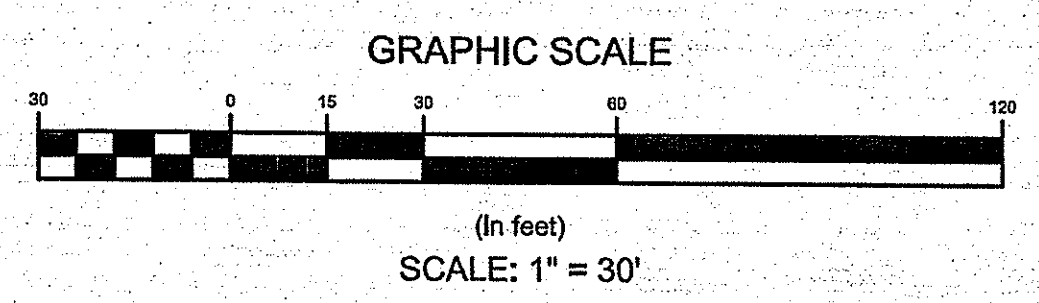


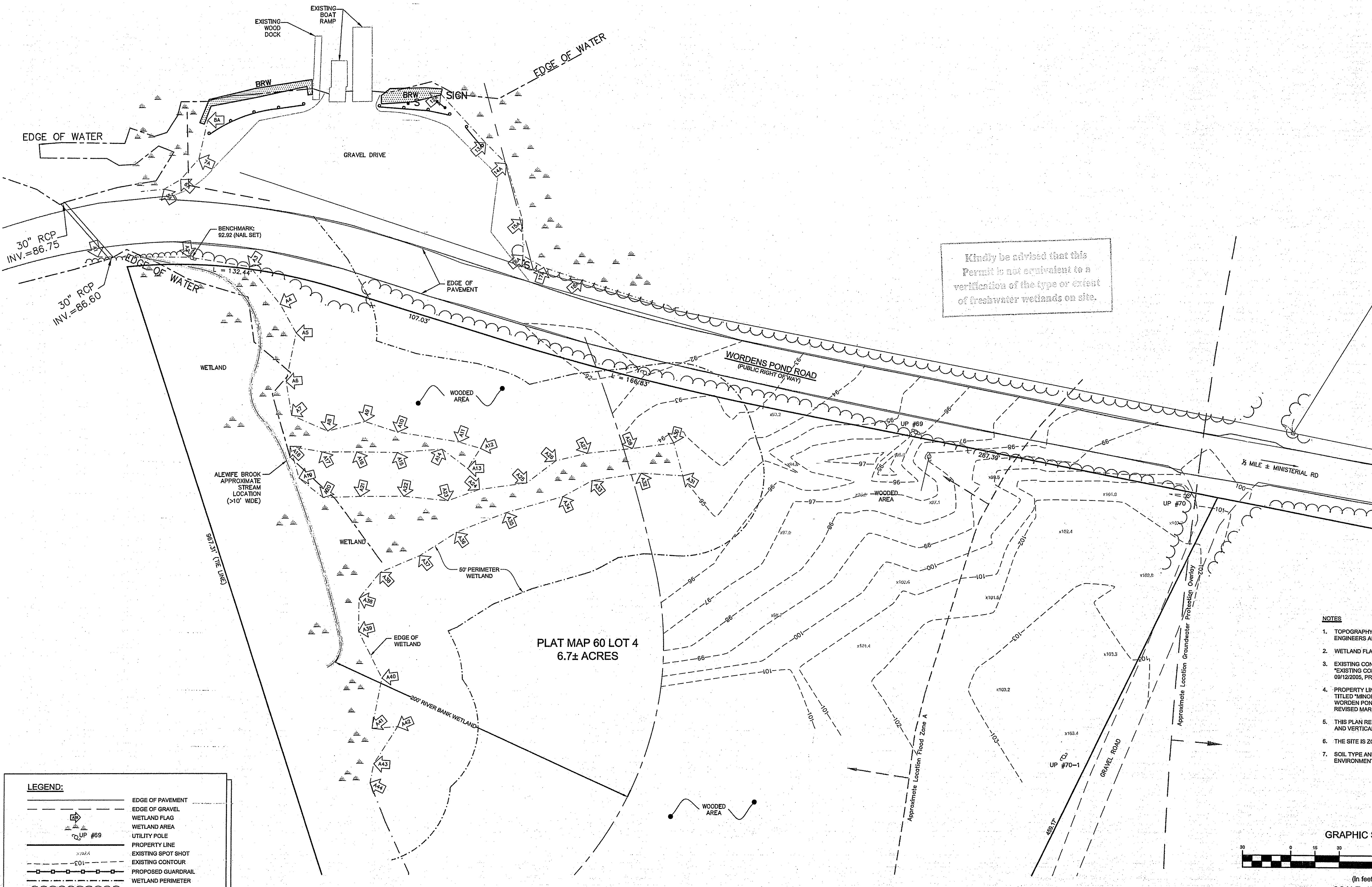
RHODE ISLAND STATE PLANE COORDINATE SYSTEM NAD83

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED **NOV 17 2015** FILE # **15-0011**
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Margaret A. Wawack

- NOTES**
1. TOPOGRAPHY SHOWN IS THE RESULT OF A GROUND SURVEY BY NORTHEAST ENGINEERS AND CONSULTANTS INC COMPLETED IN 2012 AND 2013.
 2. WETLAND FLAGS A1 - A44 DELINEATED BY KATHLEEN P. MANGAN, JUNE 2012
 3. EXISTING CONDITIONS NORTH OF WORDEN POND ROAD TAKEN FROM PLAN TITLED "EXISTING CONDITIONS" PREPARED BY TIBBETTS ENGINEERING CORP. DATED 09/12/2005, PROVIDED ELECTRONICALLY BY CLIENT.
 4. PROPERTY LINE, FLOOD ZONE AND OVERLAY BOUNDARIES TAKEN FROM PLAN TITLED "MINOR SUBDIVISION PLAN FOR STATE OF RHODE ISLAND AP 61 LOT 1, WORDEN POND ROAD, SOUTH KINGSTOWN, RI, DATED NOVEMBER 1, 2013 AND LAST REVISED MARCH 24, 2014, PROVIDED ELECTRONICALLY BY CLIENT.
 5. THIS PLAN REFERENCES RHODE ISLAND STATE PLANE COORDINATE SYSTEM, NAD83 AND VERTICAL DATUM NAVD83.
 6. THE SITE IS ZONED R-80
 7. SOIL TYPE AND HSG SHOWN ON SHEETS C3 AND C4 TAKEN FROM ARCGIS ENVIRONMENTAL RESOURCE MAP NRCS SSURGO 2014.



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

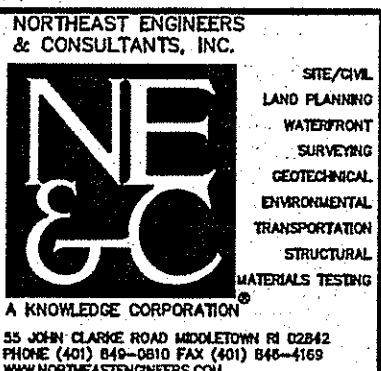


LEGEND:

	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	WETLAND FLAG
	WETLAND AREA
	UTILITY POLE
	PROPERTY LINE
	EXISTING SPOT SHOT
	EXISTING CONTOUR
	PROPOSED GUARDRAIL
	WETLAND PERIMETER
	EXISTING TREELINE

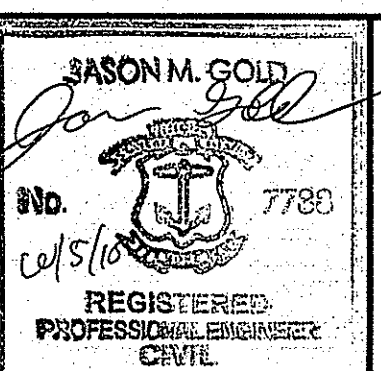
No.	Description	Date
1	REVIEW REVISIONS	9/15
REVISIONS:		

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT



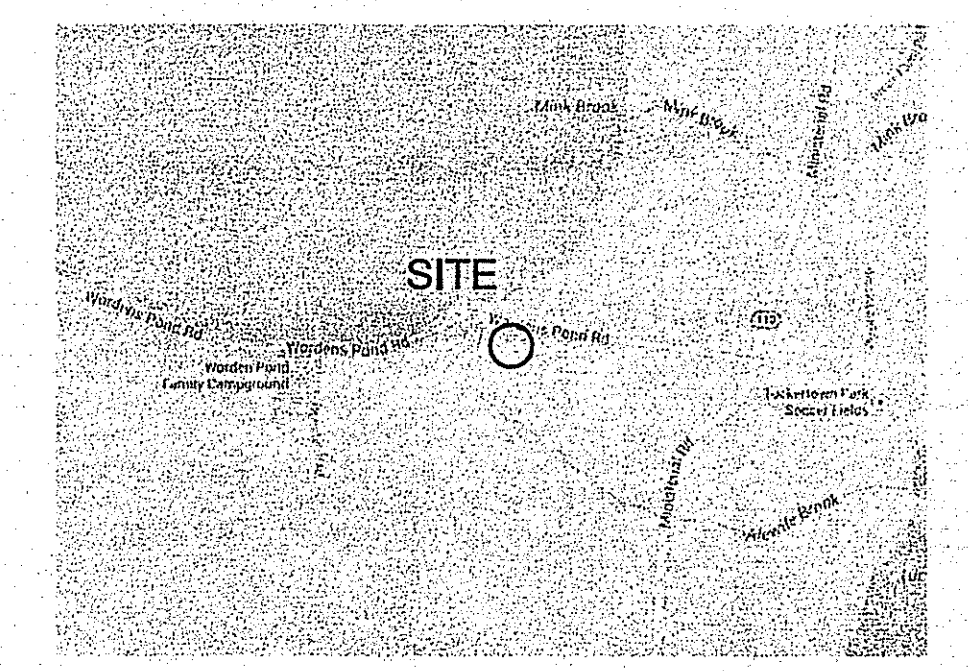
WORDEN POND
FRESHWATER ACCESS SITE
SOUTH KINGSTOWN, RI

Design by:
Drawn by: JJC
Checked by:
Date: MARCH 2015
Scale: 1" = 30'
Project No.: 12018.0

