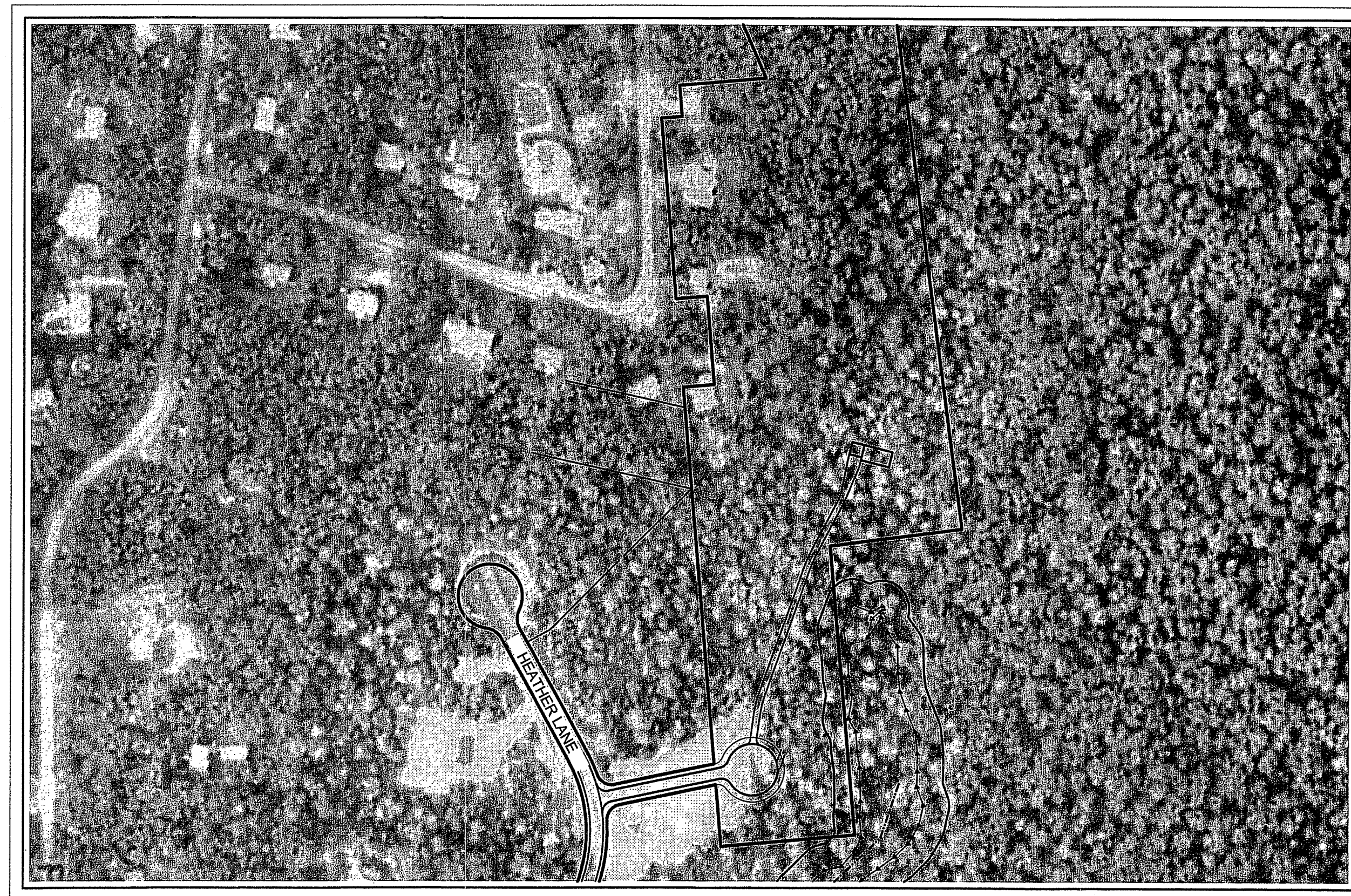


WETLANDS SUBMISSION

FOR:

MARANDOLA SUBDIVISION

A.P. 49, LOT 37
HEATHER LANE
SCITUATE, RHODE ISLAND



AERIAL IMAGE
SCALE: 1"=200'

PREPARED FOR:
EASTERN PROPERTIES

PREPARED BY:



250 Centerville Road, Building E-12 790 Aquidneck Avenue, Building B
Warwick, Rhode Island 02886 Middletown, Rhode Island 02842

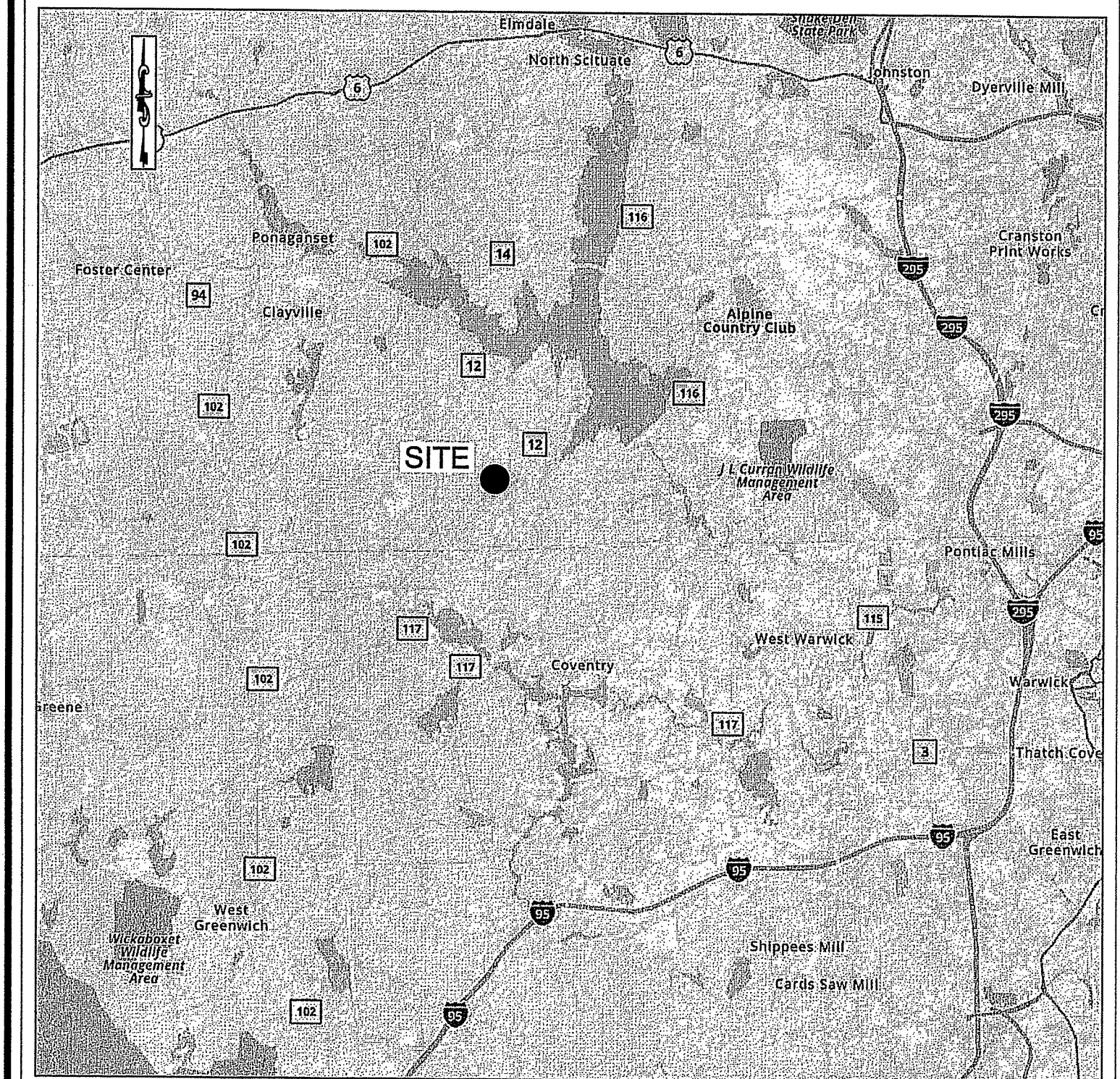
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p. (401) 921-3344 f. (401) 921-3303

MAY 2021

OWNER/APPLICANT:
EASTERN PROPERTIES INC.
C/O STEPHEN MARANDOLA
23 BETTY POND ROAD
HOPE, RI 02831
401-647-2927

ENGINEER:
MILLSTONE ENGINEERING, P.C.
250 CENTERVILLE ROAD, BLDG. E-12
WARWICK, RI 02866
(401) 921-3344



LOCUS
NOT TO SCALE

TABLE OF CONTENTS:

SHEET	DESCRIPTION	REVISED
1	COVER SHEET	8/5/2021
2	OVERALL SITE PLAN	8/5/2021
3	GRADING & DRAINAGE PLAN	8/5/2021
4	PLAN & PROFILE	8/5/2021
5	SOIL EROSION & SEDIMENT CONTROL PLAN	
6	NOTES AND DETAILS - 1	8/5/2021
7	NOTES AND DETAILS - 2	8/5/2021

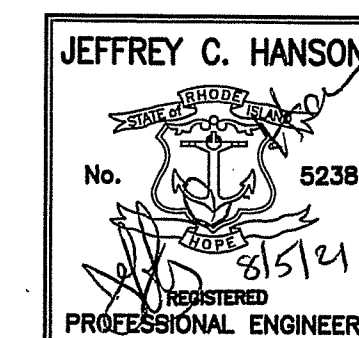
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 19 2021 FILE # 21-0151
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

REFERENCES:
1. AERIAL PHOTOGRAPH TAKEN FROM GOOGLE EARTH.
2. LOCUS MAP USGS.

