

LEGEND

	EXIST	PROP		EXIST	PROP
TOP/BOTTOM CURB ELEVATION	27.85 TC 27.15 BC X	27.85 TC 27.15 BC X	SURVEYED PROPERTY LINE (PL)	---	---
SPOT GRADE w/LEADER	21.25 X	21.25 X	ASSESSOR'S MAP PROP. LINE	---	---
SPOT GRADE	21.25 X	21.25 X	RIGHT-OF-WAY/PL EASEMENT	---	---
BORING LOCATION	⊕B-1	⊕B-1	BUILDING SETBACK	---	---
TEST PIT LOCATION	⊕TP-1	⊕TP-1	50' PERIMETER WETLAND	---	---
MONITORING WELL	⊕MW-1	⊕MW-1	100' RIVERBANK WETLAND	---	---
BENCH MARK	BM	BM	200' RIVERBANK WETLAND	---	---
DRAIN MANHOLE	⊙DMH	⊙DMH	ZONING LINE	---	---
CATCH BASIN	⊙CB	⊙CB	TOWN LINE	---	---
DOUBLE CATCH BASIN	⊙DCB	⊙DCB	STATE LINE	---	---
GUTTER INLET	⊙GI	⊙GI	GRAVEL ROAD	---	---
TRENCH DRAIN	==TD==	==TD==	EDGE OF PAVEMENT	ESP	ESP
HEADWALL	==HW==	==HW==	BITUMINOUS CURB	BC	BC
FLARED END SECTION	FES	FES	CAPE COD BERM	CCB	CCB
DRAINAGE LINE	---D---	---D---	PRECAST CONC. CURB	PCC	PCC
OVERFLOW DRAIN	---OD---	---OD---	VERT. GRAN. CURB	VGC	VGC
ROOF DRAIN	---RD---	---RD---	SLOPED GRAN. EDGING	SSE	SSE
OVERHEAD WIRE	---OW---	---OW---	LIMIT OF CURB TYPE	---	---
WATER LINE	---W---	---W---	TREE LINE	---	---
FIRE PROTECTION LINE	---FPL---	---FPL---	CRUSHED STONE	CS	CS
GAS LINE	---G---	---G---	EROSION CONTROL FABRIC	ECF	ECF
UNDERGROUND ELECTRIC	---UE---	---UE---	SAWOUT	---	---
UNDERGROUND TELEPHONE	---UT---	---UT---	MATCHLINE	---	---
FIRE ALARM	---FA---	---FA---	SOLID WHITE LINE	SWL	SWL
FIRE & POLICE CABLE	---FPC---	---FPC---	SOLID YELLOW LINE	SYL	SYL
CABLE TV	---CATV---	---CATV---	BROKEN WHITE LINE	BWL	BWL
PLUG/STUB	---	---	BROKEN YELLOW LINE	BYL	BYL
GREASE TRAP	---	---	SOLID WHITE CHANNELIZING LINE	SWCL	SWCL
CONTROL STRUCTURE	---	---	SOLID YELLOW CHANNELIZING LINE	SYCL	SYCL
SEWER MANHOLE	⊙SMH	⊙SMH	DOUBLE YELLOW LINE	DYL	DYL
SEWER LINE	---S---	---S---	STOP LINE	---	---
WATER GATE	---	---	STEEL GUARD RAIL	---	---
TAPPING SLEEVE, VALVE, & BOX	---	---	WOOD GUARD RAIL	---	---
RISER	---	---	PATH	---	---
PRESSURE REDUCER	---	---	CHAIN LINK FENCE	---	---
SIAMSE CONNECTION	---	---	STONE WALL	---	---
FIRE HYDRANT	---	---	RETAINING WALL	---	---
WATER METER	---	---	SILT FENCE	---	---
POST INDICATOR VALVE	---	---	STRAW WATTLE	---	---
WELL	---	---	STRAW WATTLE (LANDSCAPE BEDS)	---	---
GAS GATE	---	---	LIMIT OF DISTURBANCE	---	---
GAS METER	---	---	MINOR CONTOUR	---	---
ELECTRIC MANHOLE	---	---	MAJOR CONTOUR	---	---
ELECTRIC BOX	---	---	TOP OF SLOPE	---	---
ELECTRIC METER	---	---	TOE OF SLOPE	---	---
LIGHT POLE	---	---	BUILDING	---	---
FLOOD LIGHT	---	---	BUILDING ENTRANCE	---	---
SINGLE LUMINAIRE	---	---	LOADING DOCK	---	---
DOUBLE LUMINAIRE	---	---	BOLLARD	---	---
TRIPLE LUMINAIRE	---	---	DUMPSTER PAD	---	---
QUAD LUMINAIRE	---	---	SIGN	---	---
WALL PACK	---	---	DOUBLE SIGN	---	---
TELEPHONE MANHOLE	---	---	PARKING METER	---	---
TRAFFIC SIGNAL	---	---	PARKING COUNT	---	---
SIGNAL BOX	---	---	COMPACT PARKING STALLS	---	---
FIRE ALARM CONTROL PANEL	---	---	CROSSWALK	---	---
FIRE ALARM BOX	---	---	CEMENT CONC. PAVEMENT	---	---
TRANSFORMER PAD	---	---	RIPRAP STONE	---	---
MANHOLE	---	---	TRAIL REINFORCEMENT	---	---
UTILITY POLE	---	---	ADA RAMP	---	---
GUY POLE	---	---	ADA PARKING	---	---
HAND HOLE	---	---	VAN-ACCESSIBLE ADA PARKING	---	---
PULL BOX	---	---			

ABBREVIATIONS

ABANDON	ABAN	MAXIMUM	MAX
ADJUST	ADJ	MINIMUM	MIN
AMERICAN SOCIETY FOR TESTING & MATERIALS	ASTM	NOT IN CONTRACT	NIC
AMERICANS WITH DISABILITIES ACT	ADA	NOT TO SCALE	NTS
APPROXIMATE	APPROX	ON CENTER	OC
ASPHALT COATED CORRUGATED METAL PIPE	ACOMP	ONSITE WASTEWATER TREATMENT SYSTEM	OWTS
BITUMINOUS CURB	BC	PAVED WATER WAY	PWW
BOTTOM OF SLOPE	BOS	POLYVINYLCHLORIDE PIPE	PVC
CAPE COD BERM	CCB	PRECAST CONCRETE CURB	PCC
CAST IRON PIPE	CIP	PROPOSED	PROP
CHANGE IN TYPE	CIT	RADIUS	R
COLUMN	COL	REINFORCED CONCRETE PIPE	ROP
CONDUIT	COND	REMODEL	REM
CORRUGATED ALUMINUM PIPE	CAP	REMOVE	REM
CORRUGATED POLYETHYLENE PIPE	CPP	REMOVE AND DISPOSE	R&D
DUCTILE IRON PIPE	DIP	REMOVE AND RESET	R&R
ELEVATION	ELEV	REMOVE AND STORE	R&S
EXISTING	EXIST	RETAIN	RET
FOUNDATION	FDN	SLOPED GRANITE EDGING	SGE
FRAME AND COVER	F&C	TAPPING SLEEVE, VALVE AND BOX	TSV&B
FRAME AND GRATE	F&G	TOP OF SLOPE	TOS
GALVANIZED	GALV	TRANSITION	TRANS
GRANITE CURB	GC	TYPICAL	TYP
HIGH DENSITY POLYETHYLENE	HDPE	UTILITY POLE	UP
HYDRANT	HYD	VERTICAL GRANITE CURB	VGC
INVERT ELEVATION	INV	VITRIFIED CLAY PIPE	VCP
LANDSCAPE AREA	LA	WATER GATE	WG

GENERAL NOTES

- WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC. (WOOD) IS SYNONYMOUS WITH AMEC FOSTER WHEELER DUE TO CORPORATE MERGER.
- THESE PLANS AND THEIR CORRESPONDING ELECTRONIC DOCUMENTS, INCLUDING CAD FILES FOR THE PROJECT, ARE INSTRUMENTS OF PROFESSIONAL SERVICE AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY OTHER PURPOSE THAN THE DEVELOPMENT OF THIS PROJECT WITHOUT THE EXPRESSED, WRITTEN CONSENT OF WOOD. ANY UNAUTHORIZED USE, RE-USE, ALTERATION, OR MODIFICATION OF THIS DATA SHALL BE AT THE USER'S RISK WITH NO LIABILITY ON THE PART OF WOOD.
- UPON AWARD OF THE CONTRACT AND PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND BONDS AND PAYING ALL STATE AND LOCAL FEES RELATING TO THE WORK SHOWN ON THESE DRAWINGS, THE CONSTRUCTION SPECIFICATIONS, AND CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL NOTIFY DIG-SAFE AT LEAST 72 BUSINESS HOURS PRIOR TO INITIATING ANY EXCAVATION WORK.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. WHERE SITE SPECIFICATIONS ARE NOT PROVIDED, THE CONTRACTOR SHALL ADHERE TO LOCAL MUNICIPAL STANDARDS OR THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, AS APPLICABLE. WORK WITHIN LOCAL RIGHTS-OF-WAY SHALL ADHERE TO LOCAL MUNICIPAL STANDARDS; WORK WITHIN STATE RIGHTS-OF-WAY SHALL ADHERE TO STATE HIGHWAY STANDARDS. WHERE A DISCREPANCY EXISTS, THE MORE RESTRICTIVE STANDARD SHALL APPLY.
- REFERENCE MADE TO "STATE HIGHWAY STANDARDS," "STATE STANDARD SPECIFICATIONS," "STANDARD SPECIFICATIONS," OR "RIDOT STANDARDS" SHALL MEAN AND BE DEFINED AS THE "RHODE ISLAND DEPARTMENT OF TRANSPORTATION - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION."
- ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE REMOVED IMMEDIATELY AND REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SITE SECURITY AND JOB SAFETY AND SHALL CONFORM TO THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING ANY REQUIRED POLICE PROTECTION. ANY REQUIRED TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
- THE CONTRACTOR SHALL NOT OBSTRUCT PUBLIC ROADWAYS, SIDEWALKS, OR FIRE HYDRANTS WITHOUT FIRST OBTAINING THE NECESSARY PERMITS TO DO SO.
- ACCESSIBLE ROUTES, PARKING SPACES, SIDEWALKS, AND RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FEDERAL "AMERICANS WITH DISABILITIES ACT (ADA)" AND LOCAL AND STATE STANDARDS. WHERE A DISCREPANCY EXISTS, THE MORE RESTRICTIVE STANDARD SHALL APPLY.
- THE LIMITS-OF-WORK (A.K.A. "LIMIT OF DISTURBANCE") SHALL BE AS SHOWN ON THESE PLANS. AREAS DISTURBED BEYOND THESE DEFINED LIMITS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. LANDSCAPE AREAS SHALL BE RESTORED WITH 6 INCHES OF LOAM AND SEED.
- UNLESS OTHERWISE NOTED ON THE PLANS, ALL UNPAVED/LANDSCAPE AREAS SHALL RECEIVE FOUR (4) INCHES OF LOAM AND SEED WITHIN THE LIMITS OF WORK SHOWN ON THESE PLANS. LOAM SHALL BE EVENLY SPREAD, SMOOTHED, AND COMPACTED PRIOR TO SEEDING.
- PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT THEIR PROPOSED INTERFACE WITH PROPOSED PAVEMENTS TO ENSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
- HORIZONTAL AND VERTICAL DATUMS ARE PROVIDED ON THE EXISTING CONDITIONS PLANS.
- ALL TREES TO REMAIN WITHIN LIMIT OF DISTURBANCE (LOD) UNLESS OTHERWISE NOTED. TREES WITHIN LOD SHALL BE PROTECTED WITH SNOW FENCE UNTIL COMPLETION OF WORK OR WHEN HEAVY EQUIPMENT IS NO LONGER REQUIRED.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE APPROVALS REQUIRED FOR THE PROJECT. REQUIRED PERMITS/APPROVALS FOR THE CONSTRUCTION INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
 - RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 - FRESHWATER WETLANDS INSIGNIFICANT ALTERATION PERMIT
 - RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
- WHERE EXISTING DRAINAGE SYSTEMS ARE IMPACTED BY THE PROPOSED CONSTRUCTION, ALL WORK SHALL BE DONE DURING DRY WEATHER, OR WHERE NOT FEASIBLE OR PRACTICAL TO DO SO, CONTRACTOR SHALL EMPLOY STORMWATER DIVERSION MATERIALS TO ENSURE NON-EROSIVE DISCHARGE.
- DRAINAGE CONTRACTOR TO REMOVE ALL SANDBAGS AND TEMPORARY PLUGS UPON COMPLETION OF PROJECT AND FULL STABILIZATION.

GENERAL UTILITY NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES AND WORK TRADES ASSOCIATED WITH THE WORK SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL KEEP ALL LOCAL AGENCIES INFORMED OF SCHEDULE AS NECESSARY.
- EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE LOCATION, SIZE, MATERIAL(S), AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE LIMIT OF WORK PRIOR TO ORDERING OR INSTALLING THESE MATERIALS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
- WHERE AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, OR WHERE EXISTING CONDITIONS DIFFER FROM THE INFORMATION SHOWN ON THESE PLANS, SUCH THAT THE WORK CAN NOT BE COMPLETED AS INTENDED, THE CONTRACTOR SHALL IMMEDIATELY IDENTIFY AND PROVIDE THE ENGINEER WITH THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY IN CONFLICT. THE CONTRACTOR SHALL NOT CONTINUE WORK IN THIS AREA UNTIL THE APPROPRIATE REMEDIAL ACTION IS AGREED UPON BY THE OWNER AND ENGINEER.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO OVERHEAD AND/OR UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THESE PLANS THROUGHOUT WORK ON THIS PROJECT.
- STORM DRAIN PIPING SHALL BE CONSTRUCTED OF HIGH-DENSITY POLYETHYLENE (HDPE) UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL DRAINAGE MANHOLE DIAMETERS SHALL BE A MINIMUM OF FOUR (4) FEET AND AS DETERMINED BY THE MANHOLE MANUFACTURER(S), BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS.
- ALL STRUCTURES UNDER PAVED AREAS SHALL BE DESIGNED TO MEET HS-20 TRUCK LOAD.

LAYOUT AND MATERIALS NOTES

- THE CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THE ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- DIMENSIONS ARE TO/FROM FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED ON THESE PLANS.
- PROPOSED BOUNDS AND ANY OTHER EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BITUMINOUS PATCH FOR ANY TRENCH WORK WITHIN PAVEMENT OR SIDEWALK AREAS IN PUBLIC RIGHTS-OF-WAY UNTIL PERMANENT PATCHING IS INSTALLED.

DEMOLITION

- WITHIN THE LIMIT OF WORK/DISTURBANCE, THE CONTRACTOR SHALL CLEAR AND GRUB ALL EXISTING VEGETATION AND STOCKPILE AND SCREEN TOPSOIL FOR RE-USE IN LANDSCAPE AREAS. THE CONTRACTOR SHALL ALSO REMOVE AND DISPOSE OF ALL EXISTING MANMADE FEATURES, INCLUDING BUT NOT LIMITED TO BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, WALLS, FENCES, UTILITIES (BOTH OVERHEAD AND UNDERGROUND), SIGNS, ETC., EXCEPT AS OTHERWISE NOTED ON THESE PLANS. THE EXISTING SOIL CAP SHALL NOT BE DISTURBED UNLESS OTHERWISE INDICATED ON THESE PLANS.
- ALL WETLAND DISTURBANCES ASSOCIATED WITH CONSTRUCTION ACTIVITIES SHALL BE RESTORED.
- THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- THE EXTENT OF DEMOLITION DEPICTED ON THESE PLANS IS INTENDED TO AID THE CONTRACTOR IN BIDDING THE PROJECT AND IS NOT NECESSARILY INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE FULL EXTENTS OF THE DEMOLITION WORK PRIOR TO CONTRACT AWARD AND SHALL NOT BE COMPENSATED FOR UNFORESEEN CONDITIONS ONCE THE WORK HAS COMMENCED.
- UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THESE PLANS, THE ENGINEER HAS NOT PREPARED PLANS FOR THE DISCOVERY, REMOVAL, ABATEMENT, OR DISPOSAL OF ANY HAZARDOUS OR TOXIC MATERIALS FOUND DURING CONSTRUCTION.
- ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE NOTED AND/OR APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT AND THE PROVIDENCE PARKS DEPARTMENT. ANY UNAUTHORIZED DAMAGE OR REMOVAL OF A TREE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND COMPENSATED TO THE PARKS DEPARTMENT.

100-YEAR FLOOD PLAIN IMPACT AVOIDANCE

- FEMA FLOOD ZONE BOUNDARIES HAVE BEEN SUPERIMPOSED ONTO THIS DRAWING, GIVEN THAT IN MOST AREAS THE FEMA BOUNDARIES CROSS SIGNIFICANT ELEVATIONS (SOMETIMES >20 FEET). THEREFORE, 100-YEAR FLOOD LIMITS WERE DEEMED INACCURATE.
- ANECDOTAL EVIDENCE SUGGESTS THAT DURING THE FLOODS IN MARCH/APRIL 2010 (A 100+ YEAR STORM EVENT) THE FLOOD LEVELS DID NOT BREACH THE DALRYMPLE BOATHOUSE. BASED ON THE EXISTING CONDITIONS SURVEY, GRADES AT THE BOATHOUSE APPEAR LESS THAN 30 FEET. THEREFORE, THE FLOOD PLAIN IS ASSUMED TO BE BELOW ELEVATION 30.
- BASED ON THE INFORMATION ABOVE, THERE IS NO ANTICIPATED INCREASE IN THE 100-YEAR FLOOD ELEVATIONS RESULTANT FROM THE PROPOSED PROJECT, AS DESIGNED.

EXISTING CONDITIONS

- EXISTING CONDITIONS ARE COMPILED FROM THE FOLLOWING SOURCES:
- FIELD SURVEY AND BY WATERMAN ENGINEERING COMPANY, SUPPLEMENTED BY RIGIS LIDAR ELEVATION DATA.
 - FEMA FLOOD MAPS 44007C0316G (EFFECTIVE 3/2/2009), 44007C0317J (EFFECTIVE 9/8/2013), 44007C0318H (EFFECTIVE 10/2/2015), 44007C0319J (EFFECTIVE 10/2/2015).
 - SUPPLEMENTAL INFORMATION PROVIDED THROUGH FIELD VISITS BY WOOD.

SITE SPECIFIC DATA

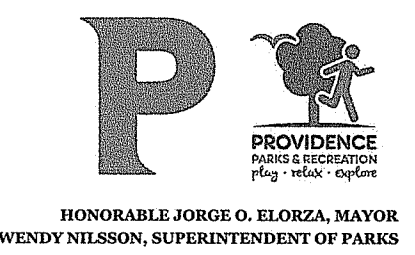
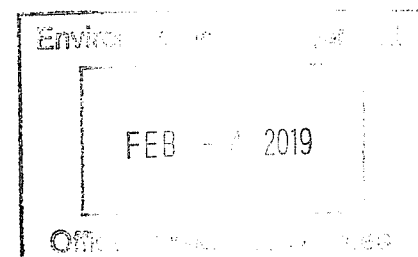
- TOTAL SITE AREA = 435.0± ACRES
- TOTAL AREA OF DISTURBANCE = 3.0± ACRES
- NATURAL HERITAGE AREA (NHA) IMPACT - N/A
- THREATENED SPECIES OR HABITAT IMPACT - N/A
- WATERSHED = ROGER WILLIAMS PARK PONDS: I.D. RI0006017L-05

EROSION CONTROLS/CONSTRUCTION SEQUENCING

- PRIOR TO THE START OF CONSTRUCTION OF ANY EARTHWORK ACTIVITIES, THE CONTRACTOR SHALL NOTIFY ALL APPLICABLE AGENCIES AND INSTALL THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL PERMITS PERTAINING TO THIS PROJECT.
- THE CONTRACTOR SHALL KEEP A COPY OF THE "SOIL EROSION AND SEDIMENTATION CONTROL PLAN" (SESC) AND THE APPROVED PLAN SET AT THE CONSTRUCTION SITE AT ALL TIMES.
- THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES SHOWN ON THE PLAN SET IN ACCORDANCE WITH THE SESC AND THE MOST RECENT EDITION OF THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK."
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND/OR UPGRADE THESE MEASURES, AS NECESSARY, THROUGHOUT CONSTRUCTION, TO MEET THE REQUIREMENTS OF ALL RELATED PERMITS FOR THE PROJECT.
- THE CONTRACTOR SHALL PREPARE AND MAINTAIN A RED-LINED COPY OF THE SESC PLAN SHOWING INTENDED AREAS FOR STAGING, STOCKPILING, WASHOUT, SOLID WASTE CONTAINMENT, AND TEMPORARY SEDIMENTATION CONTROL AREAS. ALL SUCH AREAS SHALL BE LOCATED OUTSIDE OF REGULATED WETLAND AREAS OR AREAS INTENDED FOR INFILTRATION PRACTICES.
- EROSION CONTROL DEVICES:
 - AT LEAST ONE STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED FOR SELECT STORMWATER PROJECTS FOR ACCESS TO THE PROJECT BY CONSTRUCTION VEHICLES. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED BEFORE CONSTRUCTION VEHICLES ARE ALLOWED TO ENTER THE CONSTRUCTION SITE. ADDITIONAL ENTRANCES/EXITS SHALL BE INSTALLED, IF MORE THAN ONE ACCESS POINT IS ANTICIPATED BY THE CONTRACTOR. A WASH OUT PAD MAY ALSO BE INSTALLED TO WASH CONSTRUCTION VEHICLES EXITING THE SITE.
 - ROADS ADJACENT TO THE CONSTRUCTION SITE SHALL BE CLEAN AT THE END OF EACH WORK DAY.
 - TEMPORARY SEDIMENT BASINS MAY BE EXCAVATED OR BERMED/HAYBALED AND SHALL BE SIZED IN ACCORDANCE WITH THE "RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL" AND THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK." THE DISCHARGE LOCATION FROM THESE BASINS SHALL BE STABILIZED TO PREVENT EROSION.
 - STRAW WATTLE AND SILT SACKS SHALL BE INSTALLED AT ALL DOWN-GRADE CATCH BASINS WITHIN THE LIMIT OF WORK TO CONTROL EROSION AND SEDIMENTATION AND TO PROTECT OFF-SITE AREAS. THESE DEVICES SHALL BE INSTALLED AS SHOWN ON THE E&S CONTROL PLAN PRIOR TO INITIATION OF MAJOR SITE WORK ACTIVITIES AND SHALL BE MAINTAINED/REPAIRED UNTIL FINAL STABILIZATION OF ALL DISTURBED AREAS.
 - SILT FENCE SHALL BE INSTALLED AROUND ALL EARTH STOCKPILES. STOCKPILES SHALL BE STABILIZED WITH TEMPORARY SEED ACCORDING TO NOTE 11 BELOW. IF TEMPORARY SEED IS NOT FEASIBLE OR NOT PRACTICAL, STOCKPILES SHALL BE COVERED WITH POLYETHYLENE SHEETING OR SIMILAR PRODUCT AT THE END OF EACH DAY TO MINIMIZE DUST.
 - ALL OTHER EROSION CONTROL DEVICES SHOWN ON THESE PLANS SHALL BE IN ACCORDANCE WITH "RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL" AND THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK."
- THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE INTENDED TO BE THE MINIMUM NECESSARY AT THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND SUPPLEMENT THESE EROSION CONTROLS, AS NECESSARY THROUGHOUT CONSTRUCTION, TO PREVENT DAMAGE TO WETLANDS AND/OR SURROUNDING PROPERTIES.
- THE CONTRACTOR SHALL PREVENT DUST, DEBRIS, AND SEDIMENTS FROM LEAVING THE SITE DURING CONSTRUCTION AND SHALL BE RESPONSIBLE TO REPAIR, CLEAN UP AND TAKE OTHER CORRECTIVE ACTION IMMEDIATELY OR NO LATER THAN 24 HOURS AFTER ANY ISSUE ARISES.
- THE CONTRACTOR SHALL CONTROL CONSTRUCTION STORMWATER RUNOFF IN SUCH A MANNER AS TO PREVENT DAMAGE TO DOWN-GRADE PROPERTIES; ANY PROPERTIES SO DAMAGED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND WITHIN 12 HOURS AFTER A RAINFALL EVENT. THE CONTRACTOR SHALL IMMEDIATELY REPAIR DAMAGED DEVICES AND SHALL REMOVE ACCUMULATED SEDIMENTS IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE RIPDES PERMIT, WHEN APPLICABLE. ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM THE SITE OR PLACED AWAY FROM WETLANDS AND CLOSED DRAINAGE SYSTEMS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PERFORM EARTHWORK IN PHASES THAT ALLOW FOR STABILIZATION OF THESE AREAS IN A RELATIVELY SHORT TIME PERIOD AND TO DISCOURAGE EROSION AND SEDIMENTATION. ANY EXPOSED SOILS INTENDED TO REMAIN FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH MULCH, OR TEMPORARY SEED AND WATERED TO ENCOURAGE VEGETATION.
- THE CONTRACTOR SHALL INSTALL PERMANENT SEEDING BETWEEN APRIL 15TH AND JUNE 15TH AND/OR AUGUST 15TH TO OCTOBER 15TH.
- THE CONTRACTOR SHALL APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN SEVEN (7) DAYS OF ESTABLISHING FINAL GRADE.
- THE CONTRACTOR SHALL PERFORM A FINAL INSPECTION OF ALL EXISTING CATCH BASINS, DRAINAGE PIPING, AND ASSOCIATED DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS TO ENSURE THAT ALL SEDIMENTS HAVE BEEN REMOVED BEFORE WORK IS DEEMED COMPLETE.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL E&S MEASURES ONLY AFTER FINAL PAVEMENT IS PLACED AND VEGETATION IN LANDSCAPE AREAS IS WELL ESTABLISHED.

INFILTRATION AREAS

- TO ENSURE THE LONG-TERM FUNCTION AND VALUE OF ANY AREA PROPOSED FOR INFILTRATION, INCLUDING BUT NOT LIMITED TO BIORETENTION BASINS, SAND FILTERS, SURFACE INFILTRATION BASINS, AND SUBSURFACE INFILTRATION CHAMBERS, THE CONTRACTOR SHALL EXERCISE THE FOLLOWING BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION:
- THESE AREAS SHALL NOT BE USED FOR TEMPORARY CONSTRUCTION SEDIMENTATION CONTROL, SEDIMENTATION BASINS, OR DEWATERING AREAS.
 - THESE AREAS SHALL REMAIN OFF-LINE UNTIL THE ENTIRE CONSTRUCTION AREA CONTRIBUTING TO THESE AREAS HAS BEEN STABILIZED WITH BUILDINGS, BUILDING FOUNDATIONS, PAVEMENT, OR VEGETATION, AS APPLICABLE.
 - STORMWATER RUNOFF DURING CONSTRUCTION SHALL BE DIRECTED AWAY FROM THESE AREAS TO THE GREATEST EXTENT PRACTICABLE. WHERE NOT FEASIBLE, THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROLS UP-GRADE OF THESE AREAS TO PREVENT SEDIMENTATION OF THESE AREAS DURING CONSTRUCTION.
 - THE SUBGRADE BELOW THESE AREAS SHALL NOT BE COMPACTED; THEREFORE, THE CONTRACTOR SHALL RESTRICT ACCESS TO THESE AREAS BY HEAVY EQUIPMENT AND SHALL NOT USE THESE AREAS FOR MATERIALS STOCKPILES.
 - EXCAVATION AND CONSTRUCTION OF THESE AREAS SHALL BE PERFORMED USING HAND OR HYDRAULIC EQUIPMENT TO ENSURE THAT THE NATURAL FILTRATION EARTH MATERIAL IS NOT DISTURBED OR OTHERWISE COMPACTED.
 - UPON COMPLETION OF CONSTRUCTION OF ANY OF THESE AREAS, THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES TO PREVENT SILTATION OF THE FILTER MATERIALS.



NOT FOR CONSTRUCTION



REVISION DATE DESCRIPTION
CLIENT: CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
1000 ELMWOOD AVENUE, PROVIDENCE, RI 02907

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 11 2018 FILE # 19-031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Habet

PROJECT: INSTALLATION OF STORMWATER BMPS IN ROGER WILLIAMS PARK - PHASES 2 & 3
1000 ELMWOOD AVENUE PROVIDENCE, RHODE ISLAND

LEGEND & NOTES

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: N/A
DRAWN BY: MJW
CHECKED BY: CHB
PROJECT NO: 3853170024



wood.
 WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 275 PROMENADE STREET, SUITE 100
 PROVIDENCE RHODE ISLAND, 02908
 WEB: WWW.WOODPLC.COM
 (401) 648-9240

P
 PROVIDENCE
 HONORABLE JORGE O. ELORZA, MAYOR
 WENDY NILSSON, SUPERINTENDENT OF PARKS

FEB - 4 2019

APPROVED FOR CONSTRUCTION
 DATED JUN 3 2019
 NO CHANGES APPROVED
 19-0031

NOT FOR CONSTRUCTION

SEAL:
C N BEAULIEU-SHEA
 No. 5701
 REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/15

REVISION	DATE	DESCRIPTION

CLIENT:
**CITY OF PROVIDENCE
 PARKS & RECREATION
 DEPARTMENT**
 1000 ELMWOOD AVENUE,
 PROVIDENCE, RI 02907

PROJECT:
**INSTALLATION OF
 STORMWATER BMPs
 IN ROGER WILLIAMS
 PARK - PHASES 2 & 3**
 1000 ELMWOOD AVENUE
 PROVIDENCE, RHODE ISLAND

TITLE:
OVERALL PLAN

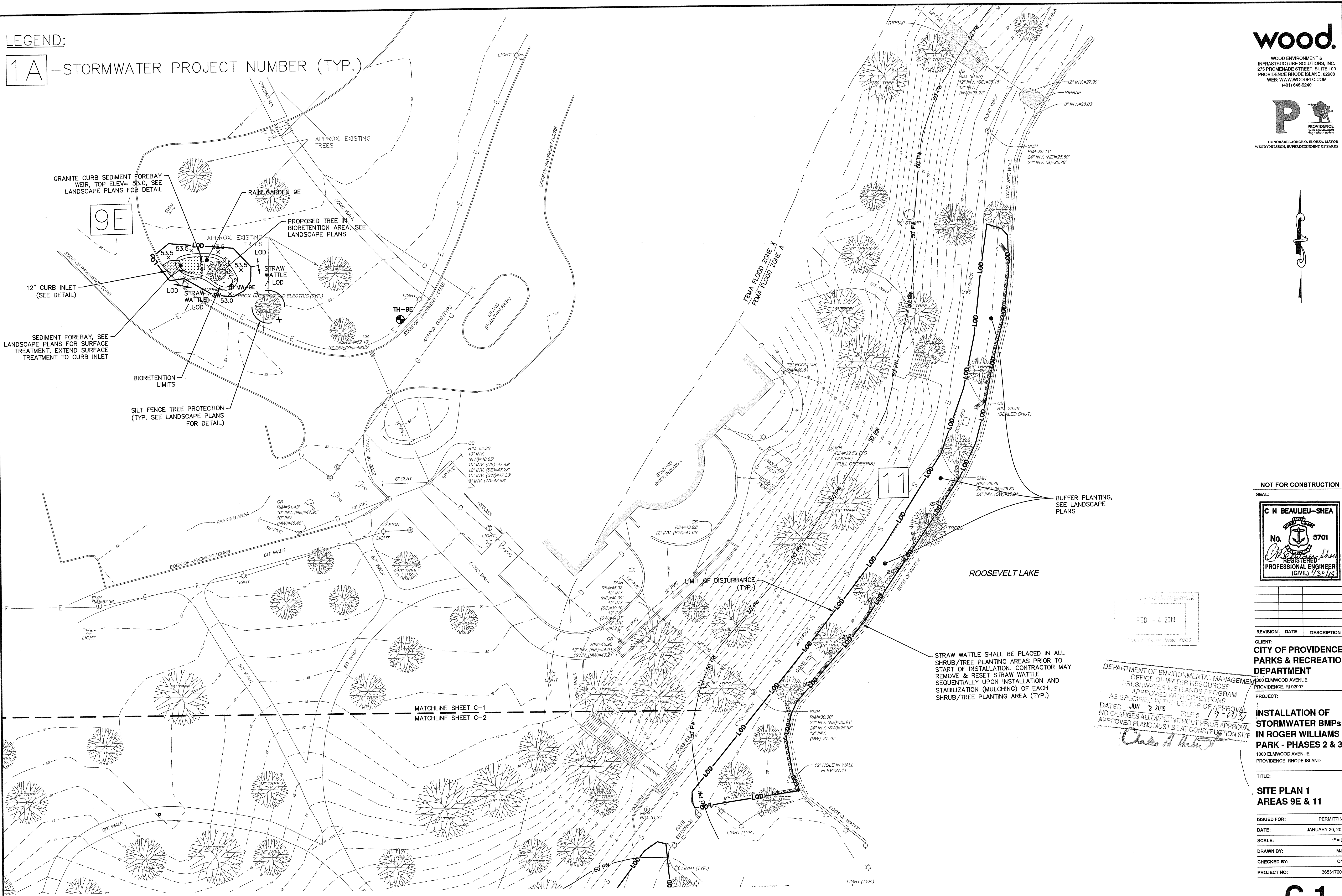
ISSUED FOR: PERMITTING
 DATE: JANUARY 30, 2019
 SCALE: 1" = 150'
 DRAWN BY: MJW
 CHECKED BY: CNB
 PROJECT NO: 3653170024

C-0.2
 SHEET 3 OF 18

UNLESS OTHERWISE AGREED IN A WRITTEN CONTRACT BETWEEN WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC. AND ITS CLIENT: (i) THIS DOCUMENT CONTAINS INFORMATION, DATA AND DESIGN THAT IS CONFIDENTIAL AND MAY NOT BE COPIED OR DISCLOSED; AND (ii) THIS DOCUMENT MAY ONLY BE USED BY THE CLIENT IN THE CONTEXT AND FOR THE EXPRESS PURPOSE FOR WHICH IT HAS BEEN DELIVERED. ANY OTHER USE OR RELIANCE ON THIS DOCUMENT BY ANY THIRD PARTY IS AT THAT PARTY'S SOLE RISK AND RESPONSIBILITY.

LEGEND:

1A - STORMWATER PROJECT NUMBER (TYP.)



wood.

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
275 PROMENADE STREET, SUITE 100
PROVIDENCE RHODE ISLAND, 02908
WEB: WWW.WOODPLC.COM
(401) 648-9240

P
PROVIDENCE
HONORABLE JORGE O. ELORZA, MAYOR
WENDY NILSSON, SUPERINTENDENT OF PARKS

NOT FOR CONSTRUCTION

SEAL:
C N BEAULIEU-SHEA
No. 5701
Charles N. Beaulieu-Shea
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/3-1/15

FEB - 4 2019
Charles N. Beaulieu-Shea

REVISION DATE DESCRIPTION

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

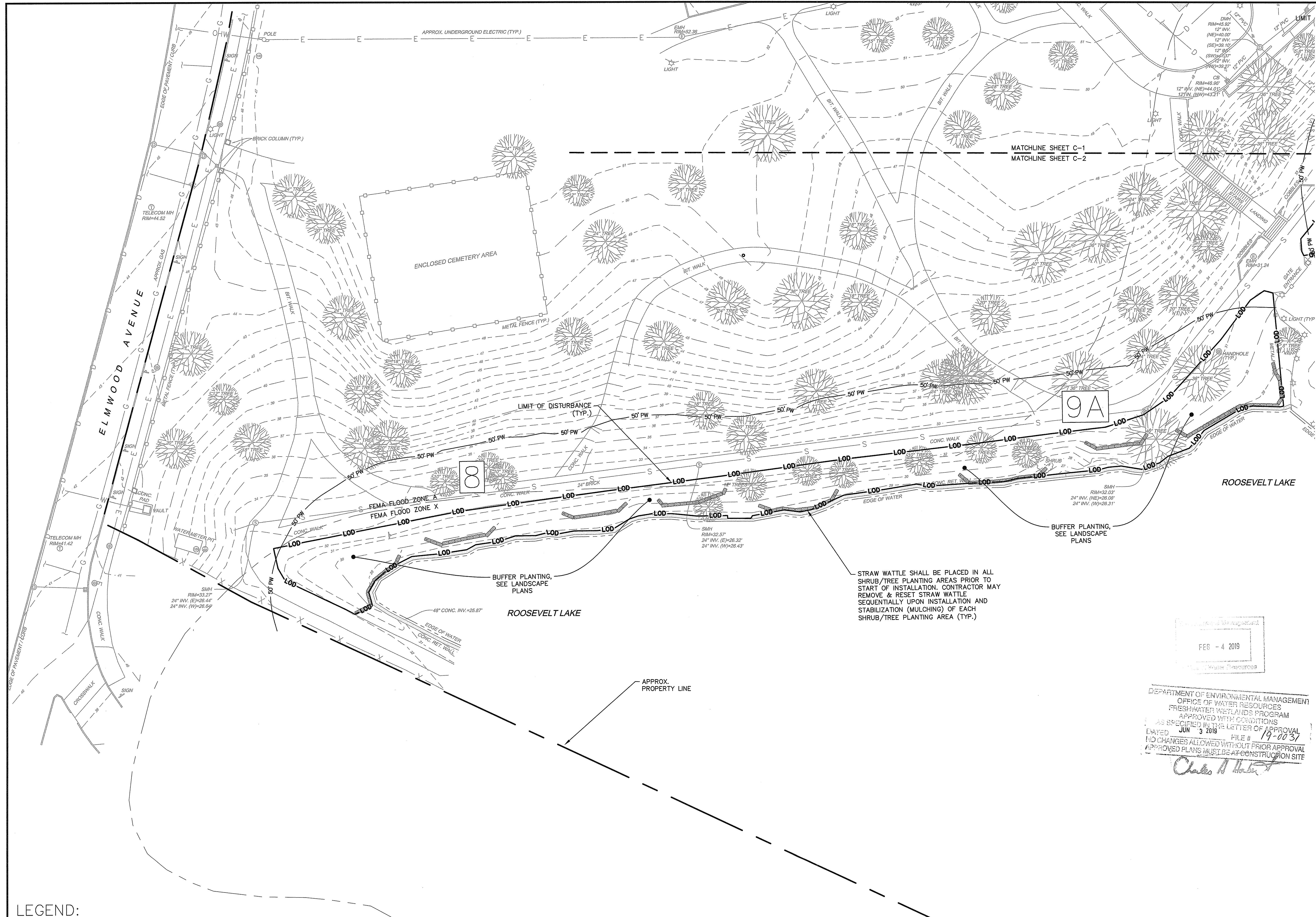
PROJECT:
**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE,
PROVIDENCE, RHODE ISLAND

TITLE:
**SITE PLAN 1
AREAS 9E & 11**

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 20'
DRAWN BY: MJW
CHECKED BY: CNB
PROJECT NO: 3653170024

C-1
SHEET 4 OF 18

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MATCHLINE SHEET C-1
MATCHLINE SHEET C-2

9A

8

STRAW WATTLE SHALL BE PLACED IN ALL SHRUB/TREE PLANTING AREAS PRIOR TO START OF INSTALLATION. CONTRACTOR MAY REMOVE & RESET STRAW WATTLE SEQUENTIALLY UPON INSTALLATION AND STABILIZATION (MULCHING) OF EACH SHRUB/TREE PLANTING AREA (TYP.)