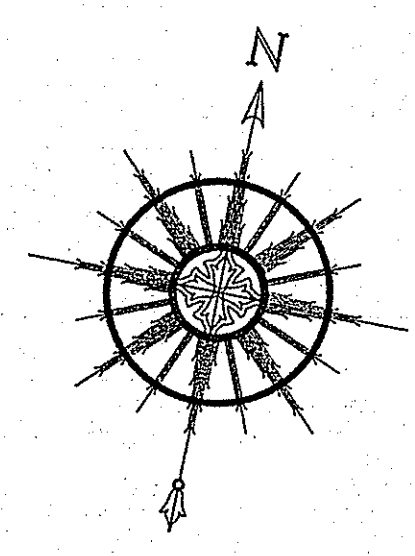


EXISTING CONDITIONS PLAN

C1
SHEET 2 OF 8

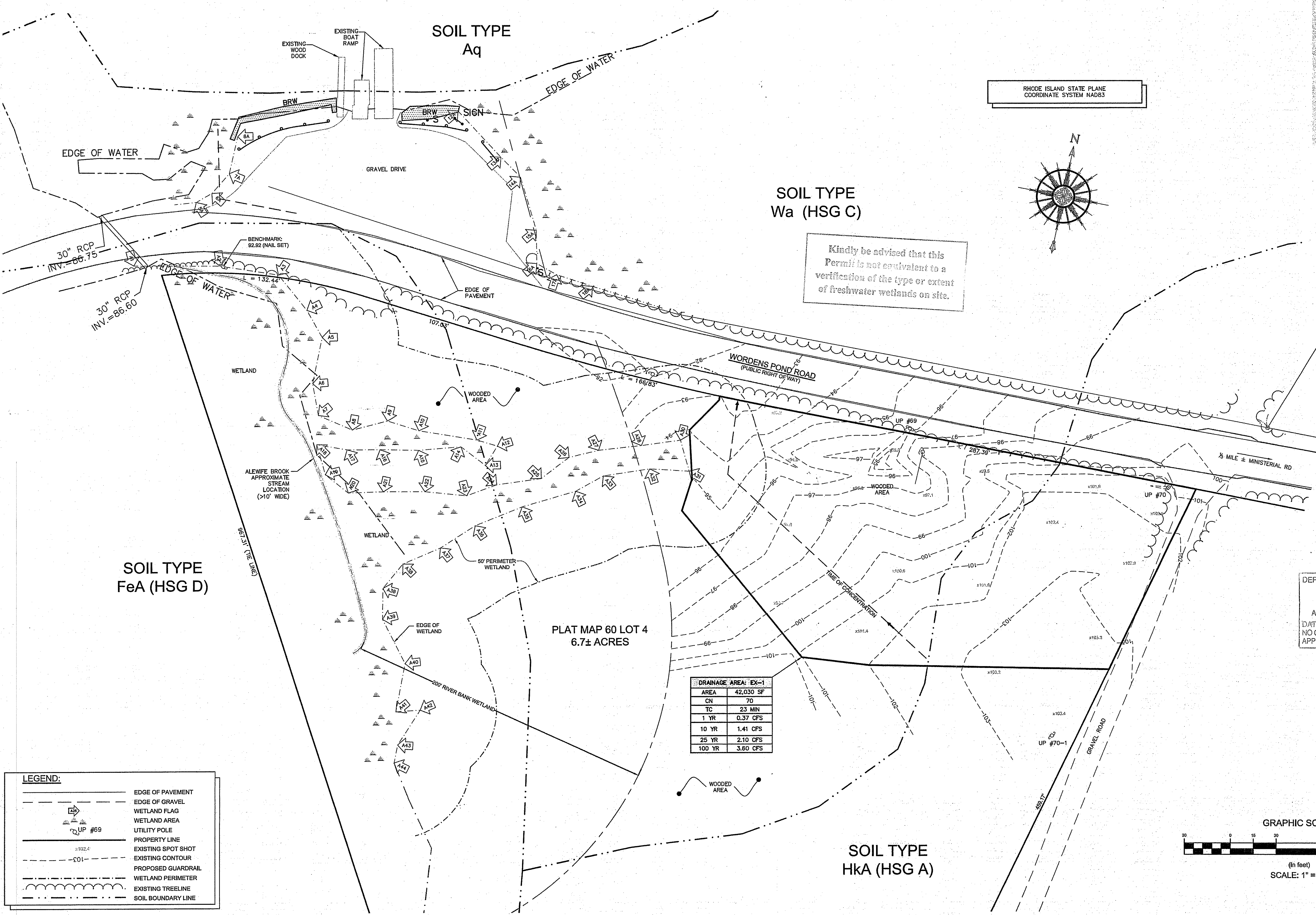


RHODE ISLAND STATE PLANE
COORDINATE SYSTEM NAD83



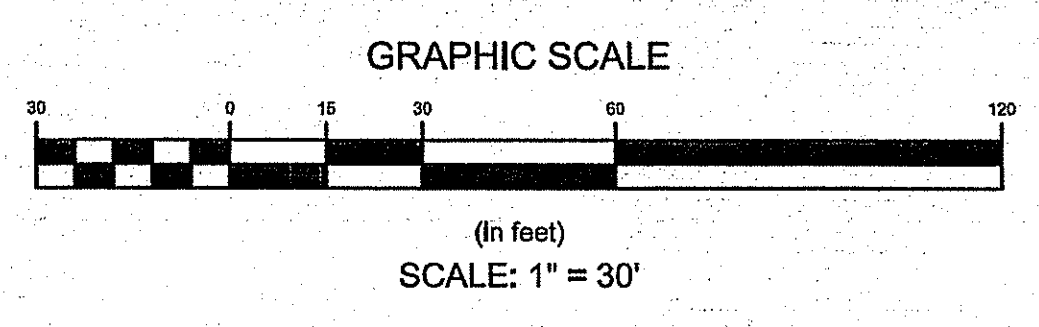
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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LEGEND:

	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	WETLAND FLAG
	WETLAND AREA
	UTILITY POLE
	PROPERTY LINE
	EXISTING SPOT SHOT
	EXISTING CONTOUR
	PROPOSED GUARDRAIL
	WETLAND PERIMETER
	EXISTING TREELINE
	SOIL BOUNDARY LINE



No.	Description	Date
2	REVIEW REVISIONS	9/15
1	SOILS	3/15

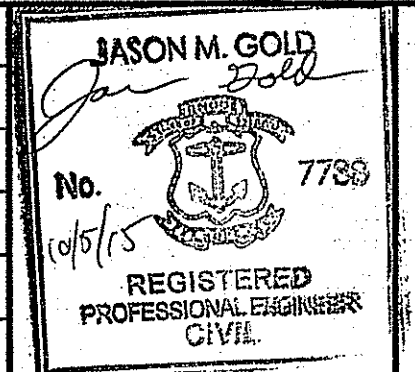
REVISIONS:

STATE OF RHODE ISLAND
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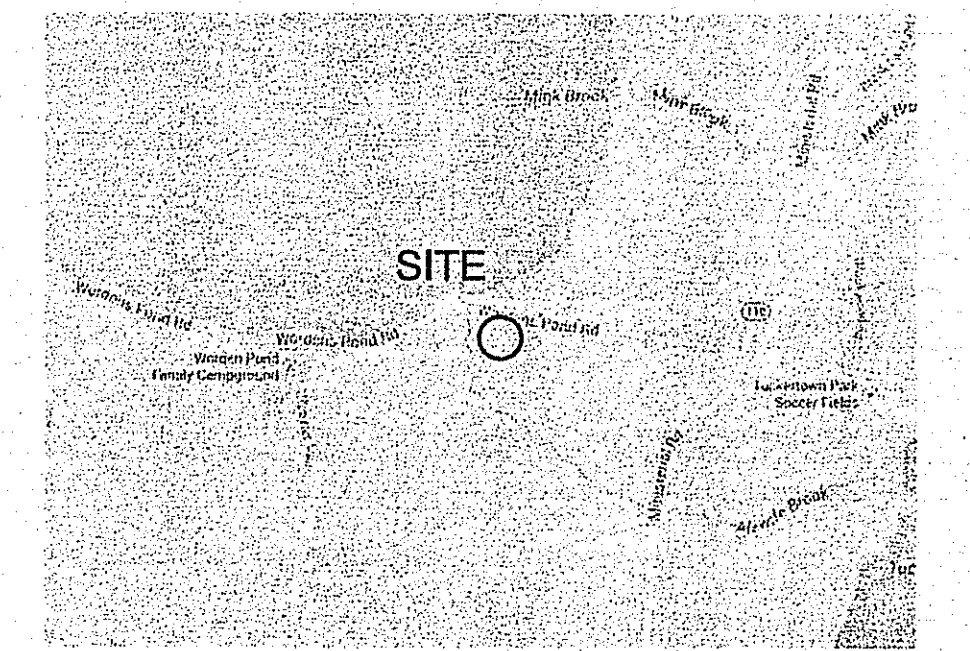
WORDEN POND
FRESHWATER ACCESS SITE
SOUTH KINGSTOWN, RI

Design by: JMG
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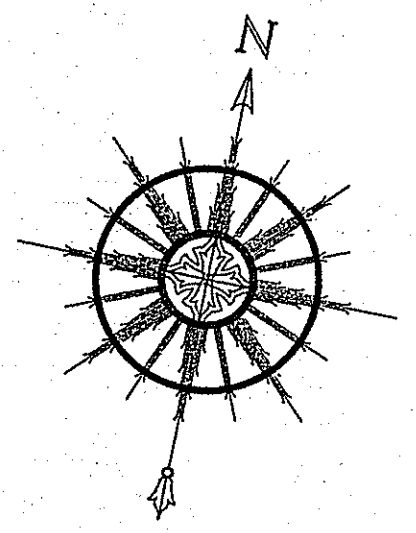


EXISTING CONDITIONS
DRAINAGE PLAN

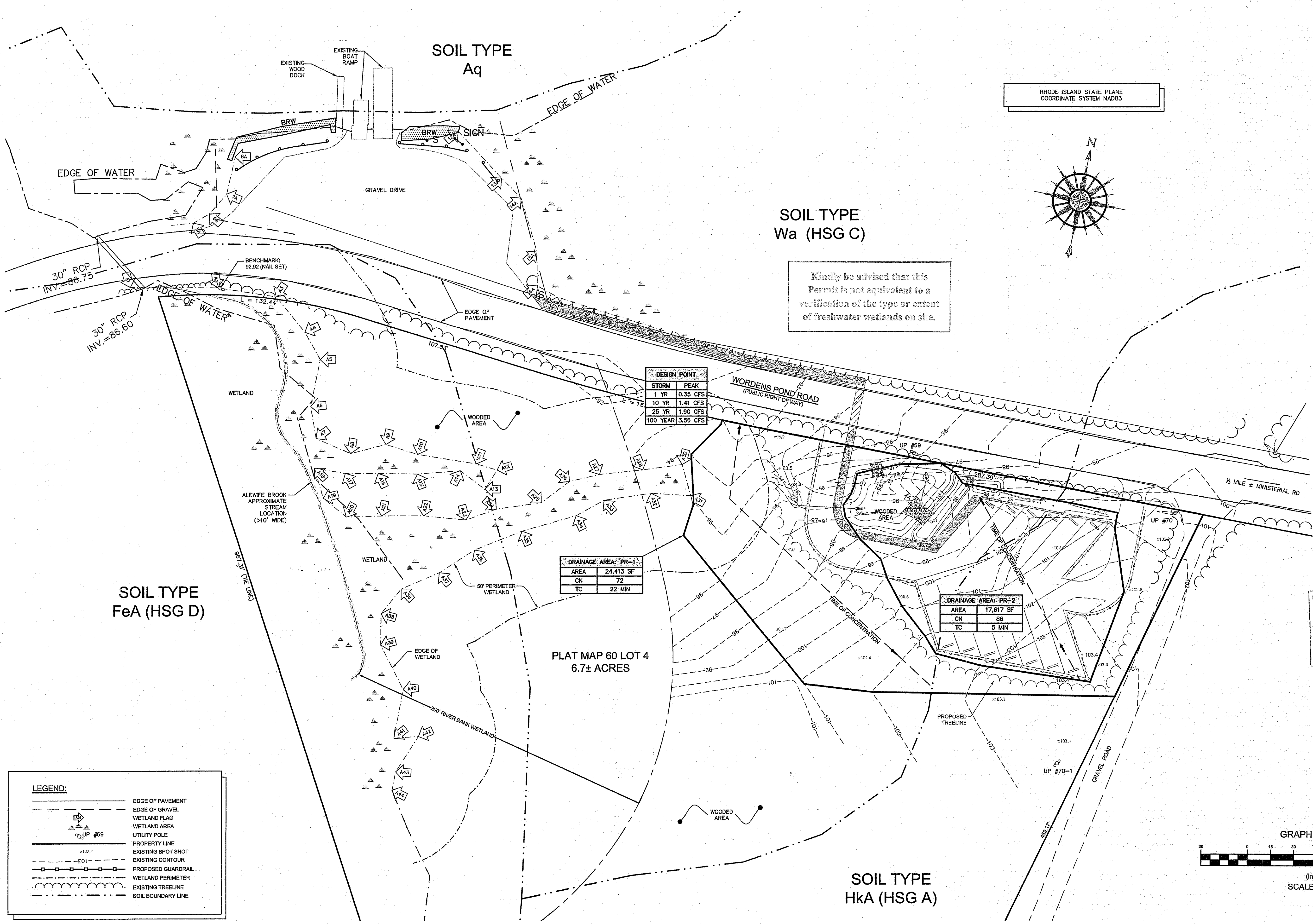
C3
SHEET 4 OF 8



RHODE ISLAND STATE PLANE
COORDINATE SYSTEM NAD83



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DESIGN POINT	STORM	PEAK
	1 YR	0.35 CFS
	10 YR	1.41 CFS
	25 YR	1.90 CFS
	100 YEAR	3.56 CFS

