXISTING WATER MAIN

TAPPING SLEEVE AND VALVE
(CONNECTION TO EXISTING WATER MAIN TO
BE COORDINATED WITH PROVIDENCE WATER
AND THE TOWN OF JOHNSTON DPW)

Environmental Management
JAN 24 2022
Office of Water Resources

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 FEB 18 2022 FILE # 21-0462
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

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

BRIAN C. GIROUX
No. 9341
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
3/31/2022

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The contractor is responsible for all of the means, methods, safety and implementation of this plan and design.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to locations of existing utilities.

No.	Date	Description	By:
2	03-21-2022	RIDEM Response to Comments	MAH
1	02-11-2022	RIDEM Response to Comments	MAH
0	01-21-2022	Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Utility Plan - 1

Johnston Crossing

AP 54, LOT 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 457-9804

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SHEET 13 OF ~~23~~ 23

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AP 54
LOT 26

AP 54
LOT 127

AP 54
LOT 122

AP 54
LOT 21

Future Building Addition
18,000± SF

Building 5
53,275 SF

BYPASS DMH-H5
SC-H6
STC1200

BYPASS DMH-F8
SC-F9
STC4800

SC-17
STC450

SC-G8
STC2400

CB FLAT TOP-I3

CB FLAT TOP-G2

CB FLAT TOP-E4

GREASE TRAP
(SEE MEP PLANS FOR DETAIL)

8" DUCTILE IRON FIRE SERVICE
2" DOMESTIC WATER SERVICE

EDS LOCATION

CO-13
INV=258.00(12)

CO-14
INV=256.50(11)

6" PVC
50 LF
S=1.00%

6" PVC
240 LF
S=1.50%

6" PVC
77 LF
S=3.60%

6" PVC
88 LF
S=2.00%

6" PVC
146 LF
S=1.00%

SMH-11
RIM=261.22
INV IN=253.71(14)
INV IN=253.80(12)
INV OUT=253.61(10)

SMH-12
RIM=261.22
INV IN=257.50(13)
INV OUT=257.40(11)

SMH-10
RIM=260.76
INV IN=251.85(11)
INV OUT=251.75(9)

SMH-9
RIM=258.84
INV IN=250.29(10)
INV OUT=250.19(5)

CB-H1 CB-H2 CB-I1 CB-I4 CB-I5 CB-I6 CB-I7 CB-I8 CB-I9 CB-I10 CB-I11 CB-I12 CB-I13 CB-I14 CB-I15 CB-I16 CB-I17 CB-I18 CB-I19 CB-I20 CB-I21 CB-I22 CB-I23 CB-I24 CB-I25 CB-I26 CB-I27 CB-I28 CB-I29 CB-I30 CB-I31 CB-I32 CB-I33 CB-I34 CB-I35 CB-I36 CB-I37 CB-I38 CB-I39 CB-I40 CB-I41 CB-I42 CB-I43 CB-I44 CB-I45 CB-I46 CB-I47 CB-I48 CB-I49 CB-I50 CB-I51 CB-I52 CB-I53 CB-I54 CB-I55 CB-I56 CB-I57 CB-I58 CB-I59 CB-I60 CB-I61 CB-I62 CB-I63 CB-I64 CB-I65 CB-I66 CB-I67 CB-I68 CB-I69 CB-I70 CB-I71 CB-I72 CB-I73 CB-I74 CB-I75 CB-I76 CB-I77 CB-I78 CB-I79 CB-I80 CB-I81 CB-I82 CB-I83 CB-I84 CB-I85 CB-I86 CB-I87 CB-I88 CB-I89 CB-I90 CB-I91 CB-I92 CB-I93 CB-I94 CB-I95 CB-I96 CB-I97 CB-I98 CB-I99 CB-I100 CB-I101 CB-I102 CB-I103 CB-I104 CB-I105 CB-I106 CB-I107 CB-I108 CB-I109 CB-I110 CB-I111 CB-I112 CB-I113 CB-I114 CB-I115 CB-I116 CB-I117 CB-I118 CB-I119 CB-I120 CB-I121 CB-I122 CB-I123 CB-I124 CB-I125 CB-I126 CB-I127 CB-I128 CB-I129 CB-I130 CB-I131 CB-I132 CB-I133 CB-I134 CB-I135 CB-I136 CB-I137 CB-I138 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CB-I389 CB-I390 CB-I391 CB-I392 CB-I393 CB-I394 CB-I395 CB-I396 CB-I397 CB-I398 CB-I399 CB-I400 CB-I401 CB-I402 CB-I403 CB-I404 CB-I405 CB-I406 CB-I407 CB-I408 CB-I409 CB-I410 CB-I411 CB-I412 CB-I413 CB-I414 CB-I415 CB-I416 CB-I417 CB-I418 CB-I419 CB-I420 CB-I421 CB-I422 CB-I423 CB-I424 CB-I425 CB-I426 CB-I427 CB-I428 CB-I429 CB-I430 CB-I431 CB-I432 CB-I433 CB-I434 CB-I435 CB-I436 CB-I437 CB-I438 CB-I439 CB-I440 CB-I441 CB-I442 CB-I443 CB-I444 CB-I445 CB-I446 CB-I447 CB-I448 CB-I449 CB-I450 CB-I451 CB-I452 CB-I453 CB-I454 CB-I455 CB-I456 CB-I457 CB-I458 CB-I459 CB-I460 CB-I461 CB-I462 CB-I463 CB-I464 CB-I465 CB-I466 CB-I467 CB-I468 CB-I469 CB-I470 CB-I471 CB-I472 CB-I473 CB-I474 CB-I475 CB-I476 CB-I477 CB-I478 CB-I479 CB-I480 CB-I481 CB-I482 CB-I483 CB-I484 CB-I485 CB-I486 CB-I487 CB-I488 CB-I489 CB-I490 CB-I491 CB-I492 CB-I493 CB-I494 CB-I495 CB-I496 CB-I497 CB-I498 CB-I499 CB-I500 CB-I501 CB-I502 CB-I503 CB-I504 CB-I505 CB-I506 CB-I507 CB-I508 CB-I509 CB-I510 CB-I511 CB-I512 CB-I513 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CB-I889 CB-I890 CB-I891 CB-I892 CB-I893 CB-I894 CB-I895 CB-I896 CB-I897 CB-I898 CB-I899 CB-I900 CB-I901 CB-I902 CB-I903 CB-I904 CB-I905 CB-I906 CB-I907 CB-I908 CB-I909 CB-I910 CB-I911 CB-I912 CB-I913 CB-I914 CB-I915 CB-I916 CB-I917 CB-I918 CB-I919 CB-I920 CB-I921 CB-I922 CB-I923 CB-I924 CB-I925 CB-I926 CB-I927 CB-I928 CB-I929 CB-I930 CB-I931 CB-I932 CB-I933 CB-I934 CB-I935 CB-I936 CB-I937 CB-I938 CB-I939 CB-I940 CB-I941 CB-I942 CB-I943 CB-I944 CB-I945 CB-I946 CB-I947 CB-I948 CB-I949 CB-I950 CB-I951 CB-I952 CB-I953 CB-I954 CB-I955 CB-I956 CB-I957 CB-I958 CB-I959 CB-I960 CB-I961 CB-I962 CB-I963 CB-I964 CB-I965 CB-I966 CB-I967 CB-I968 CB-I969 CB-I970 CB-I971 CB-I972 CB-I973 CB-I974 CB-I975 CB-I976 CB-I977 CB-I978 CB-I979 CB-I980 CB-I981 CB-I982 CB-I983 CB-I984 CB-I985 CB-I986 CB-I987 CB-I988 CB-I989 CB-I990 CB-I991 CB-I992 CB-I993 CB-I994 CB-I995 CB-I996 CB-I997 CB-I998 CB-I999 CB-I1000

DMH-H4 DMH-H7 DMH-I8 DMH-I5 DMH-E20 DMH-Z3 DMH-Z2 DMH-G5 DMH-G6 DMH-G7 DMH-G9 DMH-G10 DMH-F7 DMH-F11 DMH-F10

FES-I9 FES-H8 FES-G13 FES-F12

DG-Z1

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

Environmental Management
JAN 24 2022
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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Vencor

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

BRIAN C. GIROUX
No. 19341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1/21/2022

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DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other entity.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to existing utilities.

No.	Date	Description	By:
2	09-21-2022	RIDEM Response to Comments	MAH
1	11-24-2021	Regulatory Permit Submission	MAH
0	11-24-2021	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Utility Plan - 2

Johnston Crossing

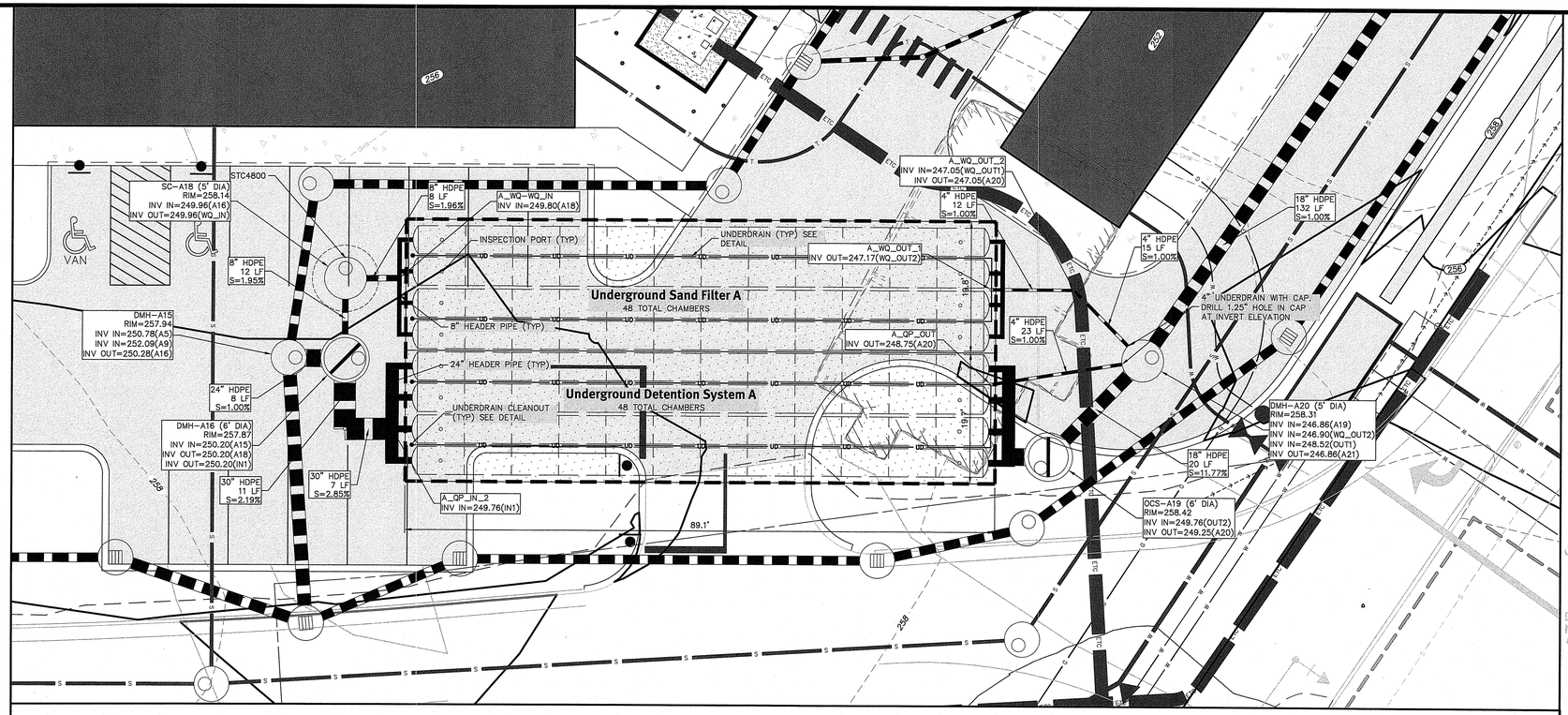
AP 54 LOTS 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

SHEET 14 OF 23

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

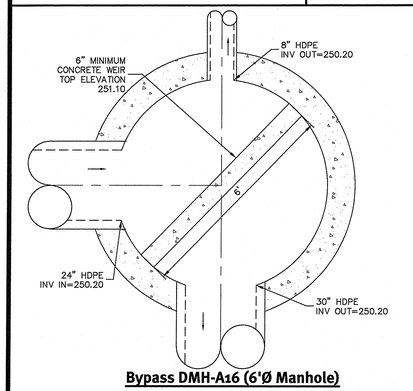
z:\deman\projects\2739-001 hartford avenue 2113 arcompass health\autocad drawings\2739-001-plan.dwg Plotted: 1/21/2022



Underground Sand Filter and Detention System A

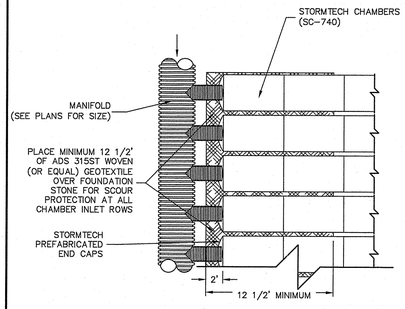
Scale: 1"=10'

0 5' 10' 20'



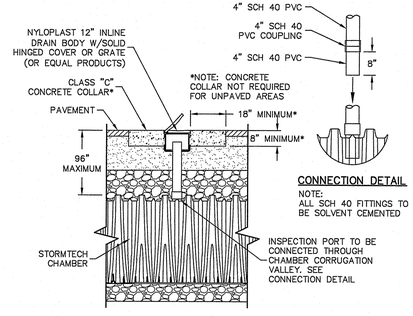
Bypass DMH-A16 (6'Ø Manhole)