FEB - 4 2019

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2018 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles H. Shea

NOT FOR CONSTRUCTION

SEAL:
C N BEAULIEU-SHEA
No. 5701
Charles H. Shea
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/19

REVISION DATE DESCRIPTION
CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

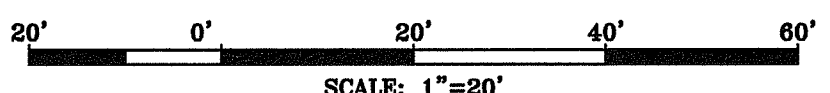
PROJECT:
**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

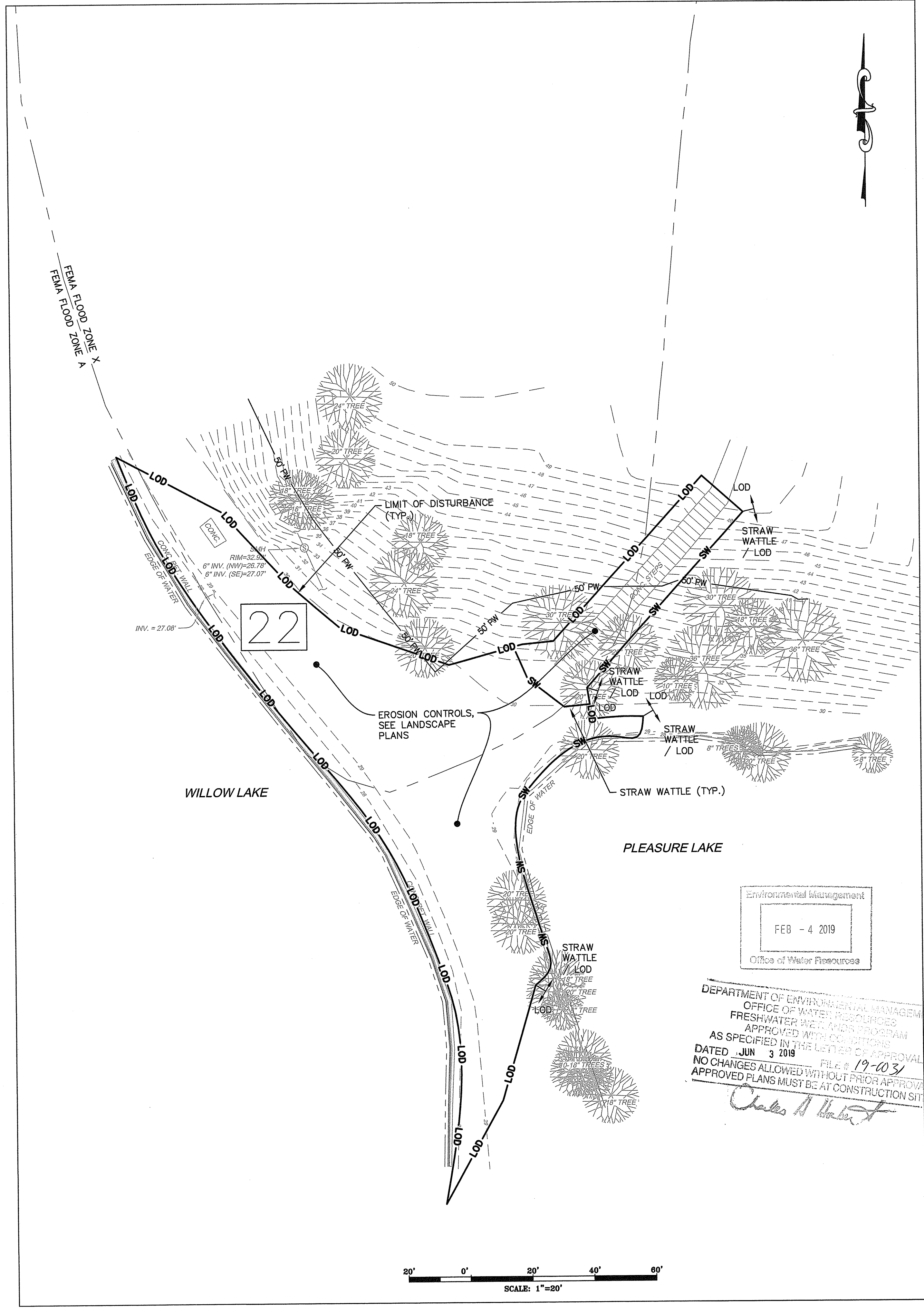
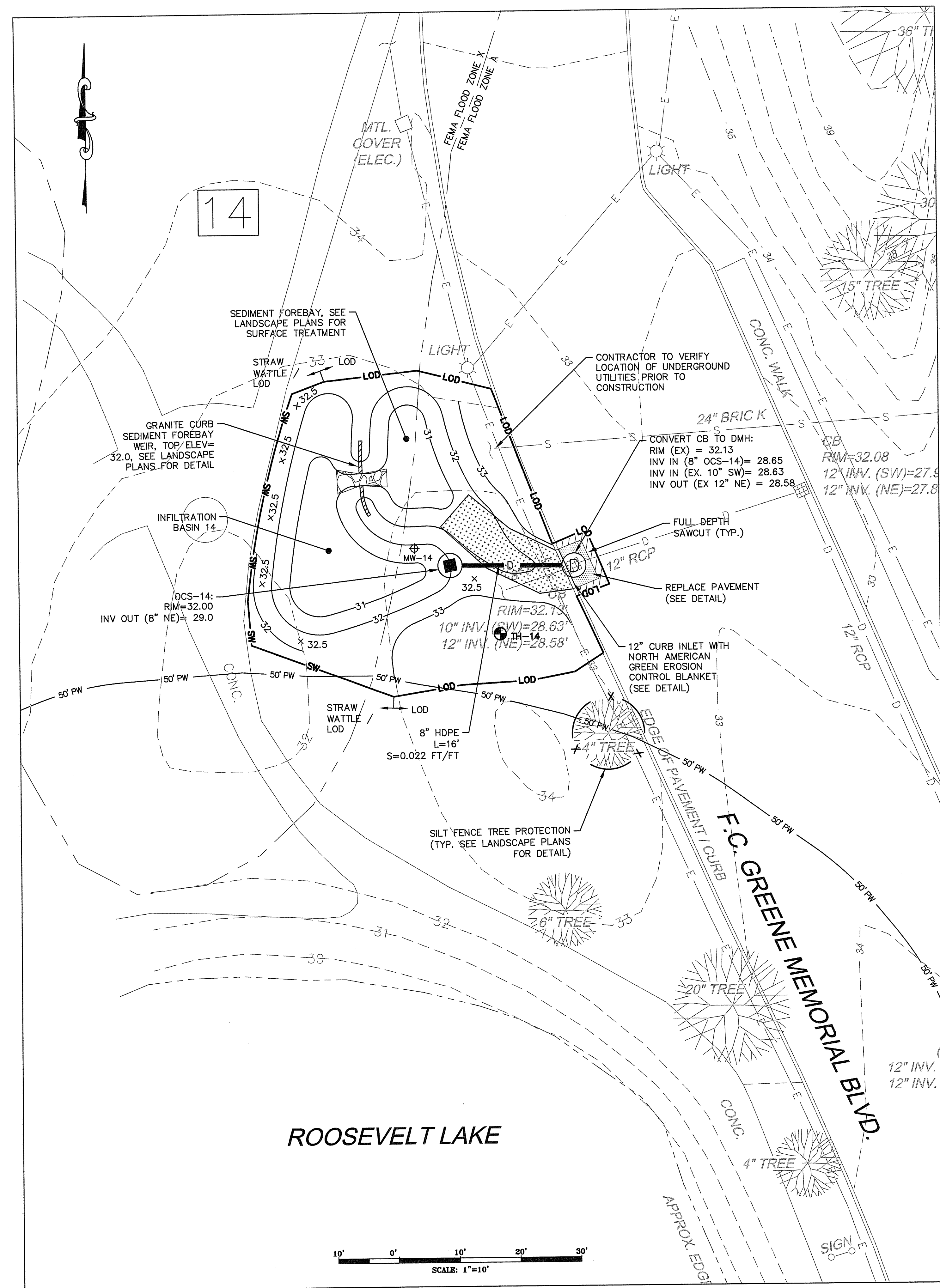
TITLE:
**SITE PLAN 2
AREAS 8 & 9A**

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 20'
DRAWN BY: MLW
CHECKED BY: CNB
PROJECT NO: 3853170024

C-2
SHEET 6 OF 18

LEGEND:
1A - STORMWATER PROJECT NUMBER (TYP.)





LEGEND:
1A - STORMWATER PROJECT NUMBER (TYP.)

NOT FOR CONSTRUCTION
SEAL:

C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/3-1/19

REVISION	DATE	DESCRIPTION

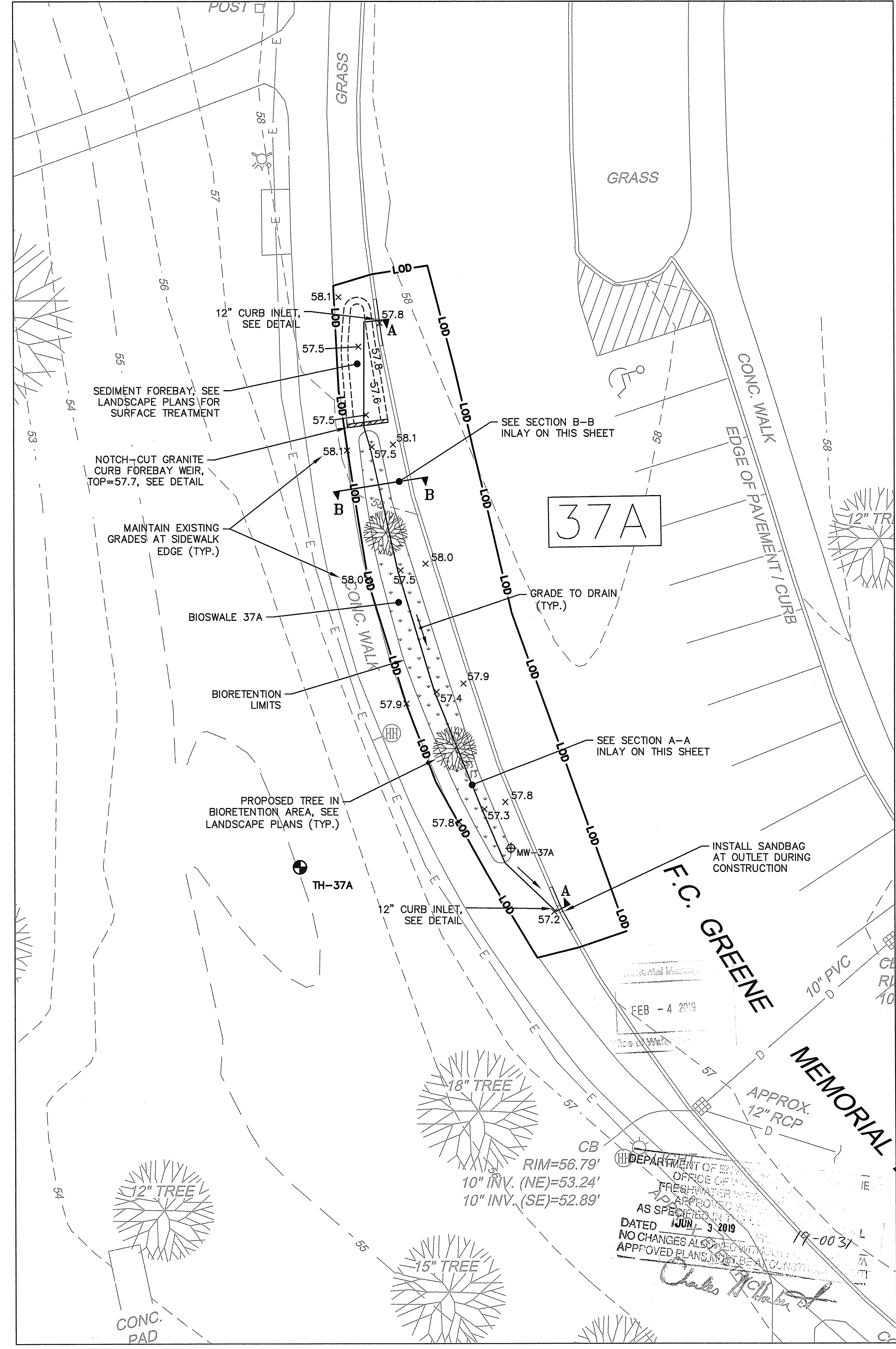
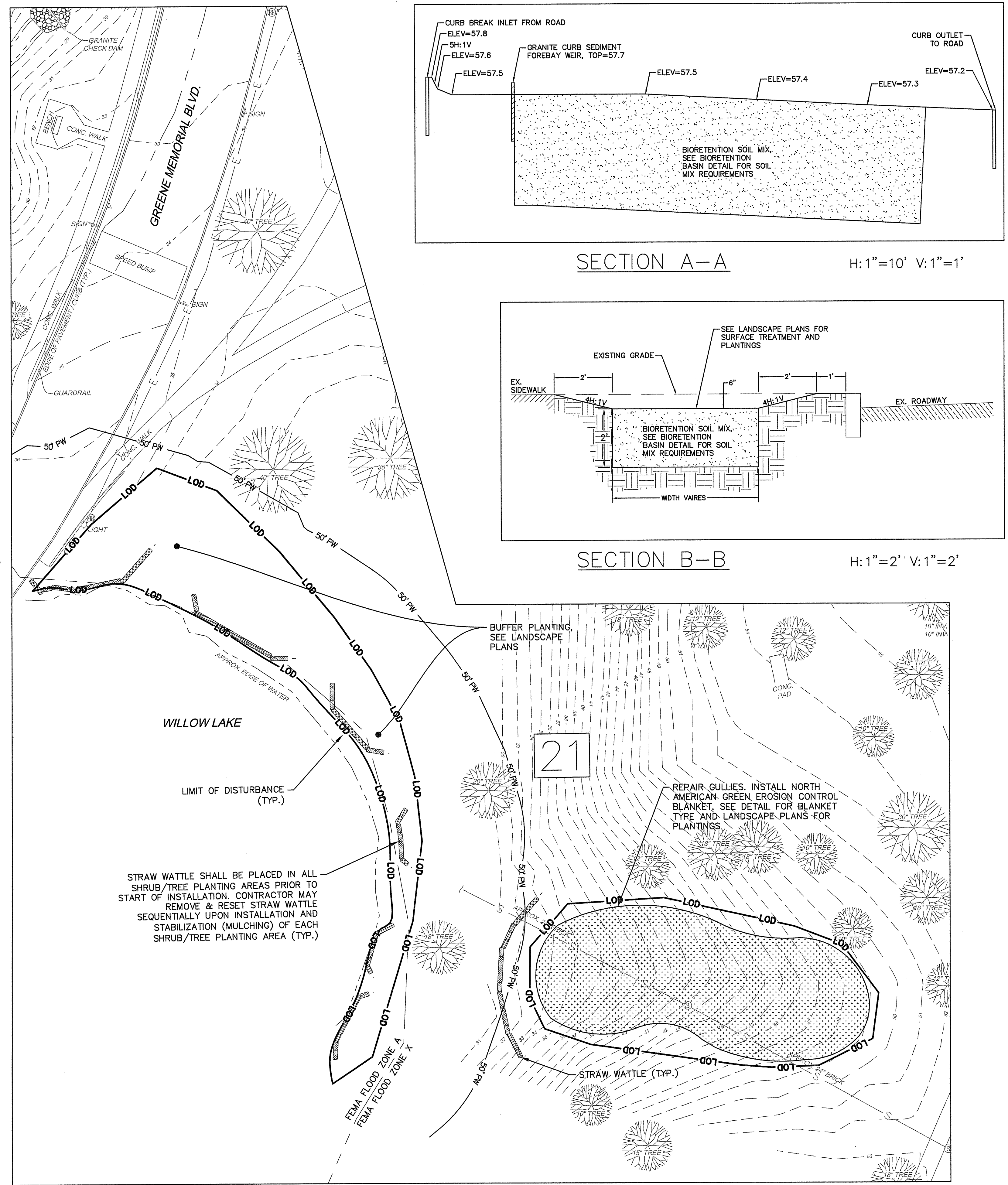
CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907
PROJECT:

**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE,
PROVIDENCE, RHODE ISLAND

TITLE:
**SITE PLAN 3
AREAS 14 & 22**

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 20'
DRAWN BY: MJW
CHECKED BY: CNB
PROJECT NO: 3653170024

C-3
SHEET 6 OF 18



NOT FOR CONSTRUCTION

SEAL:
C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/19

REVISION	DATE	DESCRIPTION

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907
PROJECT:

INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK - PHASES 2 & 3
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:

SITE PLAN 5 AREAS 21 & 37A

ISSUED FOR: PERMITTING

DATE: JANUARY 30, 2019

SCALE: 1"=20'

DRAWN BY: MJW

CHECKED BY: CNB

PROJECT NO: 3653170024

C-5
SHEET 8 OF 18



NOT FOR CONSTRUCTION
SEAL:

C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/15
FEB - 4 2019

REVISION	DATE	DESCRIPTION

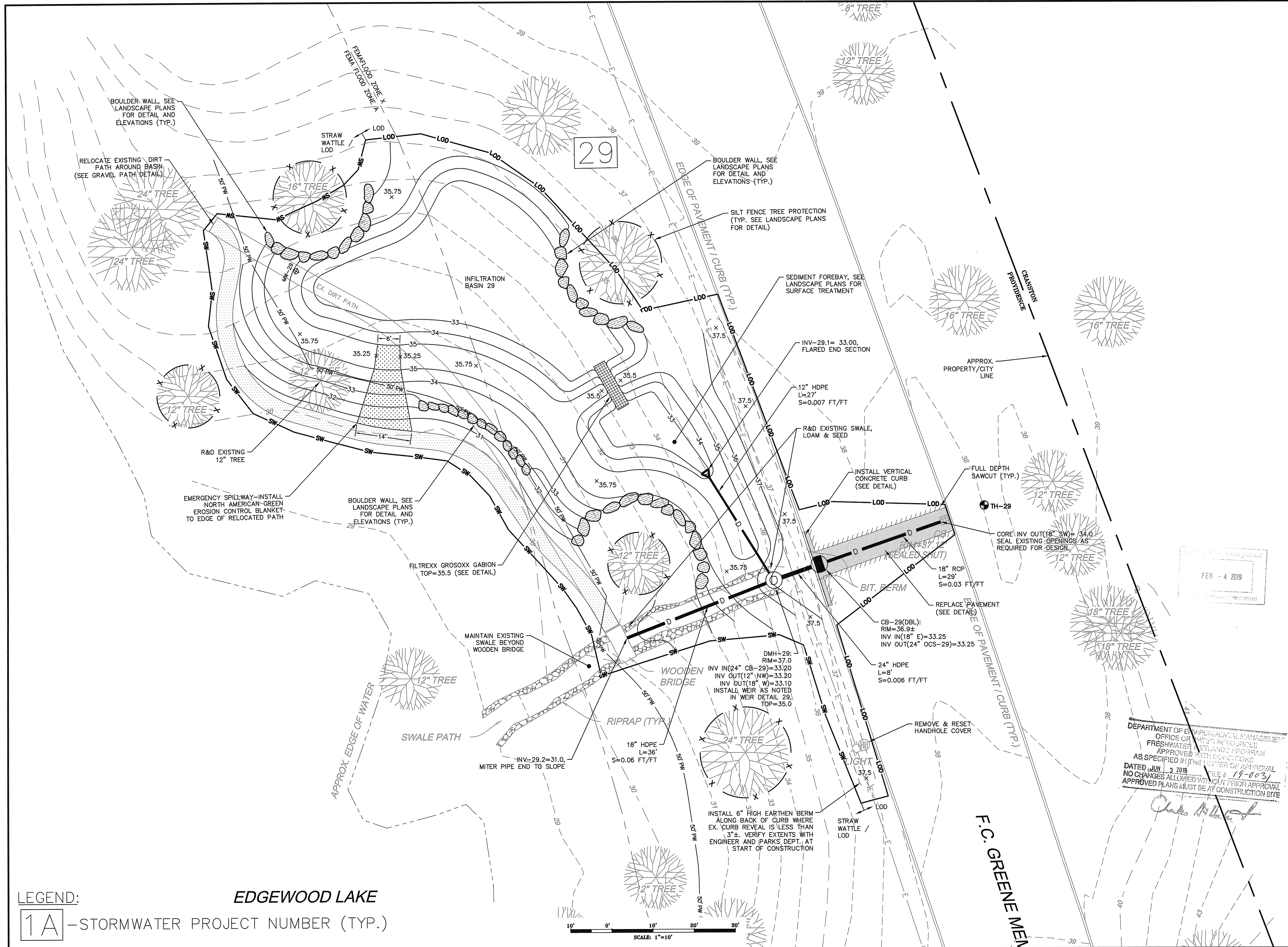
CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907
PROJECT:

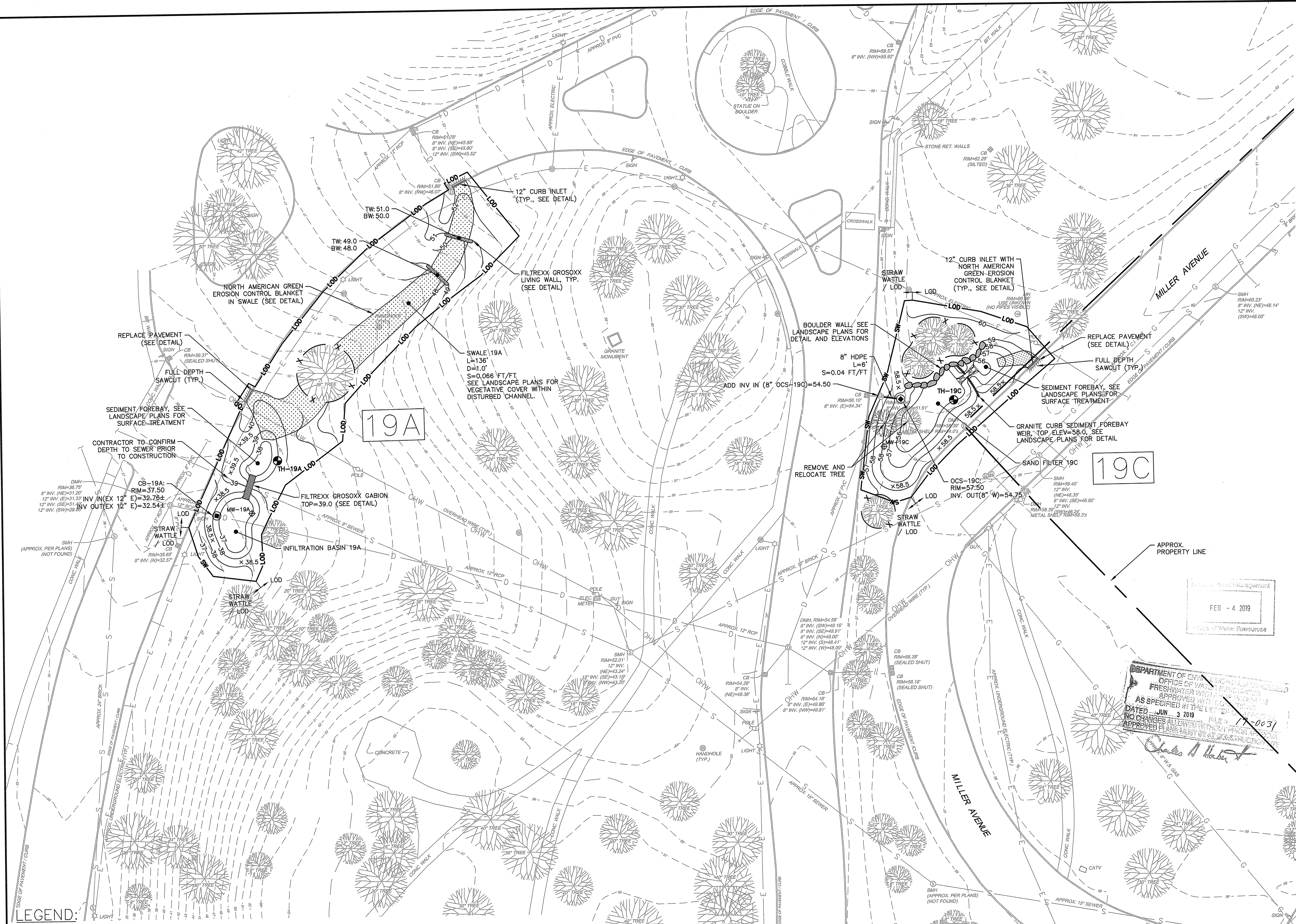
**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
**SITE PLAN 6
AREA 29**

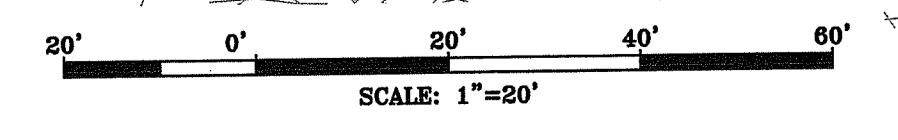
ISSUED FOR:	PERMITTING
DATE:	JANUARY 30, 2019
SCALE:	1" = 10'
DRAWN BY:	MJM
CHECKED BY:	CNB
PROJECT NO.:	3653170024

C-6
SHEET 9 OF 18





LEGEND:
1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION
SEAL:

C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/16

FEB - 4 2019
Division of Water Resources

DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF WATER RESOURCES
FRESHWATER WATER QUALITY DIVISION
APPROVED WATER QUALITY MANAGEMENT PLAN
AS SPECIFIED IN THE LETTER
DATED JUN 3 2019
NO CHANGES ALL OTHERS FILED
APPROVED PLANS AND PERMITS SECTION
17-0031
Charles B. Hester

REVISION	DATE	DESCRIPTION

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE
PROVIDENCE, RI 02907

PROJECT:
**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
**SITE PLAN 7
AREAS 19A & 19C**

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 20'
DRAWN BY: MJW
CHECKED BY: CNB
PROJECT NO: 3653170024

C-7
SHEET 10 OF 18

CUNLIFF LAKE

STRAW WATTLE SHALL BE PLACED IN ALL SHRUB/TREE PLANTING AREAS PRIOR TO START OF INSTALLATION. CONTRACTOR MAY REMOVE & RESET STRAW WATTLE SEQUENTIALLY UPON INSTALLATION OF EACH SHRUB/TREE PLANTING AREA (TYP.)

BUFFER PLANTING SEE LANDSCAPE PLANS

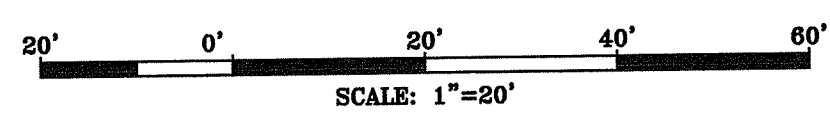
25

LIMIT OF DISTURBANCE (TYP.)

CUNLIFF LAKE

LEGEND:

1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION

SEAL:

C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/19

FEB - 4 2019

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WATERSHED PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2019 FILE # 19-003
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

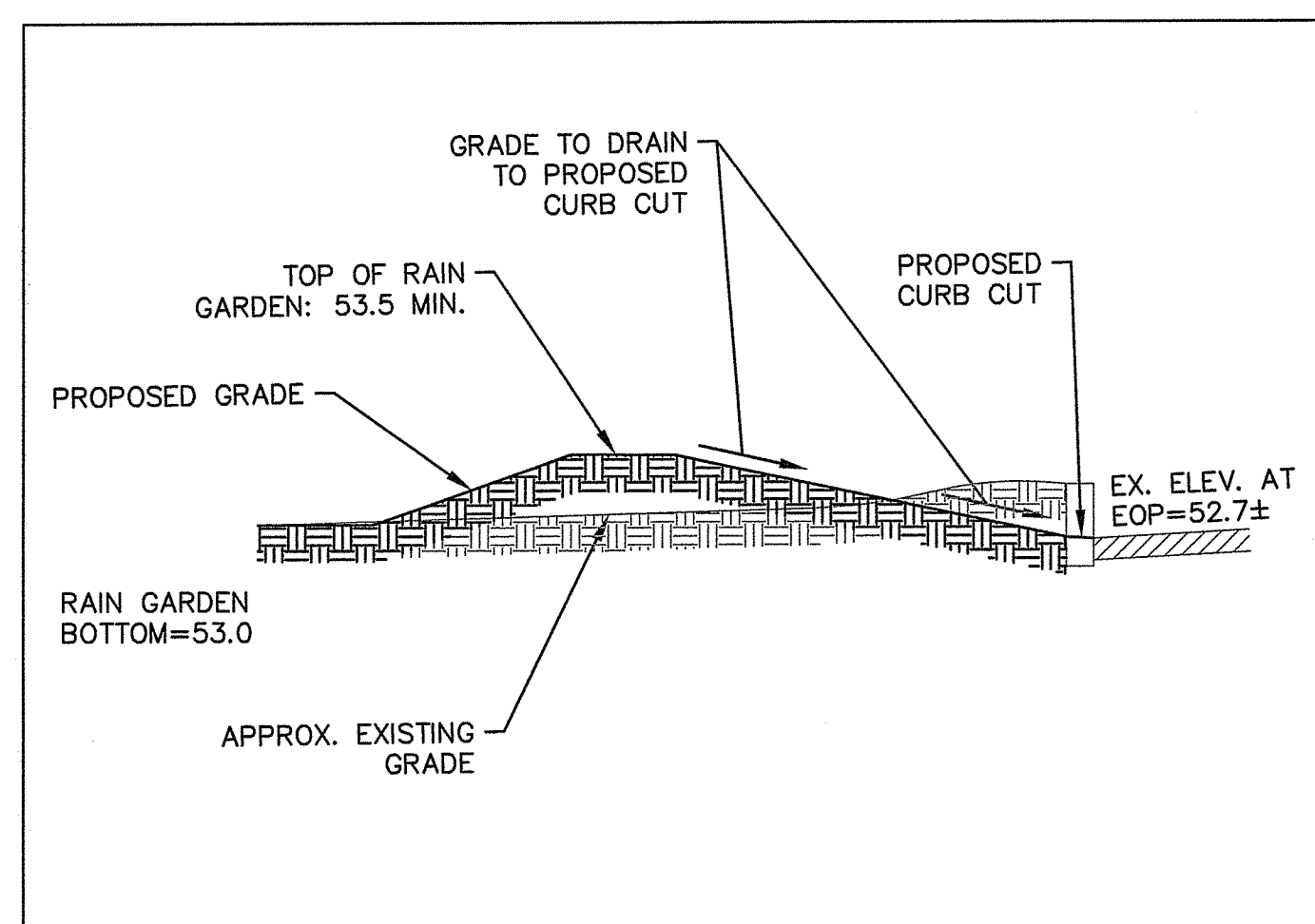
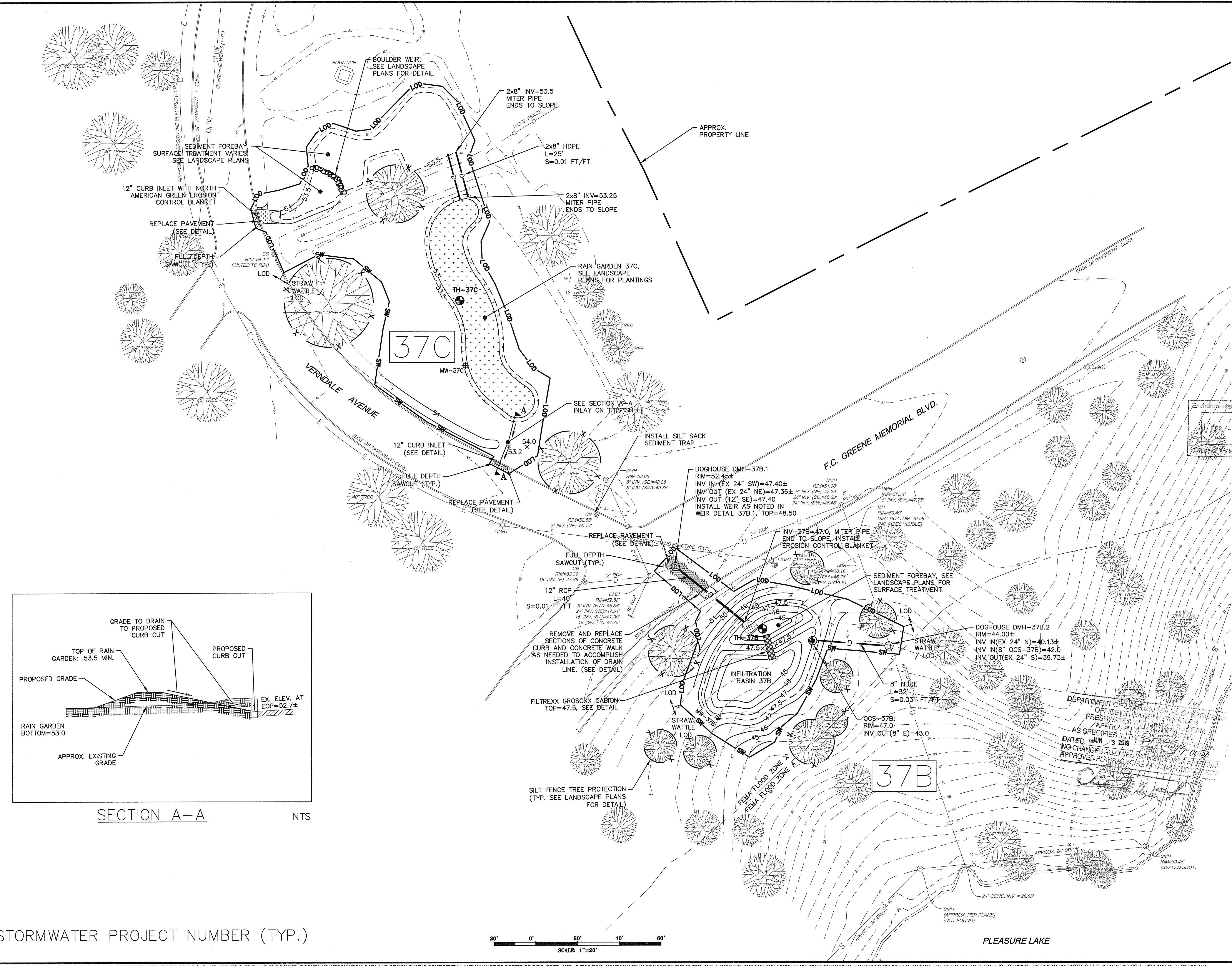
PROJECT:
**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

REVISION	DATE	DESCRIPTION

TITLE:
**SITE PLAN 8
AREA 25**

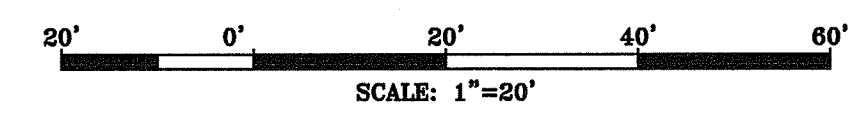
ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 20'
DRAWN BY: MJW
CHECKED BY: CNB
PROJECT NO: 3653170024

C-8
SHEET 11 OF 18



SECTION A-A NTS

LEGEND:
1A - STORMWATER PROJECT NUMBER (TYP.)



Environmental Management
1/30/19
Professional Engineer

NOT FOR CONSTRUCTION
SEAL:

C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/19

REVISION	DATE	DESCRIPTION

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
1000 ELMWOOD AVENUE, PROVIDENCE, RI 02907

PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK - PHASES 2 & 3
1000 ELMWOOD AVENUE PROVIDENCE, RHODE ISLAND

TITLE:
SITE PLAN 9 AREAS 37B & 37C

ISSUED FOR:	PERMITTING
DATE:	JANUARY 30, 2019
SCALE:	1" = 20'
DRAWN BY:	MJW
CHECKED BY:	CNB
PROJECT NO:	3653170024

C-9
SHEET 12 OF 18

LEGEND:

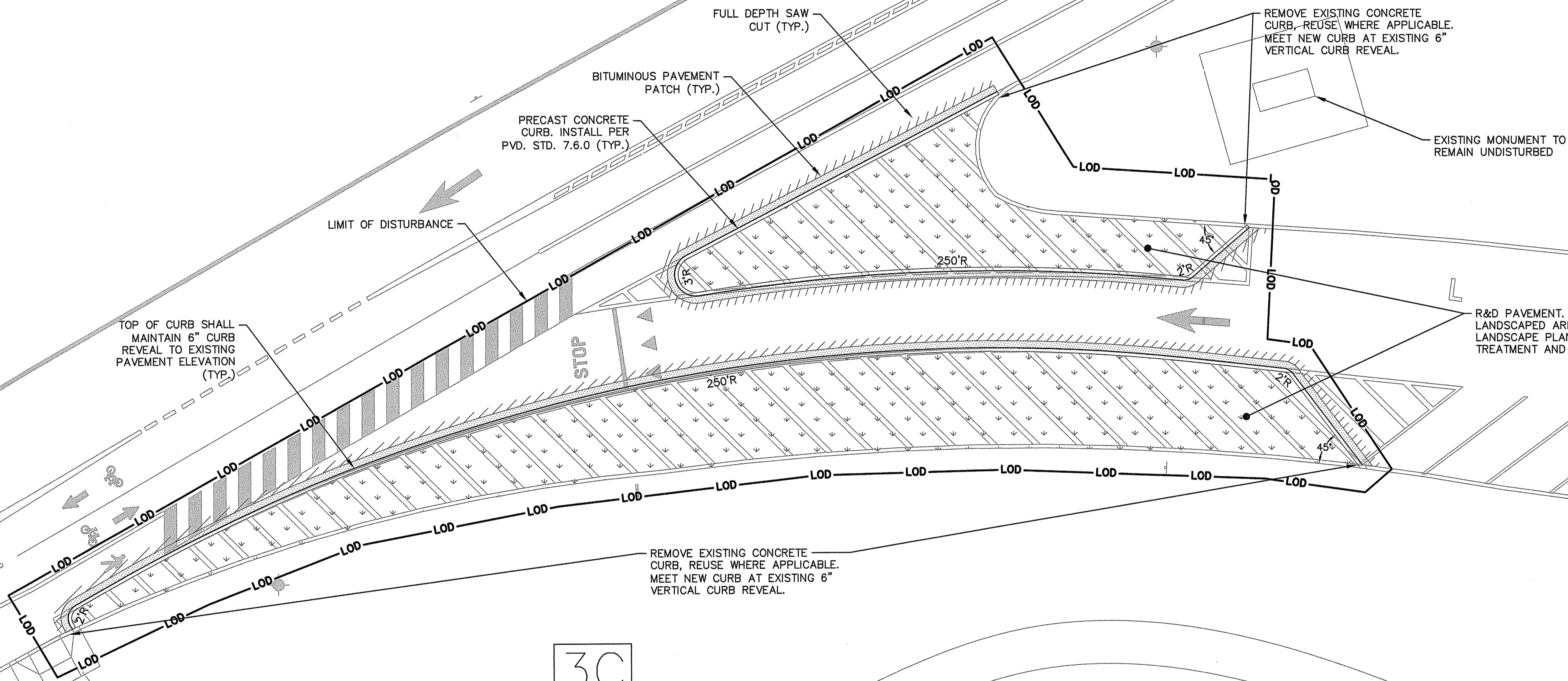
1A - STORMWATER PROJECT NUMBER (TYP.)



MAPLE AVE

PINE AVE

3C



NOT FOR CONSTRUCTION
SEAL:

C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/30/19

REVISION	DATE	DESCRIPTION

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907
PROJECT:

**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

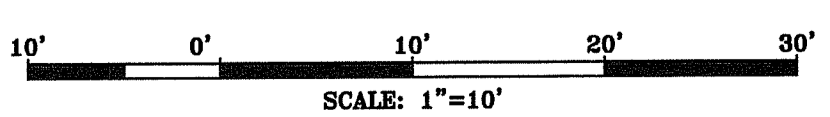
TITLE:
**SITE PLAN 10
AREA 3C**

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 10'
DRAWN BY: M.J.W.
CHECKED BY: CNB
PROJECT NO: 9653170024

C-10
SHEET 13 OF 18

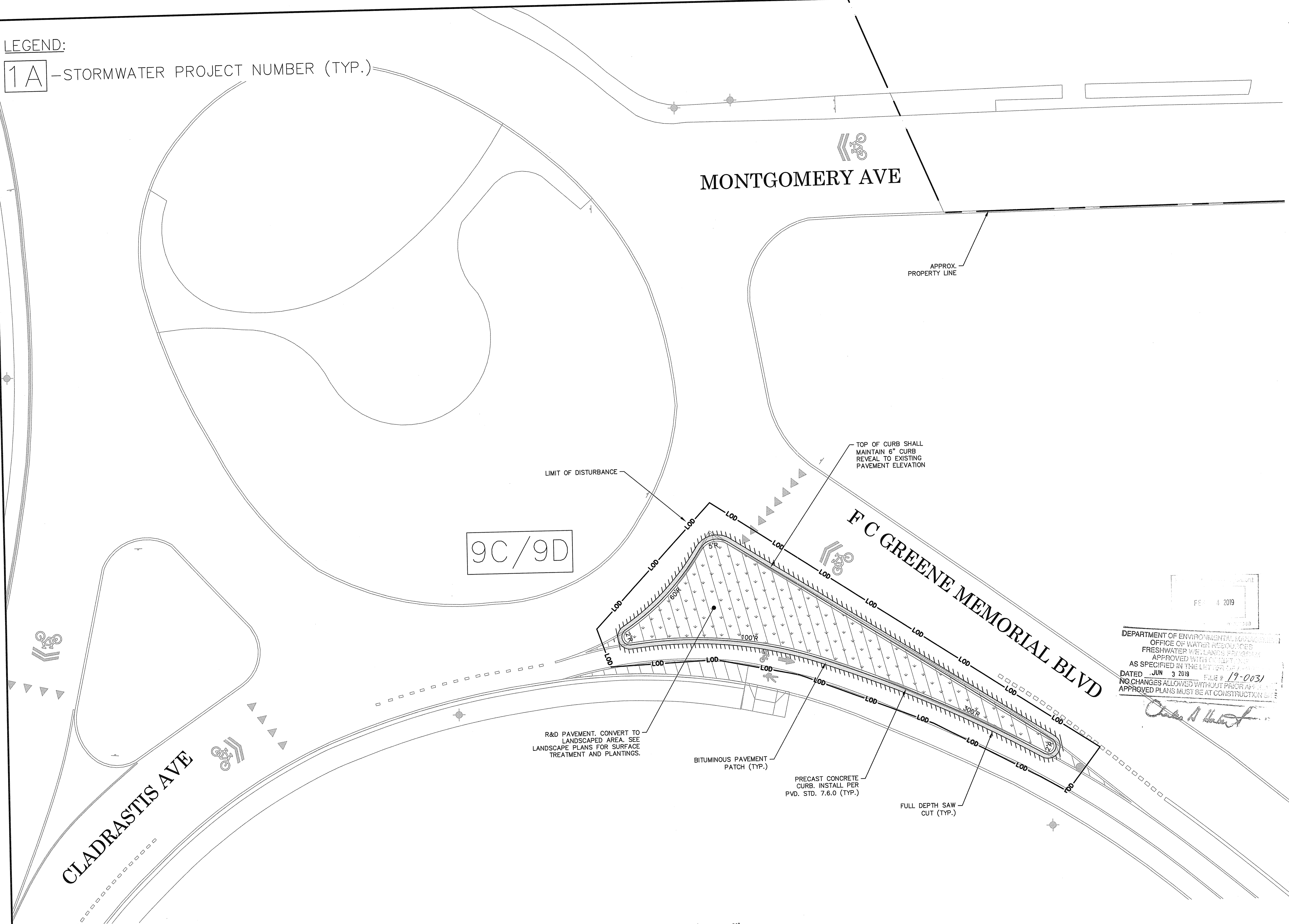
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2019 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles B. Hester



LEGEND:

1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION

SEAL:

C N BEAULIEU-SHEA
No. 5701
C. N. Beaulieu-Shea
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/3-1/16

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH COMMENT
AS SPECIFIED IN THE LETTER OF COMMENT
DATED JUN 3 2019 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PRE-APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hester

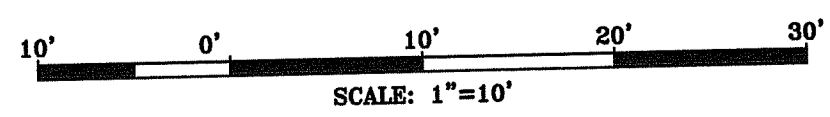
REVISION	DATE	DESCRIPTION

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

TITLE:
**SITE PLAN 11
AREA 9C/9D**

ISSUED FOR:	PERMITTING
DATE:	JANUARY 30, 2019
SCALE:	1" = 10'
DRAWN BY:	MLW
CHECKED BY:	CNB
PROJECT NO:	3853170024

C-11
SHEET 14 OF 18

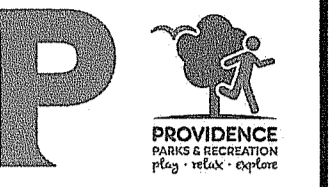


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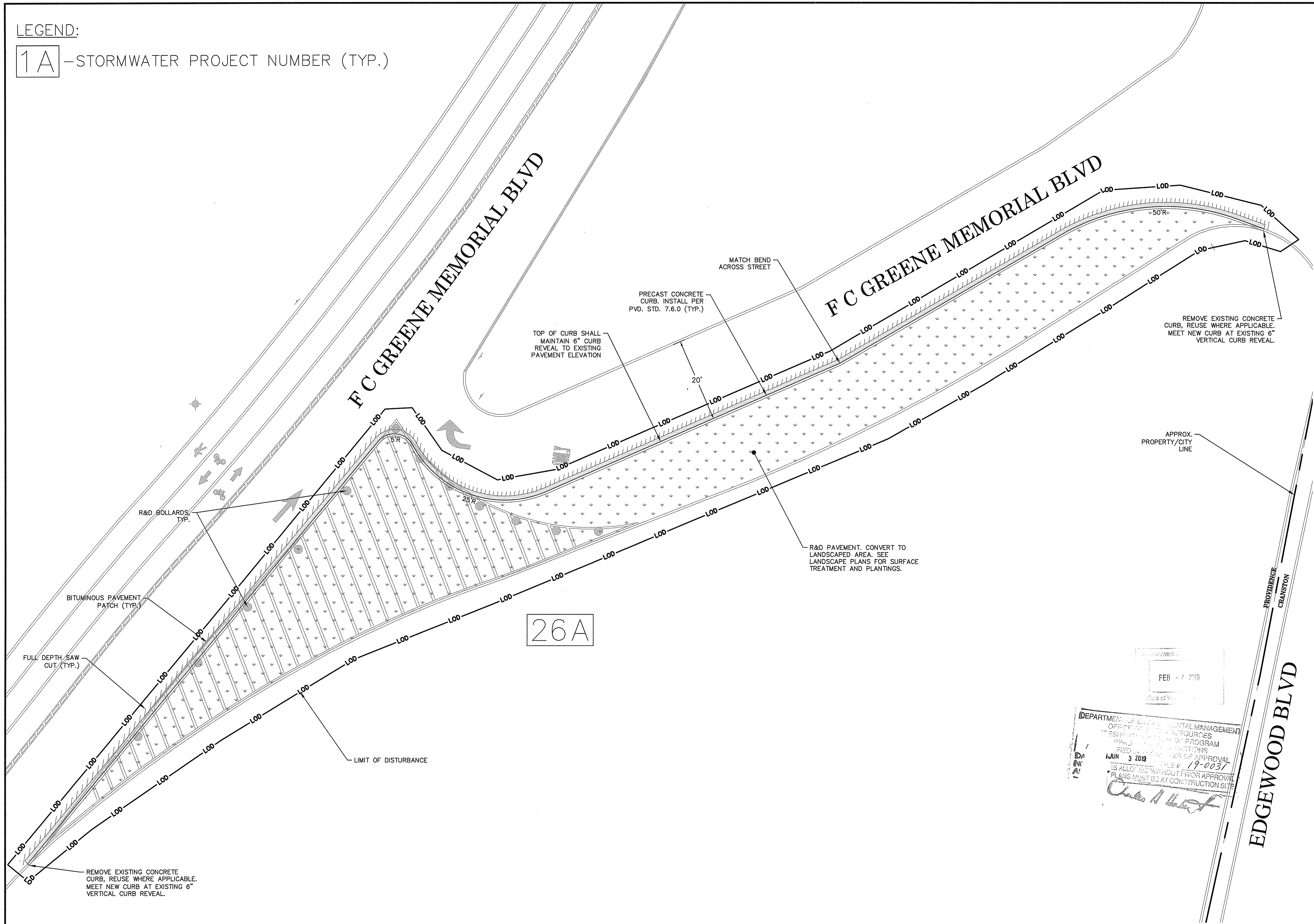
1A - STORMWATER PROJECT NUMBER (TYP.)

wood.