DRAINAGE AREA: PR-1	
AREA	24,413 SF
CN	72
TC	22 MIN

DRAINAGE AREA: PR-2	
AREA	17,617 SF
CN	86
TC	5 MIN

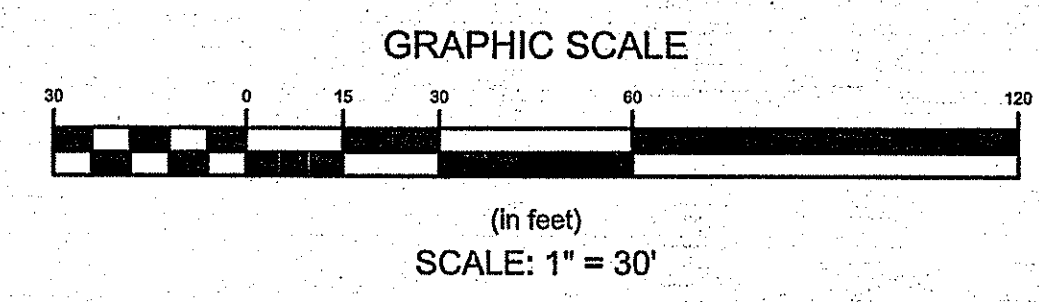
PLAT MAP 60 LOT 4
6.7± ACRES

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FRESHWATER WETLANDS PROGRAM
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Signature

LEGEND:

	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	WETLAND FLAG
	WETLAND AREA
	UTILITY POLE
	PROPERTY LINE
	EXISTING SPOT SHOT
	EXISTING CONTOUR
	PROPOSED GUARDRAIL
	WETLAND PERIMETER
	EXISTING TREELINE
	SOIL BOUNDARY LINE



No.	Description	Date
2	REVIEW REVISIONS	9/15
1	SOILS	3/15

REVISIONS:

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT

NORTHEAST ENGINEERS
& CONSULTANTS, INC.

15 JOHN CLAYTON ROAD, WICKLIFFEN, RI 02842
PHONE (401) 848-0810 FAX (401) 848-8159
WWW.NEENGINEERS.COM

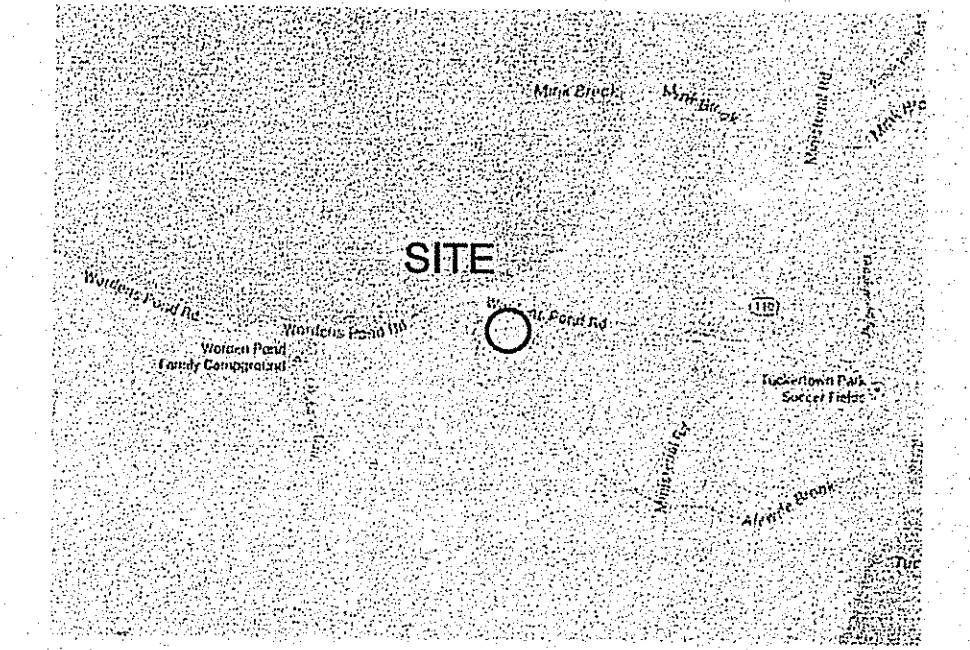
WORDEN POND
FRESHWATER ACCESS SITE
SOUTH KINGSTOWN, RI

Design by: JMG
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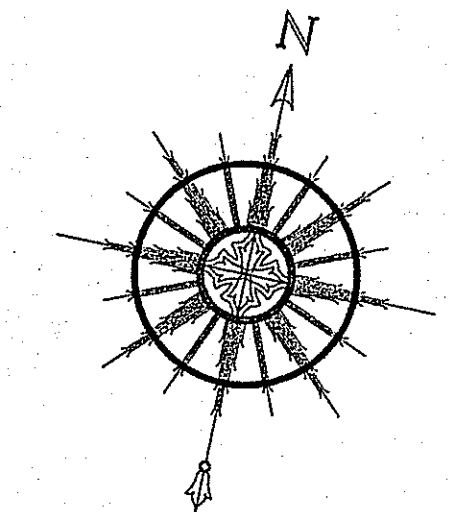
JASON M. GOLD
No. 7738
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROPOSED CONDITIONS
DRAINAGE PLAN

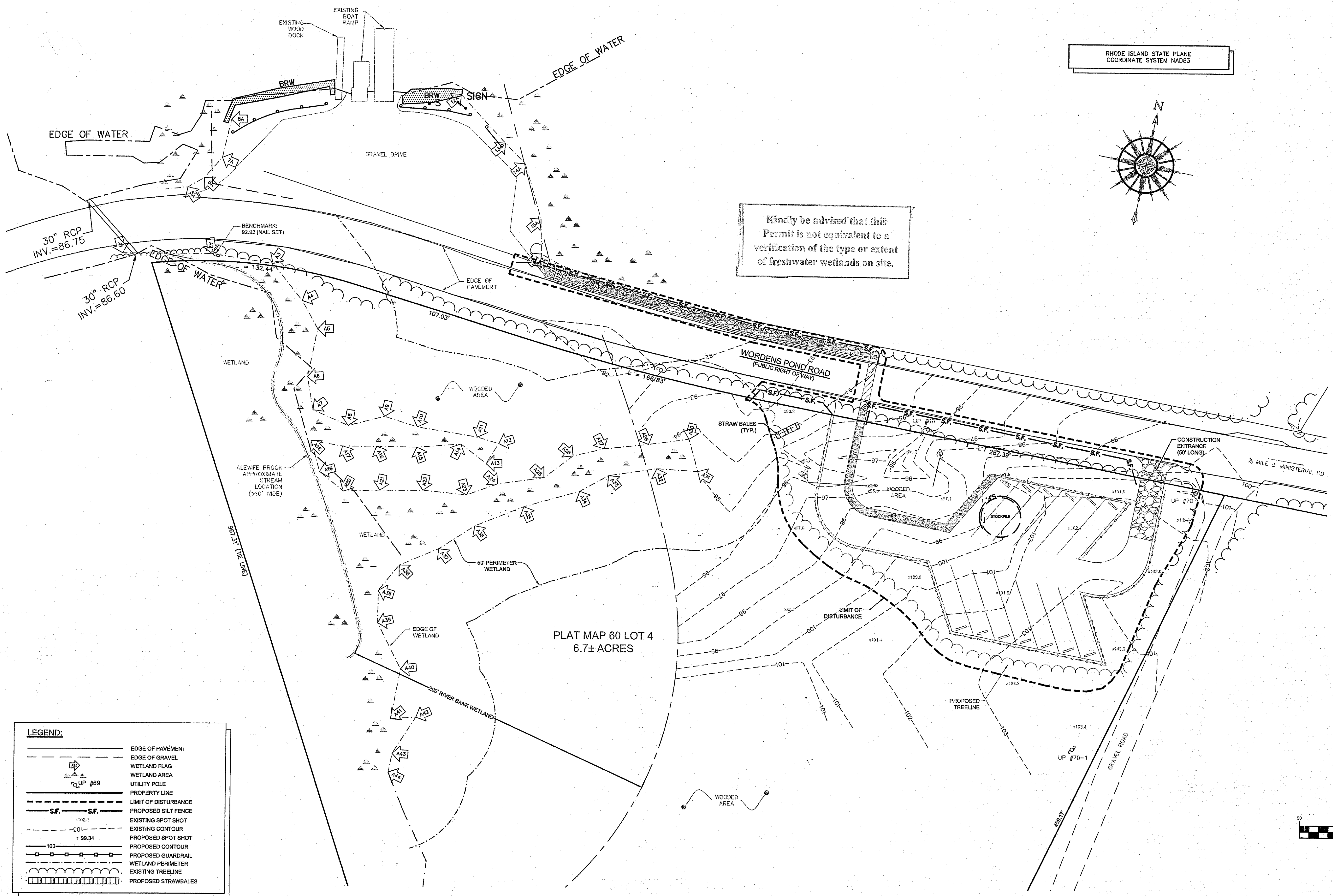
C4
SHEET 5 OF 8



RHODE ISLAND STATE PLANE
COORDINATE SYSTEM NAD83



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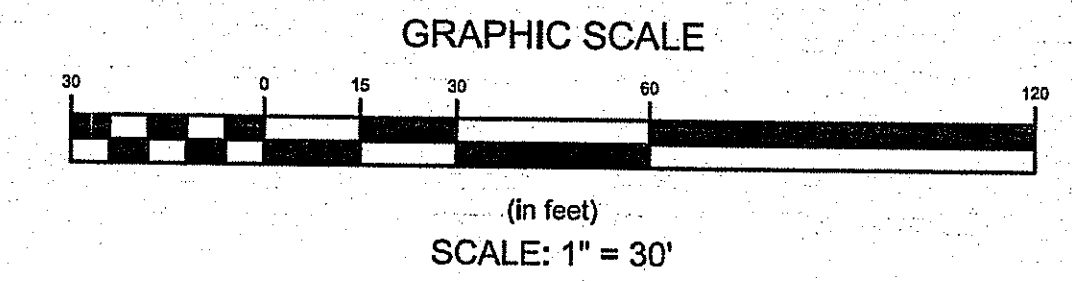


