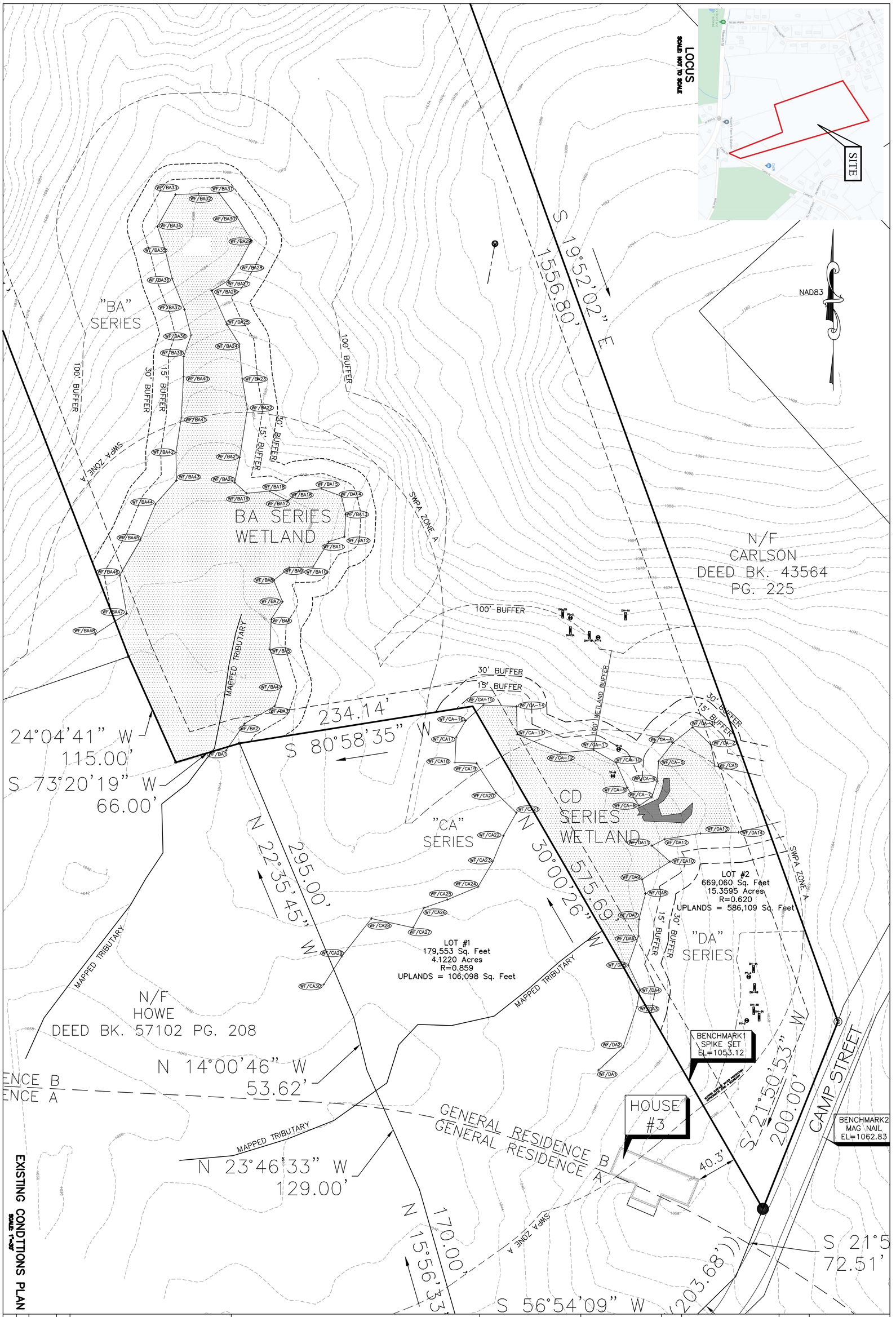


EXISTING CONDITIONS PLAN
SCALE: 1"=40'

SHEET 1 OF 5	CAMP STREET	EXISTING CONDITIONS PLAN

DATE: DECEMBER 23, 2021

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
PAXTON, MA
CAMP STREET

40 0 40 80 160
SCALE: 1" = 40'

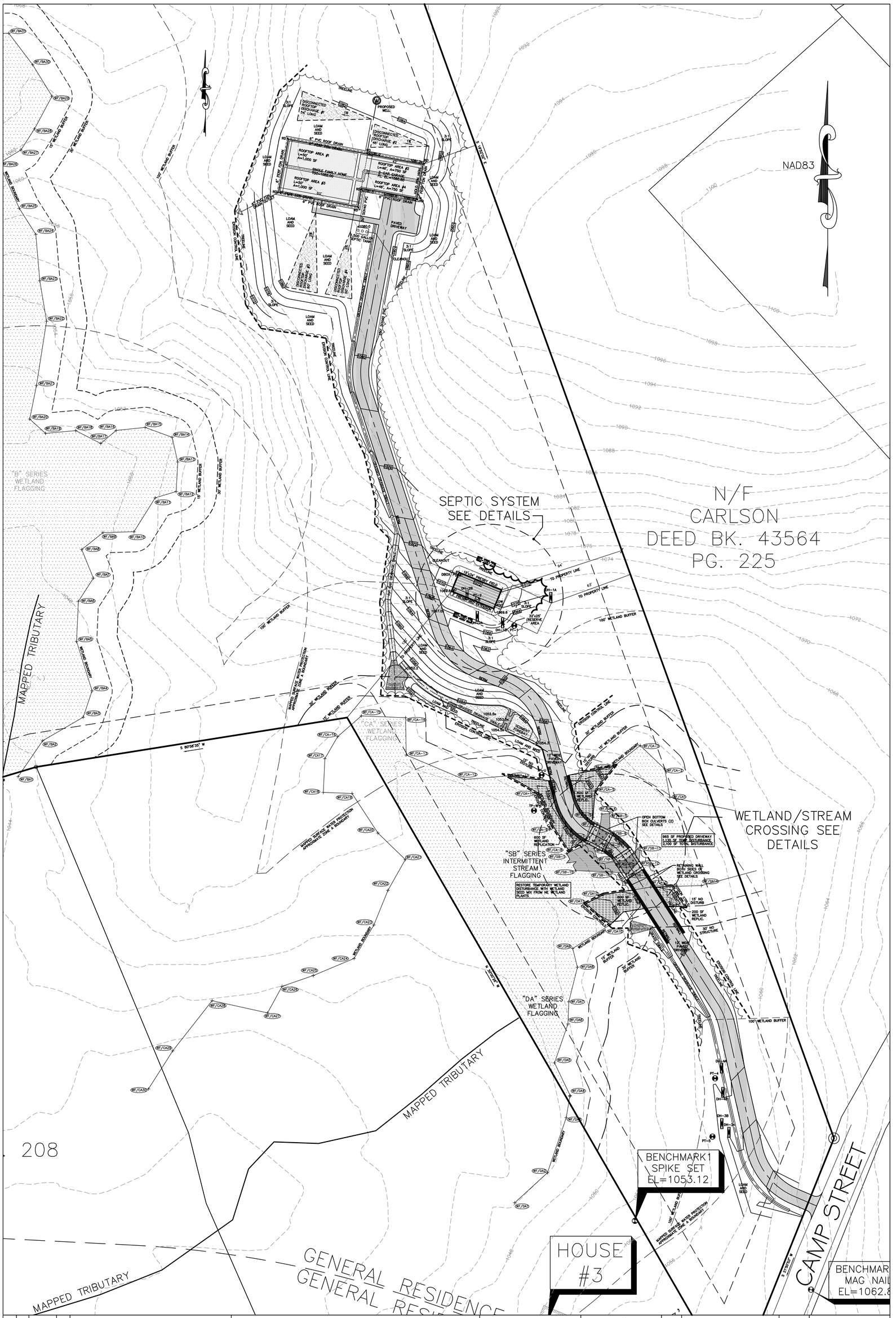
OWNER:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612
(508) 769-3788

APPLICANT:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612

COMMONWEALTH OF MASSACHUSETTS
KEVIN J. QUINN
No.39922-C
REGISTERED PROFESSIONAL ENGINEER
KEVIN J. QUINN CIVIL #33922

NO.	REVISION	DATE
2	BOH COMMENTS	4/29/22
1	TOWN COMMENTS	4/6/22

DIG SAFE DIAL-811



QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: DECEMBER 23, 2021

PROPOSED DEVELOPMENT PLAN

CAMP STREET

SHEET 2 OF 5

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
PAXTON, MA
CAMP STREET

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

OWNER:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612
(508) 769-3788

APPLICANT:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612

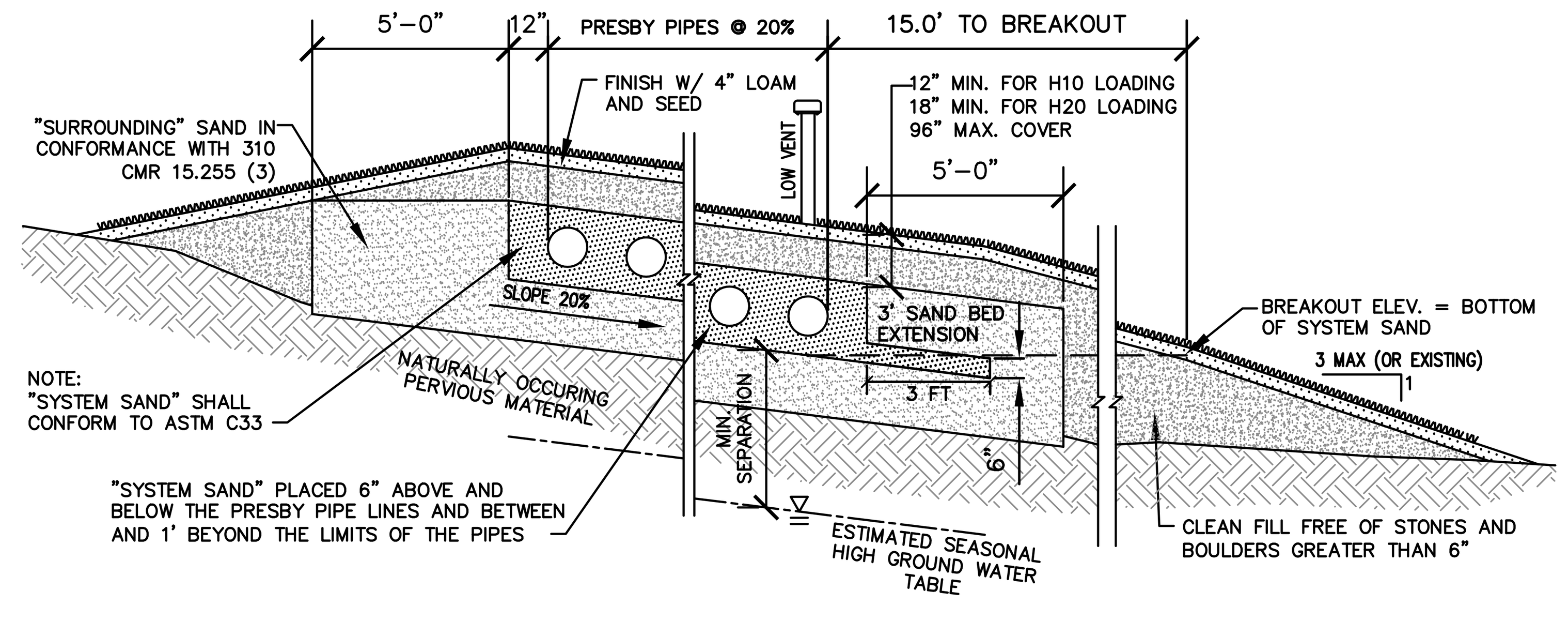
COMMONWEALTH OF MASSACHUSETTS
KEVIN J. QUINN
No. 39322-C
REGISTERED PROFESSIONAL ENGINEER

