

SEASONS CORNER MARKET

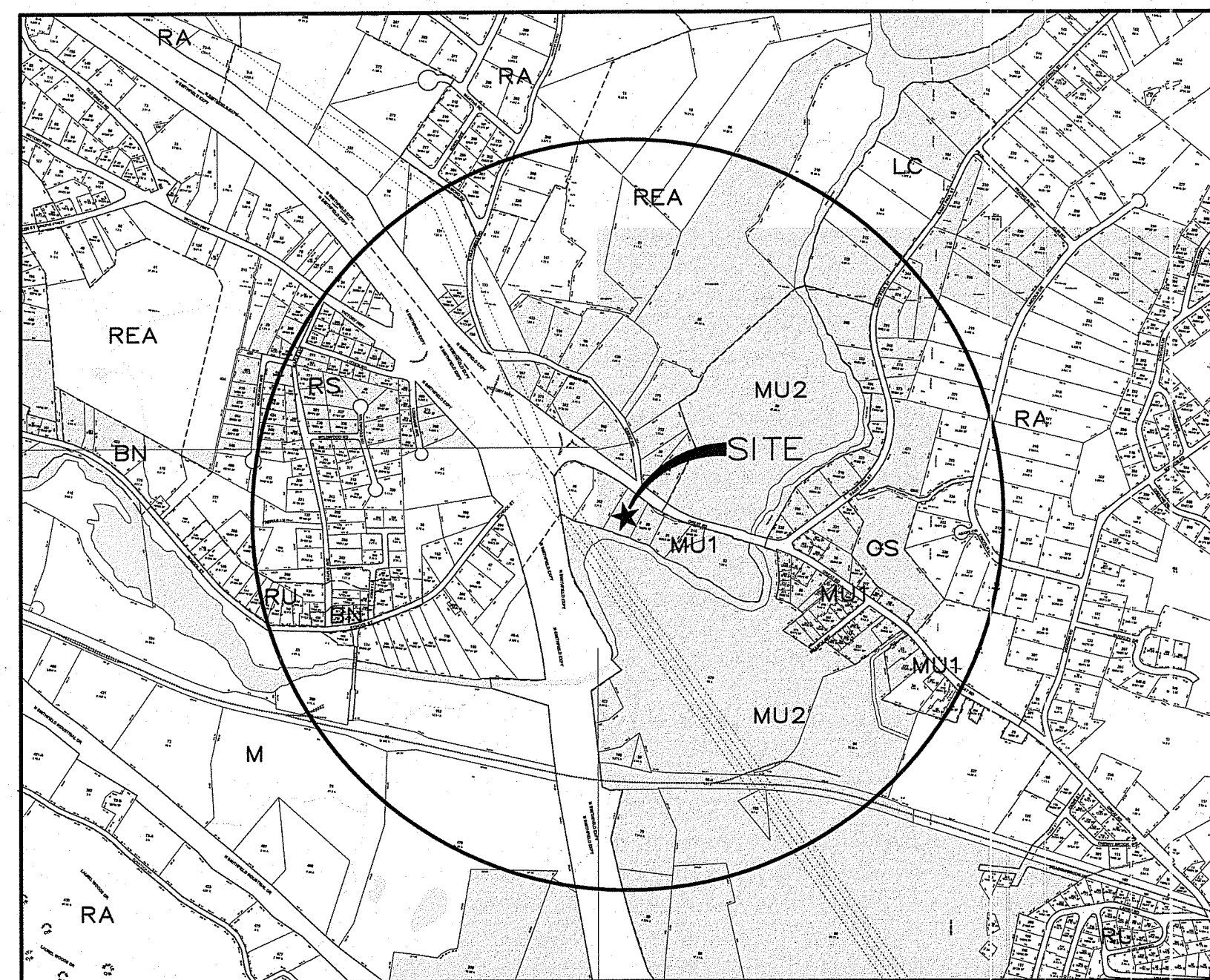
RIDEM APPLICATION PLANS

780 GREAT ROAD
NORTH SMITHFIELD, RI
A.P. 5, LOT 246

PREPARED FOR:

COLBEA ENTERPRISES, LLC

7 STARLINE WAY
CRANSTON, RI



VICINITY MAP
SCALE: 1"=1000'

ARCHITECTURAL & CIVIL PREPARED BY:

AYOUB
ENGINEERING

ENGINEERS & ARCHITECTS

414 BENEFIT STREET
PAWTUCKET, RHODE ISLAND 02861
401-728-5533

INDEX OF DRAWINGS

SHEET	TITLE
0	COVER
1	BOUNDARY & TOPOGRAPHIC SURVEY
C-1	SITE IMPROVEMENT PLAN
C-2	SITE GRADING PLAN
C-3	SITE UTILITY PLAN
L-1	SITE LANDSCAPE PLAN
ER-1	SOIL EROSION & SEDIMENT CONTROL PLAN
SD-1	SITE DETAIL SHEET
SD-2	SITE DETAIL SHEET
SD-3	SITE DETAIL SHEET
1 OF 4	OWTS PLAN
2 OF 4	OWTS DETAILS NO. 1
3 OF 4	OWTS DETAILS NO. 2
4 OF 4	OWTS DETAILS NO. 3

Christopher D. W...
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATE: SEP 11, 2019
FILE # 1500-19

SEASONS CORNER MARKET

780 GREAT ROAD
NORTH SMITHFIELD, RI
A.P. 5, LOT 246

PREPARED FOR:

COLBEA ENTERPRISES, LLC

7 STARLINE WAY
CRANSTON, RI

PREPARED BY:

AYOUB
ENGINEERING

Environmental Management

SEP 30 2019

ENGINEERS & ARCHITECTS

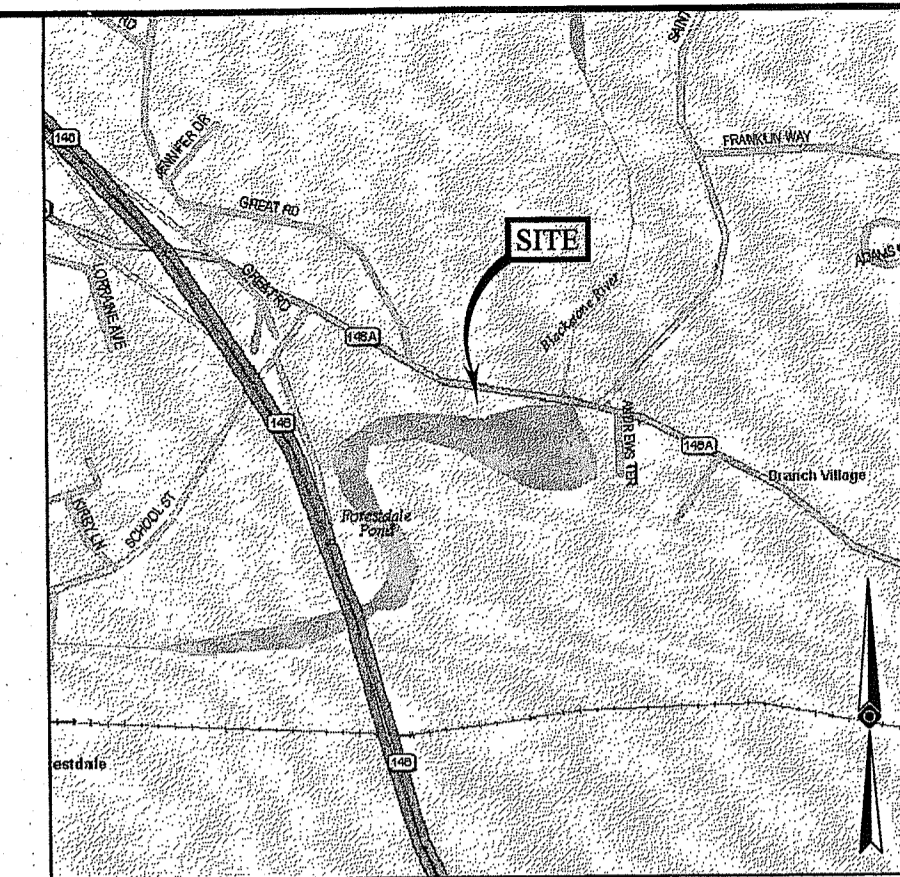
Office of Water Resources

414 BENEFIT STREET
PAWTUCKET, RHODE ISLAND 02861
401-728-5533

PROJECT NO. 1559.216

DATE: 2/4/19

REV: 7/30/19



LOCUS MAP
© 2013 ESRI WORLD STREET MAPS



BK 190, PG. 481

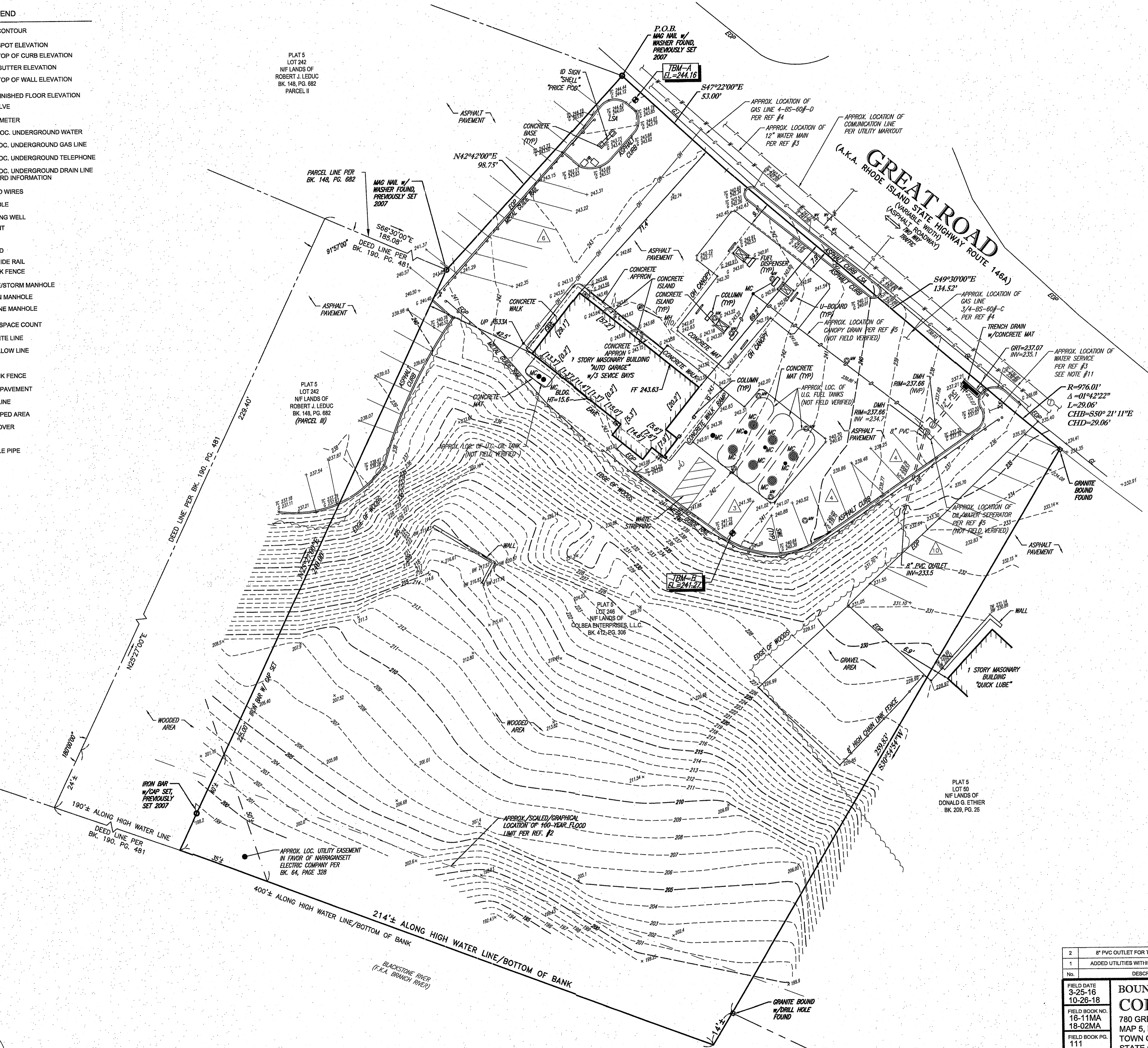
LEGEND

- 124 --- EXISTING CONTOUR
- 125 --- EXISTING CONTOUR
- X 123.45 EXISTING SPOT ELEVATION
- X TC 123.45 EXISTING TOP OF CURB ELEVATION
- X G 123.45 EXISTING GUTTER ELEVATION
- X TW 123.45 EXISTING TOP OF WALL ELEVATION
- X FF 123.45 EXISTING FINISHED FLOOR ELEVATION
- W VALVE WATER VALVE
- EM ELECTRIC METER
- W APPROX. LOC. UNDERGROUND WATER
- G APPROX. LOC. UNDERGROUND GAS LINE
- T APPROX. LOC. UNDERGROUND TELEPHONE
- D APPROX. LOC. UNDERGROUND DRAIN LINE PER RECORD INFORMATION
- OH OVERHEAD WIRES
- UP UTILITY POLE
- MW MONITORING WELL
- AL AREA LIGHT
- SIGN SIGN
- U-BOLLARD U-BOLLARD
- MGR METAL GUIDE RAIL
- CLF CHAIN LINK FENCE
- DMH DRAINAGE/STORM MANHOLE
- MH UNKNOWN MANHOLE
- TMH TELEPHONE MANHOLE
- PC PARKING SPACE COUNT
- SWL SOLID WHITE LINE
- SYL SOLID YELLOW LINE
- BLDG BUILDING
- CLF CHAIN LINK FENCE
- EDP EDGE OF PAVEMENT
- GL GUTTER LINE
- LSA LANDSCAPED AREA
- MC METAL COVER
- (TYP) TYPICAL
- (NVP) NO VISIBLE PIPE
- (INV) INVERT

PLAT 5
LOT 242
NET LANDS OF
ROBERT J. LEDUC
BK. 148, PG. 682
PARCEL II

PLAT 5
LOT 242
NET LANDS OF
ROBERT J. LEDUC
BK. 148, PG. 682
(PARCEL III)

PLAT 5
LOT 59
NET LANDS OF
DONALD G. ETHER
BK. 209, PG. 25



NOTES:

1. PROPERTY KNOWN AS LOT 246 AS SHOWN ON THE CITY OF NORTH SMITHFIELD, PROVIDENCE COUNTY, STATE OF RHODE ISLAND; ASSESSORS MAP NO.5.
 2. AREA = 66,400± SQUARE FEET OR 1.52± ACRES.
 3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK-OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
 4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
 5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
 6. BY GRAPHIC PLOTTING ONLY PROPERTY IS PREDOMINATELY LOCATED IN FLOOD HAZARD ZONE X (AREA DETERMINED TO BE OUTSIDE 600-YEAR FLOODPLAIN) AND PARTIALLY LOCATED IN ZONE A (NO BASE FLOOD ELEVATION DETERMINED) PER REF. #2. THE IMPROVED STATION IS GRAPHICALLY LOCATED IN ZONE X. APPROXIMATE LOCATION OF 100-YEAR FLOOD LIMIT SHOWN.
 7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).
- TEMPORARY BENCH MARKS SET:
TBM-A: MAG NAIL SET ON SOUTHWESTERLY SIDE OF GREAT ROAD AS SHOWN. ELEVATION = 244.16
TBM-B: MAG NAIL SET ON THE SOUTHEASTERLY SIDE OF EXISTING BUILDING AS SHOWN. ELEVATION = 241.27
- PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.
8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
 9. THIS SURVEY DOES NOT SHOW THE EXISTENCE OF WETLANDS, IF ANY.
 10. THE LOCATION OF UNDERGROUND TANKS ARE APPROXIMATE ONLY.
 11. PER THE TOWN OF NORTH SMITHFIELD WATER AND SEWER COORDINATOR, NO INFORMATION REGARDING THE SIZE AND MATERIAL OF THE WATER SERVICE LINE WAS FOUND IN TOWN RECORDS.

REFERENCES:

1. THE TAX ASSESSOR'S PLAT OF THE TOWN OF NORTH SMITHFIELD, PROVIDENCE COUNTY, RHODE ISLAND, PLAT NO. 5.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND, PROVIDENCE COUNTY, PANEL 156 OF 451", COMMUNITY-PANEL NUMBER 44007C0196G, MAP REVISED: MARCH 2, 2000.
3. UNDERGROUND WATER FACILITY MAPPING PROVIDED BY TOWN OF NORTH SMITHFIELD WATER AND SEWER DEPARTMENT
4. UNDERGROUND GAS FACILITY MAPPING PROVIDED BY NATIONAL GRID
5. MAP ENTITLED "SHELL OIL COMPANY, NORTH SMITHFIELD, R.I., GREAT ROAD (RTE 146-A) & SCVHOOB STREET, SITE PLAN - CANOPY, PREPARED BY AYOB ENGINEERING, INC., DATED MARCH 24, 1993, LAST REVISED JUNE 22, 1993.

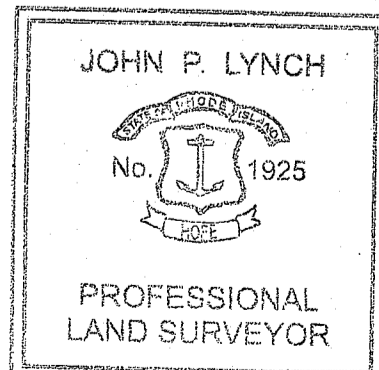
SHEET 2 OF 14

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 04 2019 FILE # 19-0027
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015 AS FOLLOWS:

- A. TYPE OF BOUNDARY SURVEY: COMPREHENSIVE BOUNDARY SURVEY MEASUREMENT SPECIFICATION: III
- B. OTHER TYPE OF SURVEY: DATA ACCUMULATION SURVEY (PLANIMETRIC SURVEY, TOPOGRAPHIC SURVEY) VERTICAL CONTROL STANDARD TOPOGRAPHIC SURVEY ACCURACY V-3 T-1
- C. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS: PREPARE BOUNDARY AND TOPOGRAPHIC SURVEY AND OBTAIN TOPOGRAPHIC AND PLANIMETRIC INFORMATION FOR USE AS A BACKGROUND DOCUMENT FOR SITE PLAN PREPARATION.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL



No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE
2	8" PVC OUTLET FOR THE OIL/WATER SEPARATOR ADDED	S.P.P.	S.P.P.	J.P.L.	10-28-18
1	ADDED UTILITIES WITHIN ROADWAY AND DRAIN LINES ADDED	-	S.P.P.	J.P.L.	08-20-18

FIELD DATE: 3-25-16
FIELD BOOK NO.: 18-111MA
FIELD BOOK PG.: 111
158

FIELD CREW: B.S.B., S.P.P., INDO

DRAWN: J.P.L.

REVIEWED: R.D.N.

APPROVED: J.P.L.