PLAT MAP 60 LOT 4
6.7± ACRES

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FRESHWATER WETLANDS PROGRAM
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LEGEND:

---	EDGE OF PAVEMENT
- - -	EDGE OF GRAVEL
▲	WETLAND FLAG
▲	WETLAND AREA
UP #69	UTILITY POLE
---	PROPERTY LINE
---	LIMIT OF DISTURBANCE
S.F. - S.F.	PROPOSED SILT FENCE
x102.6	EXISTING SPOT SHOT
-01-	EXISTING CONTOUR
+89.34	PROPOSED SPOT SHOT
-100-	PROPOSED CONTOUR
---	PROPOSED GUARDRAIL
---	WETLAND PERIMETER
---	EXISTING TREELINE
---	PROPOSED STRAWBALES



No.	Description	Date
1	REVIEW REVISIONS	9/15

REVISIONS:

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT

NORTHEAST ENGINEERS & CONSULTANTS, INC.
A KNOWLEDGE CORPORATION
25 JOHN CLARE ROAD, SUITE 100, 02882
PHONE (401) 846-0210 FAX (401) 846-4165
WWW.NORTHEASTENGINEERS.COM

WORDEN POND
FRESHWATER ACCESS SITE
SOUTH KINGSTOWN, RI

Design by: JMG
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Checked by:
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JASON M. GOLD
No. 101510
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SOIL EROSION AND SEDIMENT
CONTROL PLAN

C5
SHEET 6 OF 8

GENERAL NOTES:

- THE SITE IS ZONED R80
- A SMALL PORTION LOCATED IN THE NORTHEAST CORNER OF THE PROPOSED LOT IS LOCATED WITHIN THE GROUNDWATER PROTECTION OVERLAY DISTRICT.
- A PORTION OF THE SITE IS LOCATED WITHIN FLOOD ZONE A (NO BASE FLOOD ELEVATIONS DETERMINED) AS SHOWN ON FLOOD INSURANCE RATE MAP PANEL 187 OF 368, MAP NUMBER 4000G0167H, DATED OCTOBER 19, 2010.
- THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, MATERIAL, SPECIFICATIONS AND BENCHMARK AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSPECTIONS, BONDS, ETC. AND OTHER APPROVAL RELATED ITEMS WITH THE TOWN OF SOUTH KINGSTOWN. NO CONSTRUCTION IS TO COMMENCE UNTIL SUCH PERMITS HAVE BEEN SECURED.
- METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE TOWN OF SOUTH KINGSTOWN AND THE RI DEPARTMENT OF TRANSPORTATION, STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2010 AND ALL CURRENT APPENDIX, AND THE RHODE ISLAND STANDARD DETAILS ARE MADE A PART HEREOF, AS IF ATTACHED HERETO.
- DEVIATIONS OR CHANGES FROM THESE PLANS WILL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER AND OWNER.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO BE MADE TO PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. THE CONTRACTOR IS REQUIRED TO VERIFY THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER UTILITIES NOT ON RECORD OR SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REPAIR AND REINSTATEMENT OF UTILITY SERVICES DAMAGED DURING CONSTRUCTION.
- RELOCATION OF ANY UTILITIES SHALL BE AT THE OWNERS EXPENSE AND BE COMPLETED WITH THE UTILITY WORK. THE OWNER SHALL BE NOTIFIED AS TO THE RELOCATION REQUIRED PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK OF THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING PLANS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. CONTACT DIG SAFE PRIOR TO CONSTRUCTION AT 1-888-DIG-SAFE (1-888-344-7233) AND/OR ALL LOCAL UTILITY COMPANIES.

SOIL EROSION & SEDIMENT CONTROL NOTES

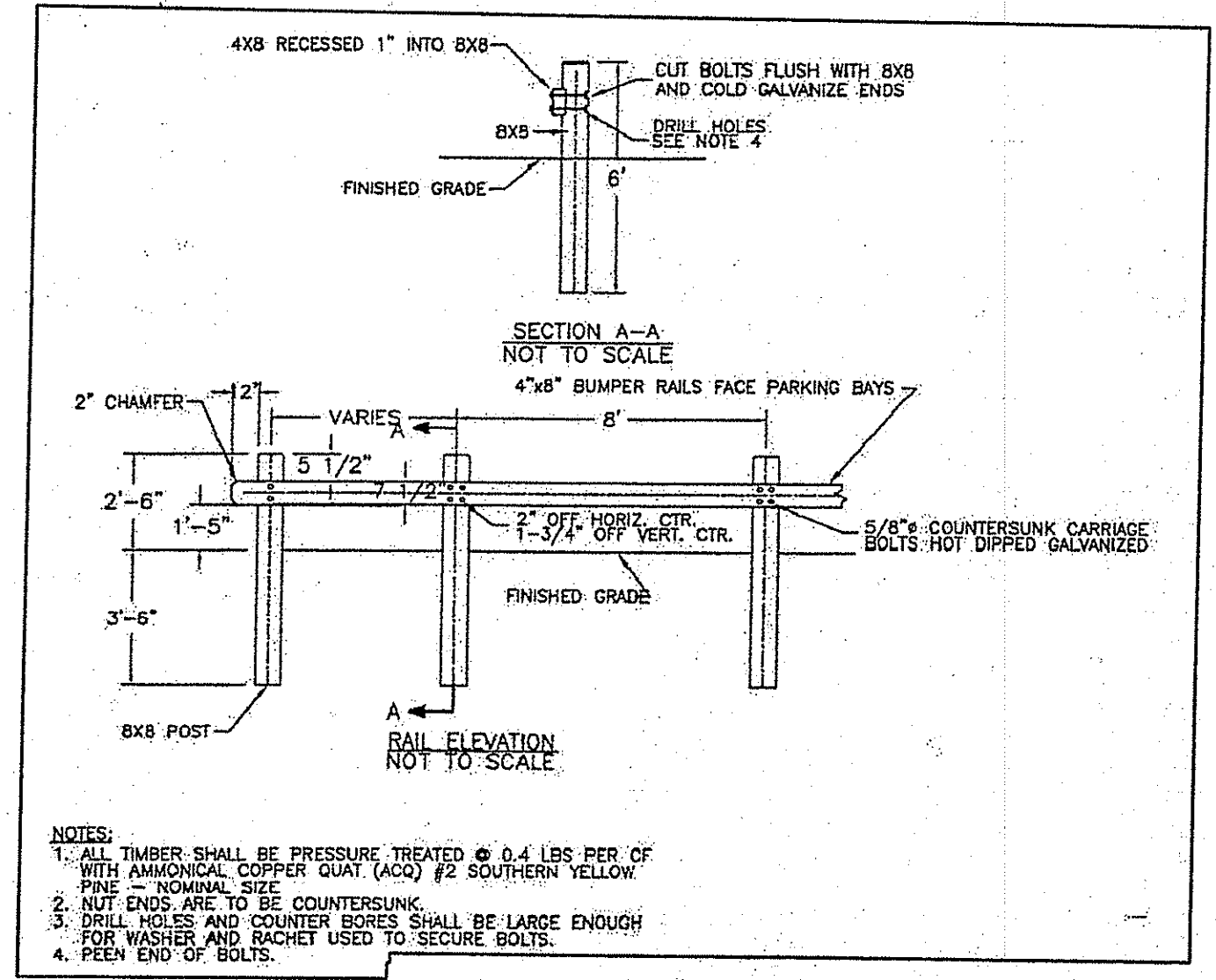
- CONSTRUCTION SEQUENCE:
THE FOLLOWING GENERAL CONSTRUCTION SEQUENCE IS RECOMMENDED
- DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- ESTABLISH PROJECT LIMITS.
- INSTALL STONE CONSTRUCTION ENTRANCE AT UTILIZED PROJECT ENTRANCE.
- COMMENCE REMOVAL OF TREES AS NECESSARY.
- INSTALL SILT FENCE AS DELINEATED ON PLAN.
- COMMENCE ROUGH GRADING AND PREPARE CONSTRUCTION STAGING AREA.
- BEGIN INSTALLATION OF REQUIRED DRAINAGE IMPROVEMENTS.
- CONSTRUCT LANDSCAPE AREAS AND MAINTAIN THE SITE IN ACCORDANCE WITH THE MAINTENANCE NOTES.
- GENERAL NOTES:
 - DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT, WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME.
 - ANY ROUGH GRADED AREAS DURING CONSTRUCTION SHALL BE STABILIZED WITHIN FOURTEEN DAYS IN ACCORDANCE WITH TEMPORARY MEASURES IN THE VEGETATIVE PRACTICE NOTES.
 - AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOP SOIL TO REMOVE VEGETATION, ROOTS, AND ANY OTHER OBJECTIONABLE MATERIAL.
 - ALL FILL SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT SUBSIDENCE, OR OTHER RELATED PROBLEMS.
 - FILL SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES AND SPECIFICATIONS.
 - ANY FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 12" IN THICKNESS.
 - FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
 - FROZEN, SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIAL SHALL NOT BE INCORPORATED INTO FILLS.
 - FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION SUBGRADE.
 - SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF FINISH GRADING IN ACCORDANCE WITH THE VEGETATIVE PRACTICE NOTES.
 - REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.
 - STRAW BALES ARE TO BE PLACED AT CONSTRUCTION ENTRANCE DURING NON-WORKING HOURS.
 - WATER DOUSING TO AREAS OF EXPOSED SOIL DURING PERIODS OF DRY WEATHER SHALL BE USED TO MINIMIZE THE POTENTIAL FOR AIRBORNE DUST FROM CONSTRUCTION AREAS. A TACKIFIER SHALL BE USED IN PARTICULARLY DRY WEATHER IF DEEMED NECESSARY BY THE SITE ENGINEER OR THE TOWN ENGINEER.
- VEGETATIVE PRACTICE:
 - SLOPES SHALL NOT BE STEEPER THAN 1 VERTICAL TO 3 HORIZONTAL UNLESS OTHERWISE SPECIFIED.
 - A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED. THE LOAM SHALL BE GRADED TO A SMOOTH CONDITION AND STONES AND OTHER OBJECTS LARGER THAN 2 INCHES SHALL BE REMOVED.
 - LIMESTONE AND FERTILIZER SHALL BE APPLIED TO THE FOLLOWING RATE:
LIMESTONE: 9 TONS/ACRE
FERTILIZER: (10-10-10): 600 LBS/ACRE
 - TEMPORARY SEED SHALL BE APPLIED AT THE FOLLOWING RATE:
WINTER RYE: 100 LBS/ACRE
 - PERMANENT SEED MIXTURE SHALL BE APPLIED AT THE FOLLOWING RATE UNLESS OTHERWISE APPROVED BY THE TOWN BUILDING OFFICIAL.
RED FESCUE: 40 LBS/ACRE
KENTUCKY BLUEGRASS: 40 LBS/ACRE
PERENNIAL RYEGRASS: 20 LBS/ACRE
 - STRAW MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TONS/ACRE.

