

GENERAL NOTES

- 1) THE EXISTING TOPOGRAPHY, SITE FEATURES, AND UTILITIES DEPICTED HEREON ARE BASED ON AERIAL PHOTOGRAMMETRY PREPARED BY COL-EAST, INC. FROM AERIAL PHOTOGRAPHS TAKEN IN 2004.
- 2) THE EXISTING BOUNDARY LINES AND THE AERIAL PHOTOGRAMMETRY INFORMATION DEPICTED HEREON ARE THE RESULT OF THE RESULT OF AN ACTUAL ON THE GROUND FIELD SURVEY PERFORMED BY THE BSC GROUP, INC. IN JUNE THROUGH JULY 2005 AND MARCH 2005 AND COMPILATION OF THE DEEDS AND PLANS OF RECORD CITED HEREON.
- 3) THE HORIZONTAL AND VERTICAL DATUMS WERE ESTABLISHED BY RTK-GNSS GPS PERFORMED AT THE SITE.

HORIZONTAL DATUM & BEARING BASIS = MASSACHUSETTS MAINLAND GRID (NAD83)
VERTICAL DATUM = NAVD88 (REFER TO PLAN FOR LOCATION OF BENCHMARK SET DURING SURVEY)
- 4) THE WETLANDS WERE FIELD DELINEATED BY EBT ENVIRONMENTAL CONSULTING, INC. IN OCTOBER 2005 AND WERE LOCATED BY THE FIELD SURVEY CITED ABOVE.
- 5) AS DEPICTED HEREON, A PORTION OF THE SITE LIES WITHIN ZONE A OF THE FLOOD HAZARD AREA (1% CHANCE) AS SET FORTH ON THE NATIONAL FLOOD INSURANCE RATE MAP (FIRM) 25027C00780E, WHICH BEARS AN EFFECTIVE DATE OF JULY 4, 2011.
- 6) ALL CONSTRUCTION TO CONFORM TO 310 CMR 15.000, "THE STATE ENVIRONMENTAL CODE, TITLE 5 AND THE LOCAL BOARD OF HEALTH REQUIREMENTS.
- 7) THE CONTRACTOR SHALL INSTALL THE SYSTEM EXACTLY AS SHOWN ON THIS PLAN. NO MODIFICATIONS SHALL BE MADE TO THIS SYSTEM WITHOUT PRIOR APPROVAL OF THE BOARD OF HEALTH AND THE DESIGN ENGINEER. THE COST ASSOCIATED WITH THE PREPARATION OF AN AS-BUILT DRAWING DUE TO UNAUTHORIZED FIELD CHANGES SHALL BE BORNE BY THE CONTRACTOR.
- 8) ALL TOPSOIL, SUBSOIL, AND IMPERVIOUS MATERIAL, IF ANY, MUST BE EXCAVATED AND REMOVED BELOW AND 5 FEET BEYOND THE SOIL ABSORPTION SYSTEM AREA.
- 9) FILL MATERIAL SHALL CONSIST OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE SAND FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 2 INCHES. A SIEVE ANALYSIS, USING A #4 SIEVE, SHALL BE PERFORMED ON A REPRESENTATIVE SAMPLE OF THE FILL. UP TO 45% BY WEIGHT OF THE FILL SAMPLE PASSING THE #4 SIEVE MAY BE RETAINED ON THE #4 SIEVE. SIEVE ANALYSES SHALL ALSO BE PERFORMED ON THE FRACTION OF THE FILL SAMPLE PASSING THE #4 SIEVE TO DEMONSTRATE THAT THE MATERIAL MEETS OR EXCEEDS EACH OF THE FOLLOWING SPECIFICATIONS: 100% PASSING #4 SIEVE; 10%-100% PASSING #50 SIEVE; 0%-20% PASSING #100 SIEVE; 0%-5% PASSING #200 SIEVE AND MUST MEET THE FOLLOWING GRADATION: UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED ON THE #4 SIEVE. NO MORE THAN 20% MAY PASS THROUGH THE #100 SIEVE AND NO MORE THAN 5% MAY PASS THE #200 SIEVE (DEP 310 CMR 15.255, 3).
- 10) HEAVY MACHINERY SHALL NOT BE PERMITTED TO PASS OVER THE LEACHING AREA AND THE CONTRACTOR SHALL STAKE AND FLAG THE SOIL ABSORPTION/LEACHING AREA PERIMETER UPON COMPLETION.
- 11) ALL PIPING SHALL BE POLYVINYL CHLORIDE (PVC) PIPE PER ASTM D1785 FOR SCH. 40, ASTM D3034 FOR SDR33, AND ASTM D2241 FOR SDR26 WHERE INDICATED ON THE PROFILE, UNLESS OTHERWISE NOTED.
- 12) THE SEPTIC TANK SHALL BE 1500 GALLON AND SHALL BE REINFORCED CONCRETE WITH H-10 LOAD DESIGN (MIN.) AND WATERTIGHT CONFORMING TO ALL OF THE REQUIREMENTS OF 310 CMR 15.221, 15.223, 15.226, 15.227, 15.228.
- 13) THE DISTRIBUTION BOX ("T" BOX) SHALL BE A 5 OUTLET REINFORCED CONCRETE BOX OF H-10 LOAD DESIGN (MIN.) WITH A WATERTIGHT COVER AND CONFORM TO ALL THE REQUIREMENTS OF 310 CMR 15.232.
- 14) IN ACCORDANCE WITH CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 1-888-344-7233, 72 HOURS BEFORE ANY EXCAVATION.
- 15) THERE ARE NO WETLANDS LOCATED WITHIN 50 FEET OF THE PROPOSED LEACHING FIELD.
- 16) THIS SEPTIC SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL.
- 17) CONSTRUCTION OF PERMANENT STRUCTURES UPON THE DISPOSAL SYSTEM AREA IS PROHIBITED.
- 18) ALL INTERIOR PLUMBING, WITH THE EXCEPTION OF THE BACK WASH FROM WATER FILTRATION SYSTEMS, SHALL BE CONNECTED TO THE PROPOSED DISPOSAL FACILITY.