SCALE 1"=2'



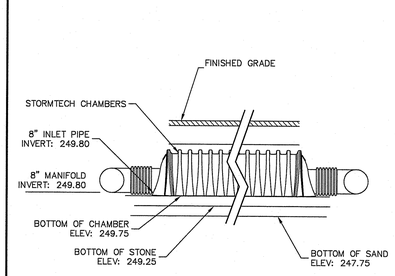
Stormtech Manifold Detail (Typ)

NOT TO SCALE



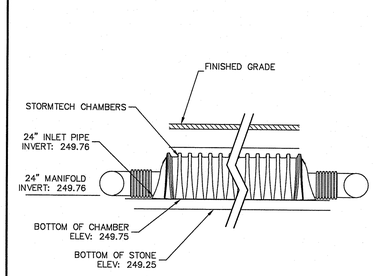
Stormtech General Inspection Port Detail (Typ)

NOT TO SCALE



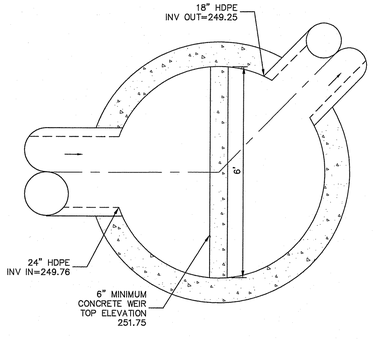
Stormtech Elevations - Water Quality Chambers

NOT TO SCALE



Stormtech Elevations - Detention Chambers

NOT TO SCALE



Outlet Control Structure A-19(6'Ø MANHOLE)

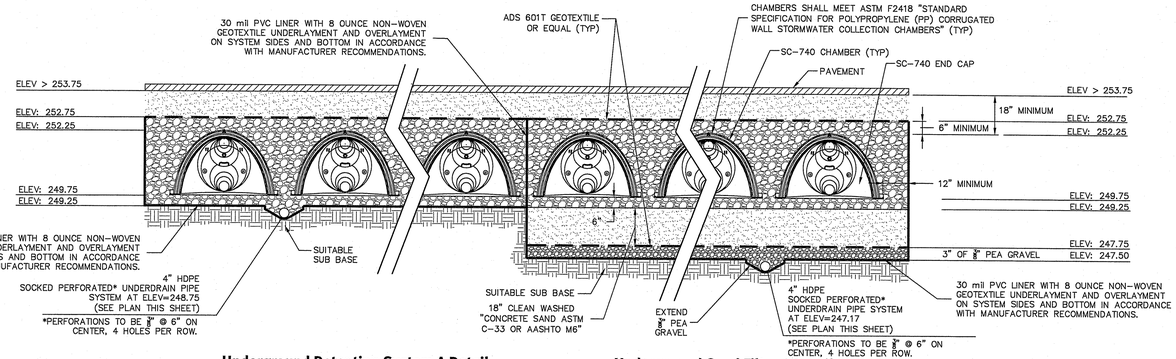
SCALE 1"=2'

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ	QP
TOP OF UIS STONE ELEVATION	252.75	252.75
BOTTOM OF UIS STONE ELEVATION	249.25	249.25
100 YEAR STORM ELEVATION	252.64	252.45
10 YEAR STORM ELEVATION	252.10	252.16
1 YEAR STORM ELEVATION	251.57	251.58
SEASONAL HIGH GWT ELEVATION*	N/A	N/A
SOIL EVALUATION*	N/A	N/A

*INFILTRATION IS NOT PROPOSED WITHIN THE LANDFILL FOOTPRINT. UNDERGROUND SYSTEM IS LINED.



Underground Detention System A Detail

NOT TO SCALE

Underground Sand Filter A Detail

NOT TO SCALE

Environmental Management
JAN 24 2022
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 FEB 18 2022 FILE # 21-0102
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

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

BRIAN C. GIROUX
No. 19341
01/21/2022
REGISTERED PROFESSIONAL ENGINEER CIVIL

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The contractor is responsible for all of the means, methods, safety precautions and programs in connection with the performance of this plan and design.

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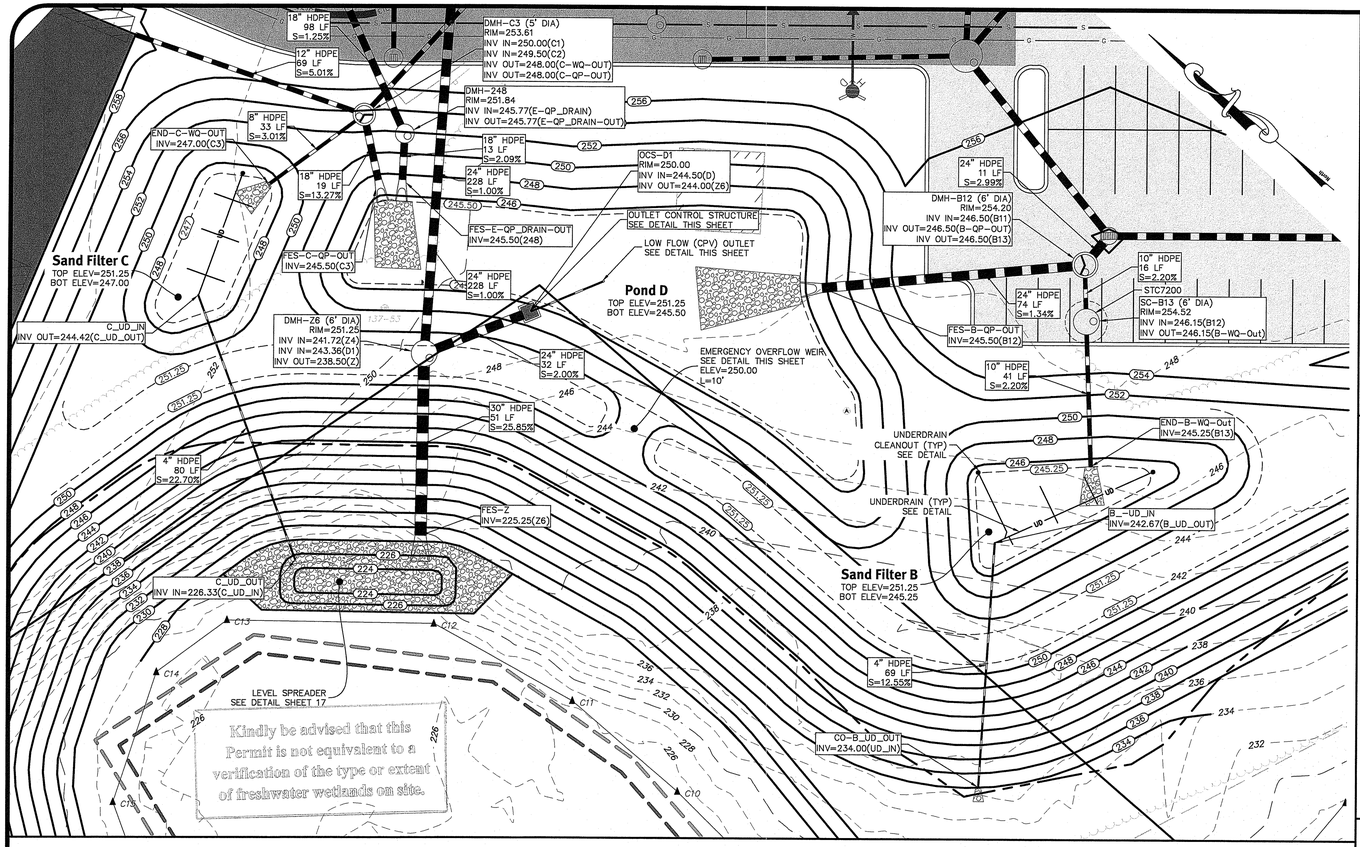
No.	Date	Description	By:
1	10-12-2021	RIDEM Response to Comments	MAH
2	01-21-2022	RIDEM Response to Comments	MAH



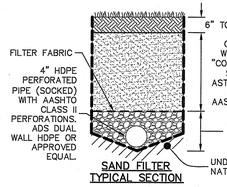
Water Quality Ponds B & C, Detention Pond D

Scale: 1"=20'

0 10' 20' 40'

DESCRIPTION	WQ-B	WQ-C
TOP OF POND ELEVATION	251.25	251.25
100 YEAR STORM ELEVATION	250.14	250.00
10 YEAR STORM ELEVATION	249.10	248.97
1 YEAR STORM ELEVATION	248.69	247.87
WQ STORM ELEVATION	247.32	246.12
BOTTOM OF POND ELEVATION	245.25	247.00
TOP SOIL DEPTH	0.50'	0.50'
SAND DEPTH	1.5'	1.50'
BOTTOM OF SAND ELEVATION	243.25	245.00
MINIMUM UNDERDRAIN INVERT	242.67	244.42
UNDERDRAIN OUTLET ELEVATION	234.00	226.33
SEASONAL HIGH GWT ELEVATION*	N/A	N/A
SOIL EVALUATION*	N/A	N/A

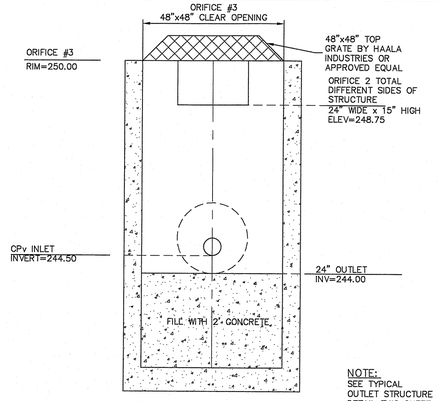
*INFILTRATION IS NOT PROPOSED WITHIN THE LANDFILL FOOTPRINT. POND SYSTEMS ARE LINED.



SAND FILTER TYPICAL SECTION

DESCRIPTION	DP-D
TOP OF POND ELEVATION	251.25
100 YEAR STORM ELEVATION	249.97
10 YEAR STORM ELEVATION	249.00
1 YEAR STORM ELEVATION	247.09
BOTTOM OF POND ELEVATION	245.50
SEASONAL HIGH GWT ELEVATION*	N/A
SOIL EVALUATION*	N/A

*INFILTRATION IS NOT PROPOSED WITHIN THE LANDFILL FOOTPRINT. POND SYSTEMS ARE LINED.

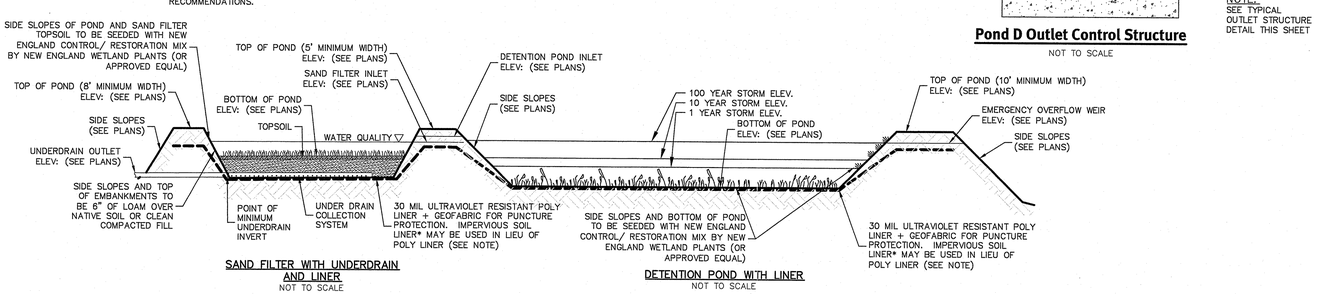


NOTE: SEE TYPICAL OUTLET STRUCTURE DETAIL THIS SHEET

Pond D Outlet Control Structure

NOT TO SCALE

*NOTE: SOIL LINER SHALL BE 1' MINIMUM THICKNESS AND HAVE A MAXIMUM PERMEABILITY OF 0.03 FT/DAY (1*10^-5 CM/SEC). LINER MAY BE COMPRISED OF NATIVE MATERIALS WITH MIN OF 90% PASSING THE #200 SIEVE OR CLAY WITH A MINIMUM OF 15% PASSING THE #200 SIEVE. SOIL LINER TO EXTEND UP SIDES TO EXISTING GRADE AT A MINIMUM. POLY LINER JOINTS MUST BE WATERTIGHT AND SEALED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SAND FILTER WITH UNDERDRAIN AND LINER

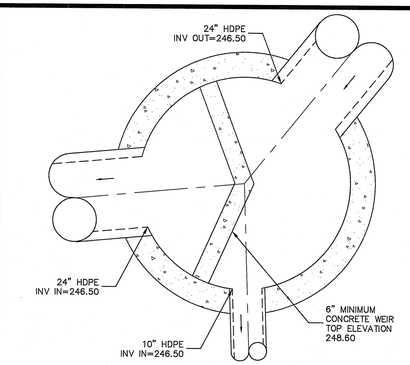
NOT TO SCALE

DETENTION POND WITH LINER

NOT TO SCALE

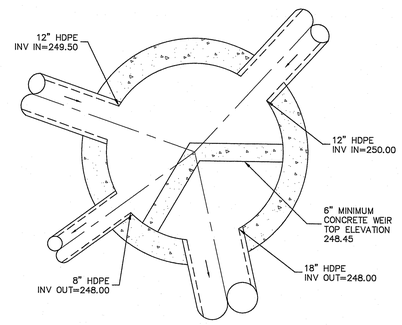
Sand Filter BMP System

NOT TO SCALE



Bypass DMH-B13 (6'Ø Manhole)

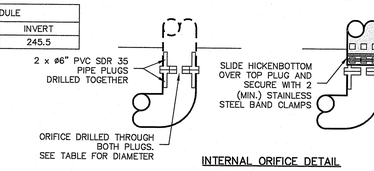
SCALE 1"=2'