SITE MAINTENANCE

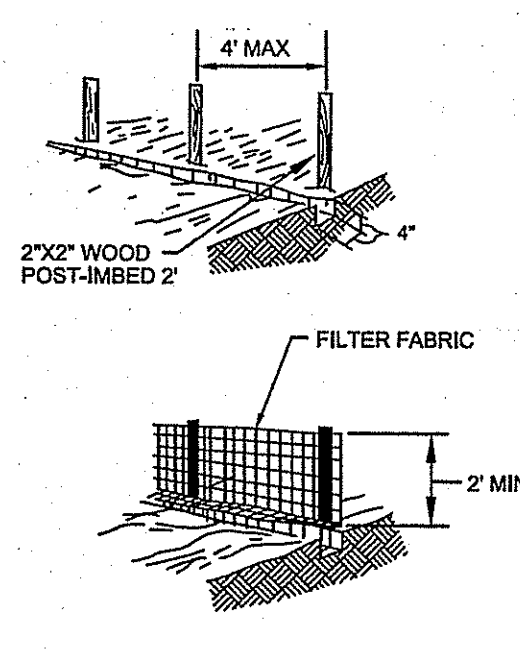
- DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED, THE EROSION CONTROL MEASURES SHALL BE INSPECTED AS FOLLOWS:
- AT A MINIMUM THE SILT FENCING AND STRAW BALES SHALL BE INSPECTED AND REPAIRED ONCE A WEEK AND / OR IMMEDIATELY FOLLOWING A SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT TRAPPED BEHIND THE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND RE-GRADED ON THE SITE.
 - STONE APRONS SHALL BE INSPECTED MONTHLY FOR EXCESSIVE ACCUMULATION OF SEDIMENT. IT MAY BE NECESSARY TO REMOVE STONES, EXCAVATE SEDIMENT, AND REPLACE STONES.

STORM WATER SYSTEM MAINTENANCE SCHEDULE

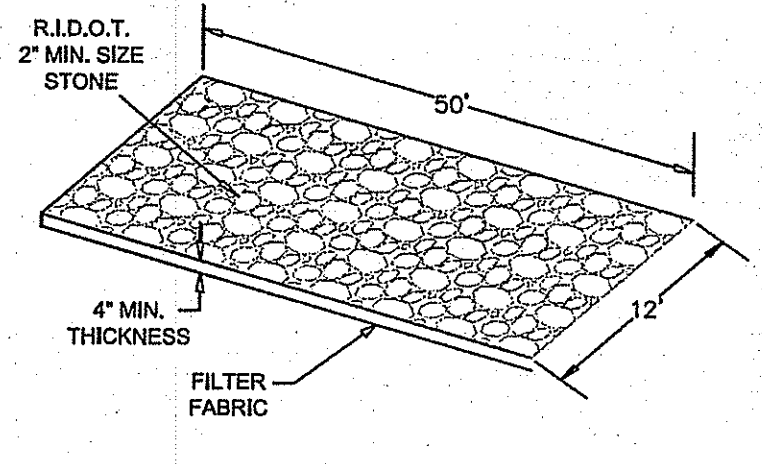
- STORMWATER BASIN:
 - GRASSES AND/OR SPECIFIED VEGETATION SHALL BE PLANTED AROUND AND WITHIN THE BASIN IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE SLOPES AND PREVENT EROSION.
 - OUTFLOW PIPES ARE TO BE INSPECTED AT LEAST THREE TIMES IN THE FIRST SIX MONTHS OF OPERATION. EVIDENCE OF CLOGGING, OR RAPID RELEASE OF FLOW SHALL BE REPORTED TO THE PROJECT ENGINEER, AND REMEDIATED IMMEDIATELY.
 - THE SIDE SLOPES, EMBANKMENTS, AND BASIN AREA SHALL BE MOWED AT LEAST THREE TIMES PER GROWING SEASON TO PREVENT UNWANTED GROWTH, AND TO MAINTAIN THE INTEGRITY OF THE STRUCTURES.
 - THE BASIN SHALL BE INSPECTED AT LEAST TWICE A YEAR FOR EVIDENCE OF EROSION. AREAS WHERE EROSION PROBLEMS ARE OBSERVED SHALL BE RE-SEEDING AND, IF DEEMED NECESSARY BY THE DESIGN ENGINEER, AN EROSION CONTROL BLANKET SHALL BE INSTALLED TO PREVENT FURTHER DAMAGE.
 - TRASH, LITTER AND DEBRIS SHALL BE REMOVED FROM ALL SURFACE STORM WATER FACILITIES AT LEAST FOUR TIMES A YEAR TO PREVENT BLOCKAGE OF OUTLET STRUCTURES. IN LOCATIONS WHERE SIGNIFICANT VOLUMES OF DEBRIS ARE OBSERVED, THE ADJACENT STRUCTURES SHALL BE CAREFULLY INSPECTED TO IDENTIFY IF ANY DAMAGE HAS OCCURRED.
 - BASIN SHOULD BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE BASIN SHOULD BE INSPECTED AT LEAST ANNUALLY AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT (2.8 INCHES).
 - SILT/SEDIMENT SHOULD BE REMOVED FROM THE BASIN WHEN THE ACCUMULATION EXCEEDS ONE INCH. IF STANDING WATER IS OBSERVED MORE THAN 48 HOURS AFTER A STORM EVENT, THE TOP 6 INCHES OF SAND SHOULD BE REMOVED AND REPLACED. IF DISCOLORED OR CONTAMINATED MATERIAL IS FOUND BELOW THIS REMOVED SURFACE THEN THAT MATERIAL SHOULD ALSO BE REMOVED AND REPLACED UNTIL ALL CONTAMINATED SAND HAS BEEN REMOVED FROM THE FILTER CHAMBER. THE SAND SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- SAND FILTER AND SEDIMENT FOREBAY MAINTENANCE:
 - GRASSES AND/OR SPECIFIED VEGETATION SHALL BE PLANTED AROUND AND WITHIN THE SAND FILTERS IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE SLOPES AND PREVENT EROSION.
 - THE FILTER AND FOREBAY SHOULD BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THEY SHOULD BE INSPECTED AT LEAST ANNUALLY AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT (2.8 INCHES). SEDIMENTS COLLECTED WITHIN THE TOP STRATA OF THE SAND FILTER SHALL BE REMOVED ON AN ANNUAL BASIS AND STOCKPILED ON SITE. SEDIMENTS SHALL BE DISPOSED OF ONCE 25% OF THE VOLUME OF THE FOREBAY HAS ACCUMULATED. THESE SEDIMENTS SHALL BE USED FOR GRADING ERODED AREAS ON SITE, OR SHALL BE DISPOSED OF AT A LICENSED OFF-SITE FACILITY AS APPROPRIATE.
 - THE FOLLOWING SHALL ALSO BE COMPLETED ON AN ANNUAL BASIS:
 - THE SLOPES SHOULD BE INSPECTED FOR EROSION AND GULLYING.
 - REINFORCE EXISTING RIPRAP IF IT IS FOUND TO BE DEFICIENT. EROSION IS PRESENT AT THE OVERFLOW SPILLWAYS, OR THE EXISTING RIPRAP HAS BEEN COMPROMISED.
 - ANY AREAS WITHIN THE EXTENT OF THE FILTER AND/OR FOREBAY THAT ARE SUBJECT TO EROSION OR GULLYING SHOULD BE REPLENISHED WITH THE ORIGINAL DESIGN MATERIAL AND RE-VEGETATED ACCORDING TO DESIGN DRAWINGS. SOPE PROTECTION MATERIAL SHOULD BE PLACED IN AREAS PRONE TO EROSION. EMBANKMENT STABILITY SHOULD BE INSPECTED FOR SEEPAGE AND BURROWING ANIMALS.
 - MOW THE GRASS AROUND THE PERIMETER OF AND WITHIN THE FILTER AND FOREBAY, SEED BARE AREAS, AND REMOVE LITTER AND DEBRIS AT LEAST THREE TIMES PER GROWING SEASON TO MAINTAIN MAXIMUM GRASS HEIGHTS LESS THAN TWELVE INCHES. REMOVE ANY INVASIVE VEGETATION WITHIN THE EXTENTS OF THE FILTER AND FOREBAY. ANY INVASIVE VEGETATION ENCRUCHING UPON THE PERIMETER SHOULD BE PRUNED OR REMOVED IF IT IS PROHIBITING ACCESS TO THE FACILITIES, COMPROMISING SIGHT VISIBILITY, AND/OR COMPROMISING THE ORIGINAL DESIGN INTENT. IF DEAD OR DYING GRASS ON THE BOTTOM IS OBSERVED, CHECK TO ENSURE THAT WATER INFILTRATES WITHIN TWO DAYS FOLLOWING STORMS.
 - SILT/SEDIMENT SHOULD BE REMOVED FROM THE FILTER BED WHEN THE ACCUMULATION EXCEEDS ONE INCH. IF STANDING WATER IS OBSERVED MORE THAN 48 HOURS AFTER A STORM EVENT, THEN THE TOP 6 INCHES OF SAND SHOULD BE REMOVED AND REPLACED. IF DISCOLORED OR CONTAMINATED MATERIAL IS FOUND BELOW THIS REMOVED SURFACE THEN THAT MATERIAL SHOULD ALSO BE REMOVED AND REPLACED UNTIL ALL CONTAMINATED SAND HAS BEEN REMOVED FROM THE FILTER CHAMBER. THE SAND SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.