DATE: 04-05-16

SCALE: 1"=20'

FILE NO.: 03-160060

DWG. NO.: 1 OF 1

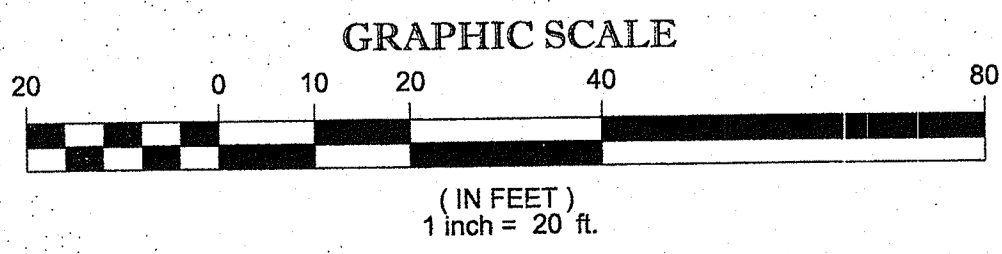
BOUNDARY & TOPOGRAPHIC SURVEY
COLBEA ENTERPRISES, L.L.C.
780 GREAT ROAD
MAP 5, LOT 246
TOWN OF NORTH SMITHFIELD, PROVIDENCE COUNTY
STATE OF RHODE ISLAND

CONTROL POINT ASSOCIATES, INC.
332 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX

MANHATTAN, NY 646.789.0411
MT. LAUREL, NJ 609.877.2099
CHALFONTE, PA 215.712.9800
WARREN, NJ 908.668.0099

JOHN P. LYNCH
RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1925
CERTIFICATE OF AUTHORIZATION #A350

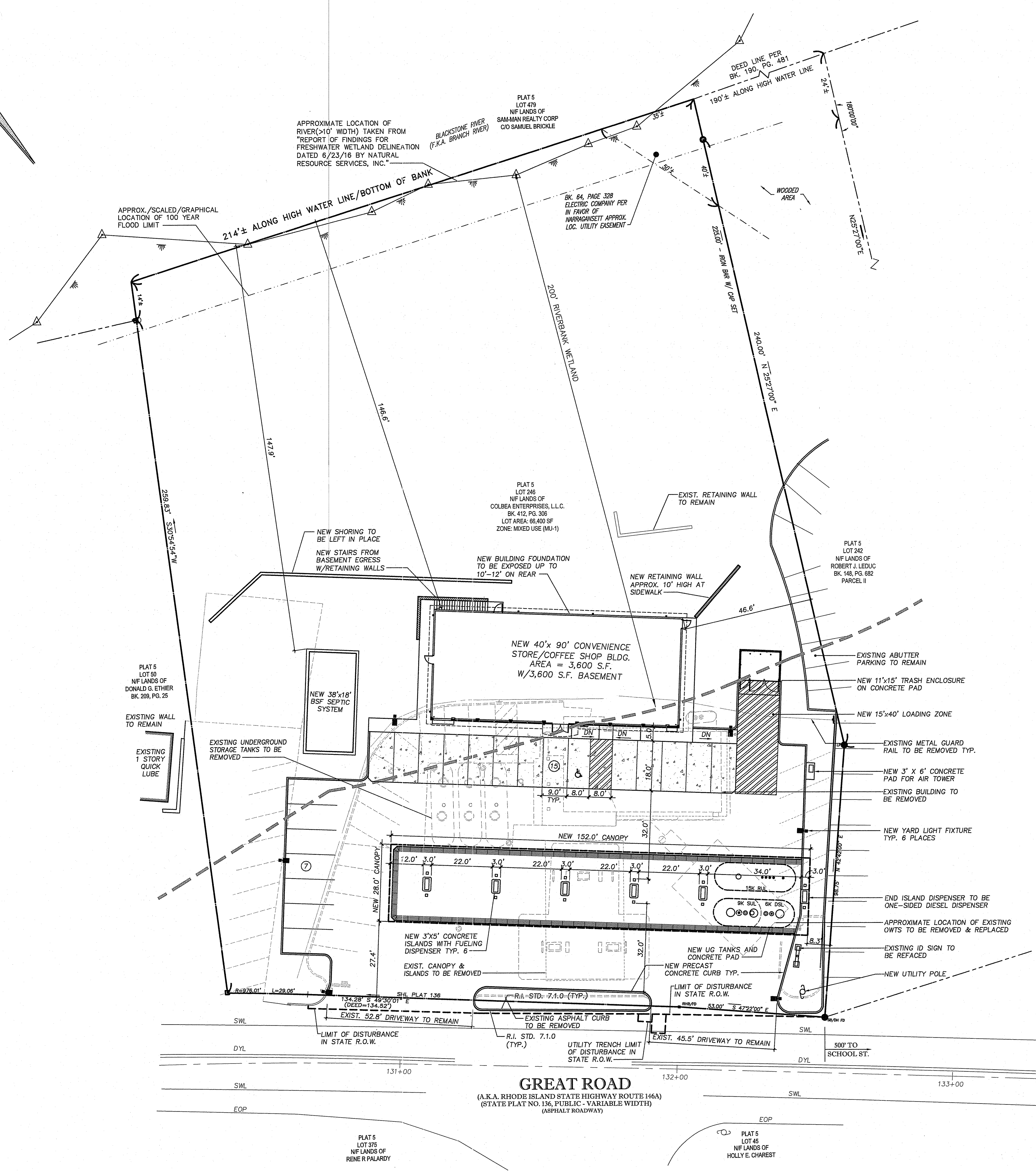
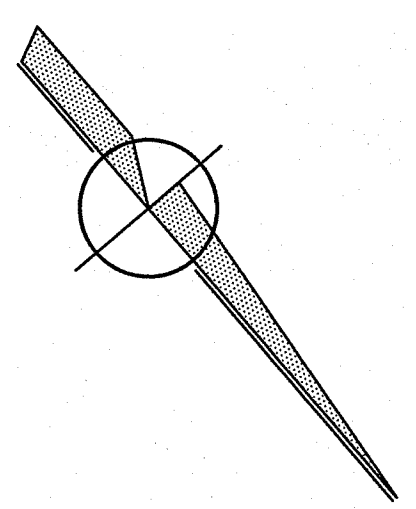
DATE: 10/26/2018



THE STATE OF RHODE ISLAND REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.
RHODE ISLAND DIG SAFE SYSTEM
(1-888-344-7233)

CONTROL POINT ASSOCIATES, INC. - ALL RIGHTS RESERVED. THE CONTENTS OF THIS DOCUMENT OR ANY PART THEREOF ARE THE PROPERTY OF CONTROL POINT ASSOCIATES, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CONTROL POINT ASSOCIATES, INC.

PA1559 NORTH SMITHFIELD, RI 2016-PROJECTCONSTRUCTION DOCUMENTS\1559 MP7_1_29864_1285_1_22270_3835_1_1_6345.DWG



APPROXIMATE LOCATION OF RIVER <10' WIDTH TAKEN FROM "REPORT OF FINDINGS FOR FRESHWATER WETLAND DELINEATION DATED 6/23/16 BY NATURAL RESOURCE SERVICES, INC."

APPROX./SCALED/GRAPHICAL LOCATION OF 100 YEAR FLOOD LIMIT

214'± ALONG HIGH WATER LINE/BOTTOM OF BANK

WOODED AREA

PLAT 5 LOT 478 NF LANDS OF SAMMAN REALTY CORP C/O SAMUEL BRICKLE

BK. 64, PAGE 328 ELECTRIC COMPANY PER IN FAVOR OF NARRAGANSETT APPROX. LOC. UTILITY EASEMENT

200' RIVERBANK WETLAND

PLAT 5 LOT 246 NF LANDS OF COLBEA ENTERPRISES, LLC. BK. 412, PG. 308 LOT AREA: 66,400 SF ZONE: MIXED USE (MU-1)

PLAT 5 LOT 242 NF LANDS OF ROBERT J. LEDUC BK. 148, PG. 682 PARCEL II

PLAT 5 LOT 50 NF LANDS OF DONALD G. ETHER BK. 209, PG. 25

NEW 38'x18' 85F SEPTIC SYSTEM

NEW 40'x 90' CONVENIENCE STORE/COFFEE SHOP BLDG. AREA = 3,600 S.F. W/3,600 S.F. BASEMENT

EXISTING ABUTTER PARKING TO REMAIN

NEW 11'x15' TRASH ENCLOSURE ON CONCRETE PAD

NEW 15'x40' LOADING ZONE

EXISTING METAL GUARD RAIL TO BE REMOVED TYP.

NEW 3' X 6' CONCRETE PAD FOR AIR TOWER

EXISTING BUILDING TO BE REMOVED

NEW YARD LIGHT FIXTURE TYP. 6 PLACES

END ISLAND DISPENSER TO BE ONE-SIDED DIESEL DISPENSER

APPROXIMATE LOCATION OF EXISTING OWTS TO BE REMOVED & REPLACED

EXISTING ID SIGN TO BE REFACED

NEW UTILITY POLE

GREAT ROAD (A.K.A. RHODE ISLAND STATE HIGHWAY ROUTE 146A) (STATE PLAT NO. 136, PUBLIC - VARIABLE WIDTH) (ASPHALT ROADWAY)

PLAT 5 LOT 375 NF LANDS OF RENE PALARDY

PLAT 5 LOT 45 NF LANDS OF HOLLY E. CHAREST



LOCUS MAP

SCALE: 1"=2,000'

ZONING DATA

ZONE: MIXED USE (MU-1) PLAT 5 LOT 246		REQUIRED:	EXISTING:	PROVIDED:
BUILDING SETBACKS:	MINIMUM FRONT YARD	3' MIN./15' MAX.	7.9' (CANOPY)	27.4' (CANOPY)
	MINIMUM SIDE YARD	0'	42.5' (BUILDING)	46.6' (BUILDING) 8.3' (CANOPY)
	MINIMUM REAR YARD	0'	198.0' (BUILDING)	146.6' (BUILDING)
	LOT AREA	N/A	66,400 SF	66,400 SF

PARKING REQUIREMENTS:
RETAIL SERVICES:
2 SPACE FOR EACH 1,000 SQUARE FEET OF GROSS FLOOR AREA
BUILDING AREA=3,600 SF/1,000 = 3.6x2=7.2

TOTAL PARKING REQUIRED: 8 SPACES 18 SPACES 22 SPACES

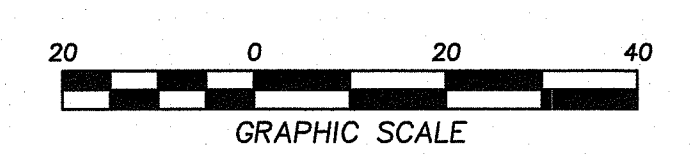
ZONING INFORMATION WAS TAKEN FROM: ONLINE ZONING BY-LAWS TOWN OF NORTH SMITHFIELD, RI

LEGEND

	UTILITY POLE
	AREA LIGHT
	SIGN
	U-BOLLARD
	LIMIT OF DISTURBANCE
	METAL GUIDE RAIL
	PARKING SPACE COUNT
	SOLID WHITE LINE
	DOUBLE YELLOW LINE
	EDGE OF PAVEMENT

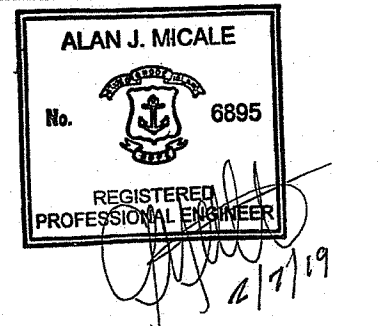
- GENERAL NOTES:
- FOR WORK IN R.I.D.O.T. RIGHT OF WAY, SEE SHEETS C-1, C-3, SD-2 AND SD-3.
 - ALL WORK WITHIN THE STATE'S ROW WILL CONFORM TO THE RIDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED 2013, WITH ALL REVISIONS AND R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.
 - ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009, INCLUDING ALL REVISIONS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 04, 2019 FILE # 19-0027
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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REFERENCE:
PROPERTY LINES AND OTHER TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WERE TAKEN FROM:
BOUNDARY & TOPOGRAPHIC SURVEY PLAN, BY:
CONTROL POINT ASSOCIATES, INC. SCALE: 1" = 20';
DATE: 4-05-16/REVISED 10-26-18 & GOOGLE EARTH

AYOUB ENGINEERING EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR MONITORING, INSPECTING, OBSERVING, OR SUPERVISING CONSTRUCTION SERVICES OR THE MEANS, METHODS, SEQUENCES AND TECHNIQUES OF CONSTRUCTION OR FOR JOB SITE SAFETY AND PROGRAMS FOR THE PROJECT DEFINED BY THE PLANS FOR WHICH THIS CERTIFICATION IS AFFIXED. AYOUB HAS NOT BEEN RETAINED FOR NOR SHALL IT HAVE ANY CONTROL OVER OR BE IN CHARGE OF ACTS OR OMISSIONS OF ANY CONTRACTOR, SUBCONTRACTOR, OTHER AGENTS OR EMPLOYEES OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.



REV	PER	DATE	DESCRIPTION
1	PAS	5/7/19	ADDED NOTES PER RIDOT COMMENTS

AYOUB ENGINEERING
Engineers & Architects
ADDRESS:
414 BENEFIT STREET
PAWTUCKET, RHODE ISLAND 02861
401-728-5535

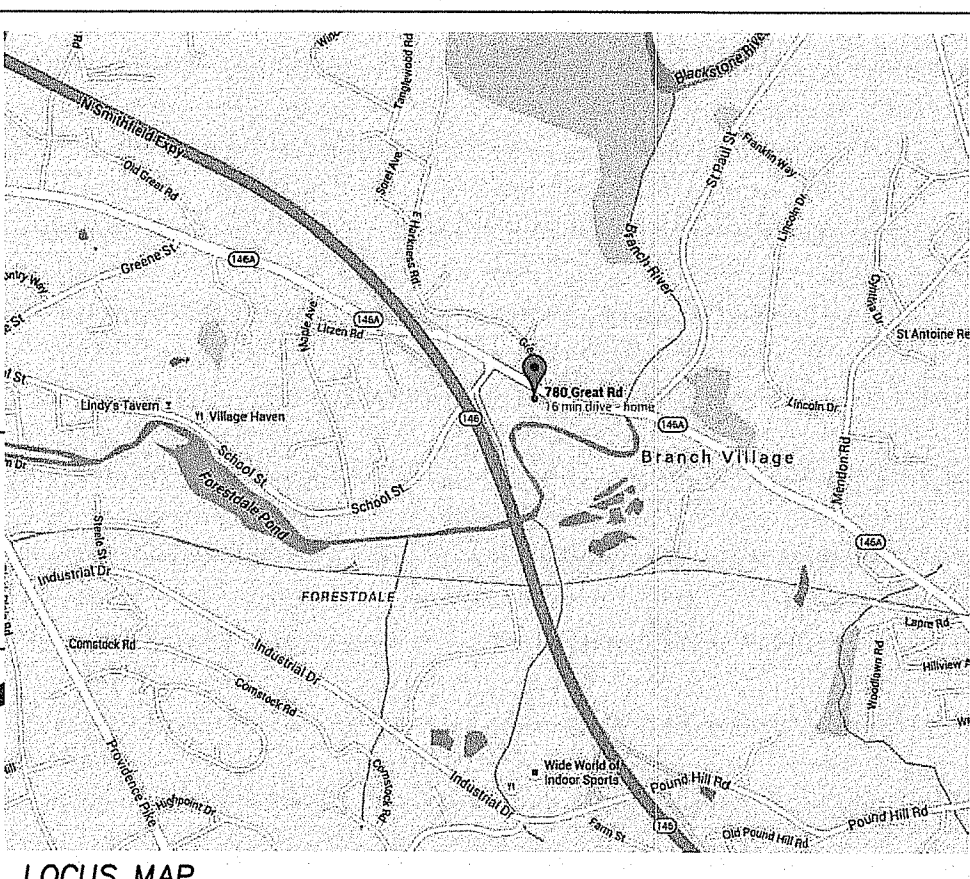
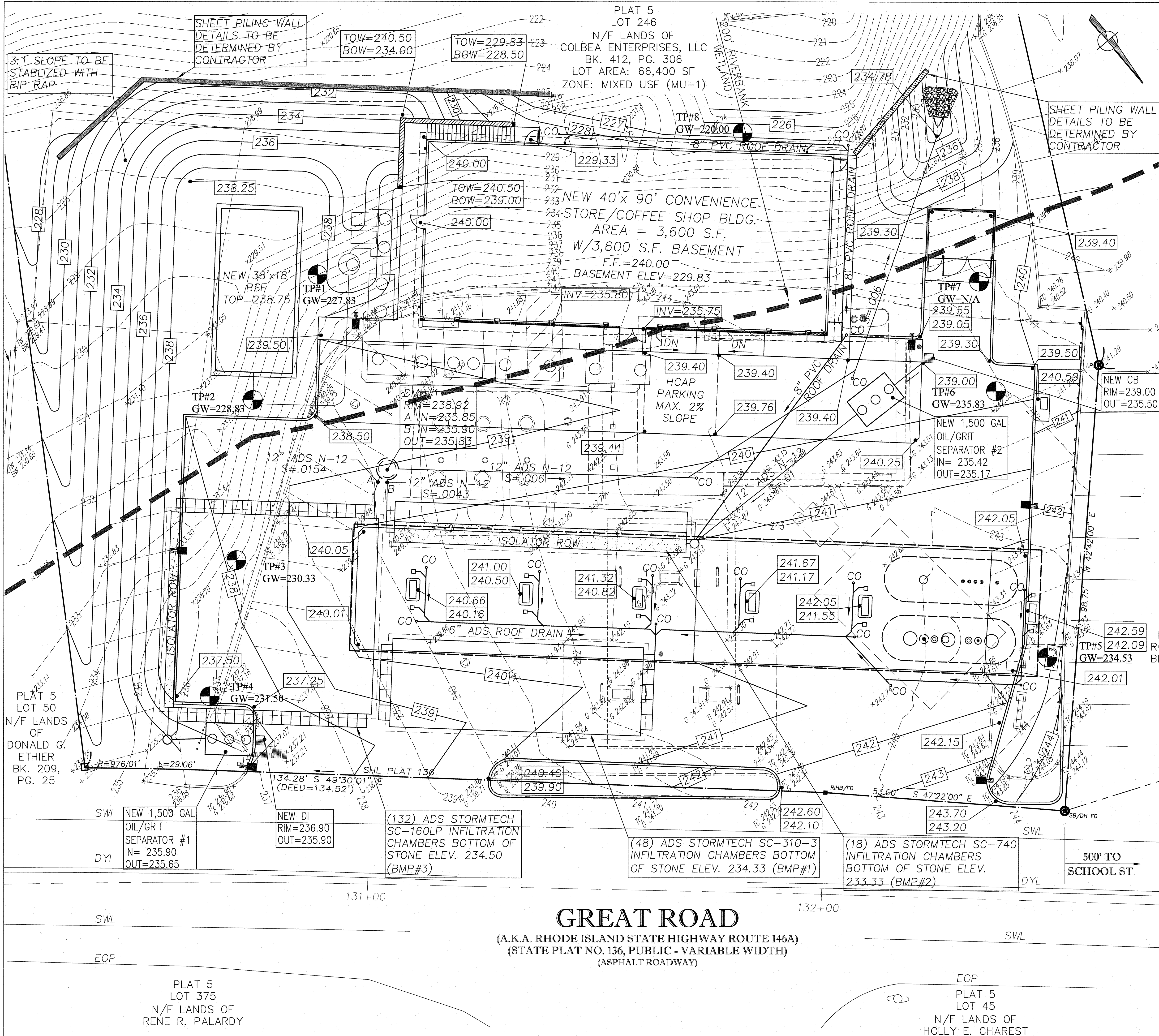
PREPARED FOR:
COLBEA ENTERPRISES, LLC
7 STARLINE WAY CRANSTON, RI

PROJECT ADDRESS:
SEASONS CORNER MARKET
780 GREAT ROAD NORTH SMITHFIELD, RI
A.P. 5, LOT 246

SHEET DESCRIPTION:
SITE IMPROVEMENT PLAN

PROJECT NO. 1559.216	SHEET NO.
SCALE: 1"=20'	C-1
DRAWN BY: NP	SHEET 3 OF 14
DATE: 2/4/19	

NOT FOR CONSTRUCTION



LEGEND

- EXISTING CONTOUR
- x 125.50 EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- UTILITY POLE
- AREA LIGHT
- SIGN
- U-BOLLARD
- CHAIN LINK FENCE
- SWL SOLID WHITE LINE
- DYL DOUBLE YELLOW LINE
- EOP EDGE OF PAVEMENT

- GENERAL NOTES:**
- FOR WORK IN R.I.D.O.T. RIGHT OF WAY, SEE SHEETS C-1, C-3, SD-2 AND SD-3.
 - THE CONTRACTOR WILL SET ALL OWT'S FRAMES AND COVERS CAREFULLY TO AVOID PONDING AND/OR HIGH SPOTS THAT COULD IMPAIR HANDICAPPED ACCESSIBILITY. FRAMES AND COVERS TO BE LEVEL IN ALL DIRECTIONS WITH THE NEW PAVING.

AYOUB ENGINEERING EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR MONITORING, INSPECTING, OBSERVING, OR SUPERVISING CONSTRUCTION SERVICES OR THE MEANS, METHODS, SEQUENCES AND TECHNIQUES OF CONSTRUCTION OR FOR JOB SITE SAFETY AND PROGRAMS FOR THE PROJECT DEFINED BY THE PLANS FOR WHICH THIS CERTIFICATION IS AFFIRMED. AYOUB HAS NOT BEEN RETAINED FOR NOR SHALL IT HAVE ANY CONTROL OVER OR BE IN CHARGE OF ACTS OR OMISSIONS OF ANY CONTRACTOR, SUBCONTRACTOR, OTHER AGENTS OR EMPLOYEES OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.