SETBACK DESCRIPTION	SETBACKS (FEET)		
	REQUIRED	PROPOSED	ASUILT
SEPTIC – LEACHING FIELD	100	±133.4	
SEPTIC – TANK	50	±87.4	
SEWER LINES	50	±82.7	
BUILDINGS	20	±24.3	
STREET	10	±103.4	
STREET LINE	10	±96.5	
PROPERTY LINE	10	±63.2	
DRIVEWAY	10	±55.7	

*THE PROPOSED WELL LOCATION SETBACK MEASUREMENTS LISTED HEREON ARE APPROXIMATE & BASED ON THE FIELD LOCATIONS OF OBSERVABLE EXISTING FEATURES, PROPOSED FEATURES AS DEPICTED HEREON, AND COMPILED RECORD DOCUMENTS. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THE LISTED SETBACKS TO FEATURES BEYOND THE LIMITS OF THE FIELD SURVEY FOR THE PROJECT.

SCHEMATIC SYSTEM PROFILE

N.T.S.

DESIGN CRITERIA

ESTIMATED HYDRAULIC LOADING:

4 BEDROOMS AT 110 GALS/DAY/BEDROOM = 440 GPD

GARBAGE DISPOSAL SHALL NOT BE ALLOWED WITH THIS SYSTEM.

SEPTIC TANK SIZE: 1500 GALLONS

LEACHING AREA DESIGN CRITERIA:

PERCOLATION RATE: 20 MPY

SOIL CLASS TYPE: CLASS II (SANDY LOAM)

ALLOWABLE LOADING RATE: 0.53 GPD/SF

TITLE V REQUIRED LEACHING AREA: 440 GPD / 0.53 GPD/SF = 831 SF

LEACHING AREA PROVIDED: 1 BED X 20' W X 43' L = **860 SF**

TITLE V FLOW PROVIDED: 860 SF X 0.53 GPD/SF = **455 GPD**

BREAKOUT CRITERIA:

BREAKOUT ELEVATION = 866.30 (MIN.)

BREAKOUT DISTANCE = 15' WITH 3:1 SLOPE

10' WITH BREAKOUT BARRIER

& 2:1 SLOPE (SEE DETAIL)

VARIABLES (10)

BREAKOUT

N.

SOIL T.