NO.	DATE	REVISION
1	8/5/21	RIDEM COMMENTS

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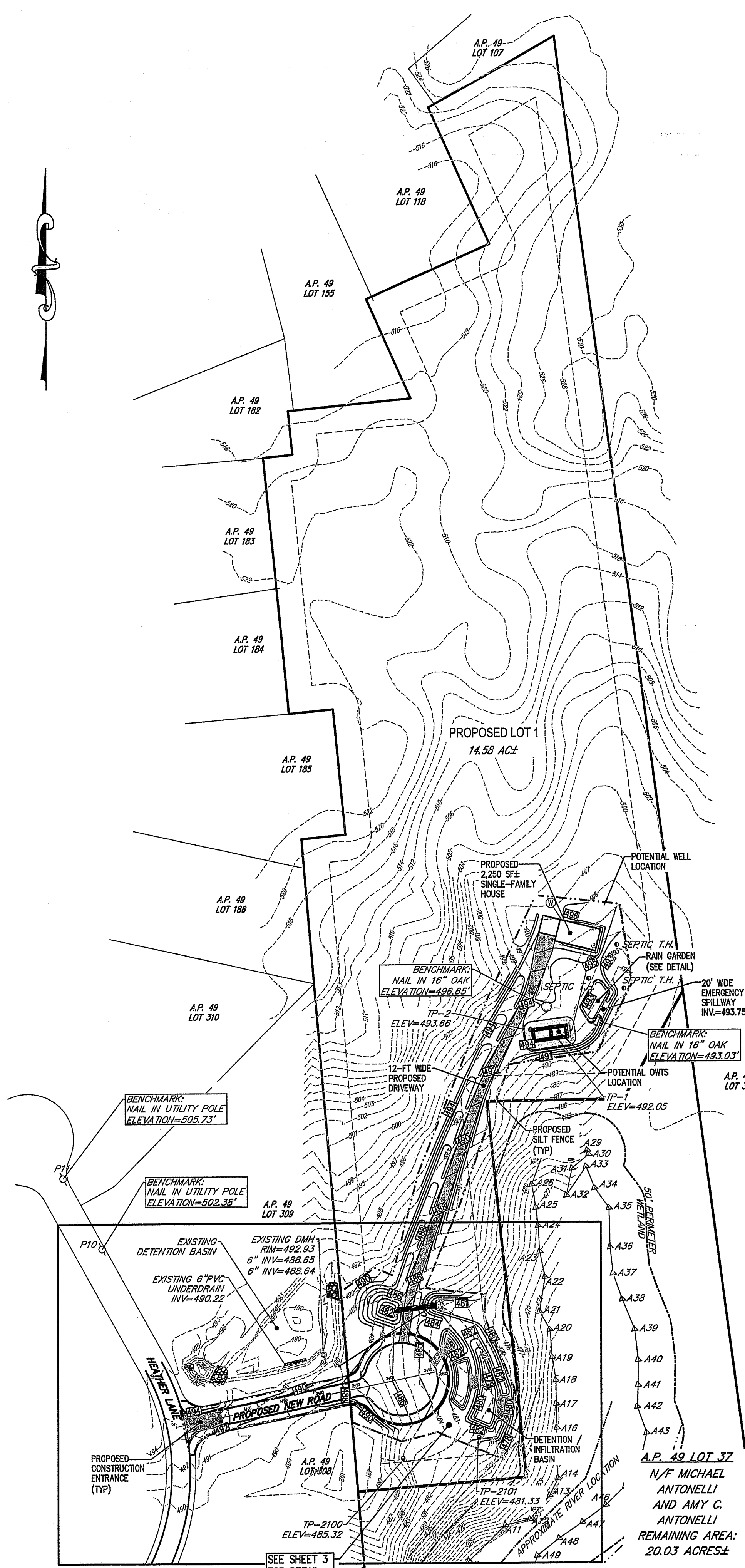
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Environmentally Drawn By: JSC
AUG 19 2021
Checked By: BJC
Office of Water Resources
Sheets

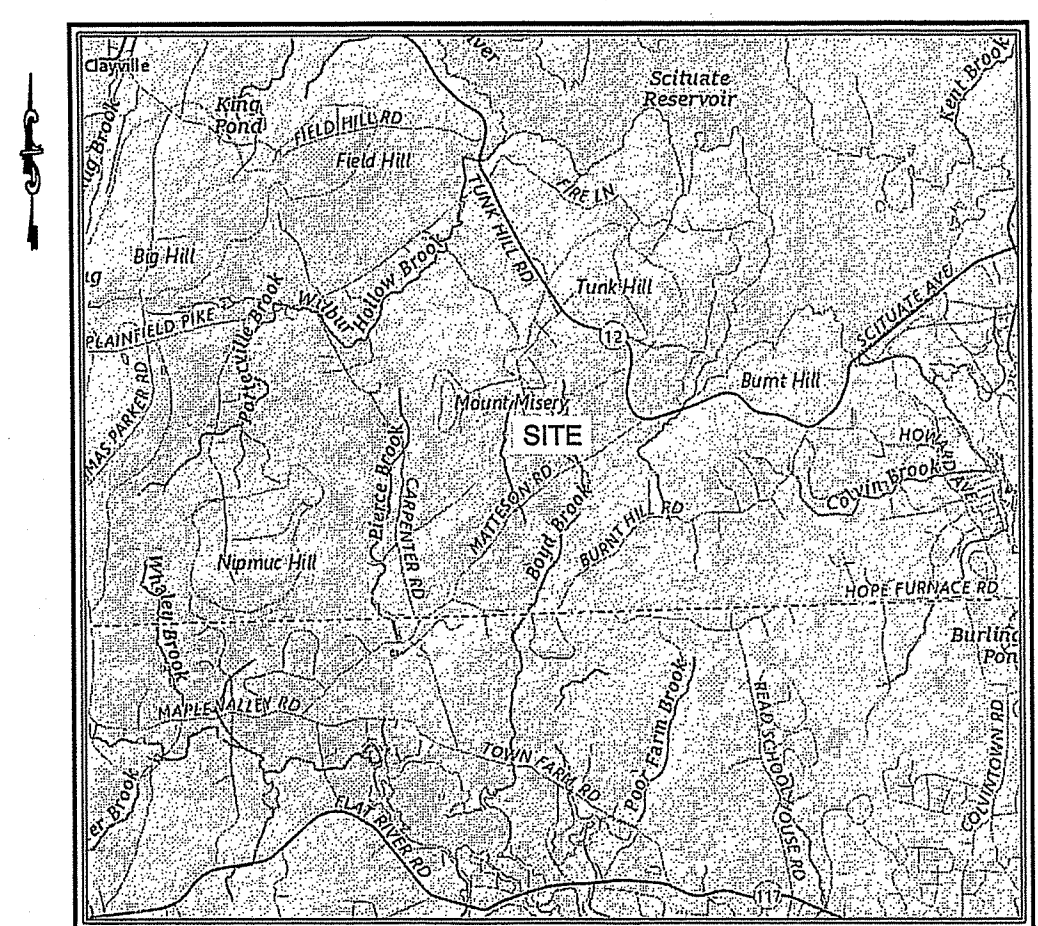
1
of 7

FILE NO.: 21.413.616



LEGEND:

—	PROPOSED LOT LINE
—	ABUTTING PROPERTY LINE
- - - -	BUILDING SETBACK LINE
- - - -	EXISTING CONTOUR
△ A.32	EXISTING WETLAND
—	EXISTING EDGE OF PAVEMENT
—	PROPOSED CONTOUR
—	PROPOSED EDGE OF PAVEMENT
○	TEST HOLE LOCATION
⊙	POTENTIAL WELL LOCATION
—	PROPOSED LIMIT OF DISTURBANCE
—	PROPOSED SILT FENCE



LOCATION MAP
NOT TO SCALE

FLOOD NOTE:

THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN BASED UPON INFORMATION PROVIDED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP (FIRM) FOR PROVIDENCE COUNTY, PANEL NUMBERS 4407C0385G AND 4407C0401G, MAP REVISED MARCH 2, 2009.

NOTES:

- PROPERTY LINE AND TOPOGRAPHIC INFORMATION OBTAINED FROM PLANS BY SCITUATE SURVEY, INC.
- SEE SITE DETAIL ON SHEET 7 FOR CONCEPTUAL SUBDIVISION.
- WETLAND EDGE FLAGGED BY NATURAL RESOURCE SERVICES, INC., SEPTEMBER 2005, PER REFERENCE 1.
- EXISTING LOT LIES WITHIN THE SCITUATE RESERVOIR AND FLAT RIVER RESERVOIR WATERSHEDS.
- THE SITE IS TO BE SERVED BY A WELL AND ISDS.
- THERE ARE NO KNOWN HISTORICAL CEMETERIES ON THE SITE.

REFERENCES:

- PLAN ENTITLED, "PRELIMINARY PLAN HEATHER LANE ESTATES POST DEVELOPMENT WATERSHED MAP", DATED JUNE 10, 2013, PREPARED BY SFM ENGINEERING ASSOCIATES.
- PLAN ENTITLED, "CONCEPTUAL PLAN SHOWING PROPOSED SUBDIVISION OF ASSESSOR'S PLAT 49 LOT 37 SCITUATE, R.I. DATED OCTOBER 5, 2020; SCALE 1"=120'; PREPARED BY SCITUATE SURVEYS, INC."

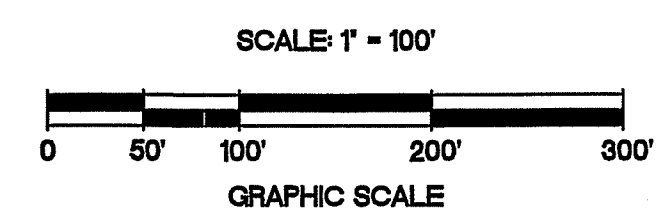
TEST HOLE DATA

TEST HOLE	ELEV.	SHOWT ELEV.	LEDGE ELEV.
1	492.05	289.05	285.38
2	493.66	445.66	485.66
2100	485.32	480.32	476.32
2101	491.33	476.33	472.33

DIMENSIONAL REQUIREMENTS:

ZONE: RURAL RESIDENTIAL (RS-120)

ITEM	REQUIRED
MINIMUM LOT AREA	120,000 sf
UPLAND AREA	
MINIMUM LOT WIDTH	300'
MINIMUM FRONT YARD DEPTH	50'
MINIMUM SIDE YARD DEPTH	35'
MINIMUM REAR YARD DEPTH	60'
MAXIMUM BUILDING COVERAGE	15%
MAXIMUM BUILDING HEIGHT	36'



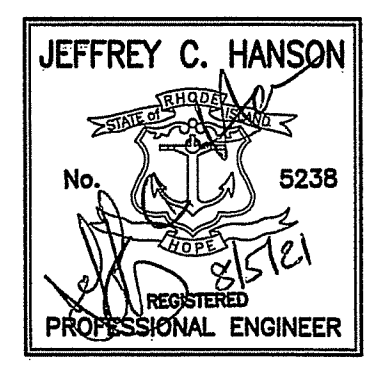
RI Environmental Management
AUG 10 2021
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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OWNER:
MICHAEL & AMY ANTONELLI
85 MATTESON ROAD
HOPE, RI 02831

APPLICANT:
EASTERN PROPERTIES INC.
C/O STEPHEN MARANDOLA
23 BETTY POND ROAD
HOPE, RI 02831
401-647-2927

NO.	DATE	REVISION
1	8/05/21	JSC RIDEM COMMENTS



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CIVIL ENGINEERING • LAND PLANNING
789 Aqueduct Avenue, Building B
Middletown, Rhode Island 02862
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OVERALL SITE PLAN

MARANDOLA SUBDIVISION

A.P. 49, LOT 37
HEATHER LANE /
MATTESON RD.
SCITUATE, RI

PREPARED FOR:
EASTERN PROPERTIES, INC.