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REVISIONS		DESCRIPTION
BY	NP	REVISED GRADING TO ACCOMMODATE CANOPY/FIRE SUPPRESSION
DATE	7/5/19	ADDED TEST PIT INFORMATION
REV	PER	DATE
1	PAS	7/5/19
2	PAS	7/5/19

AYOUB ENGINEERING
ENGINEERS & ARCHITECTS
ADDRESS:
414 BENEFIT STREET
PAWTUCKET, RHODE ISLAND 02861
401-728-5533

PREPARED FOR:
COLBEA ENTERPRISES, LLC
7 STARLINE WAY CRANSTON, RI

PROJECT ADDRESS:
SEASONS CORNER MARKET
780 GREAT ROAD NORTH SMITHFIELD, RI
A.P. 5, LOT 246

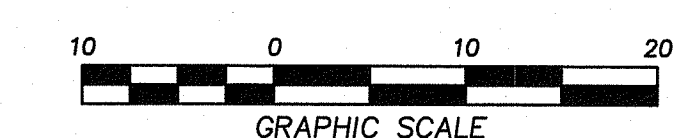
SHEET DESCRIPTION:
SITE GRADING PLAN

PROJECT NO. 1559.216
SCALE: 1"=10'
DRAWN BY: NP
DATE: 2/4/19

SHEET NO.
C-2
SHEET 4 OF 14

GREAT ROAD
(A.K.A. RHODE ISLAND STATE HIGHWAY ROUTE 146A)
(STATE PLAT NO. 136, PUBLIC - VARIABLE WIDTH)
(ASPHALT ROADWAY)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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APPROVED WITH CONDITIONS
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DATED SEP 04 2018
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APPROVED SIGNATURE MUST BE AT CONSTRUCTION SITE



REFERENCE:
PROPERTY LINES AND OTHER TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WERE TAKEN FROM:
BOUNDARY & TOPOGRAPHIC SURVEY PLAN, BY:
CONTROL POINT ASSOCIATES, INC. SCALE: 1" = 20',
DATE: 4-05-16/REVISED 10-26-18 & GOOGLE EARTH

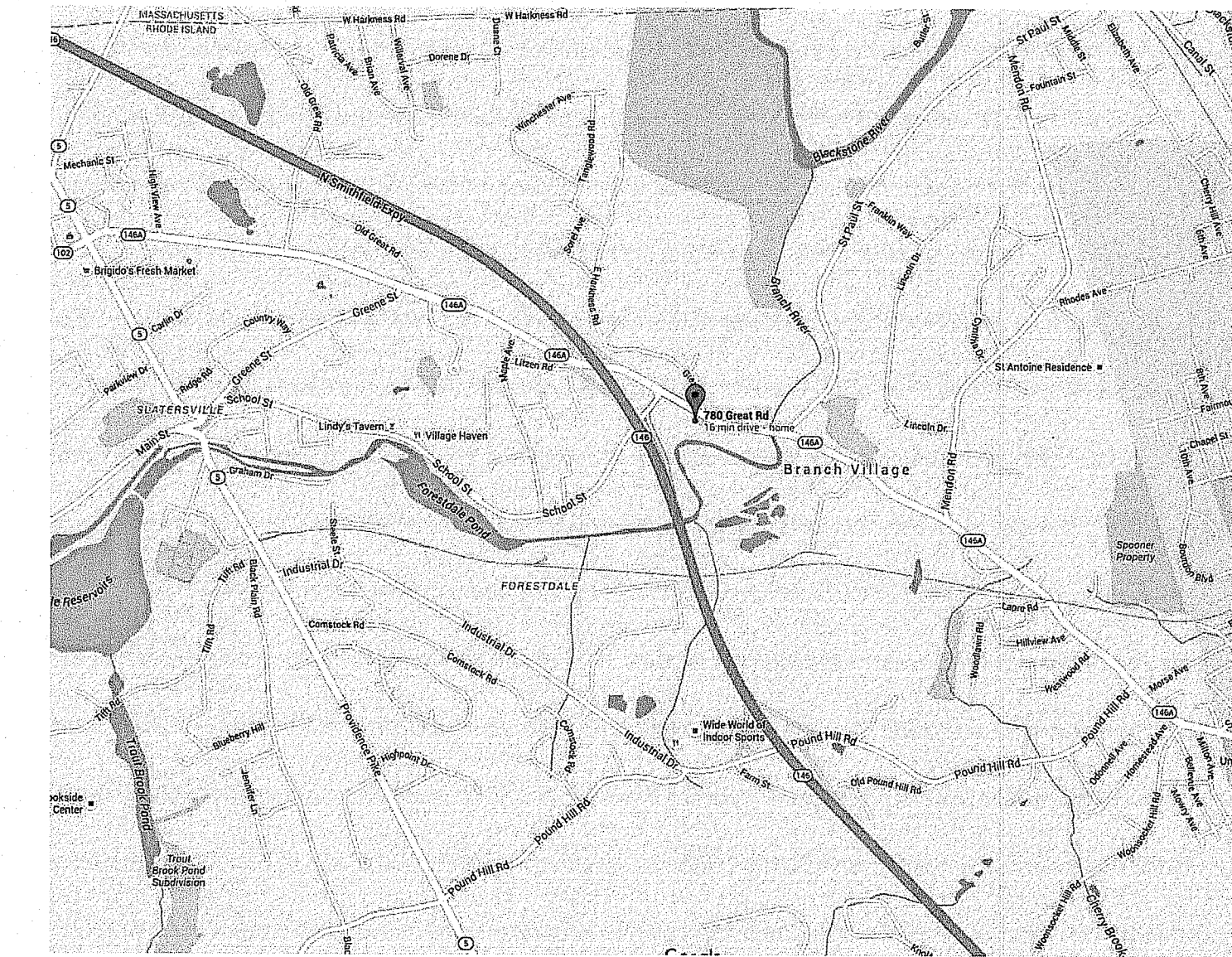
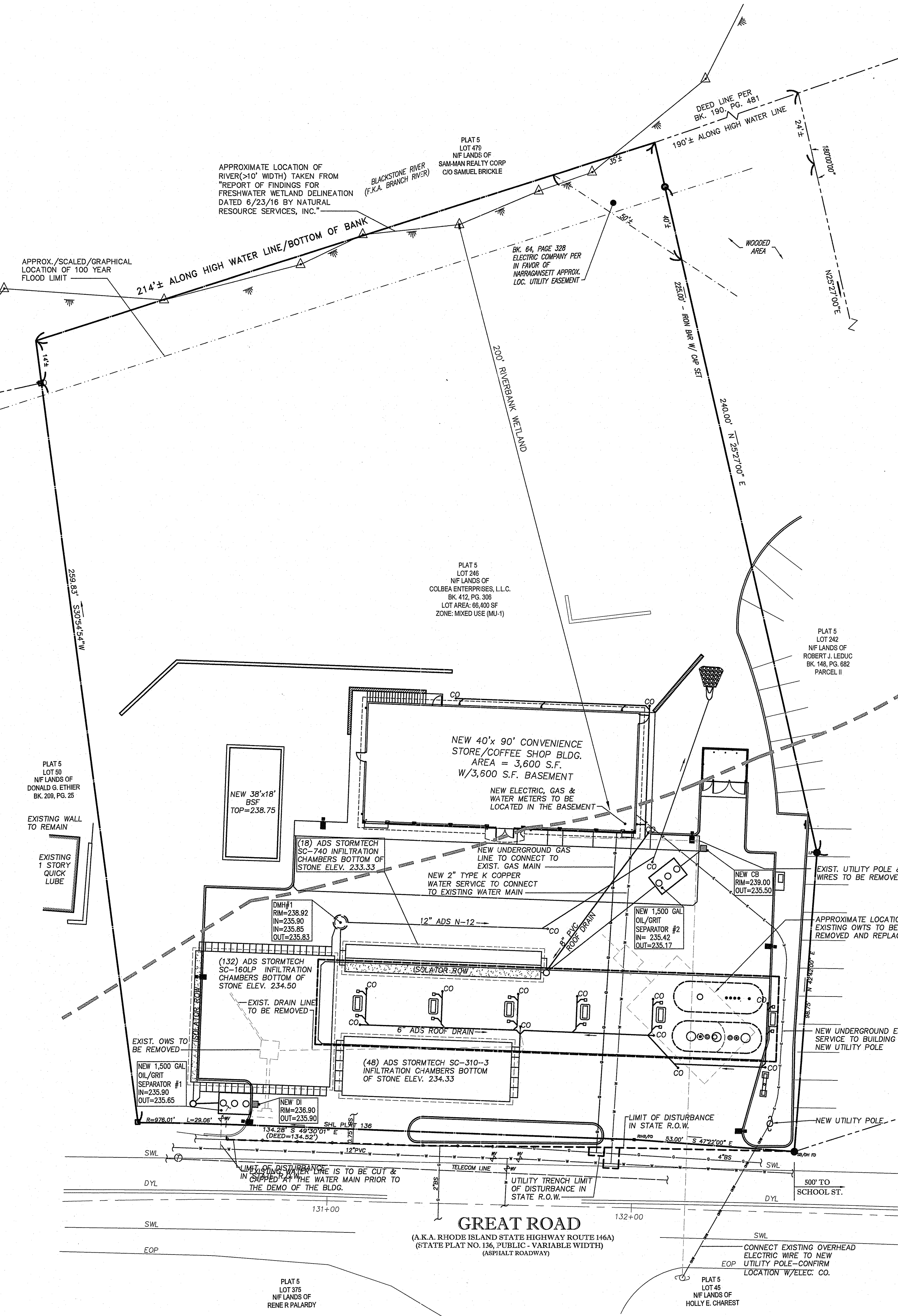
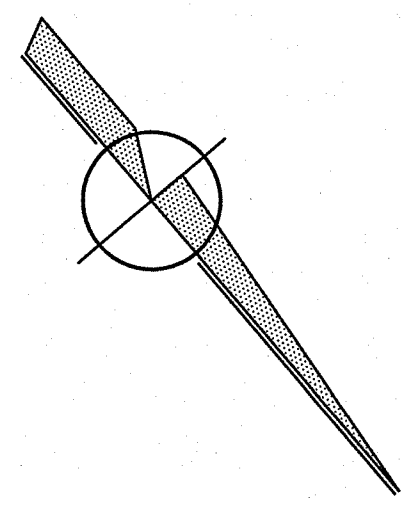
PLAT 5
LOT 50
N/F LANDS OF
DONALD G.
ETHIER
BK. 209,
PG. 25

PLAT 5
LOT 375
N/F LANDS OF
RENE R. PALARDY

EOP
PLAT 5
LOT 45
N/F LANDS OF
HOLLY E. CHAREST

500' TO
SCHOOL ST.

FILED: 09/08/2019 10:58 AM AT THE TOWN OF SMITHFIELD, R.I. PROJECT NO. 1559 MP7.1.29964.1285.1.22270.3835.1.1_6345.DWG

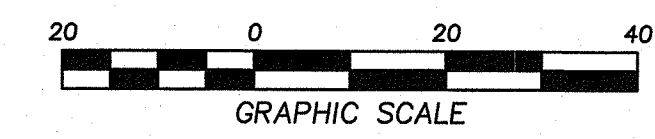


LOCUS MAP SCALE: 1"=2,000'

LEGEND	
	APPROX. LOC. UNDERGROUND WATER
	APPROX. LOC. UNDERGROUND GAS LINE
	OVERHEAD WIRES
	WATER VALVE
	UTILITY POLE
	AREA LIGHT
	SIGN
	CHAIN LINK FENCE
	SOLID WHITE LINE
	DOUBLE YELLOW LINE
	EDGE OF PAVEMENT

- GENERAL NOTES:**
- FOR WORK IN R.I.D.O.T. RIGHT OF WAY, SEE SHEETS C-1, C-3, SD-2 AND SD-3.
 - WITH RESPECT TO UTILITY CONNECTIONS WITHIN THE STATE'S ROW, THE APPLICANT IS REMINDED THAT THIS APPLICATION IS NOT A SUBSTITUTE FOR THE UTILITY PERMIT AND FURTHER THAT APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE APPROVAL OF ANY UTILITY WORK, SHOWN OR UN-SHOWN, WITHIN THE STATE'S ROW.

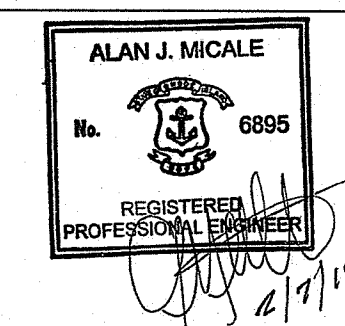
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED SEP 04 2019 FILE # 19-0027
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



REFERENCE:
 PROPERTY LINES AND OTHER TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WERE TAKEN FROM:
 BOUNDARY & TOPOGRAPHIC SURVEY PLAN, BY:
 CONTROL POINT ASSOCIATES, INC. SCALE: 1"=20'
 DATE: 4-05-16/REVISED 10-26-18 & GOOGLE EARTH

AYOUB ENGINEERING EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR MONITORING, INSPECTING, OBSERVING, OR SUPERVISING CONSTRUCTION SERVICES, OR THE MEANS, METHODS, SEQUENCES AND TECHNIQUES OF CONSTRUCTION OR FOR JOB SITE SAFETY AND PROGRAMS FOR THE PROJECT DEFINED BY THE PLANS FOR WHICH THIS CERTIFICATION IS AFFIXED. AYOUB HAS NOT BEEN RETAINED FOR NOR SHALL IT HAVE ANY CONTROL OVER OR BE IN CHARGE OF ACTS OR OMISSIONS OF ANY CONTRACTOR, SUBCONTRACTOR, OTHER AGENTS OR EMPLOYEES OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.

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REV	PER	DATE	DESCRIPTION
1	PAS	5/7/19	ADDED NOTES PER RIDOT COMMENTS

AYOUB ENGINEERING
 ENGINEERS & ARCHITECTS

ADDRESS:
 414 BENEFIT STREET
 PAWTUCKET, RHODE ISLAND 02861
 401-726-5535

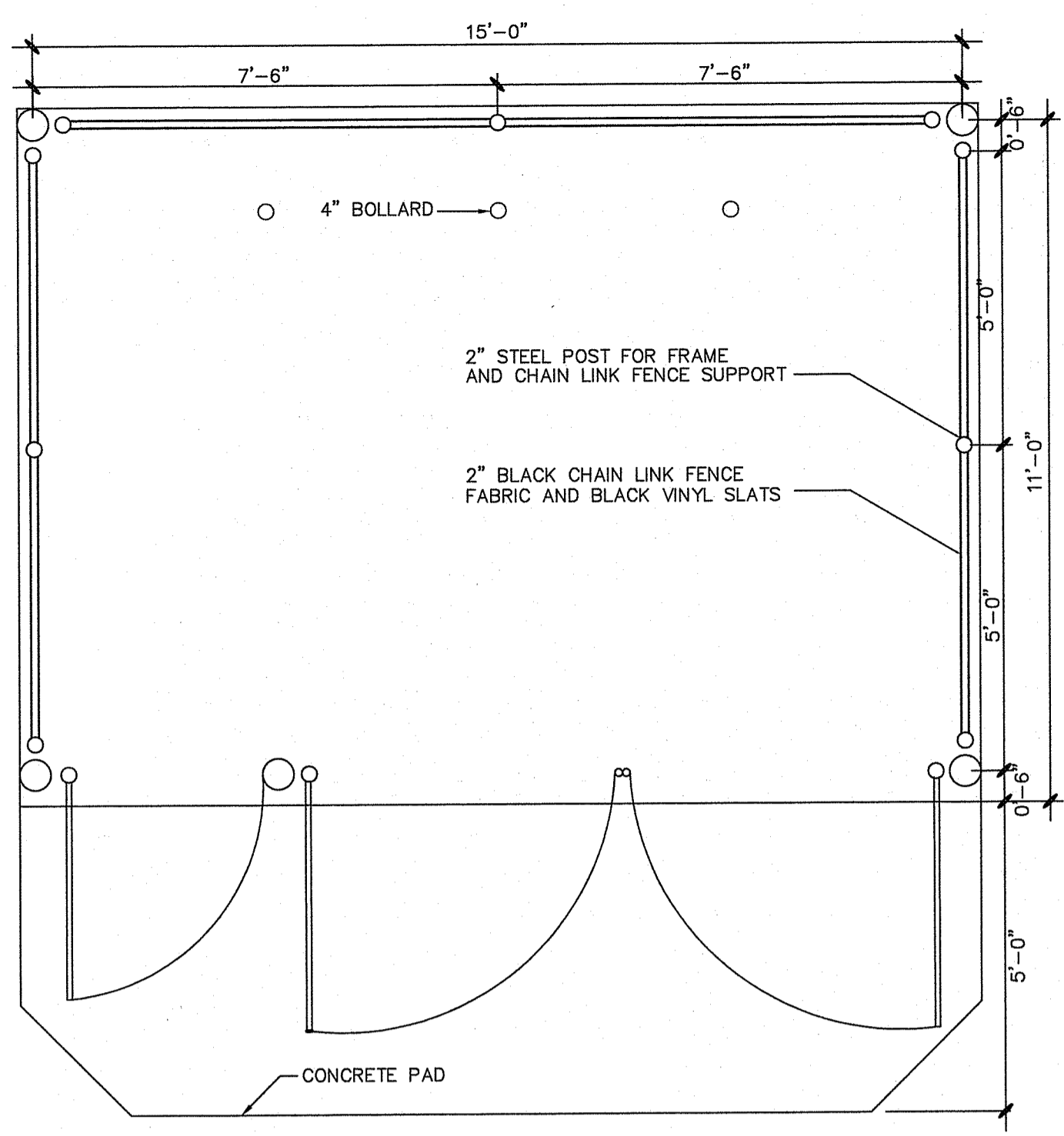
PREPARED FOR:
COLBEA ENTERPRISES, LLC
 7 STARLINE WAY CRANSTON, RI

PROJECT ADDRESS:
SEASONS CORNER MARKET
 780 GREAT ROAD NORTH SMITHFIELD, RI
 A.P. 5, LOT 246

SHEET DESCRIPTION
SITE UTILITY PLAN

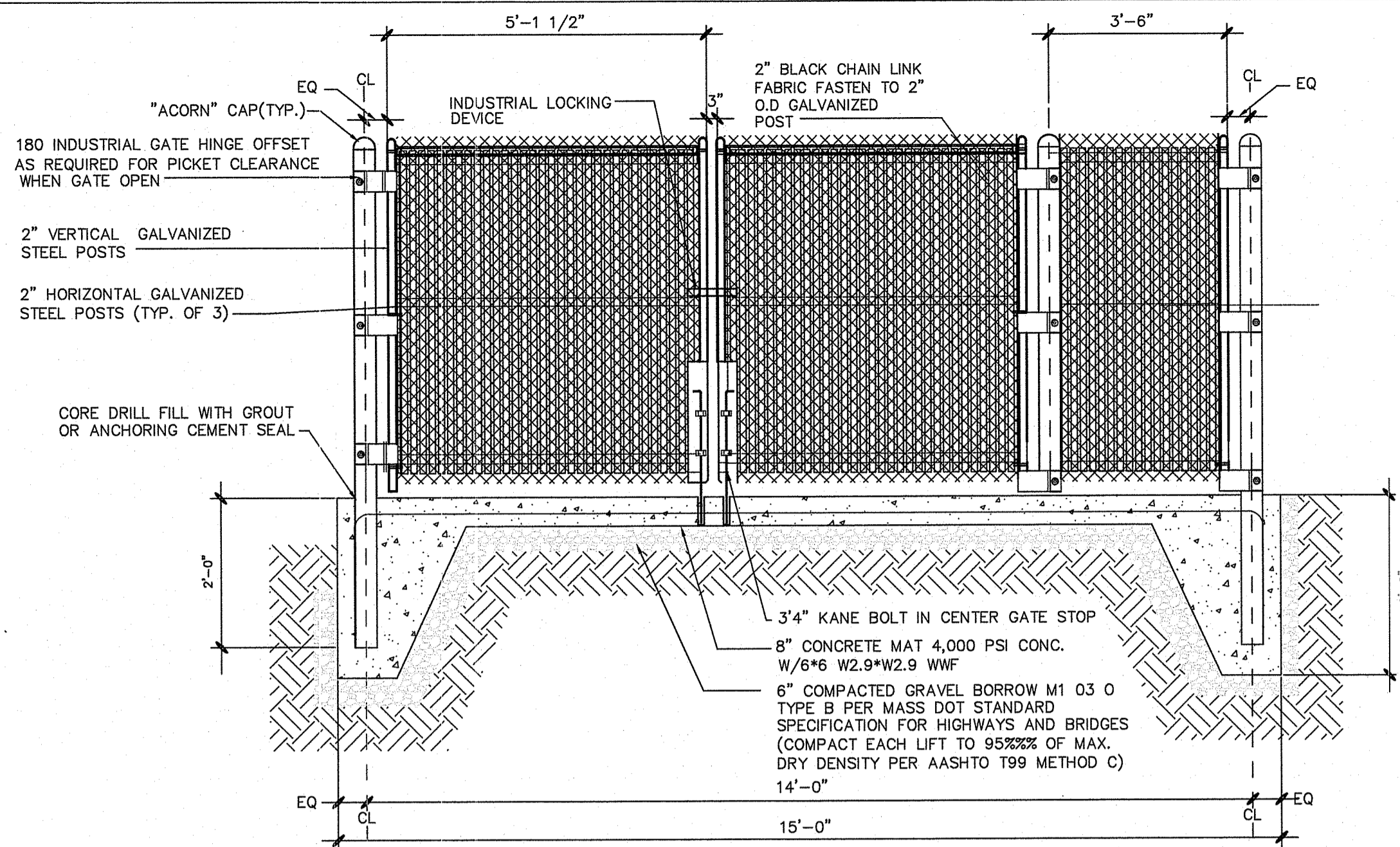
PROJECT NO. 1559.216	SHEET NO.
SCALE: 1"=20'	C-3
DRAWN BY: NP	SHEET 5 OF 14
DATE: 2/4/19	