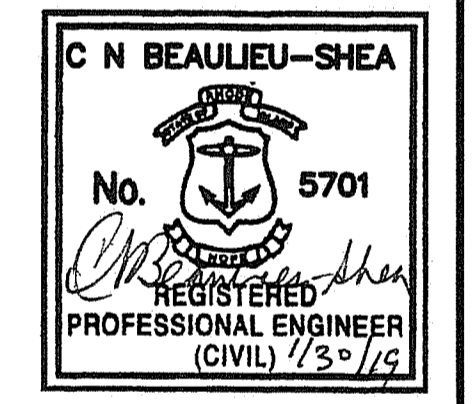
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
275 PROMENADE STREET, SUITE 100
PROVIDENCE RHODE ISLAND, 02908
WEB: WWW.WOODPLC.COM
(401) 848-9240



HONORABLE JORGE O. ELORZA, MAYOR
WENDY NELSON, SUPERINTENDENT OF PARKS



NOT FOR CONSTRUCTION
SEAL:



REVISION	DATE	DESCRIPTION

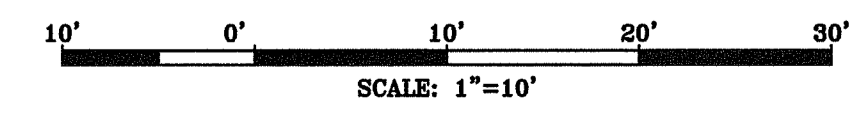
CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

PROJECT:
**INSTALLATION OF
STORMWATER BMPs
IN ROGER WILLIAMS
PARK - PHASES 2 & 3**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

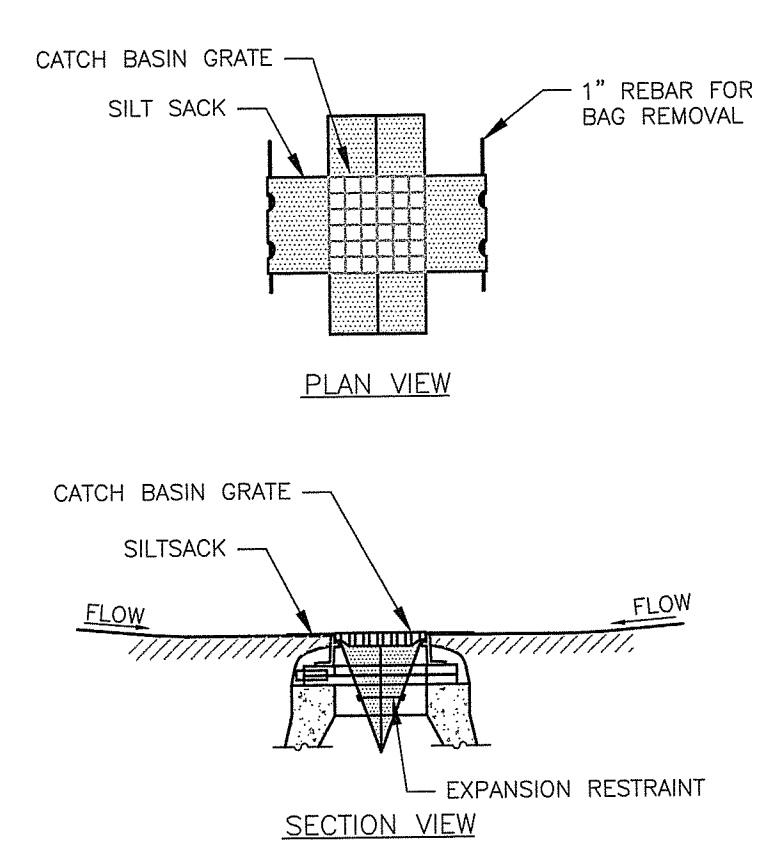
TITLE:
**SITE PLAN 12
AREA 26A**

ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: 1" = 10'
DRAWN BY: MJW
CHECKED BY: CNB
PROJECT NO: 3853170024

C-12
SHEET 15 OF 18

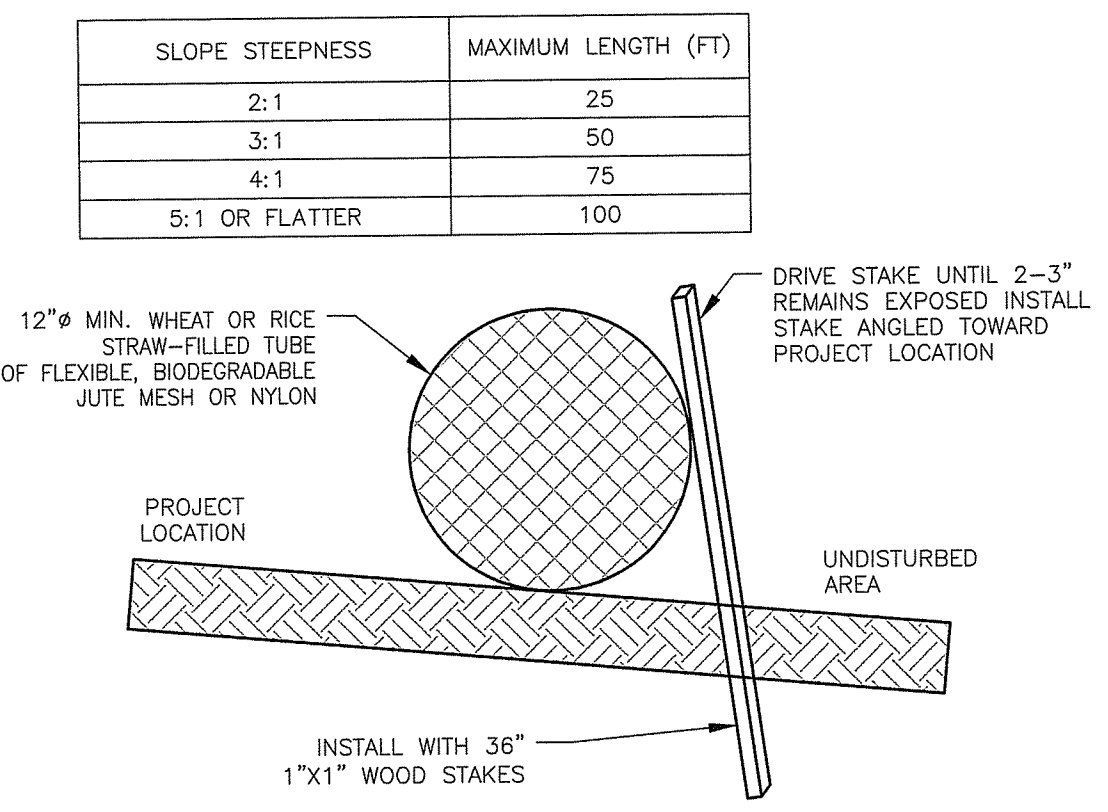


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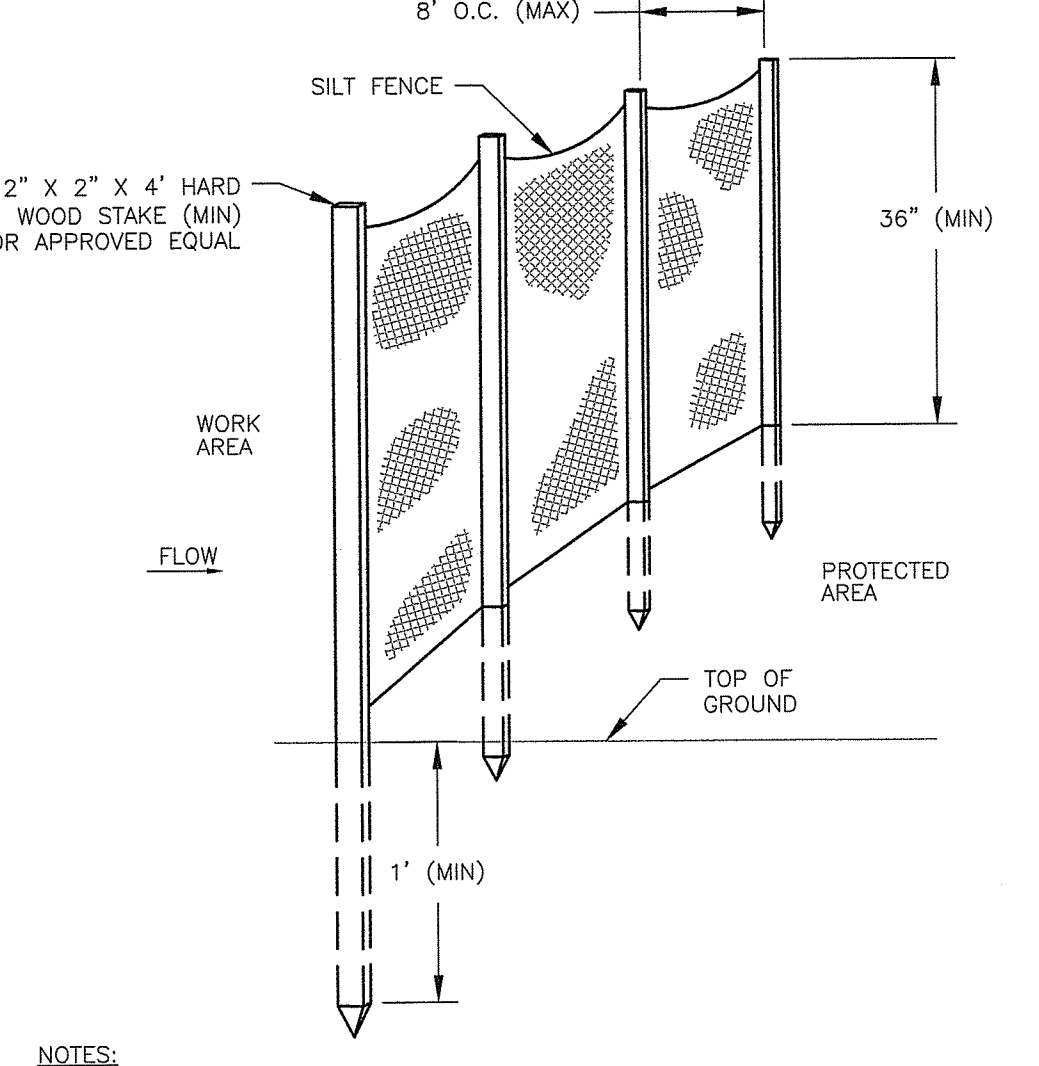
- NOTES:**
1. INSTALL SILT SACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK.
 2. GRATE TO BE PLACED OVER SILT SACK.
 3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
 4. MAINTAIN UNTIL UP-GRADE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT SACK SEDIMENT TRAP
NTS wood_9.10



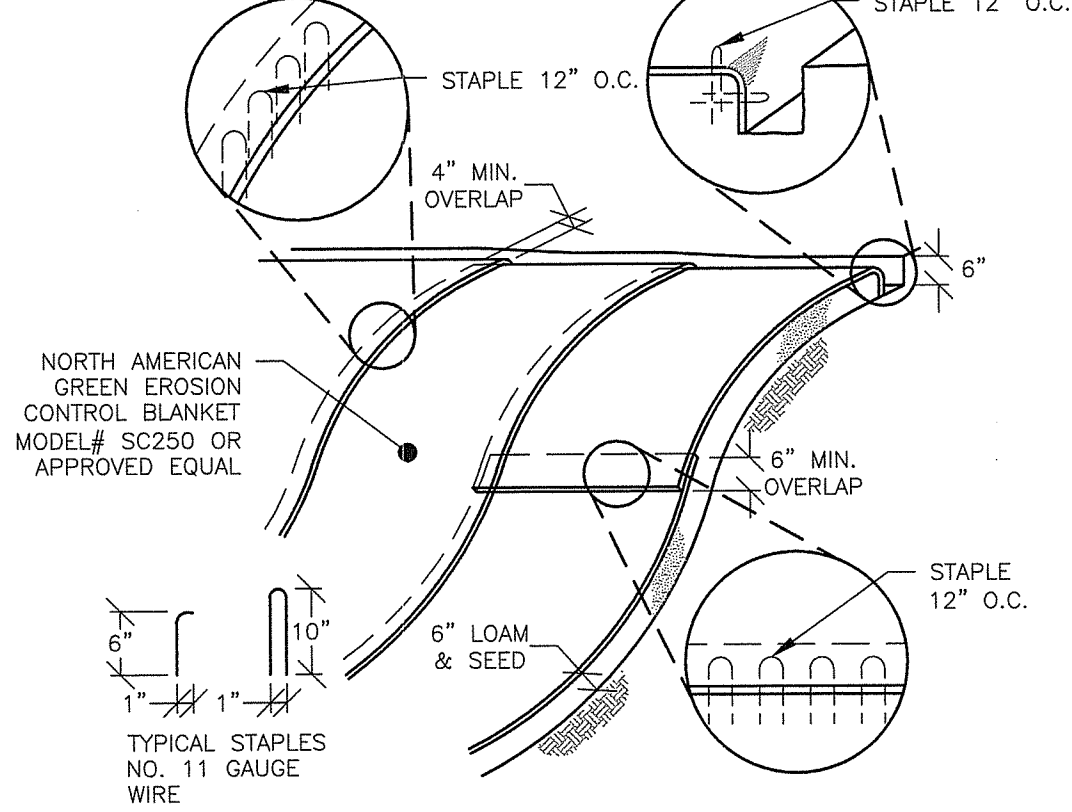
- NOTES:**
1. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
 2. SECURE THE WATTLE WITH 18-24" STAKES EVERY 3-4' WITH A STAKE ON EACH END. STAKES SHALL BE DRIVEN DOWNHILL SIDE OF THE WATTLES LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE WATTLE. THE WATTLE STAKES SHALL BE DRIVEN AT AN ANGLE FACING TOWARD THE PROJECT LOCATION.
 3. MAX. DRAINAGE AREA ≤ 0.25 ACRES/100 LINEAR FEET.

STRAW WATTLE
NTS wood_9.19



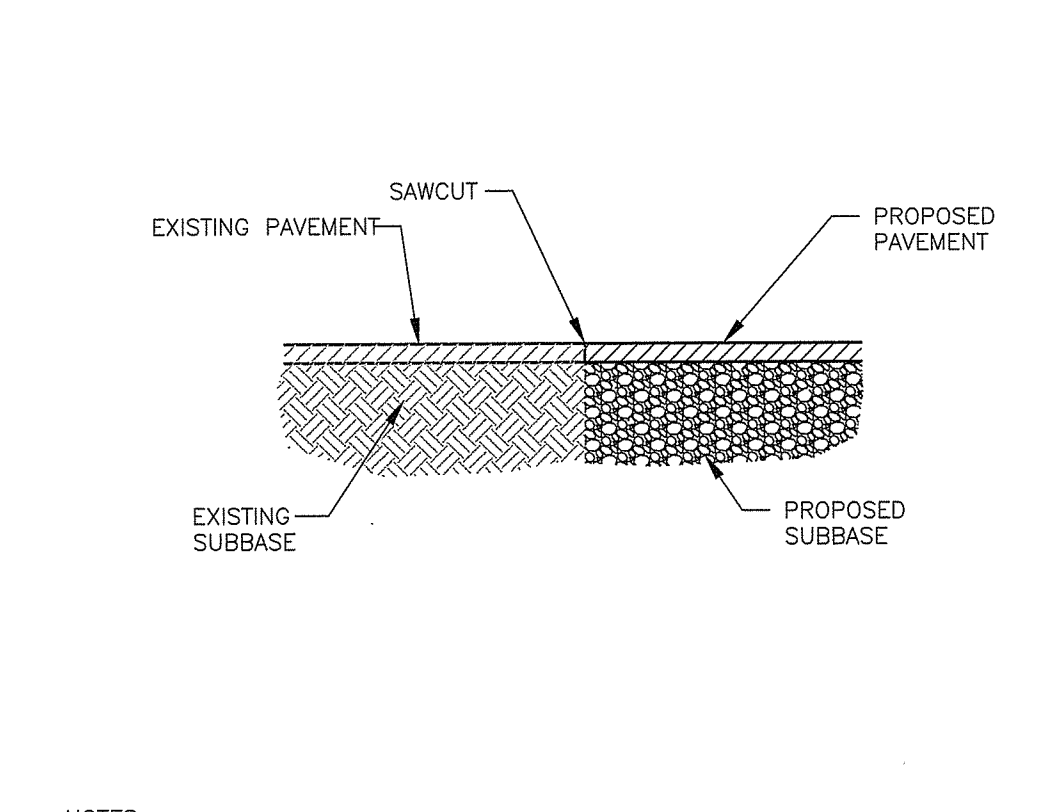
- NOTES:**
1. SILT FENCE SHALL BE LOCATED AT 10' FROM TOE OF SLOPE FOR MAINTENANCE.
 2. 8" WITH WIRE OR 6" WITHOUT WIRE (MAX).
 3. WIRE FENCING - 6" MESH OPENING (MAX) AND 14 GAUGE (MIN).
 4. MAINTAIN UNTIL UP-GRADE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT FENCE
NTS wood_9.9



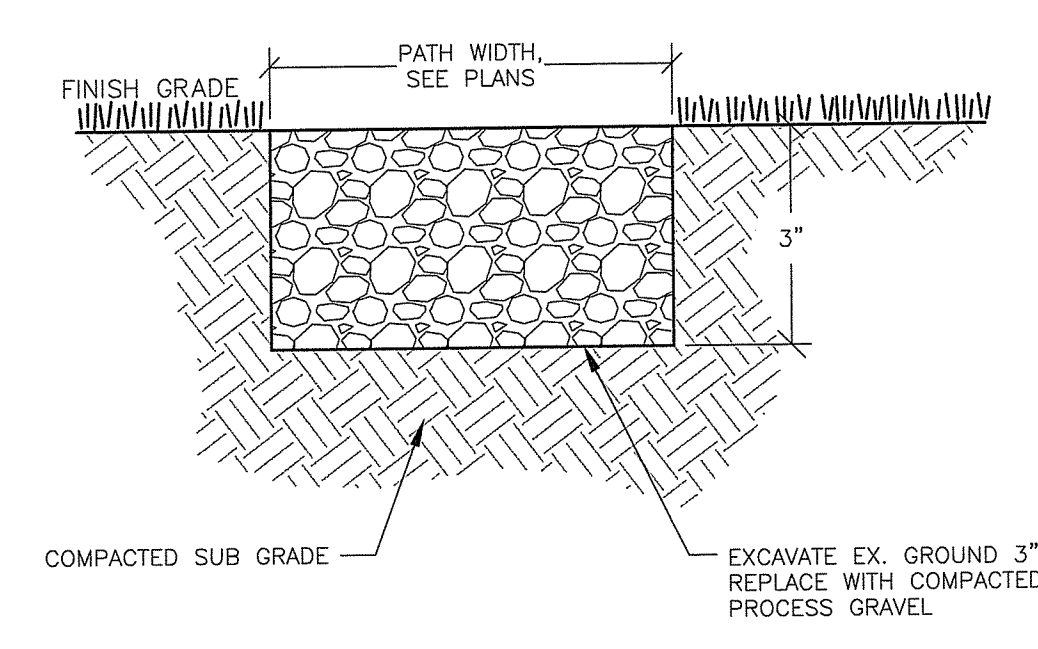
- NOTES:**
1. BEGIN AT TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH, BACKFILL AND COMPACT TRENCH AFTER STAPLING.
 2. ROLL THE BLANKET DOWN THE SLOPE.
 3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4" OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
 4. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE UPPER BLANKET END OVER LOWER END WITH 6" MIN. OVERLAP AND STAPLE BOTH TOGETHER.
 5. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
 6. EROSION CONTROL BLANKETS SHALL BE USED IN ALL AREAS WHERE SLOPES EXCEED 3:1, UNLESS OTHERWISE NOTED OTHERWISE ON THE PLANS.

EROSION CONTROL BLANKET - SLOPE INSTALLATION
NTS wood_9.8

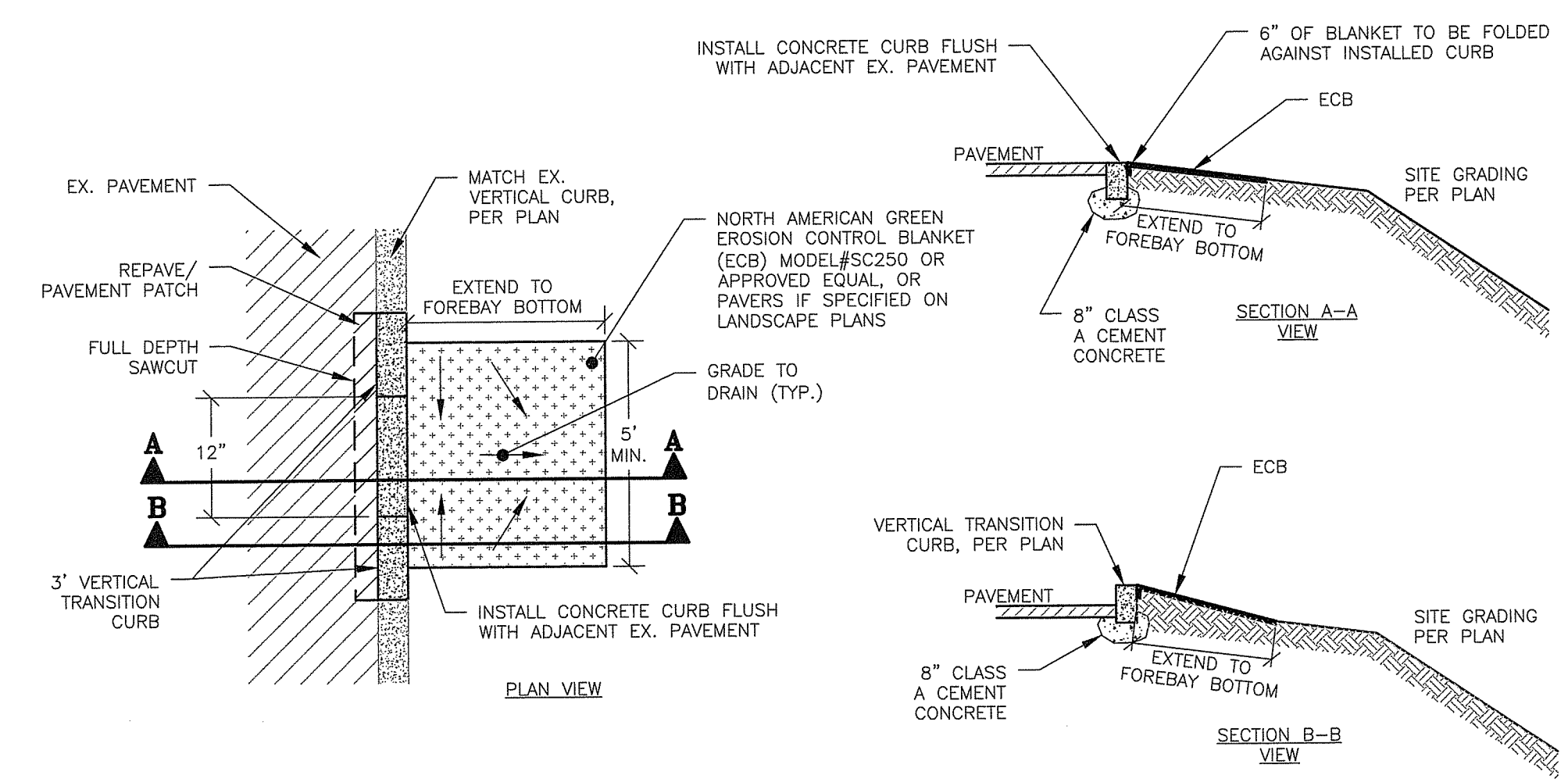


- NOTES:**
1. CLEAN SAWED JOINTS WITH COMPRESSED AIR.
 2. APPLY JOINT SEAL MATERIAL FILLING FROM THE BOTTOM UP.
 3. AFTER COOLING THE LEVEL OF THE SEALER WILL NOT BE GREATER THAN 1/8" INCH BELOW THE PAVEMENT SURFACE.
 4. CARE SHALL BE TAKEN DURING THE SEALING OPERATION TO INSURE THAT THE FINAL APPEARANCE WILL PRESENT A NEAT LINE.

PAVEMENT SAWCUT
NTS wood_7.10

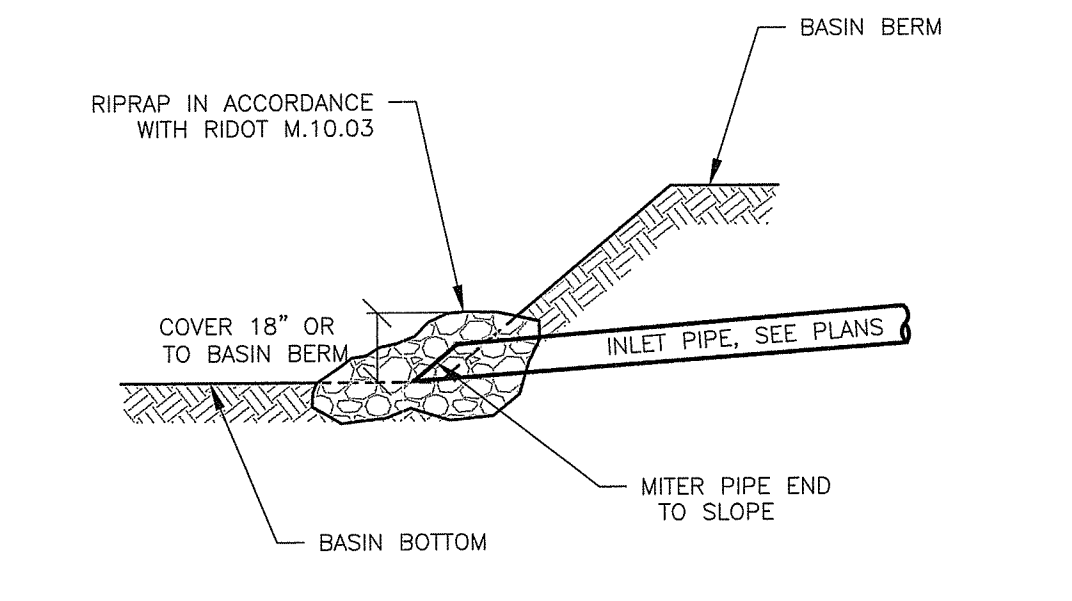


GRAVEL PATH
NTS wood_5.8

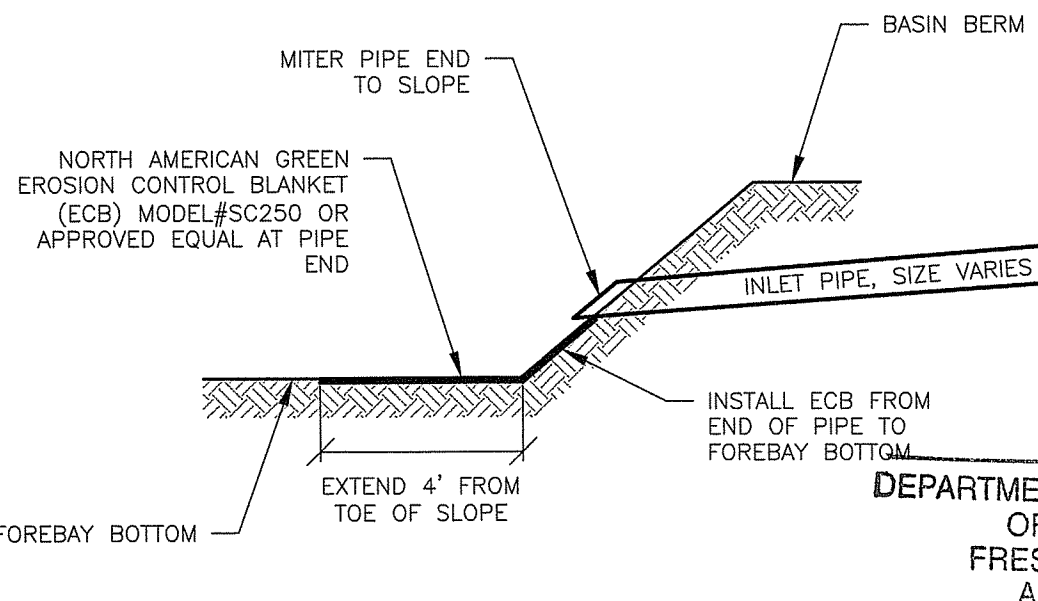


- NOTES:**
1. EROSION CONTROL BLANKET SHALL BE SHAPED TO LEVEL WITH BACK OF CURB ELEVATION - SEE SECTIONS ABOVE.
 2. TRANSITION CURB AND FLUSH CURB SHALL BE EMBEDDED IN CONCRETE.

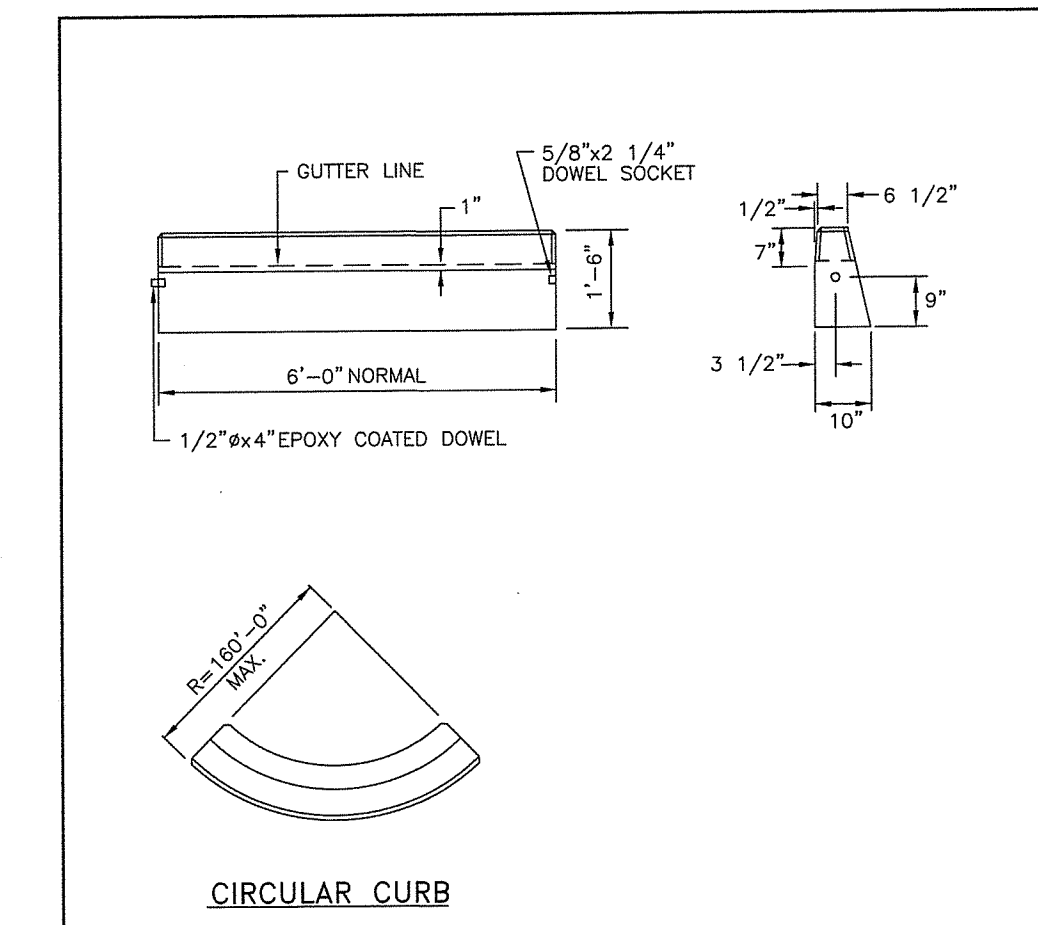
CURB BREAK
NTS wood_2.6



BURIED PIPE INLET
NTS wood_3.47

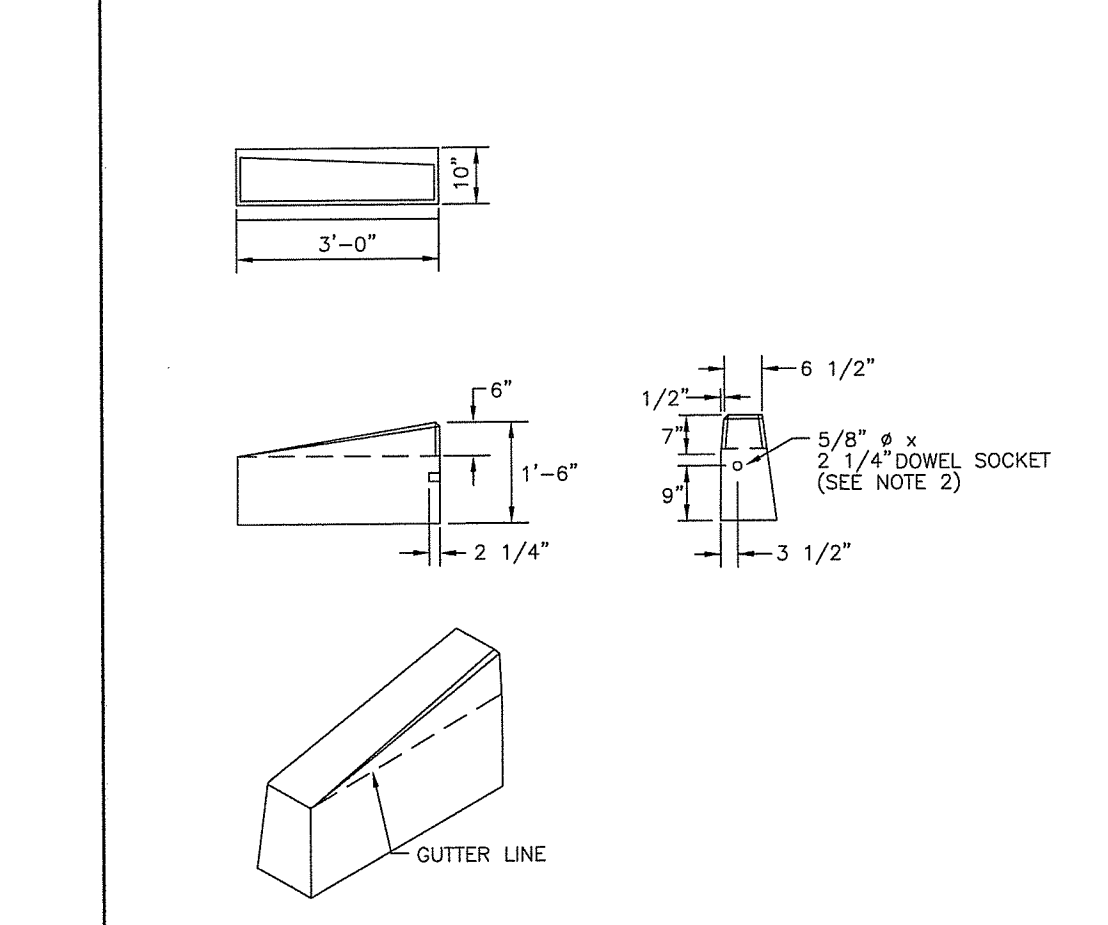


REINFORCED PIPE INLET
NTS wood_3.48



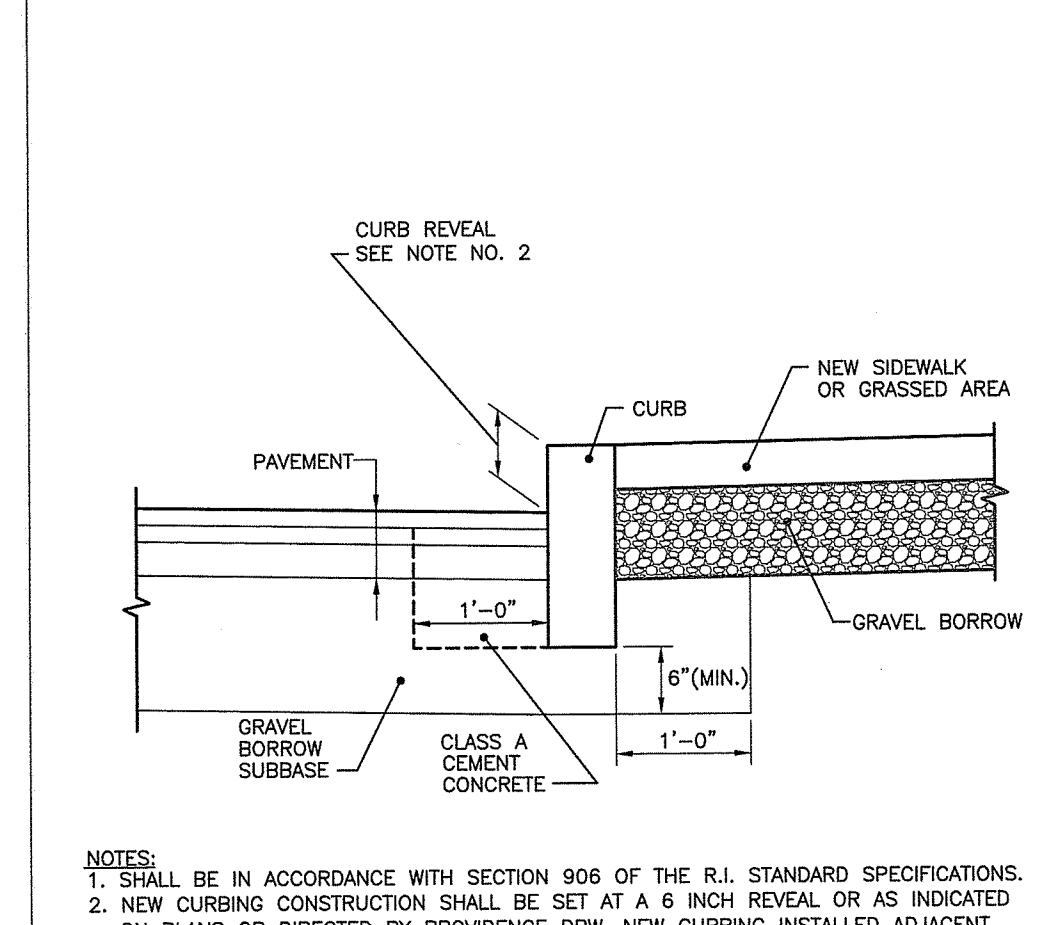
- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
 2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
 3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADIUS OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
 5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION		R.I. STANDARD	
NO.	BY DATE	NO.	BY DATE
1	M.P. Mar 05	7.1.0	JUNE 15, 1998
2	M.P. 06/07/10		



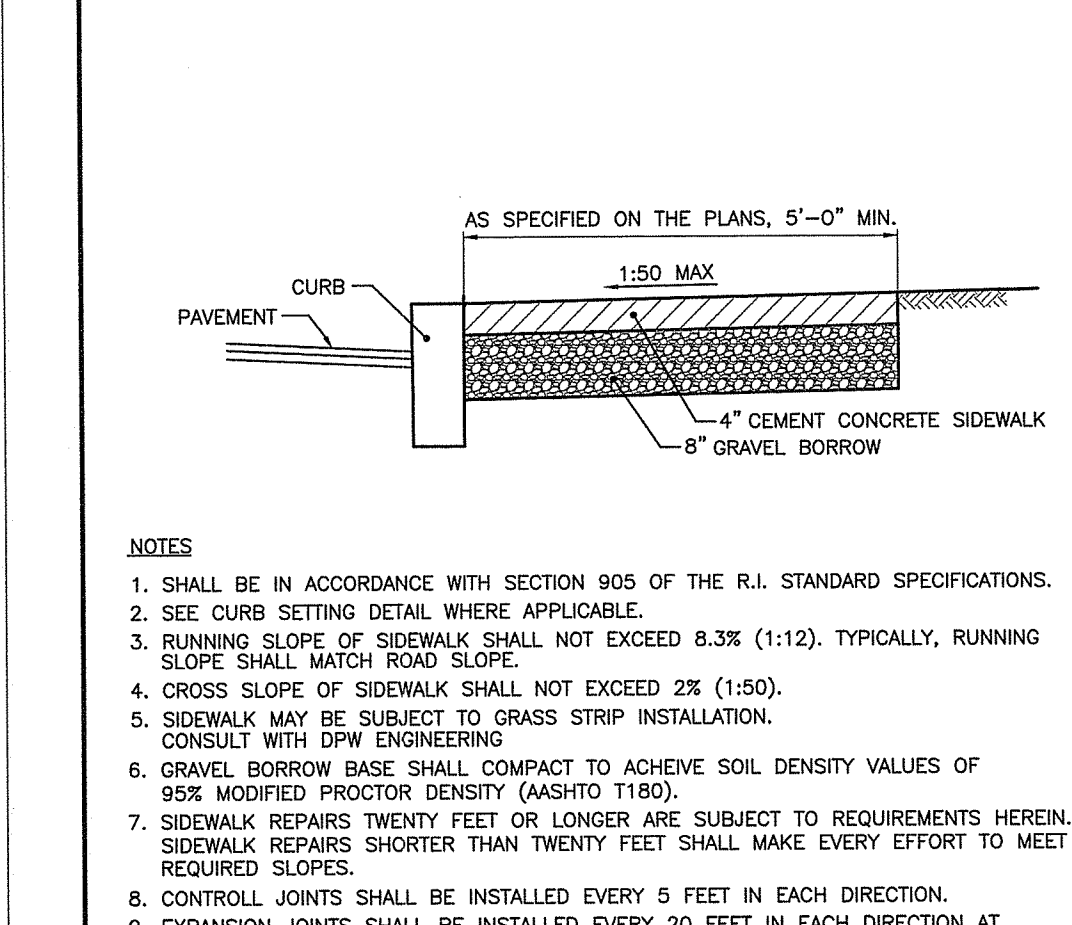
- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
 2. DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION, FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" x 4" EPOXY COATED DOWEL.
 3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 4. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
 5. LEFT AND RIGHT SECTIONS SHALL BE INSTALLED AS REQUIRED.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION		R.I. STANDARD	
NO.	BY DATE	NO.	BY DATE
1	M.P. Mar 05	7.1.1	JUNE 15, 1998
2	M.P. 06/07/10		



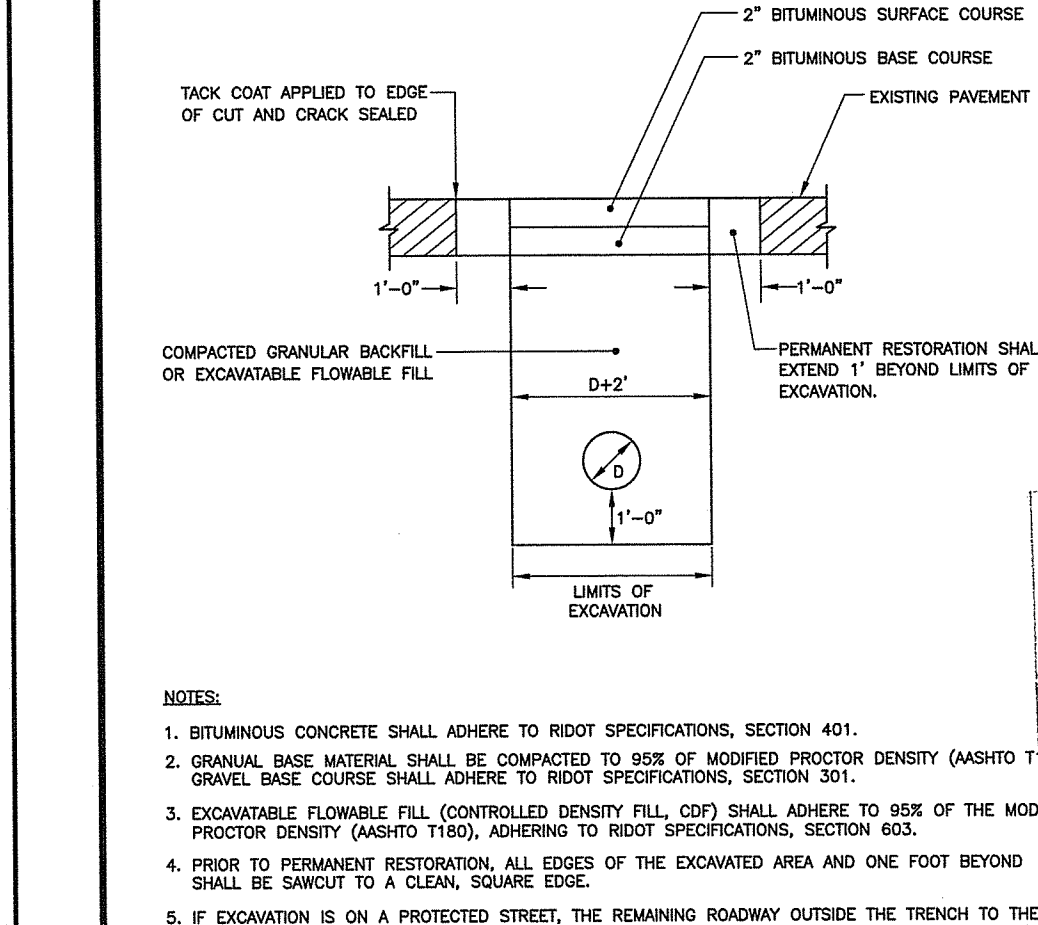
- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
 2. NEW CURBING CONSTRUCTION SHALL BE SET AT A 6 INCH REVEAL OR AS INDICATED ON PLANS OR DIRECTED BY PROVIDENCE DPW. NEW CURBING INSTALLED ADJACENT TO EXISTING CURBING SHALL MATCH THE EXISTING REVEAL OR A MINIMUM OF 4 INCHES, WHICHEVER IS GREATER. IF ADJACENT EXISTING REVEAL IS LESS THAN 4 INCHES, THE FIRST SECTION OF NEW CURB SHALL TRANSITION TO 4" REVEAL.