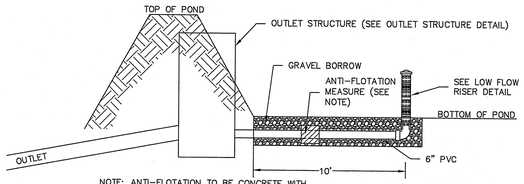
Bypass DMH-C3 (5'Ø Manhole)

SCALE 1"=2'

INTERNAL ORIFICE SCHEDULE		
LOCATION	DIAMETER	INVERT
POND D	2.25"	245.5



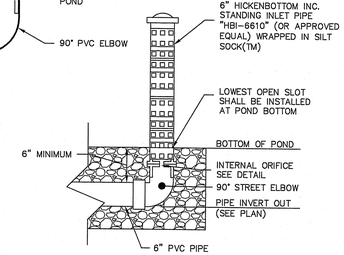
INTERNAL ORIFICE DETAIL



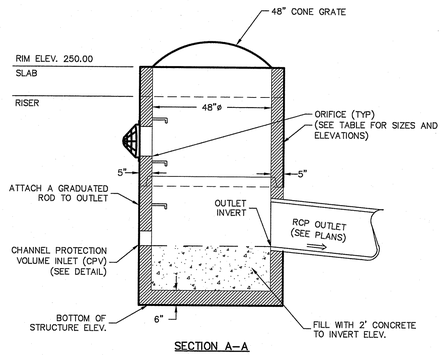
NOTE: ANTI-FLOTATION TO BE CONCRETE WITH MINIMUM DIMENSIONS OF 13"Wx13"Hx45"L. (APPROXIMATELY 6x80LB BAGS OF CONCRETE)

Low Flow (CPv) Outlet

NOT TO SCALE



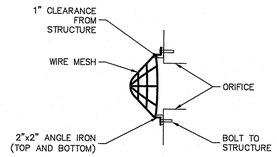
LOW FLOW RISER DETAIL



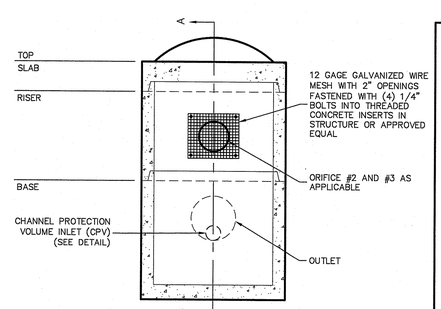
SECTION A-A

Environmental Management
JAN 24 2022
Office of Water Resources

NOTE:
ALL 2" WEEP HOLES USED TO PLACE STRUCTURE MUST BE FILLED WITH CONCRETE.



TRASH RACK DETAIL



Typical 4' Square Outlet Structure

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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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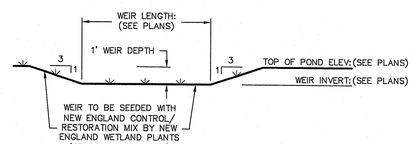
Martin D Venson



Emergency Overflow Weir

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

BRIAN C. GIROUX
No. 19341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/21/2022

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No.	Date	Description	By:
1	09-21-2021	RIDEM Responses to Comments	MAH
2	11-24-2021	RIDEM Responses to Comments	MAH
3	1-24-2022	Regulatory Permit Submissions	MAH

Design By: MAH
Drawn By: MAH

Pond BMP B, C, & D Details

Johnston Crossing

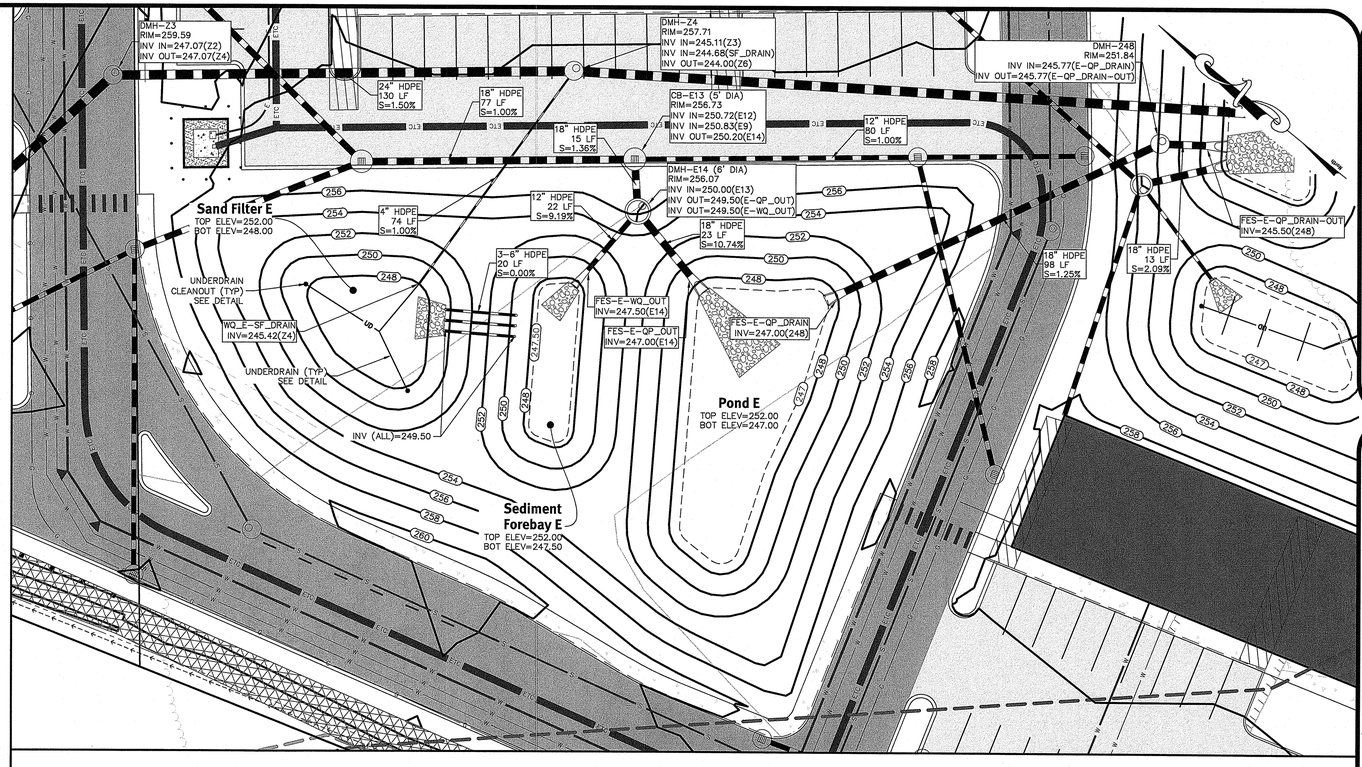
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

SHEET 16 OF 23

z:\deman\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan-bmp.dwg Plotted: 1/21/2022

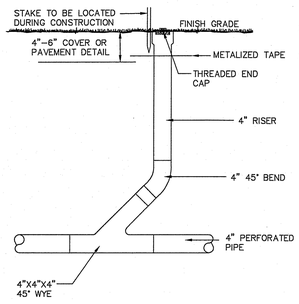


Pond System E

Scale: 1"=20'

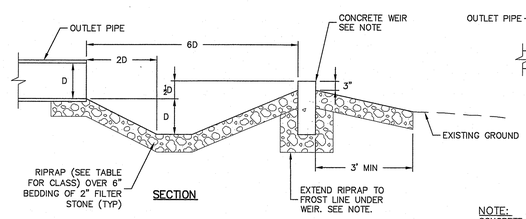
0 10' 20' 40'

NOTES:
1. ENCASE CLEANOUT IN CONCRETE WHEN INVERT IS 12' OR MORE BELOW FINISH GRADE.
2. AT TERMINAL CLEANOUT REPLACE WYE WITH 45° BEND.
3. SUBDRAIN AREA TO BE STAKED, MARKED, AND REMAIN UNDISTURBED PRIOR TO CONSTRUCTION. THERE IS TO BE NO CONSTRUCTION TRAFFIC ON SUBDRAIN AREA PRIOR TO CONSTRUCTION.

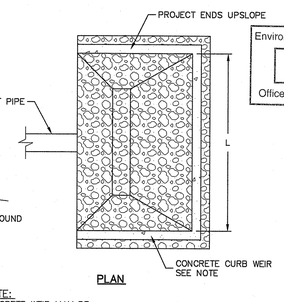


4" Underdrain Cleanout (TYP)
NOT TO SCALE

LOCATION	PIPE INVERT	PIPE DIA (D)	WIDTH (6D)	LENGTH (L)	CONCRETE CURB WEIR ELEV	RIPRAP CLASS
FES-A	226.75	1.50	12'	33'	227.50	R-4
FES-Z	225.25	2.50	15'	60'	226.50	R-4



SECTION

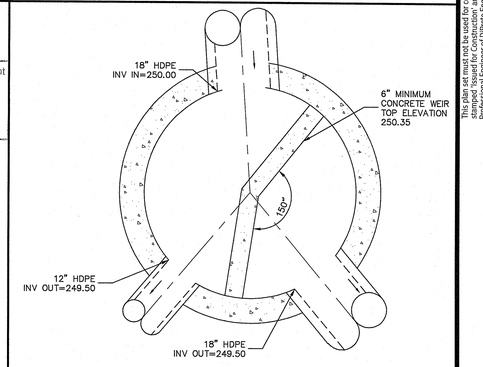


PLAN

NOTE:
CONCRETE WEIR MAY BE:
- MONOLITHIC, CAST IN PLACE CONCRETE WITH INVERT BELOW THE FROST LINE (MINIMAL MAINTENANCE)
- SERIES OF PRECAST CONCRETE CURB SECTIONS, NO END CHAMFERS, (FREQUENT MAINTENANCE TO KEEP WEIR LEVEL) – MUST INCLUDE GRAVEL BASE DOWN TO FROST DEPTH
- TIMBER NOT PERMITTED

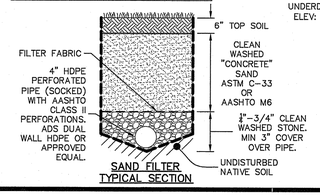
Level Spreader
NOT TO SCALE

Environmental Management
JAN 24 2022
Office of Water Resources



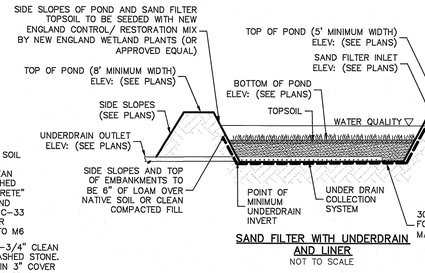
BYPASS-E14 (6'Ø MANHOLE)
SCALE 1"=2'

DESCRIPTION	SNDF-E
TOP OF POND ELEVATION	252.00
100 YEAR STORM ELEVATION	251.79
10 YEAR STORM ELEVATION	250.97
1 YEAR STORM ELEVATION	250.43
WQ STORM ELEVATION	249.27
BOTTOM OF POND ELEVATION	248.00
TOP SOIL DEPTH	0.50
SAND DEPTH	1.50
MINIMUM UNDERDRAIN INVERT	245.42
UNDERDRAIN OUTLET ELEVATION	245.42
BOTTOM OF SAND ELEVATION	246.00
SEASONAL HIGH GWT ELEVATION*	N/A
SOIL EVALUATION	N/A

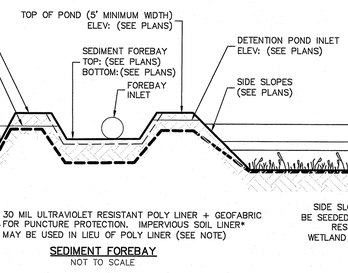


SAND FILTER TYPICAL SECTION

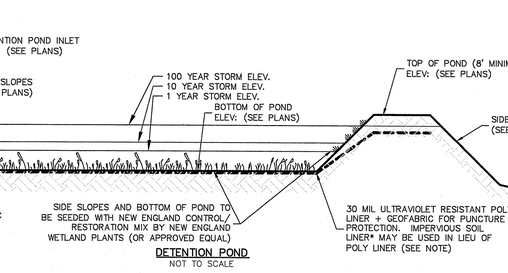
*NOTE: SOIL LINER SHALL BE 1' MINIMUM THICKNESS AND HAVE A MAXIMUM PERMEABILITY OF 0.03 FT/DAY (1*10^-5 CM/SEC). LINER MAY BE COMPRISED OF NATIVE MATERIALS WITH MIN OF 90% PASSING THE #200 SIEVE OR CLAY WITH A MINIMUM OF 15% PASSING THE #200 SIEVE. SOIL LINER TO EXTEND UP SIDES TO EXISTING GRADE AT A MINIMUM. POLY LINER JOINTS MUST BE WATERTIGHT AND SEALED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



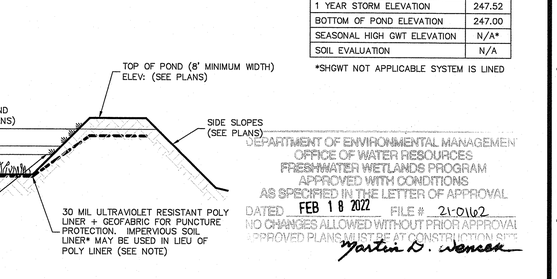
SAND FILTER WITH UNDERDRAIN AND LINER
NOT TO SCALE