DH-1A		0"	DH-2A		0"	DH-3A		0"	DH-4A		0"
SL	10YR 3/3	Ap	SL	10YR 3/3	Ap	SL	10YR 3/3	Ap	SL	10YR 3/3	Ap
		9"			6"			8"			8"
SL	10YR 3/6	Bw	SL	10YR 3/6	Bw	SL	10YR 3/6	Bw	SL	10YR 3/6	Bw
		18"			21"			26"			22"
ESHGWT	® 22"		ESHGWT	® 24"		ESHGWT	® 26"		ESHGWT	® 22"	
SL	2.5Y 5/3	C	SL	2.5Y 5/3	C	SL	2.5Y 5/3	C	SL	2.5Y 5/3	C
		112"			112"			94"			98"
GROUND EL	868.2		GROUND EL	868.6		GROUND EL	868.1		GROUND EL	868.1	
STND	▽ EL	NA	STND	▽ EL	NA	STND	▽ EL	NA	STND	▽ EL	NA
ESHWT	▽ EL	NA	ESHWT	▽ EL	866.6	ESHWT	▽ EL	866.9	ESHWT	▽ EL	866.3
REFUSAL EL	NA		REFUSAL EL	NA		REFUSAL EL	NA		REFUSAL EL	NA	

PERFORMED BY:

SHELLEY HAMMOND 10/13/10 & BRIAN MACWEEN 11/10/21

WITNESSED BY:

D. O'CONNOR 10/13/10 & SHELLEY HAMMOND 11/10/21

CERTIFICATION:
I CERTIFY THAT ON JUNE 26, 1997 I HAVE PASSED THE SOIL EVALUATOR
EXAMINATION APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
AND THAT THE ABOVE ANALYSIS WAS PERFORMED BY ME CONSISTENT WITH
THE REQUIRED TRAINING, EXPERTISE AND EXPERIENCE DESCRIBED IN 310 CMR
15.017. SOIL EVALUATOR #1430.

SIGNATURE David C. MacLean DATE 02/07/2022

<u>PROPERTY DATA</u>	
ASSESSOR'S PARCEL NO.:	UNASSIGNED
LOT ADDRESS:	PARKER STREET (NORTH)
OWNER OF RECORD:	SCHOLD DEVELOPMENT, LLC
LOCUS DEED:	BOOK 60004, PAGE 48
LOCUS PLAN:	LOT 1, PLAN BOOK 960, PLAN 82
ZONING DISTRICT:	SUBURBAN AGRICULTURAL (SA)

LEGEND

— — — 98 — — — EXISTING CONTOUR

— — — 98 — — — PROPOSED CONTOUR

(102.1) EXISTING ELEVATION

x99.5 PROPOSED ELEVATION

● P-1 PERCOLATION TEST

■ TP-1 DEEP HOLE TEST PIT

— — — W — — — WATER SERVICE



862.9	861.1	865.10	865.80	865.60
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1/8" TO 1/2"
WASHED STONE

4" SDR 35 PVC
PERFORATED PIPE

3/4" TO 1 1/2"
WASHED STONE

2"

6"

60"

30"

TYPICAL LEACH BED SECTION

MIN. REQ.

SOIL TEST DATA

QH-4A			TP-1B			TP-2B			TP-3B			TP-4B		
Ap	0"	FSL 10YR 3/3	Ap	0"	FSL 10YR 3/3	Ap	0"	FSL 10YR 3/3	Ap	0"	FSL 10YR 3/3	Ap	0"	FSL 10YR 3/3
3p	8"		6"			5"			9"			6"		
Bw		FSL 10YR 5/6	Bw		FSL 10YR 5/6	Bw		SL 10YR 5/6	Bw		FSL 10YR 5/6	Bw		FSL 10YR 5/6
22"			30"			31"			26"			24"		
ESHGWT @ 30"			ESHGWT @ 31"			ESHGWT @ 28"			ESHGWT @ 26"					
C		gFSL 2.5Y 5/4	C		gFSL 2.5Y 5/4	C		gFSL 2.5Y 5/4	C		gFSL 2.5Y 5/4	C		gFSL 2.5Y 5/4
98"			109"			97"			102"			98"		
ROUND EL 868.1		GROUND EL 861.2	ROUND EL 862.4		GROUND EL 859.3	ROUND EL 859.3		GROUND EL 859.3			GROUND EL 859.0			
STND ∇ EL NA		STND ∇ EL 854.6	STND ∇ EL NA		STND ∇ EL NA	STND ∇ EL NA		STND ∇ EL NA			STND ∇ EL NA			
ESHWT ∇ EL 866.3		ESHWT ∇ EL 858.7	ESHWT ∇ EL 859.8		ESHWT ∇ EL 857.0	ESHWT ∇ EL 857.0		ESHWT ∇ EL 856.8			ESHWT ∇ EL 856.8			
REFUSAL EL NA		REFUSAL EL NA	REFUSAL EL NA		REFUSAL EL NA	REFUSAL EL NA		REFUSAL EL NA			REFUSAL EL NA			