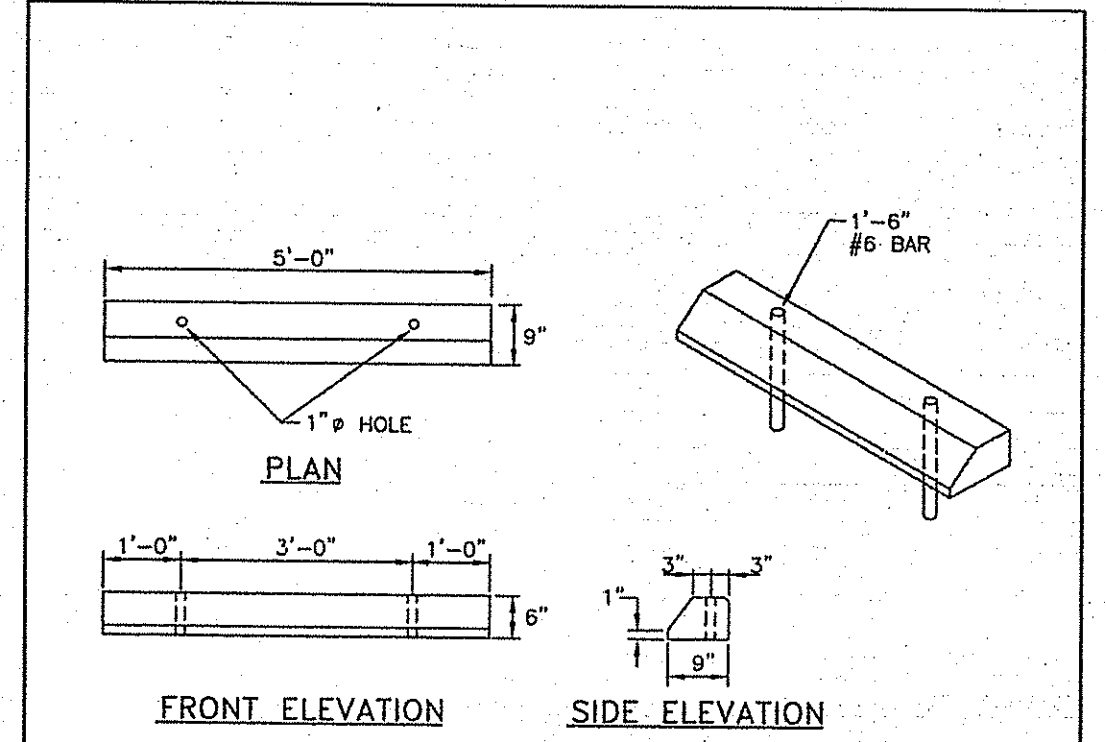
GUARD RAIL DETAIL
NOT TO SCALE



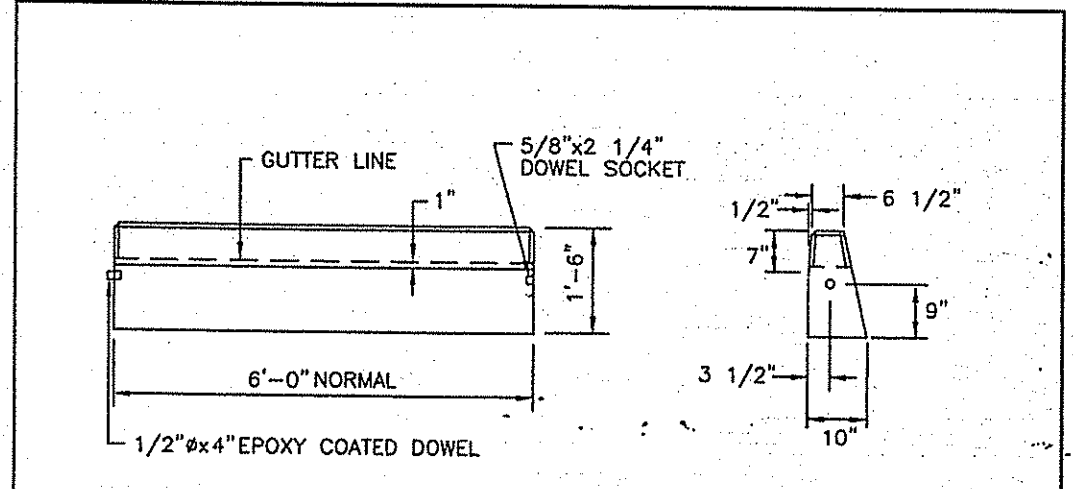
SILT FENCE
NOT TO SCALE



WHEEL CLEANING BLANKET
NOT TO SCALE



CONCRETE CAR STOP DETAIL
NOT TO SCALE



CIRCULAR CURB

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR CURB PIECES TO BE 3'-0".
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - 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.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

PRECAST CONCRETE CURB (RIDOT 7.1.0)
NOT TO SCALE

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED **NOV 17 2015** FILE # **15-0011**
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Jason M. Gold

No.	Description	Date
1	STORMWATER MAINTENANCE	3/15
REVISIONS:		

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT

NORtheast ENGINEERS & CONSULTANTS, INC.
SITE/PLN
LAND PLANNING
WATER/STORM
SURVEYING
GEOGRAPHICAL
ENVIRONMENTAL
TRANSPORTATION
STRUCTURAL
MATERIALS TESTING

WORDENS POND
FRESHWATER ACCESS SITE
SOUTH KINGSTOWN, RI

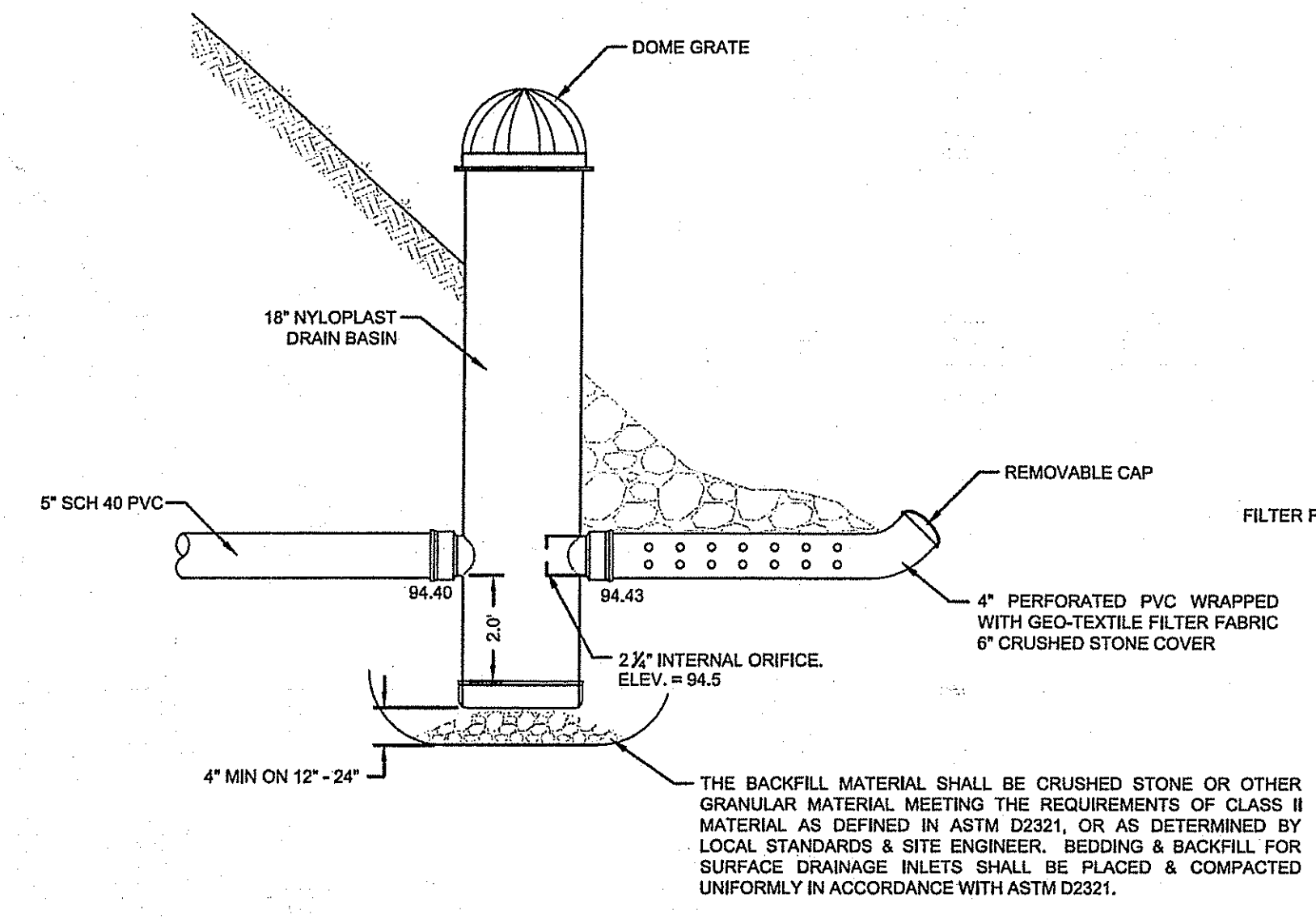
Design by: JMG
Drawn by: JJC
Checked by:
Date: MARCH 2015
Scale: AS SHOWN
Project No.: 12018.0

JASON M. GOLD
No. 7738
REGISTERED PROFESSIONAL ENGINEER
CIVIL

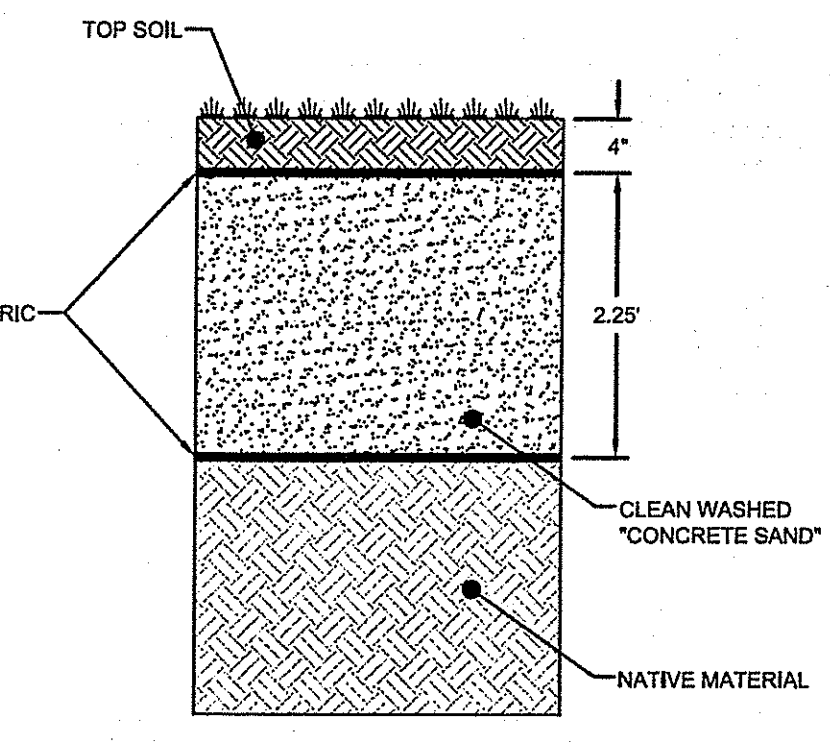
NOTES AND DETAILS

C6
SHEET 7 OF 8

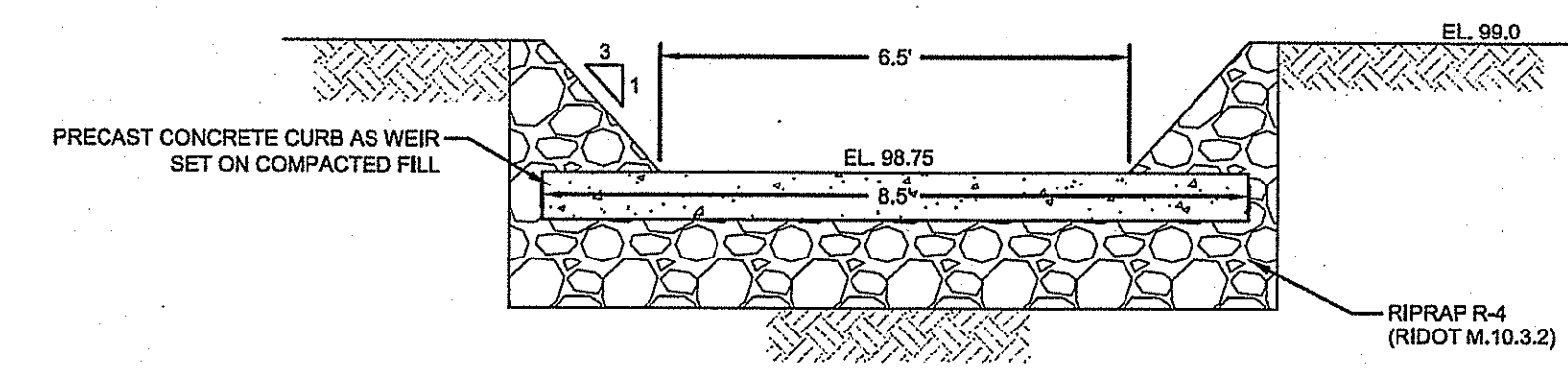
Kindly be advised that this Permit is not a substitute for a verification of the type or amount of freshwater wetlands on site.