SEDIMENT FOREBAY
NOT TO SCALE



DETENTION POND
NOT TO SCALE



Sand Filter BMP System
NOT TO SCALE

Sand Filter BMP System
NOT TO SCALE

DESCRIPTION	DP-E
TOP OF POND ELEVATION	252.00
100 YEAR STORM ELEVATION	250.56
10 YEAR STORM ELEVATION	249.01
1 YEAR STORM ELEVATION	247.52
BOTTOM OF POND ELEVATION	247.00
SEASONAL HIGH GWT ELEVATION	N/A*
SOIL EVALUATION	N/A

*SHGWT NOT APPLICABLE SYSTEM IS LINED

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
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BRIAN C. GIROUX
No. 19339
REGISTERED PROFESSIONAL ENGINEER CIVIL

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No.	Date	Description	By:
2	10-21-2022	RIDEM Response to Comments	MAH
1	01-24-2022	RIDEM Response to Comments	MAH
0	11-24-2020	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Pond BMP E Details

Johnston Crossing

AP 54 Lots 34 and 80
213 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

SHEET 17 OF 23

DE Job No.: 2739-001

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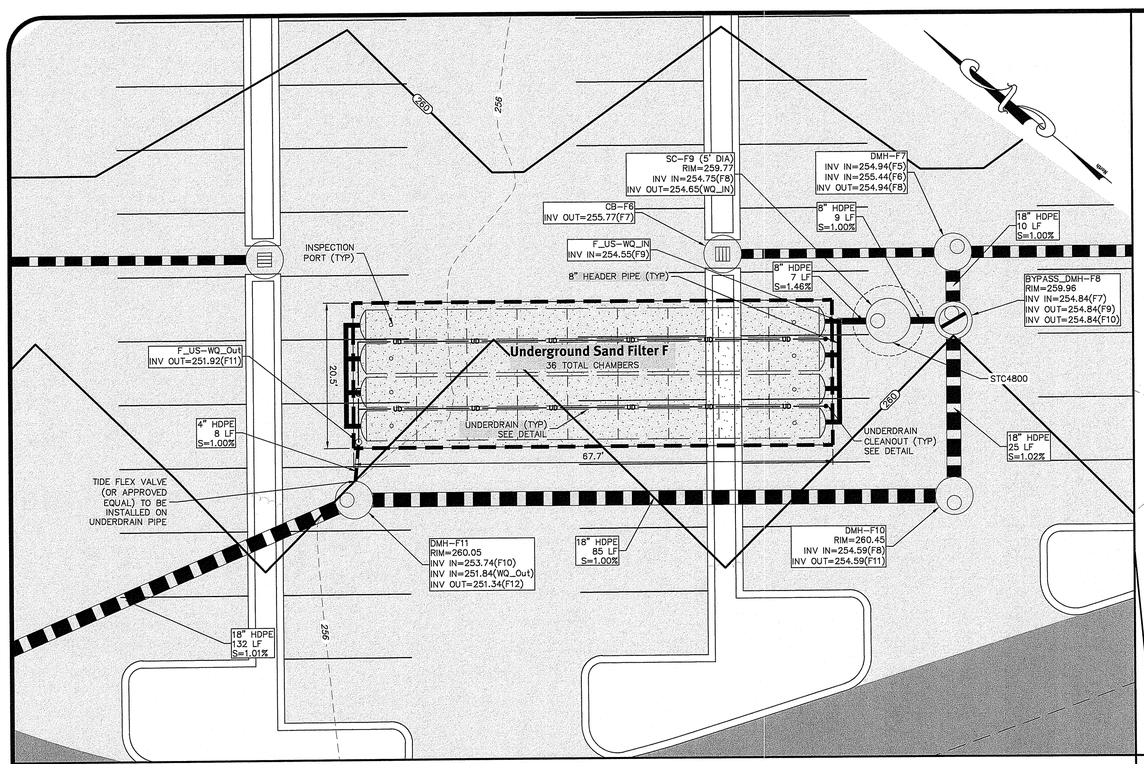
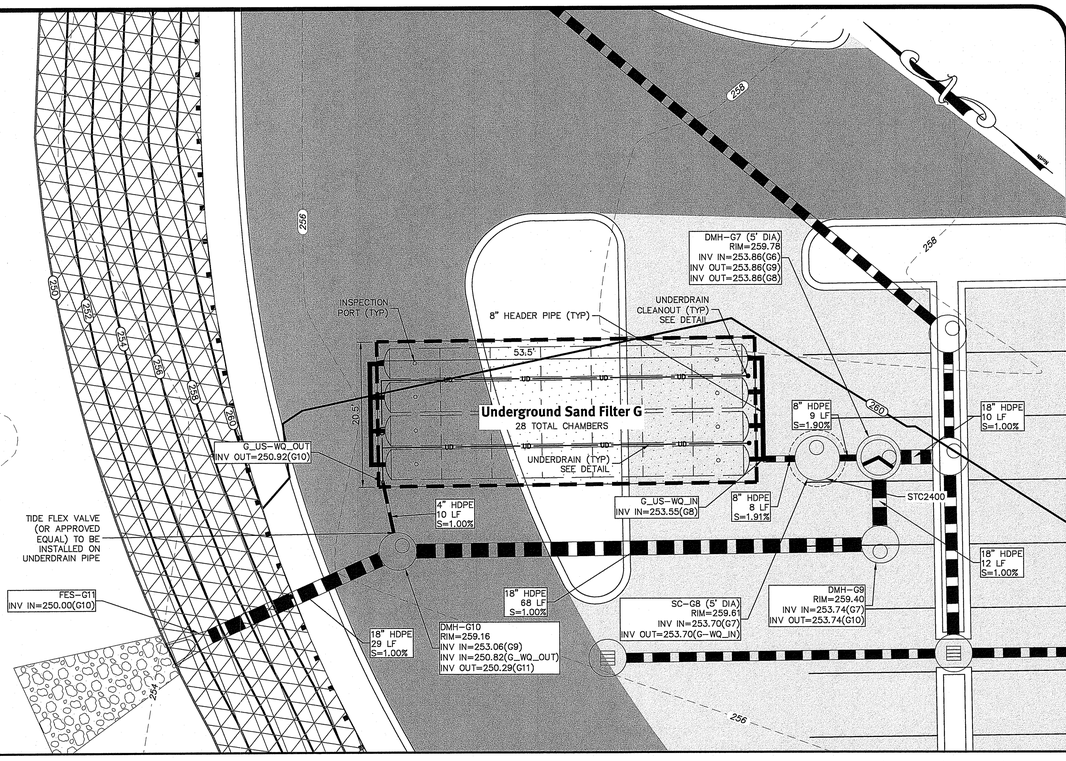


Underground Treatment System F

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

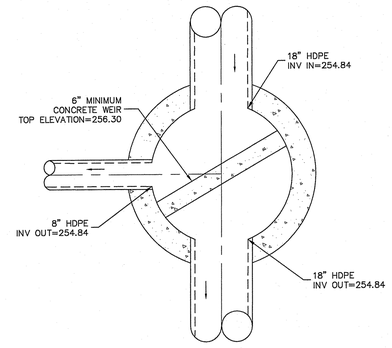


Underground Treatment System G

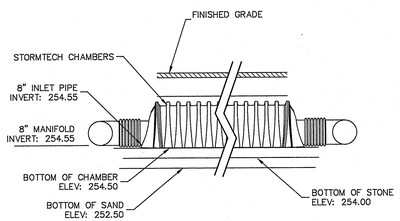
Scale: 1"=10'
0 5' 10' 20'

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

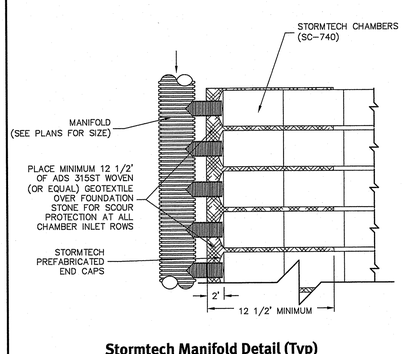
BRIAN C. GIROUX
No. 19341
REGISTERED
PROFESSIONAL ENGINEER
CIVIL



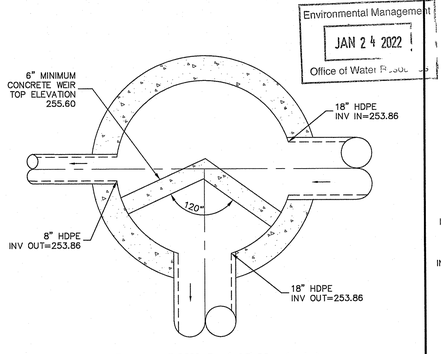
Bypass DMH-F8 (4'Ø Manhole)
SCALE 1"=2'



Underground Sand Filter F - Stormtech Elevation
NOT TO SCALE



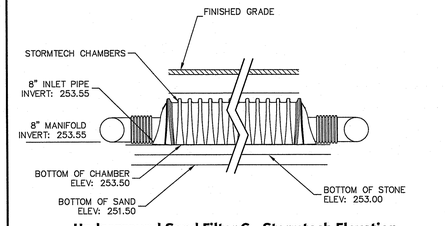
Stormtech Manifold Detail (Typ)
NOT TO SCALE



Bypass DMH-G7 (5'Ø Manhole)
SCALE 1"=2'

Environmental Management
JAN 24 2022
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 FEB 18 2022 FILE # 21-0662
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

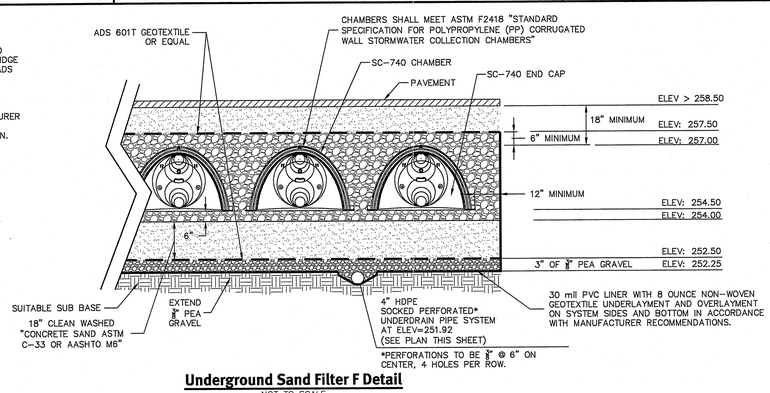


Underground Sand Filter G - Stormtech Elevation
NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	257.50
BOTTOM OF UIS STONE ELEVATION	254.00
100 YEAR STORM ELEVATION	257.08
10 YEAR STORM ELEVATION	256.60
1 YEAR STORM ELEVATION	256.33
SEASONAL HIGH GWT ELEVATION	244.63
SOIL EVALUATION	TP-4

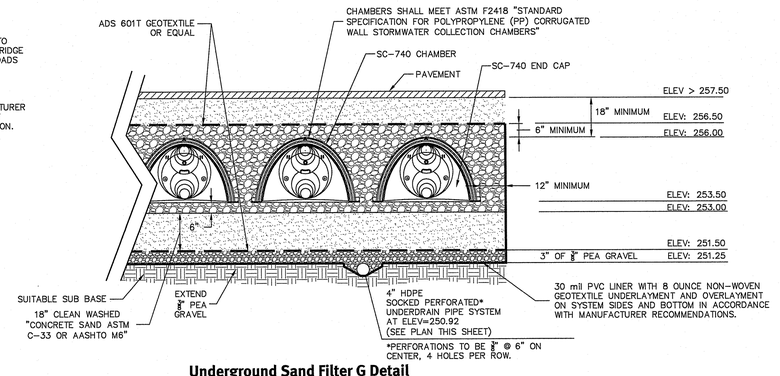


Underground Sand Filter F Detail
NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	256.50
BOTTOM OF UIS STONE ELEVATION	253.00
100 YEAR STORM ELEVATION	256.25
10 YEAR STORM ELEVATION	255.99
1 YEAR STORM ELEVATION	255.68
SEASONAL HIGH GWT ELEVATION	244.63
SOIL EVALUATION	TP-4



Underground Sand Filter G Detail
NOT TO SCALE

This plan set must not be used for construction purposes unless this plan is issued for Construction and stamped by a registered Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a 24x36 size sheet with a title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.

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.

Existing utilities shown on this plan are approximate only. DiPrete Engineering is not responsible for damages incurred due to locations of existing utilities.