KEVIN J. QUINN CIVIL #33922

NO.	REVISION	DATE
2	BOH COMMENTS	4/29/22
1	TOWN COMMENTS	4/6/22

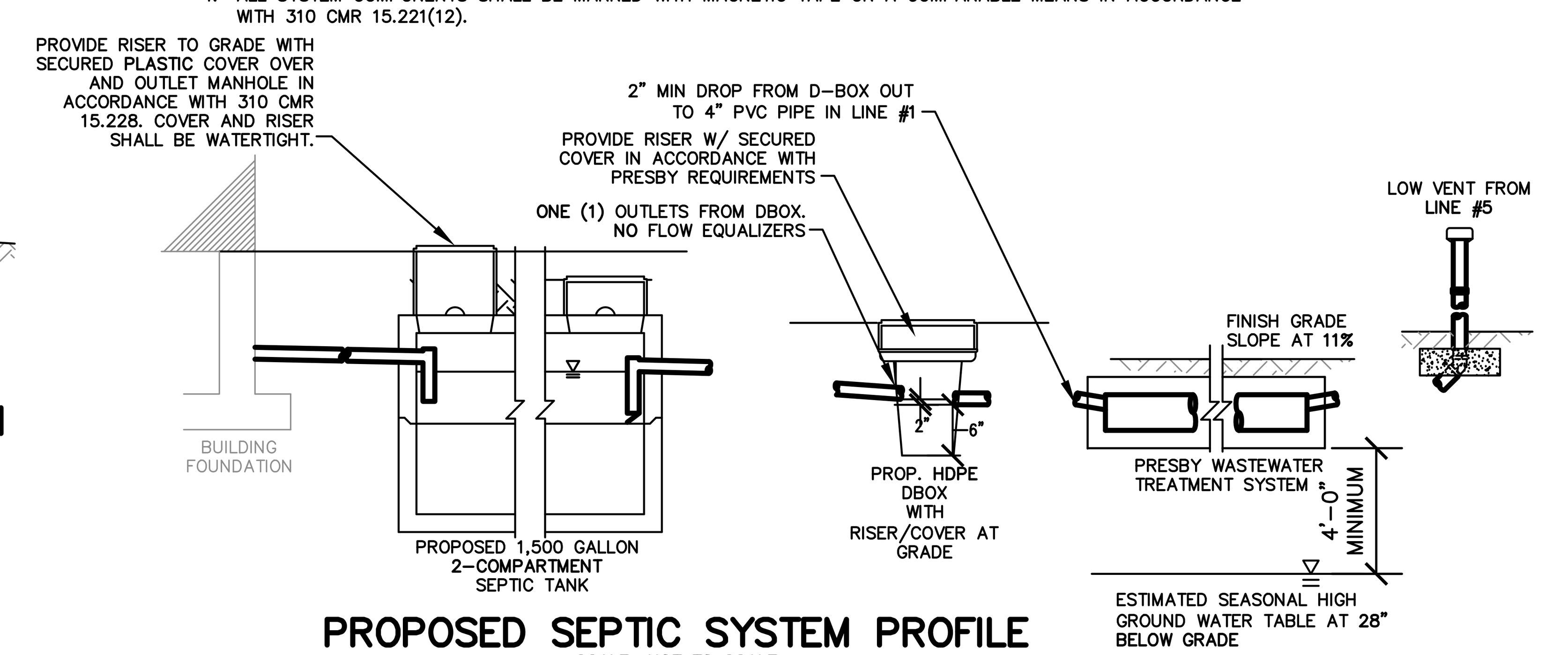
DIG SAFE DIAL 811

LOCUS
SCALE: NOT TO SCALE



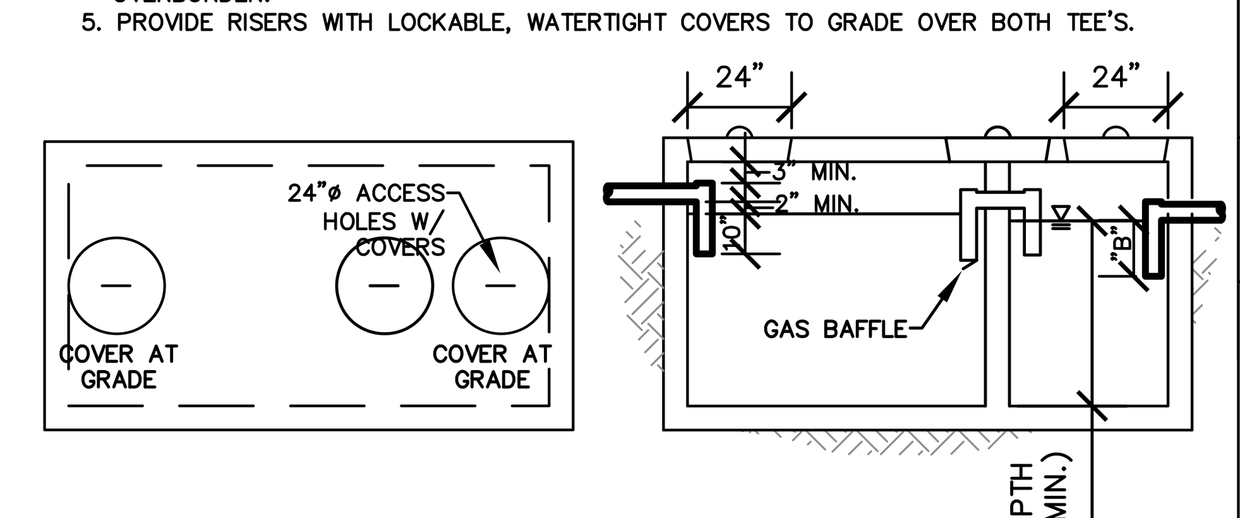
PRESBY ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEM SECTION
SCALE: 1/4"=1'-0"

NOTES:
1. DIST. BOX TO BE PLACED ON A LEVEL & STABLE BASE THAT HAS BEEN COMPACTED BY A VIBRATORY COMPACTOR OR EQUAL.
2. MIN. 4'-0" ELEV. REQUIRED BETWEEN BOTTOM OF LEACHING AREA AND MAX. GROUNDWATER ELEVATION
3. THE DESIGN ELEVATIONS INDICATED WILL PROVIDE AT LEAST THE MINIMUM SLOPES FOR THE LENGTHS INDICATED ON PLAN. IF ANY COMPONENT OF THE SYSTEM IS MOVED, THE DESIGN ELEVATIONS MAY NOT PROVIDE ADEQUATE SLOPE. CHECK WITH ENGINEER BEFORE MOVING ANY COMPONENT.
4. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC TAPE OR A COMPARABLE MEANS IN ACCORDANCE WITH 310 CMR 15.221(12).

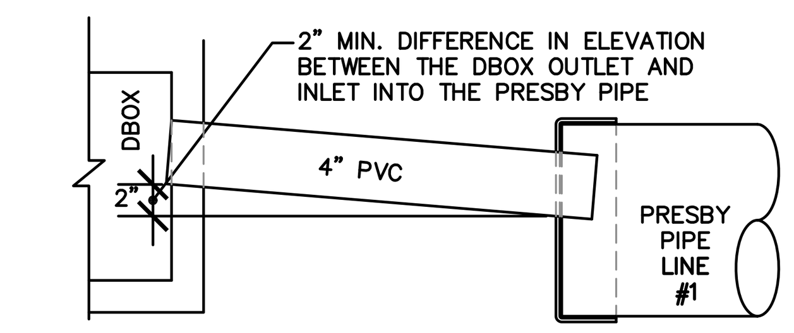


PROPOSED SEPTIC SYSTEM PROFILE
SCALE: NOT TO SCALE

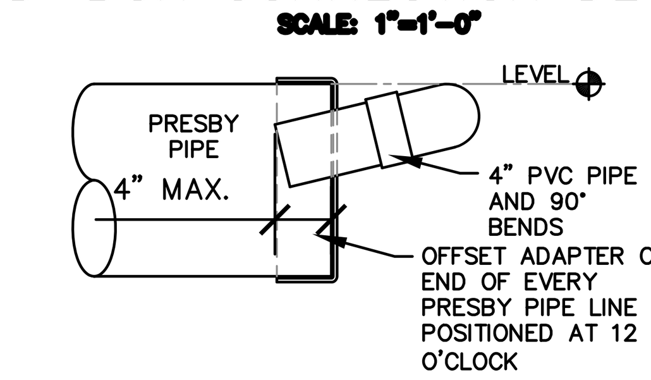
NOTES:
1. A = LIQUID DEPTH
2. B = 14" FOR 4' LIQUID DEPTH
B = 19" FOR 5' LIQUID DEPTH
B = 24" FOR 6' LIQUID DEPTH
3. TANK CONSTRUCTION SHALL CONFORM TO 310 CMR 15.000.
4. TANK SHALL BE CAPABLE OF CARRYING H10 WHEEL LOAD WITH THE PROP. SOIL OVERBURDEN.
5. PROVIDE RISERS WITH LOCKABLE, WATERTIGHT COVERS TO GRADE OVER BOTH TEE'S.



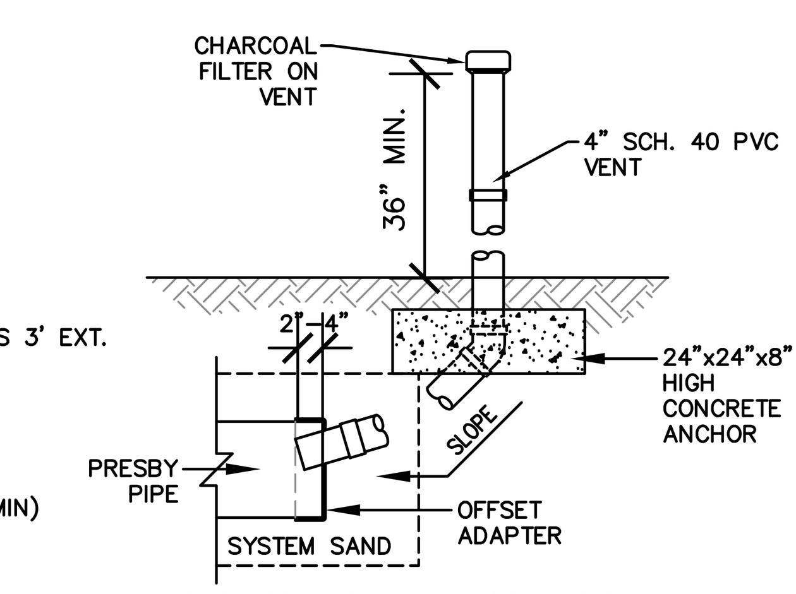
1,500 GALLON 2-COMPARTMENT SEPTIC TANK DETAIL
SCALE: NOT TO SCALE



D-BOX CONNECTION DETAIL
SCALE: 1"=1'-0"

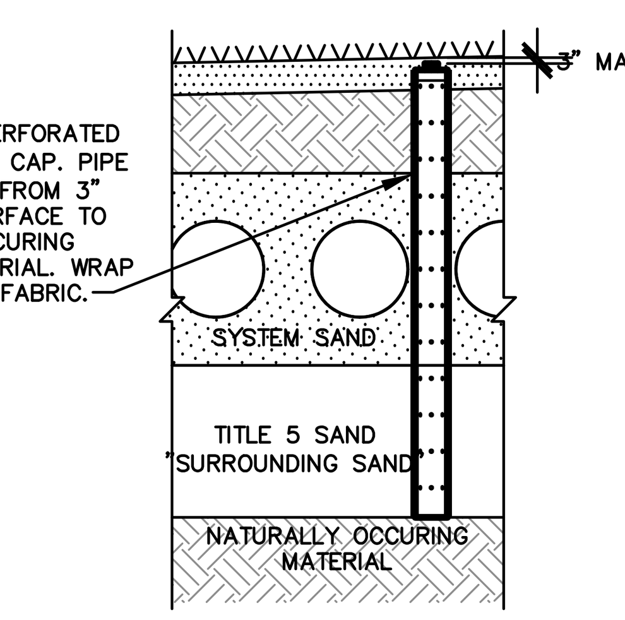


RAISED CONNECTON END DETAIL
SCALE: NOT TO SCALE



LOW VENT DETAIL
SCALE: NOT TO SCALE

NOTE:
1. PROVIDE ONE OBSERVATION PORT WITHIN THE LEACHING AREA.
2. THE OBSERVATION PORTS SHALL CONFORM TO 310 CMR 15.240(13).

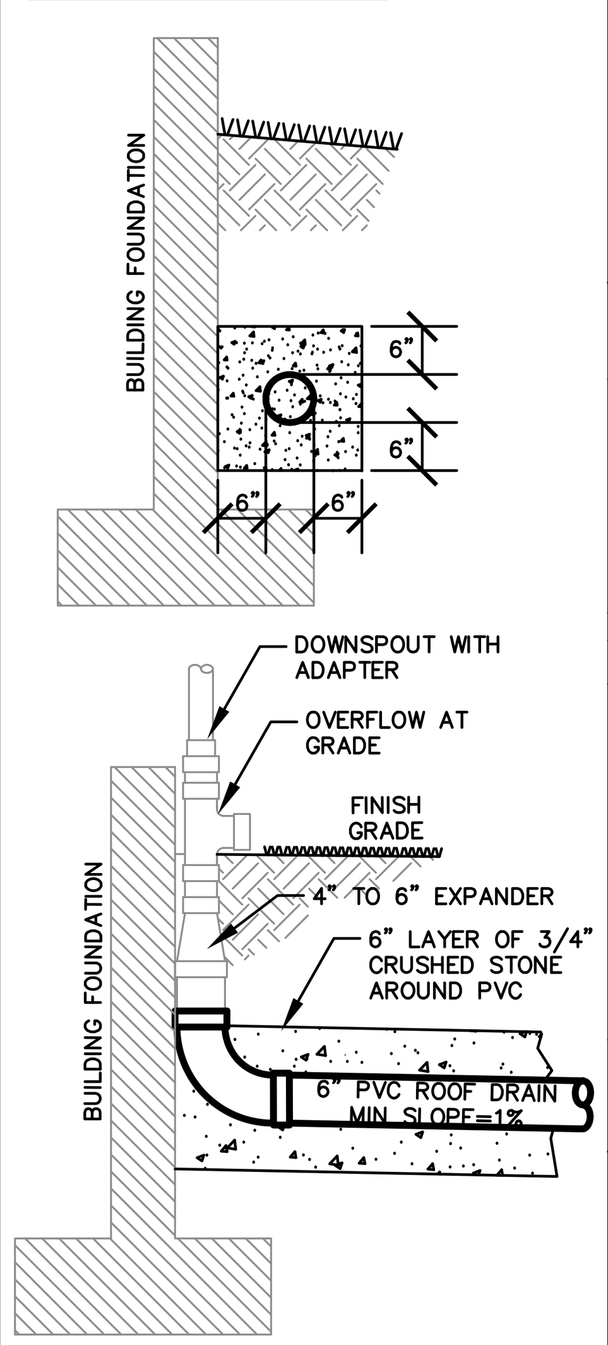


OBSERVATION PORT SECTION
SCALE: NOT TO SCALE

PROJECT NOTES:
1. PROPERTY INFORMATION:
APPLICANT: CABELL MADDUX
ADDRESS: CAMP STREET, PAXTON
ASSESSORS REF. MAP 29, PARCEL 1 + 1A
DEED REF. BOOK 49465 PAGE 84
2. THERE ARE RESOURCE AREAS WITHIN 100' OF THE PROPOSED SAS
3. THE PROPERTY DOES NOT FALL WITHIN A FLOOD HAZARD ZONE AS INDICATED ON NFIP FIRM COMMUNITY PANEL MAPS.
4. NO PORTION OF THE PROPOSED WORK FALLS WITHIN A MAPPED ESTIMATED HABITAT OF RARE WILDLIFE OR WITHIN A PRIORITY HABITAT OF RARE SPECIES.
5. A PORTION OF THE PROPOSED SITE IS LOCATED WITHIN A ZONE A OF A SURFACE WATER PROTECTION AREA. THE LEACHING FIELD AND ITS COMPONENTS ARE OUTSIDE THE SURFACE WATER PROTECTION ZONE A.
6. CONSERVATION APPROVAL IS REQUIRED FOR THE WORK SHOWN ON THIS PLAN.