SCALE: 1" = 100'
MAY 2021

Drawn By: JSC
Checked By: BJC

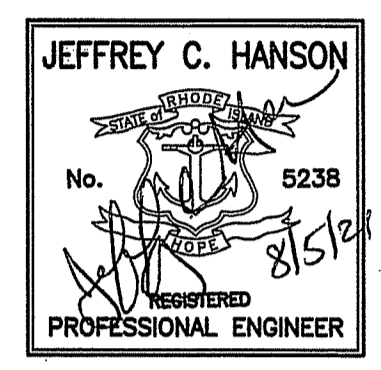
Sheet
2
of 7

FILE NO.: 21.413.616

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SEE SITE DETAIL, SHEET 7

NO.	DATE	REVISION
1	8/05/21	RIDEM COMMENTS



ILLSTONE ENGINEERING, P.C.
 CIVIL ENGINEERING • LAND PLANNING
 250 Centerville Road, Building E-12
 Warwick, Rhode Island 02886
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GRADING & DRAINAGE PLAN

MARANDOLA SUBDIVISION

A.P. 49, LOT 37
 HEATHER LANE /
 MATTESON RD.
 SCITUATE, RI

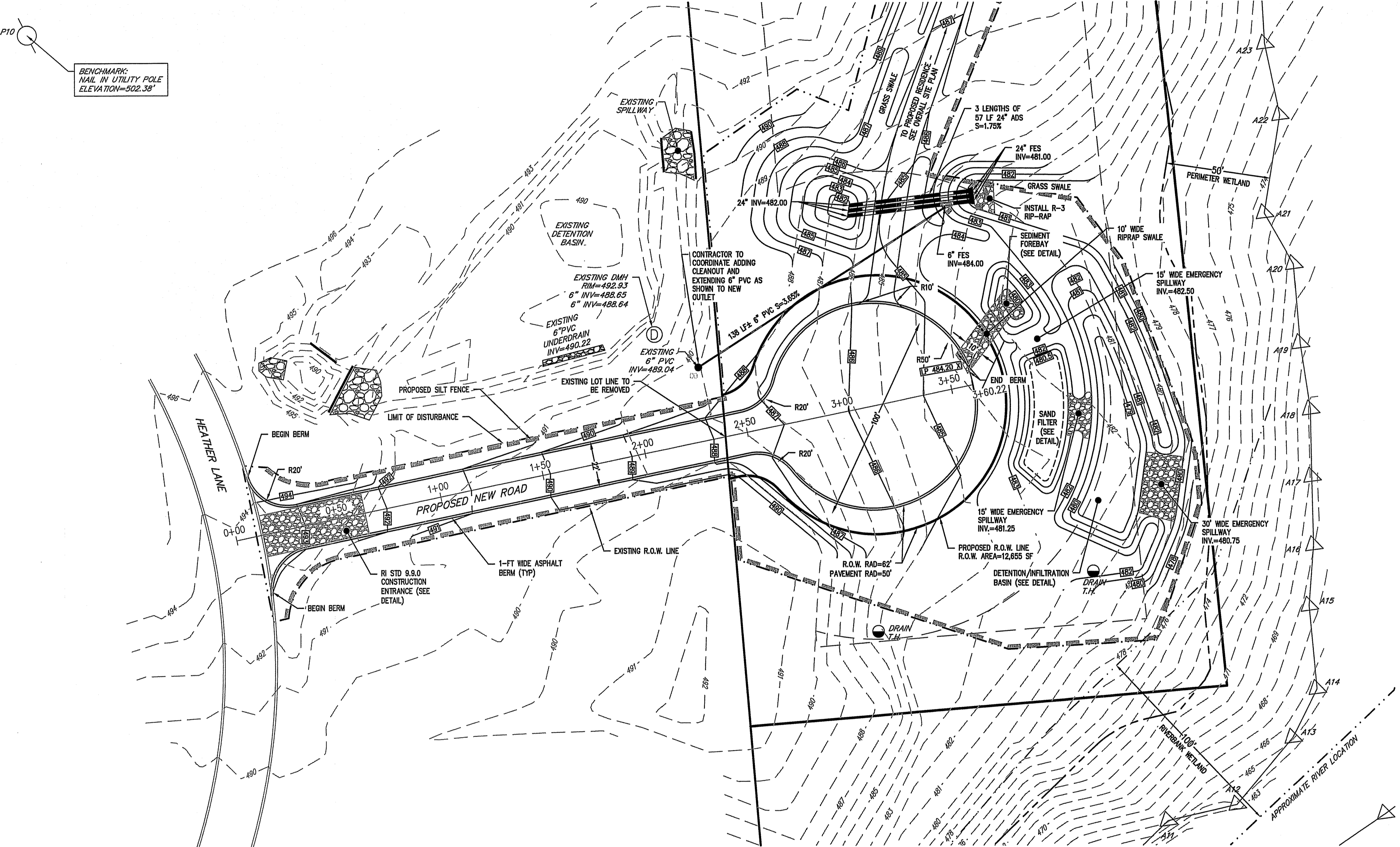
PREPARED FOR:
EASTERN PROPERTIES, INC.

SCALE: 1" = 30'
 MAY 2021

Drawn By: JSC
 Checked By: BJC

Sheet
3
 of 7

FILE NO.: 21.413.616



LEGEND:

	SUBJECT LOT LINE
	ABUTTING PROPERTY LINE
	EXISTING CONTOUR
	EXISTING WETLAND
	BUILDING SETBACK LINE
	EXISTING EDGE OF PAVEMENT
	SOIL BOUNDARY
	PROPOSED CONTOUR
	PROPOSED EDGE OF PAVEMENT
	PROPOSED DRAIN LINE
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED SILT FENCE
	CLEANOUT
	TEST HOLE
	ASPHALT BERM

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- NOTES:**
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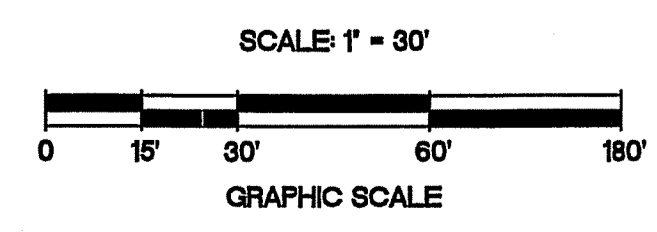
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- PLAN ENTITLED, "CONCEPTUAL PLAN SHOWING PROPOSED SUBDIVISION OF ASSessor'S PLAT 49 LOT 37 SCITUATE, RI, DATED OCTOBER 5, 2020, SCALE 1"=120', PREPARED BY SCITUATE SURVEY, INC.