No.	Date	Description	By:
2	01-31-2022	RIDEM Response to Comments	MAH
1	01-25-2022	Regulatory Permit Submission	MAH
0	11-24-2020	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Underground BMP F & G Details

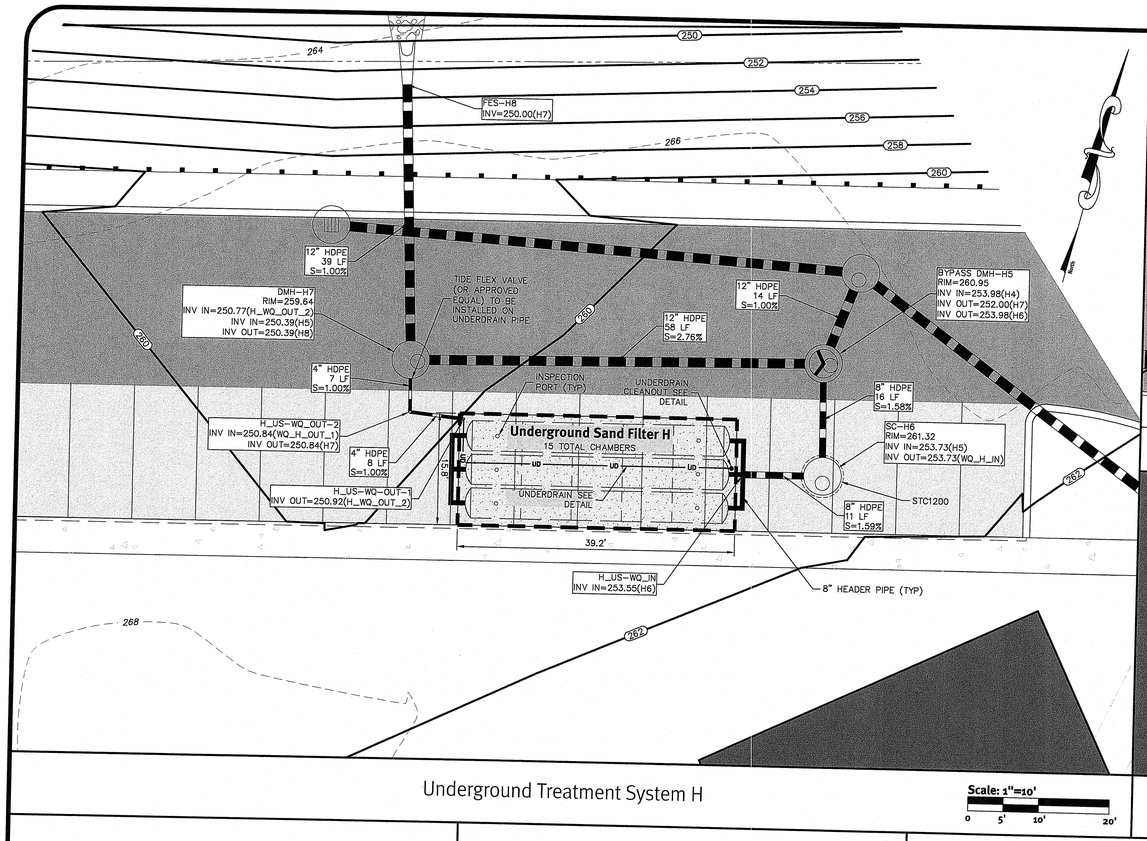
Johnston Crossing
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

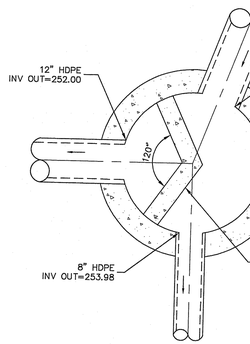
Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

SHEET 18 OF 23 ~~24~~

DE Job No: 2739-001 Copyright 2021 by DiPrete Engineering Associates, Inc.

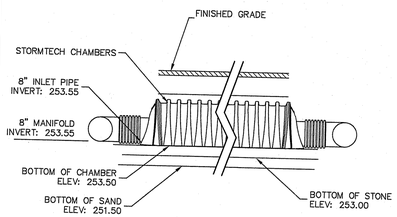
z:\domain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawing\2739-001-plan-bmp.dwg Plottset: 1/21/2022





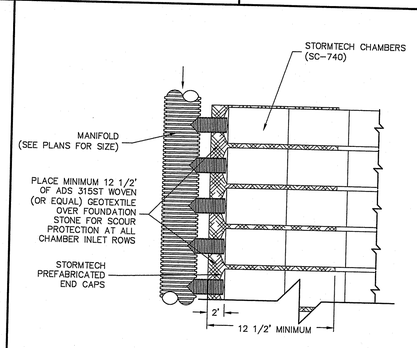
Bypass DMH-H5 (4'Ø Manhole)

SCALE 1"=2'



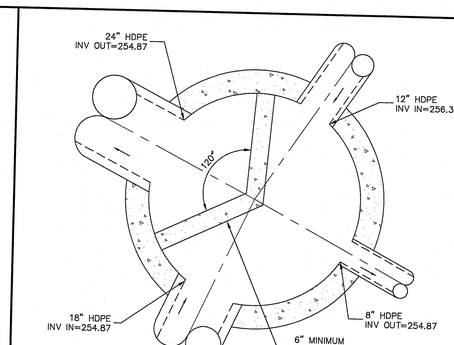
Underground Sand Filter H - Stormtech Elevation

NOT TO SCALE



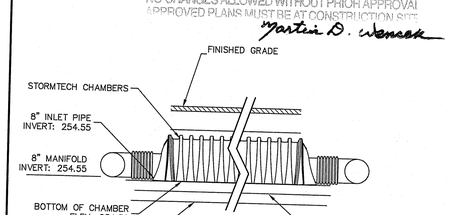
Stormtech Manifold Detail (Typ)

NOT TO SCALE



Bypass DMH-I6 (6'Ø Manhole)

SCALE 1"=2'



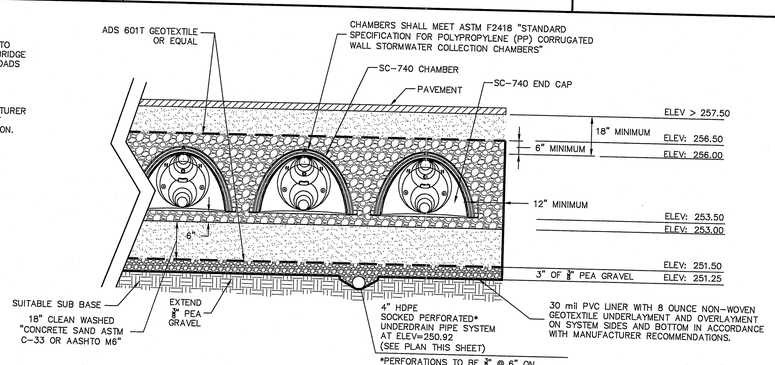
Underground Sand Filter I - Stormtech Elevation

NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
2. SEE LATEST STORMTECH DESIGN MANUAL.
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	256.50
BOTTOM OF UIS STONE ELEVATION	253.00
100 YEAR STORM ELEVATION	256.38
10 YEAR STORM ELEVATION	255.72
1 YEAR STORM ELEVATION	255.39
SEASONAL HIGH GWT ELEVATION	256.57
SOIL EVALUATION	TH-5



Underground Sand Filter H Detail

NOT TO SCALE

NOTES:

1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
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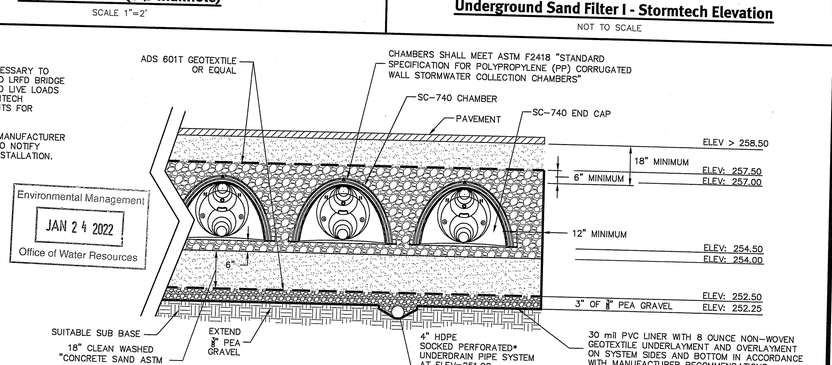
3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

DESCRIPTION	WQ
TOP OF UIS STONE ELEVATION	257.50
BOTTOM OF UIS STONE ELEVATION	254.00
100 YEAR STORM ELEVATION	257.15
10 YEAR STORM ELEVATION	256.56
1 YEAR STORM ELEVATION	256.18
SEASONAL HIGH GWT ELEVATION*	N/A
SOIL EVALUATION*	N/A

*SYSTEM WILL REQUIRE LEDGE EXCAVATION AND BE LINED.

Environmental Management
JAN 24 2022
Office of Water Resources



Underground Sand Filter I Detail

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 FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

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

BRIAN C. GIROUX
No. 16341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
9/21/2022

This plan set must not be used for construction purposes unless it has been signed for construction' and stamped by a registered Professional Engineer employed by DiPrete Engineering

DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer employed by DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.

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

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No.	Date	Description	By:
2	09-23-2022	RIDEM Response to Comments	MAH
1	10-22-2021	RIDEM Response to Comments	MAH
0	11-26-2020	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Underground BMP H & I Details

Johnston Crossing

AP 54 LOTS 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

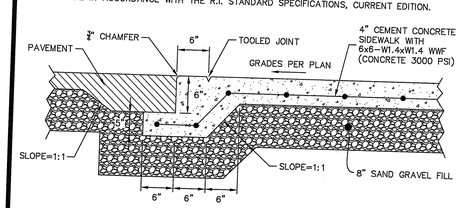
SHEET 19 OF 23

DiPrete Engineering, Copyright 2022 DE Job No: 2739-001

z:\domain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan-bmp.dwg Plotted: 1/21/2022

NOTE:

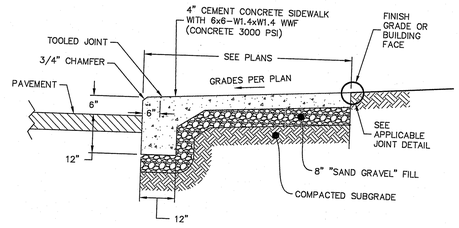
1. SEE SITE PLAN FOR SIDEWALK WIDTH AND GRADES.
2. SURFACE TEXTURE SHALL BE A LIGHT BROOMING, TRANSVERSE TO THE LENGTH OF THE WALK. CARE MUST BE TAKEN TO ENSURE A UNIFORM GRADE, FREE OF SAGS AND SHORT GRADE CHANGES.
3. ALL IMPROVEMENTS SHALL MUST WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE, CURRENT EDITION.
4. PROVIDE EXPANSION JOINTS AT MAX. 16 FT. O.C. WITH PREFORMED JOINT FILLER AND SEALANT.
5. PROVIDE CONTROL JOINTS AT 5' O.C.
6. MUST BE IN ACCORDANCE WITH THE R.I. STANDARD SPECIFICATIONS, CURRENT EDITION.



SECTION

Monolithic Concrete Sidewalk (Flush)

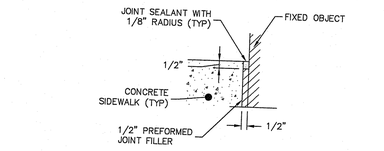
NOT TO SCALE



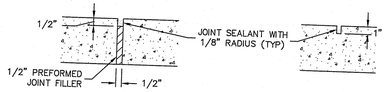
SECTION

Monolithic Concrete Sidewalk (6" Reveal)

NOT TO SCALE



FIXED OBJECT JOINT

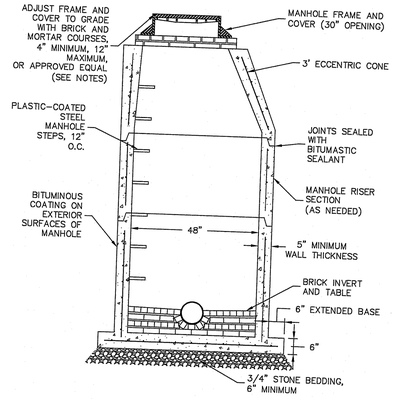


EXPANSION JOINT

CONTROL JOINT

NOTES:

1. MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM-C478.
2. INVERT AND TABLE SHALL CONSIST ENTIRELY OF BRICK AND MORTAR. NO SAND FILLER SHALL BE ALLOWED.
3. MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE. IN ACCORDANCE WITH THE SEWER AUTHORITY SANITARY RULES AND REGULATIONS. UNDER NO CIRCUMSTANCES WILL EXFILTRATION TESTING BE ACCEPTED.
4. BOLTED AND GASKETED COVERS SHALL BE USED ON MANHOLES IN OFF-ROAD AREAS.
5. TAPPING OF MANHOLES MUST BE AUTHORIZED AND INSPECTED BY THE SEWER AUTHORITY. THE ONLY APPROVED METHOD FOR TAPPING MANHOLES SHALL BE BY CORE-DRILLING THE MANHOLE AND INSTALLING A "KOR-N-SEAL" BOOT.
6. PRECAST CONCRETE GRADE RINGS, HDPE GRADE RINGS, OR OTHER RIM ADJUSTMENT PRODUCTS MAY BE USED IN LIEU OF BRICK AND MORTAR WITH THE PERMISSION OF THE SEWER AUTHORITY.

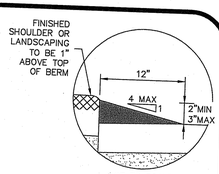


Sewer Manhole

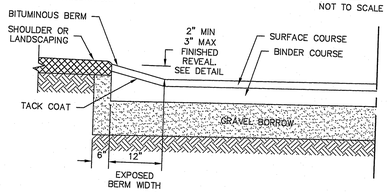
NOT TO SCALE

NOTES:

1. FOR ALL NEW PAVEMENT AREAS, BITUMINOUS BERM MUST BE CONTIGUOUS, PLACED AT THE SAME TIME AS THE BINDER COURSE, THEN OVERLAID WITH SURFACE COURSE. BERM CANNOT BE INSTALLED IN A SEPARATE EXTRUDED OPERATION.
2. ALL DIMENSIONS SHOWN ARE REQUIRED. ANY DEVIATIONS FROM DIMENSIONS SHOWN MUST BE APPROVED IN WRITING BY DESIGN ENGINEER AND PROJECT OWNER PRIOR TO BERM INSTALLATION.
3. BERM INSTALLATION MUST BE IN ACCORDANCE WITH ALL APPLICABLE SPECIFICATIONS, AND AUTHORITIES HAVING JURISDICTION.

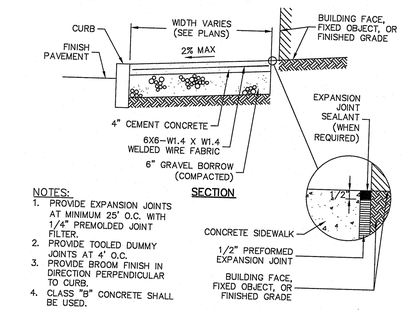


NOT TO SCALE



Bituminous Berm

NOT TO SCALE



SECTION

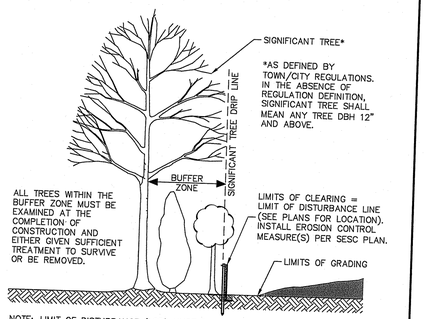
NOTES:

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.