CURB SETTING DETAIL
NTS. 7.6.0 P PROVIDENCE STANDARD



- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 2. SEE CURB SETTING DETAIL WHERE APPLICABLE.
 3. RUNNING SLOPE OF SIDEWALK SHALL NOT EXCEED 8.3% (1:12). TYPICALLY, RUNNING SLOPE SHALL MATCH ROAD SLOPE.
 4. CROSS SLOPE OF SIDEWALK SHALL NOT EXCEED 2% (1:50).
 5. SIDEWALK MAY BE SUBJECT TO GRASS STRIP INSTALLATION. CONSULT WITH DPW ENGINEERING.
 6. GRAVEL BORROW BASE SHALL COMPACT TO ACHIEVE SOIL DENSITY VALUES OF 95% MODIFIED PROCTOR DENSITY (ASTM 1180).
 7. SIDEWALK REPAIRS TWENTY FEET OR LONGER ARE SUBJECT TO REQUIREMENTS HEREIN. SIDEWALK REPAIRS SHORTER THAN TWENTY FEET SHALL MAKE EVERY EFFORT TO MEET REQUIRED SLOPES.
 8. CONTROL JOINTS SHALL BE INSTALLED EVERY 5 FEET IN EACH DIRECTION.
 9. EXPANSION JOINTS SHALL BE INSTALLED EVERY 20 FEET IN EACH DIRECTION AT FOUNDATIONS AND WALLS AND IN A SQUARE PATTERN AROUND MANHOLE COVERS, HYDRANTS, SIGN POSTS AND UTILITY POLES. THE EXPANSION JOINT SHALL BE THE FULL DEPTH OF THE SIDEWALK AND FILLED WITH AN APPROVED TYPE OF PREMOLDED EXPANSION JOINT FILLER.

CEMENT CONCRETE SIDEWALK
NTS. 43.1.0 P PROVIDENCE STANDARD



- NOTES:**
1. BITUMINOUS CONCRETE SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 401.
 2. GRANULAR BASE MATERIAL SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (ASTM 1180). GRAVEL BASE COURSE SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 501.
 3. EXCAVATABLE FLOWABLE FILL (CONTROLLED DENSITY FILL, CDF) SHALL ADHERE TO 95% OF THE MODIFIED PROCTOR DENSITY (ASTM 1180), ADHERING TO RIDOT SPECIFICATIONS, SECTION 603.
 4. PRIOR TO PERMANENT RESTORATION, ALL EDGES OF THE EXCAVATED AREA AND ONE FOOT BEYOND SHALL BE SAWCUT TO A CLEAN, SQUARE EDGE.
 5. IF EXCAVATION IS ON A PROTECTED STREET, THE REMAINING ROADWAY OUTSIDE THE TRENCH TO THE NEAREST CURB SHALL BE MILLED 1.5 INCHES WITH 1.5 INCH BITUMINOUS CONCRETE SURFACE OVERLAY. THE JOINTS SHALL BE SEALED USING INFRARED TECHNOLOGY. THE LENGTH OF THE NEW PAVED AREA MUST BE A MINIMUM OF 10 FEET TO ALLOW FOR PROPER ROLLING.
 6. IF EXCAVATION IS ON A NON-PROTECTED STREET, AND THE DISTANCE FROM EDGE OF EXCAVATION TO EDGE OF ROADWAY IS TWO FEET OR LESS, THE REMAINING AREA TO EDGE OF ROADWAY SHALL BE REMOVED AND REPLACED IN CONJUNCTION WITH THE PERMANENT PAVEMENT RESTORATION.

PERMANENT ROADWAY RESTORATION - GRANULAR BASE
NTS. 60.2.0 P PROVIDENCE STANDARD

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2019 FILE # 17-0031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

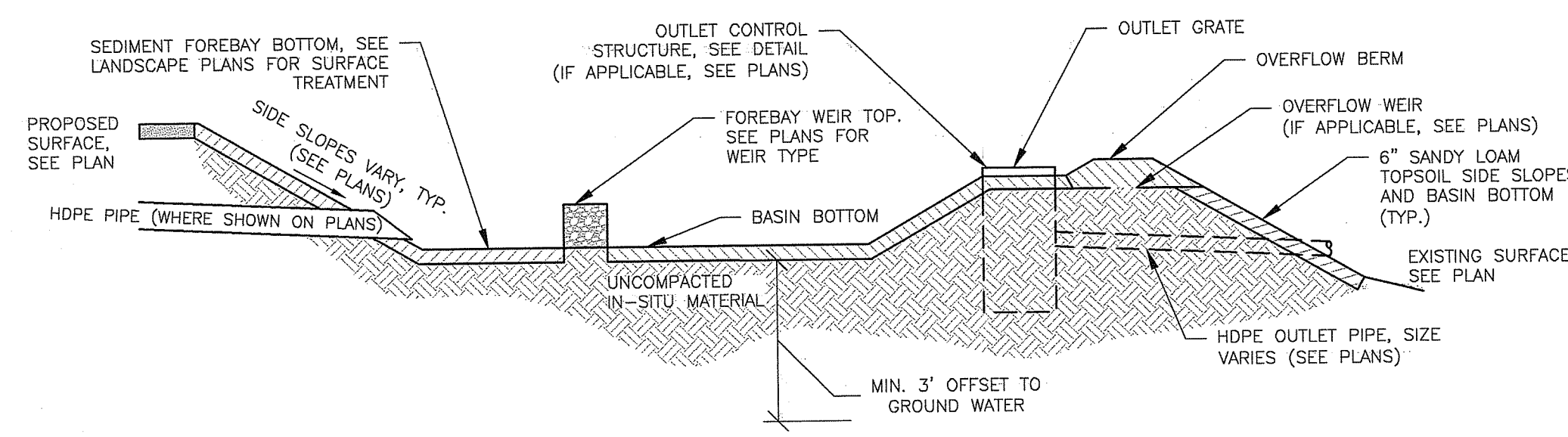
Charles A. Hester

NOT FOR CONSTRUCTION
SEAL:
C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/3-1/15

REVISION	DATE	DESCRIPTION

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
1000 ELMWOOD AVENUE, PROVIDENCE, RI 02907
PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK - PHASES 2 & 3
1000 ELMWOOD AVENUE PROVIDENCE, RHODE ISLAND

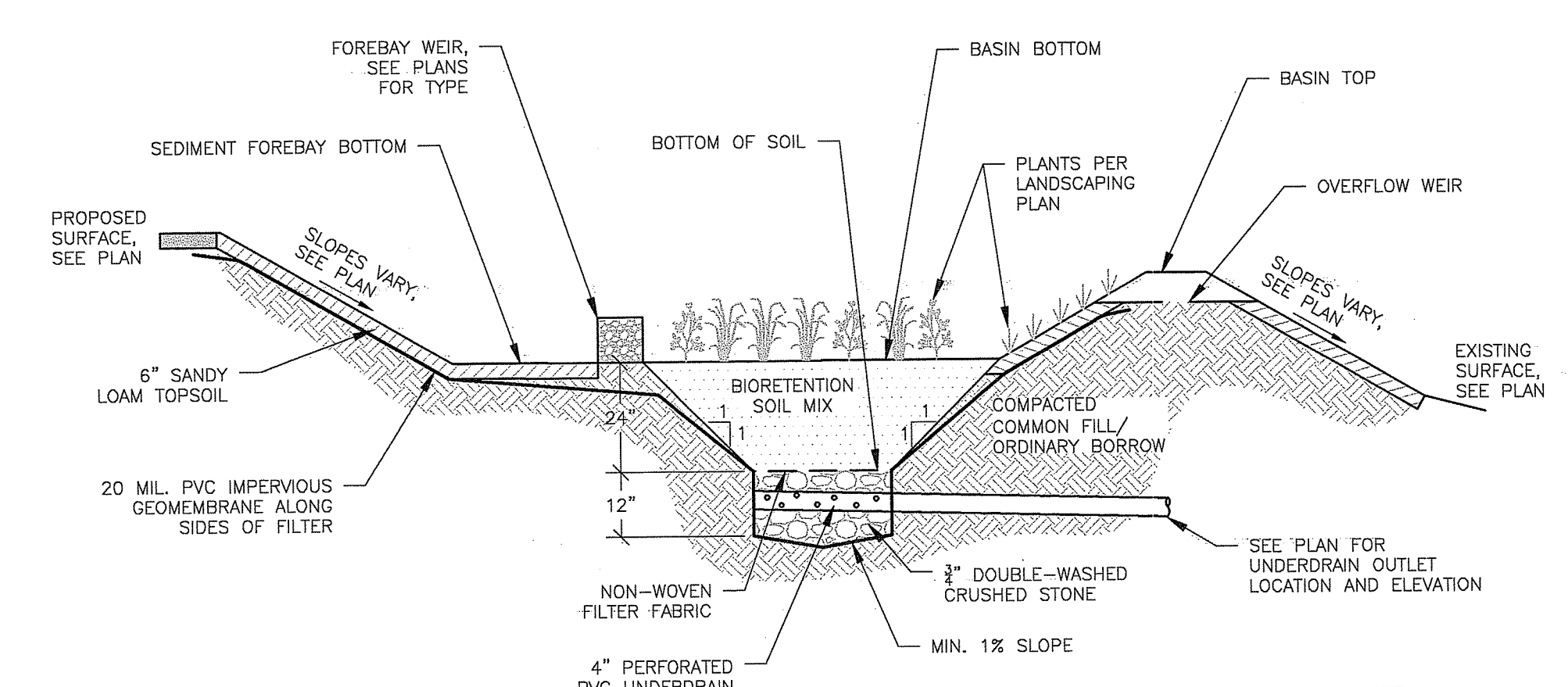
ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: N/A
DRAWN BY: M/JW
CHECKED BY: CNB
PROJECT NO: 3853170024



BMP ID	FOREBAY TOP	FOREBAY BOTTOM	FOREBAY WEIR	BASIN TOP	BASIN BOTTOM	OVERFLOW WEIR	OUTLET CONTROL STRUCTURE RIM	OUTLET PIPE INVERT
14	32	31	32	32	31	N/A	32	29
15	33	31	33	33	31	N/A	32.5	33.1
29	35.75	33	35.5	35.75	33	N/A	37	35
19A	N/A	N/A	N/A	39.5	37	N/A	38.5	35
37B	47.5	45	47.5	47.5	45	N/A	47	43

- NOTES:
- SIDE SLOPES SHALL BE 3:1 MAX. SEE PLANS.
 - MAXIMUM BASIN DEPTH SHALL BE 2' FEET.
 - OUTLET CONTROL STRUCTURE (IF APPLICABLE) SHALL BE EMBEDDED IN BASIN SIDE SLOPE.
 - PROPOSED FOREBAY WEIRS INCLUDE BERMS AND PARTIALLY EMBEDDED CURBING. SEE PLANS FOR TYPE IN EACH BASIN.
 - INFILTRATION BASINS 14 & 19A: ANY FILL MATERIAL BENEATH THE INFILTRATION BASIN UP TO A DEPTH OF AT LEAST 30" SHALL BE REMOVED AND REPLACED BY 18" OF ASTM C-33 SAND WRAPPED IN FILTER FABRIC, WITH A 12" LAYER OF BANK-RUN GRAVEL BELOW.

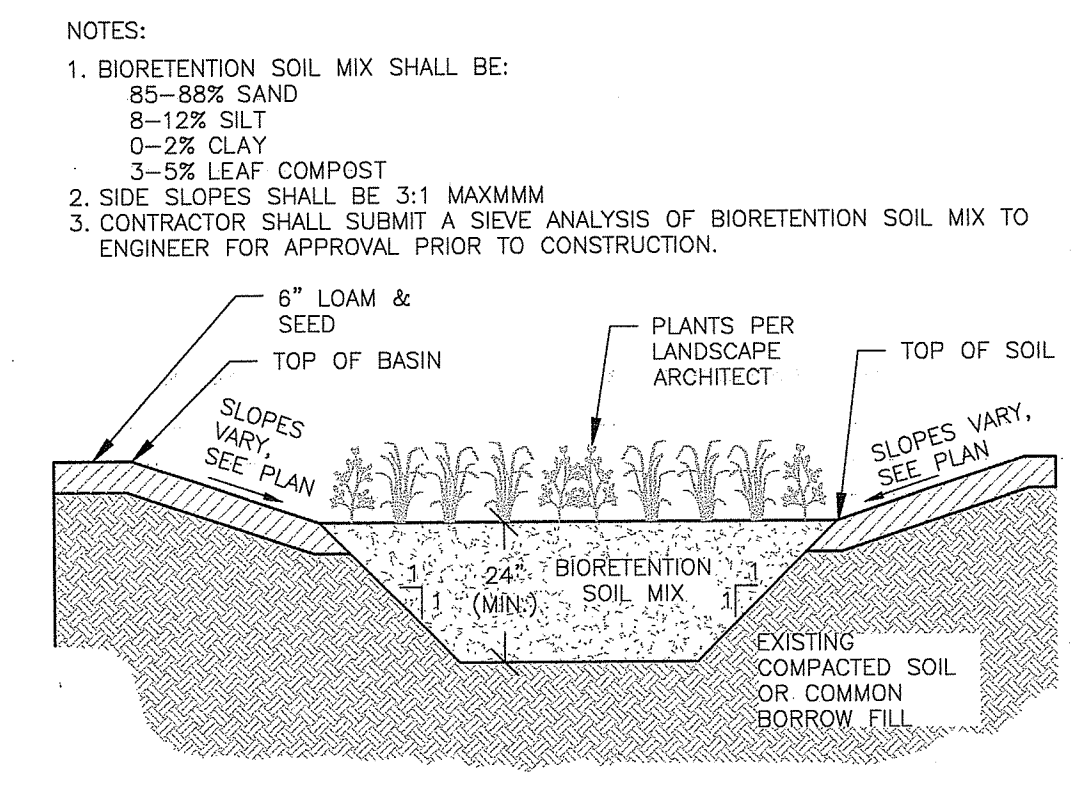
INFILTRATION BASIN & SEDIMENT FOREBAY CROSS-SECTION wood_3.17.1



- NOTES:
- BIORETENTION SOIL MIX SHALL BE:
85-88% SAND
8-12% SILT
0-2% CLAY
3-5% LEAF COMPOST
 - SIDE SLOPES SHALL BE 3:1 MAX. 2% MIN.
 - CONTRACTOR SHALL SUBMIT A SIEVE ANALYSIS OF BIORETENTION SOIL MIX TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
 - SEE PLANS BY LANDSCAPE ARCHITECT FOR PLANTING REQUIREMENTS.

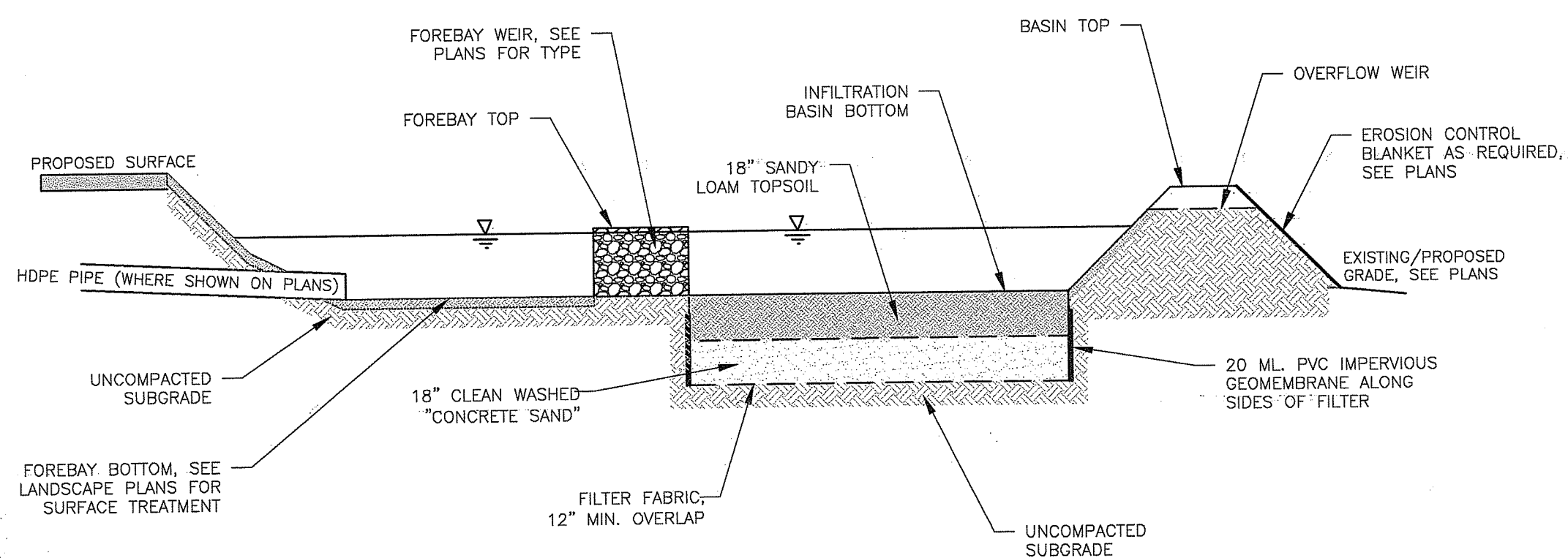
BMP ID	37A
BMP ID	37A
BASIN TOP	57.8
BASIN BOTTOM	57.2
FILTER MEDIA BOTTOM	55.2
OVERFLOW WEIR	N/A
OUTLET CONTROL STRUCTURE RIM	N/A
OUTLET PIPE INVERT	N/A

BIORETENTION BASIN wood_3.18.1



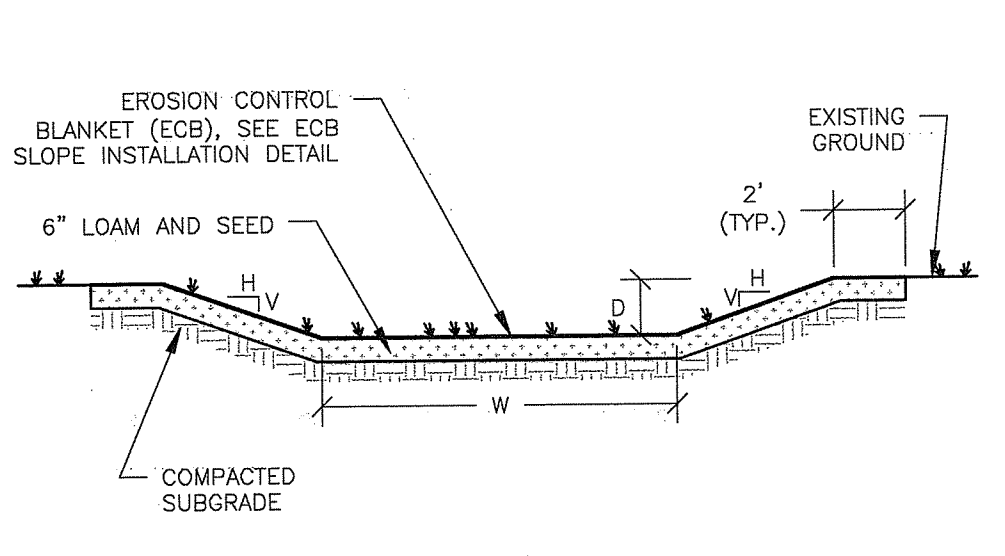
BMP ID	9E	37C
BMP ID	9E	37C
FOREBAY TOP	53.5	54
FOREBAY BOTTOM	52.5	53.5
FOREBAY WEIR	53	N/A
BASIN TOP	53.5	53.5
BASIN BOTTOM	52.5	53
FILTER MEDIA BOTTOM	50.5	50.5
OVERFLOW WEIR	53	53.5

RAIN GARDEN wood_3.25.1



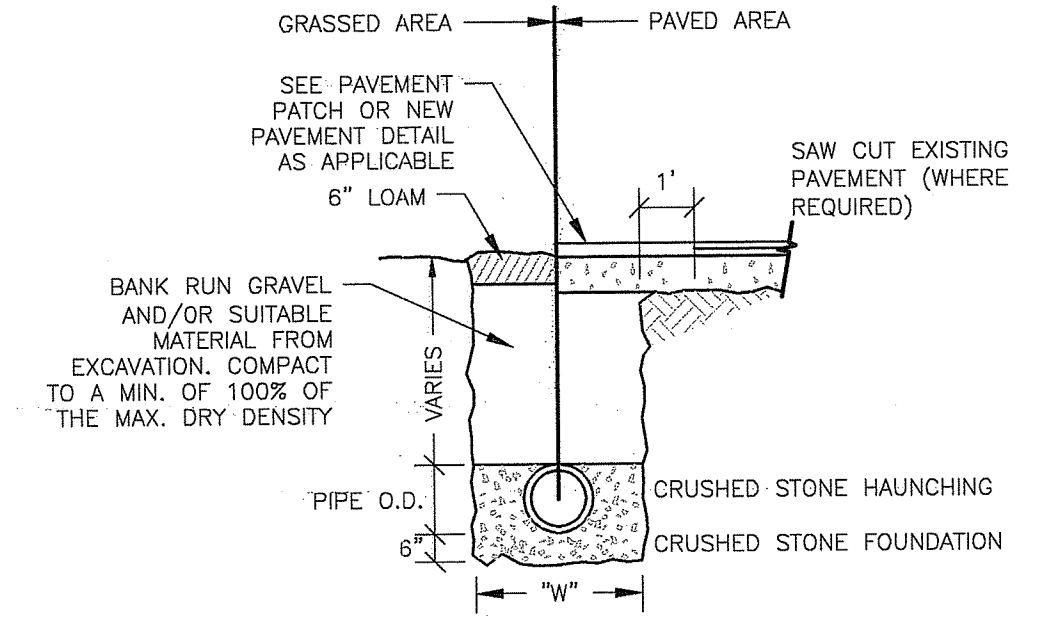
BMP ID	19C
BMP ID	19C
FOREBAY TOP	58.5
FOREBAY BOTTOM	56
FOREBAY WEIR	58
BASIN TOP	58.5
BASIN BOTTOM	56
FILTER MEDIA BOTTOM	54
OVERFLOW WEIR	N/A
OUTLET CONTROL STRUCTURE RIM	57.75
OUTLET PIPE INVERT	34.75

SAND FILTER / SEDIMENT FOREBAY CROSS-SECTION wood_3.27



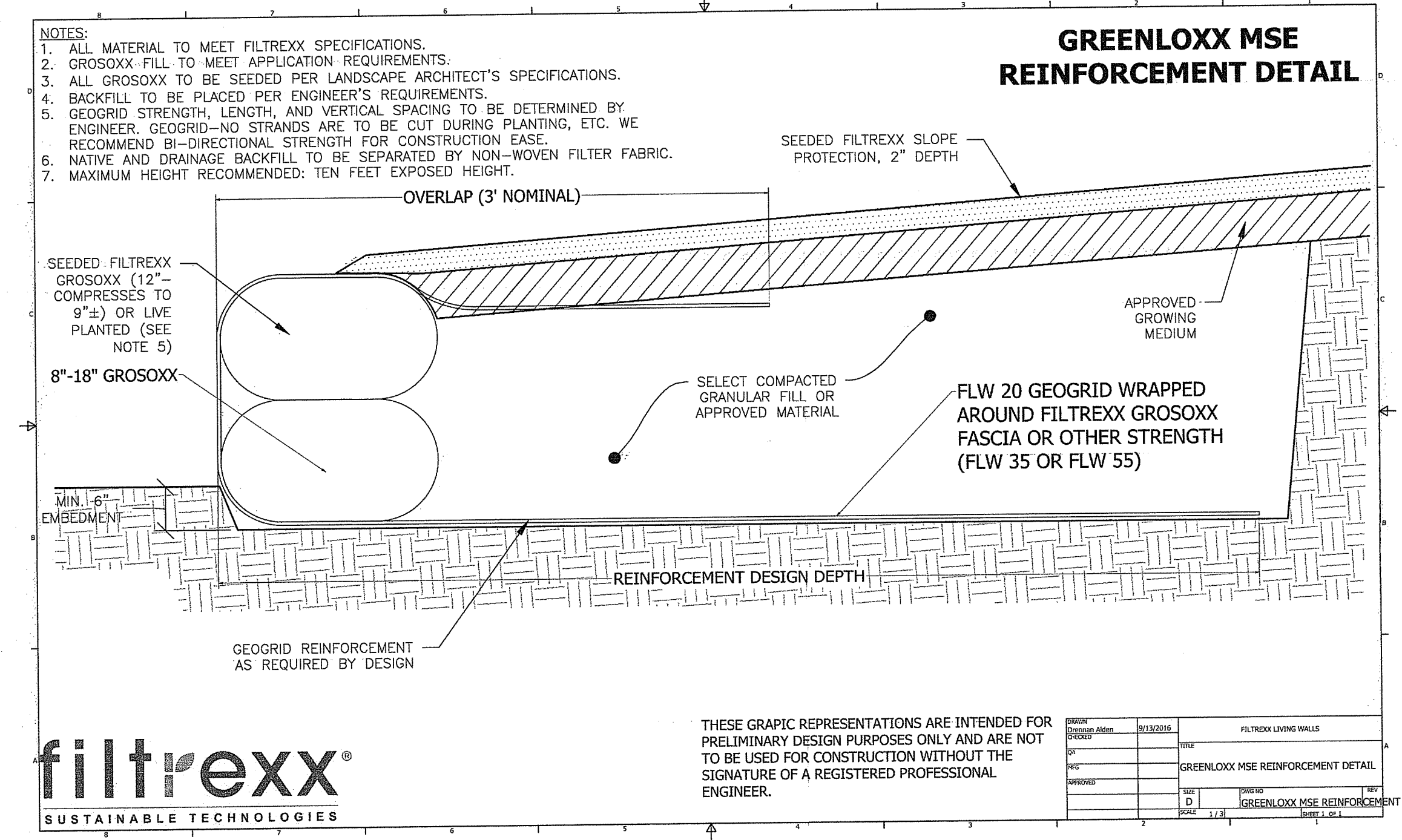
BMP ID	19A
BMP ID	19A
LENGTH	136
DEPTH, D	6
SLOPE (FT/FT)	0.066
BOTTOM WIDTH, W	6
TOP WIDTH	14
SIDE SLOPE	4H:1V

GRASSED SWALE wood_3.36



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

UTILITY TRENCH wood_3.35



Filtrex® GroSoxx® Gabion

EMBED SO TOP OF GABION IS EQUAL TO FOREBAY WEIR ELEVATION SHOWN ON PLANS. FILL WITH NATIVE MATERIAL TO HEIGHT OF SURROUNDING GRADE. INSTALL STONE TO TOP OF GABION MINUS HEIGHT OF GROSOXX. INSTALL GROSOXX ON GABION TOP SIDE ONLY.

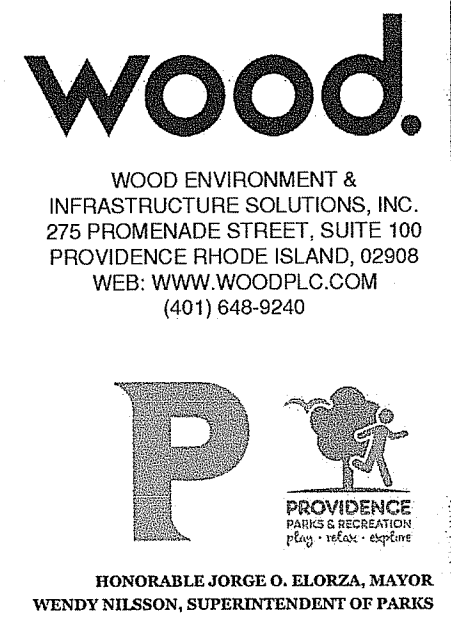
ITEM NO.	DESCRIPTION	QTY.
1	STANDARD GABION CAGE	~100 FT^2
2	8" FILLED SOXX™ 36"L	25
3	ROCK, #1S AND 2S (PER CHAMBER)	~1 YD^3

NOTES:

- 3' X 3' PEICE OF GABION WIRE CREATES CENTRAL DIVIDER.
- SOXX™ MAY BE FILLED WITH FILTER OR GROWING MEDIA, DEPENDING ON THE APPLICATION.
- THE TWO CHAMBERS CAN BE FILLED WITH ALL SOXX™ OR PART SOCK AND PART ROCK DEPENDING ON THE APPLICATION.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH COMMENTS
AS SPECIFIED IN THE COMMENTS
DATED JUN 3 2019 FILE # 19-0037
NO CHANGES ALLOWED WITHOUT REVISION
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Beaulieu



Environmental Management
MAY 23 2019
Office of Water Resources

NOT FOR CONSTRUCTION
SEAL:
C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 5/14/19

CITY OF PROVIDENCE
PARKS & RECREATION DEPARTMENT
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907
PROJECT:

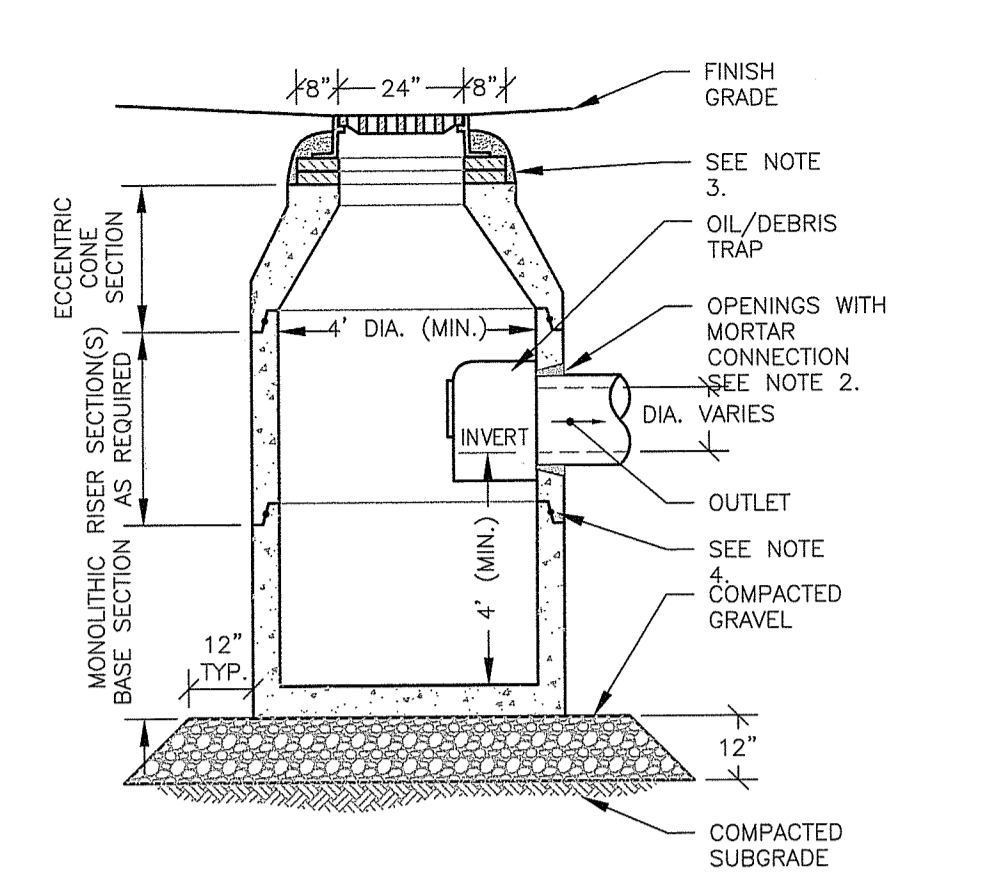
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK - PHASES 2 & 3
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
DETAILS-2

Environmental Management
MAY 23 2019
Permit Application Center

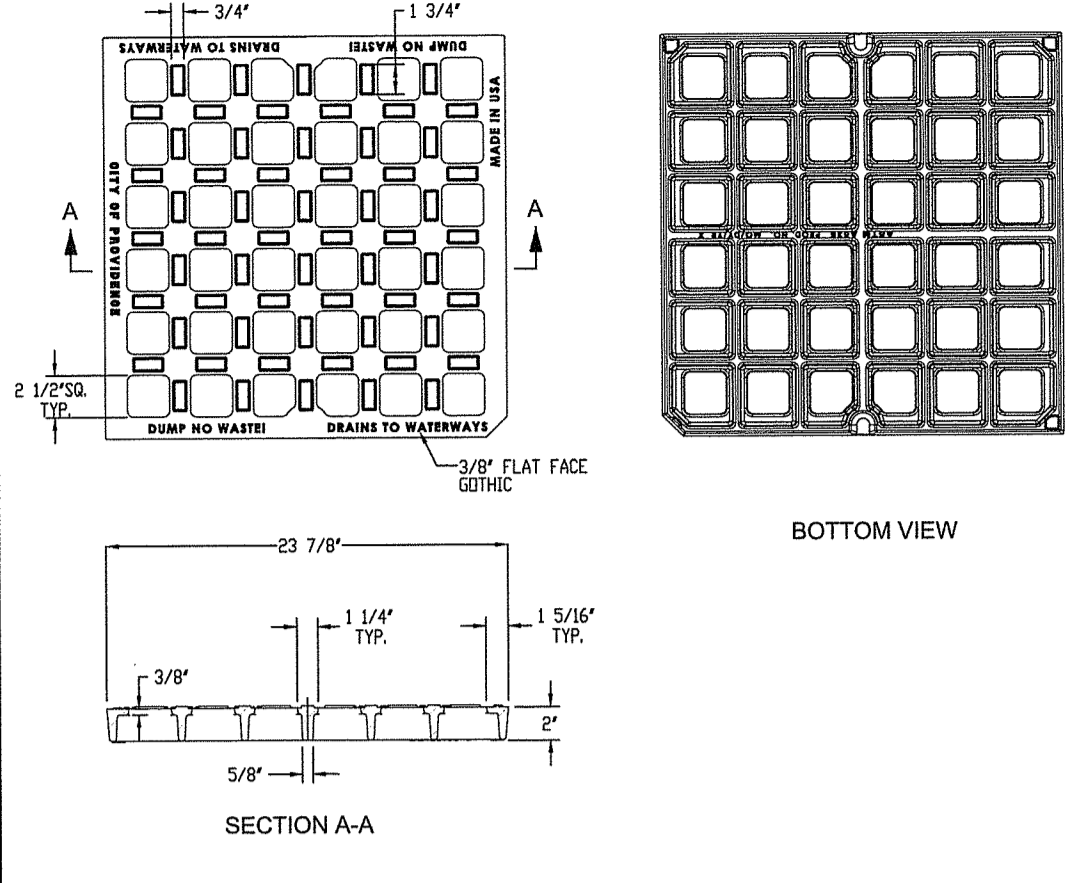
ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: N/A
DRAWN BY: MAW
CHECKED BY: CNB
PROJECT NO: 3653170024

C-14
SHEET 17 OF 18



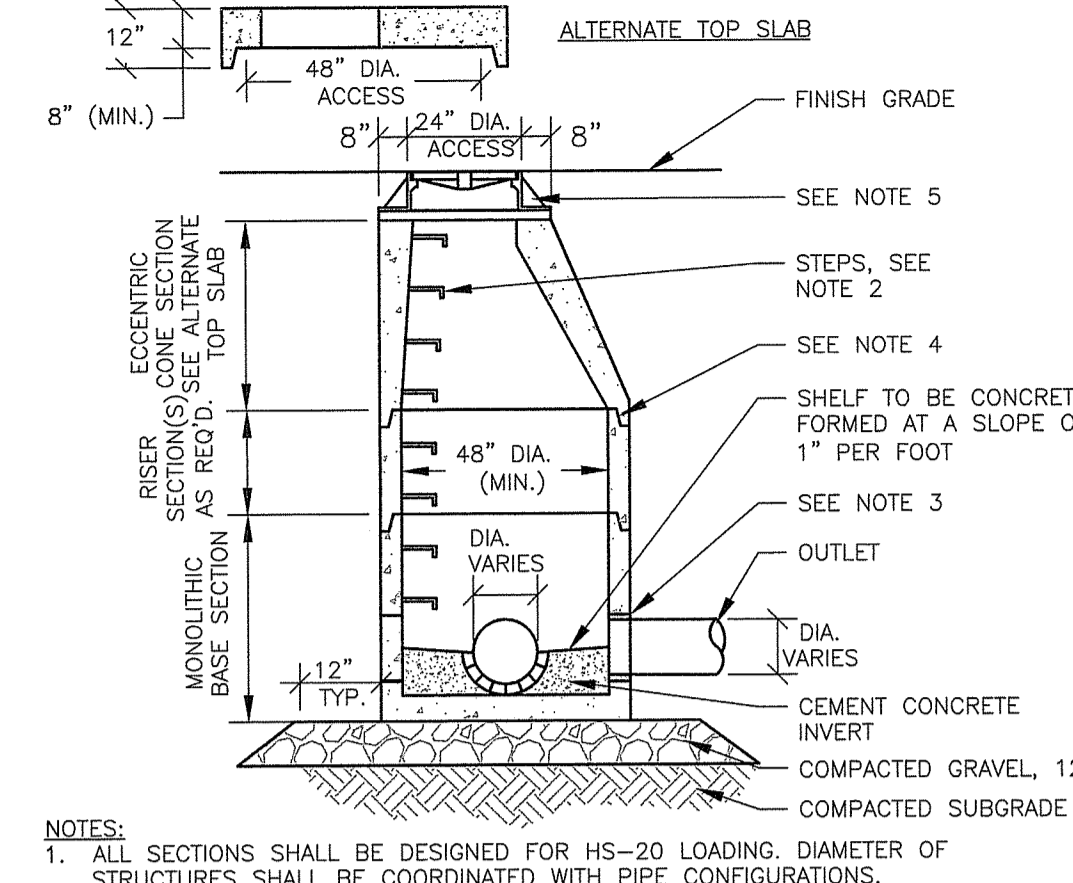
- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 3. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (TYP. 2 BRICK COURSES, 5 MAX.)
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.

CATCH BASIN WITH HOOD
NTS wood_3.7



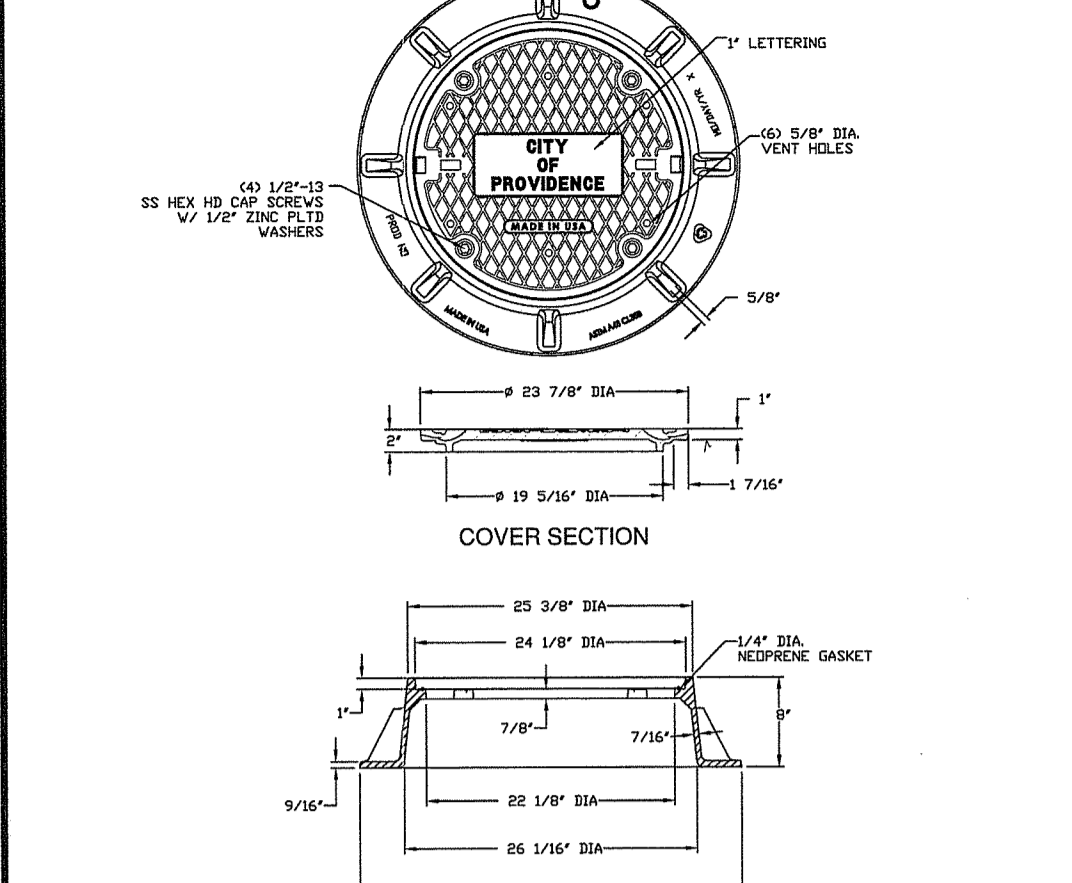
- NOTES:**
1. MATERIALS SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
 2. THE GRATE MATERIAL SHALL BE DUCTILE IRON. MATERIALS SHALL BE ASTM A536 CERTIFIED.
 3. OPEN AREA OF GRATE SHALL BE EQUAL TO OR GREATER THAN 21% SQUARE INCHES.
 4. SHALL BE EJ PRODUCT 5520002 OR APPROVED EQUAL.
 5. DOUBLE GRATE (DR) SHALL BE INSTALLED WITH EAST JORDAN FRAME 4" DOUBLE 5444 OR 8" DOUBLE 5448.