11/10/21

10/21

REV.	DATE	DESCRIPTION		BY
JOB NUMBER:		SURVEY DATE: 10/31/10 & 11/10/21	FIELD BOOK NO. PAGES	SL-2
COMPUTED: BCM		CHECKED: PFG	DRAFTED: BCM	
SCALE: AS NOTED		PLAN DATE: FEBRUARY 7, 2022	SHEET 1 OF 2	

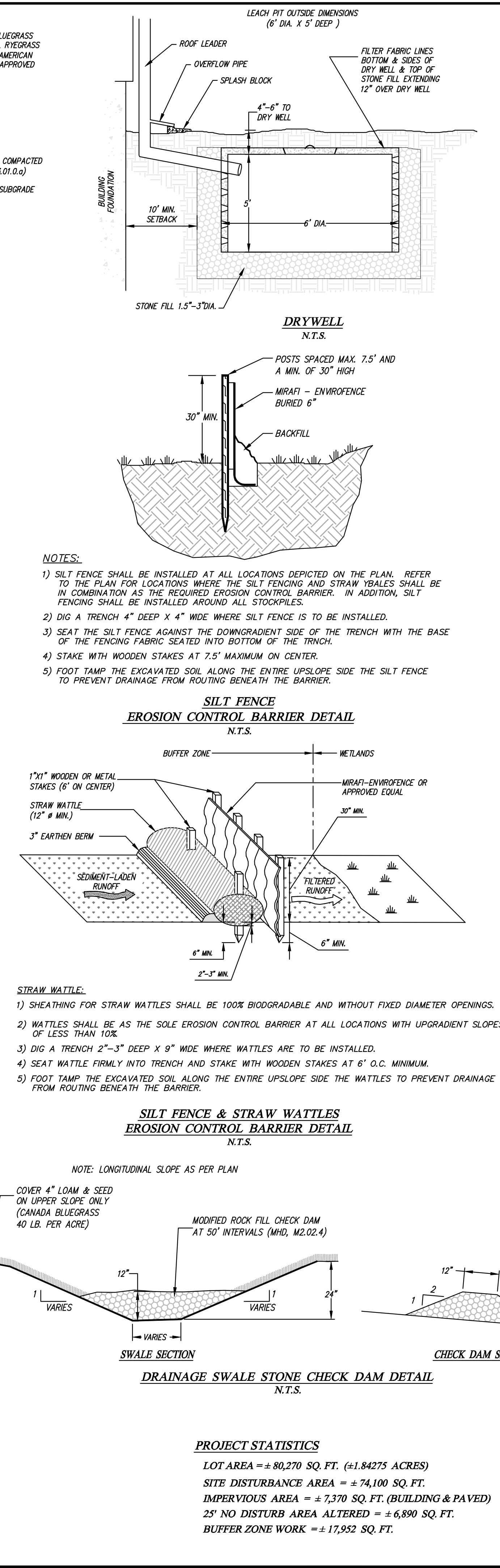