NOT FOR CONSTRUCTION



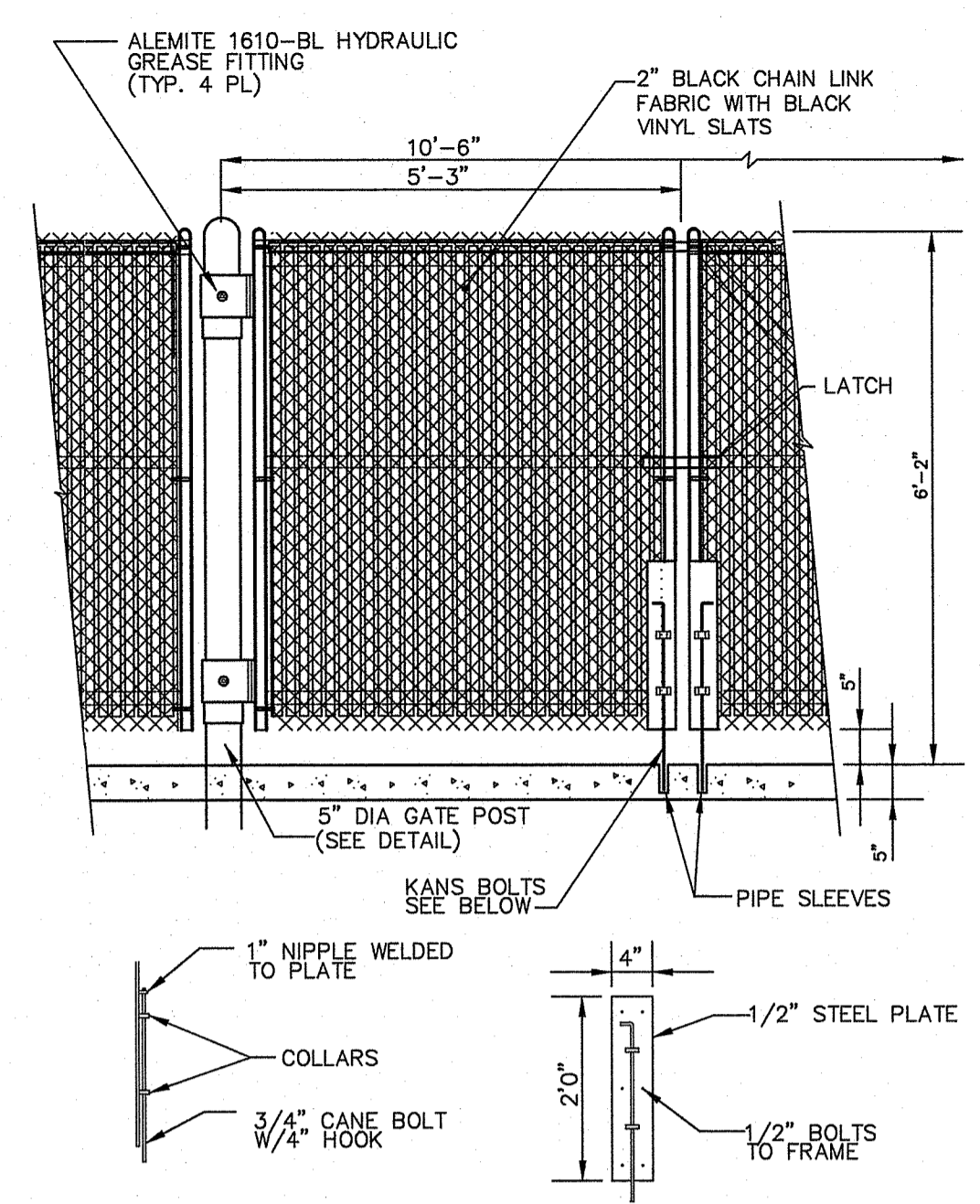
TYPICAL TRASH ENCLOSURE

Not To Scale



TYPICAL FRONT ELEVATION

Not To Scale

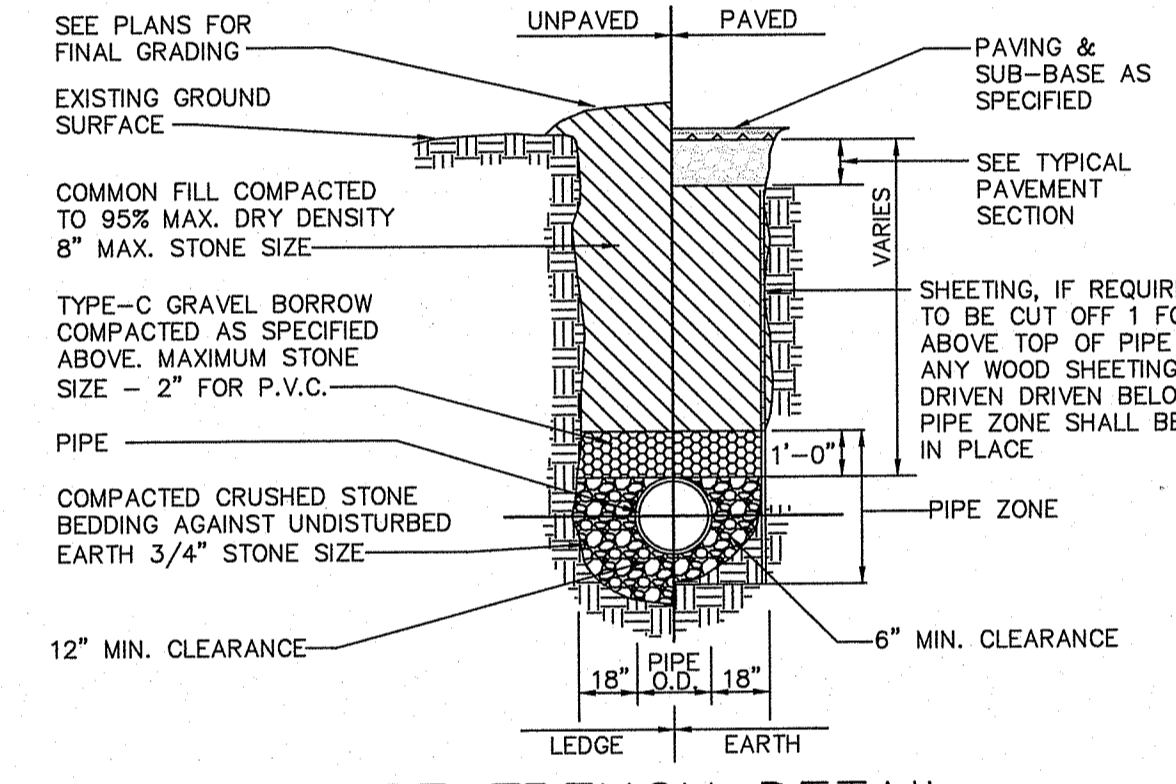


TRASH ENCLOSURE GATE & MOUNTING

Not To Scale

TYPICAL WALL SECTION

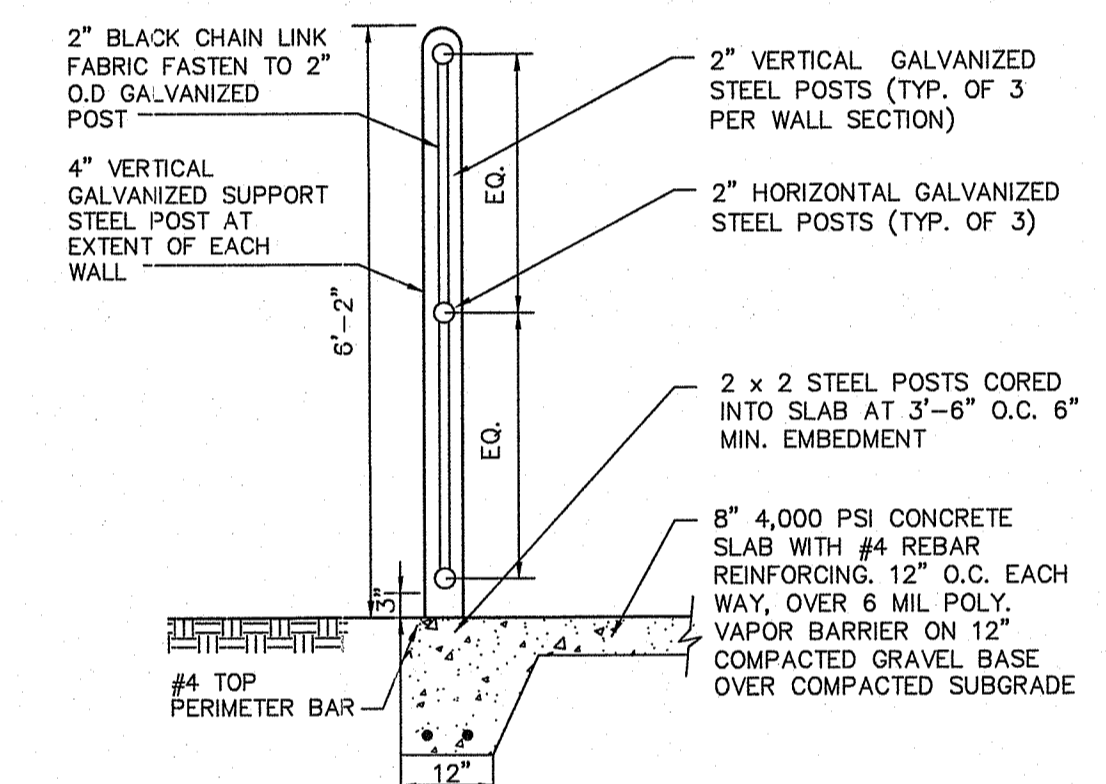
Not To Scale



PIPE TRENCH DETAIL

Not to Scale

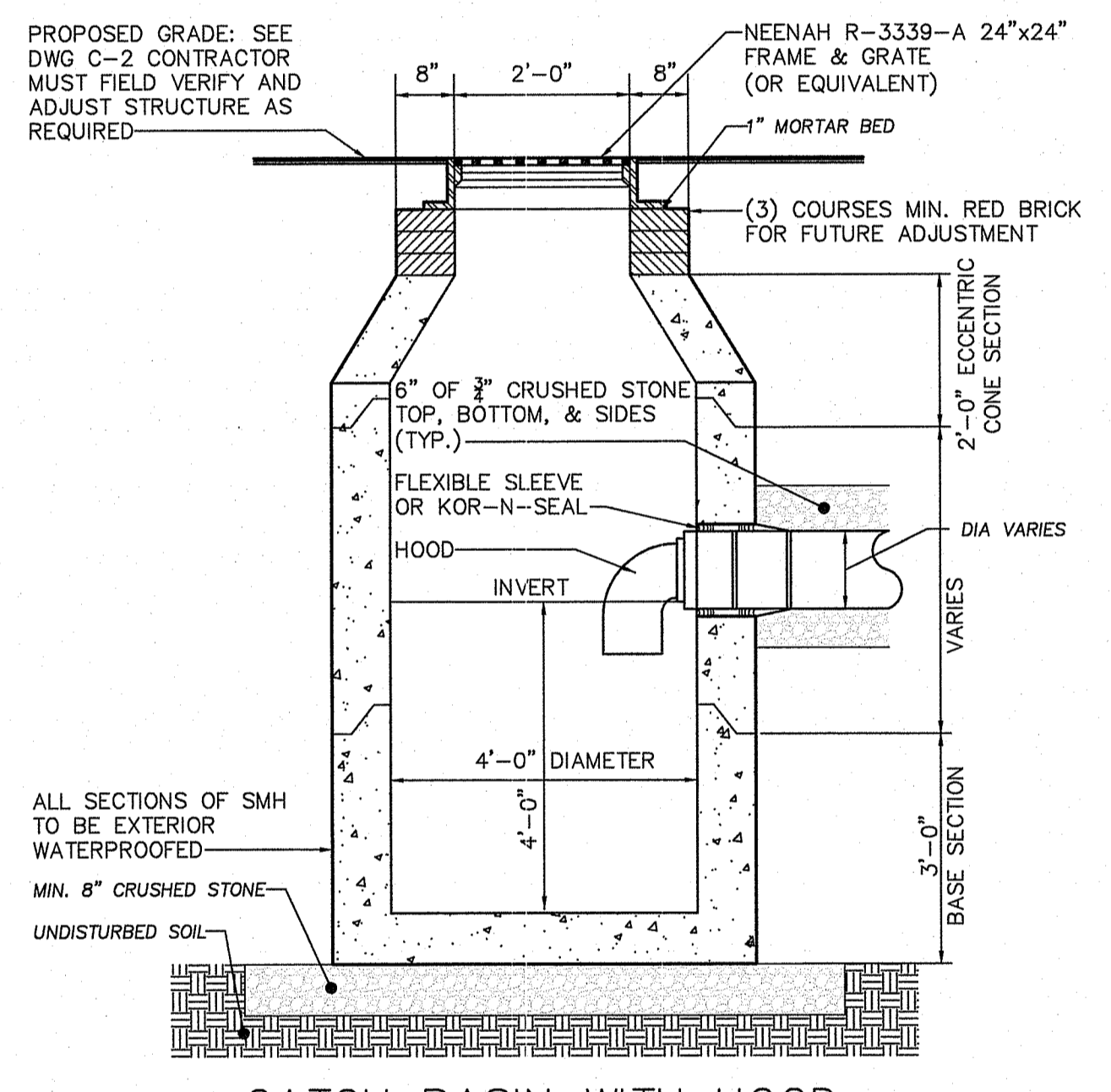
- NOTES:
- TYPE C GRAVEL BORROW SHALL CONFORM TO D.P.W. SPECIFICATIONS
 - CRUSHED STONE BEDDING SHALL CONFORM TO D.P.W. SPECIFICATIONS



TRASH ENCLOSURE WALL SECTION

Not To Scale

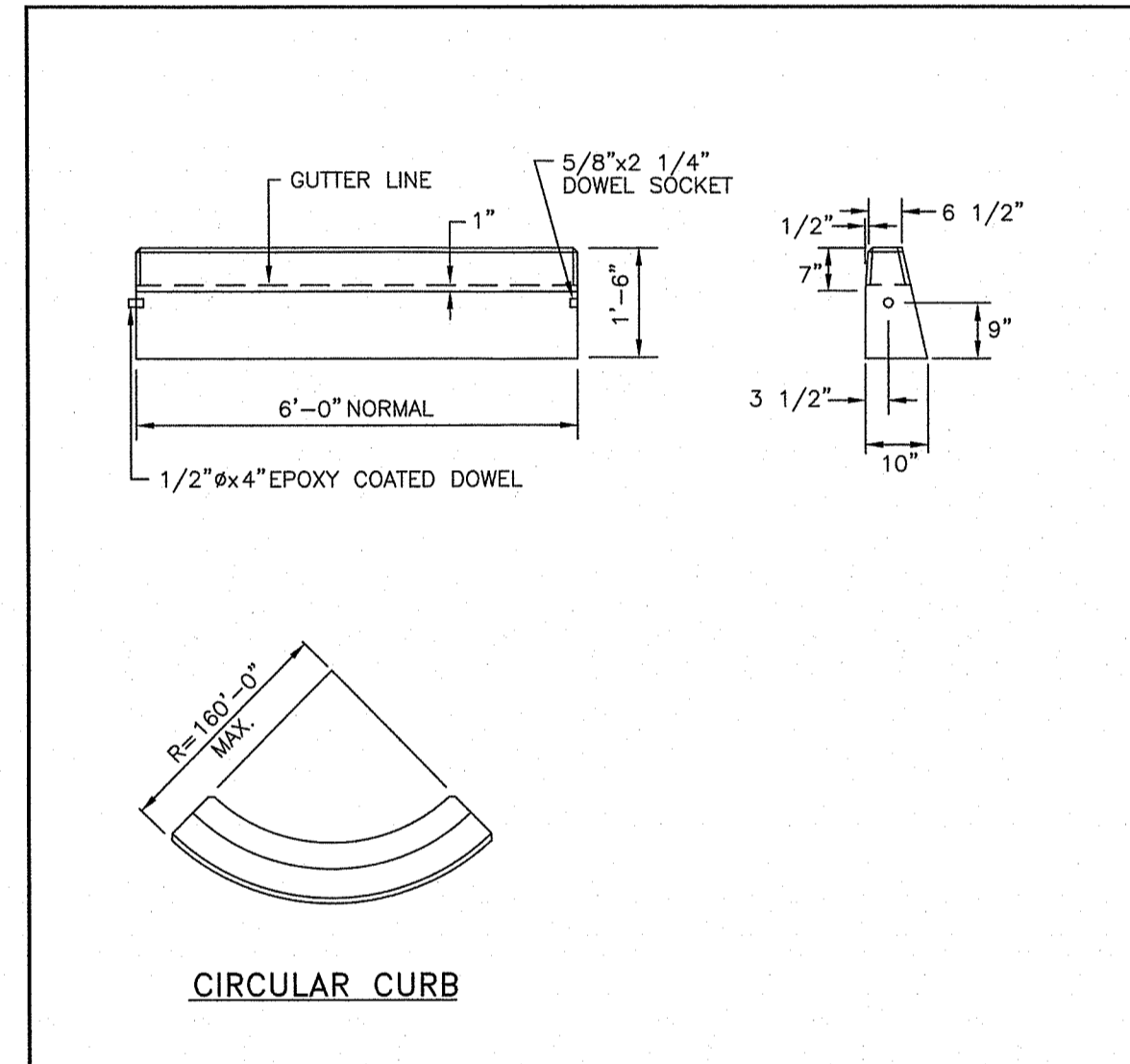
- NOTES:
- ALL FASTENERS ARE TO BE GALVANIZED.
 - FOUNDATION DESIGN TO BE PROVIDED BY CONTRACTOR.