STANDARD CAPACITY GRATE
6.3.0 P PROVIDENCE STANDARD
ISSUE DATE: 1/9/17



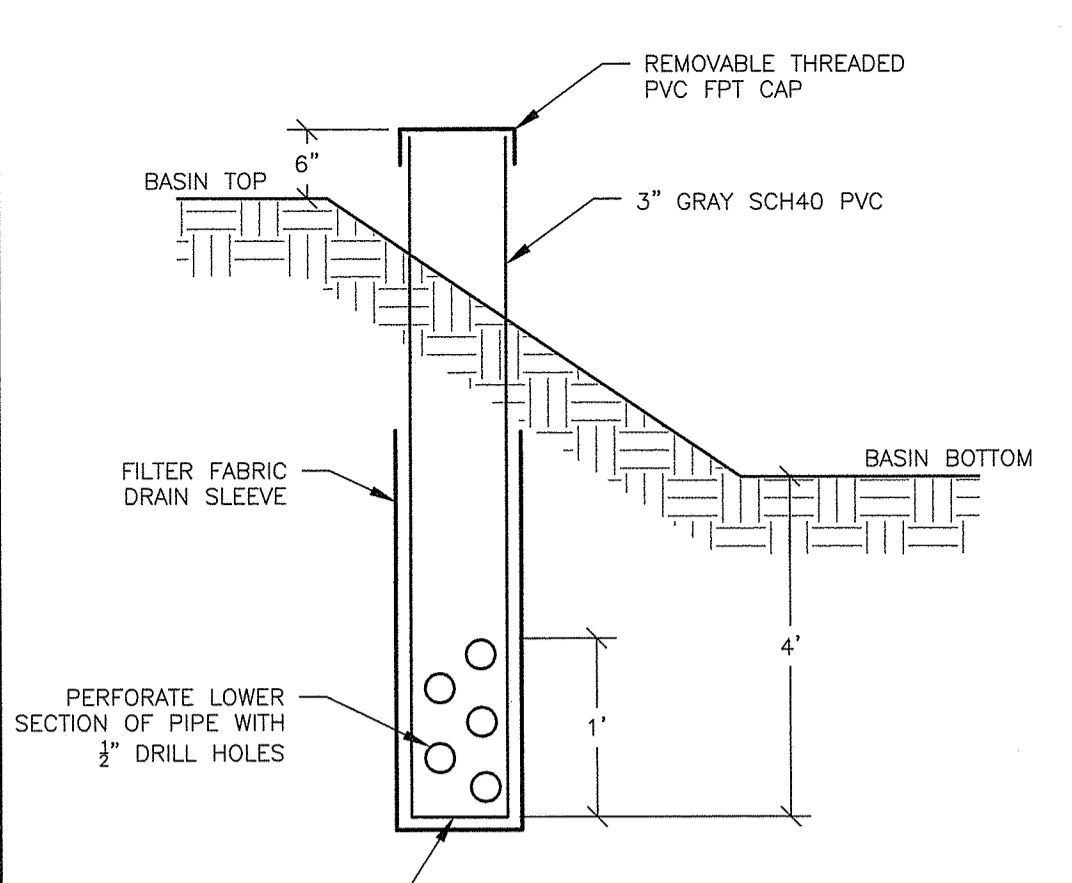
- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
 6. DRAIN MANHOLES PROVIDING ACCESS TO STORMTECH ISOLATOR ROWS SHALL BE CONSTRUCTED WITH 24" MIN. DEPTH SUMP.

PRECAST DRAIN MANHOLE
NTS wood_3.26
ISSUE DATE: 1/6/17



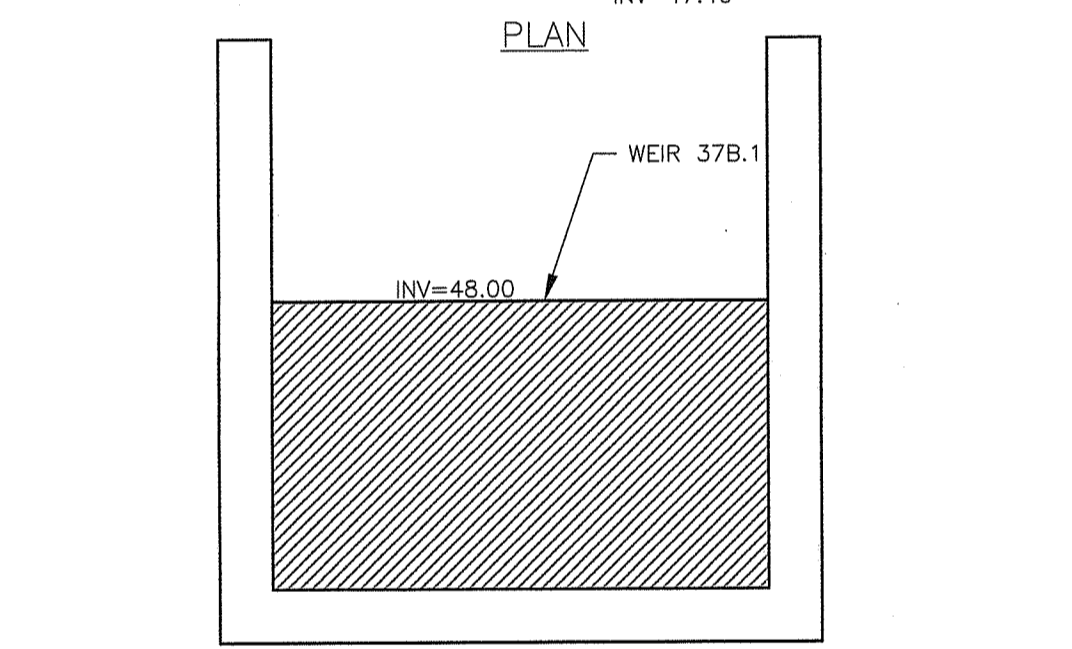
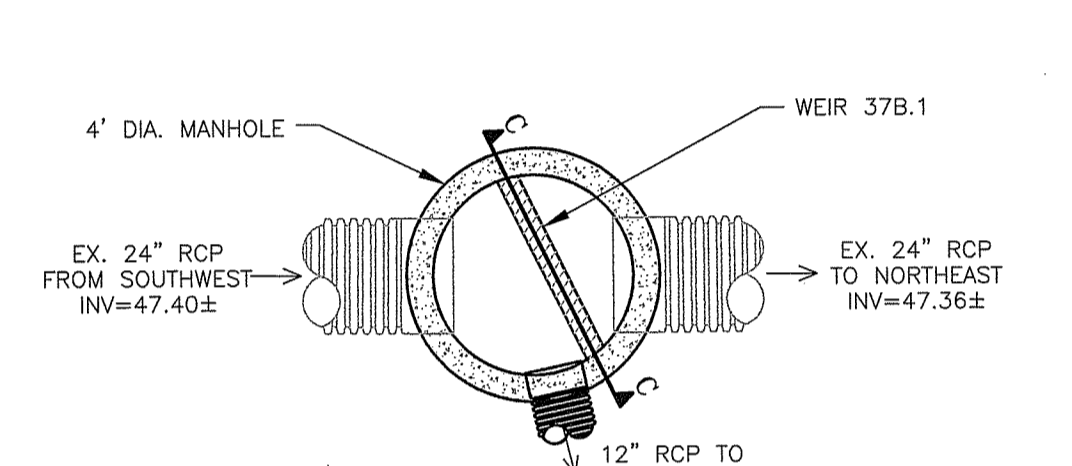
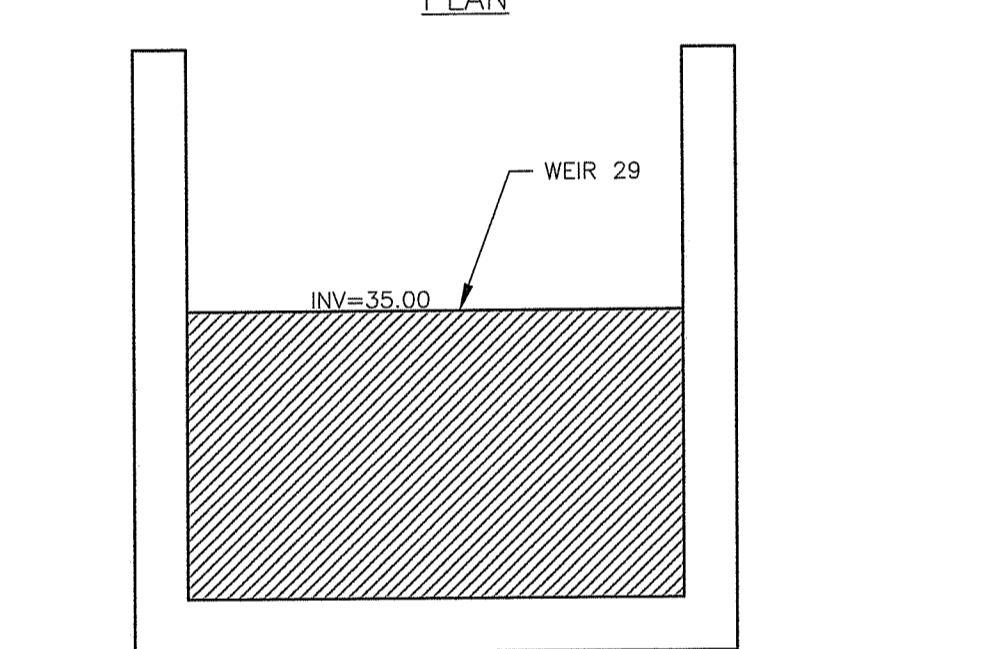
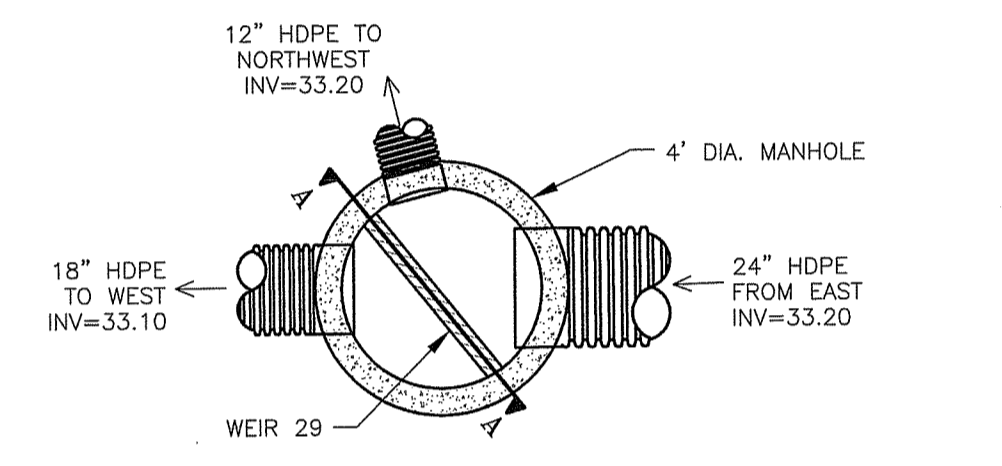
- NOTES:**
1. MATERIALS SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
 2. THE MATERIALS SHALL BE GRAY IRON AND SHALL BE ASTM A48 CERTIFIED.
 3. SHALL BE EJ PRODUCT 24824801 OR APPROVED EQUAL.

HEAVY DUTY MANHOLE FRAME AND COVER-24 INCH
6.2.1 P PROVIDENCE STANDARD
ISSUE DATE: 1/6/17

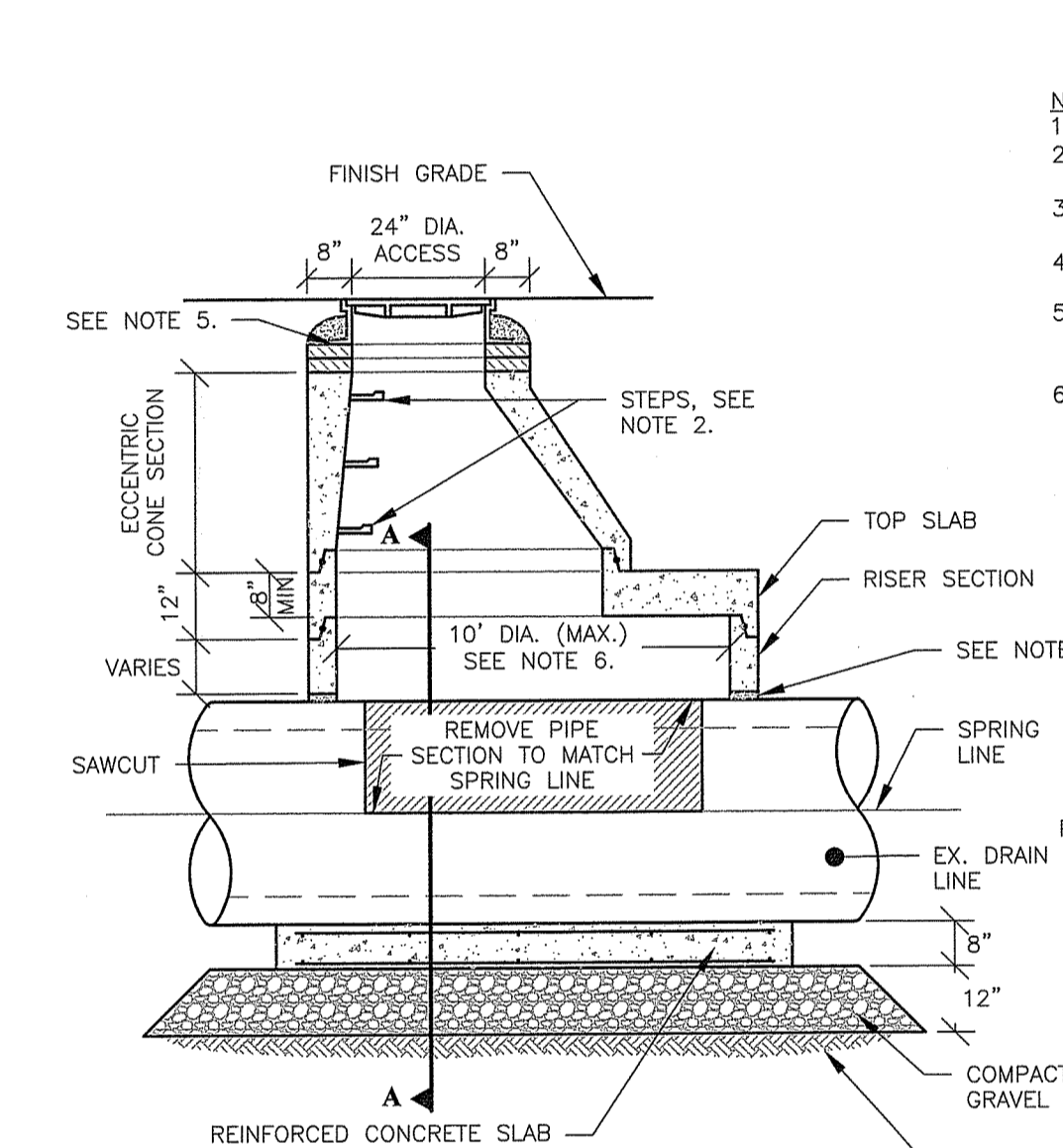


- NOTES:**
1. CONTRACTOR TO PROVIDE GPS COORDINATES OF ALL INSTALLED MONITORING WELLS.

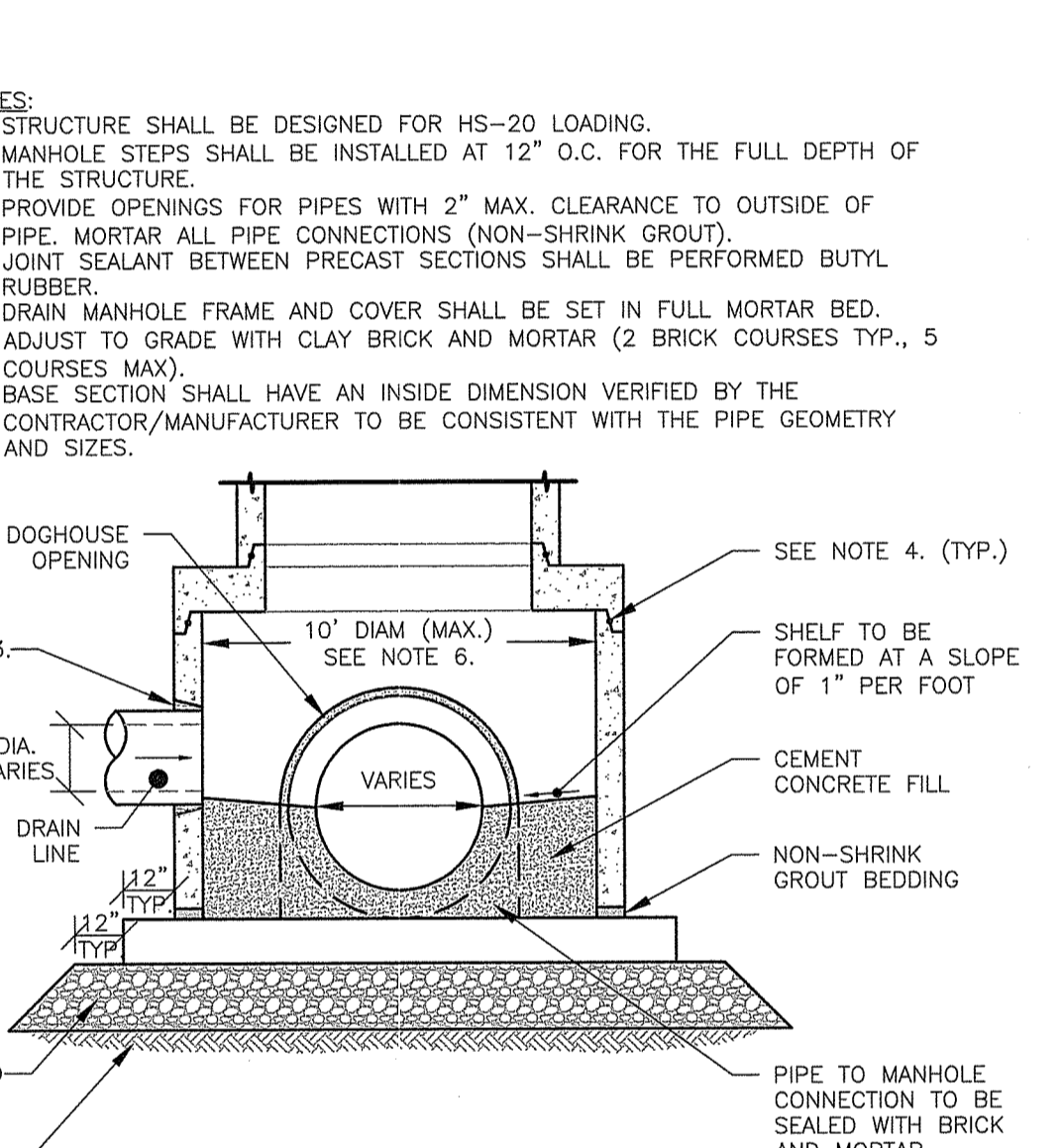
MONITORING WELL
NTS wood_3.45



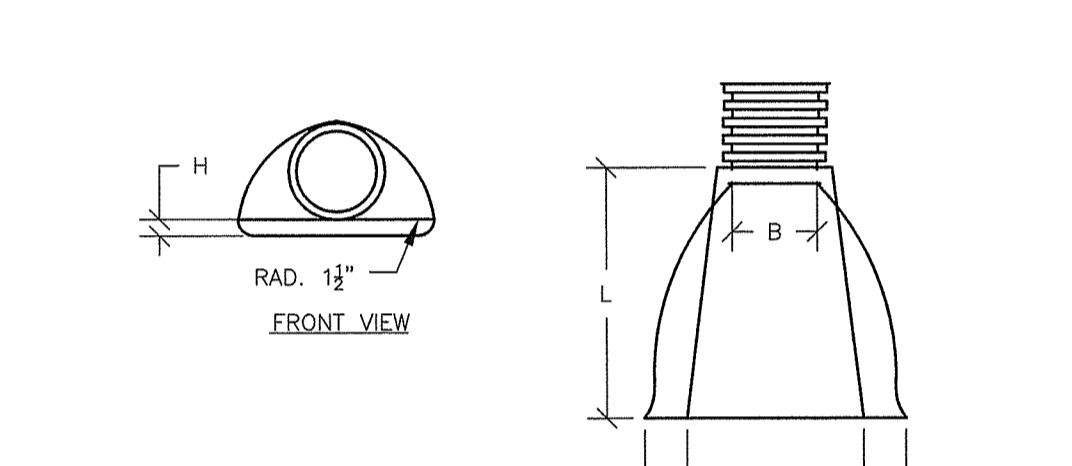
FLOW DIVERSION MANHOLE DETAILS
NTS wood_3.40



DOGHOUSE DRAIN MANHOLE
NTS wood_3.18



HDPE FLARED END SECTION
NTS wood_3.16

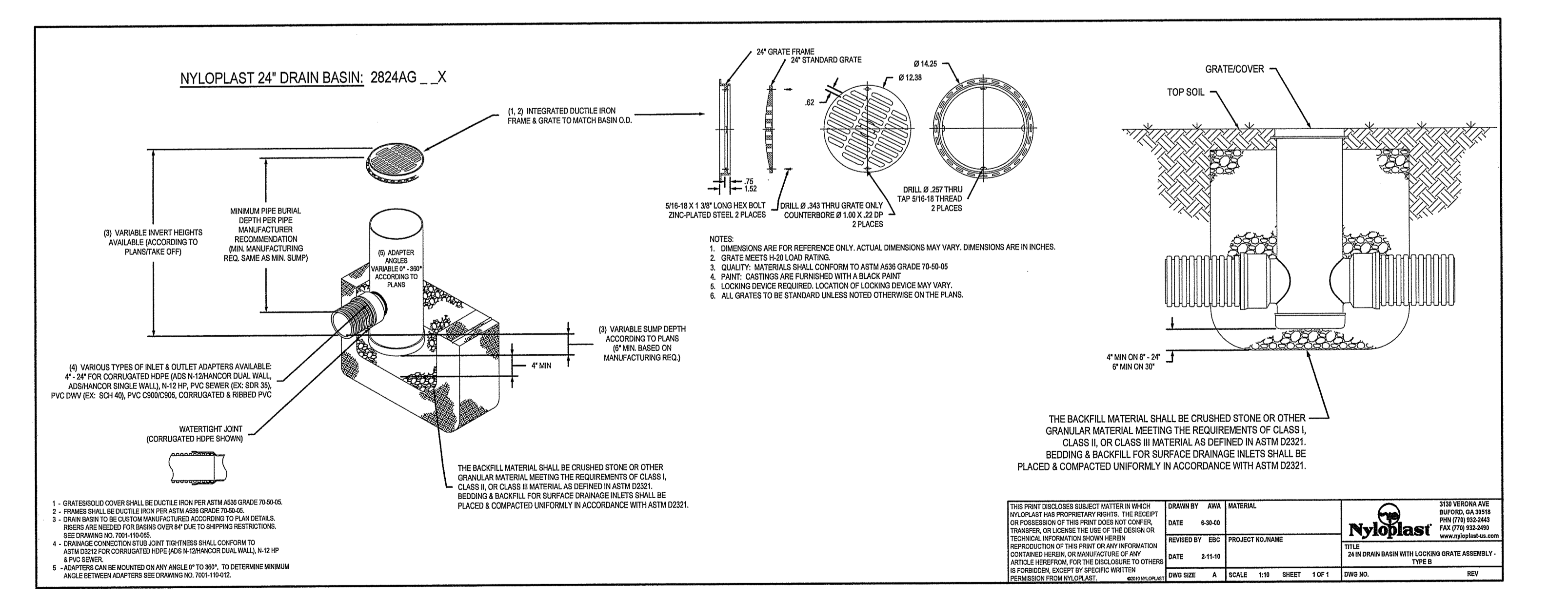


NOTES:

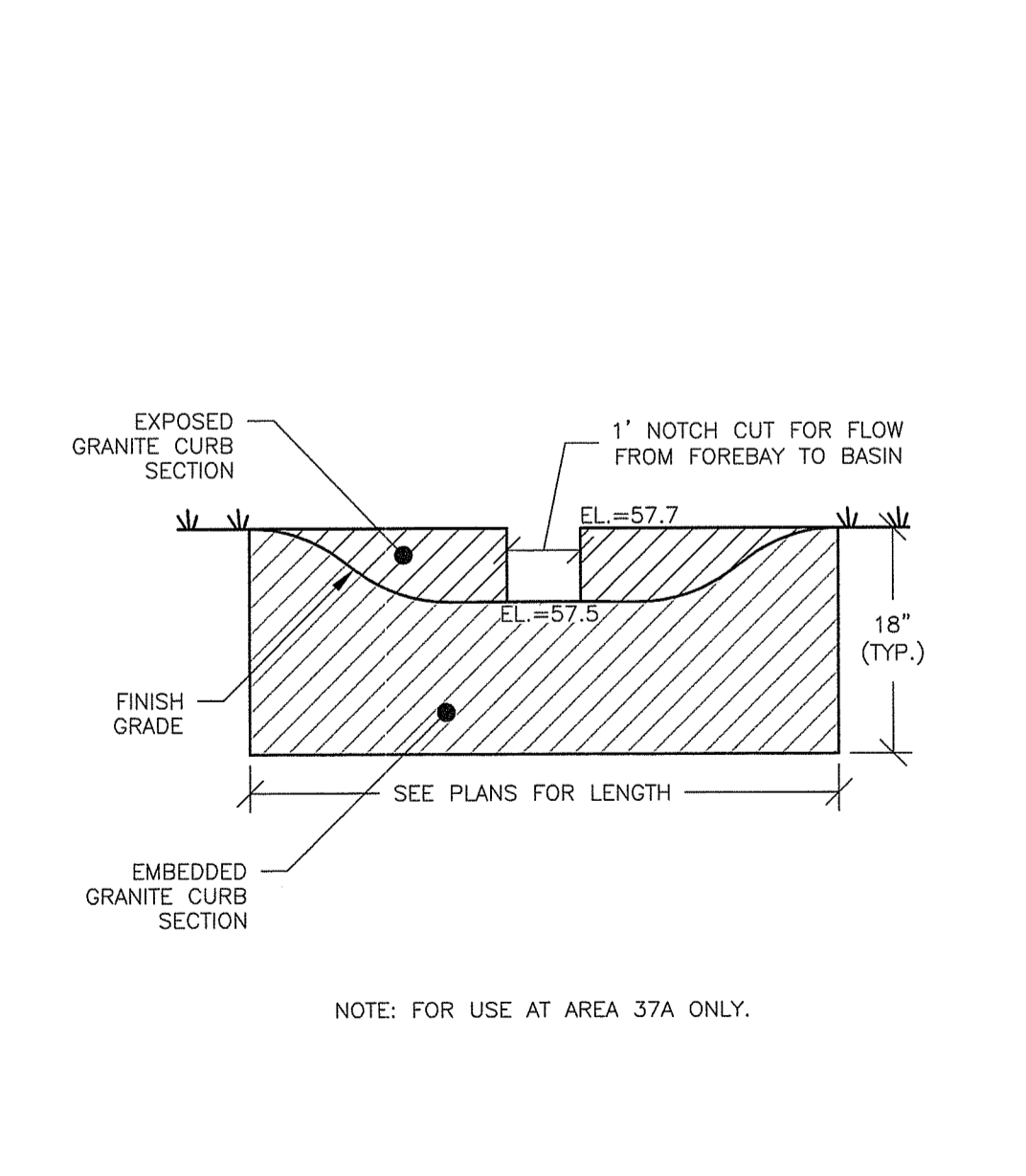
1. JOINTS SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT AS REQUIRED TO CONFORM TO PIPE THICKNESS.
2. WALL THICKNESS SHALL CONFORM TO PIPE THICKNESS.

DIAMETER IN	PIPE DIAMETER, IN					
	12	15	18	24	30	36
A IN	6.5	6.5	7.5	7.5	7.5	7.5
B (MAX) IN	10	10	15.0	18.0	22.0	25.0
H IN	6.5	6.5	6.5	6.5	8.6	8.6
L IN	25.0	25.0	32.0	36.0	58.0	58.0
W IN	29.0	29.0	35.0	45.0	63.0	63.0

NOT FOR CONSTRUCTION
SEAL:
C N BEAULIEU-SHEA
No. 5701
REGISTERED PROFESSIONAL ENGINEER (CIVIL) 1/3/16



NYLOPLAST DRAIN - OUTLET CONTROL STRUCTURE - OCS
NTS wood_X.X



NOTCH-CUT SEDIMENT FOREBAY WEIR
NTS wood_3.46

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2019 FILE # 19-003
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION-OFFICE

Charles A. Hester

Environmental Management
FEB - 4 2019
Office of Water Resources

REVISION	DATE	DESCRIPTION

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
1000 ELMWOOD AVENUE, PROVIDENCE, RI 02907

PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK - PHASES 2 & 3
1000 ELMWOOD AVENUE PROVIDENCE, RHODE ISLAND

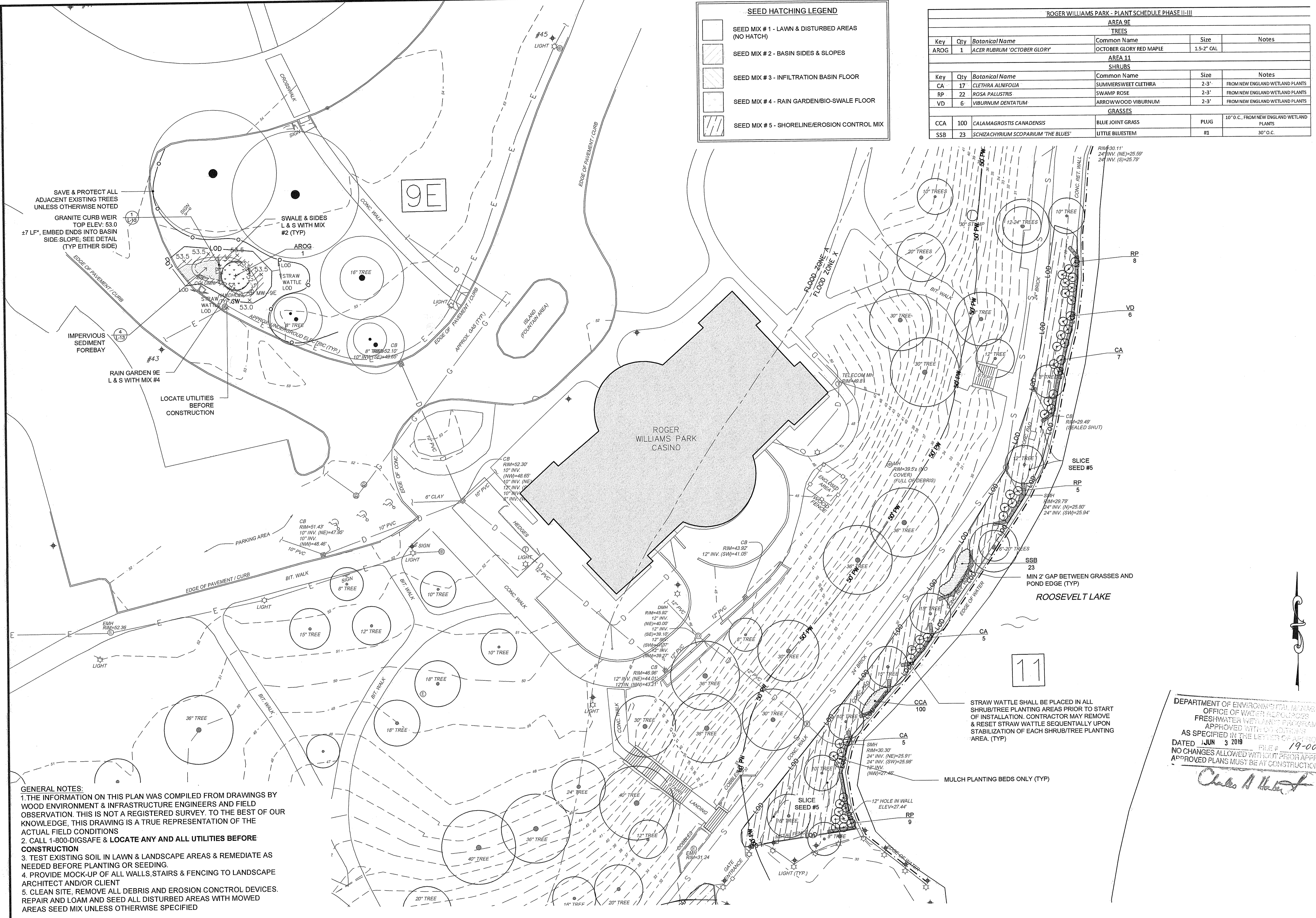
ISSUED FOR: PERMITTING
DATE: JANUARY 30, 2019
SCALE: N/A
DRAWN BY: MJW
CHECKED BY: CNB
PROJECT NO: 3853170024

SEED HATCHING LEGEND

[Hatched Box]	SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
[Hatched Box]	SEED MIX # 2 - BASIN SIDES & SLOPES
[Hatched Box]	SEED MIX # 3 - INFILTRATION BASIN FLOOR
[Hatched Box]	SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
[Hatched Box]	SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III

AREA 9E					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
AROG	1	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	1.5-2' CAL	
AREA 11					
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
CA	17	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	2-3'	FROM NEW ENGLAND WETLAND PLANTS
RP	22	ROSA PALUSTRIS	SWAMP ROSE	2-3'	FROM NEW ENGLAND WETLAND PLANTS
VD	6	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2-3'	FROM NEW ENGLAND WETLAND PLANTS
GRASSES					
CCA	100	CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS	PLUG	10" O.C. FROM NEW ENGLAND WETLAND PLANTS
SSB	23	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	LITTLE BLUESTEM	#1	30" O.C.



SAVE & PROTECT ALL ADJACENT EXISTING TREES UNLESS OTHERWISE NOTED

GRANITE CURB WEIR TOP ELEV: 53.0 ± 7.0 FT. EMBED ENDS INTO BASIN SIDE SLOPE. SEE DETAIL (TYP EITHER SIDE)

IMPERVIOUS SEDIMENT FOREBAY

RAIN GARDEN 9E L & S WITH MIX #4

LOCATE UTILITIES BEFORE CONSTRUCTION

SWALE & SIDES L & S WITH MIX #2 (TYP)

ROGER WILLIAMS CASINO

ROOSEVELT LAKE

- GENERAL NOTES:**
1. THE INFORMATION ON THIS PLAN WAS COMPILED FROM DRAWINGS BY WOOD ENVIRONMENT & INFRASTRUCTURE ENGINEERS AND FIELD OBSERVATION. THIS IS NOT A REGISTERED SURVEY. TO THE BEST OF OUR KNOWLEDGE, THIS DRAWING IS A TRUE REPRESENTATION OF THE ACTUAL FIELD CONDITIONS
 2. CALL 1-800-DIGSAFE & LOCATE ANY AND ALL UTILITIES BEFORE CONSTRUCTION
 3. TEST EXISTING SOIL IN LAWN & LANDSCAPE AREAS & REMEDIATE AS NEEDED BEFORE PLANTING OR SEEDING.
 4. PROVIDE MOCK-UP OF ALL WALLS, STAIRS & FENCING TO LANDSCAPE ARCHITECT AND/OR CLIENT
 5. CLEAN SITE, REMOVE ALL DEBRIS AND EROSION CONTROL DEVICES. REPAIR AND LOAM AND SEED ALL DISTURBED AREAS WITH MOWED AREAS SEED MIX UNLESS OTHERWISE SPECIFIED

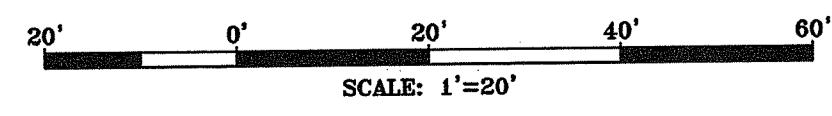
STRAW WATTLE SHALL BE PLACED IN ALL SHRUB/TREE PLANTING AREAS PRIOR TO START OF INSTALLATION. CONTRACTOR MAY REMOVE & RESET STRAW WATTLE SEQUENTIALLY UPON STABILIZATION OF EACH SHRUB/TREE PLANTING AREA. (TYP)

MULCH PLANTING BEDS ONLY (TYP)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLAND PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2019 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hester

1A - STORMWATER PROJECT NUMBER (TYP.)

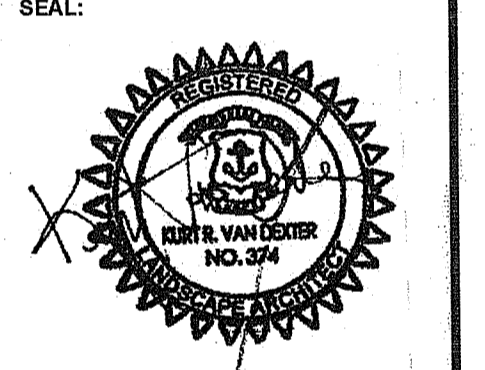


wood.
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
275 PROMENADE STREET, SUITE 100
PROVIDENCE RHODE ISLAND, 02908
WEB: WWW.WOODPLC.COM
(401) 648-9240

HALI BECKMAN, LTD.
23 Brown Street, Suite 206, Wickford, RI 02892
Tel. 401.294.1684 - www.halibeckman.com
Estate Planning - Landscape Architecture

Environmental Management
MAY 23 2019
Permit Application Center

NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/31/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/18/19	BOULDER WALL
4	6/15/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
CITY HALL, 25 DORRANCE STREET, PROVIDENCE, RI 02903

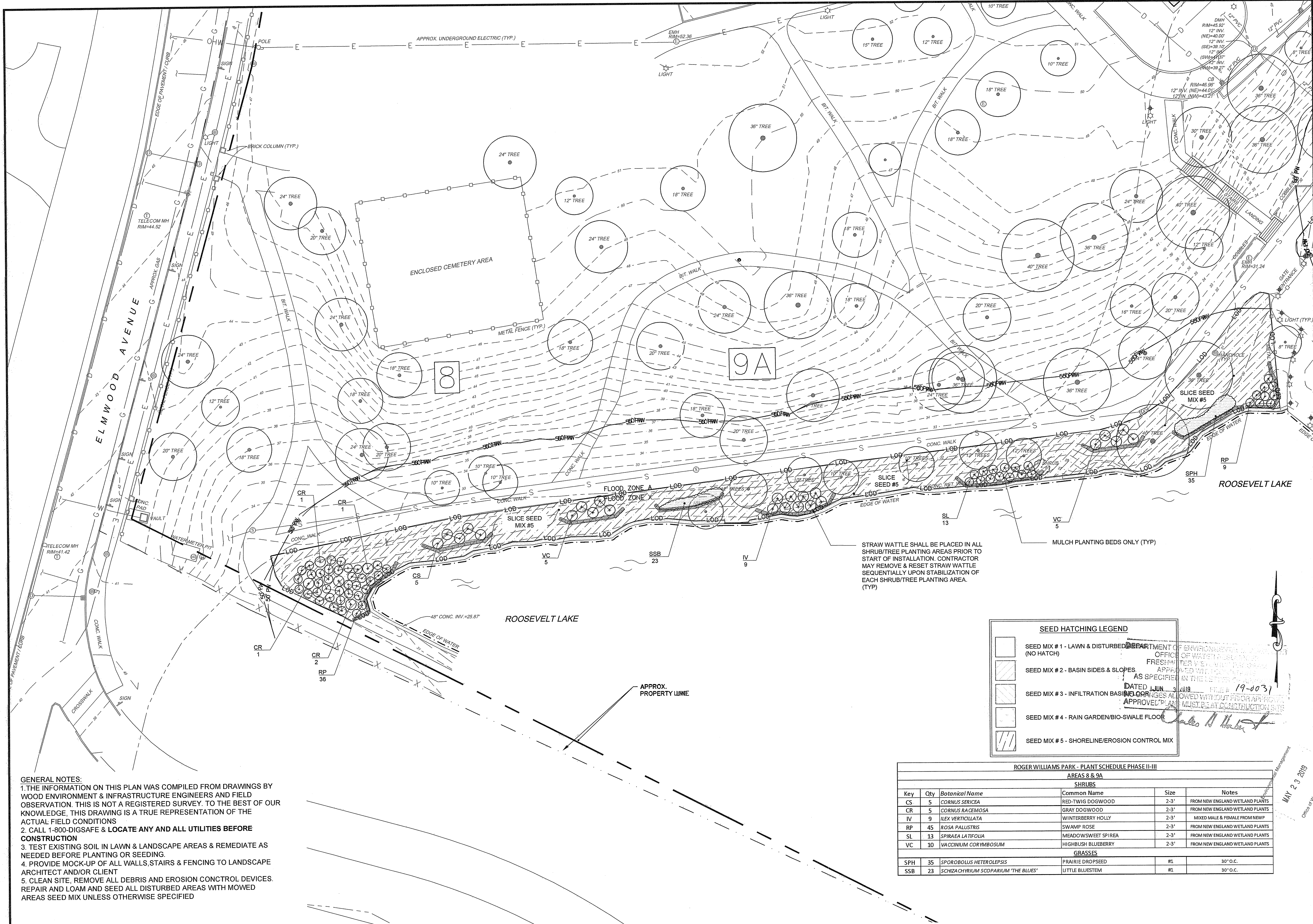
PROJECT:
INSTALLATION OF STORMWATER BMPS IN ROGER WILLIAMS PARK PHASE II & III
1000 ELIMWOOD AVENUE PROVIDENCE, RHODE ISLAND

TITLE:
LANDSCAPE PLAN 1 AREAS 9E & 11

ISSUED FOR: PERMITTING
DATE: NOVEMBER 15, 2018
SCALE: 1" = 20'
DRAWN BY: M/JW
CHECKED BY: GAA
PROJECT NO: HBL 448

L-1
SHEET 1 OF 14

19 of 32



STRAW WATTLE SHALL BE PLACED IN ALL SHRUB/TREE PLANTING AREAS PRIOR TO START OF INSTALLATION. CONTRACTOR MAY REMOVE & RESET STRAW WATTLE SEQUENTIALLY UPON STABILIZATION OF EACH SHRUB/TREE PLANTING AREA. (TYP)

MULCH PLANTING BEDS ONLY (TYP)

SEED HATCHING LEGEND

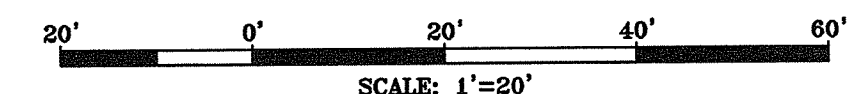
- SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
- SEED MIX # 2 - BASIN SIDES & SLOPES
- SEED MIX # 3 - INFILTRATION BASIN COVERS
- SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
- SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III AREAS 8 & 9A

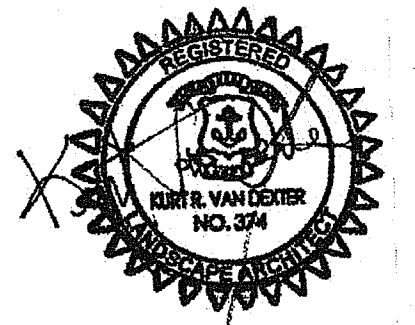
Key	Qty	Botanical Name	Common Name	Size	Notes
SHRUBS					
CS	5	CORNUS SERICEA	RED-TWIG DOGWOOD	2-3'	FROM NEW ENGLAND WETLAND PLANTS
CR	5	CORNUS RACEMOSA	GRAY DOGWOOD	2-3'	FROM NEW ENGLAND WETLAND PLANTS
IV	9	ILEX VERTICILLATA	WINTERBERRY HOLLY	2-3'	MIXED MALE & FEMALE FROM NEWP
RP	45	ROSA PALUSTRIS	SWAMP ROSE	2-3'	FROM NEW ENGLAND WETLAND PLANTS
SL	13	SPIRAEA LATIFOLIA	MEADOWSWEET SPIREA	2-3'	FROM NEW ENGLAND WETLAND PLANTS
VC	10	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	2-3'	FROM NEW ENGLAND WETLAND PLANTS
GRASSES					
SPH	35	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	#1	30" O.C.
SSB	23	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	LITTLE BLUESTEM	#1	30" O.C.