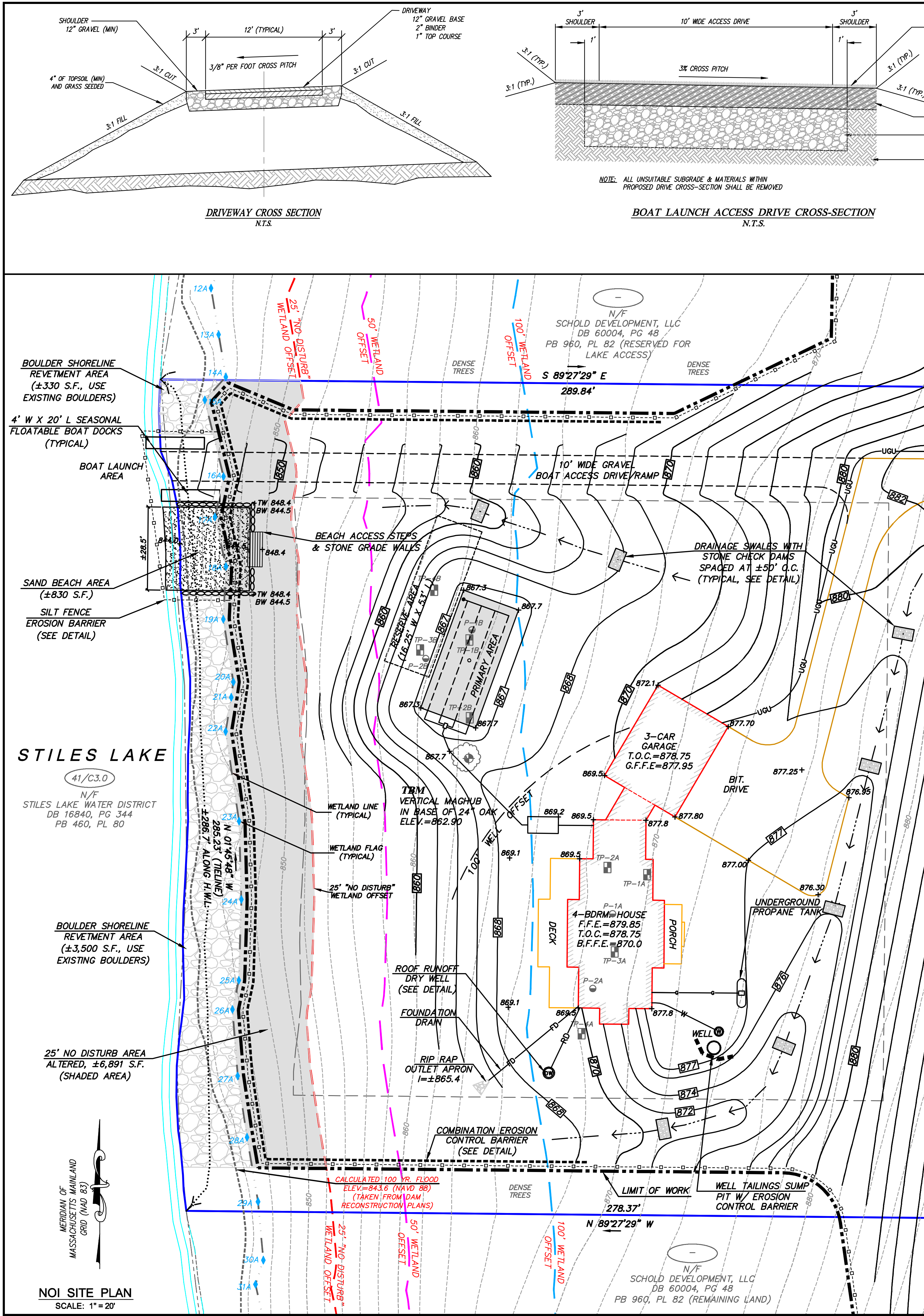
SEWAGE SYSTEM & NOI DESIGN PLAN
PARKER STREET (NORTH)
LOT 1, PLAN BOOK 960, PLAN 82
LEICESTER, MASSACHUSETTS

PROPERTY OWNER
SCHOLD DEVELOPMENT, LLC

PREPARED FOR
SCHOLD DEVELOPMENT, LLC
77 CHICKERING ROAD
SPENCER, MASSACHUSETTS

GRAZ Engineering, L.L.C.