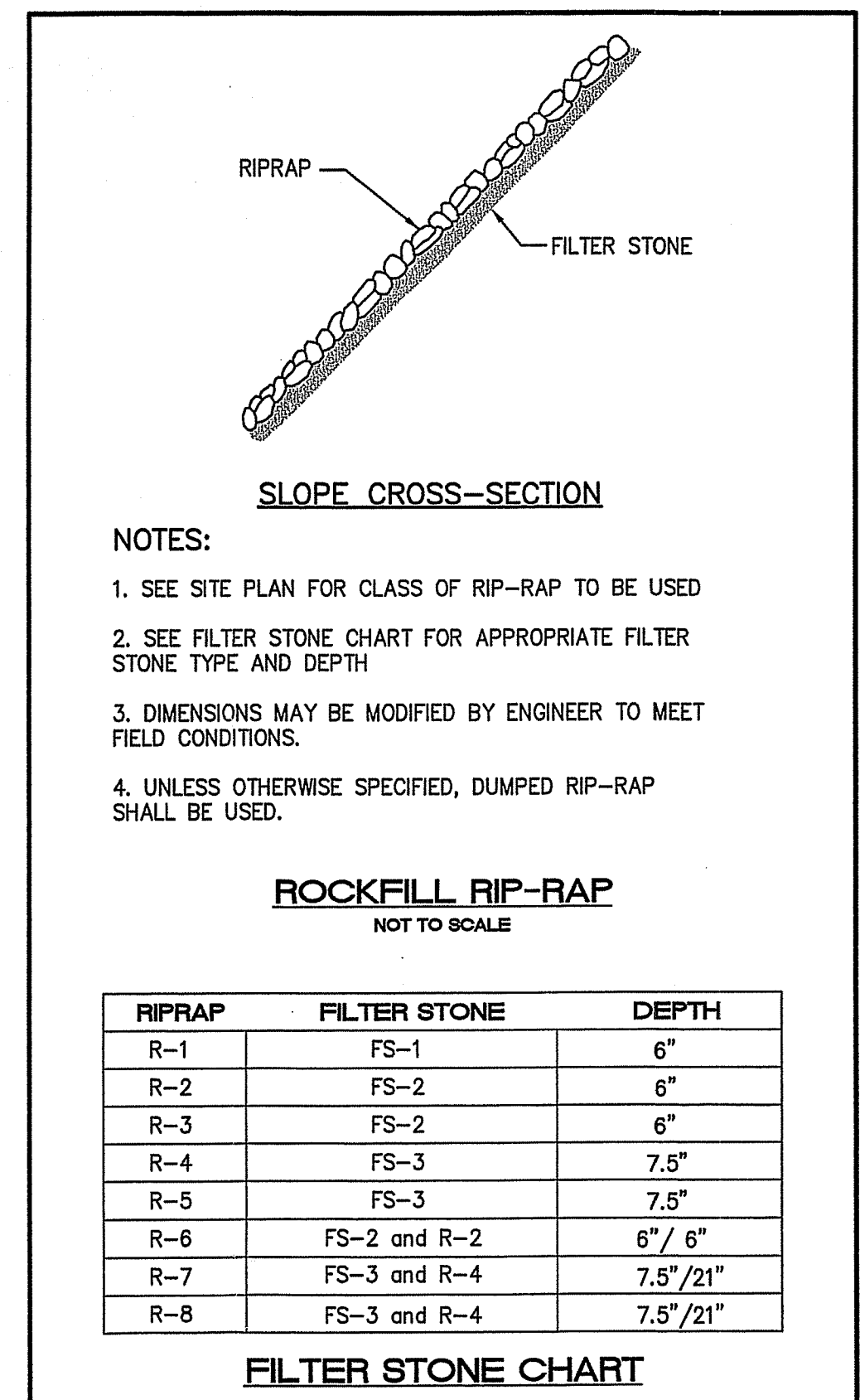
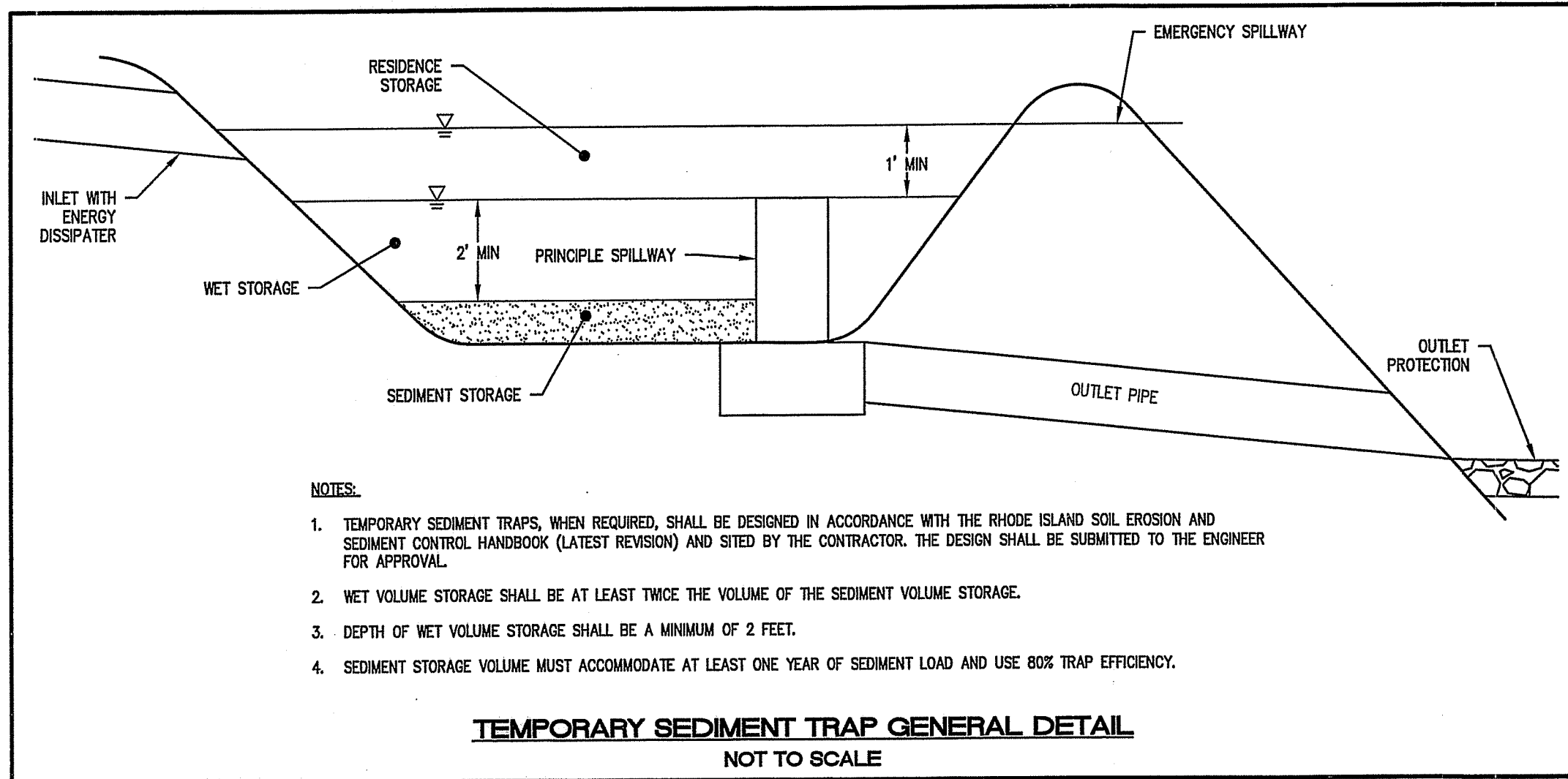
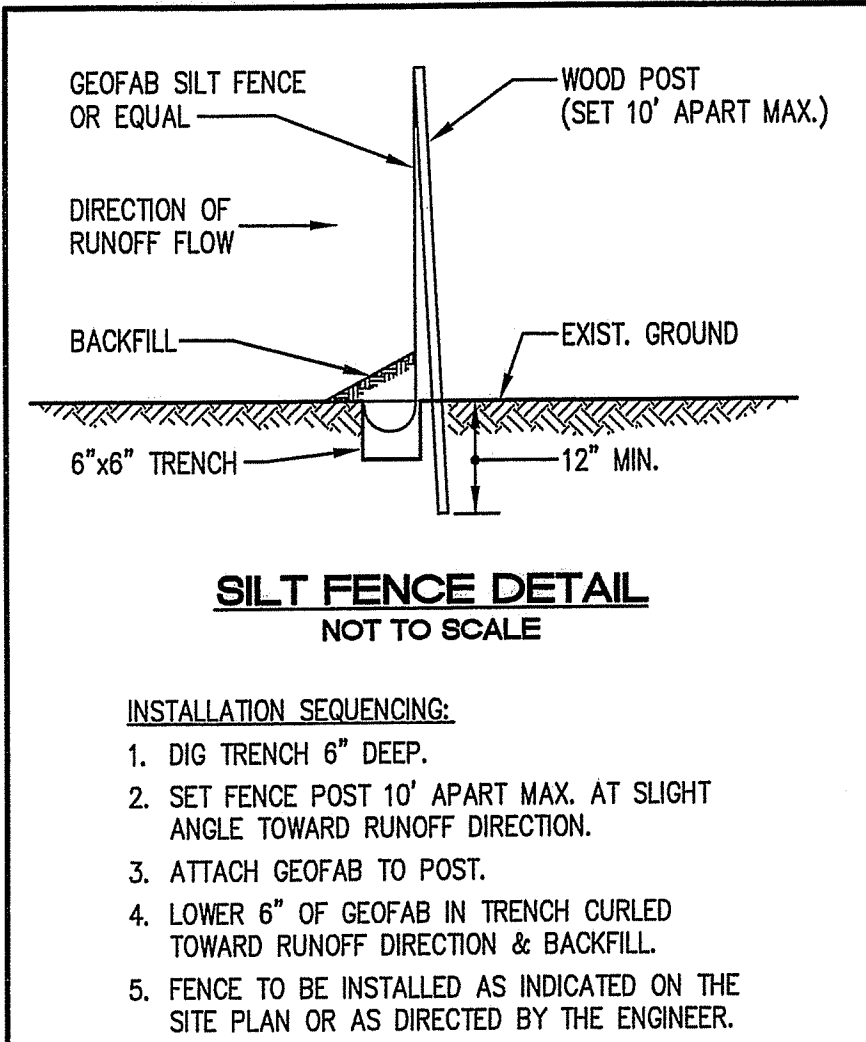
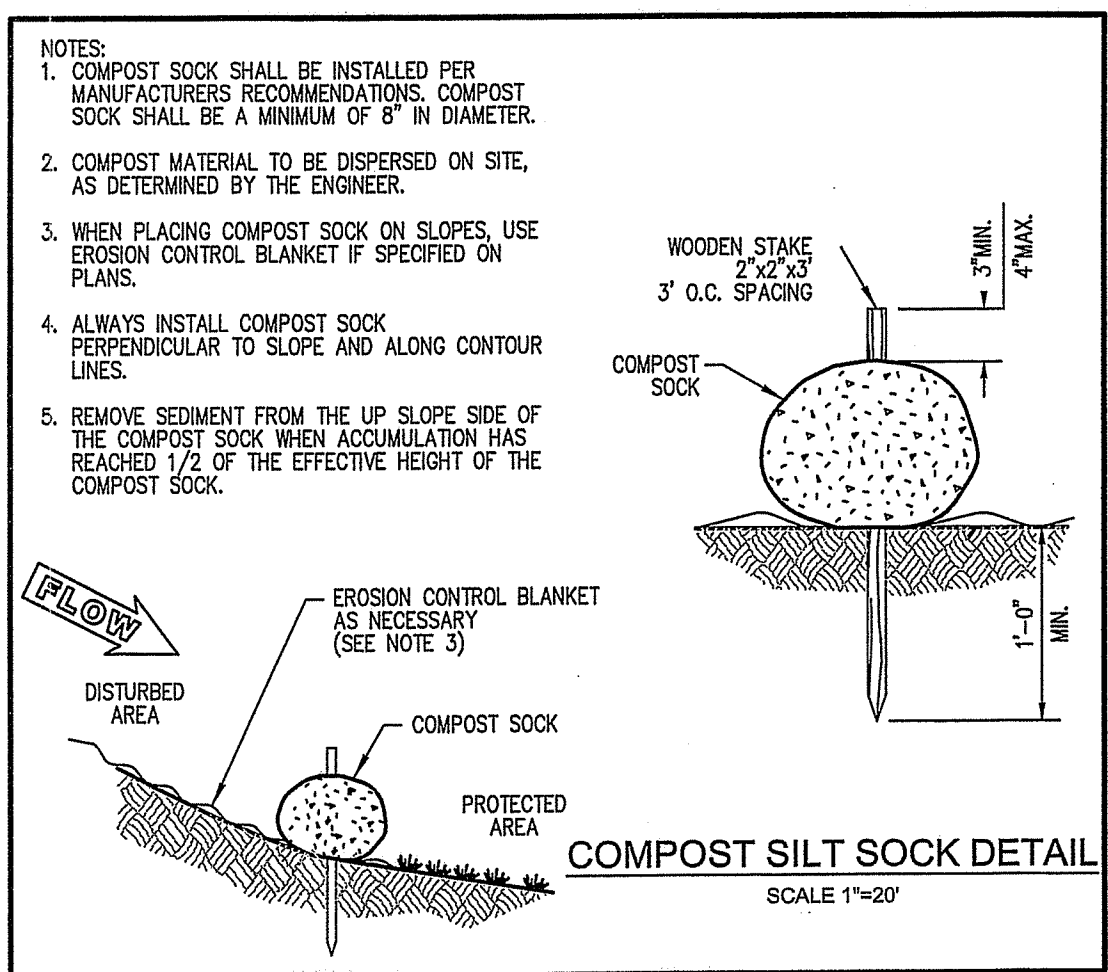
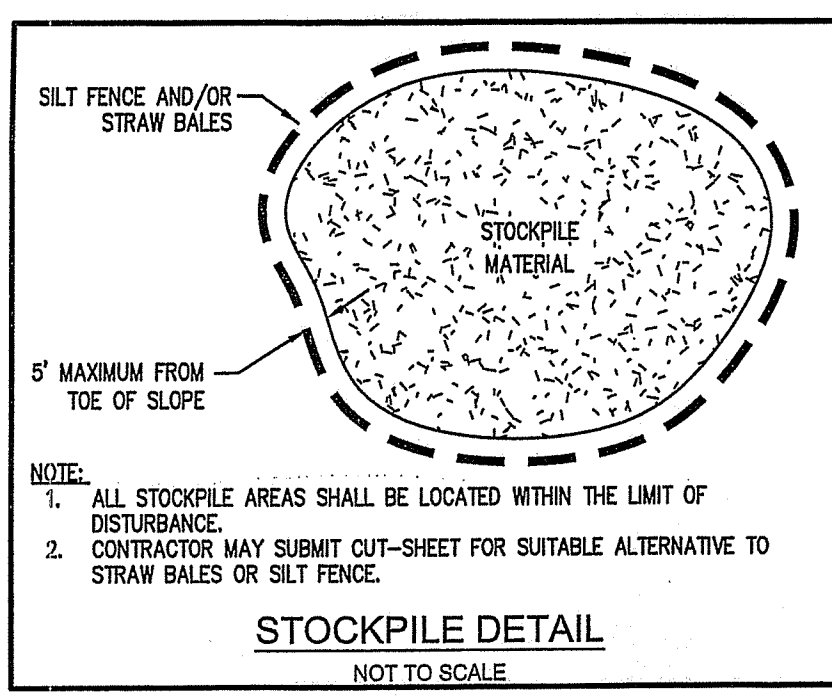
APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED AUG 19 2021 FILE # 21-0151
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED BY: [Signature]