GENERAL NOTES:
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5. CLEAN SITE, REMOVE ALL DEBRIS AND EROSION CONTROL DEVICES. REPAIR AND LOAM AND SEED ALL DISTURBED AREAS WITH MOWED AREAS SEED MIX UNLESS OTHERWISE SPECIFIED.

1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
CITY HALL, 25 DORRANCE STREET, PROVIDENCE, RI 02903

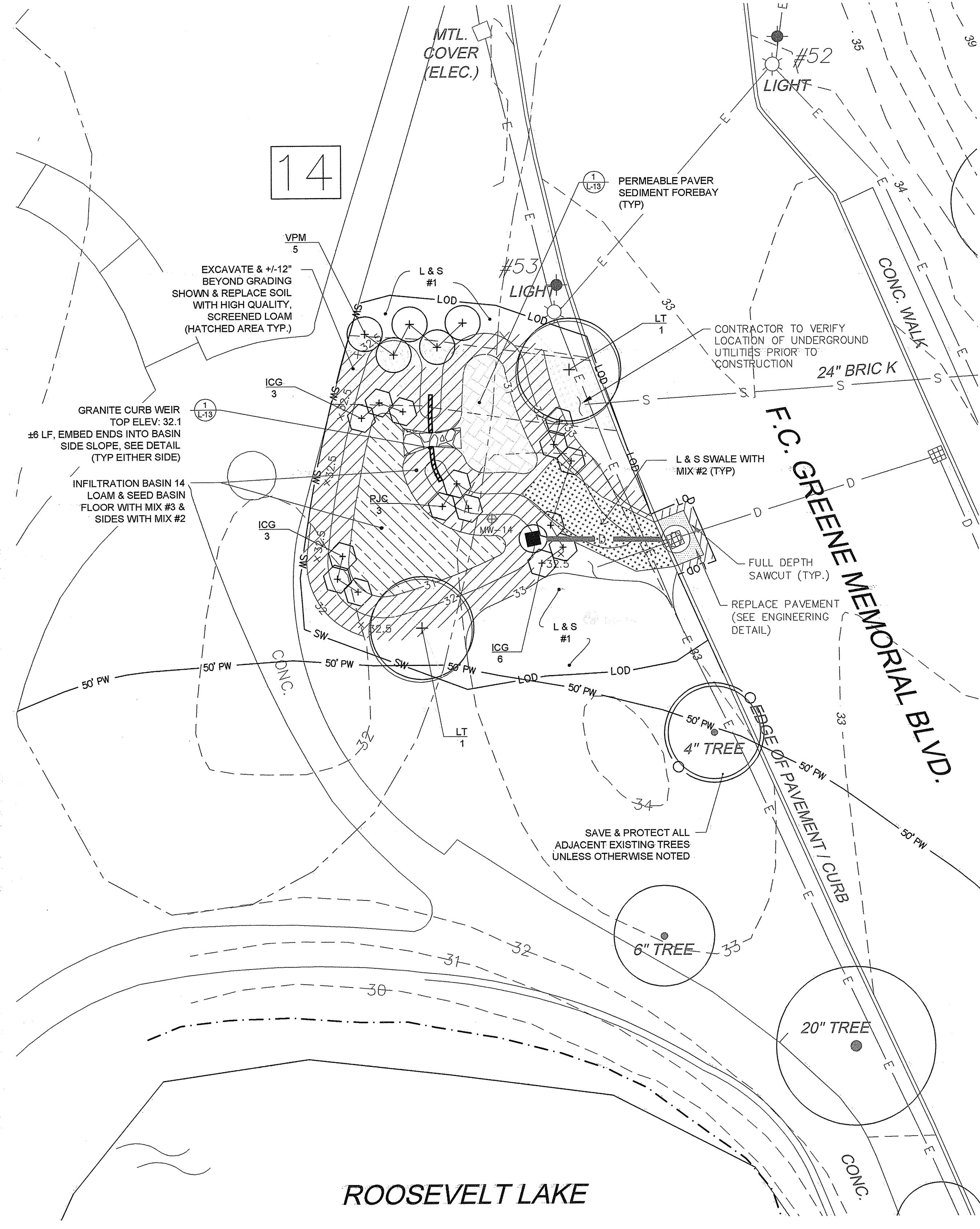
PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK PHASE II & III
1100 ELMWOOD AVENUE, PROVIDENCE, RHODE ISLAND

TITLE:
LANDSCAPE PLAN 2 AREAS 8 & 9A

ISSUED FOR: PERMITTING
DATE: NOVEMBER 15, 2018
SCALE: 1" = 20'
DRAWN BY: MJW
CHECKED BY: GAA
PROJECT NO: HBL 448

L-2

SHEET 2 OF 14



SEED HATCHING LEGEND

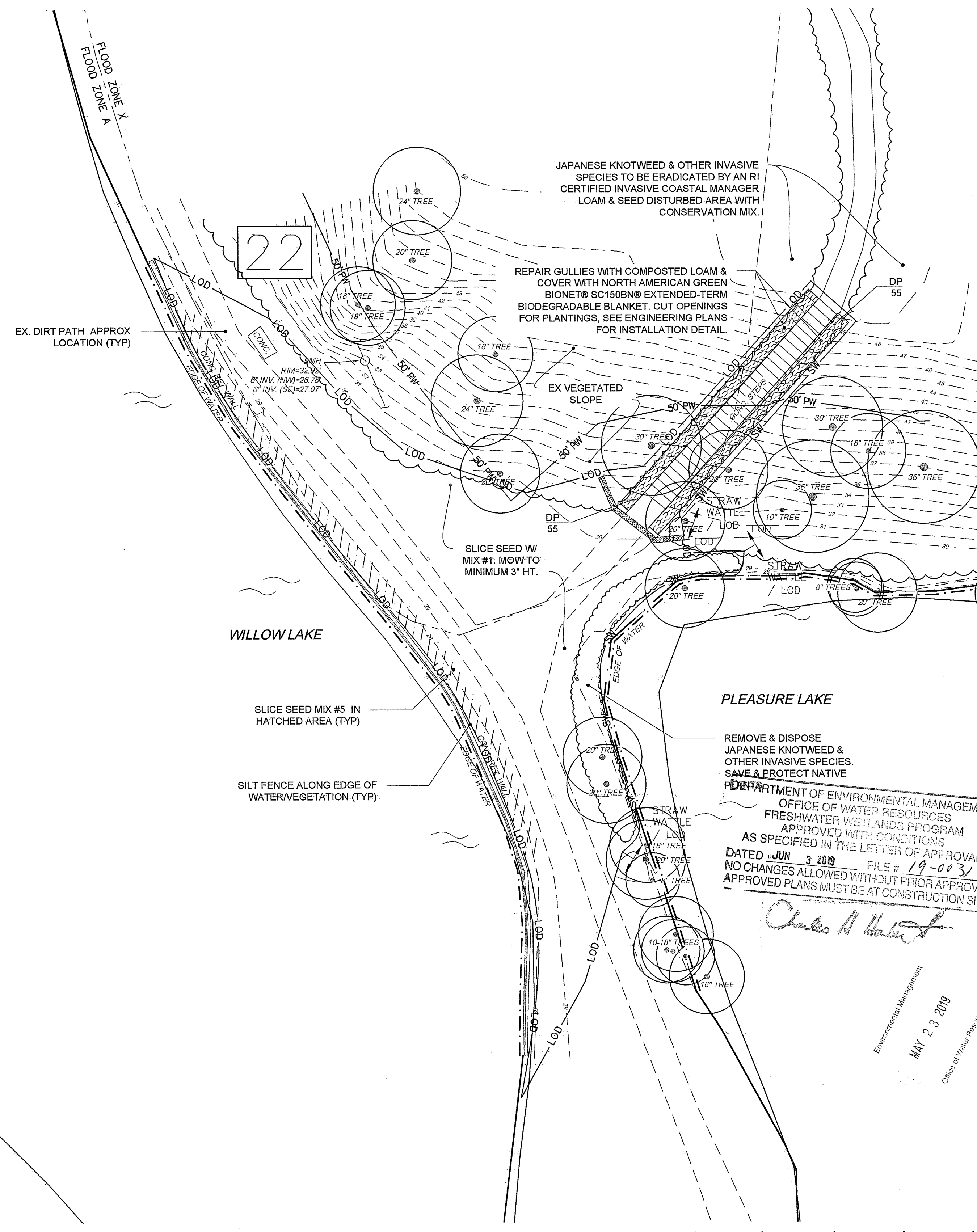
- SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
- SEED MIX # 2 - BASIN SIDES & SLOPES
- SEED MIX # 3 - INFILTRATION BASIN FLOOR
- SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
- SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III

AREA 14					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
LT	2	LIRODENDRON TULIPIFERA	TULIP TREE	2-2.5" CAL.	LIMB TO 7'
SHRUBS					
ICG	12	ILEX CRENATA 'GREEN LUSTER'	GREEN LUSTER JAPANESE HOLLY	#7	
PJC	3	PIERIS JAPONICA 'COMPACTA'	COMPACT JAPANESE ANDROMEDA	#7	
VPM	5	VIBURNUM PLIC. F. TOM. 'MARIESI'	MARIESI DOUBLE-FILE VIBURNUM	2-3'	
AREA 22					
PERENNIALS, GRASSES, GROUNDCOVERS & VINES					
Key	Qty	Botanical Name	Common Name	Size	Notes
DP	110	DENNSTAEDIA PUNCTILOBLUA	HAY-SCENTED FERN	#1	18" O.C.

GENERAL NOTES:

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 23 Brown Street, Suite 206, Wickford, RI 02892
 Tel. 401.294.1694 - www.hallbeckman.com
 Estate Planning - Landscape Architecture

NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/2/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
 CITY HALL, 25 DORRANCE STREET, PROVIDENCE, RI 02903

PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK PHASE II & III
 1000 ELMWOOD AVENUE, PROVIDENCE, RHODE ISLAND

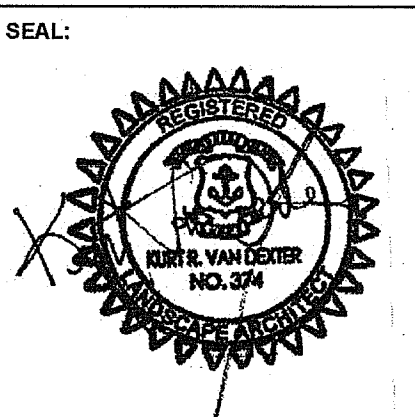
TITLE:
LANDSCAPE PLAN 3 AREAS 14 & 22

ISSUED FOR: PERMITTING
 DATE: NOVEMBER 15, 2018
 SCALE: AS SHOWN
 DRAWN BY: MJW
 CHECKED BY: GAA
 PROJECT NO: HBL 448

L-3
 SHEET 3 OF 14

1A - STORMWATER PROJECT NUMBER (TYP.)

NOT FOR CONSTRUCTION



REV	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
CITY HALL, 25 DORRANCE STREET,
PROVIDENCE, RI 02903

PROJECT:
**INSTALLATION OF
STORMWATER
BMPs IN ROGER
WILLIAMS PARK
PHASE II & III**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

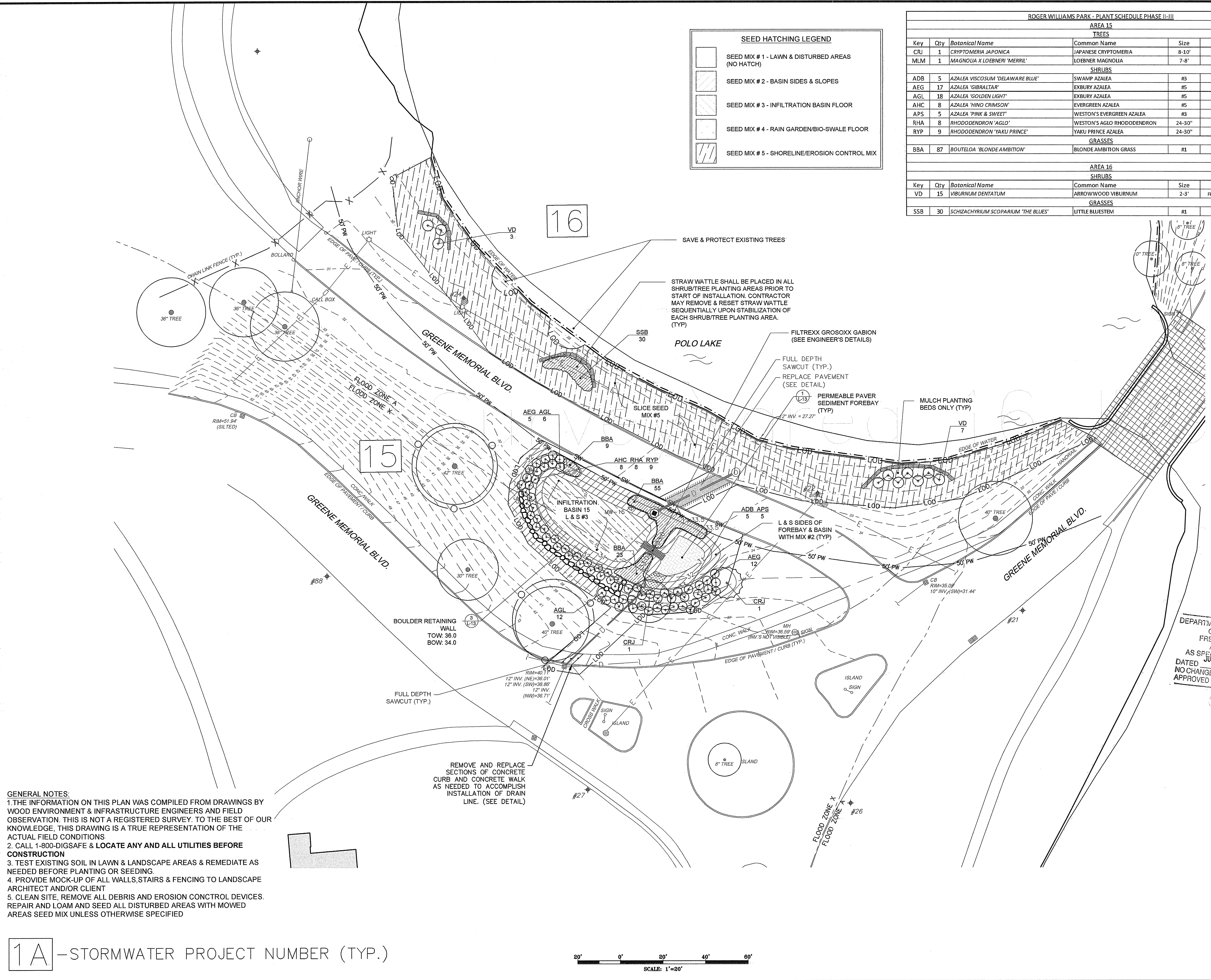
TITLE:
**LANDSCAPE
PLAN 4
AREAS 15 & 16**

ISSUED FOR:	PERMITTING
DATE:	NOVEMBER 15, 2018
SCALE:	1" = 20'
DRAWN BY:	MJW
CHECKED BY:	GAA
PROJECT NO.:	HBL 448

L-4
SHEET 4 OF 14

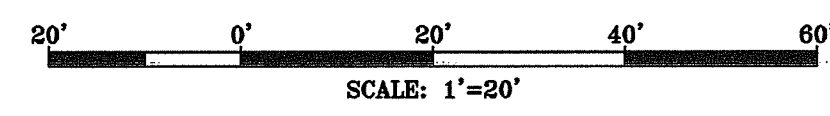
ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 15					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
CRJ	1	CRYPTOMERIA JAPONICA	JAPANESE CRYPTOMERIA	8-10'	
MLM	1	MAGNOLIA X LOEBNERI 'MERRILL'	LOEBNER MAGNOLIA	7-8'	
SHRUBS					
ADB	5	AZALEA VISCOSUM 'DELAWARE BLUE'	SWAMP AZALEA	#3	FROM WESTON NURSERY
AEG	17	AZALEA 'GIBRALTAR'	EXBURY AZALEA	#5	
AGL	18	AZALEA 'GOLDEN LIGHT'	EXBURY AZALEA	#5	
AHC	8	AZALEA 'HIND CRIMSON'	EVERGREEN AZALEA	#5	
APS	5	AZALEA 'PINK & SWEET'	WESTON'S EVERGREEN AZALEA	#3	FROM WESTON NURSERY
RHA	8	RHODODENDRON 'AGLO'	WESTON'S AGLO RHODODENDRON	24-30"	FROM WESTON NURSERY
RYP	9	RHODODENDRON 'YAKU PRINCE'	YAKU PRINCE AZALEA	24-30"	
GRASSES					
BBA	87	BOUTELOA 'BLONDE AMBITION'	BLONDE AMBITION GRASS	#1	30" O.C.
AREA 16					
SHRUBS					
VD	15	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2-3'	FROM NEW ENGLAND WETLAND PLANTS
GRASSES					
SSB	30	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	LITTLE BLUESTEM	#1	30" O.C.

SEED HATCHING LEGEND	
	SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
	SEED MIX # 2 - BASIN SIDES & SLOPES
	SEED MIX # 3 - INFILTRATION BASIN FLOOR
	SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
	SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX



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5. CLEAN SITE, REMOVE ALL DEBRIS AND EROSION CONTROL DEVICES. REPAIR AND LOAM AND SEED ALL DISTURBED AREAS WITH MOWED AREAS SEED MIX UNLESS OTHERWISE SPECIFIED.

1A - STORMWATER PROJECT NUMBER (TYP.)

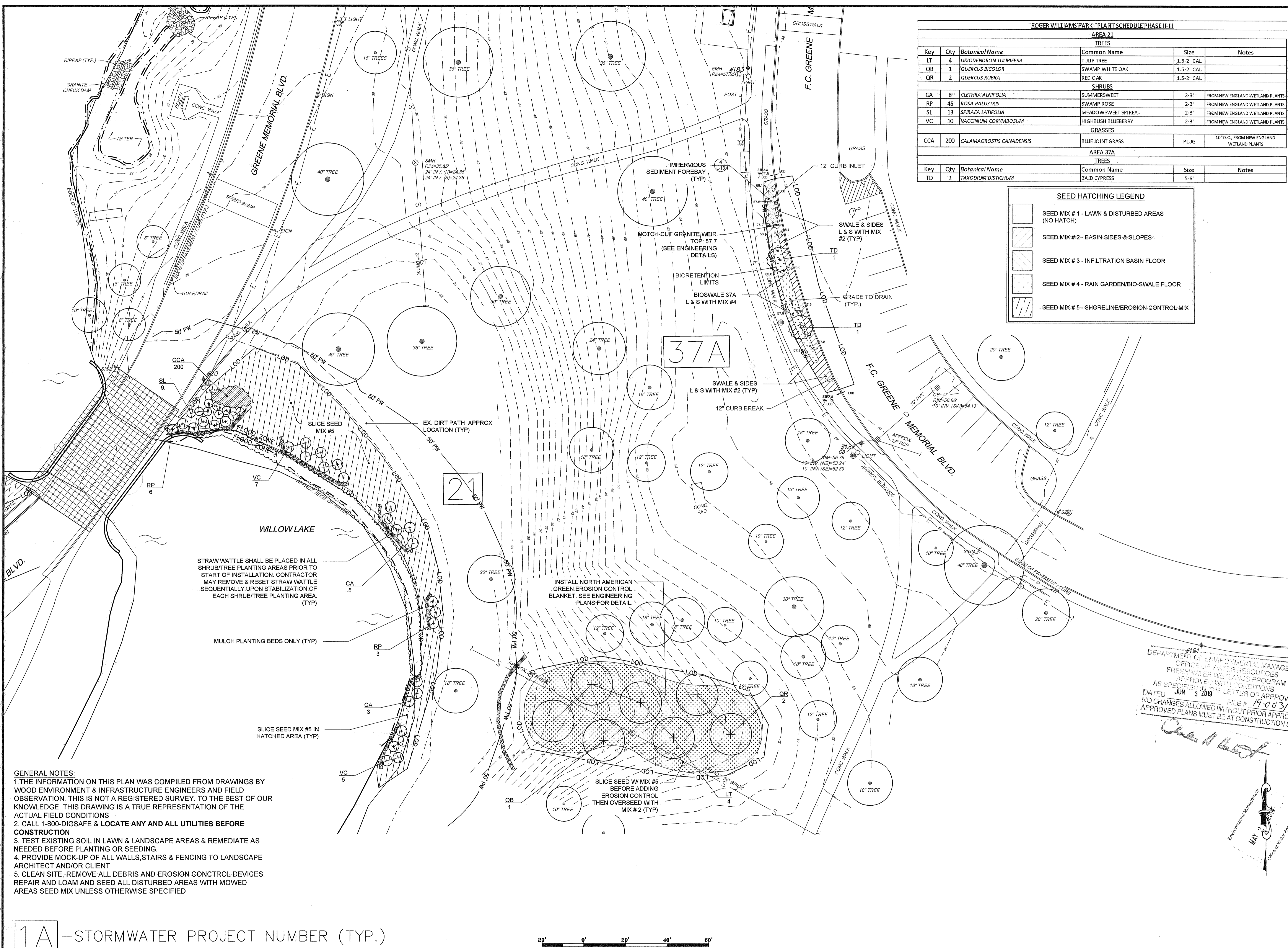


ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 21					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
LT	4	LIRIODENDRON TULIPIFERA	TULIP TREE	1.5-2" CAL.	
QB	1	QUERCUS BICOLOR	SWAMP WHITE OAK	1.5-2" CAL.	
QR	2	QUERCUS RUBRA	RED OAK	1.5-2" CAL.	
SHRUBS					
CA	8	CLETHRA ALNIFOLIA	SUMMERSWEET	2-3'	FROM NEW ENGLAND WETLAND PLANTS
RP	45	ROSA PALUSTRIS	SWAMP ROSE	2-3'	FROM NEW ENGLAND WETLAND PLANTS
SL	13	SPIRAEA LATIFOLIA	MEADOWSWEET SPIREA	2-3'	FROM NEW ENGLAND WETLAND PLANTS
VC	10	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	2-3'	FROM NEW ENGLAND WETLAND PLANTS
GRASSES					
CCA	200	CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS	PLUG	10" O.C., FROM NEW ENGLAND WETLAND PLANTS

AREA 37A					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
TD	2	TAXODIUM DISTICHUM	BALD CYPRESS	5-6'	

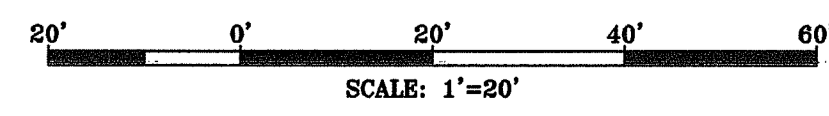
SEED HATCHING LEGEND

- SEED MIX #1 - LAWN & DISTURBED AREAS (NO HATCH)
- SEED MIX #2 - BASIN SIDES & SLOPES
- SEED MIX #3 - INFILTRATION BASIN FLOOR
- SEED MIX #4 - RAIN GARDEN/BIO-SWALE FLOOR
- SEED MIX #5 - SHORELINE/EROSION CONTROL MIX



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1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/18/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUN 3 2019 FILE # 19-003
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

CLIENT:
**CITY OF PROVIDENCE
 PARKS & RECREATION
 DEPARTMENT**
 CITY HALL, 25 DORRANCE STREET,
 PROVIDENCE, RI 02903

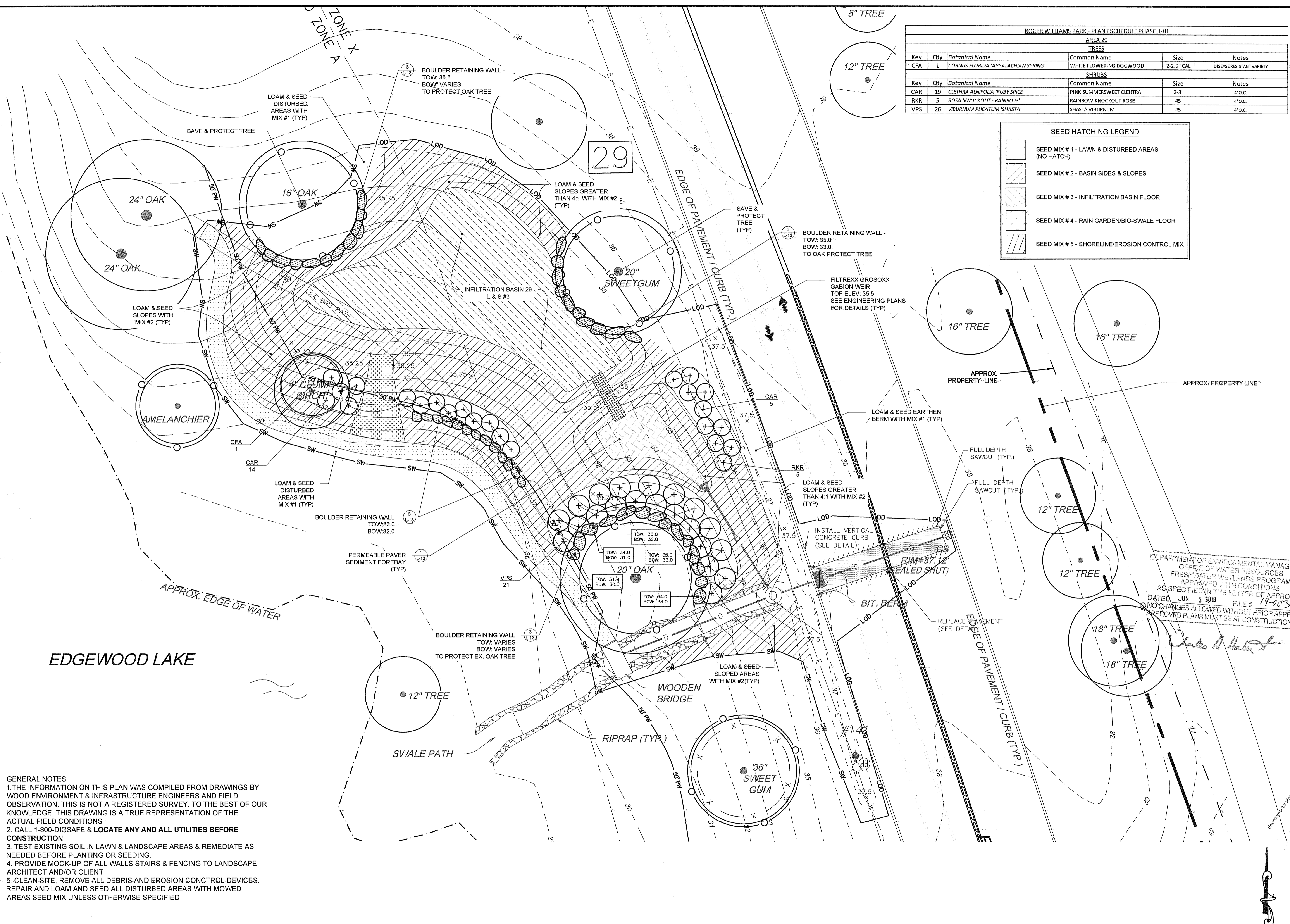
PROJECT:
**INSTALLATION OF
 STORMWATER
 BMPs IN ROGER
 WILLIAMS PARK
 PHASE II & III**
 1000 ELMWOOD AVENUE
 PROVIDENCE, RHODE ISLAND

TITLE:
**LANDSCAPE PLAN 5
 AREAS 21 & 37A**

ISSUED FOR: PERMITTING
 DATE: NOVEMBER 15, 2018
 SCALE: 1" = 20'
 DRAWN BY: M/JW
 CHECKED BY: GAA
 PROJECT NO: HBL 448

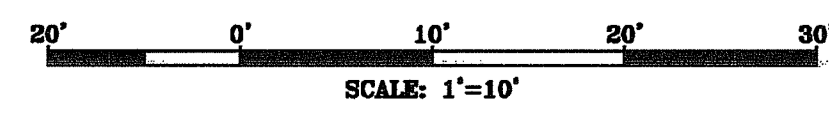
ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 29					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
CFA	1	CORNUS FLORIDA 'APPALACHIAN SPRING'	WHITE FLOWERING DOGWOOD	2-2.5" CAL	DISEASE RESISTANT VARIETY
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
CAR	19	CLETHRA ALNIFOLIA 'RUBY SPICE'	PINK SUMMERSWEET CLETHRA	2-3'	4" O.C.
RKR	5	ROSA 'KNOCKOUT - RAINBOW'	RAINBOW KNOCKOUT ROSE	#5	4" O.C.
VPS	26	VIBURNUM PUCATUM 'SHASTA'	SHASTA VIBURNUM	#5	4" O.C.

SEED HATCHING LEGEND	
	SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
	SEED MIX # 2 - BASIN SIDES & SLOPES
	SEED MIX # 3 - INFILTRATION BASIN FLOOR
	SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
	SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX



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1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUN 3 2019 FILE # 19-0031
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
**CITY OF PROVIDENCE
 PARKS & RECREATION
 DEPARTMENT**
 CITY HALL, 25 DORRANCE STREET,
 PROVIDENCE, RI 02903

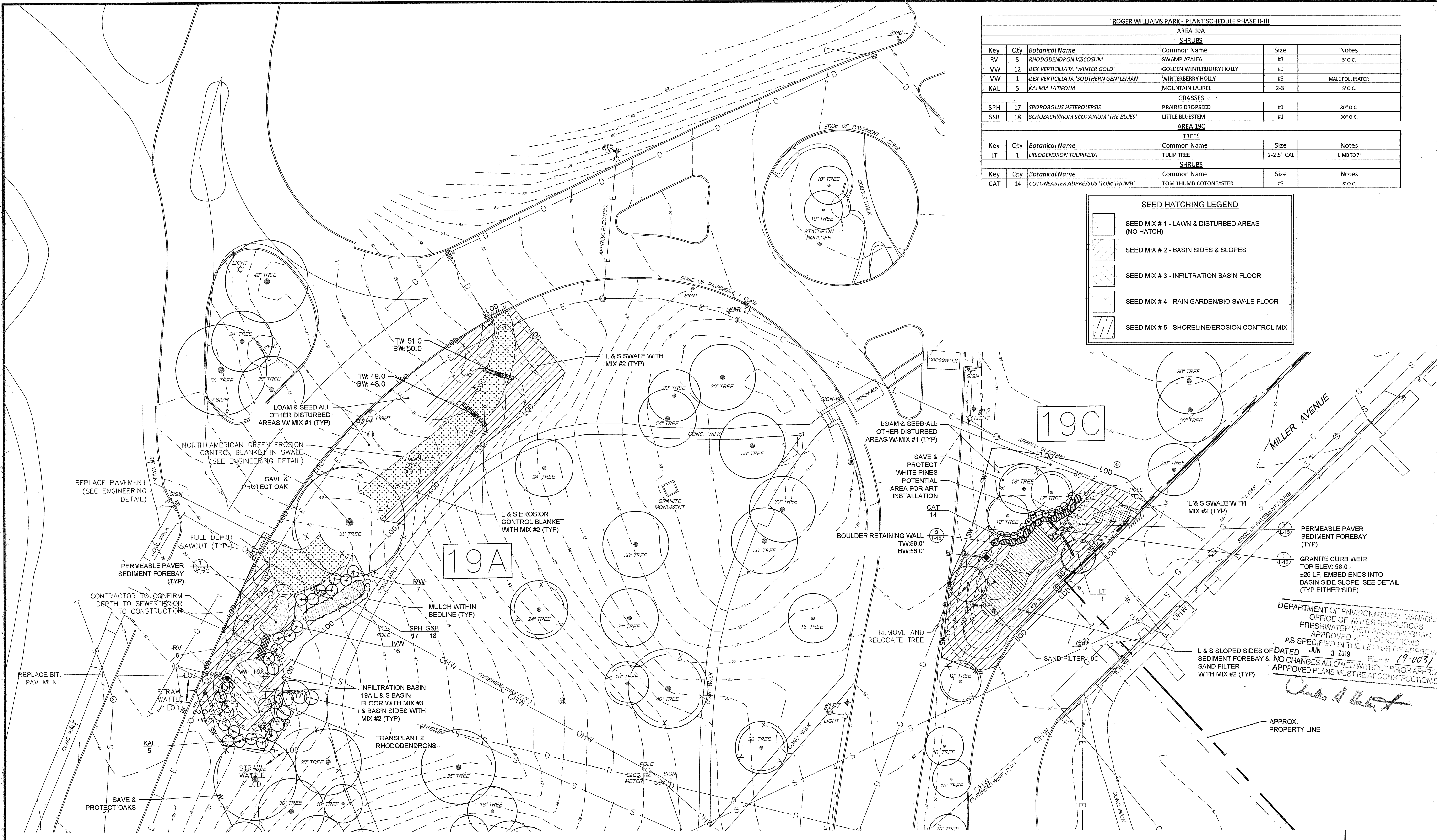
PROJECT:
**INSTALLATION OF
 STORMWATER
 BMPs IN ROGER
 WILLIAMS PARK
 PHASE II & III**
 800 ELMWOOD AVENUE
 PROVIDENCE, RHODE ISLAND

TITLE:
**LANDSCAPE PLAN 6
 AREA 29**

ISSUED FOR:	PERMITTING
DATE:	NOVEMBER 15, 2018
SCALE:	1" = 10'
DRAWN BY:	MJV
CHECKED BY:	GAA
PROJECT NO:	HBL 448

L-6

SHEET 6 OF 14



ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III

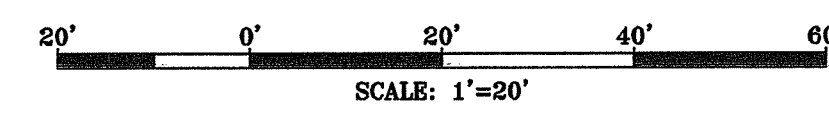
AREA 19A					
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
RV	5	RHODODENDRON VISCOSUM	SWAMP AZALEA	#3	5' O.C.
IVW	12	ILEX VERTICILLATA 'WINTER GOLD'	GOLDEN WINTERBERRY HOLLY	#5	
IVW	1	ILEX VERTICILLATA 'SOUTHERN GENTLEMAN'	WINTERBERRY HOLLY	#5	MALE POLLINATOR
KAL	5	KALIMA LATIFOLIA	MOUNTAIN LAUREL	2-3'	5' O.C.
GRASSES					
SPH	17	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSSEED	#1	30" O.C.
SSB	18	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	LITTLE BLUESTEM	#1	30" O.C.
AREA 19C					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
LT	1	LIRIODENDRON TULIPIFERA	TULIP TREE	2-2.5" CAL	LIMB TO 7'
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
CAT	14	COTONEASTER ADPRESSUS 'TOM THUMB'	TOM THUMB COTONEASTER	#3	3' O.C.

SEED HATCHING LEGEND

- SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
- SEED MIX # 2 - BASIN SIDES & SLOPES
- SEED MIX # 3 - INFILTRATION BASIN FLOOR
- SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
- SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX

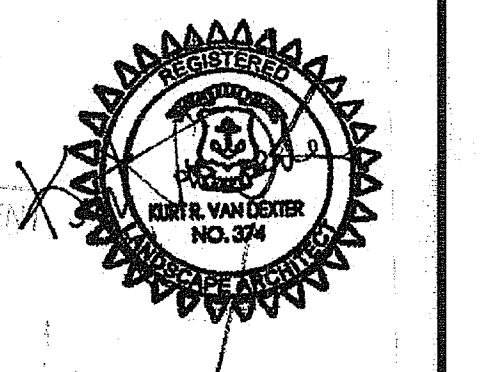
GENERAL NOTES:
 1. THE INFORMATION ON THIS PLAN WAS COMPILED FROM DRAWINGS BY WOOD ENVIRONMENT & INFRASTRUCTURE ENGINEERS AND FIELD OBSERVATION. THIS IS NOT A REGISTERED SURVEY. TO THE BEST OF OUR KNOWLEDGE, THIS DRAWING IS A TRUE REPRESENTATION OF THE ACTUAL FIELD CONDITIONS.
 2. CALL 1-800-DIGSAFE & LOCATE ANY AND ALL UTILITIES BEFORE CONSTRUCTION.
 3. TEST EXISTING SOIL IN LAWN & LANDSCAPE AREAS & REMEDIATE AS NEEDED BEFORE PLANTING OR SEEDING.
 4. PROVIDE MOCK-UP OF ALL WALLS, STAIRS & FENCING TO LANDSCAPE ARCHITECT AND/OR CLIENT.
 5. CLEAN SITE. REMOVE ALL DEBRIS AND EROSION CONTROL DEVICES. REPAIR AND LOAM AND SEED ALL DISTURBED AREAS WITH MOWED AREAS SEED MIX UNLESS OTHERWISE SPECIFIED.

1A - STORMWATER PROJECT NUMBER (TYP.)