CATCH BASIN WITH HOOD

Not to Scale

- NOTES:
- ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING

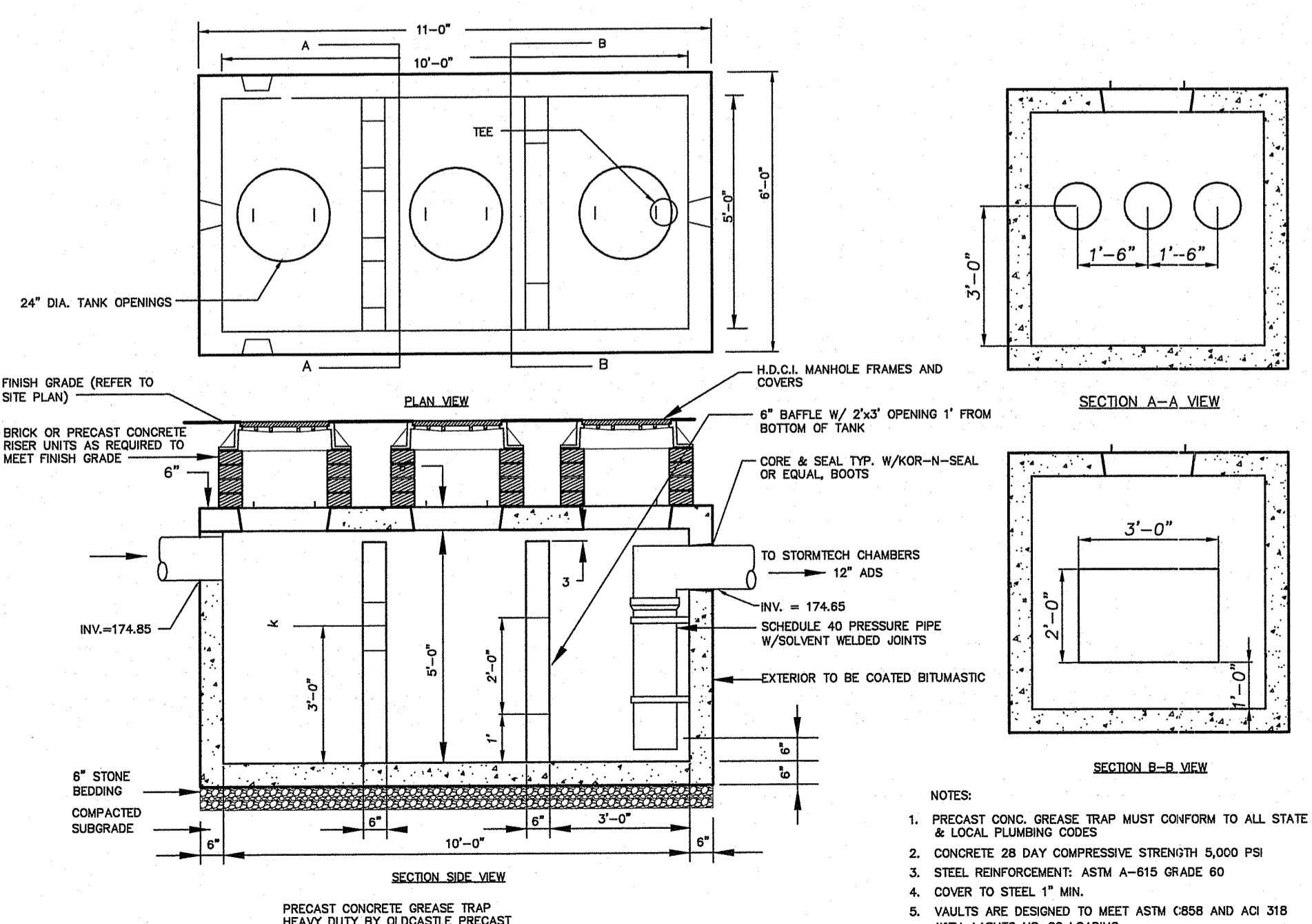


CIRCULAR CURB

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII 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.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

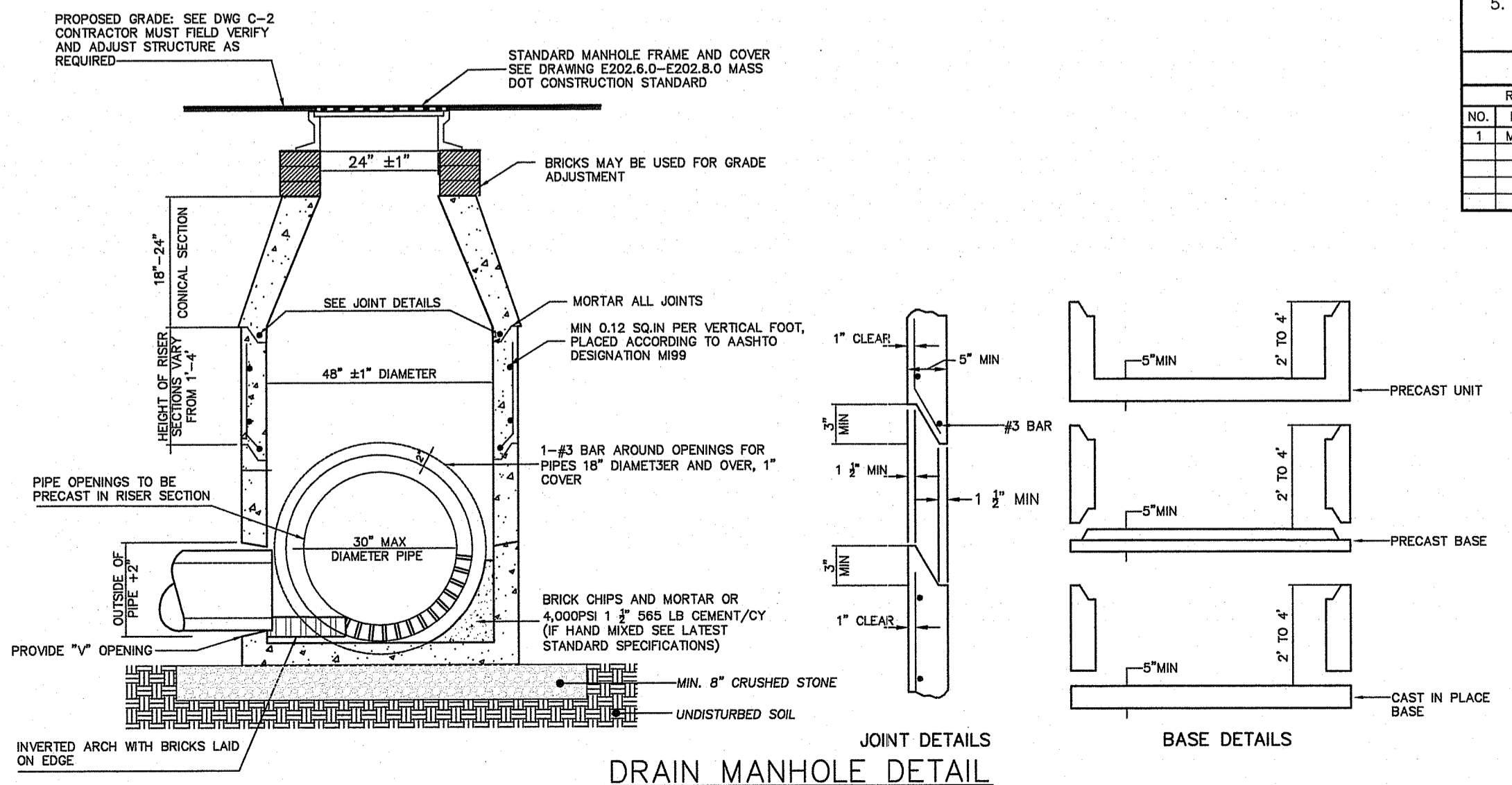
REVISIONS		PRECAST CONCRETE CURB		R.I. STANDARD 7.1.0
NO.	BY	DATE	ISSUE DATE	
1	MLP	Mar 05	JUNE 15, 1998	



1,500 GALLON OIL/GRIT SEPARATOR #1 (H-20)

NOT TO SCALE

- NOTES:
- PRECAST CONC. GREASE TRAP MUST CONFORM TO ALL STATE & LOCAL PLUMBING CODES
 - CONCRETE 28 DAY COMPRESSIVE STRENGTH 5,000 PSI
 - STEEL REINFORCEMENT: ASTM A-615 GRADE 60
 - COVER TO STEEL 1" MIN.
 - VAULTS ARE DESIGNED TO MEET ASTM C688 AND AIC 318 WITH AASHTO HS-20 LOADING



DRAIN MANHOLE DETAIL

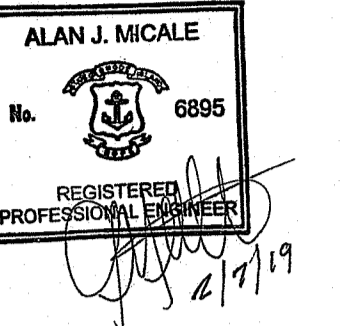
Not To Scale

- NOTES:
- SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 4, 2010 FILE # 19-0027
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REV	PER	DATE	DESCRIPTION

AYOUB ENGINEERING
Engineers & Architects
ADDRESS:
414 BENEFIT STREET
PAWTUCKET, RHODE ISLAND 02661
401-728-5635

COLBEA ENTERPRISES, LLC
7 STARLINE WAY CRANSTON, RI
PROJECT ADDRESS:
SEASONS CORNER MARKET
780 GREAT ROAD NORTH SMITHFIELD, RI
A.P. 5, LOT 246
SHEET DESCRIPTION:
SITE DETAIL SHEET

PROJECT NO. 1559.216 SHEET NO.
SCALE: AS NOTED
DRAWN BY: RCD
DATE: 2/4/19



F:\1559 NORTH SMITHFIELD, RI\2016-PROJECT\CONSTRUCTION DOCUMENTS\1559_SD.DWG

NOT FOR CONSTRUCTION

LEGEND

- APPROXIMATE PROPERTY LINE
- EDGE OF PAVEMENT
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT GRADE
- PROPOSED SOLID SCH 40 PVC
- PROPOSED SPOT GRADE
- ACCESS MANHOLE COVER
- CLEAN OUT
- TEST PIT (SOIL EVAL.)
- PROPOSED GRADE
- PROPOSED WATER LINE

TANK SYMBOL	DESCRIPTION (ALL TANKS TO BE H2O LOADING)	RIM (INLET SIDE)	RIM (OUTLET SIDE)	INVERT (IN)	INVERT (OUT)
ST	SEPTIC TANK = 3,000 GAL. (2-COMPARTMENT)	239.40	239.30	235.60(6")	235.35(4")
GT	GREASE TRAP = 1,500 GAL.	239.55	239.55	235.45(6")	235.20(4")
S	SURGE TANK = 1,000 GAL.	239.10	239.05	235.10(4")	236.00(2")
N	NIBBLER TANK = 7'X15'(12 POD)	239.00	239.00	235.90(2")	235.57(4")
C	CLARIFIER TANK = 1,500 GAL.	238.50	238.50	235.50(4")	235.25(4")
R	ADVANTEK 100 POD/RECIRCULATION TANK = 2,000 GAL.	238.50	238.50	235.00(4")	235.85(2")
P	PUMP CHAMBER WITH EXTENDED BASE	238.50	---	235.70(2")	235.70 (1-1/2")

NOTE: SEWER PIPES SHALL HAVE SLOPE MIN. 1%, SLOPE MAX. 5%.

WASTEWATER FLOW MINIMUM DESIGN REQUIREMENTS

RULE 21: WASTEWATER FLOW

PROPOSED USE = GASOLINE STATION, CONVENIENCE-RETAIL STORE, DELI AND DONUT/COFFEE SALES

USE	UNIT	UNIT FLOW RATE	FLOW
AUTO SERVICE STATION	PER PUMP	25 GPD/PUMP (AT 12 PUMPS)	300 GPD
FOOD STORE <5,000 SF	PER STORE	350 GPD	350 GPD*
ADD FOR DELI FLOW	PER STORE	ADD 100 GPD	100 GPD*
ADD FOR BAKERY FLOW	PER STORE	ADD 100 GPD	100 GPD*
ADD FOR PUBLIC RESTROOMS	PER STORE	ADD 200 GPD	200 GPD

MINIMUM TOTAL DESIGN FLOW = 1,050 GPD (USE ESTIMATED PEAK FLOW CONDITION = 1,350 GPD)
* KITCHEN FLOW

SEPTIC TANK SIZING

TOTAL DESIGN FLOW = 1,350 GALLONS
REQUIRED TANK SIZE = 3,000 GALLON TANK
PROVIDED TANK SIZE = 3,000 GALLON TANK

NOTE:

AN EFFLUENT SCREEN SHALL BE INSTALLED IN THE SEPTIC TANK IN ACCORDANCE WITH RULE 6.27.G.2

GREASE TRAP SIZING (KITCHEN FLOW ONLY)

KITCHEN FLOW = 550 GPD

LEACHING SYSTEM SIZING

TYPE OF SYSTEM: BOTTOMLESS SAND FILTER (BSF)

SOIL CATEGORY = 7
CATEGORY 1 TECHNOLOGIES LOADING RATE = 2.1 GAL./S.F./DAY PRETREATMENT DEVICES (TIMED-DOSED)

- 3,000 GALLON SEPTIC TANK
- 1,500 GALLON GREASE TRAP
- 1,000 GALLON SURGE TANK
- ONE-7'X15'-12 POD NIBBLER TANKS
- 1,500 GALLON CLARIFIER TANK
- 2,000 GALLON RECIRCULATION TANK
- ADVANTEK (AX-100)

MIN. LEACHING AREA REQUIRED:
1,350 GPD / (2.1 GAL./S.F./DAY) = 643 S.F.

LEACHING AREA PROVIDED = 38' x 18' = 684 S.F.

PUMP - DOSING CALCULATIONS

LENGTH OF EACH DISTRIBUTION LINE = 42 LF (9 LINES)
DISTRIBUTION LINE ORIFICES = 171 (24" SPACING)
DOSING FLOW RATE = 0.34 GAL./MIN./ORIFICE = 58.1 GALLONS
PUMP CHAMBER = 30" DIAMETER
PUMP VOLUME = PUMP ON/PUMP OFF (12") = 36 GAL./CYCLE
NOTE: MAXIMUM DOSING VOLUME PER ORIFICE = 0.25 GAL./ORIFICE.

PRETREATMENT DESIGN NOTES:

1. CROSSMAN ENGINEERING HAS INCLUDED THE PRETREATMENT DESIGN AND COMPONENT PREPARED BY ATLANTIC SOLUTIONS, LTD, 2417 EAST MAIN ROAD, PORTSMOUTH, RI 02871; (401)293-0176.

2. THE PRETREATMENT DESIGN BY ATLANTIC SOLUTIONS LTD. USES THE BELOW NOTED INFLUENT CHARACTERISTICS TO OBTAIN THE EFFLUENT CHARACTERISTICS:

INFLUENT CHARACTERISTICS
MAX. DAY DESIGN FLOW=1,350 GPD
AVE. DAY DESIGN FLOW=900 GPD
BOD < 800 mg/L

EFFLUENT CHARACTERISTICS
BOD < 30 mg/L
TN NO LIMIT

3. THE PRETREATMENT SYSTEM INCLUDES; 3,000 GALLON SEPTIC TANK, 1,500 GALLON GREASE TRAP, SURGE TANK (1,000 GAL.), ONE-12 POD NIBBLER SBT TANKS, CLARIFIER TANK (1,500 GAL.), ADVANTEK 100 RECIRCULATION TANK (2,000 GAL.), PUMPS, PIPING AND TANK INTERIOR COMPONENTS. NOTE: THE PRETREATMENT SYSTEM PUMPS SHALL BE SIZED BY ATLANTIC SOLUTIONS LTD. CONTRACTOR SHALL COORDINATE WITH ATLANTIC SOLUTIONS LTD FOR INSTALLATION AND REQUIRED PRODUCTS.

4. THE CONTRACTOR SHALL COORDINATE AND RETAIN THE SERVICES OF ATLANTIC SOLUTIONS, LTD. FOR THE INSTALLATION, SET-UP, TESTING AND CERTIFICATION OF INSTALLATION FOR THE PRETREATMENT SYSTEM.

5. THE OWNER SHALL SECURE A OPERATION AND MAINTENANCE AGREEMENT WITH ATLANTIC SOLUTIONS, LTD. OR SIMILAR INNOVATIVE & ALTERNATIVE SYSTEM COMPANY FOR THE LONG TERM MANAGEMENT OF THIS PRETREATMENT SYSTEM.

6. ALL PIPING BETWEEN PRETREATMENT STRUCTURES SHALL BE SOLID PVC SCH. 40 WATERTIGHT PIPES.

FLOOD ZONE NOTE

THE PROPOSED IMPROVEMENTS ARE WITHIN AN "AREA OF MINIMAL FLOOD HAZARD, ZONE X". SOURCE: FIRM PANEL NO. 44007C0688 EFFECTIVE ON 3/2/09 AND FIRM PANEL 44007C01566 EFFECTIVE DATE 3/2/09.

DRAINFIELD OPERATION MAINTENANCE

IN ADDITION TO THE O&M AGREEMENT WITH ATLANTIC SOLUTIONS FOR MAINTENANCE OF THE PRETREATMENT SYSTEM, THE OWNER SHALL RETAIN A LICENSED SERVICE PROVIDER TO PERFORM DRAINFIELD MAINTENANCE IN ACCORDANCE WITH RULE 6.36.D.

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION, PROPERTY LINE AND EXISTING TOPOGRAPHY HAS BEEN PROVIDED BY AYOUB ENGINEERING, 414 BENEFIT STREET, PAWTUCKET, RI. CROSSMAN ENGINEERING DID NOT CONDUCT FIELD SURVEY ON THIS SITE.

2. THE PROPOSED BUILDING LAYOUT, PARKING LOT GRADING, DRAINAGE AND UTILITY DESIGNS HAVE BEEN PROVIDED BY AYOUB ENGINEERING, 414 BENEFIT STREET, PAWTUCKET, RI. APPROVALS FOR THE ABOVE MENTIONED SITE IMPROVEMENTS SHALL BE OBTAINED BY AYOUB ENGINEERING.

3. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE & UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE MASSACHUSETTS LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY TOWN, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

4. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.

5. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR CALL-OUTS, DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR CALL-OUT, DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.

6. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.

7. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.

8. ALL SITE DEMOLITION/MATERIAL REMOVAL SHALL BE REMOVED AND DISPOSED OF OFF THE SITE IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL REGULATIONS.

9. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL AN INSTALLATION INSPECTION SCHEDULE IS COORDINATED, IN WRITING, WITH THE SYSTEM DESIGNER.

10. PROVIDE A 8" CRUSHED STONE BASE LAYER BENEATH ALL PROPOSED TANKS.

11. THE INLET AND OUTLET OPENING FOR ALL TANKS SHALL HAVE A WATERTIGHT CAST-IN-PLACE RUBBER BOOT WITH A STAINLESS STEEL CLAMP.

12. THE PROPOSED TANKS AND COVERS SHALL BE DESIGNED FOR AN H-20 LOADING (HEAVY DUTY USE).

13. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.

14. PRIOR TO CONSTRUCTION, A BENCHMARK SHALL BE SET ON SITE BY A LICENSED RHODE ISLAND LAND SURVEYOR. THE TEMPORARY BENCH MARK IS FOR REFERENCE ONLY; NOT TO BE USED FOR CONSTRUCTION.