OWNER:
 MICHAEL & AMY ANTONELLI
 85 MATTESON ROAD
 HOPE, RI 02831

APPLICANT:
 EASTERN PROPERTIES INC.
 C/O STEPHEN MARANDOLA
 23 BETTY POND ROAD
 HOPE, RI 02831
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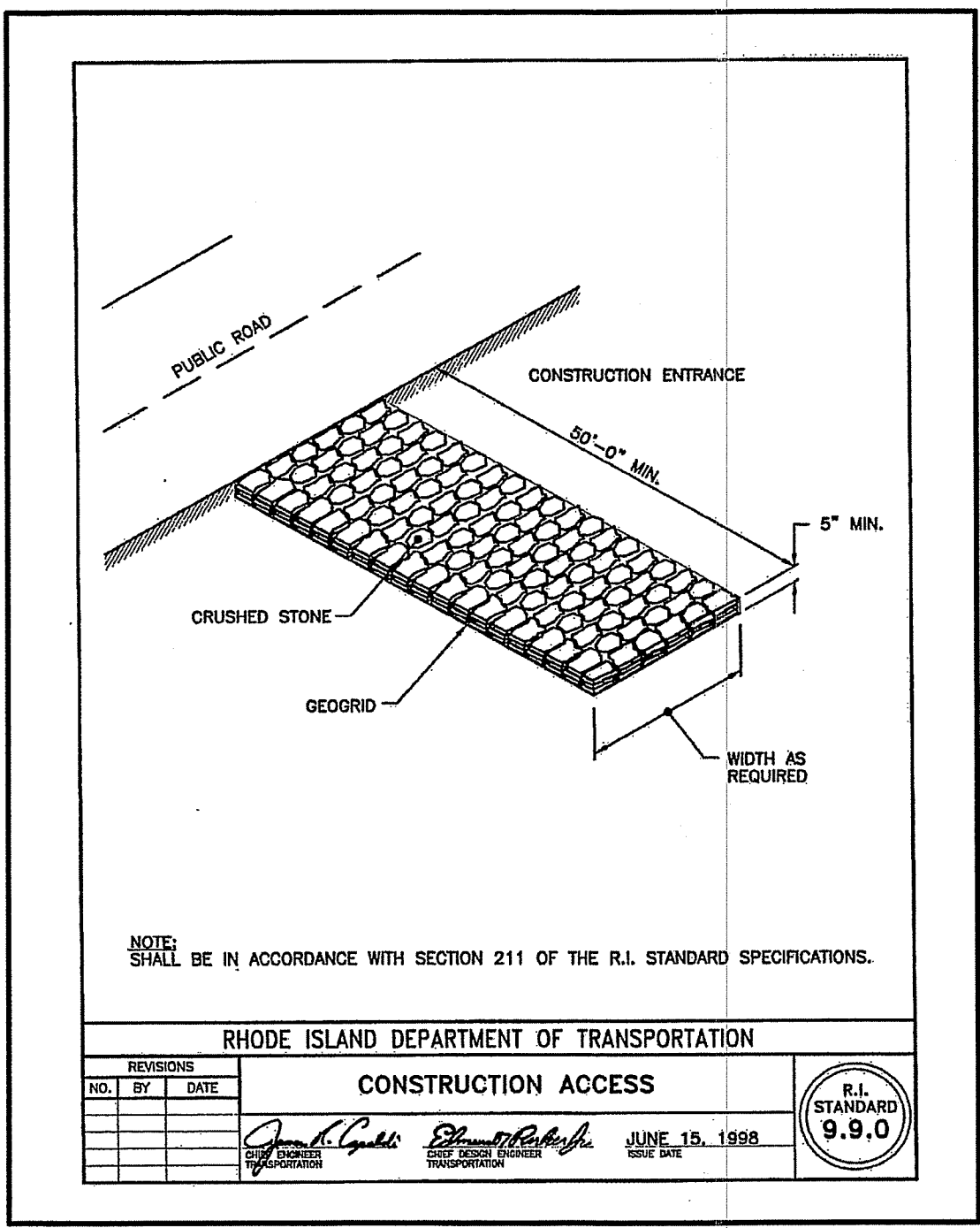
SEDIMENTATION CONTROL PROGRAM:

- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING DOWNSTREAM WATERCOURSES AND STORMWATER DRAINAGE SYSTEMS.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUN-OFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
- CARE SHALL BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORMWATER FLOWAGE.
- SEDIMENTATION TRAPS SHALL BE PROVIDED AT ALL DRAINAGE STRUCTURES DURING CONSTRUCTION.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THE SITE PRIOR TO THE START OF CONSTRUCTION AND BE PROPERLY MAINTAINED UNTIL ALL DISTURBED AREAS ARE STABILIZED INCLUDING:
 - THE INSTALLATION OF A CONTINUOUS LINE OF STAKED STRAWBALES, SILT FENCE, OR SIMILAR IN ALL LOCATIONS SHOWN ON THE APPROVED SITE PLANS AND WHERE OTHERWISE NECESSARY TO PREVENT SEDIMENTS FROM ENTERING DOWNSTREAM WATERCOURSES AND STORMWATER DRAINAGE SYSTEMS.
 - ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH APPROVED GROUND COVER PRIOR TO THE COMPLETION OF THE PROJECT. AREAS EXPOSED FOR EXTENDED PERIODS ARE TO BE COMPLETELY COVERED WITH SPREAD HAY MULCH.
 - CATCH BASINS SHALL BE PROTECTED WITH STRAWBALE OR SILT SACK FILTERS THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED. SUMPS ARE TO BE CLEANED IMMEDIATELY FOLLOWING INSTALLATION OF PERMANENT PAVEMENT.
 - OUTFALLS SHALL BE PROTECTED BY STRAWBALE FILTERS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH APPROVED GROUND COVER.
 - ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- THE LIMITS OF ALL CLEARING, GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE SHALL REMAIN TOTALLY UNDISTURBED.
- IF AREAS OF 1-5 ACRES ARE TO BE DISTURBED AT ONE TIME, A TEMPORARY SEDIMENT TRAP SHALL BE DESIGNED AND SITED IN ACCORDANCE WITH THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, SECTION 6 AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO LAND DISTURBANCE.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM:

- DEVELOPED SLOPES SHALL NOT BE LEFT EXPOSED FOR EXCESSIVE PERIODS OF TIME, SUCH AS THE INACTIVE WINTER SEASONS.
- TEMPORARY TREATMENTS SHALL CONSIST OF STRAW, FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (GURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 2000 LBS/ACRE.
- ALL STRAWBALES OR TEMPORARY PROTECTION SHALL REMAIN IN-PLACE UNTIL AN ACCEPTABLE STAND OF GRASS, RIP-RAP OR APPROVED GROUND COVER IS ESTABLISHED.
- THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND STANDARD SPECIFICATION M.18.02.
- THE DESIGN MIX UTILIZED IN ALL DISTURBED AREAS TO BE SEEDDED SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
CREeping RED FESCUE	70
ASTORIA BENTGRASS	5
BIRDFOOT TREEFOIL	15
PERENNIAL RYEGRASS	10
APPLICATION RATE	100 LBS/ACRE
- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR, AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
- THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1ST THROUGH OCTOBER 15TH.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
- STOCKPILES OF TOPSOIL AND EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SLOPES NO GREATER THAN THIRTY PERCENT (30%), SHALL ALSO BE SEEDDED AND/OR STABILIZED AND SHALL BE COMPLETELY ENCLOSED WITH STAKED HAY BALES AND/OR SILT FENCE. (SEE DETAIL)
- ON BOTH STEEP AND LONG SLOPES, CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- TREES TO BE RETAINED SHALL BE FENCED OR ROPED OFF TO PROTECT THEM FROM CONSTRUCTION EQUIPMENT.
- ALL PROPOSED PLANTINGS AND PLACEMENT OF RIP-RAP MUST BE ACCOMPLISHED AS EARLY AS POSSIBLE UPON COMPLETION OF GRADING AND CONSTRUCTION, AND AT LEAST PRIOR TO ANY ON-SITE OCCUPANCY.
- ALL DISTURBED AREAS MUST BE SEEDDED, PLANTED OR RIP-RAPPED WITHIN THE CONSTRUCTION SEASON.
- TEMPORARY SEEDING MUST BE COMPLETED WITHIN ONE (1) MONTH AFTER DISTURBANCE.
- ALL DISTURBED AREAS MUST BE PERMANENTLY SEEDDED, PLANTED OR RIP-RAPPED BEFORE OCTOBER 1ST, IF NOT THEY MUST BE TEMPORARILY SEEDDED.



BMP CONSTRUCTION SEQUENCES:

GENERAL:

GREAT CARE SHALL BE GIVEN TO THE AREAS WHERE STRUCTURES WHICH REQUIRE INFILTRATION AS A MECHANISM FOR STORMWATER TREATMENT AND/OR DISPOSAL ARE PROPOSED PRIOR TO THEIR CONSTRUCTION. NO INFILTRATION STRUCTURE SHALL BE CONSTRUCTED NOR ACCEPT RUNOFF UNTIL ALL UP-DRAINAGE AREAS OF THE WATERSHED HAVE BEEN BUILT AND FULLY STABILIZED SO AS TO HAVE NO POTENTIAL FOR SEDIMENT OR SILT DEPOSITION. ONCE THE ENTIRE SITE IS STABILIZED, ALL SESS MEASURES SHALL BE REMOVED.

THE DESIGN SEED MIX FOR ALL PERMANENT STORMWATER BASINS SHALL BE COMPRISED OF THE FOLLOWING AND PLANTED IN A MINIMUM OF A 6" DEPTH OF SANDY LOAM FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS:

TYPE	% BY WEIGHT
CREeping RED FESCUE	70
KENTUCKY BLUEGRASS	15
TALL FESCUE	15

APPLICATION RATE: 100 LBS/ACRE

LIMING AND FERTILIZING AS REQUIRED TO COMPLEMENT OR UPGRADE EXISTING CONDITIONS.