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 Estate Planning - Landscape Architecture

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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 JUN 3 2019 FILE # 19-003
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
**CITY OF PROVIDENCE
 PARKS & RECREATION
 DEPARTMENT**
 CITY HALL, 25 DORRANCE STREET,
 PROVIDENCE, RI 02903

PROJECT:
**INSTALLATION OF
 STORMWATER
 BMPS IN ROGER
 WILLIAMS PARK
 PHASE II & III**
 1000 ELMWOOD AVENUE
 PROVIDENCE, RHODE ISLAND

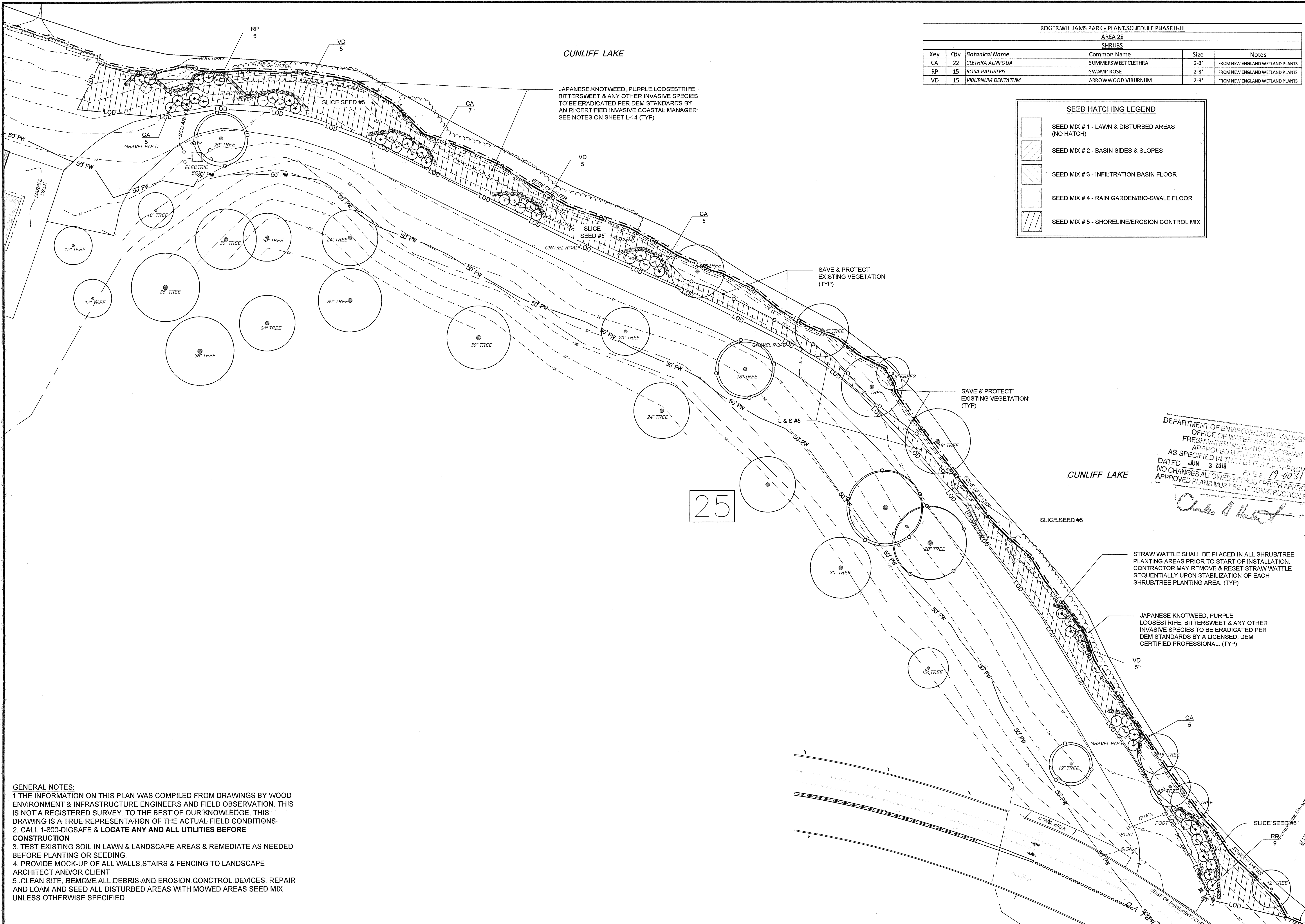
TITLE:
**LANDSCAPE PLAN 7
 AREAS 19A & C**

ISSUED FOR: PERMITTING
 DATE: NOVEMBER 15, 2018
 SCALE: 1" = 20'
 DRAWN BY: MJW
 CHECKED BY: GAA
 PROJECT NO: HBL 448

L-7
 SHEET 7 OF 14

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 25					
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
CA	22	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	2-3'	FROM NEW ENGLAND WETLAND PLANTS
RP	15	ROSA PALUSTRIS	SWAMP ROSE	2-3'	FROM NEW ENGLAND WETLAND PLANTS
VD	15	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2-3'	FROM NEW ENGLAND WETLAND PLANTS

SEED HATCHING LEGEND	
	SEED MIX # 1 - LAWN & DISTURBED AREAS (NO HATCH)
	SEED MIX # 2 - BASIN SIDES & SLOPES
	SEED MIX # 3 - INFILTRATION BASIN FLOOR
	SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR
	SEED MIX # 5 - SHORELINE/EROSION CONTROL MIX



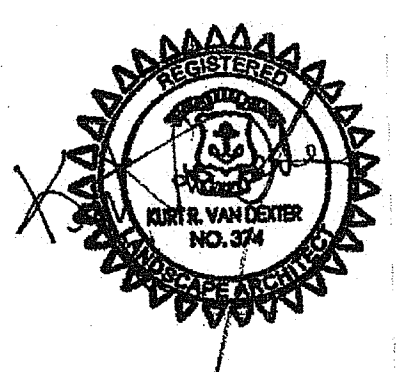
GENERAL NOTES:
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1A - STORMWATER PROJECT NUMBER (TYP.)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLAND PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUN 3 2019 FILE # 19-0031
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hester

NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/2/19	REVISIONS FOR DEM SUBMISSION
2	1/22/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE
 PARKS & RECREATION
 DEPARTMENT
 CITY HALL, 25 DORRANCE STREET,
 PROVIDENCE, RI 02903

PROJECT:
INSTALLATION OF
STORMWATER
BMPs IN ROGER
WILLIAMS PARK
PHASE II & III
 1000 ELMWOOD AVENUE
 PROVIDENCE, RHODE ISLAND

TITLE:
LANDSCAPE PLAN 8
AREA 25

ISSUED FOR:	PERMITTING
DATE:	NOVEMBER 15, 2018
SCALE:	1" = 20'
DRAWN BY:	MJW
CHECKED BY:	GAA
PROJECT NO.:	HBL 448

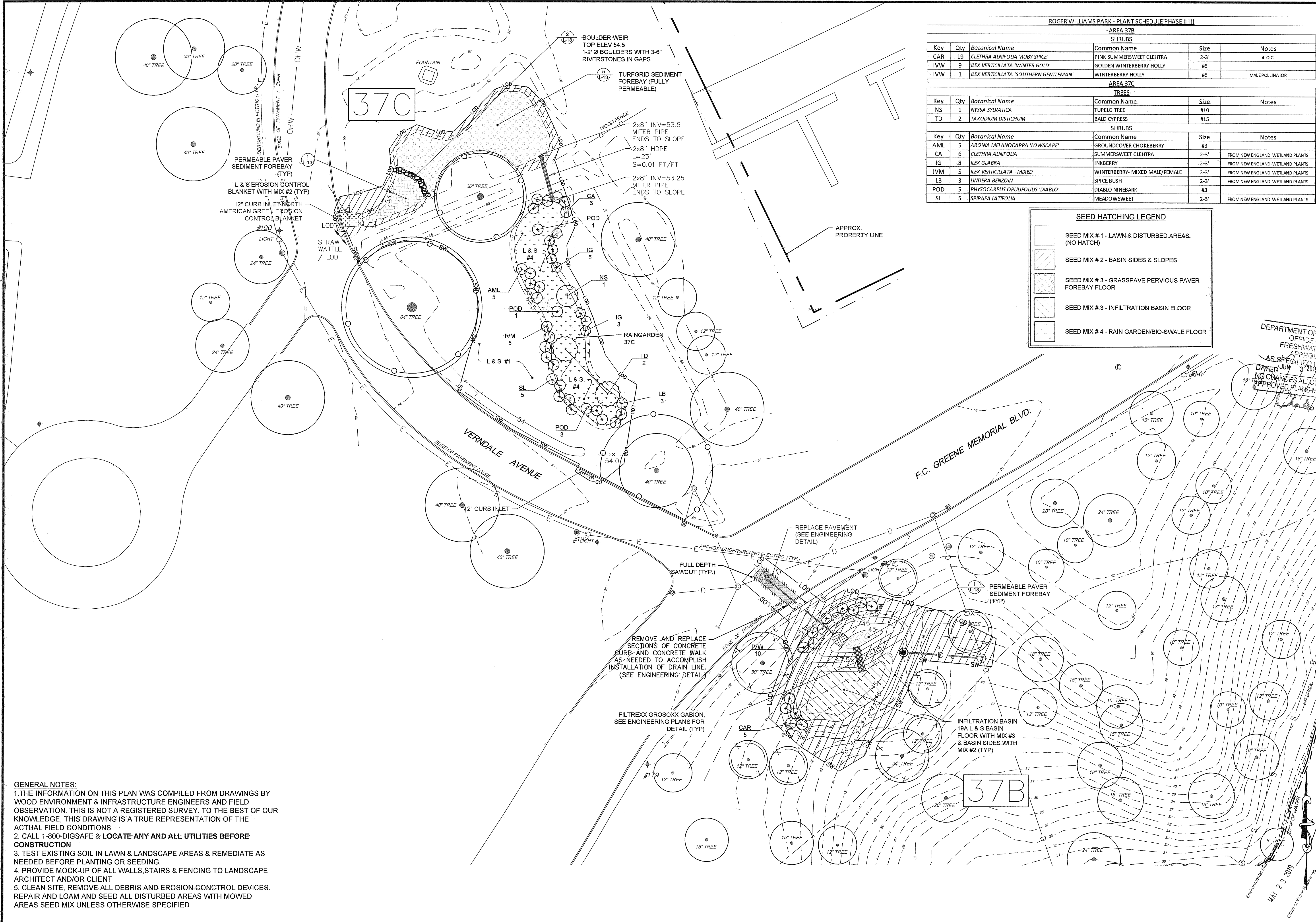
L-8
 SHEET 8 OF 14

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 37B					
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
CAR	19	CLETHRA ALNIFOLIA 'RUBY SPICE'	PINK SUMMERSWEET CLEHTRA	2-3'	4 o.c.
IVW	9	ILEX VERTICILLATA 'WINTER GOLD'	GOLDEN WINTERBERRY HOLLY	#5	
IVW	1	ILEX VERTICILLATA 'SOUTHERN GENTLEMAN'	WINTERBERRY HOLLY	#5	MALE POLLINATOR
AREA 37C					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
NS	1	NYSSA SYLVATICA	TUPELO TREE	#10	
TD	2	TAXODIUM DISTICHUM	BALD CYPRESS	#15	
SHRUBS					
Key	Qty	Botanical Name	Common Name	Size	Notes
AML	5	ARONIA MELANOCARPA 'LOWSCAPE'	GROUNDCOVER CHOKEBERRY	#3	
CA	6	CLETHRA ALNIFOLIA	SUMMERSWEET CLEHTRA	2-3'	FROM NEW ENGLAND WETLAND PLANTS
IG	8	ILEX GLABRA	INKBERRY	2-3'	FROM NEW ENGLAND WETLAND PLANTS
IVM	5	ILEX VERTICILLATA - MIXED	WINTERBERRY - MIXED MALE/FEMALE	2-3'	FROM NEW ENGLAND WETLAND PLANTS
LB	3	LINDERA BENZOIN	SPICE BUSH	2-3'	FROM NEW ENGLAND WETLAND PLANTS
POD	5	PHYSCARPUS OPULOFOLIUS 'DIABLO'	DIABLO NINEBARK	#3	
SL	5	SPIRAEA LATIFOLIA	MEADOWSWEET	2-3'	FROM NEW ENGLAND WETLAND PLANTS

SEED HATCHING LEGEND

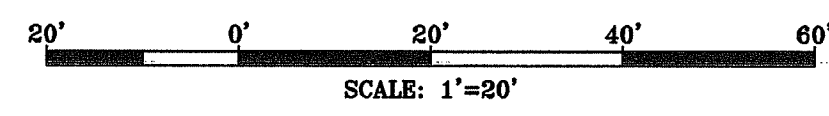
- SEED MIX # 1 - LAWN & DISTURBED AREAS. (NO HATCH)
- SEED MIX # 2 - BASIN SIDES & SLOPES
- SEED MIX # 3 - GRASSPAVE PERVIOUS PAVER FOREBAY FLOOR
- SEED MIX # 3 - INFILTRATION BASIN FLOOR
- SEED MIX # 4 - RAIN GARDEN/BIO-SWALE FLOOR

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER MANAGEMENT DIVISION
APPROVED FOR CONSTRUCTION
AS SPECIFIED IN THE LETTER # 17-0031
DATED JUN 3 2018
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS NUMBER: 17-0031
APPROVED FOR CONSTRUCTION DATE: 6/3/2018



GENERAL NOTES:
1. THE INFORMATION ON THIS PLAN WAS COMPILED FROM DRAWINGS BY WOOD ENVIRONMENT & INFRASTRUCTURE ENGINEERS AND FIELD OBSERVATION. THIS IS NOT A REGISTERED SURVEY. TO THE BEST OF OUR KNOWLEDGE, THIS DRAWING IS A TRUE REPRESENTATION OF THE ACTUAL FIELD CONDITIONS.
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4. PROVIDE MOCK-UP OF ALL WALLS, STAIRS & FENCING TO LANDSCAPE ARCHITECT AND/OR CLIENT.
5. CLEAN SITE, REMOVE ALL DEBRIS AND EROSION CONTROL DEVICES. REPAIR AND LOAM AND SEED ALL DISTURBED AREAS WITH MOWED AREAS SEED MIX UNLESS OTHERWISE SPECIFIED.

1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
CITY HALL, 25 DORRANCE STREET, PROVIDENCE, RI 02903

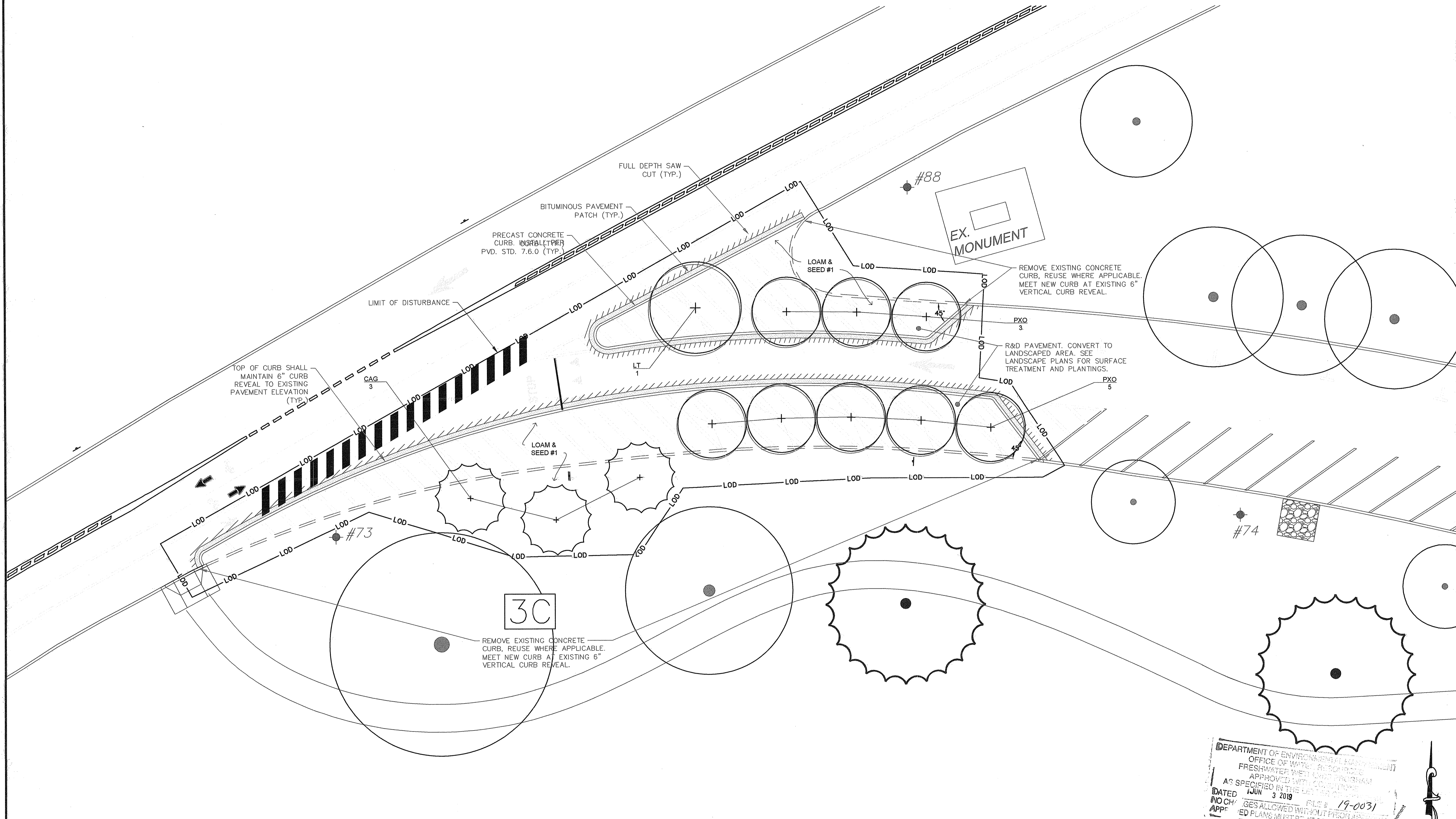
PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK PHASE II & III
1000 ELWOOD AVENUE, PROVIDENCE, RHODE ISLAND

TITLE:
LANDSCAPE PLAN 9 AREAS 37B-C

ISSUED FOR:	PERMITTING
DATE:	NOVEMBER 15, 2018
SCALE:	1" = 20'
DRAWN BY:	MJW
CHECKED BY:	GAA
PROJECT NO.:	HLB 448

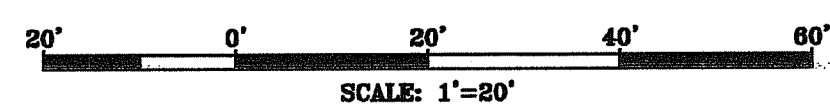
L-9

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 3C					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
CAG	3	CEDRUS ATLANTICA 'GLAUCA'	BLUE ATLAS CEDAR	6-7'	
LT	1	LIRIODENDRON TULPIFERA	TULIP TREE	2-2.5" CAL	LIMBED TO 7'
PXO	8	PRUNUS X INCAME 'OKAME'	OKAME PINK CHERRY	2-2.5" CAL	LIMBED TO 7'



- GENERAL NOTES:**
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1A - STORMWATER PROJECT NUMBER (TYP.)



wood.
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
275 PROMENADE STREET, SUITE 100
PROVIDENCE, RHODE ISLAND, 02908
WEB: WWW.WOODFLO.COM
(401) 648-9240

HALI BECKMAN, LTD.
23 Brown Street, Suite 206, Wickford, RI 02892
Tel. 401.294.1884 - www.halibeckman.com
Estate Planning - Landscape Architecture

NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/31/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/16/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
CITY HALL, 25 DORRANCE STREET,
PROVIDENCE, RI 02903

PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK PHASE II & III
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
LANDSCAPE PLAN 10 AREA 3C

ISSUED FOR: PERMITTING
DATE: NOVEMBER 15, 2018
SCALE: 1" = 20'
DRAWN BY: MJW
CHECKED BY: GAA
PROJECT NO: HBL 448

L-10
SHEET 10 OF 14

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER PROTECTION
FRESHWATER WATER PROTECTION
APPROVED WITH COMMENTS
AS SPECIFIED IN THIS LETTER
DATED JUN 3 2019 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PERMITTING
APP: ED PLANS MUST BE AT CONSTRUCTION

Charles H. Herbert
Professional Engineer
MAY 23 2019
Office of Water Management

ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III				
AREA 9C/D				
TREES				
Key	Qty	Botanical Name	Common Name	Size
MZC	6	MALUS ZUMI 'CALOCARPA'	ZUMI CRABAPPLE	#25
				Notes
				LIMBED TO 5'

APPROX. PROPERTY LINE

TOP OF CURB SHALL MAINTAIN 6" CURB REVEAL TO EXISTING PAVEMENT ELEVATION

9C/9D

LIMIT OF DISTURBANCE

LOAM & SEED #1

#146

R&D PAVEMENT. CONVERT TO LANDSCAPED AREA. SEE LANDSCAPE PLANS FOR SURFACE TREATMENT AND PLANTINGS.

BITUMINOUS PAVEMENT PATCH (TYP.)

PRECAST CONCRETE CURB. INSTALL PER P.V.D. STD. 7.6.0 (TYP.)

FULL DEPTH SAW CUT (TYP.)

MZC 6

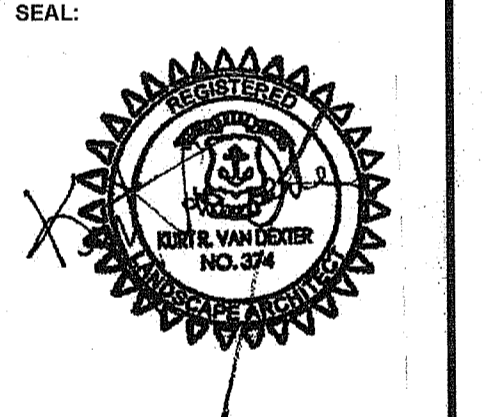
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN LETTER OF APPROVAL
JUN 3 2019 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hester

Environmental Management
MAY 23 2019
Office of Water Resources

NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
CITY HALL, 25 DORRANCE STREET,
PROVIDENCE, RI 02903

PROJECT:
**INSTALLATION OF
STORMWATER
BMPS IN ROGER
WILLIAMS PARK
PHASE II & III**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
**LANDSCAPE PLAN 11
AREA 9C/D**

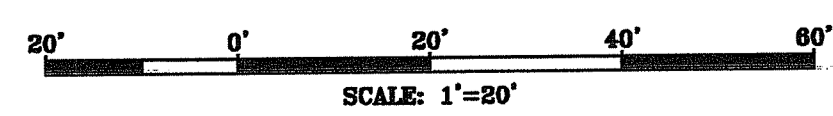
ISSUED FOR:	PERMITTING
DATE:	NOVEMBER 15, 2018
SCALE:	1" = 20'
DRAWN BY:	MJW
CHECKED BY:	GAA
PROJECT NO:	HBL 448

L-11

SHEET 11 OF 14

- GENERAL NOTES:**
1. THE INFORMATION ON THIS PLAN WAS COMPILED FROM DRAWINGS BY WOOD ENVIRONMENT & INFRASTRUCTURE ENGINEERS AND FIELD OBSERVATION. THIS IS NOT A REGISTERED SURVEY. TO THE BEST OF OUR KNOWLEDGE, THIS DRAWING IS A TRUE REPRESENTATION OF THE ACTUAL FIELD CONDITIONS.
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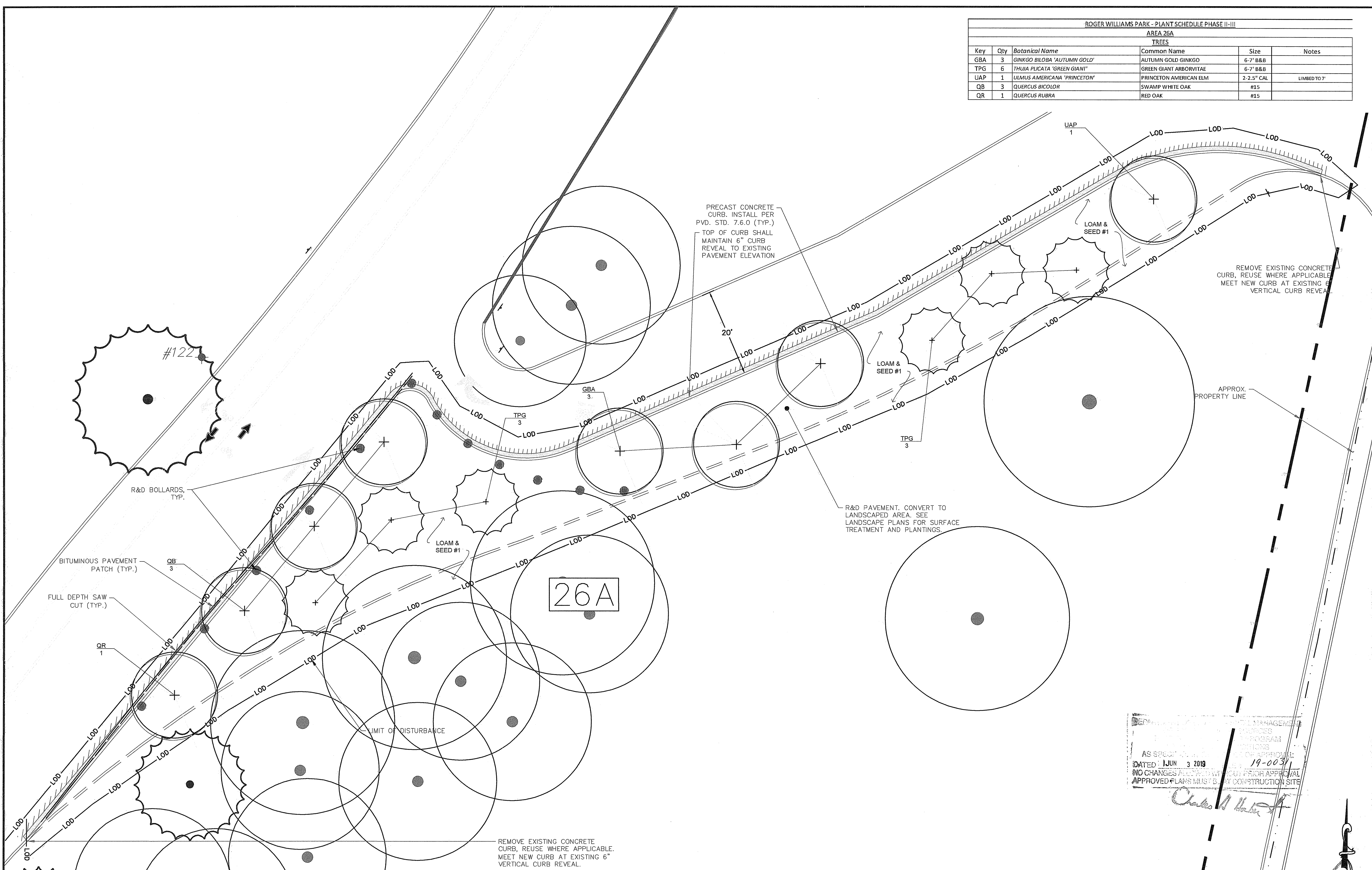
1A - STORMWATER PROJECT NUMBER (TYP.)



ROGER WILLIAMS PARK - PLANT SCHEDULE PHASE II-III					
AREA 26A					
TREES					
Key	Qty	Botanical Name	Common Name	Size	Notes
GBA	3	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO	6'-7" B&B	
TPG	6	THUJA PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6'-7" B&B	
UAP	1	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2-2.5" CAL	LIMBED TO 7'
QB	3	QUERCUS BICOLOR	SWAMP WHITE OAK	#15	
QR	1	QUERCUS RUBRA	RED OAK	#15	

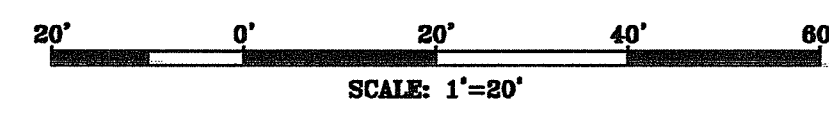
wood.
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
275 PROMENADE STREET, SUITE 100
PROVIDENCE RHODE ISLAND, 02908
WEB: WWW.WOODPFLC.COM
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Estate Planning - Landscape Architecture



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1A - STORMWATER PROJECT NUMBER (TYP.)



NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/2/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/18/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
**CITY OF PROVIDENCE
PARKS & RECREATION
DEPARTMENT**
CITY HALL, 25 DORRANCE STREET,
PROVIDENCE, RI 02903

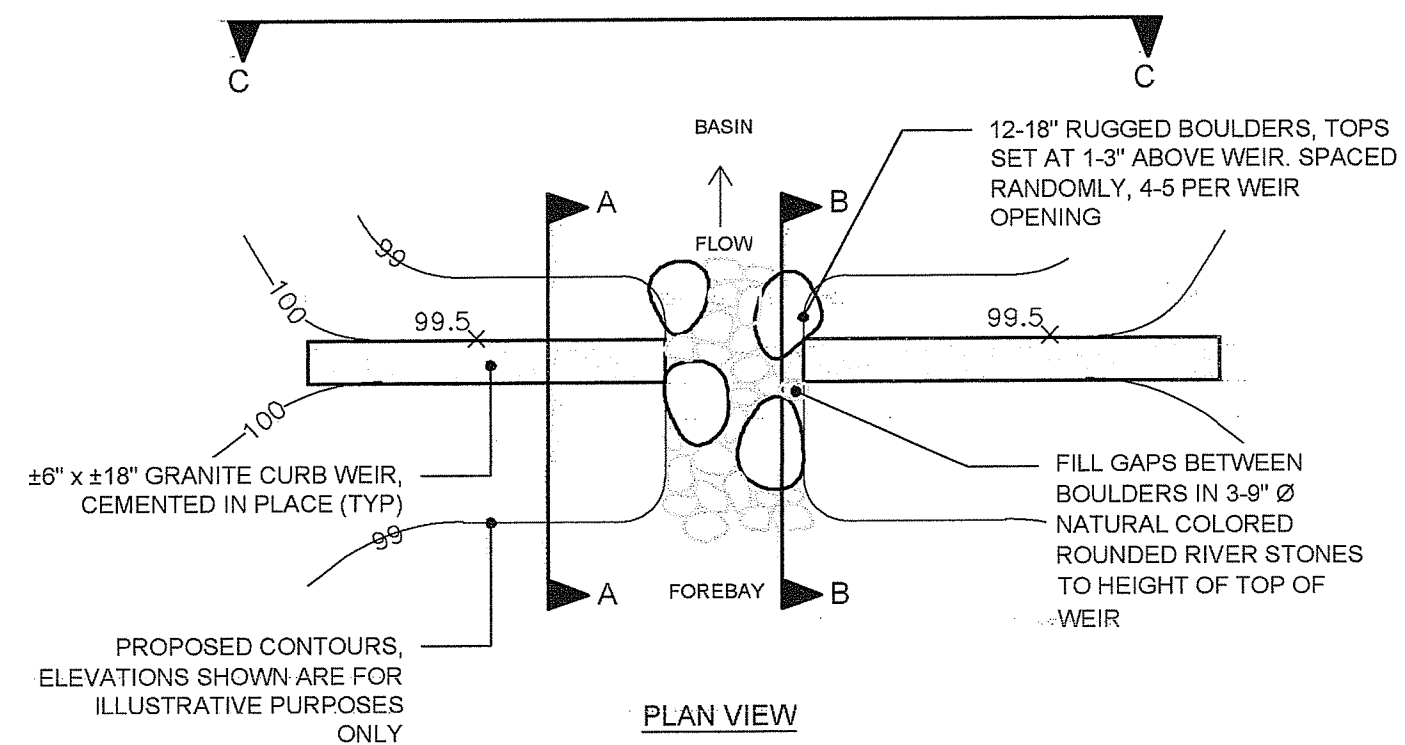
PROJECT:
**INSTALLATION OF
STORMWATER
BMPs IN ROGER
WILLIAMS PARK
PHASE II & III**
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
**LANDSCAPE PLAN 12
AREA 26A**

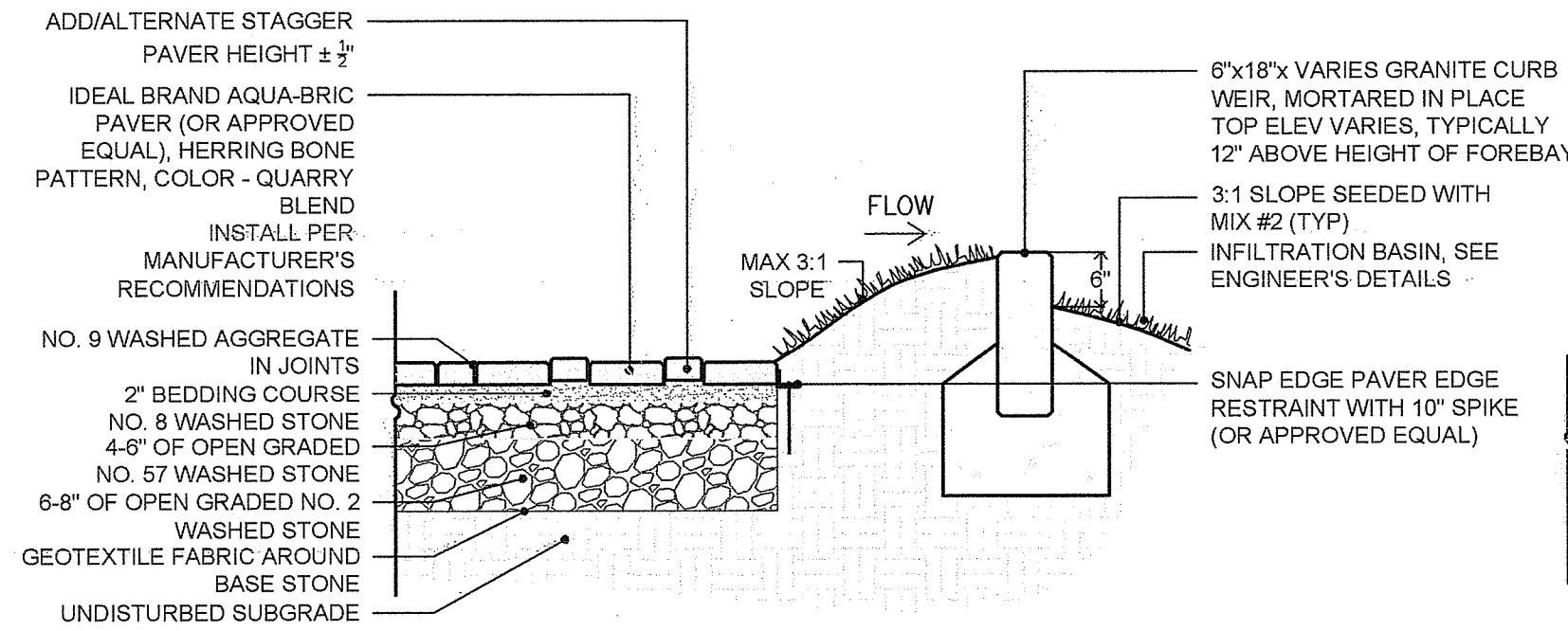
ISSUED FOR:	PERMITTING
DATE:	NOVEMBER 15, 2018
SCALE:	1" = 20'
DRAWN BY:	MJV
CHECKED BY:	GAA
PROJECT NO.:	HBL 448

L-12
SHEET 12 OF 14

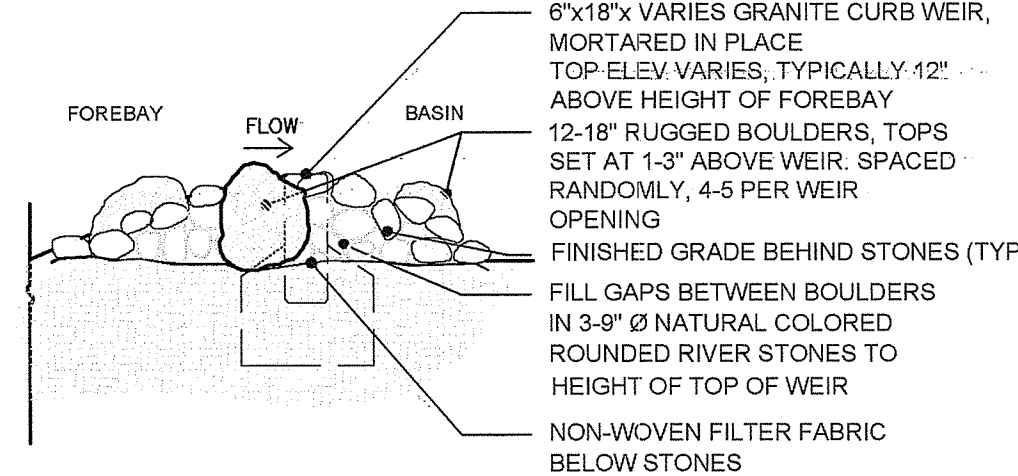
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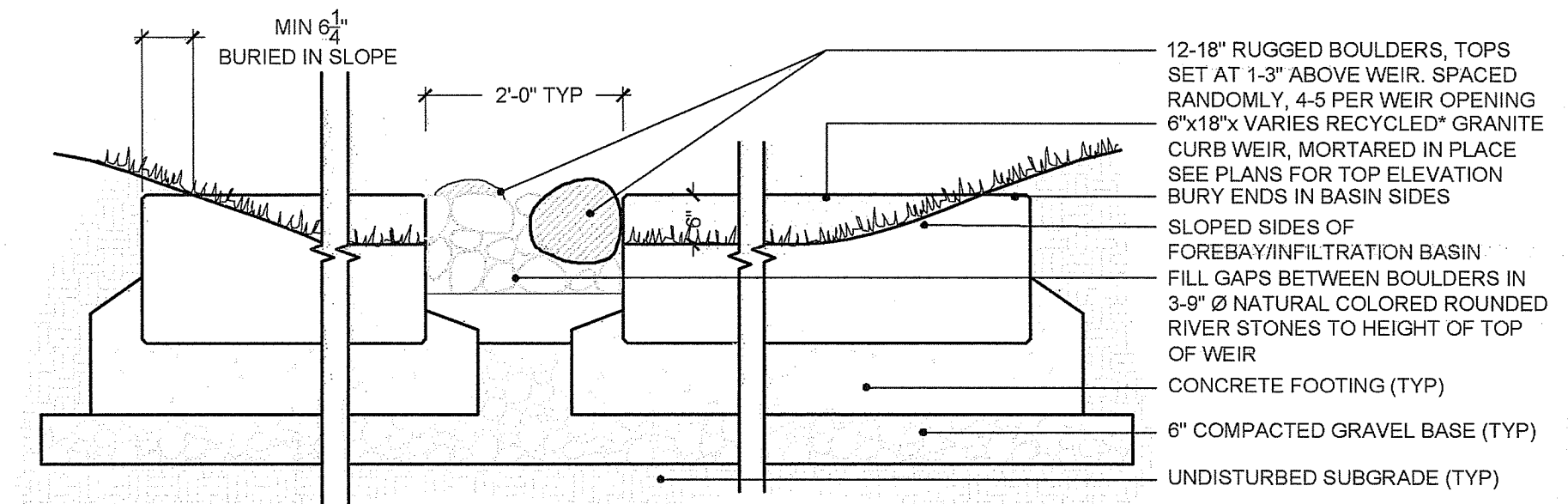
1 FOREBAY CONCRETE PAVER & GRANITE CURB WEIR DETAIL
SCALE: NTS



1A FOREBAY SEMI-PERVIOUS PAVER & GRANITE CURB WEIR SECTION A-A
SCALE: NTS



1B GRANITE CURB WEIR SECTION B-B
SCALE: NTS

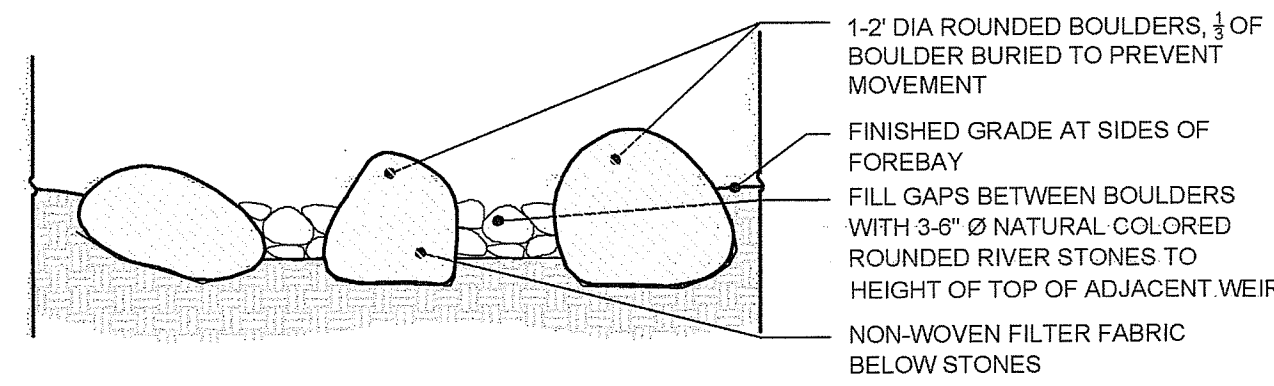
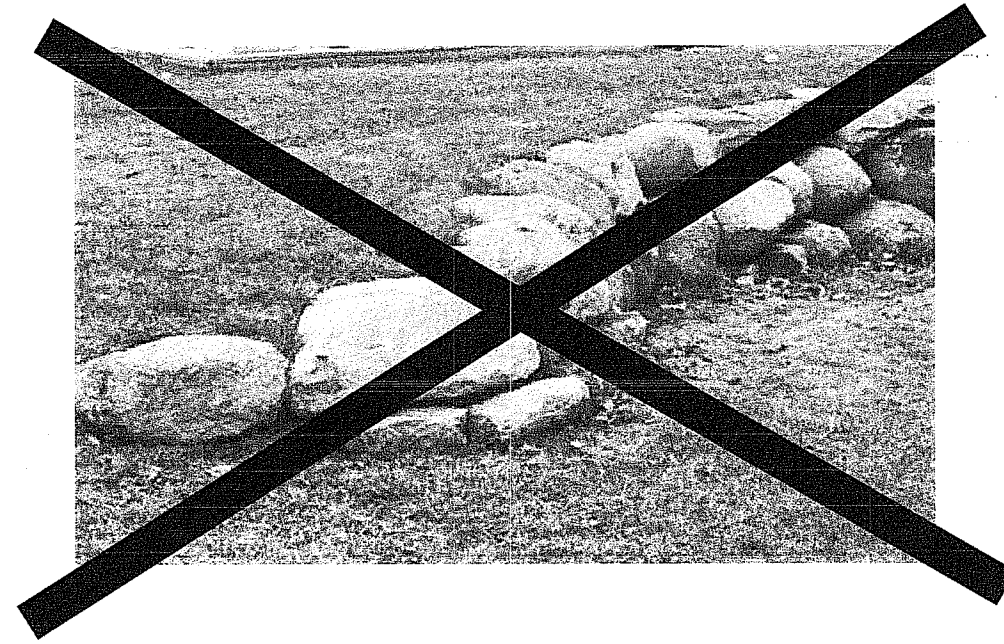


NOTE: PROVIDENCE PARKS DEPARTMENT TO PROVIDE GRANITE CURB FOR ALL WEIRS. CURBING TO BE FREE OF PAINT AND SIGNIFICANT DAMAGE AND TO BE CLEANED BEFORE INSTALLATION

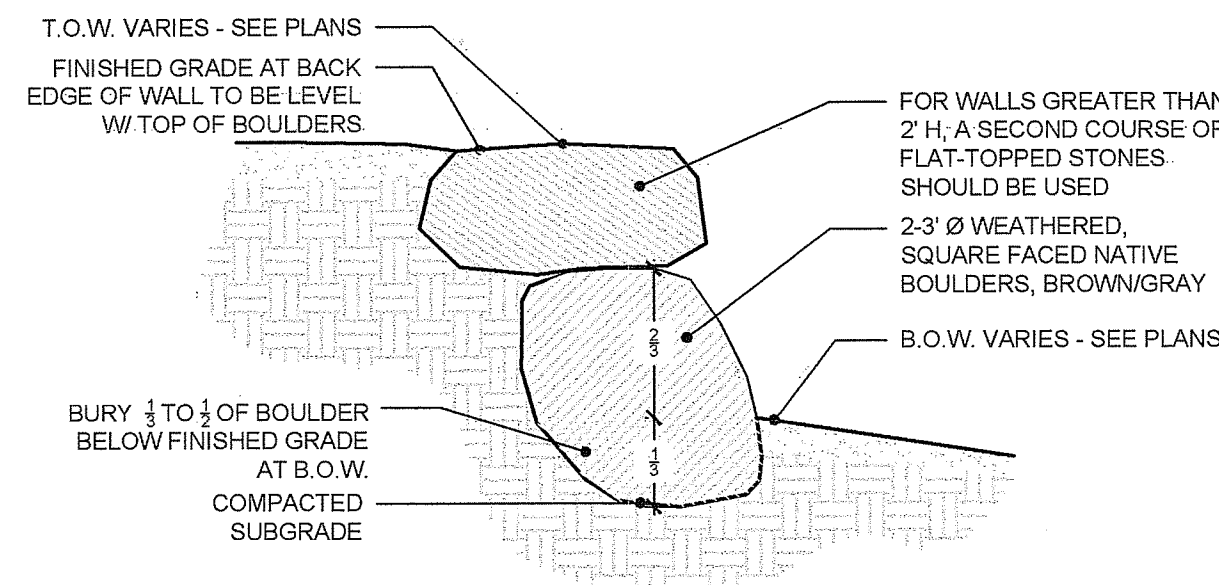
1C GRANITE CURB WEIR SECTION C-C
SCALE: NTS



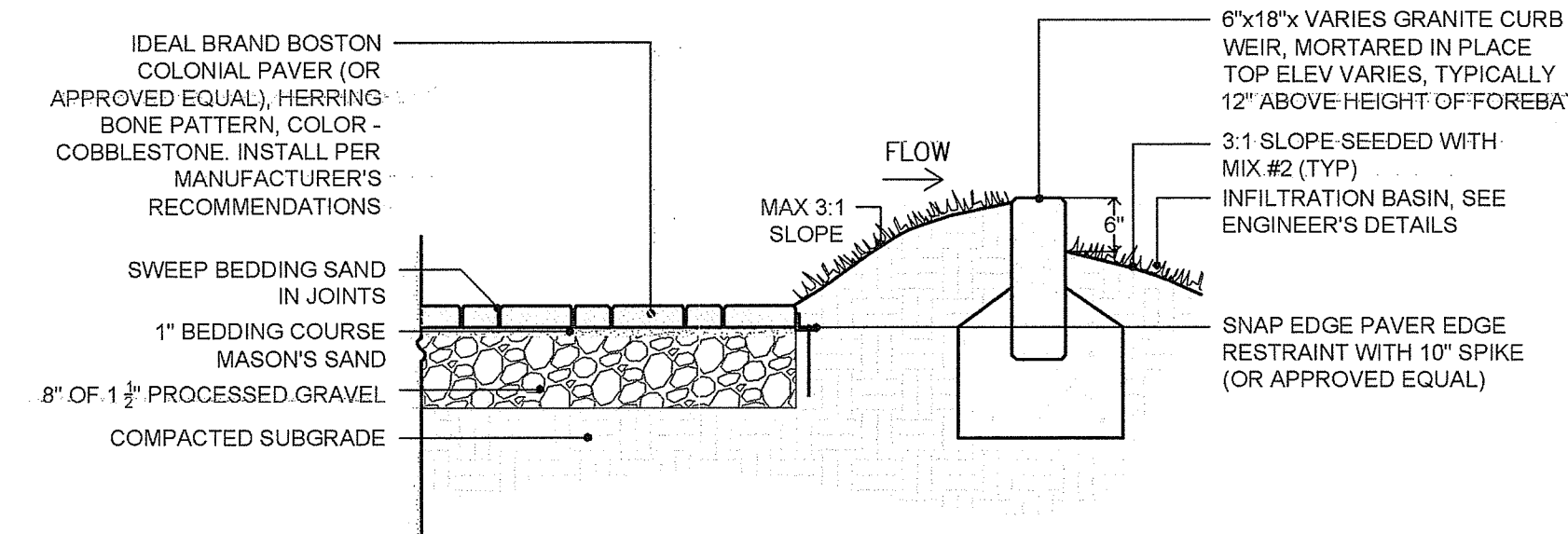
EXAMPLE OF BOULDERS TO MATCH



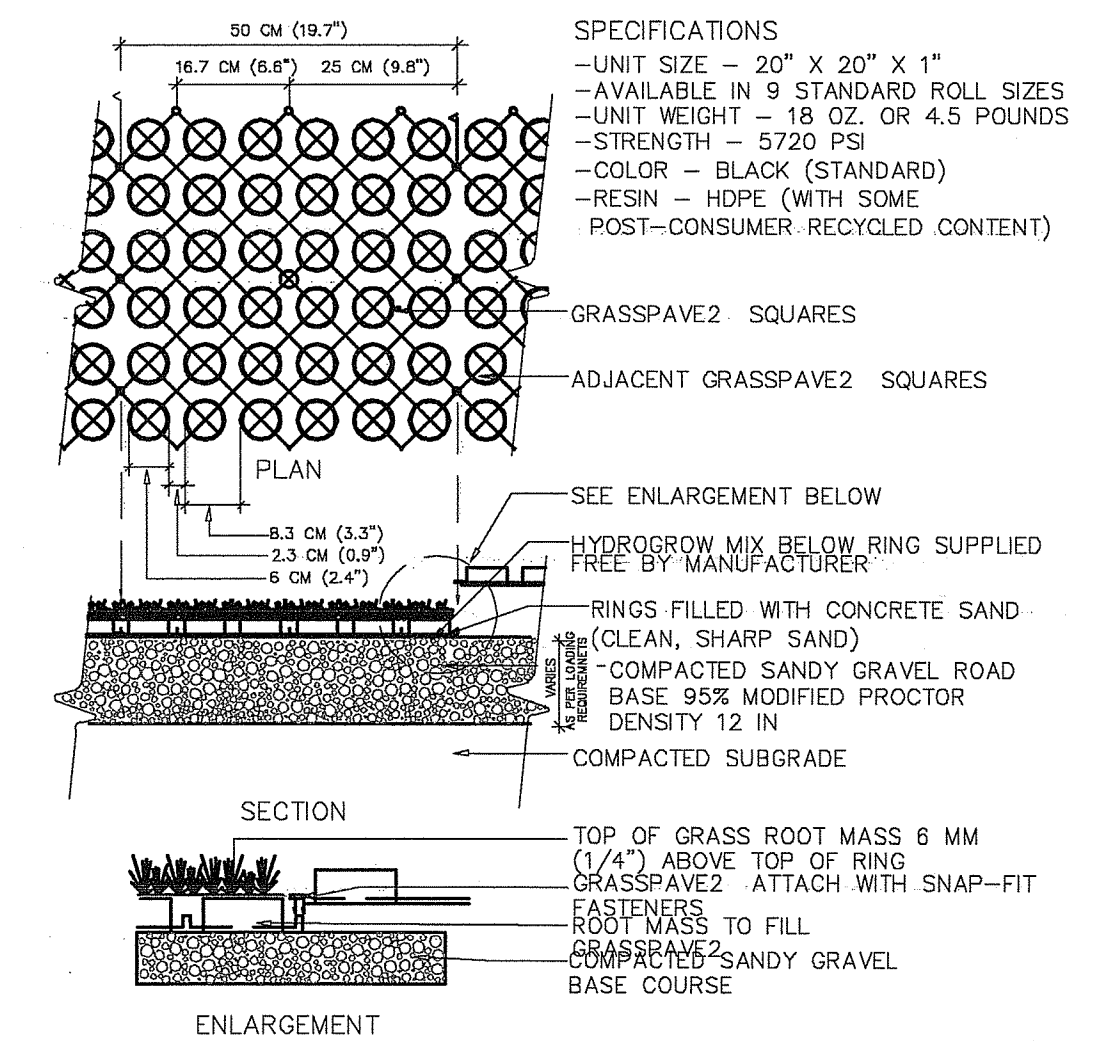
2 'BOULDER WEIR'
SCALE: NTS



3 BOULDER RETAINING WALL
SCALE: NTS



4 IMPERVIOUS SEDIMENT FOREBAY
SCALE: NTS



5 GRASSPAVE PERVIOUS SEDIMENT FOREBAY
SCALE: NTS

\\s111\share\HALI BECKMAN Ltd\BLTD PUBLIC\PROJ\Wood - Roger Williams Park Providence stormwater Drainage 2017\HBL Plans\Detail\Boulder Wall.dwg

EXAMPLE OF BOULDER WALL TO MATCH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 3 2018 FILE # 19-003
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

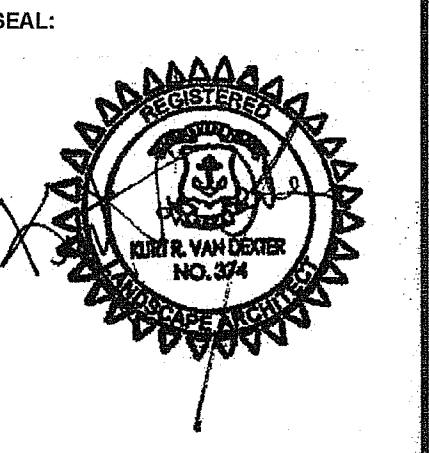
Charles A. Walter

wood.