JOINT DETAIL

Concrete Sidewalk

NOT TO SCALE



*AS DEFINED BY TOWN/CITY REGULATIONS. IN THE ABSENCE OF REGULATION DEFINITION, SIGNIFICANT TREE SHALL MEAN ANY TREE DBH 12" AND ABOVE.

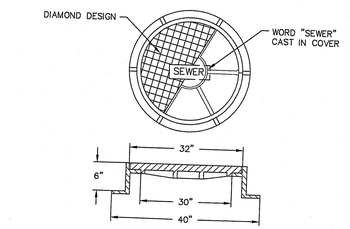
NOTE: LIMIT OF DISTURBANCE (LOD) MUST BE STAKED OUT PRIOR TO CONSTRUCTION. IF ANY SIGNIFICANT TREE DRIP LINE IS ENCROACHING PAST THE LOD, CONTRACTOR MUST CONTACT SITE ENGINEER PRIOR TO CONSTRUCTION.

Limit of Disturbance at Vegetation

NOT TO SCALE

NOTE:

1. SEWER MANHOLE FRAME AND COVER SHALL BE LEBARON MODEL LC326-2 OR APPROVED EQUAL.



Water-Tight Sewer Manhole Frame & Cover Detail

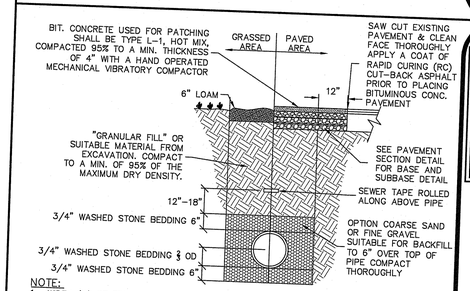
NOT TO SCALE

NOTES:

1. MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM-C478.
2. INVERT AND TABLE SHALL CONSIST ENTIRELY OF BRICK AND MORTAR. NO SAND FILLER SHALL BE ALLOWED.
3. MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE. IN ACCORDANCE WITH THE SEWER AUTHORITY SANITARY RULES AND REGULATIONS. UNDER NO CIRCUMSTANCES WILL EXFILTRATION TESTING BE ACCEPTED.
4. BOLTED AND GASKETED COVERS SHALL BE USED ON MANHOLES IN OFF-ROAD AREAS.
5. TAPPING OF MANHOLES MUST BE AUTHORIZED AND INSPECTED BY THE SEWER AUTHORITY. THE ONLY APPROVED METHOD FOR TAPPING MANHOLES SHALL BE BY CORE-DRILLING THE MANHOLE AND INSTALLING A "KOR-N-SEAL" BOOT.
6. PRECAST CONCRETE GRADE RINGS, HDPE GRADE RINGS, OR OTHER RIM ADJUSTMENT PRODUCTS MAY BE USED IN LIEU OF BRICK AND MORTAR WITH THE PERMISSION OF THE SEWER AUTHORITY.

Sewer Manhole

NOT TO SCALE



NOTE:

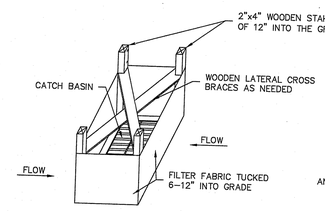
1. WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".
2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.
3. CRUSHED STONE FOUNDATION ¾" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4. CRUSHED STONE HAUNCHING 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 (within Site)

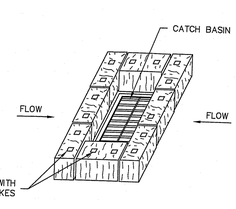
NOT TO SCALE

STRUCTURE A18	STC4800
STRUCTURE B13	STC7200
STRUCTURE F9	STC4800
STRUCTURE G8	STC2400
STRUCTURE H6	STC1200
STRUCTURE I7	STC4501

Stormceptor Sizing Table



SILT FENCE INSTALLATION FOR CATCH BASINS AT LOW POINTS



STRAW BALE FILTER INSTALLATION FOR CATCH BASINS AT LOW POINTS

NOTES:

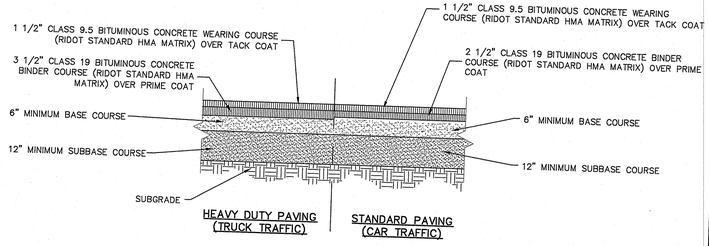
1. STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.
2. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM.
3. REFER TO LONG TERM/SHORT TERM MAINTENANCE NOTES AND OPERATION & MAINTENANCE PLAN FOR TIMING OF PLACEMENT AND REMOVAL OF EROSION CONTROL ELEMENTS.

Catch Basin Erosion Control

NOT TO SCALE

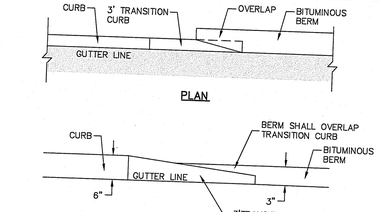
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0160
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D Vanasek

NOTE:
THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS PER THE GEOTECHNICAL REPORT FOR FORMER HI-LO LANDFILL 2113 HARTFORD AVENUE JOHNSTON, RHODE ISLAND. PREPARED BY GZA. DATED AUGUST 2019. PAVEMENT SECTION MUST COMPLY WITH GZA SPECIFICATIONS. CONTRACTOR MUST USE THE LATEST GEOTECHNICAL REPORT.

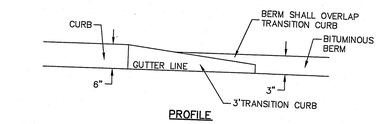


Typical Pavement Section

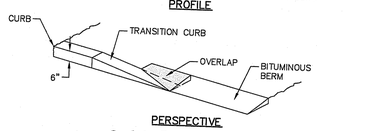
NOT TO SCALE



PLAN



PROFILE



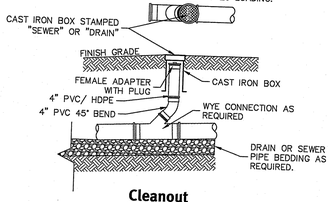
PERSPECTIVE

Curb to Berm Transition

NOT TO SCALE

NOTES:

1. ALL PIPE AND FITTINGS SHALL BE GASKETED SDR-35 (OR) SCH-40 PVC FOR SEWER, OR HDPE PIPE FOR DRAINAGE.
2. PIPE BEDDING AND BACKFILL FOR CLEANOUTS SHALL MEET APPLICABLE DRAINAGE AND SEWER SPECIFICATIONS UNLESS OTHERWISE NOTED BY ENGINEER.
3. FOR SEWER CLEANOUTS, A MINIMUM OF ONE CLEANOUT SHALL BE PLACED ON EACH LATERAL, 5' FROM THE STRUCTURE. FOR LONGER RUNS, CLEANOUTS SHALL BE LOCATED EVERY 100'. FOR DRAIN CLEANOUTS SEE PLANS FOR LOCATION AS REQUIRED.
4. ALL CLEANOUTS SHALL BE SLEEVED WITH A CAST-IRON BOX SET FLUSH WITHIN THE FINAL GRADE OF GRASS, HARDSCAPE, ROADWAYS OR CONCRETE AREAS. CAST IRON BOX NOT REQUIRED FOR STORMWATER BMP AREAS. COVERS SHALL BE INSCRIBED WITH THE WORD "SEWER." OR "DRAIN" ACCORDINGLY. FOR ROADWAY APPLICATIONS, THE CAST-IRON BOX MUST MEET H-20 LOADING.



Cleanout

NOT TO SCALE

NOTES:
EXISTING PAVEMENT INFORMATION OBTAINED FROM "STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION PLAN, PROFILE AND SECTIONS OF PROPOSED STATE HIGHWAY RECONSTRUCTION OF HARTFORD AVENUE (ROUTE 6A) I-295 TO ATWOOD AVENUE." PREPARED BY VANASSE HANGEN BRUSTLIN, INC. CONTRACT NUMBER 2009-CH-009.

CONTRACTOR TO PERFORM ASPHALT CORES PRIOR TO CONSTRUCTION AND PROVIDE EXISTING ASPHALT THICKNESS TO DESIGN ENGINEER FOR REVIEW.

THE PROPOSED THICKNESSES ARE MINIMUMS, AND IF THE EXISTING THICKNESSES ARE FOUND TO BE GREATER THE RESTORATION MUST FOLLOW THE STRUCTURE TO WHICH IT IS MATCHED TO ENSURE SIMILAR STRUCTURAL CAPACITIES. ALSO, IF CONCRETE BASE IS FOUND TO BE PRESENT IN THE ROADWAY, RESTORATION SHALL INCLUDE CLASS XX CONCRETE BASE IN-KIND THICKNESS IN ACCORDANCE WITH RI STANDARD SPECIFICATIONS.

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JAN 24 2022
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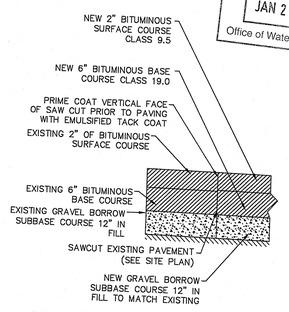


SAW CUT AND MATCH DETAIL FOR UTILITY INSTALLATION WTHIN HARTFORD AVENUE

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

BRIAN C. GIROUX
No. 9341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
5/11/2022

This plan set must not be used for construction purposes unless signed and stamped "Issued for Construction" and stamped by a registered Professional Engineer employed by DiPrete Engineering.

DiPrete Engineering relies upon electronic plans on a DiPrete Engineering title block stamped by registered Professional Engineer employed by DiPrete Engineering. DiPrete Engineering does not warrant plans by any third parties.

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

Existing utilities shown on this plan are approximate only. DiPrete Engineering assumes no responsibility for damages incurred due to existing utilities.

No.	Date	Description	By:
2	02-21-2022	RIDEM Responses to Comments	MAH
1	10-12-2021	RIDEM Responses to Comments	MAH
0	08-26-2020	Regulatory Permit Submission	MAH

Drawn By: MAH | Design By: MAH

Detail Sheet - 1

Johnston Crossing

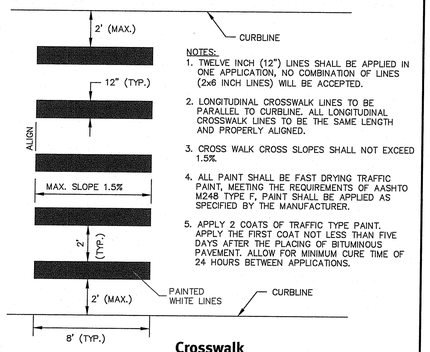
AP 54 Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919

Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8804

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

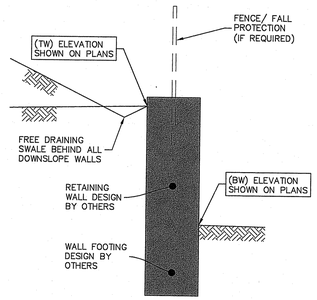
SHEET 20 OF 23 ~~21~~

Z:\dema\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan.dwg Plottset- 1/21/2022



NOTES:
1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (2x6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.
3. CROSS WALK CROSS SLOPES SHALL NOT EXCEED 1.5%
4. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F, PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
5. APPLY 2 COATS OF TRAFFIC TYPE PAINT. APPLY THE FIRST COAT NOT LESS THAN FIVE DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.

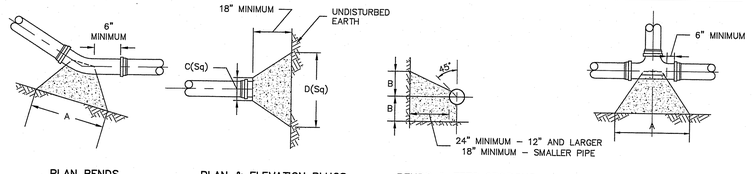
Crosswalk
NOT TO SCALE



Typical Retaining Wall Section
NOT TO SCALE

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.

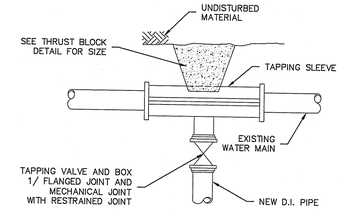
SIZE	TEES		PLUGS		90° BEND		45° BEND		22.5° BEND		11.25° BEND	
	A	B	C	D	A	B	A	B	A	B	A	B
6"	30"	10"	10"	30"	36"	12"	24"	9"	18"	7"	12"	5"
8"	36"	13"	12"	36"	42"	16"	36"	12"	24"	9"	18"	6"
10"	48"	17"	14"	48"	54"	20"	42"	15"	30"	11"	24"	8"
12"	54"	20"	16"	54"	66"	24"	48"	18"	36"	13"	24"	9"
16"	72"	27"	20"	72"	84"	32"	66"	23"	48"	17"	36"	12"



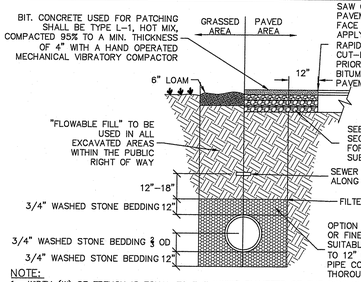
PLAN BENDS | PLAN & ELEVATION PLUGS | BENDS & TEES SECTIONS | PLAN TEES

Thrust Block
NOT TO SCALE

NOTES:
1. TAPPING SLEEVE AND VALVE TO BE SWABBED WITH CHLORINE SOLUTION.