SAND FILTERS:

- EXCAVATE TO THE LINES AND GRADES OF THE DESIGN
- INSTALL 6" OF SAND AND ROTO-TILL TO MIX INTO THE SUBSOIL INTERFACE
- SAND FILTER SAND SHALL BE ASTM C33 CONCRETE SAND
- INSTALL REMAINDER OF SAND
- INSTALL NON-WOVEN GEOTEXTILE
- INSTALL 6" WASHED CRUSHED STONE & PERFORATED DISBURSAL PIPING
- INSTALL NON-WOVEN GEOTEXTILE
- LOAM AND SEED PER DETAILS WITH PERMANENT SEED MIXTURE & DRAINS

INFILTRATION BASIN:

- EXCAVATE TO THE LINES AND GRADES OF THE DESIGN
- INSTALL OUTLET CONTROL STRUCTURE & LEVEL SPREADER
- LOAM AND SEED ACCORDINGLY WITH PERMANENT SEED MIXTURE

LEVEL SPREADER:

- EXCAVATE TO THE LINES AND GRADES OF THE DESIGN
- INSTALL CURBING SET LEVEL
- LOAM AND SEED PER DETAILS WITH PERMANENT SEED MIXTURE

CONSTRUCTION MAINTENANCE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON THE SITE DURING CONSTRUCTION AND FOR A MAXIMUM OF ONE (1) YEAR FOLLOWING COMPLETION OF CONSTRUCTION, AT WHICH TIME THE DRAINAGE STRUCTURE AND APPURTENANCES ARE TO BE ACCEPTED BY THE ENGINEER AND THE OWNER, AS FOLLOWS:

- ALL CATCH BASINS AND STORM DRAIN PIPES SHALL BE CLEANED OF SEDIMENT, STORMWATER BASINS SHALL BE CLEANED OF SEDIMENT TO THE DESIGN GRASSES INDICATED ON THE CONSTRUCTION DRAWINGS.
- INSPECTION OF THE BASINS AND ALL INLET AND OUTLET STRUCTURES SHALL BE PERFORMED ON A WEEKLY BASIS, PREFERABLY DURING A STORM EVENT TO INSPECT FOR PROPER FUNCTIONALITY OF THE FACILITY.
- GRASSES MUST BE PLANTED AROUND AND WITHIN THE STORMWATER BASIN IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE THE SLOPES AND PREVENT EROSION.
- SEDIMENTS SHALL BE REMOVED FROM DRAINAGE STRUCTURES AND THE STORMWATER BASINS IMMEDIATELY FOLLOWING SITE STABILIZATION AND DURING THE FIRST (INITIAL) YEAR OF OPERATION.
- ALL COSTS INCURRED FOR MAINTENANCE, CLEANING, AND INSPECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION AND THE PROPERTY OWNER UPON ACCEPTANCE.
- ANY INADVERTENT OR DELIBERATE DISCHARGE OF WASTE OIL OR ANY OTHER POLLUTANT TO THE STORMWATER DISPOSAL SYSTEM REQUIRES IMMEDIATE NOTIFICATION OF THE RIDEM.
- ALL TRASH AND LITTER AND OTHER DEBRIS SHALL BE REMOVED FROM ANY STORMWATER FACILITY DAILY, INCLUDING INLET AND OUTLET STRUCTURES.
- REPAIRS OR REPLACEMENT OF INLET/OUTLET STRUCTURES, RIP-RAP CHANNELS, FENCES, OR OTHER ELEMENTS OF THE FACILITY DURING CONSTRUCTION SHALL BE DONE WITHIN 30 DAYS OF DEFICIENCY REPORTS.
- PAVEMENT SWEEPING SHALL BE PERFORMED UPON COMPLETION OF THE PROJECT.
- WATER SHALL BE USED TO MOISTEN EXPOSED SOIL SURFACES PERIODICALLY. AN ADEQUATE AMOUNT SHOULD BE USED TO CONTROL DUST.

POLLUTION PREVENTION PLAN:

GENERAL:

LONG-TERM MANAGEMENT OF THE POLLUTION PREVENTION PLAN SHALL BE THE RESPONSIBILITY OF THE APPLICANT.

EASTERN PROPERTIES INC.
C/O STEPHEN MARANDOLA
23 BETTY POND ROAD
HOPE, RI 02831
401-647-2927

THE CONTRACTOR SHALL MANAGE THE POLLUTION PREVENTION PLAN DURING THE CONSTRUCTION PROCESS.

CONTRACTOR: TBD

SOLID WASTE CONTAINMENT:

- TRASH RACKS WHERE PRACTICAL SHALL BE INSTALLED AND MAINTAINED ON ALL INLET STRUCTURES WITHIN THE DRAINAGE SYSTEM. INSPECTIONS FOR TRASH SHOULD BE ON A WEEKLY BASIS.
- TRASH RECEPTACLES SHALL BE PROVIDED WHERE APPROPRIATE.
- STREET SWEEPING SHALL BE PERFORMED ON AN ANNUAL BASIS.
- PET WASTE DISPOSAL STATIONS SHALL BE PROVIDED WHERE APPLICABLE.

SNOW DISPOSAL AND DEICING:

- NO SAND AND DEICING MATERIALS SHALL BE STORED ON THE SITE
- SNOW REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH RIDEM'S SNOW DISPOSAL POLICY.

DRIVEWAY AND PARKING LOT SEALANTS:

- ON STANDARD ASPHALT AREAS, ONLY ASPHALT BASED SEALANTS ARE ALLOWED, NO COAL-TAR BASED SEALANTS SHALL BE USED ON THIS SITE.

HAZARDOUS MATERIALS CONTAINMENT:

- NO HAZARDOUS MATERIALS SHALL BE STORED OUTSIDE TO AVOID EXPOSURE TO STORMWATER.

LANDSCAPE MANAGEMENT:

- GRASS CLIPPINGS FROM LAWN CARE PROCEDURES IN AND AROUND THE STORMWATER FACILITY MUST BE COLLECTED AND DISPOSED OF OFF SITE.
- LAWN HEIGHTS WITHIN THE BMP'S SHALL BE KEPT AT A 4-6" HEIGHT.
- FERTILIZER AND WATERING DEMANDS SHOULD BE HAVE PROFESSIONAL OVERSIGHT AND BOTH USES MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL.

OWNER: MICHAEL & AMY ANTONELLI
85 MATTESON ROAD
HOPE, RI 02831

APPLICANT: EASTERN PROPERTIES INC.
C/O STEPHEN MARANDOLA
23 BETTY POND ROAD
HOPE, RI 02831
401-647-2927

LONG-TERM MAINTENANCE SCHEDULE (O&M):

LONG-TERM MAINTENANCE OF THE DRAINAGE SYSTEM SHALL BE COMPLETED BY THE APPLICANT/OPERATOR UNDER A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT. THE TOWN OF SCITUATE IS NOT RESPONSIBLE FOR MAINTENANCE OF THE BMP'S.

APPLICANT: EASTERN PROPERTIES INC.
C/O STEPHEN MARANDOLA
23 BETTY POND ROAD
HOPE, RI 02831
401-647-2927

OPERATOR / CONTRACTOR: DEFAULTS TO APPLICANT

THE APPLICANT SHALL MAINTAIN ALL DRAINAGE COMPONENTS DURING AND DIRECTLY AFTER CONSTRUCTION. ALL OPERATIONAL MAINTENANCE REQUIREMENTS WILL BE RECORDED ON THE TITLE.

THE ENTIRE STORMWATER SYSTEM SHALL BE INSPECTED THROUGHOUT THE CONSTRUCTION PROCESS AND REPORTED ON THE ATTACHED CONSTRUCTION INSPECTION REPORTING FORMS.

THE ENTIRE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED ON A BI-ANNUAL BASIS FOR GENERAL PROBLEMS AND TO ENSURE PROPER FUNCTION AND AFTER STORM EVENTS GREATER THAN OR EQUAL TO THE 1-YR, 24-HR TYPE II PRECIPITATION EVENT (2.7"). THESE INSPECTIONS SHALL BE REPORTED ON THE ATTACHED O&M INSPECTION REPORTING FORMS.

ALL INSPECTIONS REPORTS SHALL BE KEPT ON FILE WITH THE STORMWATER MANAGEMENT OPERATION AND MAINTENANCE PLAN.

SEDIMENT FOREBAY:

- THE SLOPES SHOULD BE INSPECTED FOR EROSION AND GULLYING
- RIPRAP SHOULD BE REINFORCED IF EROSION IS PRESENT AT OUTFALLS OR IF IT HAS BEEN COMPROMISED
- INSPECT ALL STRUCTURAL COMPONENTS SUCH AS TRASH RACKS, ACCESS GATES, VALVES, PIPES, WEIRS, WALLS, ORIFICE STRUCTURES AND SPILLWAY STRUCTURES FOR DEFECTS AND ANY MUST BE REPAIRED IMMEDIATELY
- INSPECT FOR SEDIMENT ACCUMULATION AND IT SHOULD BE REMOVED IF IT REACHES 9" OR 25% OF THE STORAGE VOLUME
- MOW GRASSES TO MAINTAIN A 4-6" STRONG STAND OF TURF AND MOW IMMEDIATELY SHOULD IT REACH 10". ALL CLIPPINGS SHALL BE COLLECTED AND DISPOSED OF PROPERLY
- NO WOODY GROWTH SHOULD EVER BE ALLOWED TO REMAIN IN AND AROUND THE FOREBAY
- AREAS OF EROSION OR DISTURBANCE SHALL BE RE-ESTABLISHED IMMEDIATELY INLETS AND OUTLETS SHALL BE CLEARED OF DEBRIS AS NEEDED

SAND FILTER:

- THE FACILITY SHOULD BE INSPECTED ANNUALLY TO ENSURE INFILTRATION RATES ARE BEING MET. IF STANDING WATER IS OBSERVED FOR MORE THAN 48 HRS AFTER A RAIN EVENT, THE TOP 6" SHOULD BE ROTOULLED AND ANY COMPACTED MATERIAL REMOVED. IF THIS DOESN'T SOLVE THE PROBLEM THE TOP 6" OF THE SAND FILTER SHALL BE REMOVED AND REPLACED.
- RIPRAP SHOULD BE REINFORCED IF EROSION IS PRESENT AT OUTFALLS OR IF IT HAS BEEN COMPROMISED
- MOW GRASSES TO MAINTAIN A 4-6" STRONG STAND OF TURF. ALL CLIPPINGS SHALL BE COLLECTED AND DISPOSED OF PROPERLY
- NO WOODY GROWTH SHOULD EVER BE ALLOWED TO REMAIN IN AND AROUND THE SAND FILTER
- AREAS OF EROSION OR DISTURBANCE SHALL BE RE-ESTABLISHED IMMEDIATELY
- INLETS AND OUTLETS SHALL BE CLEARED OF DEBRIS AS NEEDED

RAIN GARDEN:

- DURING SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, THE FACILITY SHOULD BE INSPECTED AT LEAST TWICE FOLLOWING PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE SYSTEM IS FUNCTIONING CORRECTLY.
- CONDUCTION INSPECTIONS ANNUALLY AND AFTER EVENTS GREATER THAN OR EQUAL TO THE 1-YEAR, 24-HOUR TYPE II PRECIPITATION EVENT.
- PRUNE OR REPLACE WHEN DEAD OR DYING VEGETATION IS OBSERVED.
- SEPARATE HERBACEOUS VEGETATION ROOTSTOCK WHEN OVER-CROWDING IS OBSERVED OR APPROXIMATELY EVERY 3 YEARS.
- THE MULCH LAYER SHOULD ALSO BE REPLISHED TO THE ORIGINAL DESIGN DEPTH EVERY OTHER YEAR, AS DIRECTED BY INSPECTION REPORTS. THE PREVIOUS MULCH LAYER SHOULD BE REMOVED, AND PROPERLY DISPOSED OF, OR ROTOULLED INTO THE SOIL SURFACE.
- IF AT LEAST 50 PERCENT VEGETATION COVERAGE IS NOT ESTABLISHED AFTER TWO YEARS, A REINFORCEMENT PLANTING SHOULD BE PERFORMED.
- IF THE SURFACE OF THE RAIN GARDEN BECOMES CLOGGED TO THE POINT THAT STANDING WATER IS OBSERVED ON THE SURFACE 48 HOURS AFTER PRECIPITATION EVENTS, THE SURFACE SHOULD BE ROTOULLED OR CULTIVATED TO BREAKUP ANY HARD-PACKED SEDIMENT AND THEN RE-VEGETATED.