RECORD DATA:
INV AT FND ______
INV. IN AT SEPTIC TANK ______
INV. OUT AT SEPTIC TANK ______
INV. IN AT DBOX ______
INV. OUT AT DBOX ______

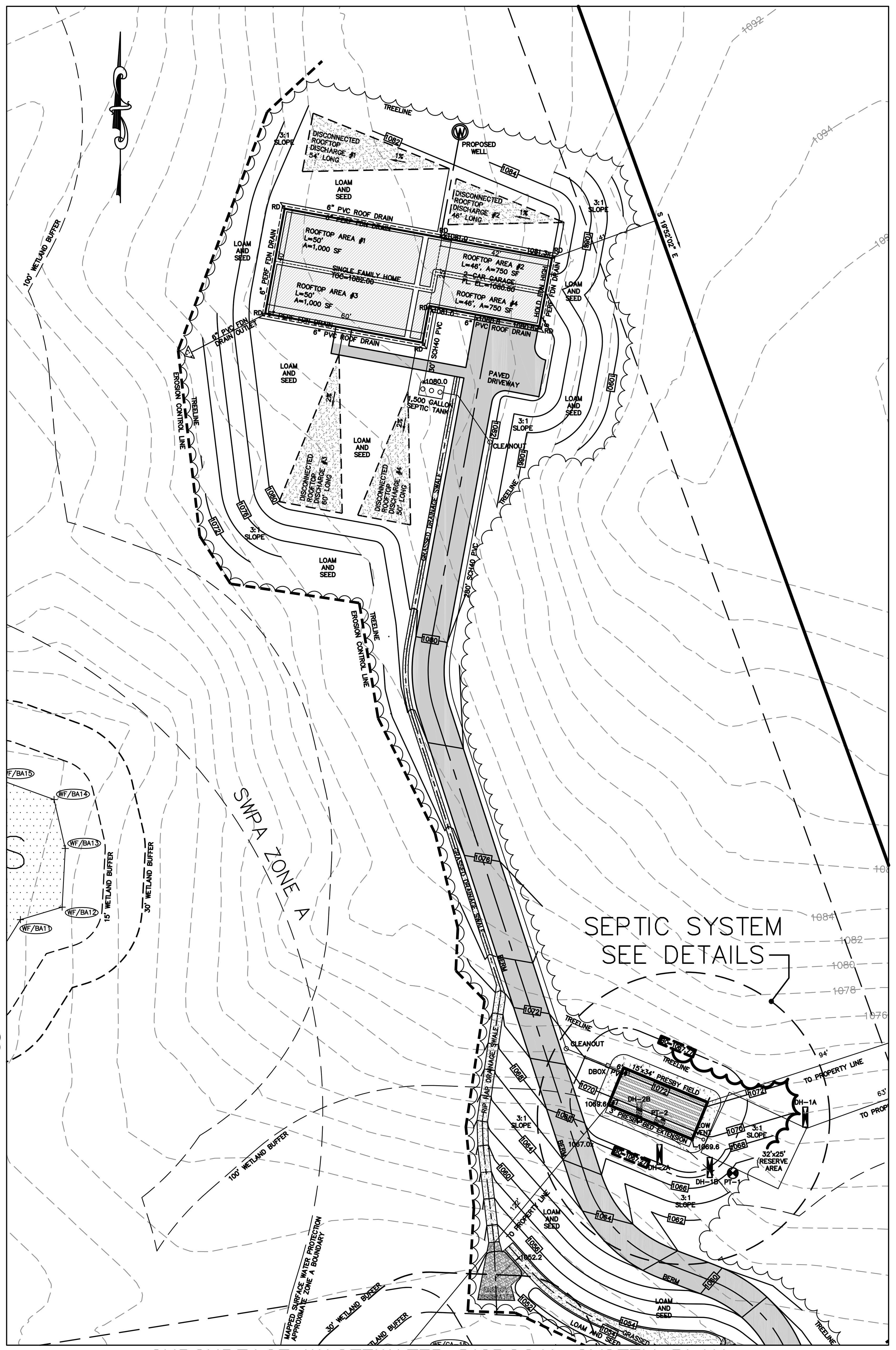
LINE #	BOTTOM OF PIPE	INV. AT BEG./END
1		
2		
3		
4		
5		
6		
7		



ROOF DRAIN DETAILS
SCALE: NOT TO SCALE

—XXX— EXIST. CONTOUR
XXX.X→ EXIST. SPOT GRADE
—[XXX]— PROP. FINISH GRADE
XXX.X→ PROP. SPOT GRADE

LEGEND



SUBSURFACE WASTEWATER DISPOSAL SYSTEM PLAN
SCALE: 1"=30'

SYSTEM NOTES:
1. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO VERIFY THAT THE CONSTRUCTION PLANS ARE THE MOST CURRENT REVISION.
2. ALL MODIFICATIONS TO THIS PLAN MUST BE PRE APPROVED IN WRITING BY THE DESIGN ENGINEER AND THE LOCAL BOARD OF HEALTH.
3. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE LOCAL BOARD OF HEALTH AND THE STATE ENVIRONMENTAL CODE TITLE 5 (310 CMR 15.000) & THE MANUFACTURER'S SPECIFICATIONS.
4. SEVENTY TWO HOURS PRIOR TO COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY DIG-SAFE AT 811. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW UTILITIES WITHIN THE VICINITY OF EXISTING UTILITIES (UNDERGROUND AND OVERHEAD) WITH THE APPROPRIATE UTILITY PROVIDER.
5. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ARE TO BE FIELD VERIFIED. QUINN ENGINEERING, INC. DOES NOT WARRANT THAT ALL EXISTING UTILITIES HAVE BEEN INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE EXISTING UTILITY LOCATIONS AND ENSURING THAT THE PROPOSED WORK DOES NOT CONFLICT WITH THE EXISTING UTILITIES (SHOWN OR NOT SHOWN).
6. THE SYSTEM WAS NOT DESIGNED TO FACILITATE A GARBAGE DISPOSAL.
7. A SURVEYOR REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS SHALL STAKE OUT THE SYSTEM LOCATION AND SHALL PROVIDE AS-BUILT LOCATION AND ELEVATIONS TO QUINN ENGINEERING, INC. THE INSTALLER SHALL NOT COVER THE SYSTEM OR PIPING UNTIL QUINN ENGINEERING, INC. VERIFIES FROM THE AS-BUILT INFORMATION PROVIDED THAT THE SYSTEM LOCATIONS AND ELEVATIONS ARE SUITABLE.
8. ALL PORTIONS OF THE FILL, A AND B SOIL HORIZONS SHALL BE REMOVED FROM WITHIN THE LIMITS OF THE LEACHING FACILITY AND FOR A DISTANCE OF FIVE FEET IN ALL DIRECTIONS THEREFROM,(310 CMR 15.255 (5)). (SEE DEEP HOLE DATA FOR SOIL HORIZON INFORMATION.)
9. WHERE A SEWAGE DISPOSAL SYSTEM IS TO BE CONSTRUCTED IN FILL, THE FILL SHALL BE PLACED AND COMPACTED IN 12 INCH LIFTS OR ALLOWED TO SETTLE FOR A MINIMUM OF ONE YEAR. THE FILL MATERIAL MUST CONFORM WITH THE LOCAL BOARD OF HEALTH AND STATE ENVIRONMENTAL CODE TITLE 5 SECTION 15.255.
10. ALL INTERIOR PLUMBING SHALL BE CONNECTED TO PROPOSED LEACHING FACILITY WITH THE EXCEPTION OF WATER SOFTENING OR CONDITIONING SYSTEMS, BACKWASH FROM FILTRATION SYSTEMS, OR FLOOR DRAINS.
11. THE INSTALLER SHALL SUBMIT TO THE ENGINEER A GRADATION ANALYSIS FOR THE FILL WITHIN THE SYSTEM TO DEMONSTRATE CONFORMANCE WITH 310 CMR 15.255(3) FOR "TITLE 5 FILL" & CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS FOR THE "SYSTEM SAND" PRIOR TO PLACING THE FILL.
12. THE SYSTEM INSTALLATION SHALL BE INSPECTED BY THE LOCAL BOARD OF HEALTH AT THE MILESTONES AS DETERMINED BY THE LOCAL BOARD OF HEALTH.
13. THE INSTALLER SHALL NOTIFY QUINN ENGINEERING, INC. AT LEAST 24 HOURS IN ADVANCE OF REQUESTING INSPECTIONS. QUINN ENGINEERING, INC. SHALL CONDUCT INSPECTIONS AT THE FOLLOWING MILESTONES:
A. EXCAVATION COMPLETE – PRIOR TO PLACING FILL
B. INSTALLATION OF PIPING
C. FINISH GRADING COMPLETE
D. COMPLETE STABILIZATION
14. ALL SYSTEM PIPING SHALL BE MARKED WITH MAGNETIC MARKING TAPE IN ACCORDANCE WITH 310 CMR 15.221 (12).
15. THE SYSTEM OWNER SHALL HAVE A SEPTAGE HANDLER, LICENSED BY THE LOCAL BOARD OF HEALTH, PUMP THE SEPTIC TANK IN ACCORDANCE WITH 310 CMR 15.351. ALL COMPONENTS OF THE SYSTEM SHALL BE MAINTAINED IN ACCORDANCE WITH 310 CMR 15.351, THE SYSTEM MANUFACTURER'S REQUIREMENTS OR OTHER APPLICABLE SECTION OF 310 CMR 15.
16. MACHINERY WHICH MAY CRUSH OR DISTURB THE PIPE SHALL NOT BE ALLOWED ON THE DISPOSAL AREA.
17. THE CONSTRUCTION OF PERMANENT STRUCTURES UPON THE DISPOSAL SYSTEM AND/OR RESERVE AREA IS NOT ALLOWED.

PRESBY LEACHING SYSTEM NOTES:
1. INSTALLATION, MAINTENANCE, MONITORING, REPORTING, ETC. SHALL BE IN ACCORDANCE WITH THE ALTERNATIVE USE CERTIFICATION ISSUED BY DEP DATED OCTOBER 2019 AND IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. MASS DEP AND PRESBY REQUIRE ALL DESIGNERS AND INSTALLERS TO BE CERTIFIED. SYSTEM TO BE INSTALLED IN ACCORDANCE WITH PRODUCT DESIGN AND INSTALLATION MANUAL, STATE AND LOCAL REGULATIONS. FOR PRODUCT INFORMATION OR THE NEAREST DEALER CONTACT PRESBY.
3. INSTALLERS OF PRESBY SYSTEMS SHALL PROVIDE OWNER, MANUFACTURER, AND THE LOCAL APPROVING AUTHORITY WITH A COPY OF A COMPLETED "SYSTEM INSTALLATION REPORT FORM" FOR EACH NEW OR REMEDIAL SYSTEM INSTALLED.
4. ALL SYSTEMS SHALL BE DESIGNED AND INSTALLED USING DISTRIBUTION BOXES AS INSPECTION PORTS. THE OUTLET OF THE D-BOX SHALL BE AT LEAST 2" ABOVE THE INLET OF THE HIGHEST PRESBY LINE WITH THE CONNECTING PIPE SLOPE NOT LESS THAN 2%.
5. THE MINIMUM TOTAL DEPTH OF COVER ON PRESBY LINES IS 10": 6" OF SYSTEM SAND PLUS 4" OF TOPSOIL. PRESBY PIPES WITH 12" OF STRUCTURAL COVER IS DESIGNED FOR H-10 LOADING, AND PRESBY PIPE WITH 18" OF STRUCTURAL COVER IS DESIGNED FOR H-20 LOADING.
6. THE USE OF PRESSURE DISTRIBUTION LINES IN PRESBY WASTEWATER TREATMENT SYSTEMS IS PROHIBITED.
7. SYSTEMS INCORPORATING PUMPS TO GAIN ELEVATION MUST USE DIFFERENTIAL VENTING AND VELOCITY REDUCTION TO CONTROL LIQUID FLOW. VELOCITY REDUCTION MAY BE ACCOMPLISHED THROUGH THE USE OF A DISTRIBUTION BOX WITH A TEE OR 90° ELBOW AT THE FORCE MAIN OUTLET.
8. EACH PRESBY SYSTEM MUST BE INSTALLED WITH VENTING AT THE END OF EACH D-BOX LINE, SECTION OR SERIAL BED. VENT MANIFOLDS MAY BE USED TO CONNECT MULTIPLE VENTS TO ONE VENT OUTLET.
9. EFFLUENT TEE FILTERS WILL NOT BE REQUIRED FOR SEPTIC TANKS USED IN GRAVITY PRESBY SYSTEMS.
10. PRESBY SYSTEMS MAY BE INSTALLED IN AN AREA UP TO 40% SMALLER THAN A CONVENTIONAL TITLE 5 BED DESIGNED IN ACCORDANCE WITH 310 CMR 15.252. CURRENTLY MASSACHUSETTS LIMITS ALL SYSTEMS TO A MINIMUM BED SIZE OF 400 SF.
11. ALL CONFIGURATIONS OF PRESBY SYSTEM REQUIRE A MINIMUM OF 6" OF SYSTEM SAND SURROUNDING THE CIRCUMFERENCE OF THE PIPE, AND 12" OF SAND BEYOND ALL PIPE ENDS AND THE OUTER PIPE ROWS (FIRST & LAST). ASTM STANDARD: C-33 (CONCRETE SAND) MEETS THE REQUIREMENTS FOR SYSTEM SAND.
12. SAND BEDS SLOPING 10% OR LESS REQUIRE THE SYSTEM SAND AREA TO EXTEND A MINIMUM OF 1 FOOT AROUND THE PERIMETER OF THE PRESBY PIPE. (SEE EFFLUENT DISPOSAL AREA CROSS SECTION DETAIL).
13. SAND BEDS SLOPING GREATER THAN 10% REQUIRE THE SYSTEM SAND AREA TO EXTEND A MINIMUM OF 1 FOOT AROUND THE PERIMETER OF THE PRESBY PIPE PLUS AN ADDITIONAL 3 FOOT EXTENSION SHALL BE PROVIDED ON THE DOWNSLOPE SIDE. (SEE EFFLUENT DISPOSAL AREA CROSS SECTION DETAIL).
14. A COMBINATION DISTRIBUTION IS REQUIRED FOR SYSTEMS WITH GREATER THAN 500GPD. TO PREVENT MOVEMENT, BE SURE DISTRIBUTION BOX IS PLACED ON A STABLE SOIL BASE OR CONCRETE PAD.
15. ALL DISTRIBUTION BOXES THAT DIVIDE EFFLUENT FLOW IN PUMP OR GRAVITY SYSTEMS REQUIRE FLOW EQUALIZERS IN THEIR OUTLETS. MOST FLOW EQUALIZERS ARE LIMITED TO A MAXIMUM OF 10 GALLONS/MINUTE IN GRAVITY SYSTEMS AND 20 GALLONS/MINUTE IN PUMPED SYSTEMS.
16. DO NOT INSTALL SYSTEM ON FROZEN GROUND OR LEAVE SYSTEM UNCOVERED FOR EXTENDED PERIODS OF TIME.

CERTIFICATION:
I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND THE EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310 CMR 15.100 THROUGH 15.017.

KEVIN QUINN, PE

DESIGN CRITERIA:
RESIDENTIAL LOADING: 4 BEDROOMS
PERC RATE: 11 MPI
SOIL GROUP: II
SYSTEM SLOPE: 20 %
GARBAGE DISPOSAL / GRINDER: NOT ALLOWED
PIPE ROW LENGTH: 32 FT
ENVIRO-SEPTIC PIPE REQ'D: 220 FT
ENVIRO-SEPTIC PIPE PROVIDED: 224 FT
USE C/L TO C/L SPACING: 2.0 FT
NUMBER OF SECTIONS: 1
NUMBER OF PIPE ROWS: 7 ROWS
MIN SAND AREA REQ'D: 400 SQ FT
SAND AREA PROVIDED: 510 SQ FT
SYSTEM SAND LENGTH: 34 FT
SYSTEM SAND WIDTH: 15 FT

LEACHING AREA REQUIRED UNDER TITLE 5:
440 GPD/0.56 GPD/S.F. = 786 S.F.
(PRESBY SYSTEMS ARE REQUIRED TO BE NO LESS THAN 60% OF THE AREA OF A PIPE AND AGGREGATE SYSTEM AND NO LESS THAN 400 S.F.