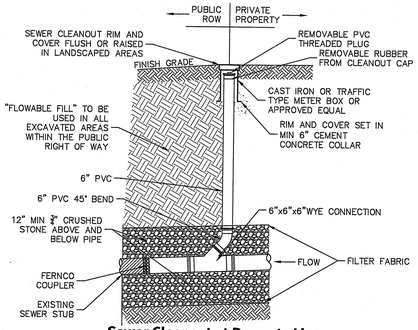
Tapping Sleeve & Valve
NOT TO SCALE



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 12" 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.

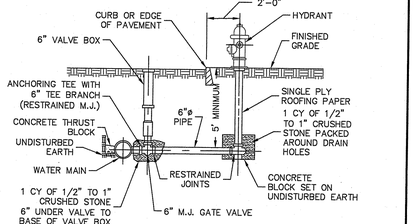
Sewer Trench Detail (within ROW)
NOT TO SCALE

NOTES:
1. PLACE CLEANOUT WITHIN THE PUBLIC ROW AT THE PROPERTY LINE
2. CLEANOUT SHALL BE ACCESSIBLE AT ALL TIMES



Sewer Cleanout at Property Line
NOT TO SCALE

NOTES:
1. STANDARD 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.



Hydrant Assembly
NOT TO SCALE

Sewer Line/Water Main Separation Policy For Design Of Sanitary Sewers

A. LATERAL PLACEMENT OF SEWERS AND WATER MAINS

SEWERS SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED OUTSIDE EDGE–TO–OUTSIDE EDGE. THERE IS NO MINIMUM VERTICAL SEPARATION REQUIRED PROVIDED THE 10' HORIZONTAL SEPARATION IS MAINTAINED.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10' HORIZONTAL SEPARATION, THE DIVISION MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATER MAIN, PROVIDED THAT:

1. THE SEWER AND WATER MAIN ARE LAID IN SEPARATE TRENCHES, OR
2. THE SEWER AND WATER MAIN MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATER MAIN PLACED ON A BENCH OF UNDISTURBED EARTH, AND
3. IN EITHER CASE, THE CROWN OF THE SEWER SHALL BE AT LEAST 18" BELOW THE INVERT OF THE WATER MAIN.

IN SITUATIONS WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE FOLLOWING PROTECTION SHALL BE PROVIDED:

4. ENCASEMENT OF THE SEWER PIPE IN CONCRETE (MINIMUM 6" THICKNESS) OR A CARRIER PIPE FOR AT LEAST 10' EITHER SIDE OF THE AREA NOT COMPLYING WITH THE MINIMUM HORIZONTAL AND VERTICAL SEPARATION, OR
5. DESIGN AND CONSTRUCTION OF THE SEWER EQUAL TO WATER MAIN PIPE (CEMENT–LINED DUCTILE IRON OR OTHER AWWA–APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE), AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS.

B. SEWERS CROSSING WATER MAINS

SEWERS CROSSING OVER WATER MAINS SHOULD BE AVOIDED, BUT IF CONDITIONS WARRANT THIS SITUATION, THEN ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE. SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18" BETWEEN THE INVERT OF THE WATER MAIN AND THE CROWN OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.

WHERE CONDITIONS PREVENT AN 18" VERTICAL SEPARATION FROM BEING MAINTAINED, THE FOLLOWING METHODS SHALL BE SPECIFIED:

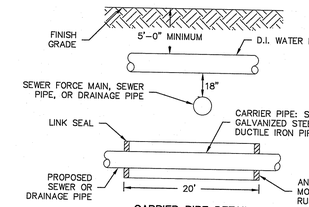
A. THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER MAIN PIPE (CEMENT–LINED DUCTILE IRON PIPE, PVC OR OTHER AWWA APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE) FOR A DISTANCE OF 12' ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS, OR

B. EITHER THE WATER MAIN OR THE SEWER MAY BE ENCASED IN CONCRETE (MINIMUM 6" THICKNESS) OR A CARRIER PIPE FOR A DISTANCE OF 12' ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE DESIGNED AND CONSTRUCTED OF MATERIALS WHICH ARE SATISFACTORY TO THE DIVISION, OR

C. ANY OTHER METHODS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER, WHICH ENSURE ADEQUATE WATER TIGHTNESS AND ARE SATISFACTORY TO THE DIVISION.

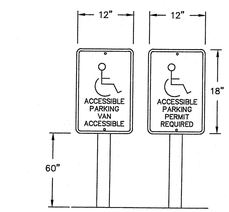
Environmental Management
JAN 24 2022
Office of Water Resources

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 TOWN SEWER AND WATER DEPARTMENTS



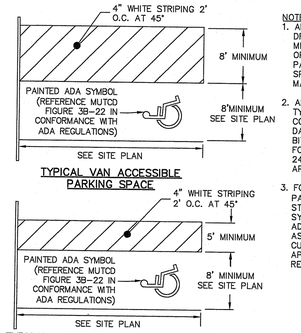
CARRIER PIPE DETAIL

Utility Separation
NOT TO SCALE



NOTES:
1. SIGN MUST BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SITE PLAN.
2. ACCESSIBLE PARKING SPACES AND SIGNAGE MUST COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR THE APPLICABLE STATE/ MUNICIPAL BUILDING CODE, WHICHEVER STANDARD CONTROLS.

Typical Accessible Parking Post & Sign
NOT TO SCALE

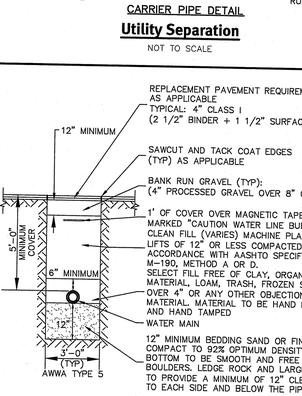


NOTES
1. ALL PAINT MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F, PAINT MUST BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
2. APPLY 2 COATS OF TRAFFIC TYPE PAINT. APPLY THE FIRST COAT NOT LESS THAN FIVE DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.
3. FOR REDEVELOPMENT SITES, PAINT COLOR AND SIZE/ STENCILING OF PAINTED ADA SYMBOL MUST MATCH ADJACENT SPACES, SO LONG AS THEY COMPLY WITH THE CURRENT EDITIONS OF ALL APPLICABLE STANDARDS AND REGULATIONS.

Typical Accessible Parking Spaces
NOT TO SCALE

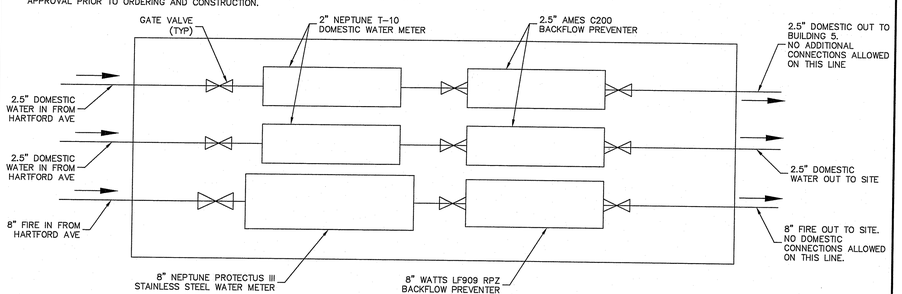
1. ALL IMPROVEMENTS MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE (CURRENT EDITION).
2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 4.5% (0.045 FT/FT), AND MAXIMUM CROSS SLOPE ACROSS ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 1.5% (0.015 FT/FT).
3. ADA PARKING SPACES AND LOADING AREAS: THE STEEPEST SLOPE OF THE SPACE, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
4. A MINIMUM 5'x5' LANDING MUST BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/ EGRESSES. THE STEEPEST SLOPE OF THE LANDING, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
5. FOR EVERY 6 (OR FRACTION OF 6) ADA PARKING SPACES, AT LEAST ONE MUST BE A VAN PARKING SPACE. FOR EXAMPLE, IF 7 ADA PARKING SPACES ARE REQUIRED, A MINIMUM OF 2 MUST BE VAN SPACES.
6. NOTWITHSTANDING THE NOTES LISTED ABOVE, TOWN OR STATE–SPECIFIC STANDARDS MAY BE MORE STRINGENT AND OVERRULE. IT IS THE RESPONSIBILITY OF THE USER OF THIS PLAN SET TO MAINTAIN COMPLIANCE WITH THE CONTROLLING STANDARD.
7. NOTE THAT THE GRADING/ PLAN VIEWS AND DETAILS CONTAINED WITHIN THIS PLAN SET MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS, RAMPS AND SPACES TO COMPLY WITH THE ABOVE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA/ CONTROLLING STANDARDS. IN THE EVENT OF ANY NON COMPLIANCE THE CONTRACTOR MUST NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

ADA Notes

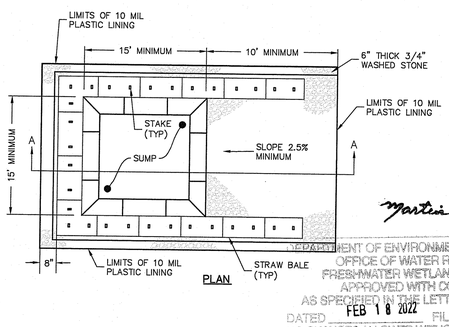


Water Trench Detail
NOT TO SCALE

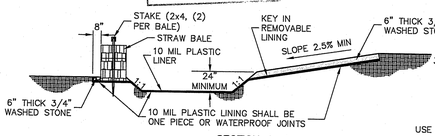
NOTES:
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR HEATED ENCLOSURE, WATER METER AND BACKFLOW DEVICE TO PROVIDENCE WATER, JOHNSTON DPW AND DESIGN ENGINEER FOR APPROVAL PRIOR TO ORDERING AND CONSTRUCTION.



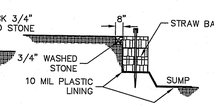
Heated Enclosure Detail
NOT TO SCALE



PLAN



SECTION A–A



ALTERNATE SECTION
USE WHERE MORE THAN ONE ACCESSIBLE SIDE IS NEEDED

Martin D. Iverson

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 18 2022 FILE # 21-0162
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Concrete Washout Area
NOT TO SCALE

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.

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

BRIAN C. GIROUX
No. 19341
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/21/2022

This plan set must not be used for construction purposes unless stamped "Issued for Construction" and signed by a registered Professional Engineer of DiPrete Engineering.
DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.
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.
Existing utilities shown on this plan are approximate only. DiPrete Engineering is not responsible for damages incurred due to locations of existing utilities.

No.	Date	Description	By
2	03.21.2022	RIDEM Response to Comments	MAH
1	03.12.2021	RIDEM Response to Comments	MAH
	12.04.2020	Regulatory Permit Submission	MAH

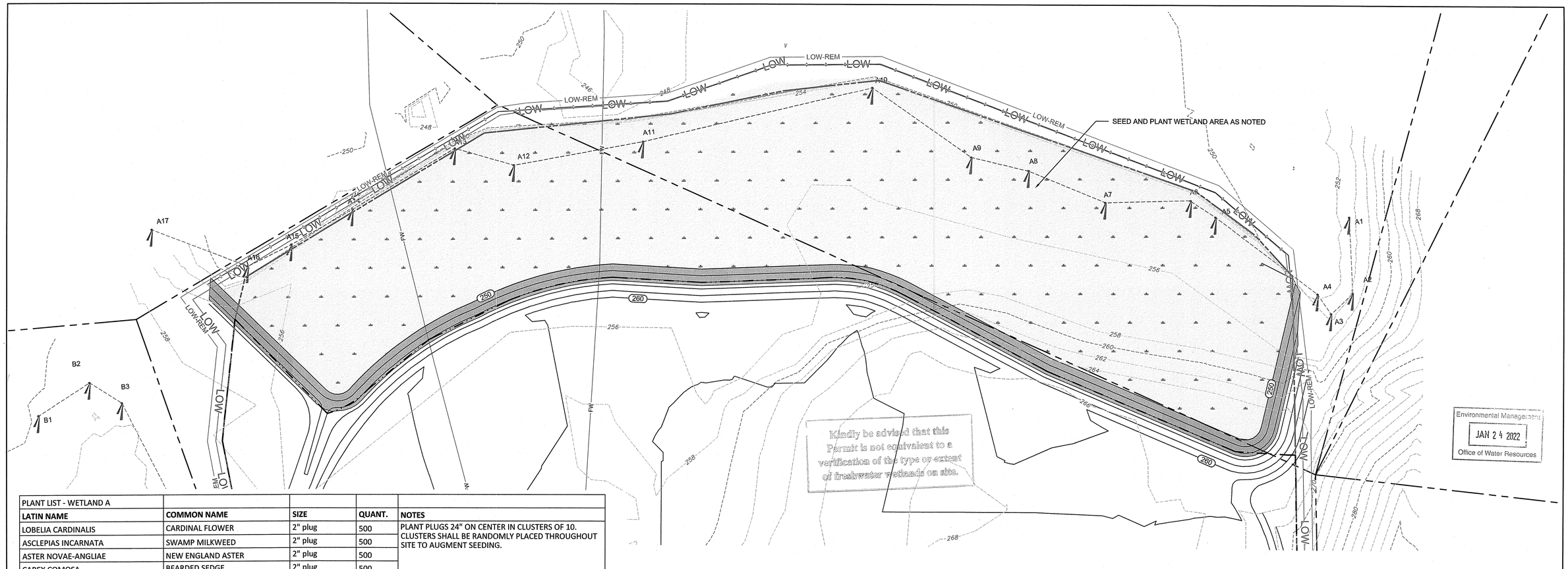
Drawn By: MAH | Design By: MAH

Detail Sheet - 2
Johnston Crossing
AP 94, Lots 34 and 80
2113 Hartford Avenue, Johnston, Rhode Island 02919
Applicant
Sitwell Park, LLC
152 President Avenue, Providence, Rhode Island 02906
tel (401) 487-8800