INFILTRATION BASIN:

- THE FACILITY SHOULD BE INSPECTED ANNUALLY TO ENSURE INFILTRATION RATES ARE BEING MET. IF STANDING WATER IS OBSERVED FOR MORE THAN 48 HRS AFTER A RAIN EVENT THE TOP 6" SHOULD BE ROTOULLED AND ANY COMPACTED MATERIAL REMOVED. IF THIS DOESN'T SOLVE THE PROBLEM THE TOP 6" OF THE BASIN SHALL BE REMOVED AND REPLACED.
- THE FACILITY SHOULD BE INSPECTED ANNUALLY FOR EROSION, GULLYING OR DAMAGE AND CLEANED OF DEBRIS AND TRASH
- RIPRAP SHOULD BE REINFORCED IF EROSION IS PRESENT AT OUTFALLS OR IF IT HAS BEEN COMPROMISED
- MOW GRASSES TO MAINTAIN A 4-6" STRONG STAND OF TURF. ALL CLIPPINGS SHALL BE COLLECTED AND DISPOSED OF PROPERLY
- NO WOODY GROWTH SHOULD EVER BE ALLOWED TO REMAIN IN AND AROUND THE BASIN
- AREAS OF EROSION OR DISTURBANCE SHALL BE RE-ESTABLISHED IMMEDIATELY
- INLETS AND OUTLETS SHALL BE CLEARED OF DEBRIS AS NEEDED

DRAINAGE SYSTEM:

- ALL STRUCTURES AND STORM DRAIN PIPES SHALL BE ANNUALLY CHECKED FOR SEDIMENT AND DEBRIS AND CLEANED / JETTED AS NECESSARY.
- ALL COSTS INCURRED FOR MAINTENANCE, CLEANING, AND INSPECTION ARE THE RESPONSIBILITY OF THE PROPERTY OWNER UPON ACCEPTANCE.
- PAVEMENT SWEEPING SHALL BE PERFORMED ANNUALLY, PREFERABLY IN THE SPRING, AFTER ROADWAY SANDING IS COMPLETED FOR THE SEASON.

ESTIMATED O&M BUDGET & FUNDING SOURCE:

- THE PROJECT OPERATOR WILL BE THE OWNER, WHO SHALL BE RESPONSIBLE FOR FUNDING THE O&M BUDGET.

ESTIMATE OF O&M BUDGET:

BI-ANNUAL INSPECTIONS:	\$1000 EA x 2	\$2,000
BI-WEEKLY MOWING:	\$200 EA x 13	\$2,600
MISC. REPAIRS:	\$1,000	\$1,000
PAVEMENT SWEEPING:	\$1,000	\$1,000
ADDITIONAL INSPECTIONS:	\$1,000 EA x 2	\$2,000
TOTAL ESTIMATE:		\$8,600

Office of Water Resources
RI Environmental Management
AUG 10 2021

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
AUG 19 2021 FILE # 21-0151
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED FOR CONSTRUCTION

NO.	DATE	REVISION

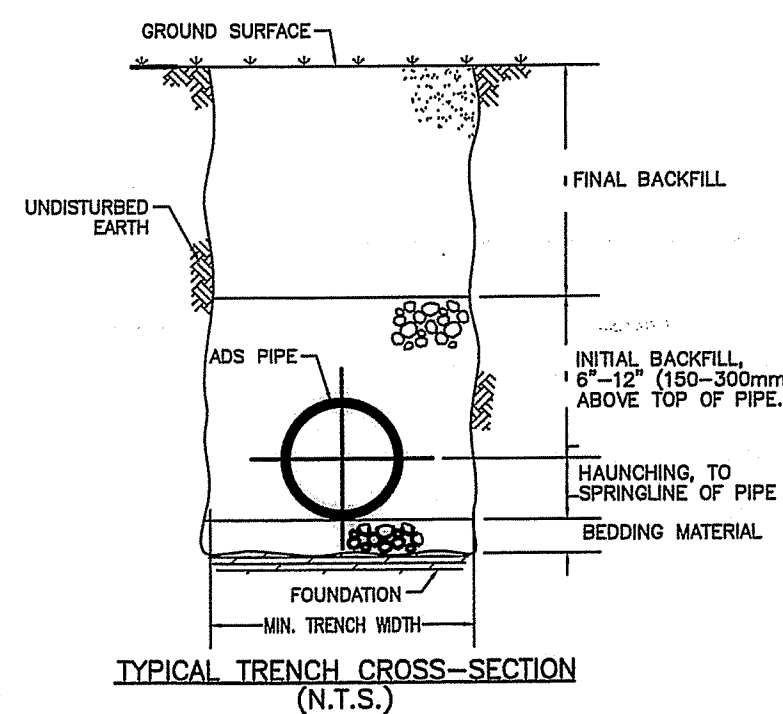
JEFFREY C. HANSON
No. 5238
PROFESSIONAL ENGINEER

ILLSTONE ENGINEERING, P.C.
CIVIL ENGINEERING • LAND PLANNING
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SOIL EROSION AND SEDIMENT CONTROL PLAN
MARANDOLA SUBDIVISION
A.P. 49, LOT 37
HEATHER LANE / MATTESON RD.
SCITUATE, RI
PREPARED FOR:
EASTERN PROPERTIES, INC.
SCALE: AS NOTED
MAY 2021

Drawn By: JSC
Checked By: BJC
Sheet
5
of 7
FILE NO.: 21.413.616

TRENCH INSTALLATION DETAIL



- NOTES:**
- FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS," LATEST EDITION; AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100-600mm) CORRUGATED POLYETHYLENE PIPE (CPEP); 6" (150mm) FOR 30"-60" (760-1500mm) CPEP.
 - HAUNCHING AND INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:

NOMINAL Ø in (mm)	MIN. RECOMMENDED TRENCH WIDTH in (mm)
4 (100)	21 (530)
6 (150)	23 (580)
8 (200)	25 (630)
10 (250)	28 (710)
12 (300)	31 (790)
15 (375)	34 (860)
18 (450)	38 (960)
24 (600)	48 (1220)
30 (750)	66 (1680)
36 (900)	78 (1980)
42 (1050)	83 (2110)
48 (1200)	89 (2260)
60 (1500)	102 (2590)

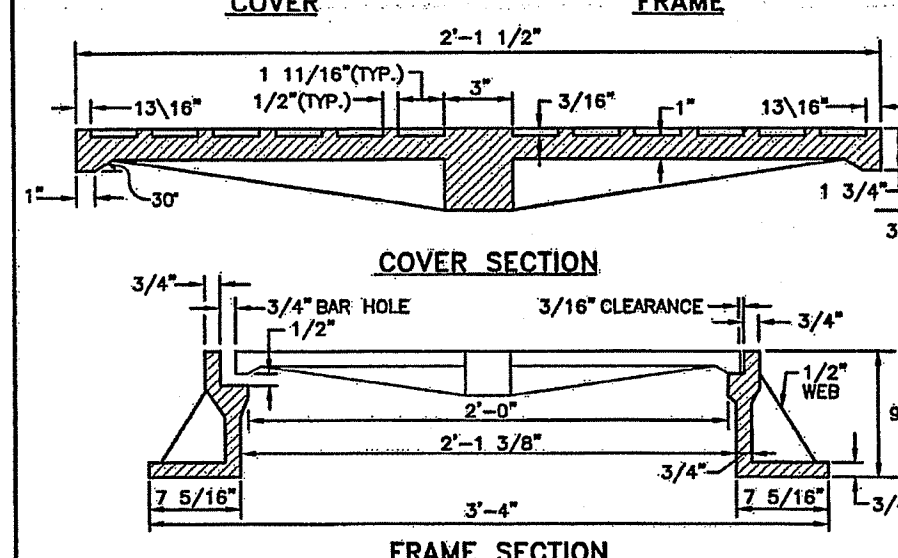
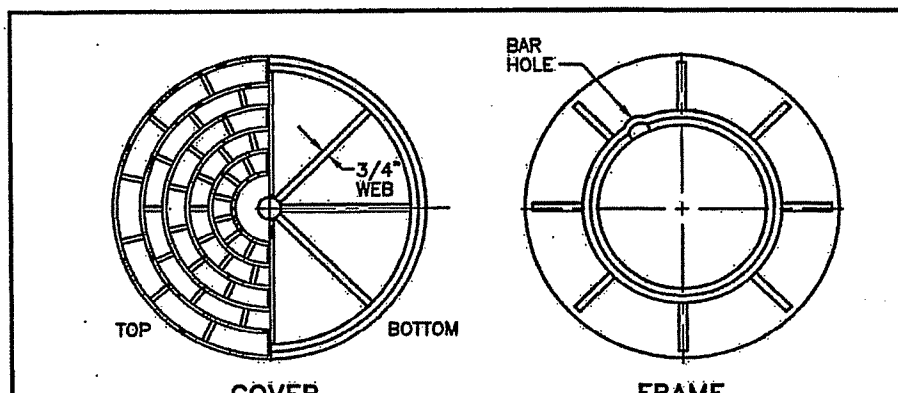
5. MINIMUM COVER: MINIMUM RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF PIPE TO THE GROUND SURFACE.

SURFACE LIVE LOADING CONDITION	MINIMUM RECOMMENDED COVER in (mm) *
H25 (FLEXIBLE PAVEMENT)	12 (300), 24 (600) FOR 60" (1500) PIPE
H25 (RIGID PAVEMENT)	12 (300), 24 (600) FOR 60" (1500) PIPE
E80 RAILWAY	24 (600)
HEAVY CONSTRUCTION	48 (1200)

*TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT SECTION

NOTE TO THE ENGINEER: WHEN THIS DETAIL IS TO BE INCORPORATED INTO CONTRACT DOCUMENTS, PLEASE REFERENCE SECTION X-2, "RECOMMENDATIONS FOR INCORPORATION INTO CONTRACT DOCUMENTS" OF ASTM SPECIFICATION D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS" SO THAT APPROPRIATE MODIFICATIONS CAN BE MADE TO ACCOMMODATE SITE SPECIFIC NEEDS.