510 S.F. PROVIDED > (786 S.F.)(60%)
510 S.F. PROVIDED > 400 S.F. REQ'D OK

BOTTOM ELEV OF ENVIRO-SEPTIC® PIPE HIGHEST ROW = 1069.67
SYSTEM SAND BEYOND HIGHEST ROW = 1 FT
SYSTEM SAND BEYOND LOWEST ROW = 3 FT
MATERIAL COVER OVER ENVIRO-SEPTIC® PIPES = 10 INCHES
SYSTEM SLOPE = 20 %
CENTER-TO-CENTER SPACING = 2.0 FT
NUMBER OF ROWS = 7
DEPTH TO SEASONAL HIGH GROUNDWATER 28 INCHES
SEPARATION DISTANCE TO GROUNDWATER 4 FEET
DROP IN ELEVATION FROM PIPE TO PIPE = 0.40 FT
OUTSIDE-TO-OUTSIDE PIPE LAYOUT WIDTH OF SYSTEM = 13.0 FT
TOTAL SYSTEM SAND WIDTH = 15.0 FT PLUS 3' EXT.
TOTAL SYSTEM SAND LENGTH = 34 FT

DESIGN CALCULATIONS:
LEACHING AREA REQUIRED: (440 GPD)/(0.56 GPD/S.F.) = 786 S.F.
(PRESBY ALLOWS FOR 40% REDUCTION IN LEACHING SIZE = 400 S.F. MIN)

CRITERIA:
4 BEDROOM HOUSE
PERC RATE = 11 MPI
% SLOPE OF SYSTEM = 20%
CTR. TO CTR. SPACING: MIN. REQ'D = 2.0' PROVIDED = 2.0'
LINEAR FT OF Presby PIPE: MIN. REQ'D = 220 LF PROVIDED = 224 LF
MINIMUM SAND BED AREA: MIN. REQ'D = 400 SF PROVIDED = 510 SF

LENGTH OF EACH ENVIROSEPTIC PIPE LINE (L) = 32'
LAYOUT WIDTH OF PIPE (W) = 13' (OUTSIDE OF #1 TO OUTSIDE OF #7)
DIMENSIONS OF C-33 SYSTEM SAND BED = 34'L x 15'W = 510 SF
(5' OVERDIG WITH TITLE 5 SAND BEYOND C-33 SYSTEM SAND BED IS REQ'D)

RESERVE AREA 32'x25' = 800 SF > 786 SF = OK

DESIGN ELEVATIONS:
TOP OF FOUNDATION 1082.00
INV. @ FDN 1077.85
INV. IN AT PROP. SEPTIC TANK 1077.25
INV. OUT AT PROP. SEPTIC TANK 1077.00
INV. IN AT PROP. D-BOX 1071.17
INV. OUT AT PROP. D-BOX 1071.00

LINE #	EXIST. GRADE	HIGH G.W. ELEV	BOTTOM OF C33 SYSTEM SAND/ B.O.	BOTTOM OF PIPE	INV. AT BEG./END	TOP OF PIPE	MINIMUM FINISHED GRADE	PROPOSED FINISHED GRADE
1	1068.00	1065.67	1069.67	1070.17	1070.75	1071.17	1072.00	1072.00
2	1067.50	1065.17	1069.27	1069.77	1070.35	1070.77	1071.60	1071.60
3	1067.00	1064.67	1068.87	1069.37	1069.95	1070.37	1071.20	1071.20
4	1066.50	1064.17	1068.47	1068.97	1069.55	1069.97	1070.80	1070.80
5	1066.25	1063.92	1068.07	1068.57	1069.15	1069.57	1070.40	1070.40
6	1066.00	1063.67	1067.67	1068.17	1068.75	1069.17	1070.00	1070.00
7	1065.50	1063.17	1067.27	1067.77	1068.35	1068.77	1069.40	1069.60

NOTE: THE BREAKOUT ELEV. IS EQUAL TO THE BOTTOM OF THE C-33 SAND

DH-1A
SURFACE

SL 10YR4/2	Ap 0-4
SL 10YR6/6	Bw 4-28
SL 2.5Y6/4	C 28-91

MOTTLES @ 28 10YR6/6
NO WEEP
NO WATER
NO REFUSAL

DH-1B
SURFACE

SL 10YR2/2	Ap 0-6
SL 10YR6/8	Bw 6-32
SL 2.5Y6/4	C 32-92

MOTTLES @ 32 10YR7/2
NO WEEP
NO WATER
NO REFUSAL

DH-2A
SURFACE

SL 10YR4/2	Ap 0-4
SL 10YR6/6	Bw 4-31
SL 2.5Y7/4	C 31-87

MOTTLES @ 31 10YR6/8
NO WEEP
NO WATER
NO REFUSAL

DH-2B
SURFACE

SL 10YR4/2	Ap 0-4
SL 10YR5/6	Bw 4-60
SL 2.5Y6/3	C 60-96

MOTTLES @ 39 2.5Y7/4
NO WEEP
NO WATER
NO REFUSAL

SOIL TESTING:
DATE PERFORMED: 7/17/19
BY: KEVIN QUINN, PE
WITNESS: WAYNE CURRAN, RS

PT-1
DATE PERFORMED: 7/17/19
BY: KEVIN QUINN, PE
WITNESS: WAYNE CURRAN, RS
PERC RATE: 11 MPI

PT-2
DATE PERFORMED: 7/17/19
BY: KEVIN QUINN, PE
WITNESS: WAYNE CURRAN, RS
PERC RATE: 8 MPI

DIG SAFE DIAL-811

NO.	REVISION	DATE
2	BOH COMMENTS	4/29/22
1	TOWN COMMENTS	4/6/22

KEVIN J. QUINN CIVIL #33922

OWNER:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612
(508) 769-3788

APPLICANT:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
PAXTON, MA
CAMP STREET

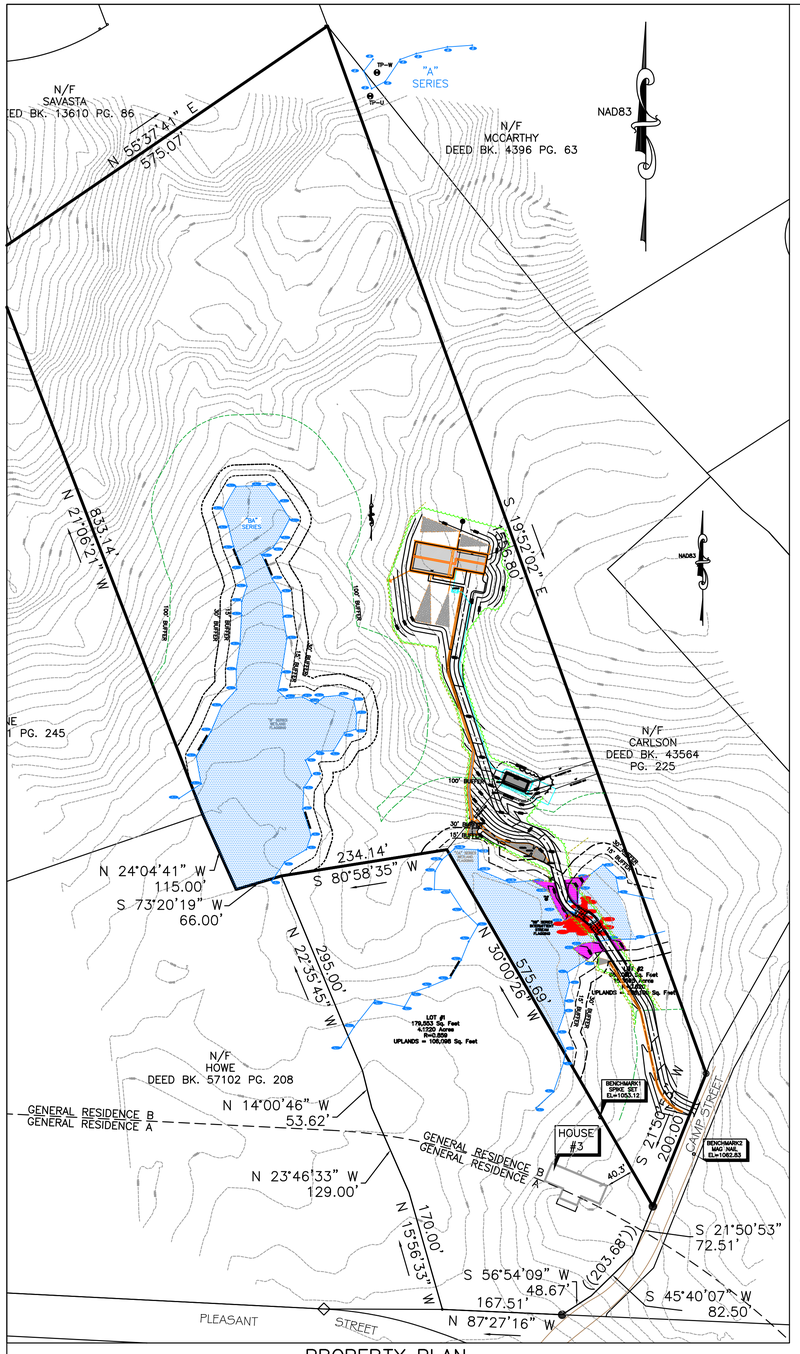
SCALE: 1" = 30'

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

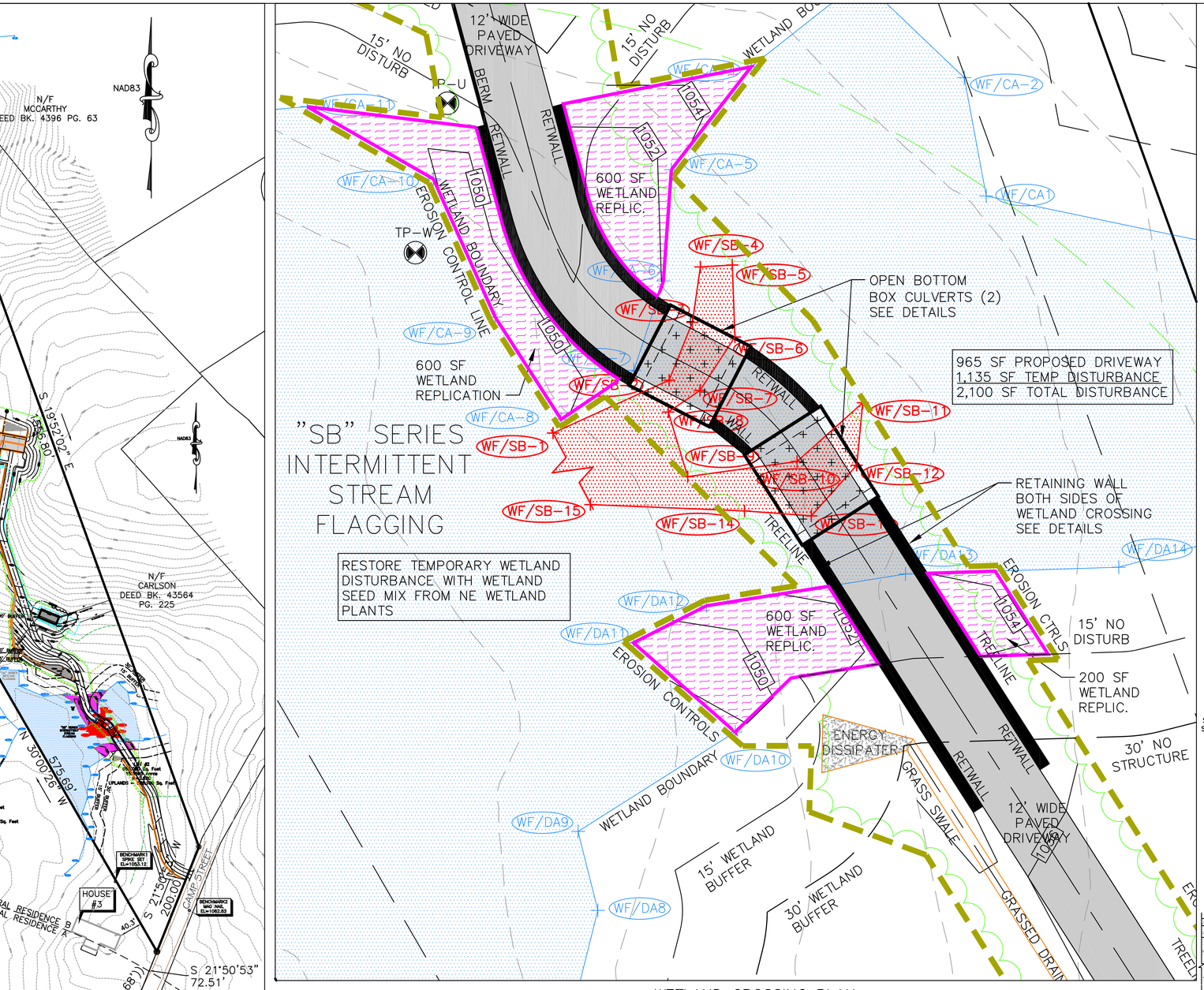
DATE: DECEMBER 23, 2021

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN

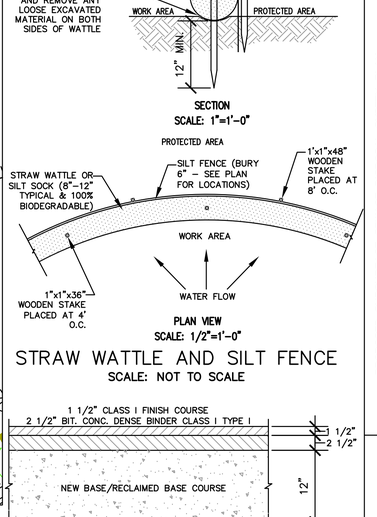
CAMP STREET



PROPERTY PLAN
SCALE: 1"=100'



WETLAND CROSSING PLAN
SCALE: 1"=10'



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

POP UP EMITTER WITH BASIN
SCALE: NTS

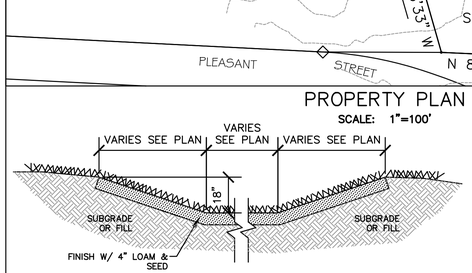
STRAW WATTLE AND SILT FENCE
SCALE: NOT TO SCALE

NOTES:
1. IMPORTED GRAVEL USED AS BASE MATERIAL SHALL CONFORM TO MA DOT STANDARD SPECIFICATION M1.03.0 TYPE b.
2. GRAVEL BASE SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE AND COARSE SAND, FREE FROM LOAM AND CLAY, SURFACE COATINGS, AND DELETERIOUS MATERIALS.
3. GRADATION REQUIREMENTS FOR IMPORTED GRAVEL SHALL BE DETERMINED BY AASHTO–T11 AND T27 AND SHALL CONFORM TO THE FOLLOWING:

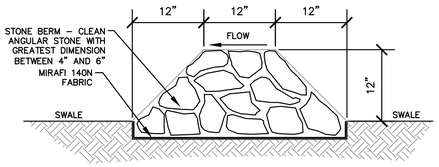
SIEVE DESIGNATION:	% PASSING:
1/2 IN.	50–85
NO. 4	40–75
NO. 50	8–28
NO. 200	0–10

4. THE MAXIMUM SIZE OF STONE IN GRAVEL SHALL BE 3" LARGEST DIMENSION FOR M1.03.0 TYPE b.
5. ALL PAVEMENT SHALL HAVE A CONTINUOUS LONGITUDINAL SLOPE OR SHALL BE CROSS PITCHED TO ADEQUATELY SHED SURFACE WATER.