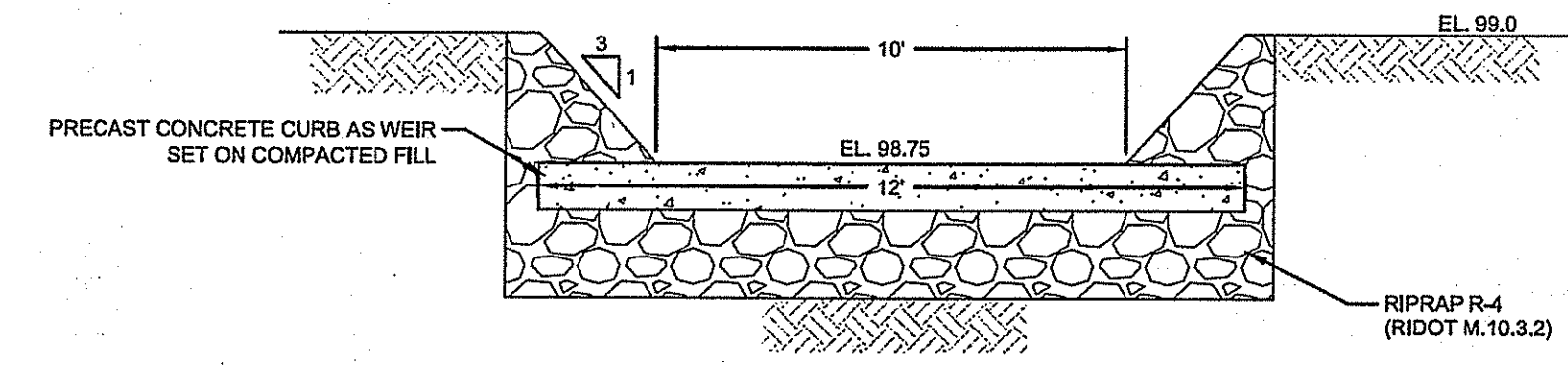
BMP 3 OUTLET STRUCTURE DETAIL
SCALE: NOT TO SCALE



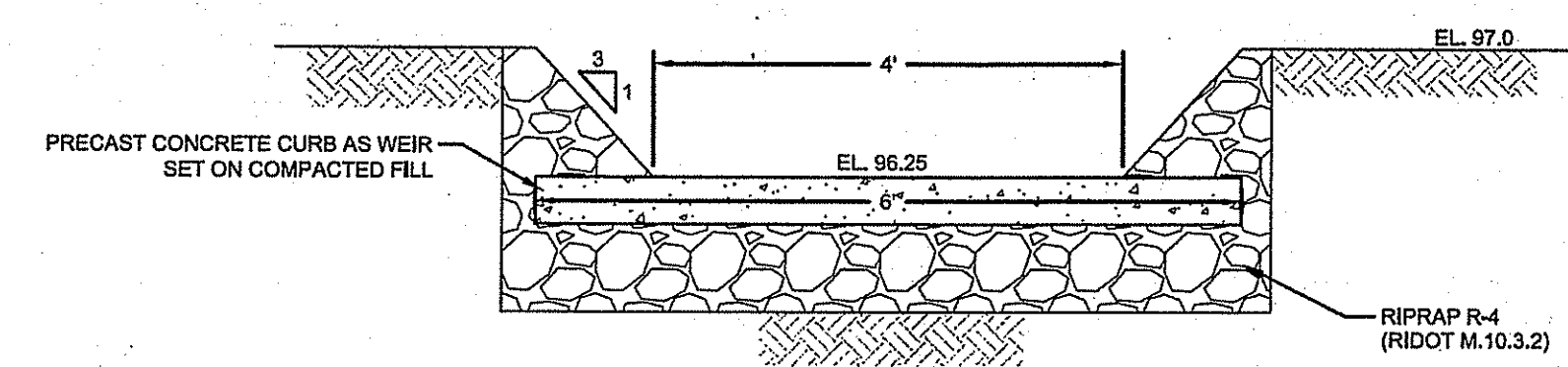
BMP 2 SAND FILTER DETAIL
SCALE: NOT TO SCALE



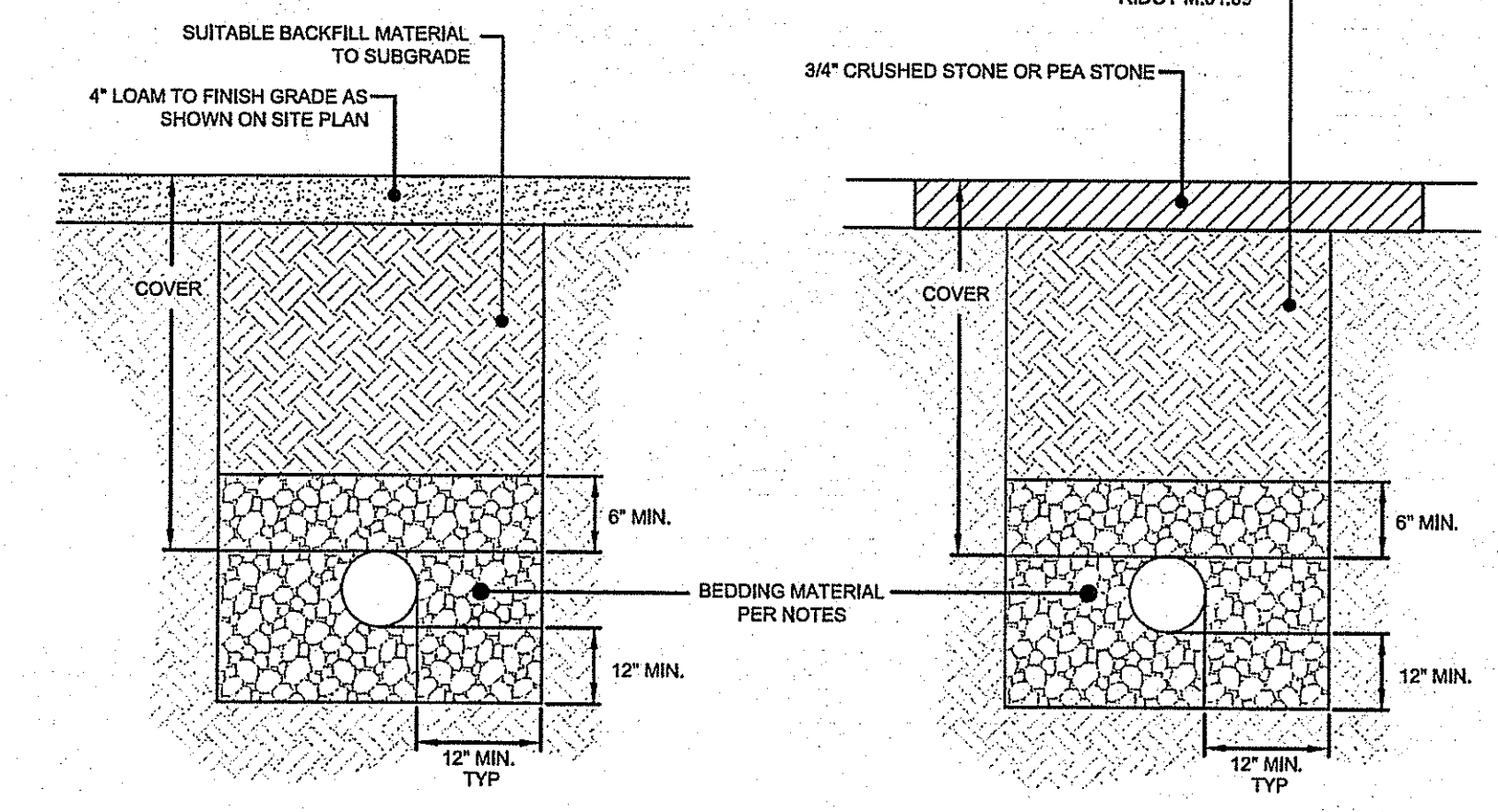
BMP 1 STONE OVERFLOW WEIR DETAIL
SCALE: NOT TO SCALE