SHEET 21 OF 23

DE Job No: 2739-001 Copyright 2022 by DiPrete Engineering Associates, Inc.

z:\domain\projects\2739-001 hartford avenue 2113 encompass health\autocad drawings\2739-001-plan.dwg Plotted: 1/21/2022



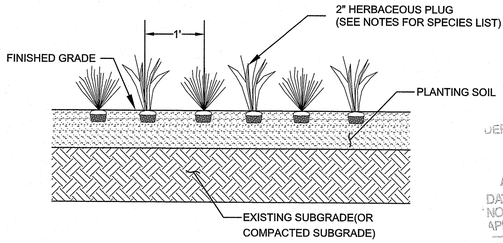
PLANT LIST - WETLAND A				
LATIN NAME	**COMMON NAME**	**SIZE**	**QUANT.**	**NOTES**
LOBELIA CARDINALIS	CARDINAL FLOWER	2" plug	500	PLANT PLUGS 24" ON CENTER IN CLUSTERS OF 10. CLUSTERS SHALL BE RANDOMLY PLACED THROUGHOUT SITE TO AUGMENT SEEDING.
ASCLEPIAS INCARNATA	SWAMP MILKWEED	2" plug	500	
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	2" plug	500	
CAREX COMOSA	BEARDED SEDGE	2" plug	500	
CAREX STRICTA	TUSSOCK SEDGE	2" plug	500	
CHELONE GLABRA	TURTLEHEAD	2" plug	500	
EUPATORIUM PERFOLIATUM	BONESET	2" plug	500	
CAREX LURIDA	LURID SEDGE	2" plug	500	
(CAREX VULPINOIDEA	FOX SEDGE	2" plug	500	
NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUAL. SPECIES: Fox Sedge (Carex vulpinoidea), Lurid Sedge (Carex lurida), Blunt Broom Sedge (Carex scoparia), Blue Vervain (Verbena hastata), Fowl Bluegrass (Poa palustris), Hop Sedge (Carex lupulina), Green Bulrush (Scirpus atrovirens), Creeping Spike Rush (Eleocharis palustris), Fringed Sedge (Carex crinita), Soft Rush (Juncus effusus), Spotted Joe Pye Weed (Eupatorium maculatum), Rattlesnake Grass (Glyceria canadensis), Swamp aster (Aster puniceus), Blueflag (Iris versicolor), Swamp Milkweed (Asclepias incarnata), Square stemmed Monkey Flower (Mimulus ringens).		1 lb.	28	APPLY SEED PER MANUFACTURER'S RECOMMENDATIONS (APPLICATION RATE: 1 lb./2500 sq. ft. 18 lbs./acre)

GENERAL NOTES

1. BASE MAP DEVELOPED FROM THE FOLLOWING:
   - AUTOCAD DRAWING FILE 3817.00_F1 TITLED "EXISTING CONDITIONS SITE PLAN, ASSESSOR'S PLAT 54, LOT 34, 15.80 ACRE PARCEL" DATED OCTOBER 3, 2012, SCALE 1" = 60', PREPARED BY GZA GEOENVIRONMENTAL.
   - ELECTRONIC SCAN OF A DRAWING TITLED "SITE PLAN", DATED MAY 13, 2019 FOR ENCOMPASS HEALTH.
   - FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 44007CO284H, REVISED OCTOBER 2, 2015, ORIGINAL SCALE 1" = 500'.
2. PLANTING WITHIN THE WETLAND RESTORATION SITE WILL CONFORM TO THE PLANS OR WILL BE COMPLETED IN ACCORDANCE WITH DIRECTIONS PROVIDED IN THE FIELD SEE PLANTING LIST.
3. ONLY PLANT MATERIALS NATIVE AND INDIGENOUS TO THE REGION WILL BE USED. USE OF CULTIVARS WILL BE PROHIBITED. SPECIES NOT SPECIFIED IN THE FINAL PLANTING PLAN WILL NOT BE USED WITHOUT WRITTEN APPROVAL FROM THE PERMITTING AGENCY.
4. APPROXIMATELY 8 INCHES OF CLEAN WETLAND SOIL WILL BE DISTRIBUTED OVER THE DISTURBED WETLAND AREA TO BE RESTORED. WETLAND SOIL PLACED, AS WELL AS ANY IN PLACE WETLAND SOIL EXPOSED AS PART OF THE WORK, WILL BE SEEDED WITH WETLAND SEED MIX. WETLAND SEED MIX SHALL BE "NEW ENGLAND WETMIX" BY NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUAL. SEE PLANTING LIST FOR SPECIES AND APPLICATION.
5. WETLAND RESTORATION AREA WILL VARY BASED ON ACTUAL EXTENT OF DEBRIS OBSERVED DURING THE WORK AND ASSOCIATED AREAS OF DISTURBANCE.
6. HAND REMOVAL OF SURFICIAL DEBRIS WITHIN THE LIMIT OF WORK.

LEGEND

- PROPERTY LINE (APPROXIMATE)
- 160 — EXISTING MAJOR CONTOUR (EVERY 5 FEET)
- 158 — EXISTING MINOR CONTOUR (EVERY FOOT)
- C3 C4 — NEW FLAGGED WETLAND EDGE (FLAGGED AND LOCATED BY GZA IN JULY, 2020)
- FW — APPROXIMATE LIMITS OF FEMA FLOODWAY
- APPROXIMATE PROPOSED AMENDED LIMIT OF BURIED DEBRIS
- PROPOSED SILT FENCE/EROSION CONTROL
- LOW-REM — PROPOSED LIMIT OF REMEDIAL WORK
- LOW — PROPOSED LIMIT OF SITE DEVELOPMENT WORK
- PROPOSED FINAL LIMIT OF BURIED DEBRIS
- 100 — MAJOR FINISH GRADE CONTOUR 10 FOOT INTERVAL
- 98 — MINOR FINISH GRADE CONTOUR 2 FOOT INTERVAL
- PROPOSED WETLAND RESTORATION AREA
- PROPOSED RIP RAP SLOPE PROTECTION (CAP TYPE 4), SEE DETAIL ON FIGURE 12
- REINFORCED LANDSCAPE SLOPE PROTECTION (CAP TYPE 2), SEE DETAIL ON FIGURE 12



HERBACEOUS PLUG PLANTING DETAIL
NOT TO SCALE

PERMITTING ONLY
NOT FOR CONSTRUCTION

0 15' 30' 60 90
SCALE IN FEET 1" = 30'

Environmental Management
JAN 24 2022
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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Martin D. Venezia

NO.	ISSUE/DESCRIPTION	BY	DATE

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HILO LANDFILL PERMITTING
2113 HARTFORD AVENUE
JOHNSTON, RHODE ISLAND

WETLAND RESTORATION PLAN - WETLAND A

P.E. STAMP:

REGISTERED PROFESSIONAL ENGINEER
ANJA THERESA RYAN DUFFY
No. 9847
LANDSCAPE ARCHITECTS

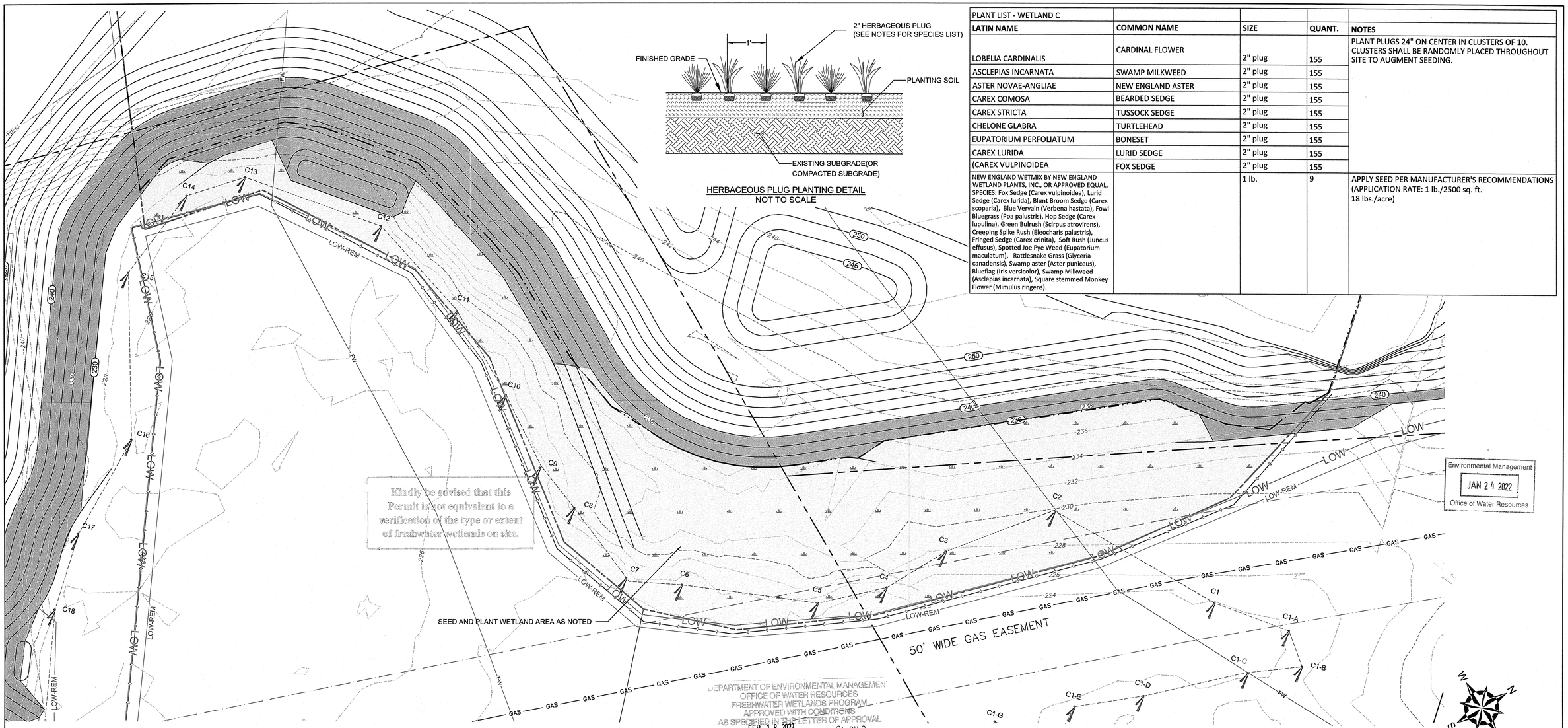
PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
SITWELL PARK, LLC AND
ENCOMPASS HEALTH

PROJ MGR:	NEM	REVIEWED BY:	TRG	CHECKED BY:	EAS
DESIGNED BY:	NEM	DRAWN BY:	CMC	SCALE:	AS NOTED
DATE:	JANUARY 2022	PROJECT NO.	34797.00	REVISION NO.	

DRAWING
LA-1
SHEET NO. ~~1 OF 2~~

© 2022 – GZA GeoEnvironmental, Inc. G:\ZA–J:\ENV\34797.NEM\CAD\CURRENT\PLANS\LANDSCAPE–PLANS–FOR DIPRETE\LANDSCAPE PLANS LA1–LA2.DWG 7 WETLAND A JANUARY 20, 2022 12:51PM SCOTT BUXTON



HERBACEOUS PLUG PLANTING DETAIL
NOT TO SCALE

PLANT LIST - WETLAND C				
LATIN NAME	**COMMON NAME**	**SIZE**	**QUANT.**	**NOTES**
LOBELIA CARDINALIS	CARDINAL FLOWER	2" plug	155	PLANT PLUGS 24" ON CENTER IN CLUSTERS OF 10. CLUSTERS SHALL BE RANDOMLY PLACED THROUGHOUT SITE TO AUGMENT SEEDING.
ASCLEPIAS INCARNATA	SWAMP MILKWEED	2" plug	155	
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	2" plug	155	
CAREX COMOSA	BEARDED SEDGE	2" plug	155	
CAREX STRICTA	TUSSOCK SEDGE	2" plug	155	
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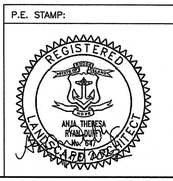
- REINFORCED LANDSCAPE SLOPE PROTECTION (CAP TYPE 2), SEE DETAIL ON FIGURE 12
- GAS — UNDERGROUND GAS LINE
- LIMITS OF GAS EASEMENT

P.E. STAMP:



PERMITTING ONLY
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0 10 20 40 60
SCALE IN FEET 1" = 20'

NO.	ISSUE/DESCRIPTION	BY	DATE

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HILO LANDFILL PERMITTING
2113 HARTFORD AVENUE
JOHNSTON, RHODE ISLAND

WETLAND RESTORATION PLAN - WETLAND C

PREPARED BY:			PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com			SITWELL PARK, LLC AND ENCOMPASS HEALTH	
PROJ MGR: NEM	REVIEWED BY: TRG	CHECKED BY: EAS	DRAWING	
DESIGNED BY: NEM	DRAWN BY: CMC	SCALE: AS NOTED		
DATE: JANUARY, 2022	PROJECT NO. 34797.00	REVISION NO.	LA-2	
			SHEET NO. ~~2 OF 2~~	

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