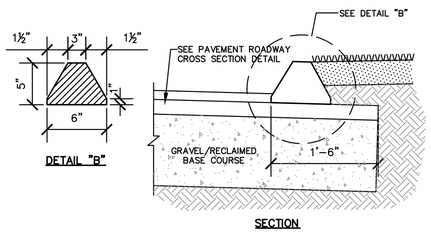
TYPICAL PAVEMENT CROSS SECTION
SCALE: 1"=1'-0"



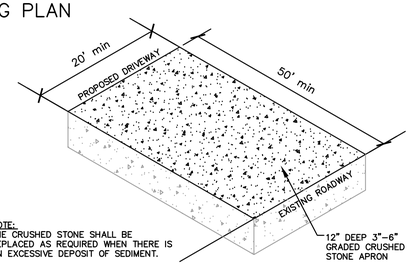
GRASSED SWALE DETAIL
SCALE: NTS



FOREBAY BERM DETAIL
SCALE: NOT TO SCALE



ASPHALT BERM DETAIL
SCALE: NTS



NOTE:
THE CRUSHED STONE SHALL BE REPLACED AS REQUIRED WHEN THERE IS AN EXCESSIVE DEPOSIT OF SEDIMENT.

CRUSHED STONE CONSTRUCTION ENTRANCE DETAIL
SCALE: NOT TO SCALE

NO.	REVISION	DATE
1	BOH COMMENTS	4/29/22
2	TOWN COMMENTS	4/6/22

DIG SAFE DIAL–811

KEVIN J. QUINN CIVIL #33922

OWNER:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612
(508) 769–3788

APPLICANT:
SADEGH + FARRELL
3 CAMP STREET
PAXTON, MA 01612

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
PAXTON, MA
CAMP STREET

SCALE: AS NOTED

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: DECEMBER 23, 2021

CONSERVATION AND STORMWATER PLAN

CAMP STREET

SHEET 4 OF 5

GENERAL NOTES:

1. ALL REQUIRED PERMITS SHALL BE SECURED PRIOR TO COMMENCING WORK. PRIOR TO COMMENCING ANY WORK ONSITE, CONTRACTOR SHALL NOTIFY THE TOWN OF PAXTON PLANNING AND ENGINEERING DEPARTMENTS, BUILDING DEPARTMENT, CONSERVATION COMMISSION, DEPARTMENT OF PUBLIC WORKS, SCHOOL DEPARTMENT, POLICE AND FIRE DEPARTMENTS.
2. ALL WORK SHALL CONFORM TO THE TOWN OF PAXTON REGULATIONS, ZONING BY–LAW, CONSERVATION COMMISSION LOCAL BY–LAW OR OTHER REGULATIONS AS APPLICABLE. ALL REQUIREMENTS OF THE TOWN OF PAXTON ARE HEREBY MADE CONDITIONS OF THIS WORK.
3. CONTRACTOR SHALL CONTROL AIRBORNE DUST WITH USE OF SPRAYED WATER AS REQUIRED TO MINIMIZE IMPACT ON NEIGHBORING PROPERTIES. USE OF CALCIUM CHLORIDE OR OTHER CHEMICALS IS NOT PERMITTED.
4. CONTRACTOR SHALL RETAIN A LICENSED SURVEYOR TO LAY OUT THE SITE, WHO CERTIFY THAT ALL LOCATIONS ARE AS PER PLAN.
5. SEVENTY TWO HOURS PRIOR TO COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 811. THE CONTRACTOR SHALL COORDINATE NEW UTILITIES WITH THE VICINITY OF EXISTING UTILITIES (UNDERGROUND/OVERHEAD) WITH THE APPROPRIATE UTILITY.
6. INTERIM AND/OR PERMANENT SOIL STABILIZATION MEASURE SHALL BE INSTITUTED AS SOON AS PRACTICABLE, BUT NO MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED ON THAT PORTION OF THE SITE.
7. REMOVE ALL TOPSOIL, SUBSOIL, PRIOR TO PLACING ANY FILL ONSITE. WHERE GRAVEL IS CALLED FOR ONSITE, CONTRACTOR MAY UTILIZE ONSITE MATERIALS, IF APPROVED BY OWNER.
8. CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF AS–BUILT LOCATIONS OF ALL UNDERGROUND AND ABOVE GROUND FACILITIES. PROVIDE THE OWNER WITH COMPLETE AS–BUILT PLANS UPON COMPLETION OF PROJECT, INCLUDING UTILITIES NOT INDICATED ON THIS PLAN.
9. CONSTRUCTION SEQUENCE: ALL WORK OF THIS PROJECT SHALL PROCEED ACCORDING TO THE FOLLOWING PROPOSED SEQUENCE:
   1.) EROSION CONTROL PROVISIONS IN PLACE AND INSPECTED BY TOWN
   2.) CLEARING/GRUBBING OF SITE DRIVEWAY/WETLAND CROSSING (SEE WETLAND REPLICATION PROTOCOLS BELOW FOR ADDITIONAL DETAIL)
   3.) CONSTRUCT AND STABILIZE FRONT DRIVEWAY SWALE AND ROUGH IN PROPOSED DRIVEWAY UP TO WETLAND CROSSING
   4.) GRADE AREAS AT WETLAND CROSSING, INSTALL OPEN BOTTOM CULVERTS AND RETAINING WALLS, AND BRING TO PROPOSED GRADE
   5.) CONSTRUCT WETLAND REPLICATION AREAS (FINAL PLANTING AND STABILIZATION TO OCCUR EARLY OR LATE SEASON)
   6.) CONSTRUCT AND STABILIZE DRAINAGE SWALES AFTER WETLAND CROSSING AND ROUGH IN REMAINDER OF DRIVEWAY
   7.) ROUGH GRADE REMAINDER OF SITE, HOUSE AND SEPTIC SYSTEM CONSTRUCTION
   8.) FINAL SITE STABILIZATION AND EROSION CONTROL REMOVAL (REMOVE EC'S AFTER APPROVAL FROM TOWN BOARDS)
10. CONTRACTOR SHALL PLACE A MINIMUM OF 6" (COMPACTED DEPTH) OF GOOD QUALITY LOAM AND GRASS SEED IN ALL AREAS NOT SUBJECT TO RESTORATION BY ANY OTHER MEANS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE HIS WORK WITH MUNICIPALITY TO LIMIT THE POTENTIAL DISRUPTIONS TO THE THE GENERAL PUBLIC. SHALL EMPLOY DUE CARE AND CAUTION TO PROTECT THE PUBLIC FROM DANGERS ASSOCIATED WITH THE OPERATION. SHALL INSTALL TEMPORARY FENCES, BARRICADES AND SIGNAGE TO ENSURE THAT NO PERSONS ENTER THE WORK AREA. SHALL COORDINATE POLICE DETAILS AS REQUIRED FOR WORK TO BE CONDUCTED IN THE STREET. SHALL EMPLOY DUE CARE WHEN WORKING AROUND PEDESTRIAN AND VEHICLE TRAFFIC.
12. NO EXCAVATION SHALL TAKE PLACE ONSITE UNTIL ALL SEDIMENTATION CONTROLS (STRAW WATTLES, TEMP BASINS, ETC.) ARE FULLY INSTALLED AS PER PLAN. FOLLOWING COMPLETION OF GRADING IN ANY AREA CONTRACTOR SHALL ACT TO PLACE PERMANENT SURFACE FINISH OR TO STABILIZE SURFACE SOILS AGAINST EROSION. LOAM AND SEED SHALL BE PLACED IMMEDIATELY UPON FINAL GRADING.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT THE CONSTRUCTION ACTIVITIES DO NOT DAMAGE OR UNDERMINE EXISTING SLOPES, BUILDINGS, WALLS, STRUCTURES, ETC. IN THE AREA AROUND THE CONSTRUCTION. REPAIR OF EXISTING SLOPES, BUILDINGS, WALLS, STRUCTURES, ETC. THAT ARE DAMAGED OR UNDERMINED BY THE CONTRACTORS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ARE TO BE FIELD VERIFIED. QUINN ENGINEERING, INC. DOES NOT WARRANT THAT ALL EXISTING UTILITIES HAVE BEEN INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE EXISTING UTILITY LOCATIONS AND ENSURING THAT THE PROPOSED WORK DOES NOT CONFLICT WITH THE EXISTING UTILITIES NOT SHOWN.
15. SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHOULD BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHOULD BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CAN NOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHOULD BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL–JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH SEWER AND WATER MAIN SHOULD BE ENCASED IN CONCRETE FOR 10 FEET EITHER SIDE OF THE CROSSING.
16. THE GROUND IMMEDIATELY ADJACENT TO FOUNDATIONS SHALL BE SLOPED AWAY FROM THE BUILDING, IN ACCORDANCE WITH 780 CMR 1813.7, AT A SLOPE OF NOT LESS THAN 1:12 FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. OTHER APPROVED ALTERNATE METHODS OF DIVERTING WATER AWAY FROM THE FOUNDATION MAY BE ACCEPTABLE.
17. ALL SDR35 PVC SEWER PIPE & FITTINGS SHALL CONFORM TO ASTM D3034 OR ASTM F679.
18. ALL SCH. 40 & SCH. 80 PVC PIPE & FITTINGS SHALL CONFORM TO ASTM D178M D3915, .4, ASTM . D1785, ASTM D3915, ASTM D4396
19. THE SITE IS NOT LOCATED WITHIN A TOWN OF PAXTON WATERSHED RESOURCE PROTECTION DISTRICT.
20. SUITABLE FILL SHALL CONSIST OF MATERIAL SOIL FREE OF ORGANIC MATERIALS, LOAM, AND ANY DELETERIOUS MATERIALS. SUITABLE CONFORMABLE FILL SHALL NOT CONTAIN STONES LARGER THAN 10" IN ANY DIMENSION, AND SHALL HAVE LESS THAN 75% PASSING THE NO. 4 SIEVE AND A MAXIMUM OF 20% PASSING THE NO. 200 SIEVE. SUITABLE FILL SHALL NOT CONTAIN ANY BUILDING RUBBLE, GRANITE, OR CONCRETE BLOCK, ROOFING MATERIALS, OR OTHER CONSTRUCTION REFUSE. AT THE TIME OF PLACEMENT SUITABLE FILL SHALL NOT CONTAIN FROST, SNOW, OR ICE AND SHALL NOT CONTAIN WATER GREATER THAN THE OPTIMAL MOISTURE CONTENT.
21. THE EROSION CONTROL LINE SHALL BE STAKED BY A MA REGISTERED SURVEYOR PRIOR TO THE INSTALLATION OF EROSION CONTROLS. THE EROSION CONTROL LINE SHALL SERVE AS THE LIMIT OF WORK.
22. SITE OPERATIONS SHALL NOT DIRECT HAZARDOUS MATERIALS IN QUANTITIES SUBSTANTIALLY GREATER THAT THOSE ASSOCIATE WITH NORMAL HOUSEHOLD USE TO THE SOIL ABSORPTION SYSTEM.
23. RETAINING WALL SHALL BE VERSA–LOK PRECAST CONCRETE BLOCK RETAINING WALL SYSTEM, OR EQUAL. INSTALL WALL AS PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS. RETAINING WALLS WITH DIFFERENCES IN GRADE LEVEL ON EITHER SIDE OF THE WALL IN EXCESS OF FOUR FEET SHALL BE DESIGNED BY A MASSACHUSETTS REGISTERED PROFESSIONAL STRUCTURAL ENGINEER IN ACCORDANCE WITH 780 CMR 116.0. THE MA REGISTERED PROFESSIONAL STRUCTURAL ENGINEER SHALL PROVIDE HIS/HER SEAL AND SIGNATURE ON THE CONSTRUCTION PLANS AND SPECIFICATIONS. RETAINING WALLS WITH DIFFERENCES IN GRADE LEVEL ON EITHER SIDE OF THE WALL IN EXCESS OF FOUR FEET, ARE CLOSER THAN TWO FEET TO A WALK, PATH, PARKING LOT, OR DRIVEWAY ON THE HIGH SIDE SHALL BE PROVIDED WITH GUARDS THAT ARE CONSTRUCTED IN ACCORDANCE WITH 780 CMR 1021.0. INTEGRITY OF THE WALL.

WETLAND & STREAM REPLICATION/RESTORATION PROTOCOL

1. THE WETLAND BOUNDARIES (I.E., DOWNGRADIENT EDGES OF THE WETLAND REPLICATION AREA) WILL BE MARKED IN THE FIELD.
2. PRIOR TO THE START OF EARTH–MOVING ACTIVITIES IN THE REPLICATION AREA, AN EROSION CONTROL BARRIER OF PROPERLY INSTALLED SILTATION FENCE (I.E., THE BOTTOM FEW INCHES OF THE SILTATION FENCE INSTALLED IN A NARROW, TRENCH AND THE TRENCH FILLED WITH SOIL AROUND THE SILTATION FENCE) WILL BE INSTALLED ALONG THE WETLAND BOUNDARIES BETWEEN THE WETLAND AND THE WETLAND REPLICATION AREA. THE PROJECT WETLAND SCIENTIST WILL EVALUATE THE REPLICATION AREA PRIOR TO CLEARING AND DETERMINE IF ANY EXISTING TREES CAN BE SAVED. THE WETLAND REPLICATION AREA WILL THEN BE CLEARED AND GRUBBED, WITH THE EXCEPTION OF ANY TREES THAT HAVE BEEN MARKED TO BE SAVED.
3. THE PROPOSED FINAL GRADE FOR THE REPLICATION AREA SHOULD APPROXIMATE THE ELEVATION OF THE ADJACENT WETLAND AREAS, AS NOTED ON THE SITE PLANS. THE REPLICATION AREA WILL BE EXCAVATED TO A DEPTH OF 12–INCHES BELOW THE PROPOSED FINAL GRADE. THE EXCAVATION AND PLANTING WORK WILL BE CLOSELY SUPERVISED BY A QUALIFIED WETLAND SCIENTIST. MODIFICATIONS TO THE PROPOSED GRADING MAY BE MADE IN THE FIELD BY THE WETLAND SCIENTIST IN RESPONSE TO OBSERVED SUBSURFACE HYDROLOGIC CONDITIONS. ALL EXCAVATED MATERIAL WILL BE DISPOSED OF AWAY FROM ALL WETLAND RESOURCE AREAS AND PROTECTED FROM EROSION. ROCK PILES WILL BE PLACED AT SUB–GRADE AS NOTED AT ITEM NO. 7 BELOW.
4. EXISTING TOPSOILS WITHIN THE IMPACT AREA WILL BE EXCAVATED, STOCKPILED AND MOVED IMMEDIATELY TO THE PREPARED REPLICATION AREA OR KEPT MOIST BY WATERING AND/OR COVERING.
5. RELOCATED WETLAND TOPSOILS WILL BE SUPPLEMENTED WITH A 1:1 MIXTURE OF HIGH QUALITY, LOAMY TOPSOIL AND LEAF MULCH COMPOST, AS NECESSARY, TO APPROXIMATE 12–INCHES IN THICKNESS THROUGHOUT THE REPLICATION AREA. THE SUBSTRATE WILL BE ROUGHLY GRADED TO PROVIDE AN APPROPRIATE MICROTOPOGRAPHY. A MINIMUM OF 4 INCHES OF LOAMY TOPSOIL WILL BE APPLIED TO THE SIDE–SLOPES OF THE WETLAND REPLICATION AREA. THE SIDE SLOPES SHOULD BE STABILIZED AS NECESSARY TO PREVENT EROSION.
6. WILDLIFE ENHANCEMENT MEASURES INCLUDING THREE (3) TREE SNAGS AND ONE (1) ROCK PILE WILL BE INSTALLED WITHIN EACH REPLICATION AREA. THE TREE SNAGS WILL CONSIST OF 10 TO 15 FOOT LOGS PLACED RANDOMLY ON THE FINISHED SURFACE. THE TREE SNAGS WILL PROVIDE FOOD, FORAGE AND CAVITY NESTING OPPORTUNITIES. THE ROCK PILES WILL CONSIST OF FIVE OR SIX BOULDERS EACH (APPROXIMATELY 24 INCHES IN DIAMETER) PILED AT SUB–GRADE SO AS TO CREATE CREVICES AND CAVITIES FOR SHELTER AND NESTING.
7. AN EROSION CONTROL BARRIER COMPRISING ONLY TOED–IN SILTATION FENCE WILL BE PROPERLY INSTALLED BETWEEN THE COMPLETED REPLICATION AREA AND THE ADJACENT UPLAND SIDESLOPES.
8. PLANTING WILL BE DONE ONLY DURING THE BEGINNING (APRIL 15 THROUGH JUNE 1) OR END (SEPTEMBER 15 TO NOVEMBER 1) OF THE GROWING SEASON. PLANTING IN THE MID–GROWING SEASON IS ONLY ACCEPTABLE IF IRRIGATION IS PROVIDED. THE NATIVE PLANT SPECIES IDENTIFIED IN THE TABLES BELOW WILL BE PLANTED IN THE REPLICATION AREA EITHER BY TRANSPLANT OR FROM NURSERY STOCK. THE SAPLINGS WILL BE DISTRIBUTED THROUGHOUT THE AREA. THE SHRUBS WILL BE PLANTED RANDOMLY THROUGHOUT THE AREA IN CLUMPS OF TWO TO THREE WITH THE AVERAGE SPACING BETWEEN SHRUB CLUMPS APPROXIMATELY 5 FEET ON–CENTER. THE WOODY VEGETATION SHOULD NOT BE PLANTED IN ROWS. THE HERBACEOUS SPECIES WILL BE PLANTED BETWEEN THE SHRUBS AND SAPLINGS.