BMP 2 STONE OVERFLOW WEIR DETAIL
SCALE: NOT TO SCALE

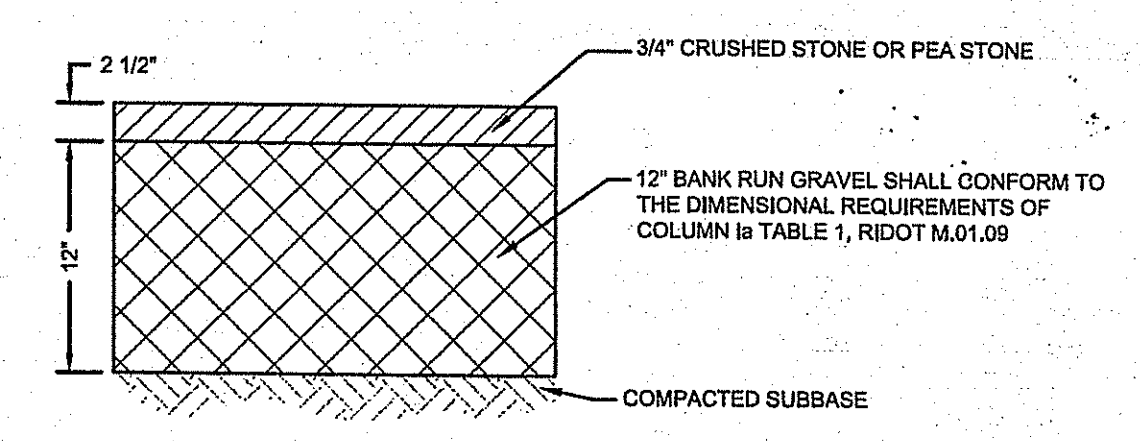


BMP 3 EMERGENCY OVERFLOW WEIR DETAIL
SCALE: NOT TO SCALE

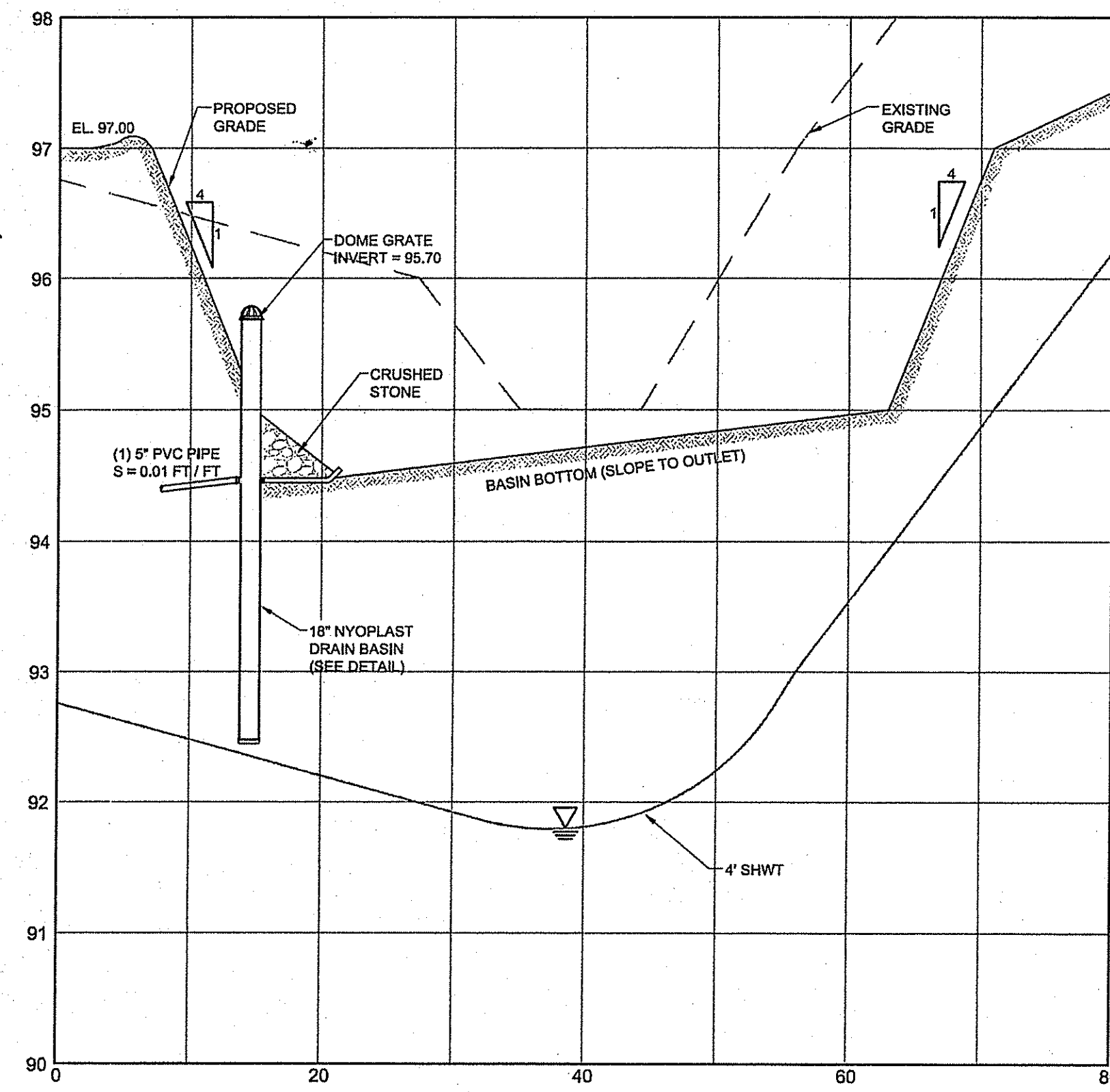


1. UNSUITABLE MATERIAL SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 12-INCHES BELOW THE DESIGN INVERT ELEVATION.
2. TRENCH PROTECTION SHALL BE REQUIRED IN ACCORDANCE WITH OSHA REGULATIONS, AND AS OTHERWISE REQUIRED TO PROTECT UTILITIES, ROADWAYS, AND ADJACENT STRUCTURES.
3. DRAIN PIPES SHALL BE LAID BEGINNING AT THE DOWNSTREAM END OF THE PIPE LINE.
4. ALL DRAIN PIPES SHALL BE SCH 40 PVC UNLESS OTHERWISE INDICATED.
5. BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN HEIGHT WHEN INSTALLED UNDER LANDSCAPED AREAS ONLY. INSTALLATIONS UNDER PAVEMENT REQUIRE BACKFILL MATERIAL TO BE PLACED IN LAYERS NOT TO EXCEED 6" IN HEIGHT. THESE LAYERS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (AASHTO T180). SUITABLE BACKFILL SHALL BE FREE OF LOAM, CLAY, ORGANIC MATTER AND PARTICLES LARGER THAN 2 INCHES IN DIAMETER.
6. DRAINAGE PIPE TRENCHES SHALL BE BEDDED WITH CRUSHED STONE OR SCREENED GRAVEL, THESE MATERIALS MUST CONFORM TO RIDOT STANDARD M.01.09 TYPE II MATERIAL.

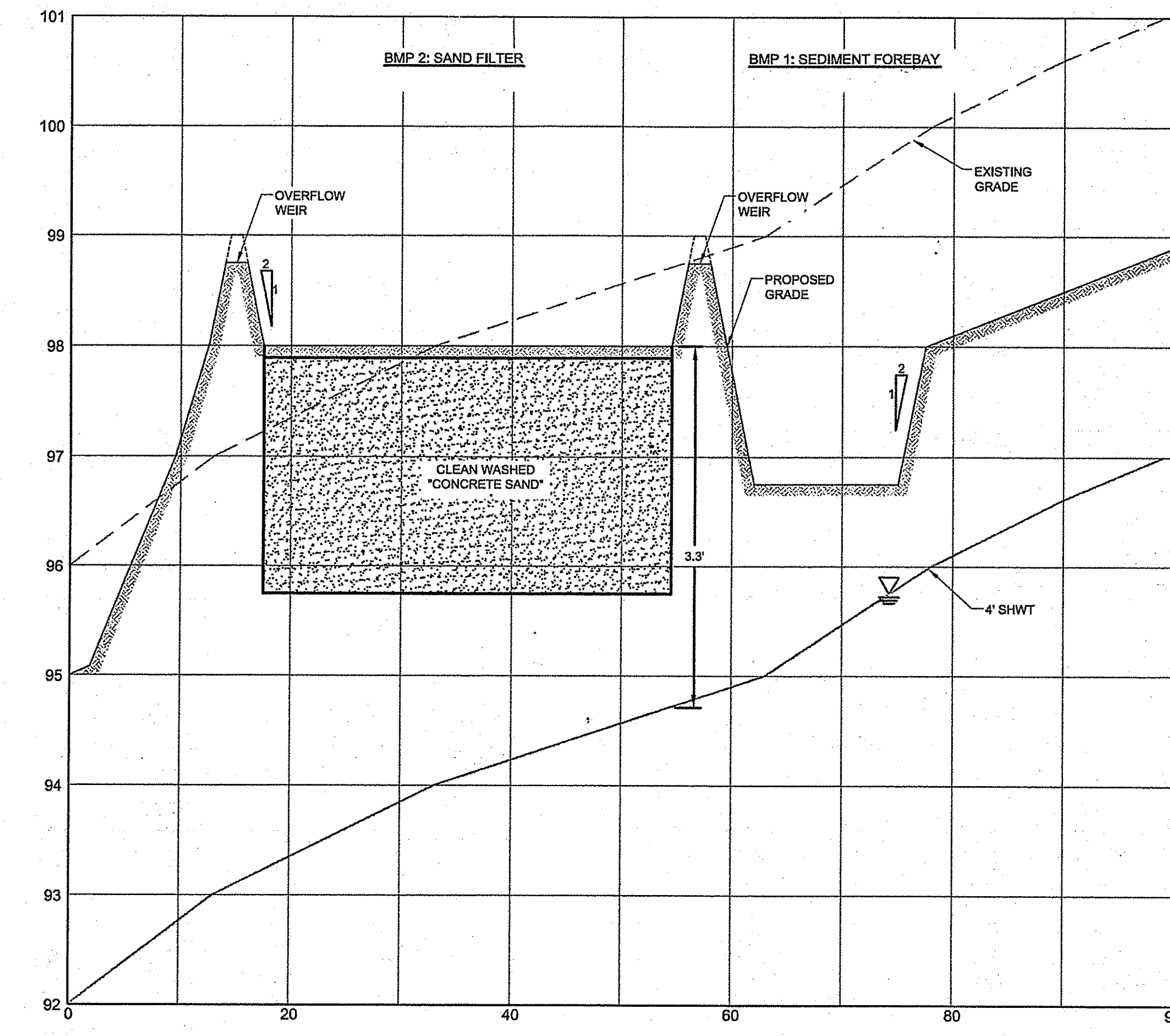
UTILITY TRENCH DETAIL
SCALE: NOT TO SCALE



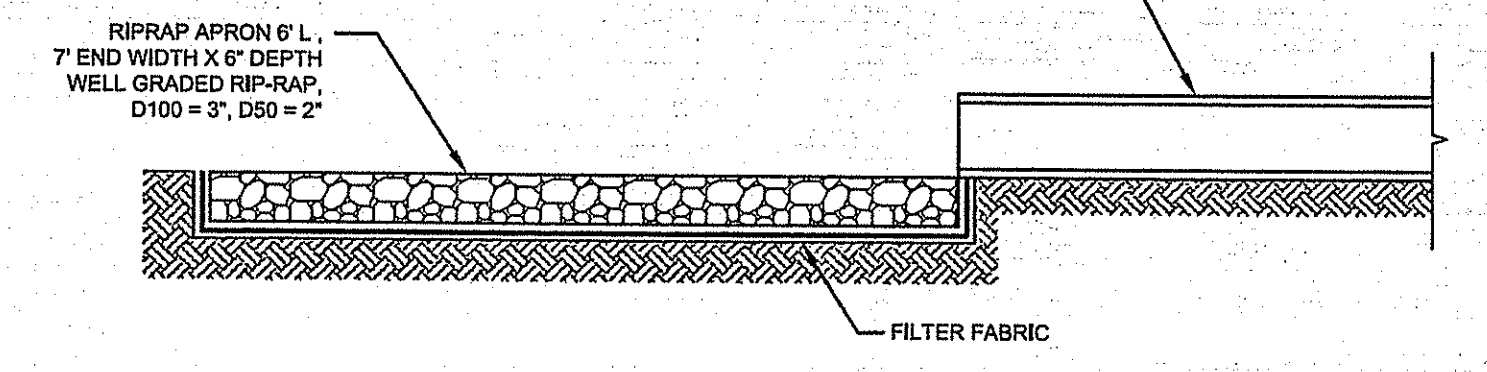
TYPICAL CRUSHED STONE PARKING LOT
SCALE: NOT TO SCALE



BMP 3: STORMWATER DEPRESSION SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'
SHWT PER SOIL EVALUATION CONDUCTED ON 8/19/15 BY KATHLEEN P. MANGAN.



SECTION (A-A) SAND FILTER & SEDIMENT FOREBAY
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'



RIP-RAP APRON
SCALE: NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

No.	Description	Date
2	REVIEW REVISIONS	9/15
1	REVISED DETAILS	3/15

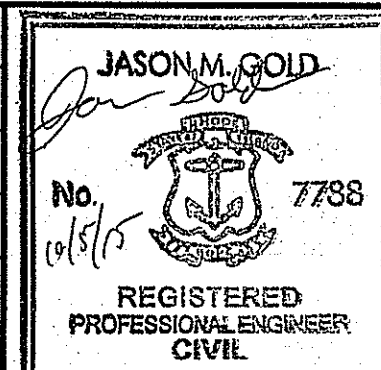


STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT



WORDENS POND
FRESHWATER ACCESS SITE
SOUTH KINGSTOWN, RI

Design by: DS
Drawn by: JJC
Checked by:
Date: MARCH 2015
Scale: AS SHOWN
Project No.: 12018.0



DRAINAGE DETAILS

C7
SHEET 8 OF 8