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
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PROVIDENCE RHODE ISLAND, 02903
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Tel. 401.294.1884 - www.halibeckman.com
Estate Planning - Landscape Architecture

NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/3/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/16/19	BOULDER WALL
4	5/16/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
CITY HALL, 25 DORRANCE STREET,
PROVIDENCE, RI 02903

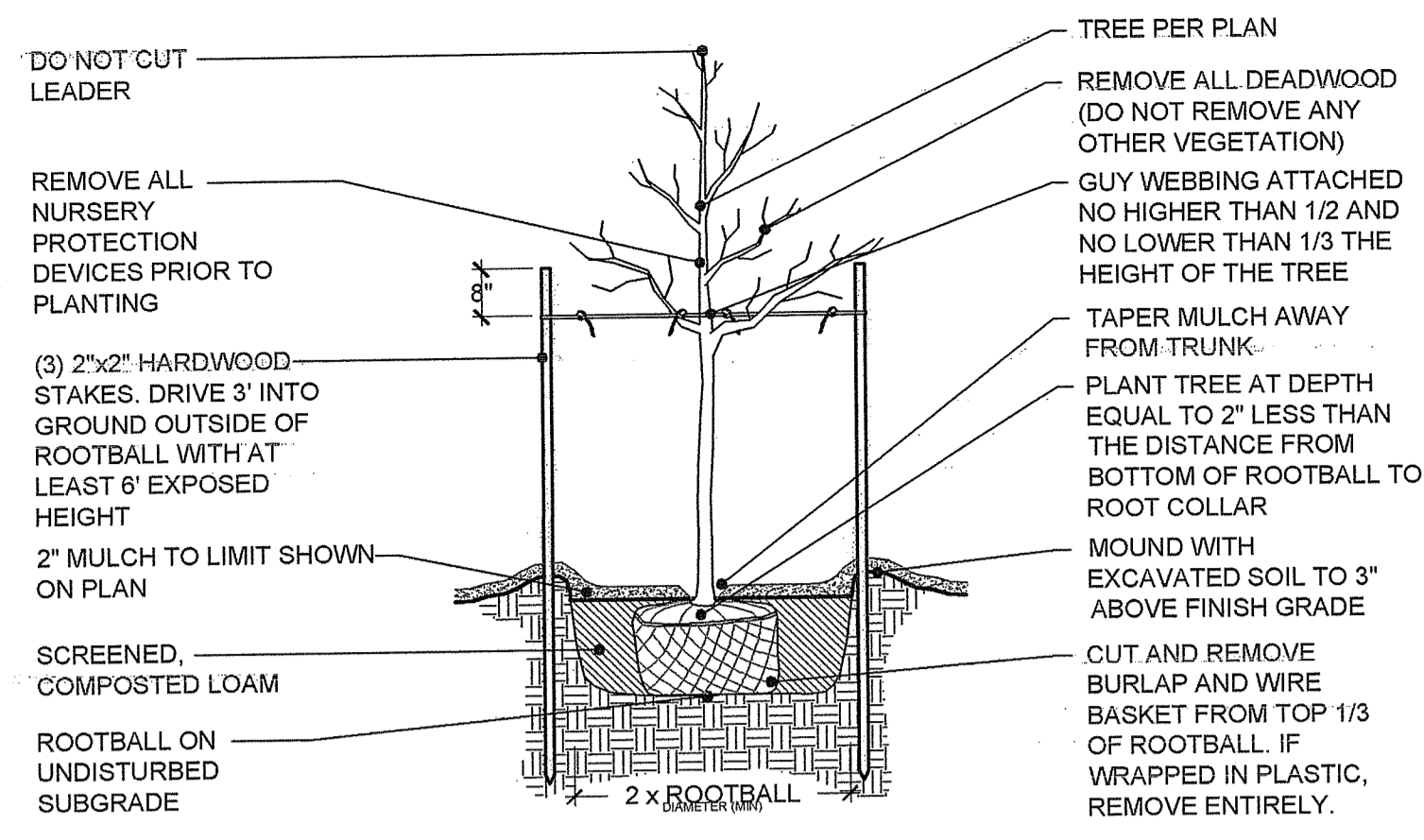
PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK PHASE II & III
1000 ELMWOOD AVENUE
PROVIDENCE, RHODE ISLAND

TITLE:
LANDSCAPE DETAILS

ISSUED FOR: PERMITTING
DATE: NOVEMBER 15, 2018
SCALE: NTS
DRAWN BY: MJW
CHECKED BY: GAA
PROJECT NO: HBL 448

L-13

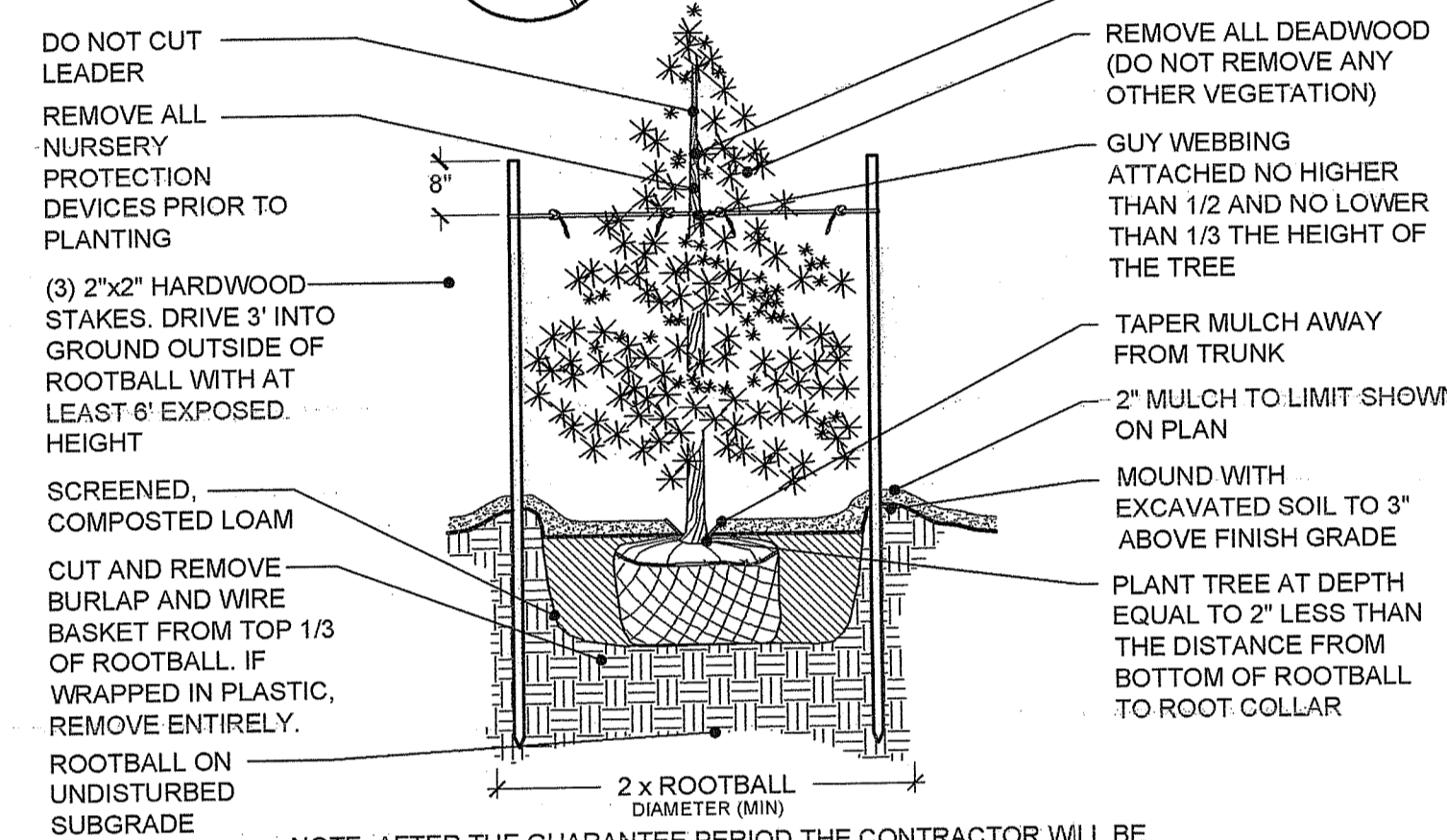
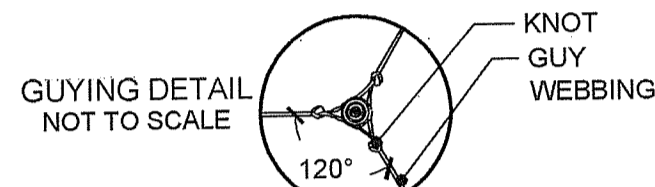
SHEET 13 OF 14



NOTE: AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

DECIDUOUS TREE PLANTING DETAIL

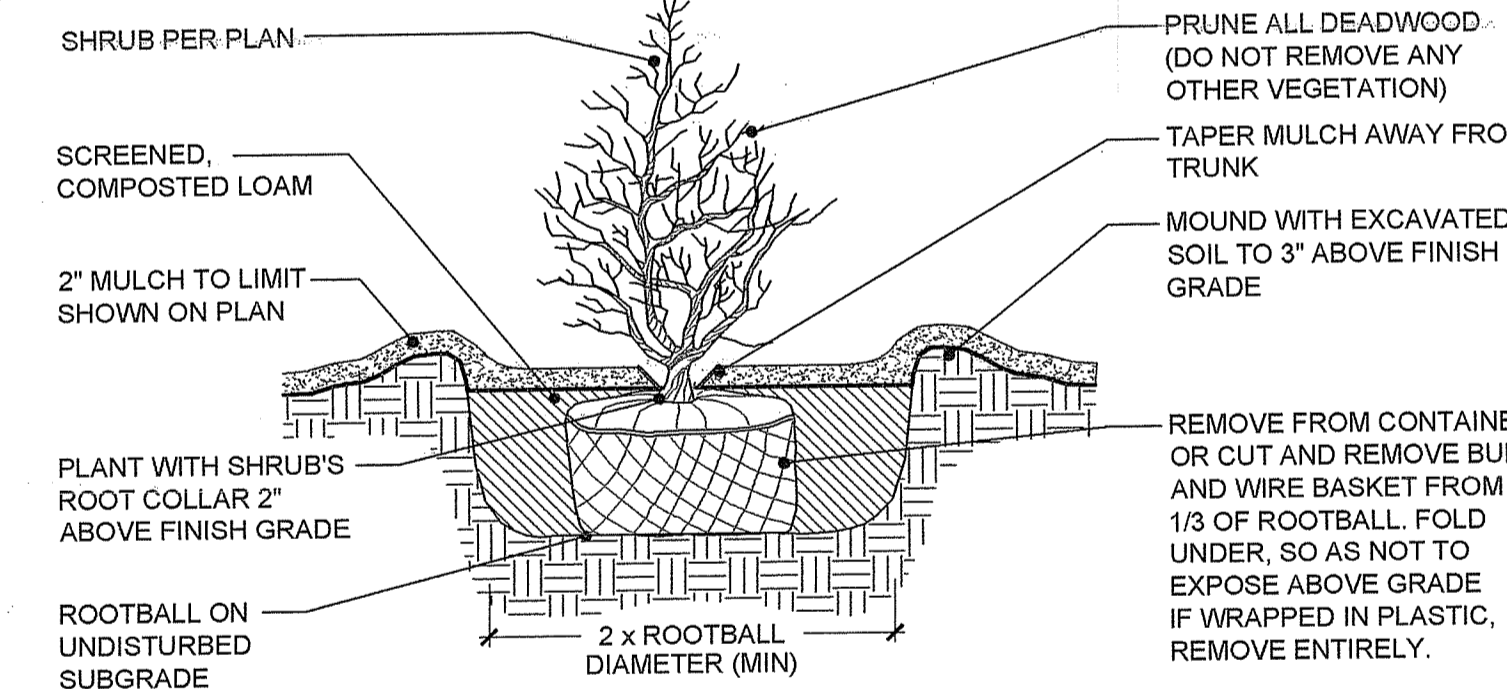
SCALE: NTS



NOTE: AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

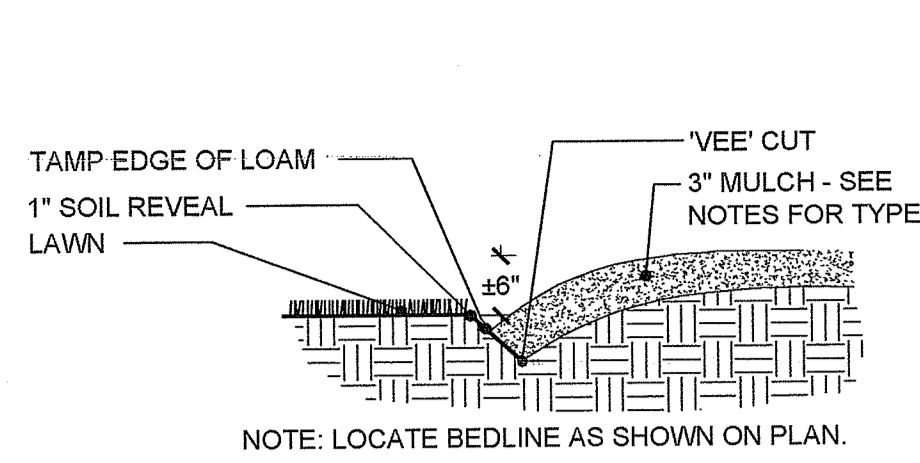
EVERGREEN TREE PLANTING DETAIL

SCALE: NTS



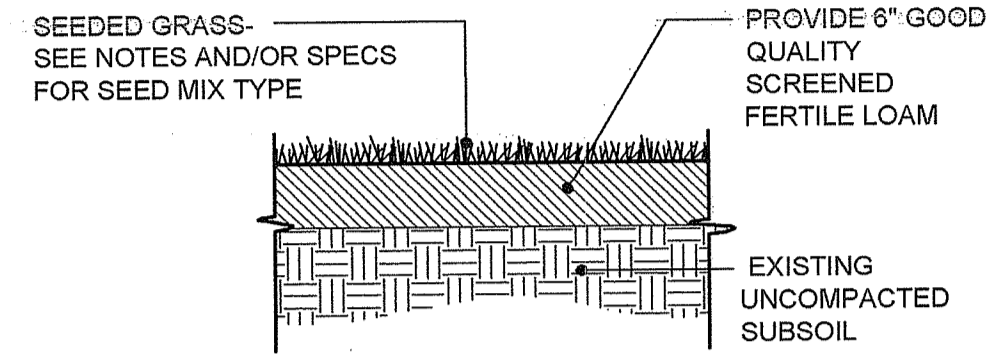
SHRUB & PERENNIAL PLANTING DETAIL

SCALE: NTS



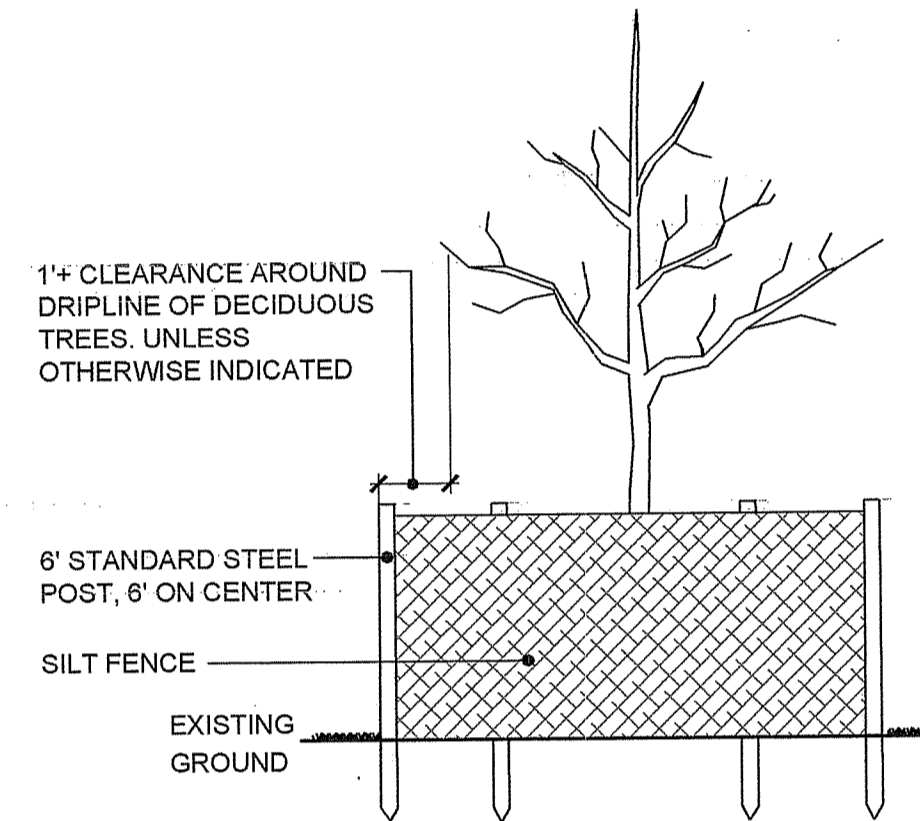
BEDLINE EDGE DETAIL

SCALE: NTS



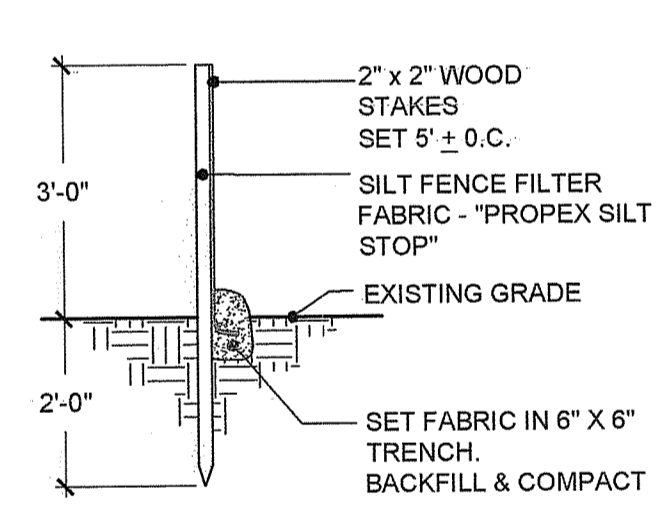
LOAM & SEED DETAIL

SCALE: NTS



DRIPLINE TREE PROTECTION DETAIL

SCALE: NTS



SILT FENCE DETAIL

SCALE: NTS

SEEDING NOTES

- LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 6" OVER ALL AREA DESIGNATED ON PLANS.
- ON-SITE LOAM TO BE TESTED BY A CERTIFIED PROFESSIONAL SOIL SCIENTIST FOR ORGANIC MATTER, PH AND NUTRIENTS. AMEND AS NEEDED TO MEET RECOMMENDED STANDARDS FOR SEEDING.
- SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
- FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQ. FT. AT SEEDING.
- LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DICING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DICING OR ROTOTILLING.
- ANY LOAM EXPOSED FOR ONE WEEK SHALL BE PLANTED WITH ANNUAL RYE GRASS SEED & SEED MIX #1. ALL LOAM STOCKPILES TO BE SEEDED IMMEDIATELY.
- APPLICATION OF SEED:
 - RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQ. FT. AS INDICATED ON PLANS.
 - SEEDING SHALL BE DONE IN ACCORDANCE WITH SECTION L.02.03 OF THE RI STANDARD SPECIFICATIONS AND ONLY DURING THE FOLLOWING DATES:
 - FALL SEEDING: AUGUST 15 TO OCTOBER 15
 - SPRING SEEDING: APRIL 1 TO MAY 31
 - THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION. RESEEDING IF AND WHEN NECESSARY FOR AN 8-WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL LEAVE THESE AREAS IN GOOD CONDITION, ALSO MAINTAIN THESE AREAS IN GOOD CONDITION UNTIL PROVISIONAL ACCEPTANCE.
 - DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE, THE EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERINGS IS REQUIRED.
 - OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH
 - REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
- SLICE SEEDING:
 - SITE PREPARATION** - FOR EXISTING VEGETATION THE SITE SHOULD BE PREPARED BY MOWING EXISTING VEGETATION TO A HEIGHT OF 4-6 INCHES. THE AREA CAN THEN BE DIRECTLY PLANTED USING AN INTERSEEDING DRILL. SITES THAT CONTAIN SIGNIFICANT WEED INFESTATIONS MAY REQUIRE WEED CONTROL MEASURES BEFORE PLANTING. AFTER MOWING, A HERBICIDE APPLICATION WITH GLYPHOSATE SHOULD BE USED. ADDITION OF A SURFACTANT AND/OR ADDITION OF 2,4-D TO THE MIX OFTEN RESULTS IN A MORE COMPLETE KILL, ESPECIALLY WITH UNWANTED BROADLEAFED SPECIES. RECOMMENDED HERBICIDE RATES ARE 2.0 QUARTS/ACRE OF GLYPHOSATE AND 1.0 - 2.0 QUARTS/ACRE 2,4-D. SEEDING CAN BE PERFORMED 7-10 DAYS AFTER HERBICIDE CHECK WITH DEM BEFORE USING WEED CONTROL.
 - FERTILIZER - DO NOT USE ANY FERTILIZER WITHIN WETLAND PERIMETER
 - SEED INSTALLATION** - THE SEED MIXTURE SHOULD BE INSTALLED WITH A SEED DRILL THAT WILL ACCURATELY METER THE SEED TO BE PLANTED AND KEEP ALL SEEDS UNIFORMLY MIXED DURING THE DRILLING. THE DRILL SHOULD CONTAIN A LEGUME BOX FOR SMALL SEEDS, AND IT SHOULD BE EQUIPPED WITH DISC FURROW OPENERS AND PACKER ASSEMBLY TO COMPACT THE SOIL DIRECTLY OVER THE DRILL ROWS. MAXIMUM ROW SPACING SHOULD BE 8 INCHES. THE INTER-SEEDER DRILL MUST BE OUT-FITTED WITH TRASH RIPPERS THAT WILL SLICE THROUGH THE VEGETATIVE MAT AND MAKE A FURROW INTO THE UNDERLYING SOIL APPROXIMATELY 1 INCH WIDE BY 1/2 TO 1 INCH DEEP. THESE FURROWS SHALL BE DIRECTLY IN LINE WITH THE DRILL SEED DISC OPENERS. FINE SEED SHOULD BE DROP-SEEDED ONTO THE GROUND SURFACE FROM THE FINE SEED BOX DRILL SEEDING SHOULD BE DONE WHENEVER POSSIBLE AT A RIGHT ANGLE TO SURFACE DRAINAGE.
- SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

SEED MIX #1 FOR MOWED AREAS CONSERVATION LAWN MIX

TYPE	% BY WEIGHT
REBEL II OR TRIBUTE TALL FESCUE	40
PALMER II PERENNIAL RYEGRASS	15
JAMESTOWN CHEWINGS FESCUE	10
RELIANT HARD FESCUE	10
ARVENIS BIRDSFOOT TREFOIL	10
SWITCHGRASS	5
STREAKER REDTOP	5
WHITE CLOVER	5

APPLICATION RATE = 265 LBS. / ACRE

SEED MIX #3 FOR FOREBAY AREAS FESCUE MIX

TYPE	% BY WEIGHT
CREeping RED FESCUE	35
'CHARLOT' HARD FESCUE	35
HERON HARD FESCUE	30

APPLICATION RATE = 116 LBS. / ACRE

SEE SPECS FOR MORE INFORMATION

SEED MIX #2 FOR BASIN SIDES RI STATE SLOPE MIX

TYPE	% BY WEIGHT
CREeping RED FESCUE	70
IMPROVED PERENNIAL RYEGRASS	15
BIRDSFOOT TREFOIL	15

APPLICATION RATE = 155 LBS. / ACRE

SEED MIX #4 FOR BASIN FLOOR INFILTRATION SEED MIX

TYPE	LBS/ACRE
FOX SEDGE	4.0
BLUNT BROOM SEDGE	2.0
LURID SEDGE	4.0
HOP SEDGE	2.0
POWL BLUEGRASS	2.0
BIDENS FRONDOSA	2.0
GREEN BULRUSH	2.0
SWAMP MILKWEED	2.0
FRINGED SEDGE	2.0
NEW YORK IRONWEED	2.0
SOFT RUSH	2.0
CALICO ASTER	2.0
BLUE FLAG IRIS	4.0
AMERICAN MANNAGRASS	2.0
MONKEY FLOWER	2.0
JOE PYE WEED	2.0

TOTAL APPLICATION RATE 38 LBS/ ACRE
MINIMUM GERMINATION RATE OF 75%

SEED MIX #5 FOR SHORELINE NE EROSION CONTROL/RESTORATION MIX FOR MOIST SITES

SPECIES: Virginia Wild Rye (*Elymus virginicus*), Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), Red Fescue (*Festuca rubra*), Switch Grass (*Panicum virgatum*), Partridge Pea (*Chamaecrista fasciculata*), Panicledleaf Tick Trefoil (*Desmodium paniculatum*), Indian Grass (*Sorghastrum nutans*), Blue Vervain (*Verbena hastata*), Butterfly Milkweed (*Asclepias tuberosa*), Black Eyed Susan (*Rudbeckia hirta*), Common Sneezeweed (*Helenium autumnale*), Heath Aster (*Aster pilosus*), Early Goldenrod (*Solidago juncea*), Upland Bentgrass (*Agrostis perennans*).

APPLICATION RATE = 25LBS/ACRE | 1750 SQ FT/LB
AVAILABLE FROM NEW ENGLAND WETLAND PLANTS
820 WEST STREET AMHERST, MA 01002 - 413-548-8000

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON SITE AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR DEVIATIONS FROM THE CONSTRUCTION PLANS TO THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ALSO REPORT ANY CONDITIONS UNCOVERED IN THE WORK THAT ARE NOT REFLECTED WITHIN THE PLANS.
- THE CONTRACTOR SHALL, UNDER THE DIRECTION OF THE OWNER, ESTABLISH CONSTRUCTION LIMITS ON THE SITE BY ACCEPTABLE VISIBLE MARKERS PLACED AT EYE LEVEL. ALL WORK AND EQUIPMENT SHALL BE CONFINED TO WITHIN THESE LIMITS. THE CONTRACTOR SHALL REMOVE ALL MARKERS WHEN DIRECTED BY OWNER.
- THE SITE SHALL BE "ROUGH GRADED" TO THE ELEVATIONS AND CONTOURS SET FORTH ON THE PLANS, ALLOWING FOR GRAVEL, LOAMING AND FINAL GRADING.
- THE CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING LOAM FROM THOSE AREAS THAT ARE TO BE EXCAVATED OR FILLED AND TO WITHIN THE PROJECT LIMITS. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR OTHER UNSUITABLE MATERIAL UNLESS DIRECTED BY OWNER. ALL EXCESS SOIL REMAINS THE PROPERTY OF THE OWNER. EARTH EXCAVATION SHALL BE LIMITED TO THE DIMENSIONS AND REQUIREMENTS SHOWN ON THE DRAWINGS.
- THE INTENTION OF THE OWNER IS TO MAINTAIN THE BOUNDARIES OF THE SITE IN ITS EXISTING CONDITION AND THEREFORE THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFINING THE WORK TO WITHIN THE CONSTRUCTION LIMITS.
- ALL EXISTING VEGETATION (TREES, SHRUBS, GRASSES, ETC.) TO REMAIN SHALL BE PROTECTED BY INJURY. INDIVIDUAL TREES AND SHRUBS TO BE SAVED WITHIN THE DESIGNATED WORK AREA SHALL BE ADEQUATELY PROTECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL PROTECTIVE BARRIERS AS DIRECTED BY THE OWNER.
- ALL EXISTING GRASSED AREAS NOT ADEQUATELY PROTECTED AND THEREFORE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL WETLANDS, COASTAL, CITY/TOWN, AND STATE REGULATIONS.
- ALL PLANTINGS SHALL BE MAINTAINED IN A MANNER SO AS TO PROMOTE OPTIMUM GROWTH OF PLANT MATERIALS.
- ALL TREES, SHRUBS, GROUND COVERS, AND OTHER PLANT MATERIALS MUST BE REPLACED IF THEY DIE OR BECOME UNHEALTHY BECAUSE OF ACCIDENTS, DRAINAGE PROBLEMS, DISEASE, OR OTHER CAUSES. ALL SUCH REPLACEMENTS SHALL CONFORM TO ALL STANDARDS THAT GOVERNED THE ORIGINAL INSTALLATION, WHERE NO SUCH STANDARDS EXIST, NEW PLANTINGS SHALL MATCH THE REPLACED MATERIALS IN TYPE, SPECIES, AND QUANTITY.
- SOIL OR LOAM THAT IS STORED OR STOCKPILED DURING CONSTRUCTION SHOULD ALSO BE MULCHED OR COVERED WITH A MAT OF LOOSE HAY AND CAN BE SEEDED WITH A TEMPORARY SEED MIX. STOCKPILES SHOULD ALSO BE ENCLOSED WITH SILT OR HAYBALES.
- ENTRANCE TO CONSTRUCTION SITE SHOULD BE COVERED WITH GRAVEL TO TRAP SEDIMENT FROM THE TIRES OF VEHICLES EXISTING THE SITE.
- ANY REMOVAL OF INVASIVE SPECIES WITHIN THE WETLAND PERIMETER SHALL BE CONDUCTED BY A RI CERTIFIED COASTAL INVASIVE MANAGER (AS DESIGNATED THROUGH THE URI COOPERATIVE EXTENSION).

PLANTING NOTES:

- FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE PLANT LIST. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT AND PROJECT ADMINISTRATOR.
- LOAM TO BE GOOD QUALITY, FERTILE, FREE OF WEEDS, STICKS STONES OVER 1/2", AND ROOTS. SPREAD TO A MINIMUM OF 6" OVER ALL PLANTED AREAS AND 12" IN ALL AREAS DESIGNATED.
- NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN AS TO GRADING AND QUALITY.
- ONLY NURSERY-GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST (2) YEARS, WILL BE ACCEPTED.
- SET PLANTS PLUMB AND AT A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY AND PROPERLY BY FIRING OR TAMPING FORM SAUCERS CAPABLE OF HOLDING WATER ABOVE INDIVIDUAL PLANTS, BY PLACING RIDGES OF PLANTING SOIL AROUND EACH.
- STREET TREES SHALL BE SECURELY TRIPLE-STAKED WITH STAKES OF A MINIMUM SIZE OF TWO INCHES BY TWO INCHES BY SIX FEET.
- TREES IN OPEN AREAS TO HAVE A NATURALIZED BRANCHING HABIT.
- ALL STREET TREES ADJACENT TO SIDEWALKS AND ROADS MUST HAVE A MINIMUM CLEARANCE HEIGHT OF 7' (7 FEET) TO THE FIRST BRANCH.
- WATERING-WATER ALL PLANTS WITHIN 48 HOURS AFTER PLANTING IF CONDITIONS WARRANT, AND AS MANY TIMES THEREAFTER TO SUSTAIN HEALTHY CONDITIONS. SATURATE THE SOIL AROUND EACH PLANT THOROUGHLY AT EACH WATERING, WHICH EVER IS REQUIRED BY SITE CONDITIONS.
- PRUNING-PRUNE PLANTS, AS DIRECTED BY OWNER, AT THE PROJECT SITE BEFORE OR IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICE. CUT BROKEN, DEAD OR INJURED BRANCHES FLUSH WITH THE TRUNK OR THE LIMB. PRUNE ALL BROKEN ROOTS ON THE PLANT SIDE OF THE BREAK. PRUNING SHALL NOT DEFORM OR OTHERWISE DESTROY THE TYPICAL SHAPE OR SYMMETRY OF THE PLANT AND SHALL NOT REDUCE THE HEIGHT BY MORE THAN ONE-THIRD. DO NOT CUT BACK THE LEADER OF THE PLANT UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
- FERTILIZING: FERTILIZE SHRUB BEDS WITH 10-6-4 FERTILIZER AT A RATE OF THREE POUNDS PER 100 SQUARE FEET OF SURFACE AREA. BROAD CAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AT THE RATE OF ONE AGRIFORM PELLET PER INCH OF TRUNK DIAMETER (FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS). APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.
- MULCHING-COVER ALL PLANTED AREAS WITH 3" DARK BROWN PINE BARK MULCH WITHIN A SEVENTY - TWO HOUR PERIOD AFTER PLANTING. NO RED MULCH ACCEPTED.
- GUARANTEE-ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEARS AFTER PRELIMINARY INSPECTION AND SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ALL DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED AT ONCE BY THE CONTRACTOR, FREE OF CHARGE.
- ALL TREES ARE TO HAVE ONE MAIN LEADER.
- CONTRACTOR IS RESPONSIBLE FOR CHECKING THE IRRIGATION AND WATER AMOUNTS FOR THE FIRST YEAR.
- POCKET PLANTING REFERS TO PLANTING MATERIAL AMONG INDIVIDUAL PLANTINGS IN INDIVIDUAL HOLES AND NOT A PREPARED BED. THE STANDARD PLANTING DETAILS STILL APPLY.

DIG SAFE

- RHODE ISLAND LAW REQUIRES THAT DIG SAFE AND ALL UTILITY COMPANIES BE NOTIFIED BY THE CONTRACTOR A MINIMUM OF 48 HOURS - 2 BUSINESS DAYS - PRIOR TO ANTICIPATED EXCAVATION. THIS DOES NOT INCLUDE WEEKENDS OR LEGAL HOLIDAYS. DIG SAFE MAY BE CONTACTED BY CALLING 1-888-344-7233 MONDAY THRU FRIDAY FROM 9 A.M. TO 6 P.M.
- STATE LAW REQUIRES ALL EXCAVATORS TO PRE-MARK THE AREA OF EXCAVATION BEFORE NOTIFYING DIG SAFE. PRE-MARKING IS DEFINED AS MARKING OUT THE SCOPE OF THE PROPOSED EXCAVATION ARE, USING STAKES, PAINT OR FLAGS.
- LOCATE AND RECORD ALL BURIED UTILITIES AND CONFORM TO REQUIREMENTS GOVERNING EXCAVATION AND CHANGES IN THIS AREA.
- THE DEPTH OF UNDERGROUND FACILITIES IS VARIABLE, THEREFORE STATE LAW REQUIRES EXCAVATORS TO USE NON-MECHANICAL MEANS WHEN DIGGING WITHIN 18" OF A MARKED UNDERGROUND FACILITY. THE CURRENT DEPTH OF A FACILITY MIGHT NOT BE THE SAME AS WHEN IT WAS ORIGINALLY INSTALLED, DUE TO SOIL EROSION, GRADING AND MANY OTHER FACTORS. TO ENSURE THE SAFETY OF EXCAVATORS AND TO AVOID DISRUPTION, IT MAKES SENSE TO HAND DIG WHEN NEAR AND UNDERGROUND FACILITY.
- IF DAMAGE OCCURS TO A UTILITY LINE, AND THERE IS A POSSIBILITY THAT THE DAMAGE MAY POSE A THREAT TO THE HEALTH AND SAFETY OF THE PUBLIC, CALL 911 IN ORDER TO DISPATCH LOCAL OFFICIALS WHO WILL DETERMINE WHETHER THE COMMUNITY IS IN IMMEDIATE DANGER. NEXT, ACCORDING TO STATE LAW, IT IS THE RESPONSIBILITY OF THE EXCAVATOR TO NOTIFY THE AFFECTED UTILITY COMPANY DIRECTLY AFTER DAMAGE OCCURS. STATE LAW PROHIBITS THE CONTRACTOR FROM ATTEMPTING TO REPAIR THE LINE, OR BACKFILLING BEFORE THE LINE HAS BEEN REPAIRED BY THE UTILITY COMPANY. FAMILIARIZE YOURSELF WITH YOUR LOCAL UTILITY COMPANIES' SAFETY PROCEDURES AND PROTOCOL IN THE EVENT OF UTILITY LINE DISRUPTION.
- A DIG SAFE PERMIT SHOULD BE PROCESSED ONLY IF YOU INTEND TO EXCAVATE WITHIN 30 DAYS.

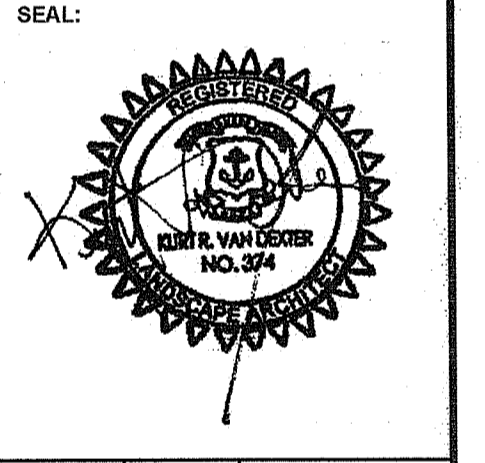
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



wood.
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
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NOT FOR CONSTRUCTION



REVISION	DATE	DESCRIPTION
1	1/13/19	REVISIONS FOR DEM SUBMISSION
2	1/28/19	DEM SUBMISSION
3	4/15/19	BOULDER WALL
4	5/15/19	RIDEM COMMENTS

CLIENT:
CITY OF PROVIDENCE PARKS & RECREATION DEPARTMENT
CITY HALL, 25 DORRANCE STREET, PROVIDENCE, RI 02903

PROJECT:
INSTALLATION OF STORMWATER BMPs IN ROGER WILLIAMS PARK PHASE II & III
1000 ELMWOOD AVENUE PROVIDENCE, RHODE ISLAND

TITLE:
PLANTING DETAILS

ISSUED FOR: PERMITTING

DATE: NOVEMBER 15, 2018

SCALE: NTS

DRAWN BY: MJW

CHECKED BY: GAA

PROJECT NO: HBL 448

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SHEET 14 OF 14