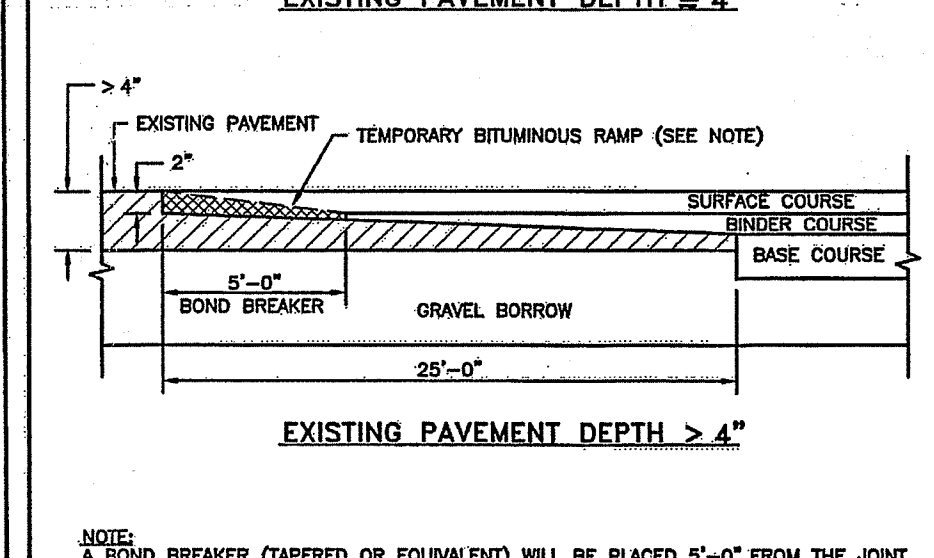
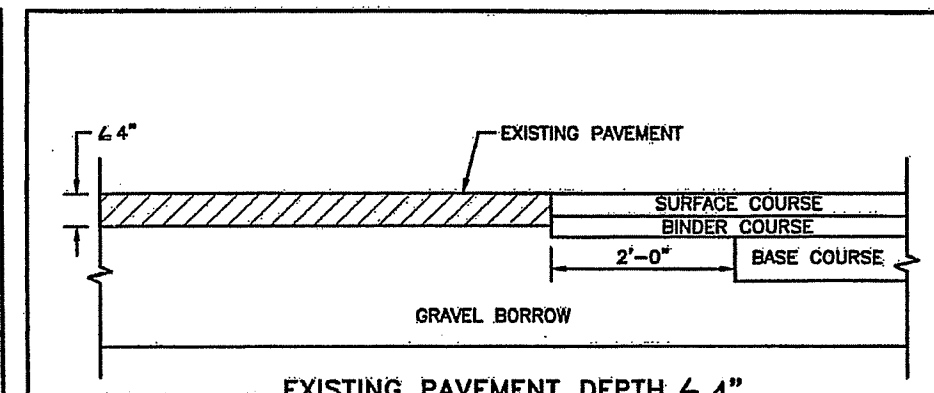
ADS STANDARD DETAILS DISCLAIMER: "ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS STANDARD DETAIL TO DEMONSTRATE ADS' RECOMMENDED INSTALLATION OF ITS PRODUCTS FOR THE DEPICTED APPLICATION. IN ADDITION TO ADS' RECOMMENDATIONS, THERE MAY BE OTHER NATIONAL, STATE OR LOCAL SPECIFICATIONS THAT ARE PERTINENT TO THIS APPLICATION. ADS' STANDARD DETAIL IS NOT INTENDED TO SUPERSEDE ANY NATIONAL, STATE OR LOCAL SPECIFICATIONS, AND ADS RECOMMENDS THAT THOSE REQUIREMENTS BE REVIEWED AND CONSULTED PRIOR TO THE INSTALLATION OF ADS' PRODUCTS. ADS HAS NOT AUTHORIZED, AND IT BEARS NO RESPONSIBILITY FOR, ANY REVISIONS, ALTERATIONS OR DEVIATIONS FROM THIS STANDARD DETAIL."



NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M4.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION		
NO.	BY	DATE
1	J. C. Hanson	JUNE 15, 1998

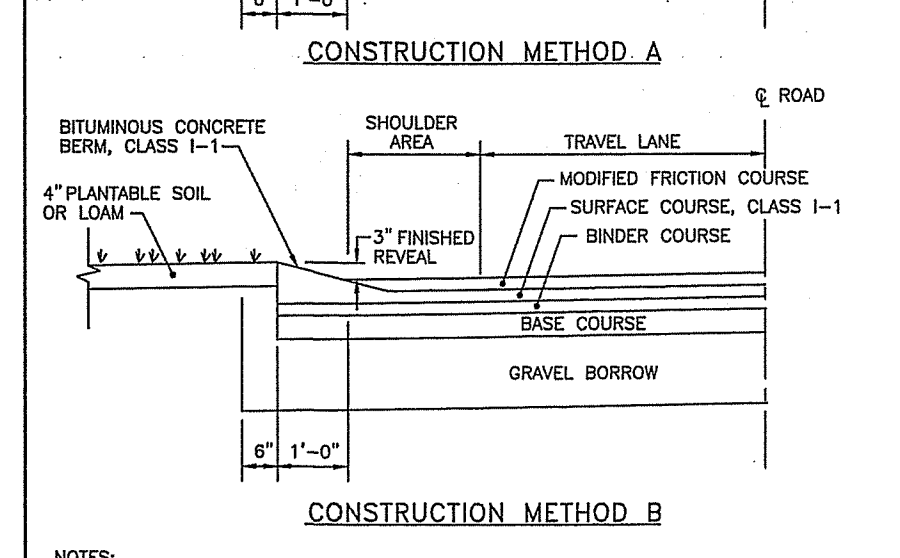
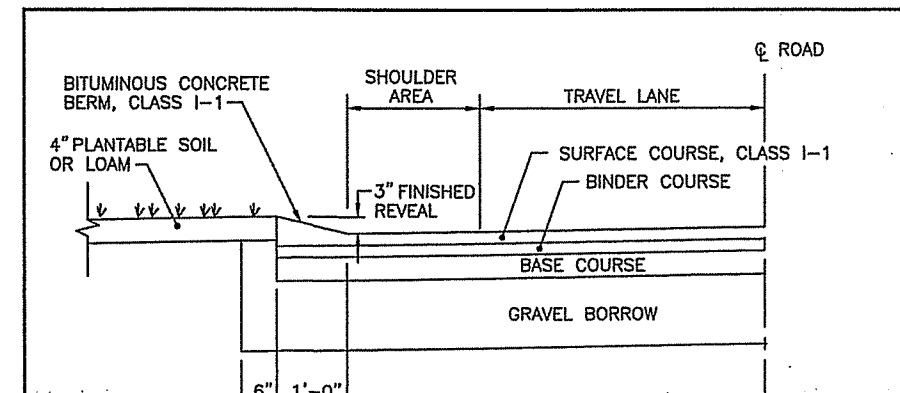
HEAVY-DUTY ROUND FRAME AND COVER
R.I. STANDARD 6.2.1



NOTES:
1. A BOND BREAKER (TAPERED OR EQUIVALENT) WILL BE PLACED 6"-0" FROM THE JOINT AND COVERED WITH THE BINDER COURSE AS THE TEMPORARY RAMP. PRIOR TO PLACING THE SURFACE COURSE, THE BINDER COURSE AND BOND BREAKER WILL BE REMOVED.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION		
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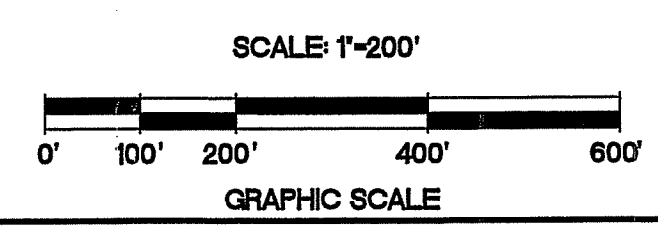
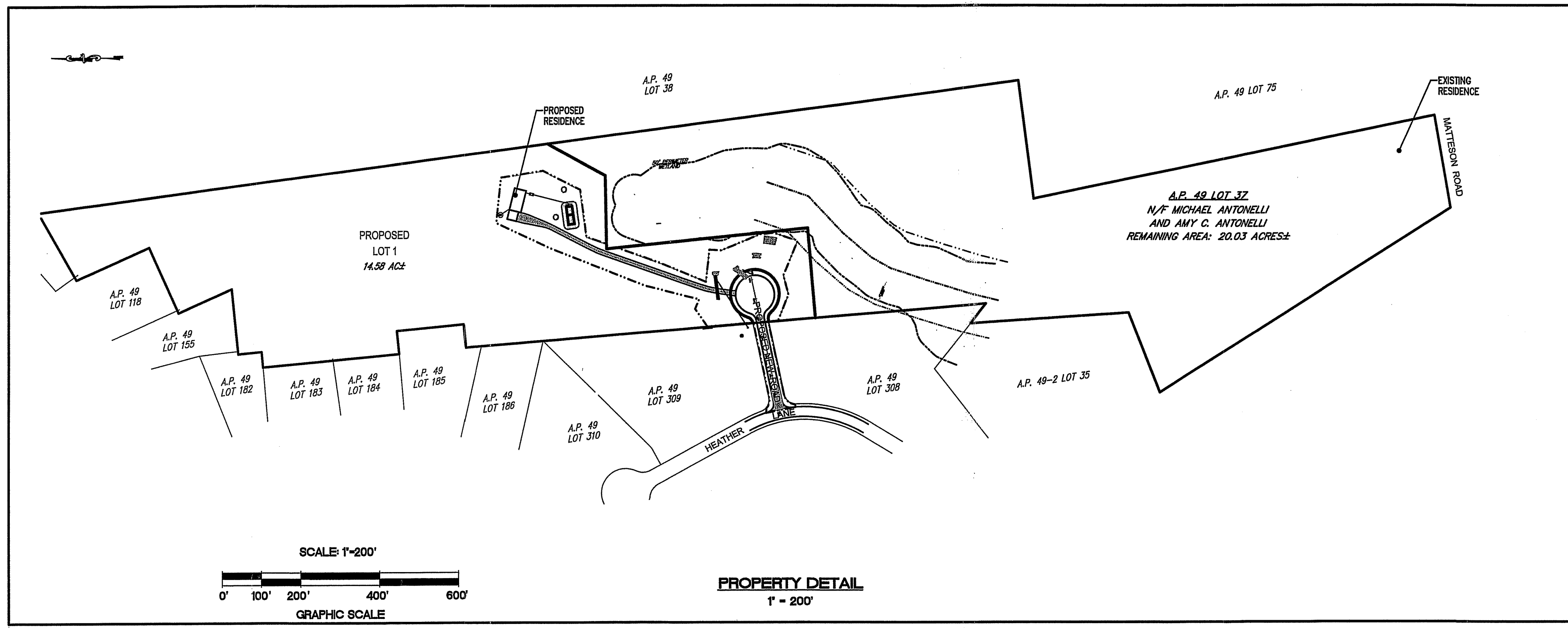
TRANSVERSE PAVEMENT CUT AND MATCH
R.I. STANDARD 47.1.1



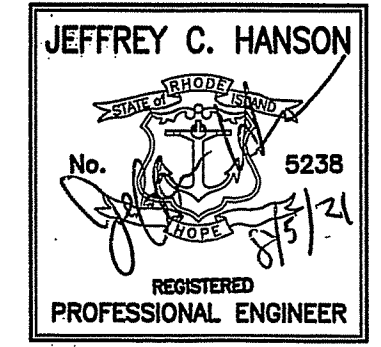
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 808 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION		
NO.	BY	DATE
1	J. C. Hanson	JUNE 15, 1998

BITUMINOUS BERM
R.I. STANDARD 7.5.1



NO.	DATE	REVISION
1	8/05/21	VARIED COMMENTS



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NOTES AND DETAILS - 2

MARANDOLA SUBDIVISION

A.P. 49, LOT 37
HEATHER LANE / MATTESON RD.
SCITUATE, RI

PREPARED FOR:
EASTERN PROPERTIES, INC.

SCALE: AS NOTED
MAY 2021

RI Environmental Management
AUG 10 2021
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE APPROVED ON SITE

Drawn By: JSC
Checked By: BJC
Sheet
7
of 7
FILE NO.: 21.413.616

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