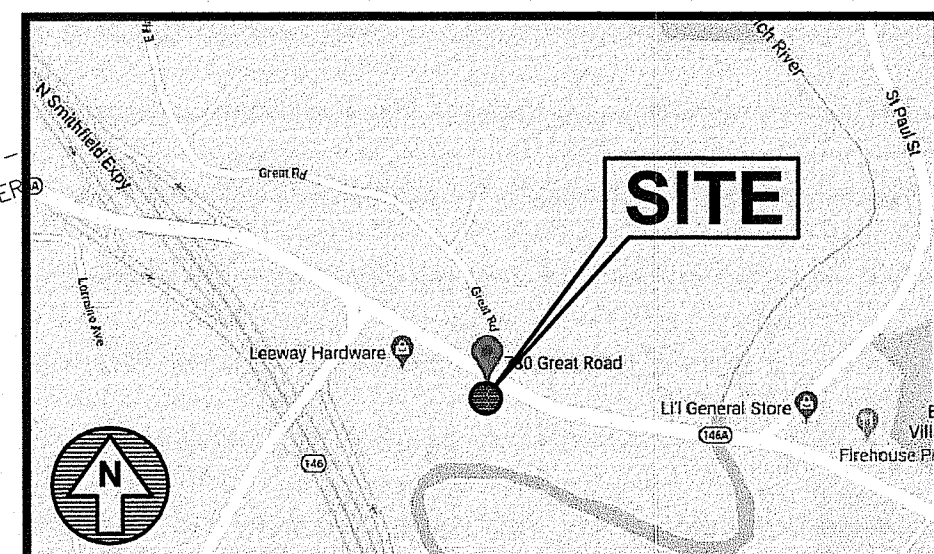
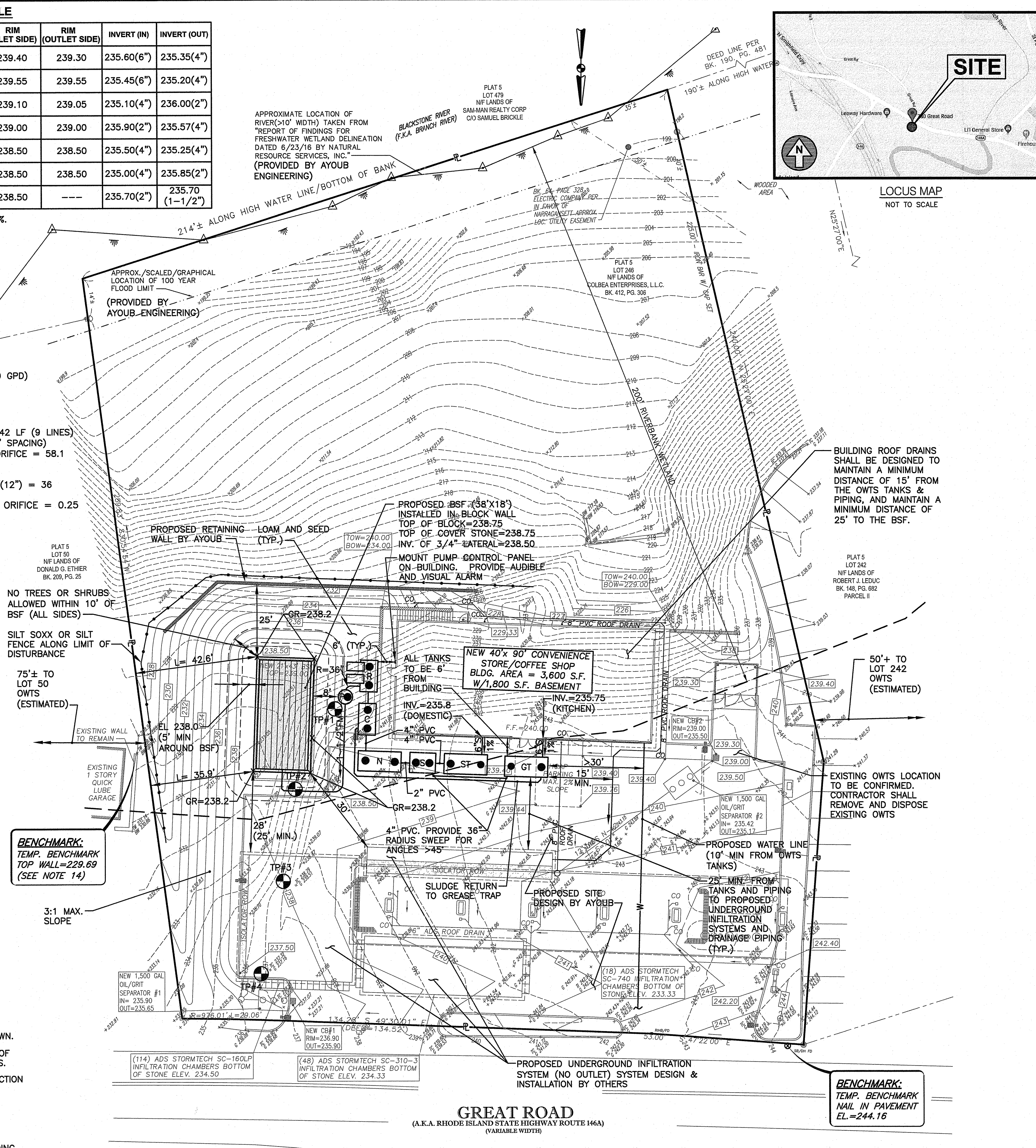
15. ALL PIPES BETWEEN TANKS SHALL BE SCH 40 PVC.

16. FOOTING DRAINS OR UNDERDRAINS FOR THE BUILDING ARE NOT ALLOWED.

17. RULE 6.23.B: ALL SEWER PIPES LESS THAN 25' FROM A DRAIN, SUB-DRAIN, OR ROOF DRAIN, SHALL BE SLEEVED IN SCH. 40 PVC WITH WATER TIGHT JOINTS.

18. PRIOR TO CONSTRUCTION, ALL LOCAL PERMITS AND STATE PERMITS SHALL BE OBTAINED. THIS INCLUDES AND IS NOT LIMITED TO APPROVALS FROM THE RIDEM OFFICE OF WATER RESOURCES, WETLANDS DIVISION.

APPROXIMATE LOCATION OF RIVER (>10' WIDTH) TAKEN FROM "REPORT OF FINDINGS FOR FRESHWATER WETLAND DELINEATION DATED 8/23/16 BY NATURAL RESOURCE SERVICES, INC." (PROVIDED BY AYOUB ENGINEERING)



LOCUS MAP NOT TO SCALE

CROSSMAN ENGINEERING
Rhode Island: 151 Centerville Road, Warwick, RI 02886
Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02763
Phone: (401) 738-5660
Email: cel@crossmaneng.com

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KEY PLAN

PROJECT TITLE:

PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM
PLAT MAP 5, LOT 246
780 GREAT ROAD
NORTH SMITHFIELD, RI

PREPARED FOR:

AYOUB ENGINEERING
414 BENEFIT STREET
PAWTUCKET, RI

DRAWING TITLE:

ONSITE WASTEWATER TREATMENT SYSTEM PLAN

DATE: DECEMBER 2018 SCALE: 1"=20'

DWG. NAME: 2191-01-OWTS.dwg

REVISIONS

NUMBER	REMARKS	DATE
---	---	---

DRAWING NUMBER

C1
SHEET 1 OF 4
SHEET 11 OF 14

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 04 2018 FILE # 19-0027
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KEY PLAN

PROJECT TITLE:

PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM
 PLAT MAP 5, LOT 246
 780 GREAT ROAD
 NORTH SMITHFIELD, RI

PREPARED FOR:

AYOUB ENGINEERING
 414 BENEFIT STREET
 PAWTUCKET, RI

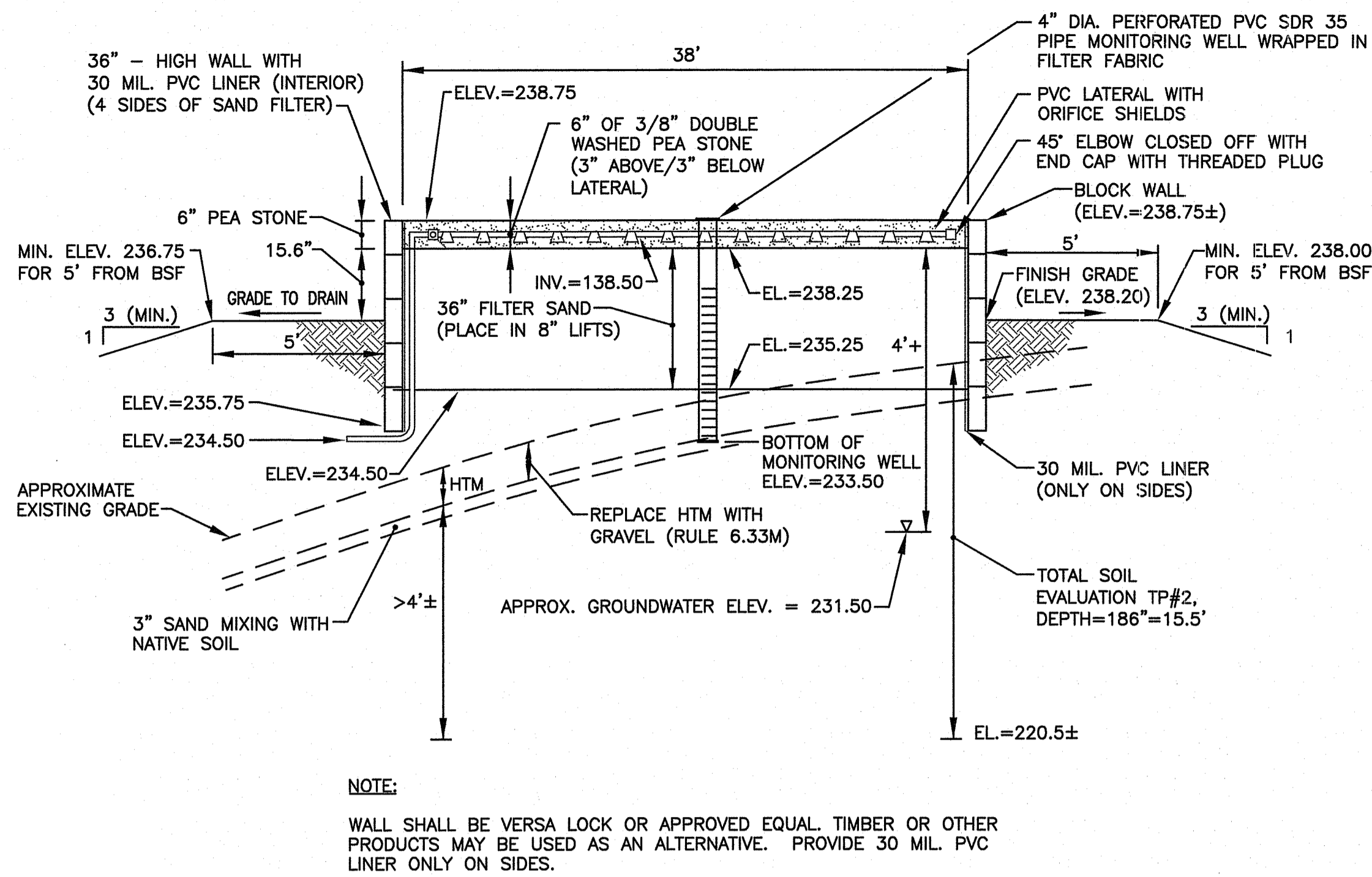
DRAWING TITLE:
ONSITE WASTEWATER TREATMENT SYSTEM DETAILS NO. 1

DATE: DECEMBER 2018 SCALE: AS NOTED

DWG. NAME: 2191-02-DET01.dwg

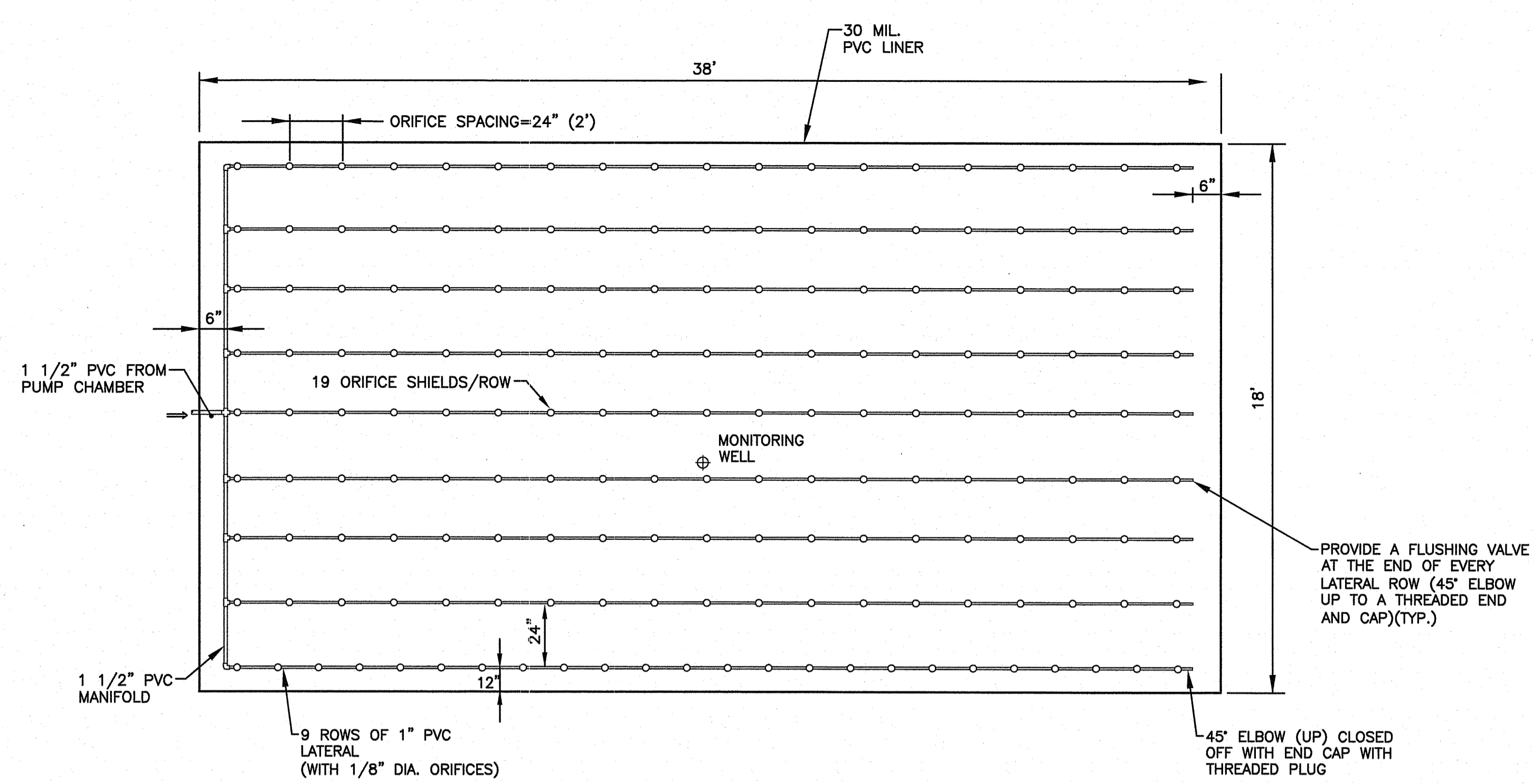
REVISIONS		
NUMBER	REMARKS	DATE

DRAWING NUMBER:
C2
 SHEET: 2 OF 4
 SHEET 12 OF 14



SIDE VIEW - BOTTOMLESS SAND FILTER

BOTTOMLESS SAND FILTER (BSF) (INSIDE DIMENSIONS) NOT TO SCALE



TOP VIEW - BOTTOMLESS SAND FILTER (INSIDE DIMENSIONS) NOT TO SCALE

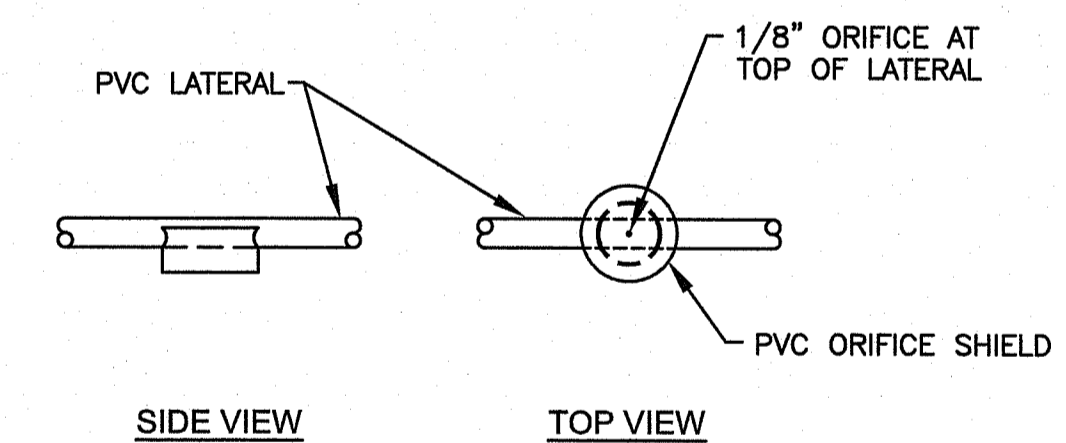
ONSITE WASTEWATER TREATMENT SYSTEM NOTES:

- REMOVE TOPSOIL, SUBSOIL, HTM OR FILL AND ANY UNDESIRABLES FROM THE BOTTOMLESS SAND FILTER (BSF) FOOTPRINT. THE SOIL REMOVED BELOW THE NEW FILTER SAND SHALL BE REPLACED WITH GRAVEL (RULE 6.33M). REMOVE ALL TREES AND BRUSH AROUND SYSTEM PLUS (10) FEET.
- STRIPPING SHALL NOT BE DONE INTO THE WATER TABLE.
- NO VEHICULAR TRAFFIC IS ALLOWED ON THE BSF FOOTPRINT.
- THERE ARE NO KNOWN EXISTING OR PROPOSED PRIVATE WELLS WITHIN 200' OF THE SYSTEM, AND THERE ARE NO KNOWN EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500'. THERE ARE NO KNOWN EXISTING OR PROPOSED NON-POTABLE WELLS WITHIN 200' OF THE OWTs.
- THE PVC PIPING FOR THE SEPTIC TANK EFFLUENT PIPE SHALL BE SCHEDULE 40 PVC PIPE.
- MINIMUM ELEVATION OF 236.75 (2' BELOW COVER STONE) SHALL BE MAINTAINED WITHIN 5 FEET OF BSF ENCLOSURE.
- SURFACE RUNOFF TO BE DIVERTED FROM SYSTEM.
- THE GRAVITY PIPING FOR BUILDING SEWER AND PIPING FROM THE PRETREATMENT TANKS TO BE SOLID SCHEDULE 40 PVC PIPE.
- THE LICENSED INSTALLER MUST FOLLOW ALL R.I.D.E.M. "RULES AND REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, EFFECTIVE DATE 11/25/2018."
- NO KNOWN DRAINS, PROPOSED DRAINS OR UNDERDRAINS DISCHARGING INTO A SURFACE WATER SUPPLY ARE WITHIN 100' OF THE BSF. PROPOSED DRAINS WITHIN 100' OF THE BSF DISCHARGE INTO AN UNDERGROUND INFILTRATION SYSTEM ON SITE, WITH NO OUTLET OR OVERFLOW TO THE SURFACE.
- PROVIDE INLET & OUTLET TEES AND EFFLUENT SCREEN (RULE 6.27.G2) FOR SEPTIC TANK OUTLET PIPE.
- ALL DISTURBED AREAS ARE TO RECEIVE 4" OF LOAM & SEED, UNLESS OTHERWISE NOTED.
- OTHER THAN THE 200' RIVERBANK WETLAND, THERE ARE NO WETLANDS WITHIN 50' OF THE PROPOSED OWTs. ALL KNOWN WATERCOURSES, WETLANDS, DRAINS AND STORMWATER MANAGEMENT SYSTEMS WITHIN 200' OF THE PROPOSED OWTs ARE SHOWN. LOCATIONS SHOWN HAVE BEEN PROVIDED BY AYOUB ENGINEERING.
- THE CONTRACTOR MUST ADHERE TO ALL CONSTRUCTION INSPECTION PROCEDURES AND REQUIREMENTS OF R.I.D.E.M. AND CROSSMAN ENGINEERING, INC.
- NO GARBAGE DISPOSAL GRINDER IS ALLOWED TO BE USED.
- SURFACE DRAINS TO LOWER THE SEASONAL HIGH GROUNDWATER TABLE ARE NOT PROPOSED FOR THIS SITE. FOUNDATION OR FOOTING DRAINS ARE NOT PROPOSED FOR THIS SITE.
- THERE ARE NO PUBLIC SEWERS WITHIN 200' OF THE PARCEL.
- THE SITE IS NOT WITHIN THE CRITICAL RESOURCE AREA AS DEFINED BY SECTION 6.42 OF THE OWTs RULES AND REGULATIONS. NEAREST CRITICAL RESOURCE AREA IS >1MILE.
- THE SITE IS NOT WITHIN THE DRINKING WATER SUPPLY WATERSHED OF THE CUMBERLAND, PAWTUCKET WATER SUPPLY BOARD AND WOONSOCKET DRINKING WATER SUPPLY WATERSHEDS. AS DEFINED IN SECTION 6.42 EXISTING AND PROPOSED DRAINS WITHIN 100' OF THE PROPOSED OWTs DO NOT DISCHARGE DIRECTLY OR INDIRECTLY SURFACE.
- THE OWTs INSTALLER SHALL NOTIFY THE OWTs DESIGNER OF THE CONSTRUCTION START DATE AT LEAST THREE (3) WORKING DAYS IN ADVANCE.
- NO OWTs CONSTRUCTION SHALL BEGIN UNTIL AUTHORIZED BY R.I.D.E.M. AND THE OWTs DESIGNER.
- PRIOR TO PURCHASE/ORDER OF PRODUCTS, THE INSTALLER MUST PROVIDE "SHOP DRAWINGS" FOR ALL MATERIALS (FILTER SAND, PIPE, GRAVEL, STONE, TANKS, PUMPS, FILTER FABRIC, PVC LINER ETC.) APPROVAL MUST BE GRANTED BY THE DESIGNER PRIOR TO CONSTRUCTION.
- ALL TANKS SHALL BE WATER TIGHT. THE CONTRACTOR SHALL PROVIDE WATER TIGHT CERTIFICATIONS FOR ALL TANKS, OR THE CONTRACTOR SHALL CONDUCT WATER TIGHT TESTING.
- ALL KNOWN WATER COURSES, WETLANDS, DRAINS, AND STORMWATER MANAGEMENT SYSTEMS WITHIN 200' OF OWTs ARE SHOWN.
- DRAINS IN THE VICINITY DO NOT DISCHARGE DIRECTLY OR INDIRECTLY TO A CRITICAL RESOURCE AREA IDENTIFIED IN RULE 6.42.
- FORCE MAIN SEWER PIPE SHALL BE PVC CL. 200.