PLANTING PLAN FOR EACH OF THREE (3), 600 S.F. WETLAND REPLICATION AREAS

SPECIES; SIZE; SPACING; NUMBER

SAPLINGS; 6' TO 8' HEIGHT, CONTAINER OR BALLED, BURLAPPED; 15' ON–CENTER AVG.

RED MAPLE (ACER RUBRUM) 2

YELLOW BIRCH (BETULA ALLEGHENIENSIS) 1

SHRUBS; 2.5' TO 3' IN HEIGHT, CONTAINER; 5' ON–CENTER AVERAGE SPACING

HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM) 12

WINTERBERRY (ILEX VERTICILLATA) 12

HERBACEOUS; CONTAINERIZED; 5' ON–CENTER AVERAGE SPACING

CINNAMON FERN (OSMUNDA CINNAMOMEA) 24

PLANTING PLAN FOR 200 S.F. WETLAND REPLICATION AREA

SPECIES; SIZE; SPACING; NUMBER

SAPLINGS; 6 TO 8' HEIGHT, CONTAINER OR BALLED, BURLAPPED; 15' ON–CENTER AVG.

RED MAPLE (ACER RUBRUM) 1

SHRUBS; 2.5 TO 3' IN HEIGHT, CONTAINER; 5' ON–CENTER AVERAGE SPACING

HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM) 4

WINTERBERRY (ILEX VERTICILLATA) 4

HERBACEOUS; CONTAINERIZED; 5' ON–CENTER AVERAGE SPACING

CINNAMON FERN (OSMUNDA CINNAMOMEA) 8

9. THE PLANTED REPLICATION AREA WILL BE MULCHED WITH 1 TO 2 INCHES OF SHREDDED LEAVES OR WEED–FREE STRAW TO SIMULATE A FOREST FLOOR AND TO PROVIDE FOR TEMPORARY EROSION CONTROL AND MOISTURE RETENTION.
10. THE SIDE–SLOPES OF THE WETLAND REPLICATION AREA WILL BE SEEDED WITH A NATIVE GRASS/WILDFLOWER MIXTURE DESIGNED TO PROVIDE PERMANENT COVER. AFTER SEEDING, THE SIDE–SLOPES WILL BE MULCHED WITH A THIN LAYER OF WEED–FREE STRAW TO PROVIDE FOR TEMPORARY EROSION CONTROL.
11. THE REPLICATION AREAS WILL BE INSPECTED, BY A QUALIFIED WETLAND SCIENTIST, AT THE END OF EACH GROWING SEASON FOR A MINIMUM OF TWO YEARS OR UNTIL SUCH TIME AS THE REQUIRED 75% OF VEGETATIVE COVER WITH WETLAND SPECIES HAS BEEN ESTABLISHED. IF INVASIVE SPECIES ARE NOTED (E.G., KNOTWEED, PHRAGMITES, ETC.) THESE SPECIES WILL BE REMOVED BY EITHER HAND–PULLING THE ENTIRE PLANT OUT BY THE ROOTS OR BY CUTTING THE ABOVE–GROUND PORTION AND APPLYING GLYPHOSATE HERBICIDE TO THE STEM WITH A DRIP APPLICATOR. THE CUT OR PULLED PLANTS WILL BE PROPERLY DISPOSED OF OUTSIDE THE WETLANDS AND BUFFER ZONES AND CARE WILL BE TAKEN NOT TO DISTRIBUTE ANY SEEDS OR BERRIES THAT MAY BE PRESENT.
12. AFTER THE WETLAND REPLICATION AREA HAS BECOME VEGETATIVELY STABILIZED, AND FOLLOWING APPROVAL OF THE ISSUING AUTHORITY, THE SILTATION FENCE AND ALL WOODEN STAKES WILL BE REMOVED AND DISPOSED OF PROPERLY.
13. IMPACTS TO STREAM BANKS AND LAND UNDER WATER, AT THE PROPOSED WETLAND CROSSING, WILL BE MITIGATED THROUGH THE USE OF AN OPEN–BOTTOM BOX CULVERT "SPANS" AND RESTORATION OF THE STREAM CHANNELS WITHIN THE BOX CULVERT. THE STREAMS WILL BE RESTORED AS FOLLOWS:

- WORK WITHIN THE STREAM WILL ONLY BE CONDUCTED DURING A LOW–FLOW OR NO–FLOW PERIOD, TYPICALLY BETWEEN JULY 1 AND SEPTEMBER 30. WORK OUTSIDE THIS TIME PERIOD MAY BE DONE WITH APPROVAL FROM THE CONSERVATION COMMISSION OR THEIR DESIGNATED AGENT.
- PROVISIONS MUST BE IN PLACE TO RE–DIRECT OR PUMP ANY STREAM FLOW AROUND OR THROUGH THE WORK AREA WITHOUT EXPOSURE TO SEDIMENT OR OTHER CONTAMINANTS. DE–WATERING OF ANY GROUNDWATER WILL BE DONE USING PUMPS WITH PROPERLY FILTERED DISCHARGE LOCATED OUTSIDE THE WETLAND.
- THE STREAM CHANNEL WILL BE GRADED IN A SINUOUS CONFIGURATION TO MATCH THE PROFILES OF THE EXISTING STREAM ON EITHER SIDE OF THE CROSSING.
- THE RE–CONSTRUCTED STREAM CHANNEL WILL BE LINED WITH BIODEGRADABLE COIR OR JUTE FABRIC THAT IS KEYED INTO THE NATIVE TOPSOIL ABOVE THE STREAM BANKS.
- STAKED AND TIED, BIODEGRADABLE FIBER LOGS (MINIMUM 8–INCH DIAMETER) WILL BE PLACED OVER THE FABRIC TO FORM THE STREAM BANKS.
- IF THE NATIVE TOPSOIL HAS BEEN STRIPPED IT WILL BE REPLACED WITH 6 INCHES OF UNSCREENED, ON–SITE TOPSOIL/LOAM. NATIVE OR RESTORED SOILS ABOVE THE BANKS WILL BE MULCHED WITH 1 TO 2 INCHES OF BARK OR CHOPPED LEAVES.
- GRAVEL AND ROUNDED COBBLES (6–INCH MINUS) WILL BE PLACED IN THE STREAM BED TO APPROXIMATE THE EXISTING STREAM BED ABOVE AND BELOW THE CROSSING.
- THE SITE PLANS DEPICT THE RE–CONSTRUCTION OF THE STREAM CHANNEL WITH A CROSS–SECTIONAL DETAIL.

LONG TERM POLLUTION PREVENTION PLAN MEASURES:

1. GOOD HOUSEKEEPING PRACTICES SHALL BE EMPLOYED IN MAINTENANCE OF THE STORMWATER SYSTEM AND ON SITE AREAS. THE MINIMUM HOUSEKEEPING PRACTICES ARE IDENTIFIED IN THE STORMWATER COLLECTION AND TREATMENT SYSTEM OPERATION AND MAINTENANCE PLAN.
2. STORAGE OF MATERIALS AND WASTE PRODUCTS SHALL BE STORED IN A MANNER THAT MINIMIZES EXPOSURE TO STORMWATER, IE USE OF TARPAULINS, INSIDE STORAGE, ETC. MATERIALS AND WASTE SHALL BE MAINTAINED IN AN ORDERLY MANNER AND SHALL BE COLLECTED IMMEDIATELY UPON SPILLS OR DISPERSION.
3. VEHICLE WASHING SHOULD OCCUR IN ACCORDANCE WITH THE "ILLICIT AND NON STORMWATER DISCHARGES' PORTION OF THE STORMWATER POLLUTION PREVENTION PLAN NOTES.
4. LONG TERM MAINTENANCE OF THE STORMWATER SYSTEM SHALL FOLLOW THE OPERATION AND MAINTENANCE REQUIREMENTS ON THESE PLANS AT A MINIMUM.
5. PARTIES RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER SYSTEM SHOULD BE FAMILIAR WITH "CLEAN UP OF SITES AND SPILLS" INFORMATION AVAILABLE ON THE MA DEP WEB SITE (CURRENTLY AVAILABLE AT http: //www.mass.gov/dep/cleanup/laws/spillmgm.doc) AND SHOULD BE PREPARED TO ACT ACCORDINGLY IN THE EVENT OF A SPILL.
6. THE MINIMUM PRACTICES EMPLOYED IN INSPECTION AND MAINTENANCE OF THE ON SITE AREAS AND STORMWATER SYSTEM COMPONENTS ARE IDENTIFIED IN THE STORMWATER COLLECTION AND TREATMENT SYSTEM OPERATION AND MAINTENANCE PLAN.
7. THE MASSACHUSETTS BUREAU OF FARM PRODUCTS & PLANT INDUSTRIES FACT SHEET FOR "PROTECTING WATER RESOURCES FROM FERTILIZER" RECOMMENDS THAT:
   UNUSED FERTILIZER SHOULD BE REMOVED FROM THE SPREADER AND RETURNED TO THE ORIGINAL BAG OR CONTAINER FOR FUTURE USE. STORE UNUSED FERTILIZER IN A DRY PLACE AWAY FROM ANY WATER SOURCE. IF STORED FERTILIZER GETS WET YOU NOT ONLY LOSE NUTRIENT VALUE, THERE IS POTENTIAL FOR NITRATES TO LEACH INTO WATER SOURCES.
   THE HANDLING OF HERBICIDES AND PESTICIDES SHOULD BE CONDUCTED IN ACCORDANCE WITH GUIDELINES AVAILABLE ON THE MA DEP WEB SITE (CURRENTLY AVAILABLE AT http: //www.mass.gov/dep/recycle/hazardous/pesticid.htm)
8. MANAGEMENT OF PET WASTE SHOULD BE CONDUCTED IN ACCORDANCE WITH THE GUIDELINES AVAILABLE ON THE MA DEP WEB SITE (CURRENTLY AVAILABLE AT http: //www.mass.gov/dep/water/resources/petwaste.pdf)
9. OPERATION AND MAINTENANCE OF ANY ON SITE SEPTIC SYSTEM SHOULD BE CONDUCTED IN ACCORDANCE 310 CMR 15.00.
10. SOLID WASTE SHOULD BE MANAGED IN ACCORDANCE WITH LOCAL, STATE, FEDERAL REGULATIONS AND GUIDELINES.
11. SNOW DISPOSAL SHALL BE CONDUCTED IN ACCORDANCE WITH THE MA DEP GUIDELINE BRPG01–01 (CURRENTLY AVAILABLE AT http: //www.mass.gov/dep/water/laws/snowdisp.htm)
12. USE OF SALT ON ROADS AND WALKS IS TO BE MINIMIZED. STORAGE OF SNOW SALT AND OTHER DE–ICING MATERIALS SHALL BE IN ACCORDANCE WITH MA DEP POLICY DWSG97–1 (CURRENTLY AVAILABLE AT http: //www.mass.gov/dep/water/laws/saltgui.doc)
13. THE FOLLOWING PAVEMENT SWEEPING SCHEDULE IS RECOMMENDED WITH SWEEPING SCHEDULED PRIMARILY IN THE SPRING AND FALL:
   – QUARTERLY AVERAGE USING A HIGH EFFICIENCY VACUUM SWEEPER
   – QUARTERLY AVERAGE USING A REGENERATIVE AIR SWEEPER
   – MONTHLY AVERAGE USING A MECHANICAL SWEEPER (ROTARY BROOM)
   SWEEPINGS SHOULD BE HANDLED IN ACCORDANCE WITH MA DEP POLICY #BRP–94–092.
13. ILLICIT DISCHARGES TO THE STORMWATER SYSTEM ARE PROHIBITED.
14. FOR LAND USES NEAR CRITICAL AREAS OR FROM LAND USED WITH HIGHER POTENTIAL POLLUTANT LOADS THE STORMWATER SYSTEM SHOULD BE PROVIDED WITH A SHUTDOWN DEVICE.
15. PARTIES RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER SYSTEM SHOULD BECOME FAMILIAR WITH THE REQUIREMENTS OF:
   – THE STORMWATER POLLUTION PREVENTION PLAN AND NOTES
   – THE STORMWATER COLLECTION AND TREATMENT SYSTEM OPERATION AND MAINTENANCE PLAN
   – THESE LONG TERM POLLUTION PREVENTION PLAN MEASURES
16. IN THE CASE OF AN EMERGENCY DIAL 911 OR CONTACT:
   MASS DEP CENTRAL REGION
   8 NEW BOND STREET
   WORCESTER, MA 01606
   (508) 792–7650

WETLAND/STORMWATER NOTES:

1. WETLAND DELINEATION BY ECOTEC, INC., OF WORCESTER MA.

2. EROSION CONTROLS INCLUDING TEMPORARY BASINS SHALL BE IMPLEMENTED AND INSPECTED BY A TOWN REPRESENTATIVE PRIOR TO STARTING CONSTRUCTION.