NOTE: THE BELOW SOIL EVALUATIONS WERE CONDUCTED ON NOVEMBER 29, 2016 AND WITNESSED BY RIDEM (APPLICATION NO. 1625-1507).

TEST PIT 1		TEST PIT 2	
SURFACE ELEV.=235±		SURFACE ELEV.=235±	
0"	Dark Yellowish Brown Sandy Loam HTM/Mix (Friable) og	0"	Dark Yellowish Brown Sandy Loam HTM (Friable) og
4"	Dark Brown Sandy Loam Ab (Friable)	4"	Very Dark Grayish Brown Loamy Fine Sand Ab (Very Friable)
9"	Dark Yellowish Brown Gravelly Loamy Fine Sand BC (Very Friable Loose)	10"	Dark Brown Loamy Sand AB (Very Friable)
24"	Light Olive Brown Gravelly Sand C1 (Loose)	33"	Light Yellowish Brown Gravelly Sand C1 (Loose)
32"	Light Yellowish Brown Fine Sand C2 (Very Friable)	44"	Light Brownish Gray Fine Sand C2 (Very Friable)
64"	Gray Gravelly Loamy Sand 2C3 (Friable)	62"	Gray Gravelly Loamy Sand 2C3 (Friable)
88" TOTAL DEPTH NO LIMITING LAYER NO REDOX FEATURES (OG) NO GROUNDWATER SEEPAGE 64" SHWT (OG) 86" SHWT (SURFACE) DESIGN SOIL CATEGORY 1&6 DESIGN GWT=228.17		84"-186" E-W TOTAL DEPTH NO LIMITING LAYER NO REDOX FEATURES (OG) NO GROUNDWATER SEEPAGE 40" SHWT (OG) 62" SHWT (SURFACE) DESIGN SOIL CATEGORY 1&6 DESIGN GWT=229.84	
TEST PIT 3		TEST PIT 4	
SURFACE ELEV.=236±		SURFACE ELEV.=237±	
0"	Dark Yellowish Brown Gravelly Sandy Loam HTM/Mix (Friable) og	0"	Dark Yellowish Brown Gravelly Sandy Loam HTM (Friable) og
5"	Dark Yellowish Brown Fine Sandy Loam Ab (Friable)	2"	Very Dark Brown Silt Ab (Friable)
14"	Strong Brown Very Fine Sandy Loam Bw1 (Friable)	9"	Dark Yellowish Brown Very Fine Sandy Loam AB (Friable)
27"	Dark Yellowish Brown Very Fine Sandy Loam Bw2 (Friable)	21"	Dark Yellowish Brown Very Fine Sandy Loam Bw2 (Friable)
41"	Dark Yellowish Brown Gravelly Sand C1 (Loose)	87"	Gray Gravelly Loamy Sand C (Friable)
84"	Gray Gravelly Loamy Sand 2C2 (Friable/Firm)	135" TOTAL DEPTH NO LIMITING LAYER 18" REDOX FEATURES (OG) NO GROUNDWATER SEEPAGE 18" SHWT (OG) 66" SHWT (SURFACE) DESIGN SOIL CATEGORY 6&7 DESIGN GWT=231.50	

NOTE: OG = ORIGINAL SOIL SURFACE = CURRENT SURFACE GRADE
 * = REMOVE AND DISPOSE SOIL



NOTE

SHIELD AND ORIFICE MUST BE ORIENTED BELOW LATERAL FOR COLD WEATHER APPLICATION

COLD WEATHER ORIFICE DETAIL NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 DATED SEP 04 2019 FILE # 19-0017
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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KEY PLAN

PROJECT TITLE:

PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM
 PLAT MAP 5, LOT 246
 780 GREAT ROAD
 NORTH SMITHFIELD, RI

PREPARED FOR:

AYOUB ENGINEERING
 414 BENEFIT STREET
 PAWTUCKET, RI

DRAWING TITLE:
ONSITE WASTEWATER TREATMENT SYSTEM DETAILS NO. 2

DATE: DECEMBER 2018 SCALE: AS NOTED

DWG. NAME: 2191-03-DET02.dwg

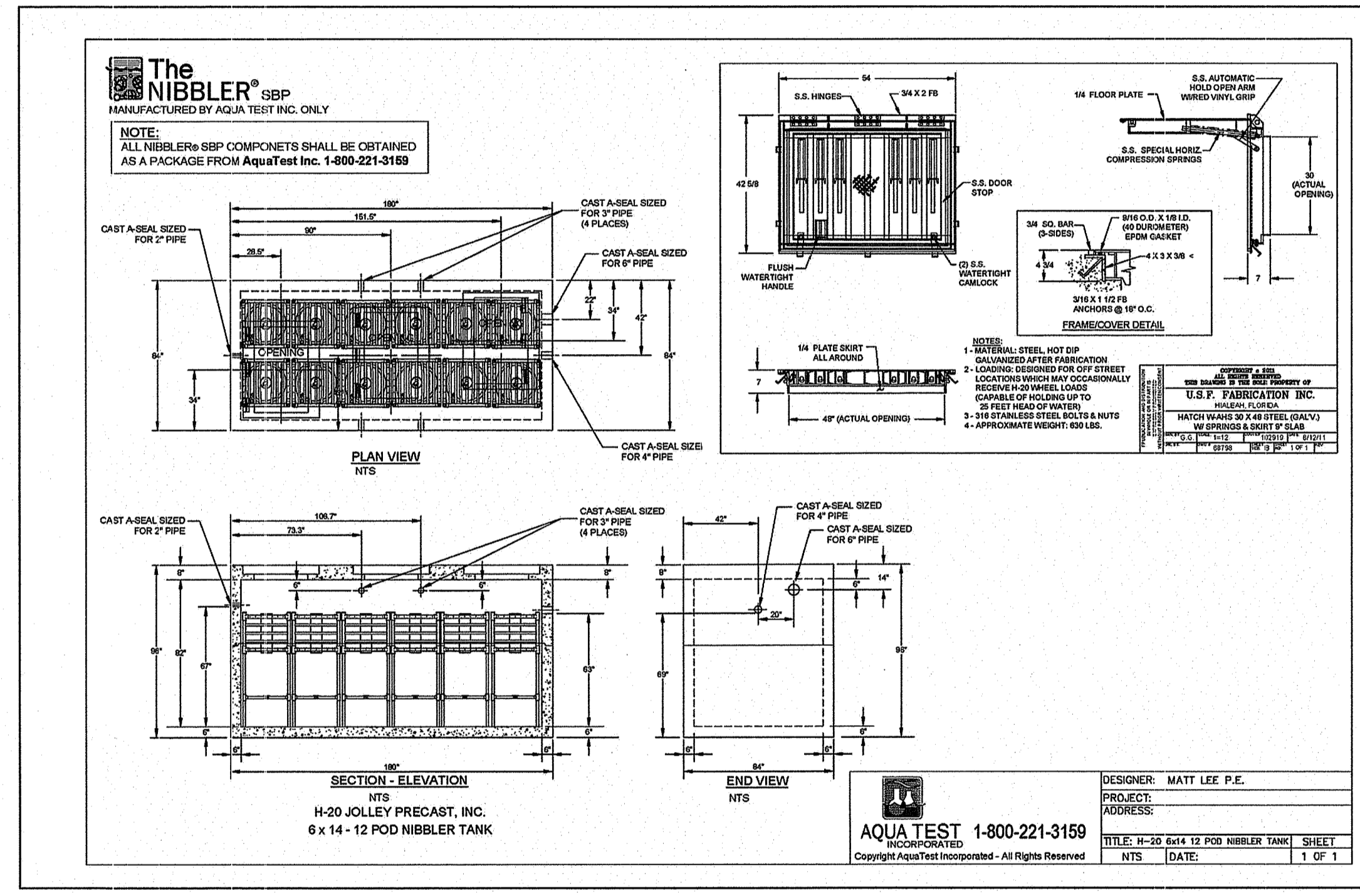
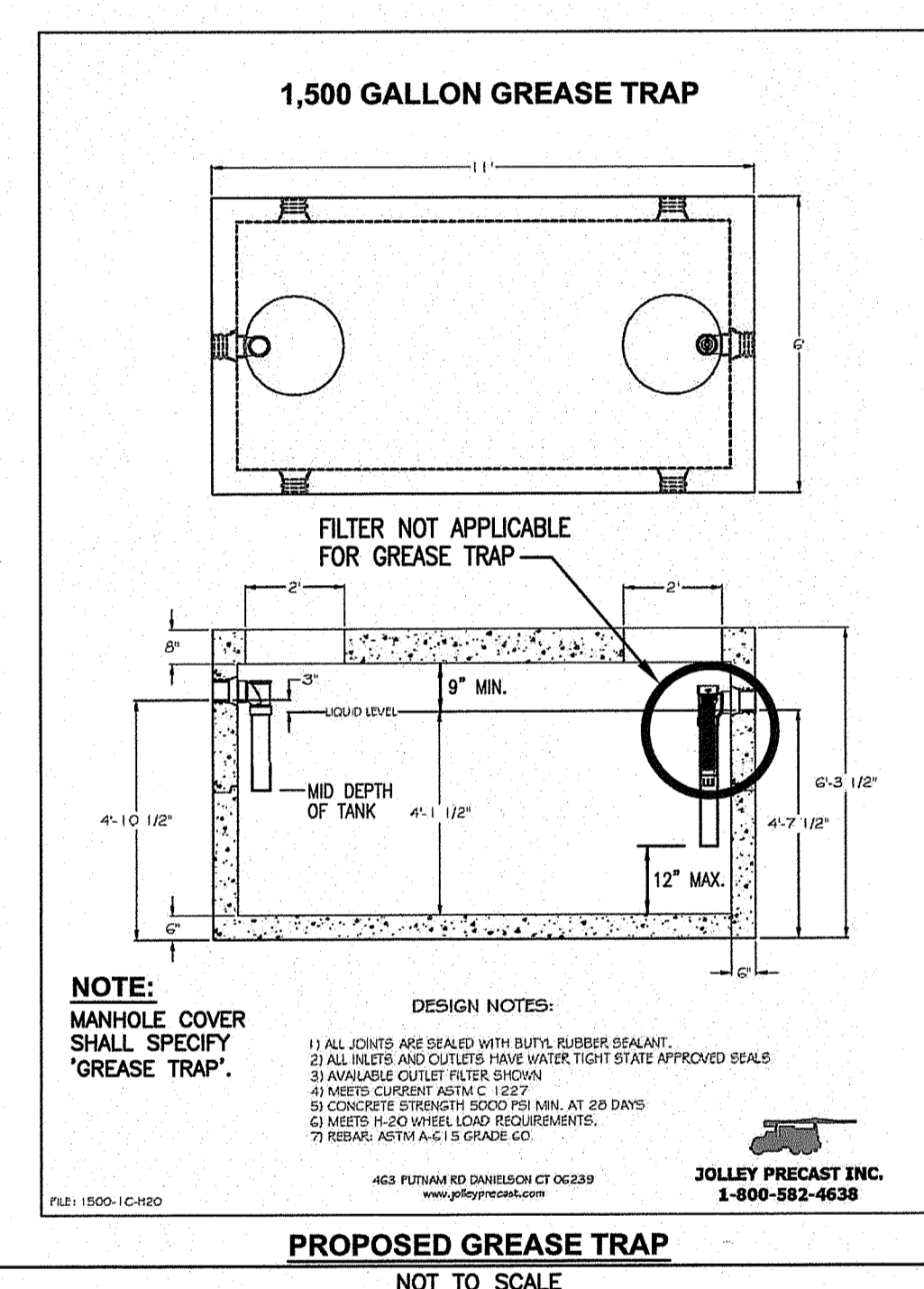
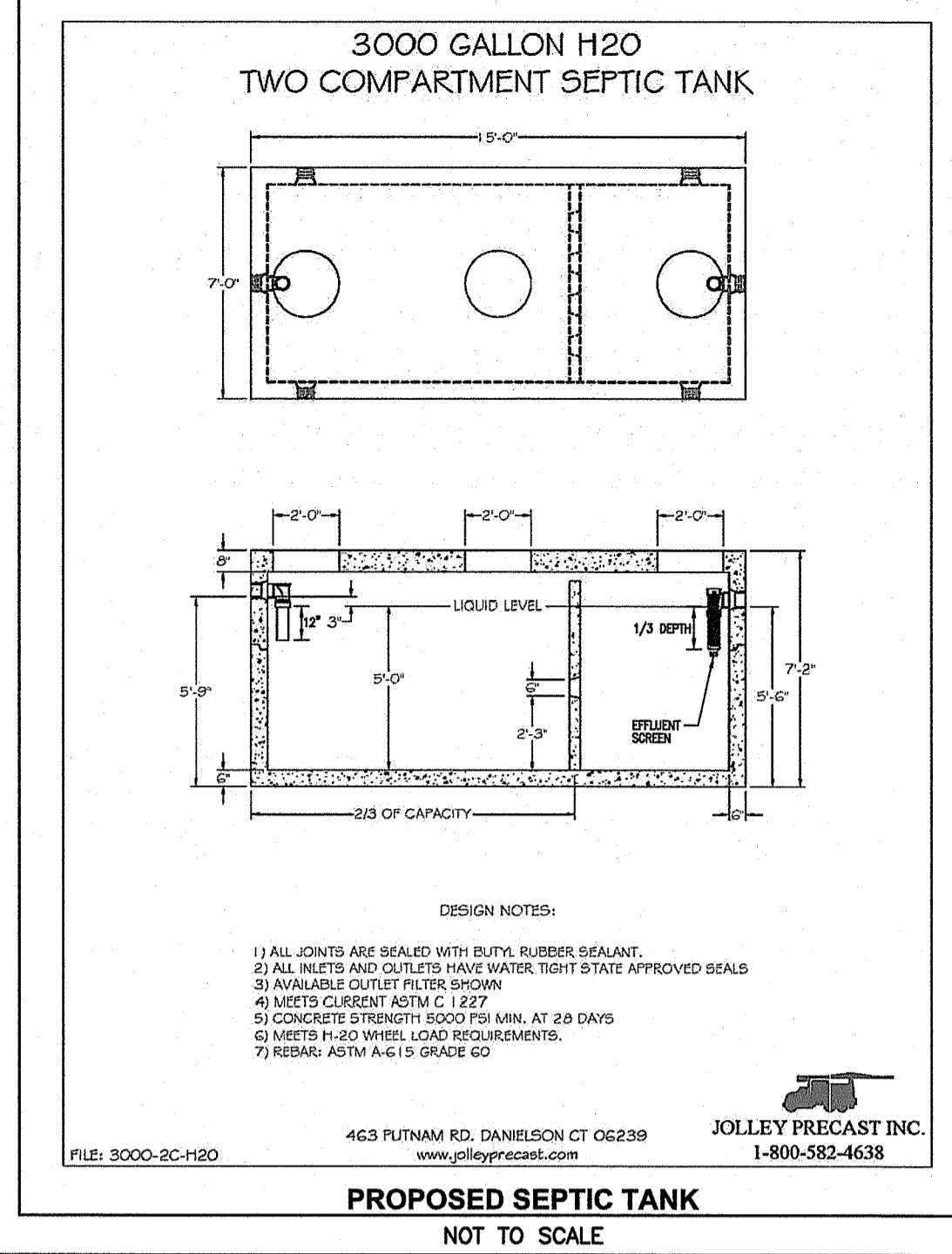
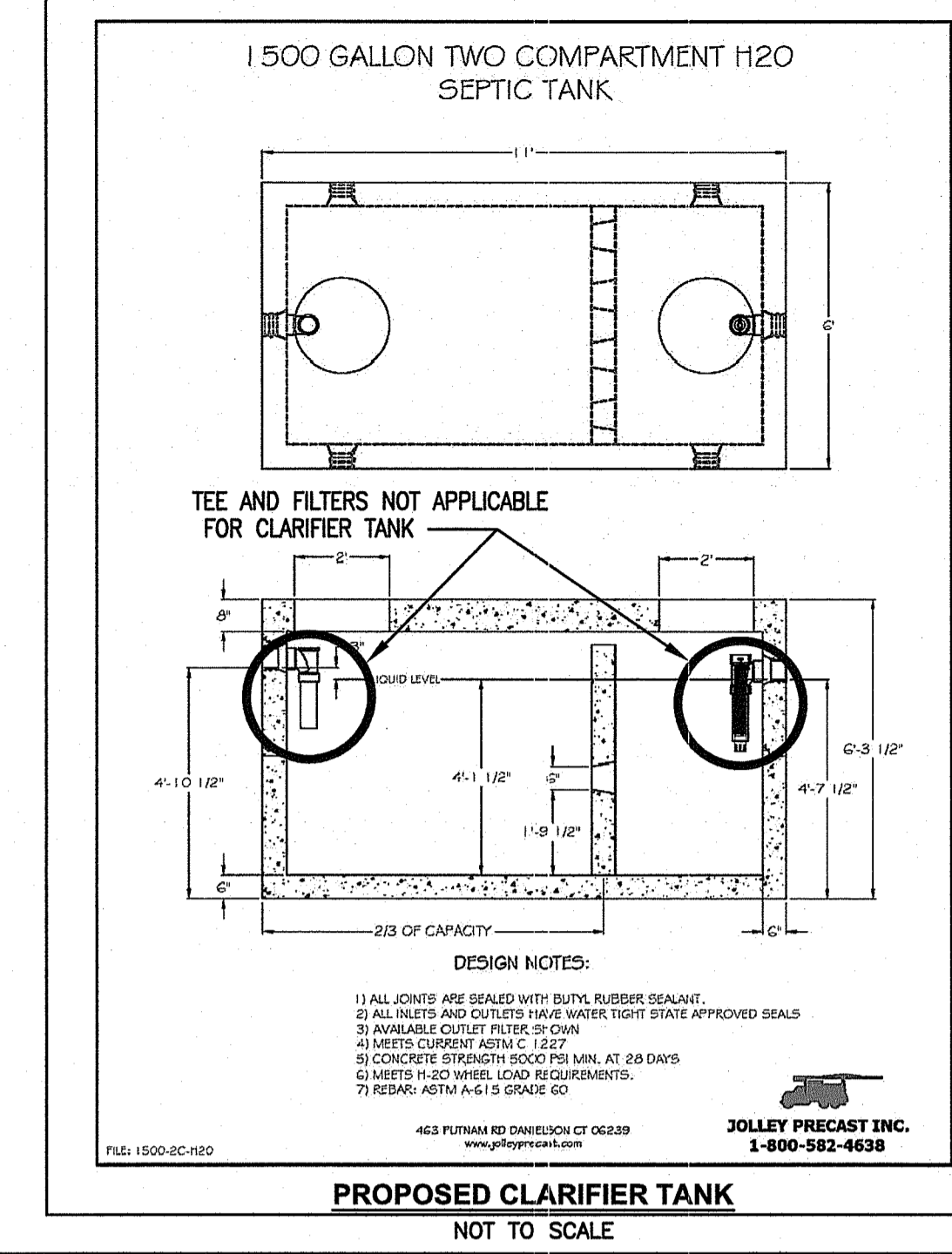
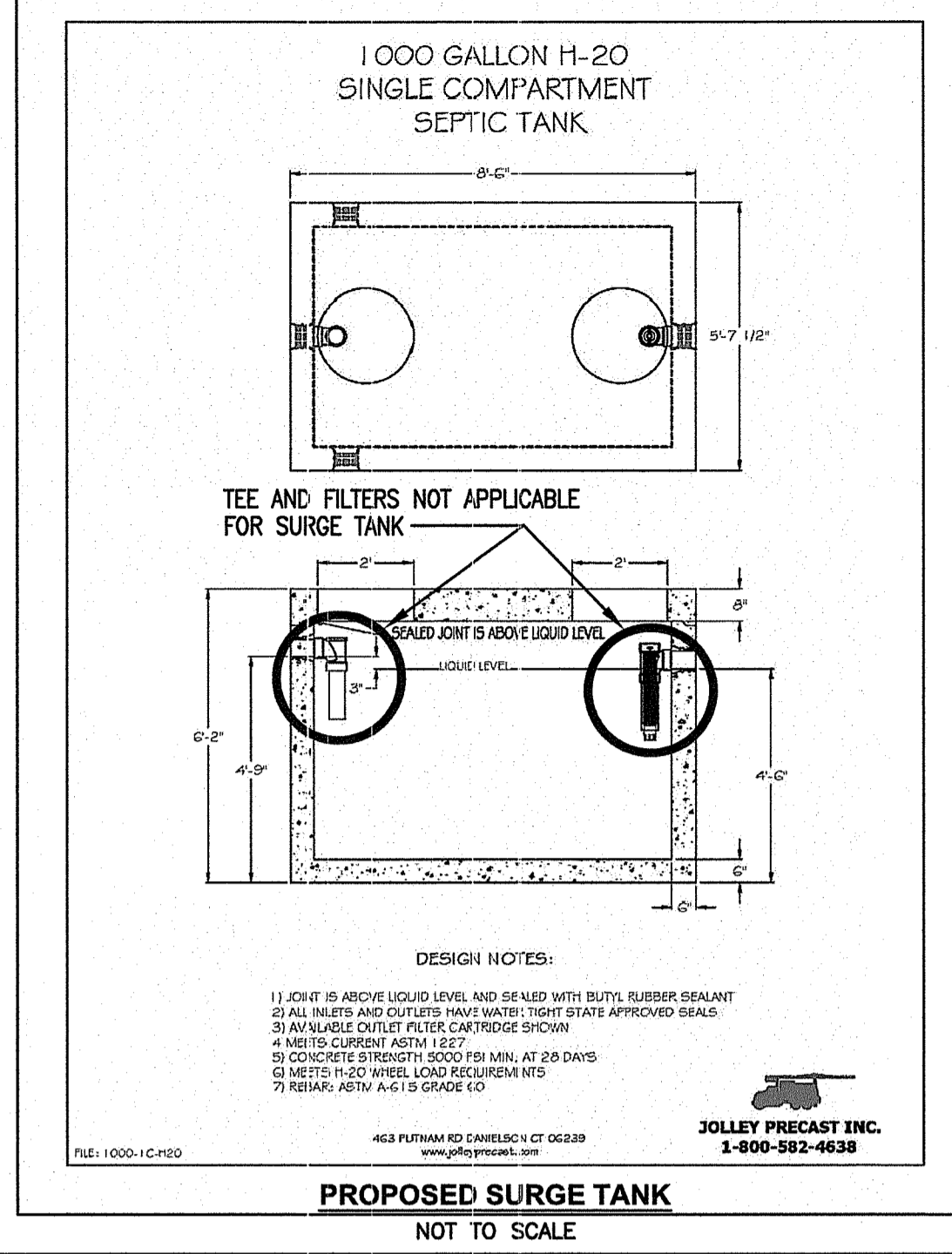
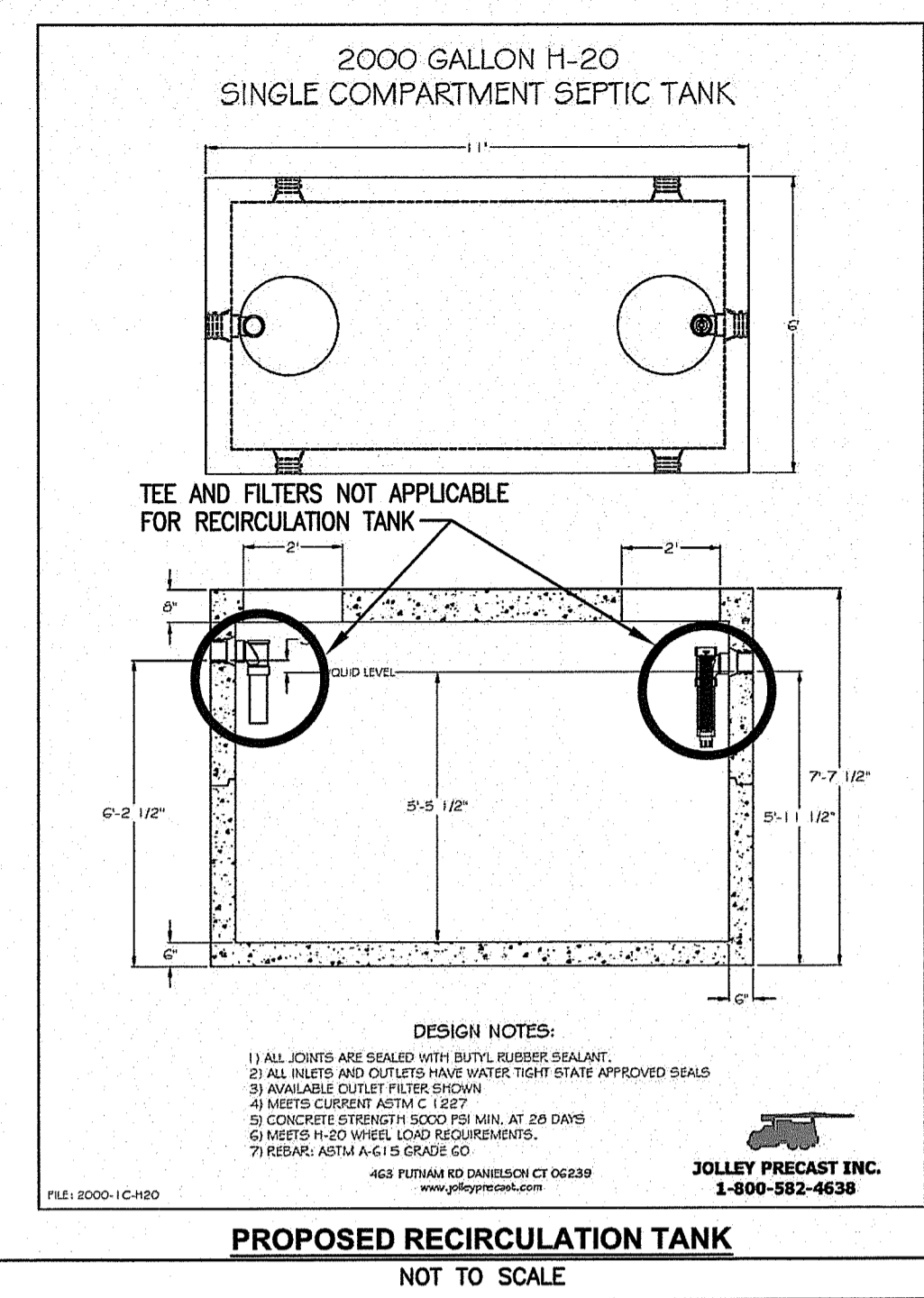
REVISIONS