3. APPROVAL FROM THE PAXTON CONSERVATION COMMISSION IS REQUIRED FOR THIS PROJECT. WETLAND AREAS IDENTIFIED IN THIS PLAN SET QUALIFY AS WETLANDS UNDER 310 CMR 10.00.

4. NO EXCAVATION SHALL TAKE PLACE ONSITE UNTIL ALL SEDIMENTATION CONTROLS (WATTLES, SILT FENCE, ETC.) ARE FULLY INSTALLED PER PLAN.

5. FOLLOWING COMPLETION OF GRADING IN ANY AREA, CONTRACTOR SHALL ACT TO PLACE PERMANENT SURFACE FINISH OR TO STABILIZE SOILS AGAINST EROSION. LOAM AND SEED SHALL BE PLACED IMMEDIATELY UPON FINAL GRADING.

6. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL ALL DISTURBED SURFACES HAVE BEEN FULLY STABILIZED WITH VEGETATION.

7. EXISTING ROADS CONNECTED TO THE PROJECT SITE WILL BE KEPT CLEAN OF SILT AND DEBRIS AT ALL TIMES.

8. THE SITE DOES NOT LIE WITHIN A FLOOD HAZARD ZONE AS INDICATED ON NFIP FIRM MAPS.

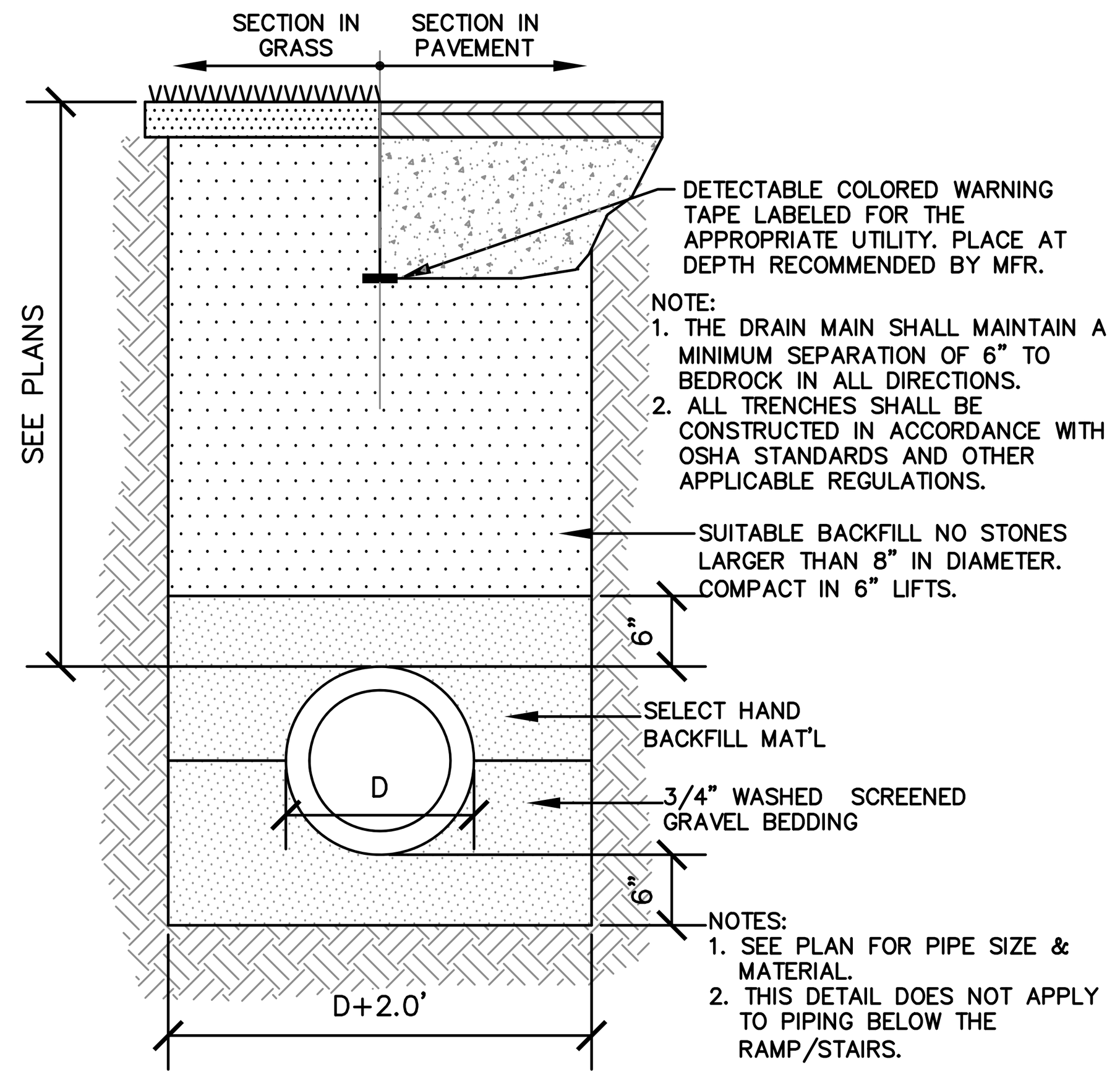
9. THE SITE DOES LIE WITHIN A ZONE A WATER SUPPLY PROTECTION AREA AS MAPPED ON THE MASS GIS WEBSITE.

10. THE SITE DOES NOT LIE WITHIN AN ESTIMATED HABITAT OR RARE WILDLIFE OR PRIORITY HABITAT OF RARE SPECIES.

11. IN NO CASE SHALL ANY WORK OCCUR BEYOND THE DEFINED LIMIT OF WORK/EROSION CONTROL LINES.

CONSTRUCTION PERIOD POLLUTION PREVENTION PLAN NOTES:

1. CONTROLS TO REDUCE POLLUTANTS:
   A.) THE FOLLOWING IS A BRIEF DESCRIPTION OF EACH BMP IMPLEMENTED TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES.
      1.) EROSION CONTROLS: STRAW WATTLES PROVIDE MEASURES OF CONTROLLING EROSION AND SEDIMENTATION AND SHALL BE IMPLEMENTED BY THE CONTRACTOR WHERE NEEDED TO PREVENT SEDIMENT FROM LEAVING THE WORK SITE.
      2.) EARTH DIKES, TEMPORARY DRAINAGE SWALES, INTERCEPTOR DIKES AND/OR SWALES SHALL BE EMPLOYED BY THE SITE CONTRACTOR TO DIRECT STORMWATER RUNOFF FROM DISTURBED AREAS TO AREAS WHERE DISCHARGE IS ACCEPTABLE.
      3.) TEMPORARY CONSTRUCTION ENTRANCES OF CRUSHED STONE SHALL BE IMPLEMENTED BY THE CONTRACTOR WHEN NEEDED TO PREVENT SEDIMENT FROM TRACKING OFF–SITE AND INTO EXISTING ROADWAYS.
   B.) DISTURBED AREAS NOT SUBJECT TO RESTORATION BY OTHER MEANS SHALL BE STABILIZED UPON FINISH GRADING WITH 4" OF LOAM AND GRASS SEED. AREAS SLOPED AT GREATER THAN 3:1 SHALL BE STABILIZED WITH GEOTEXTILE FABRIC.
   C.) THE FOLLOWING RECORDS SHOULD BE MAINTAINED BY THE OPERATOR AS PART OF THE POLLUTION PREVENTION PLAN.
      1. DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.
      2. DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE.
      3. DATES WHEN STABILIZATION MEASURES ARE INITIATED.
   D.) HAY BALES, SILT FENCE, STONE CONSTRUCTION ENTRANCES, EARTH DIKES, TEMPORARY DRAINAGE SWALES, INTERCEPTOR DIKES AND SWALES, AND OTHER STRUCTURAL PRACTICES SHALL BE EMPLOYED BY THE SITE CONTRACTOR TO DIRECT STORMWATER RUNOFF FROM DISTURBED AREAS TO AREAS WHERE DISCHARGE IS ACCEPTABLE. THE APPROPRIATE LOCATION AND INSTALLATION TIMING SHALL BE DETERMINED BY THE SITE CONTRACTOR.
   E.) THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO ANY WETLAND AREAS, CATCH BASIN, STORMWATER BASIN, ETC. ARE PROHIBITED.
   F.) THE CONTRACTOR SHALL MINIMIZE VEHICLE TRACKED SEDIMENT ONTO THE SURROUNDING ROADWAYS. AIRBORNE DUST SHALL BE CONTROLLED WITH WATER.
   G.) CONSTRUCTION MATERIALS AND CONSTRUCTION WASTE MATERIALS ASSOCIATED WITH THE PROPOSED DEVELOPMENT SHALL BE STORED IN A MANNER THAT MINIMIZES EXPOSURE TO STORMWATER, IE USE OF TARPAULINS, INSIDE STORAGE, ETC. MATERIALS AND WASTE SHALL BE MAINTAINED IN AN ORDERLY MANNER AND SHALL BE COLLECTED IMMEDIATELY UPON SPILLS OR DISPERSION.
   H.) DURING CONSTRUCTION, POLLUTANTS FROM SOURCES OTHER THAN THE CONSTRUCTION ACTIVITIES ARE NOT EXPECTED.
2. ILLICIT AND NON STORMWATER DISCHARGES:
   A. IN ACCORDANCE WITH THE DEP MASSACHUSETTS STORMWATER HANDBOOK, AN ILLICIT DISCHARGE DOES NOT INCLUDE DISCHARGES FROM THE FOLLOWING ACTIVITIES OR FACILITIES: FIRE FIGHTING, WATER LINE FLUSHING, LANDSCAPE IRRIGATION, UNCONTAMINATED GROUNDWATER, POTABLE WATER SOURCES, FOUNDATION DRAINS, AIR CONDITIONING CONDENSATION, FOOTING DRAINS, INDIVIDUAL RESIDENT CAR WASHING, FLOWS FROM RIPARIAN HABITATS AND WETLANDS, DECHLORINATED WATER FROM SWIMMING POOLS, WATER USED FOR STREET WASHING AND WATER USED TO CLEAN RESIDENTIAL BUILDINGS WITHOUT DETERGENTS.
   B. ILLICIT DISCHARGES TO THE STORMWATER MANAGEMENT SYSTEM SHALL BE PROHIBITED. ILLICIT DISCHARGES INCLUDE WASTEWATER DISCHARGES AND DISCHARGES OF STORMWATER CONTAMINATED BY CONTACT WITH PROCESS WASTES, RAW MATERIALS, TOXIC POLLUTANTS, HAZARDOUS SUBSTANCES, OIL, OR GREASE.
3. MAINTENANCE AND CONTROLS:
   A.) DURING CONSTRUCTION, ALL SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IN THE EVENT THAT THE MEASURES ARE NOT WORKING PROPERLY OR IF ADDITIONAL MEASURES ARE REQUIRED, MAINTENANCE AND ADJUSTMENTS SHALL BE MADE BY THE OPERATOR AS SOON AS POSSIBLE BEFORE THE NEXT RAIN STORM.
   B.) DURING CONSTRUCTION, IN THE EVENT THAT MAINTENANCE OR IMPLEMENTATION CANNOT BE MADE PRIOR TO THE NEXT RAIN STORM, THE SITUATION SHALL BE DOCUMENTED BY THE OPERATOR AND ALTERNATIVE BMP'S IMPLEMENTED AS SOON AS POSSIBLE.
   C.) DURING CONSTRUCTION, CATCH BASINS SUMPS AND SEDIMENT TRAPS SHALL BE CLEANED OF SEDIMENT WHEN THE CAPACITY HAS BEEN REDUCED BY 50%.
4. MANAGEMENT PRACTICES:
   A.) ALL CONTROL MEASURES SHALL BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS AND GOOD PRACTICES. INAPPROPRIATE OR INCORRECT USE OF THE CONTROL SHALL BE MODIFIED AS SOON AS PRACTICABLE.
   B.) OFF–SITE ACCUMULATION OF SEDIMENT MUST BE REMOVED IMMEDIATELY.
   C.) LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
   D.) STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED PRIOR TO AND DURING WINTER CONDITIONS.
   E.) A VEGETATED BUFFER SHALL BE MAINTAINED WHEREVER POSSIBLE BETWEEN THE WORK AREA AND DOWNSTREAM RESOURCE AREAS AND PROPERTY BOUNDARIES.
   F.) PROVIDE VELOCITY DISSIPATERS OR RIP RAP AT ALL TEMPORARY AND PERMANENT STORMWATER POINT DISCHARGES.



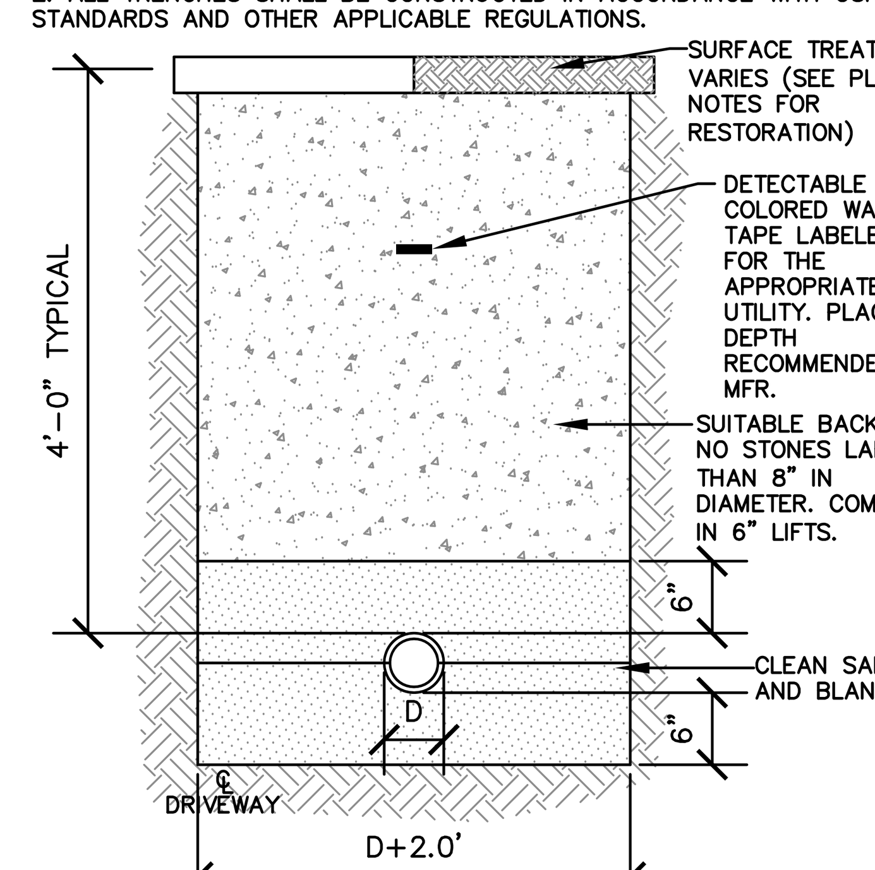
DRAIN TRENCH DETAIL
SCALE: 3/4"=1'–0"

NOTES:

1. THIS DETAIL APPLIES TO UTILITY TRENCHES THAT HAVE NOT BEEN SPECIFIED IN THESE PLANS AND THAT ARE NOT SPECIFIED BY STATE BUILDING CODE, LOCAL REGULATIONS, OR BY THE UTILITY PROVIDER.

1. THE UTILITY CONDUIT, PIPE, ETC SHALL MAINTAIN A MINIMUM SEPARATION OF 6" TO BEDROCK IN ALL DIRECTIONS.

2. ALL TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA STANDARDS AND OTHER APPLICABLE REGULATIONS.



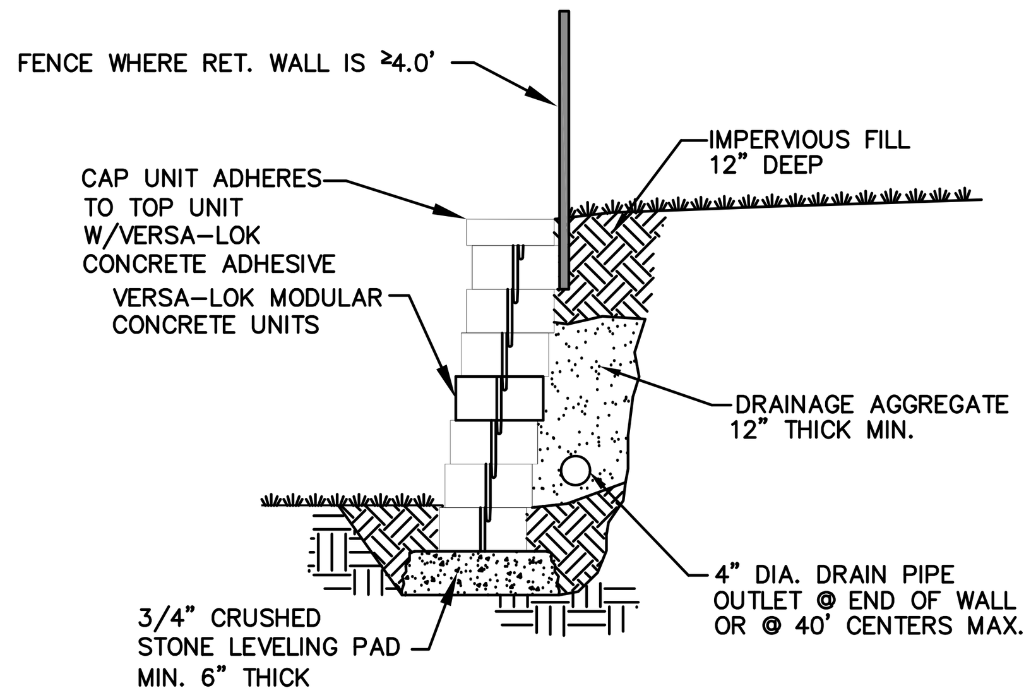
MISC. UTILITY TRENCH DETAIL
SCALE: NOT TO SCALE

PAXTON STORMWATER CREDITS:

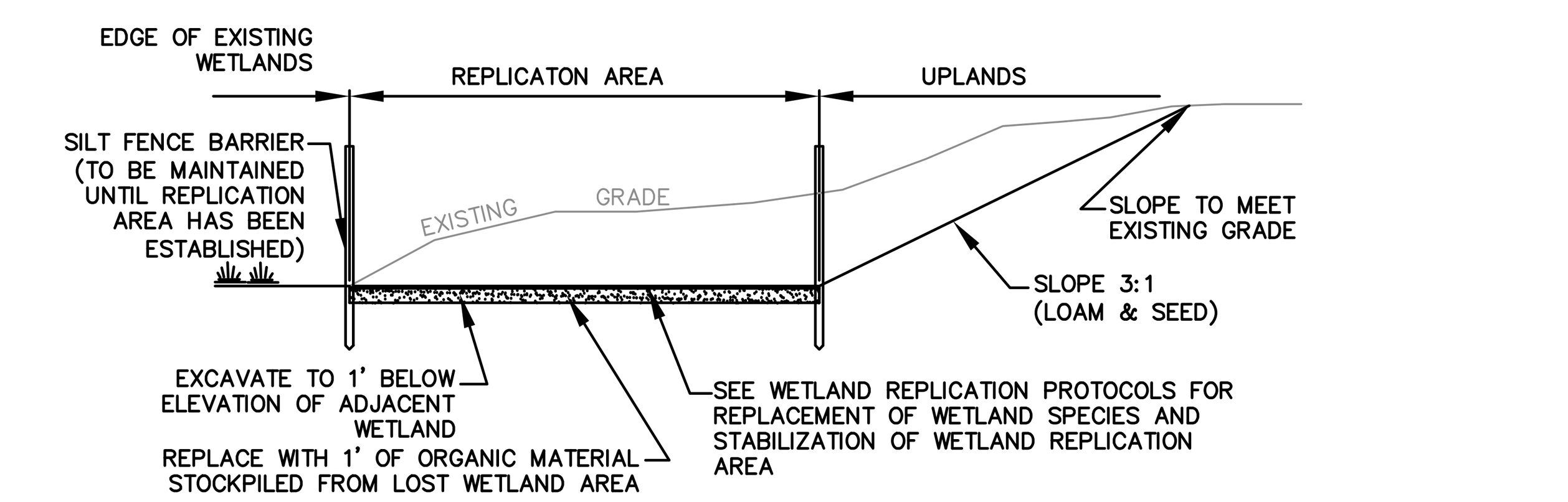
CREDIT 1: DISCONNECTION OF ROOFTOP RUNOFF (IMPERVIOUS AREA EXCLUDED FROM CALCS) (MEETS RECHARGE REQUIREMENT)
- DISCHARGES LOCATED AWAY FROM FOUNDATION TO PREVENT SEEPAGE
- CONTRIBUTING ROOFTOP LENGTHS ARE LESS THAN 75 FEET
- CONTRIBUTING ROOFTOP AREAS ARE LESS THAN 1,000 FEET
- DISCHARGE RECEIVING AREAS ARE EQUAL IN LENGTH TO CONTRIBUTING AREAS
- LOT SIZE IS GREATER THAN 6,000 SQUARE FEET
- DISCHARGE RECEIVING AREAS ARE PITCHED AT LESS THAN 5 PERCENT
- DOWNSPOUTS ARE GREATER THAN 10 FEET FROM IMPERVIOUS SURFACES
- GUTTERS AND DOWNSPOUTS ARE PROPOSED
- WATER TABLE DEPTH AND SOIL PERMEABILITY ALLOW FOR SITE RECHARGE
- ROOFTOPS DO NOT DRAIN TO STREAM BUFFERS AND ARE NOT HOT SPOT USES

CREDIT 4: GRASS CHANNEL CREDIT (WATER QUALITY AND RECHARGE REQUIREMENTS MET)
- LAND USE IS LESS THAN 4 DWELLING UNITS PER ACRE
- BOTTOM WIDTHS ARE BETWEEN 2 AND 6 FEET
- SIDE SLOPES ARE 3:1
- CHANNEL SLOPES ARE LESS THAN 4 PERCENT
- LENGTHS OF GRASS CHANNELS ARE EQUAL TO ROADWAY LENGTHS

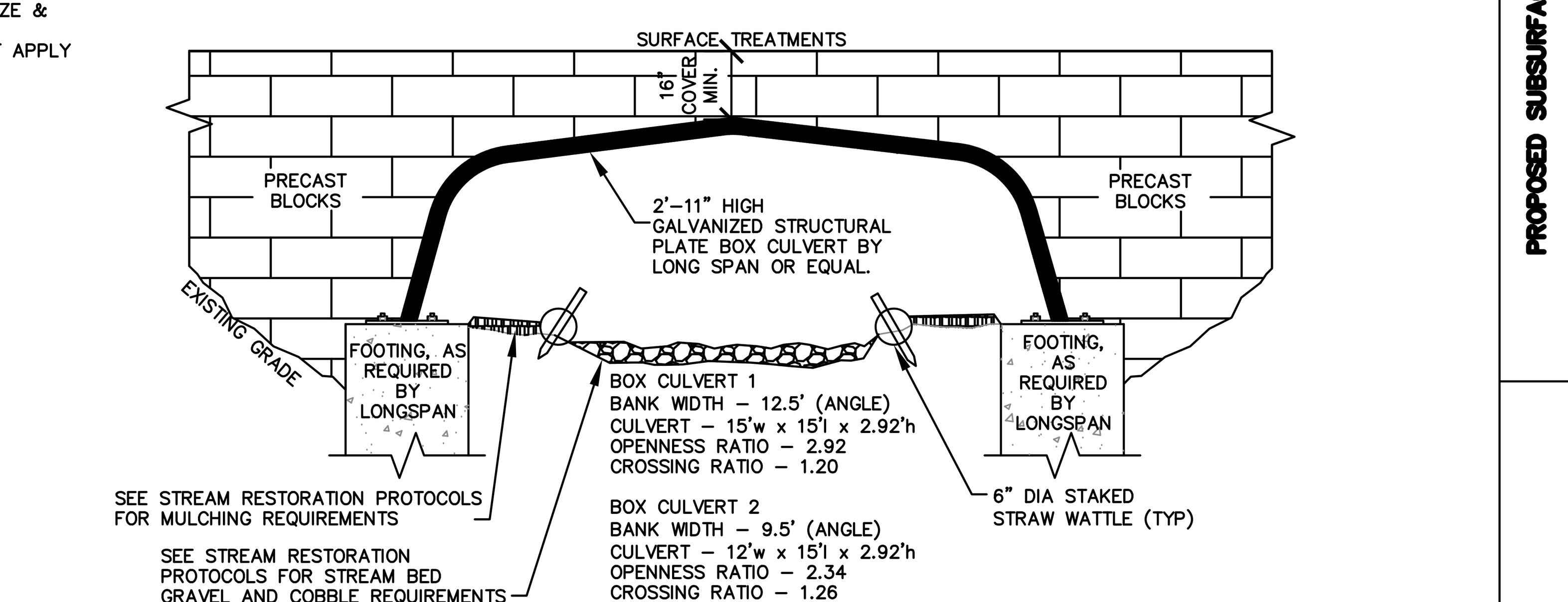
CREDIT 6: ENVIRONMENTALLY SENSITIVE DESIGN (WATER QUALITY AND RECHARGE REQUIREMENTS MET)
- TOTAL IMPERVIOUS COVER IS LESS THAN 15 PERCENT
- GREATER THAN 25 PERCENT OF THE SITE IS PROTECTED IN NATURAL CONSERVATION AREAS (3.9 ACRES OF MA WETLAND AND LOCAL WETLAND BUFFER, 3.5 ACRES WATERSHED PROTECTION ZONE A)
- ROOFTOP RUNOFF IS DISCONNECTED IN ACCORDANCE WITH CREDIT 1
- GRASS CHANNELS ARE USED TO CONVEY RUNOFF
- STREAM BUFFERS ARE UTILIZED IN AREA BEYOND WETLAND CROSSING



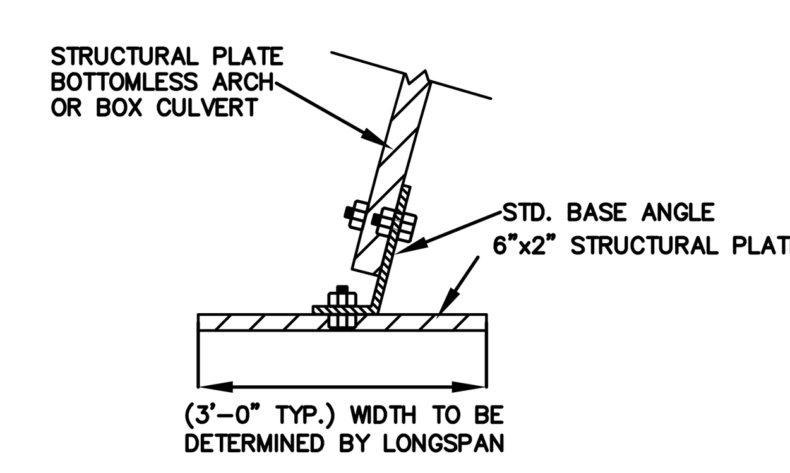
TYPICAL RETAINING WALL
SCALE: NOT TO SCALE



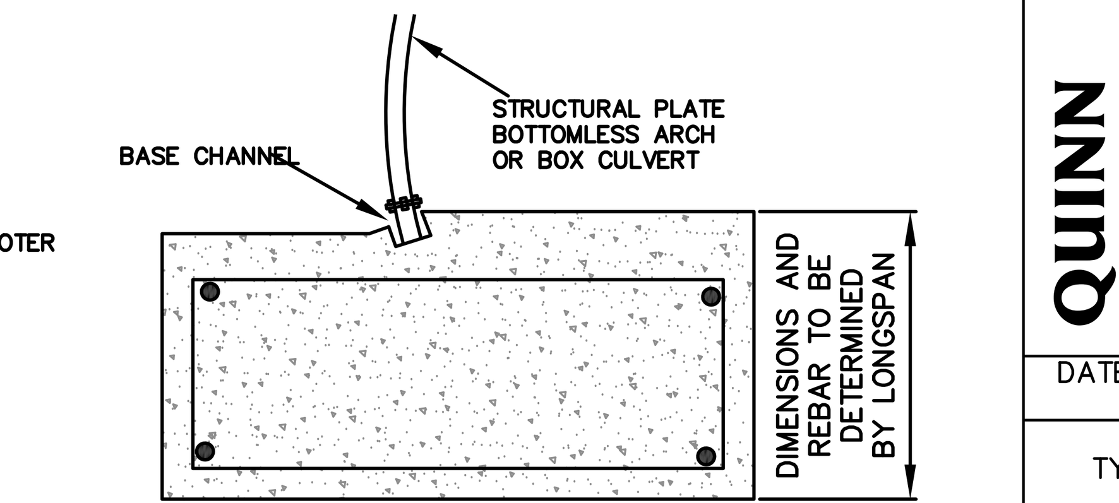
WETLAND AREA REPLICATION DETAIL
SCALE: NOT TO SCALE



OPEN BOTTOM BOX CULVERT DETAIL
SCALE: NOT TO SCALE



STRUCTURAL PLATE FOOTING DETAIL
SCALE: NOT TO SCALE



CONCRETE BASE FOOTING DETAIL
(SECTION VIEW)
SCALE: NOT TO SCALE

DIG SAFE DIAL–811

NO.	REVISION	DATE
2	BOH COMMENTS	4/29/22
1	TOWN COMMENTS	4/6/22

KEVIN J. QUINN CIVIL #33922

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(508) 769–3788

APPLICANT:
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PAXTON, MA 01612

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
PAXTON, MA
CAMP STREET

SCALE: 1" = 30'

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DATE: DECEMBER 23, 2021

TYPICAL DETAILS AND NOTES

CAMP STREET