NUMBER	REMARKS	DATE

DRAWING NUMBER

C3

SHEET: 3 OF 4
 SHEET 13 OF 14

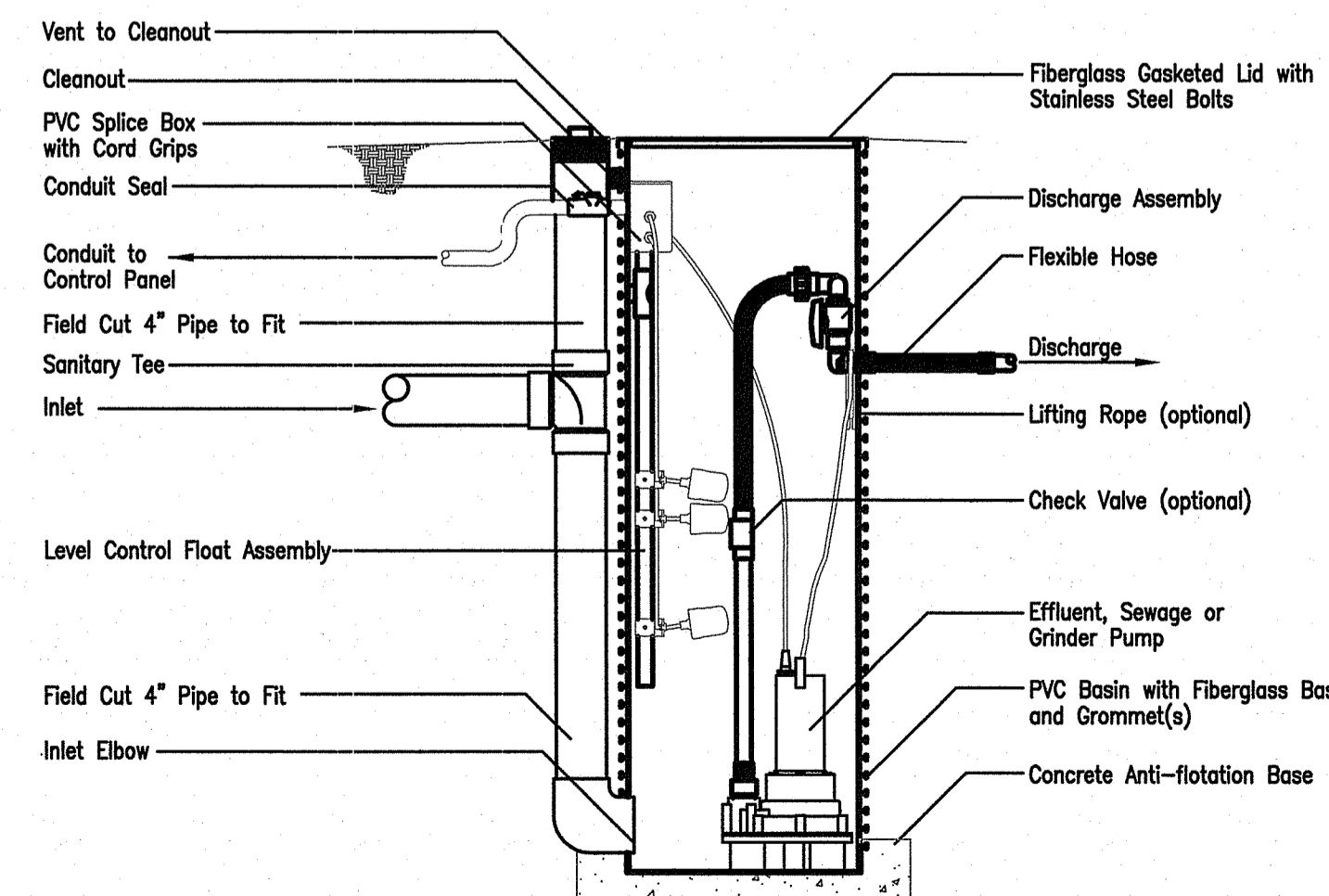


PUMP NOTES:

- A DUEL PUMP SYSTEM SHALL BE USED FOR THIS SITE. BOTH PUMPS SHALL BE INSTALLED WITHIN THE PUMP CHAMBER.
- THE CONTRACTOR SHALL WIRE THE PUMPS TO RUN OFF A SECONDARY POWER SOURCE. SECONDARY POWER SOURCES MAY INCLUDE ON-SITE OR PORTABLE GENERATOR.
- THE PUMP CONTROL BOX SHALL BE INSTALLED ON THE EXTERIOR OF THE BUILDING OR ON A SEPARATE POST ADJACENT TO THE OWTS SYSTEM.
- AN AUDIBLE AND VISUAL ALARM SHALL BE INSTALLED AT AN OCCUPIED LOCATION ON THE BUILDING. THE ALARM SHALL BE FOR A HIGH WATER CONDITION AND SHALL BE WIRED SEPARATELY FROM THE PUMP.
- ALL TANKS INCLUDING THE PUMP CHAMBER SHALL BE WATERTIGHT. THE CONTRACTOR IS REQUIRED TO PROVIDE WATERTIGHT CERTIFICATES FOR EACH.
- THE PUMP DISCHARGE PIPE SHALL BE PVC CLASS 200 MINIMUM.
- PUMP CONTROLS AND POWER SUPPLY SHALL BE MOISTURE PROOF IF LOCATED ABOVE LIQUID LEVEL. WATERTIGHT CONTROLS SHALL BE USED WHEN CONTROLS ARE SUBMERGED. ALL CONTROLS AND JUNCTION BOXES ON THE POWER SUPPLY SHALL MEET APPROPRIATE ELECTRICAL CODES. STANDBY POWER SHALL BE PROVIDED UNLESS OTHERWISE APPROVED BY RIDEM.

Basin with Effluent, Sewage, or Grinder Pump Assembly

NOT IAPMO APPROVED



814 ARMY AVENUE
 SUMNER, OREGON
 97478-9012

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 (541) 459-4449
 FACSIMILE:
 (541) 459-2884

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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PUMP ELEVATIONS
 INLET IN=235.70
 ALARM ON= 235.50
 PUMP ON FLOAT=235.25
 PUMP OFF FLOAT= 234.25
 BOTTOM OF CHAMBER=232.50

PROPOSED TANK SCHEDULE

TANK SYMBOL	DESCRIPTION (ALL TANKS TO BE H2O LOADING)	RIM (INLET SIDE)	RIM (OUTLET SIDE)	INVERT (IN)	INVERT (OUT)
ST	SEPTIC TANK = 3,000 GAL. (2-COMPARTMENT)	239.40	239.30	235.60(6")	235.35(4")
GT	GREASE TRAP = 1,500 GAL.	239.55	239.55	235.45(6")	235.20(4")
S	SURGE TANK = 1,000 GAL.	239.10	239.05	235.10(4")	236.00(2")
N	NIBBLER TANK = 7'X15'(12 POD)	239.00	239.00	235.90(2")	235.57(4")
C	CLARIFIER TANK = 1,500 GAL.	238.50	238.50	235.50(4")	235.25(4")
R	ADVANTEX 100 POD/RECIRCULATION TANK = 2,000 GAL.	238.50	238.50	235.00(4")	235.85(2")
P	PUMP CHAMBER WITH EXTENDED BASE	238.50	---	235.70(2")	235.70 (1-1/2")

NOTE: SEWER PIPES SHALL HAVE SLOPE MIN. 1%, SLOPE MAX. 5%.



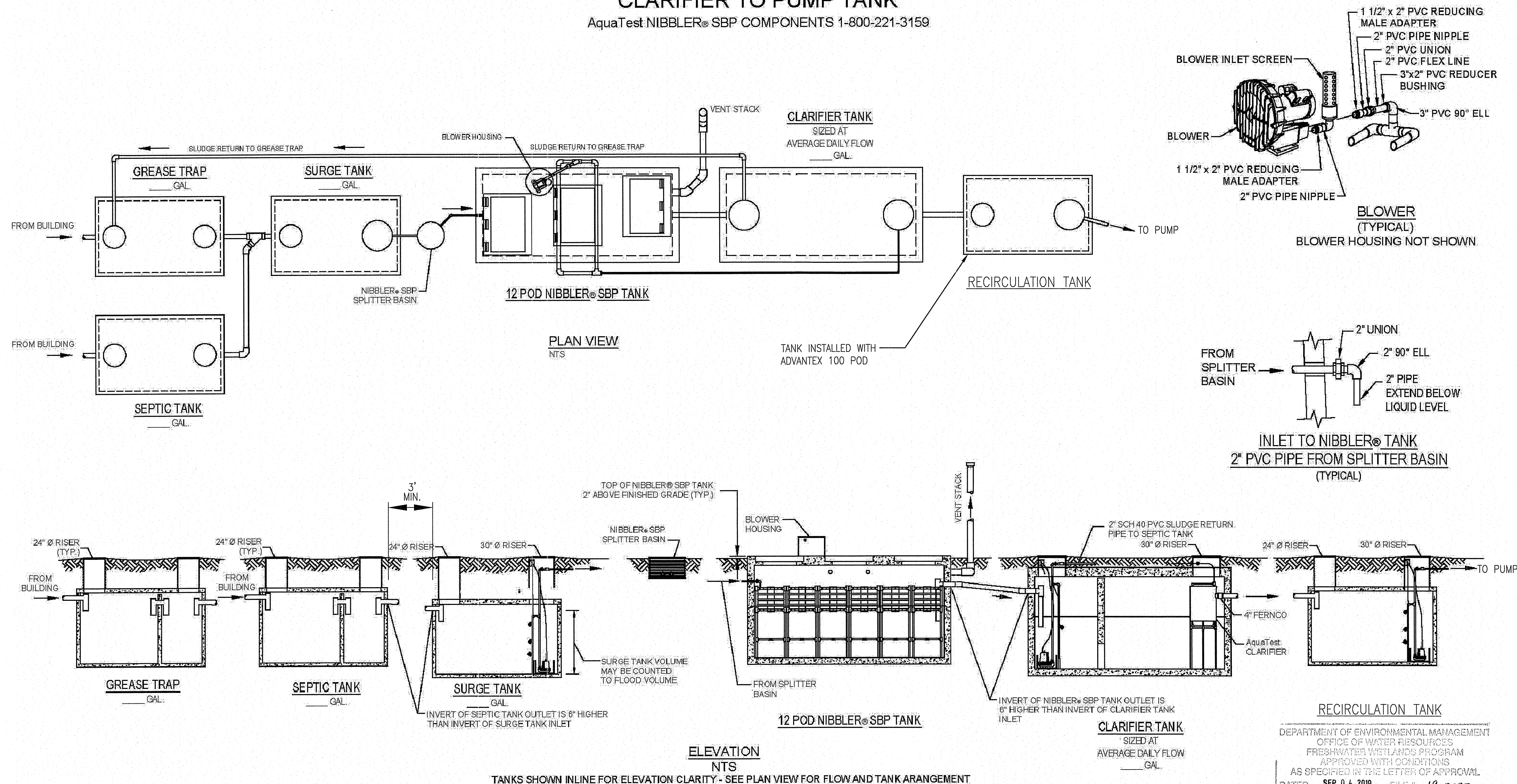
CROSSMAN ENGINEERING

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**ONE 12 POD NIBBLER® SBP TANK OVERALL PLAN & PROFILE
 CLARIFIER TO PUMP TANK**

AquaTest NIBBLER® SBP COMPONENTS 1-800-221-3159



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 PLAT MAP 5, LOT 246
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 NORTH SMITHFIELD, RI

PREPARED FOR:

AYOUB ENGINEERING
 414 BENEFIT STREET
 PAWTUCKET, RI

DRAWING TITLE:
ONSITE WASTEWATER TREATMENT SYSTEM DETAILS NO. 3

DATE: DECEMBER 2018 SCALE: AS NOTED

DWG. NAME: 2191-04-DET03.dwg

REVISIONS	NUMBER	REMARKS	DATE
△	---	---	---

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Nothing is to be scaled, cast or manufactured from this set of drawings until you are authorized to proceed in writing with a document listing the identified shop drawings to be used.

NOTE:
 ALL NIBBLER® SBP COMPONENTS SHALL BE OBTAINED AS A PACKAGE FROM AquaTest Inc. 1-800-221-3159

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 1-800-221-3159

DESIGNER:
 PROJECT:
 ADDRESS:
 TITLE: OVERALL PLAN & PROFILE SHEET
 NO SCALE DATE: 1 OF 1

DRAWING NUMBER
C4
 SHEET: 4 OF 4
 SHEET 14 OF 14