323 West Lake Road, Fitzwilliam, NH 03447 (603) 585-6959



EROSION CONTROL NOTES

- Prior to the start of any construction, all sedimentation and erosion control measures shall be installed as depicted hereon. The contractor shall inspect the barriers at least weekly and after significant (0.5 inch or greater) precipitation events. The contractor shall maintain and repair the barriers, including the removal of accumulated sediments, until all work is completed and all areas have been stabilized.
- The sedimentation and erosion controls depicted hereon are the minimum required. The contractor shall install additional mitigation measures as may be necessary to ensure protection of all wetland resources. The contractor shall review and comply with all requirements of the project "order of conditions" as issued by the town conservation commission.
- All disturbed non-paved areas shall be stabilized by loaming, seeding, and mulching or shall be riprapped as soon as possible after the final grading is completed. If permanent seeding can not be installed within 30 days after final grading or final grading does not occur during the growing season, these areas shall be stabilized with mulch with hay secured by weighted snow fence, chicken wire mesh, or jute netting with staples. Where practical during construction, disturbed areas shall be stabilized by temporarily seeding or mulching.
- All non-paved and non-beach areas shall be dressed with a minimum of four inches (4") of screened loam and shall be seeded with an approved grass mix.
- All slopes exceeding 3:1 shall be lined with excelsior geotextile fabric or equal.
- All disturbed areas and stockpiles remaining idle for more than 30 days shall be stabilized by seeding with annual rye grass or covered with tarps.
- The stabilized construction entrance/exits shall be a minimum of 40' long by 15' wide by 12" thick and constructed of 3-6" crushed stone over mirafi 140n filter fabric. The stabilized construction entrances must be constructed prior to site clearing and grubbing and must be maintained until the installation of the bituminous binder driveway.
- Dewatering operations, if required shall discharge onto stabilized areas and all discharge water is to pass through sedimentation control devices to prevent impacts upon the watershed and wetland resources, drainage systems, and abutting properties.
- All accumulated and trapped sediment shall be removed and disposed of as required by the conservation commission.
- All sedimentation and erosion controls shall be removed in their entirety after final site stabilization and issuance of the final certificate of compliance by the conservation commission.
- A floating oil absorbent boom shall be installed downgradient to the proposed beach and boat launch areas being secured to the bank a minimum of 20-feet on either side of the proposed site work. Oil absorbent towels must be on site whenever hydraulic equipment is anywhere on site.

CONSTRUCTION & UTILITY NOTES

- The tree clearing limits shall not extend beyond the erosion control barriers. Areas of existing vegetation to remain are to be protected throughout construction. Review the actual limits of clearing with the owner, and selectively clear and prune as required to remove dead, diseased, or poorly formed vegetation.
- The contractor shall keep any construction stockpiles due to site excavation and regrading for the foundation, septic system, and driveway as far away from the wetlands as possible.
- All disturbed areas and stockpiles shall be protected from erosion with a 100% silting at the base and/or by covering with tarps. All site construction slopes shall be stabilized upon completion. Slopes of 3:1 (horizontal:vertical) or greater will be stabilized with topsoil, seed and straw mulch covered with anchored jute netting, anchored erosion control blankets or similar. Slopes of less than 3:1 will be stabilized with topsoil and tackified hydroseeded with mulch or similar. All slopes within the 100 foot buffer zone shall be temporarily or permanently stabilized within 30 days of the end of construction activities.
- All finished surfaces shall be graded smoothly and evenly to provide positive drainage.
- All materials and construction practices shall be in conformance with the latest edition of the Massachusetts Highway Department of Public Works (MHDWP) construction standards and the MHDWP "standard specifications for highways and bridges", unless otherwise specified by the local authority or the engineer.
- Proposed piping plans are schematic in nature and depict the general piping concept and configuration. The site contractor shall provide all fittings, couplings, gaskets, etc. required to construct the proposed systems within the specified parameters and in a workmanship like manner. All utility work shall be fully coordinated with the appropriate utility company and installed by a contractor licensed in accordance with the utility company's requirements.
- The contractor shall be responsible for maintaining adequate records of the location and elevation of all work installed and submit one set of red-lined as built drawings to the owner.

DEMOLITION NOTES

- The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted services. Any damage to the existing utilities by the contractor's operation shall be immediately and completely repaired at the contractor's expense.
- All existing features to be removed shall be removed in their entirety and disposed of legally off site unless noted otherwise.
- The contractor shall coordinate with respective government agencies and utility companies for details on the temporary removal, relocation, and abandonment of all overhead and underground utility services including electrical, communications, and drainage.

CONSTRUCTION SEQUENCING NOTES

- Adjust previously installed erosion control measures and combination erosion control barrier to revised lines as depicted hereon.
- Install stabilized construction entrance.
- Install the water supply well on the building lot. The well drilling contractor shall construct a containment or mud pit as required immediately adjacent to the proposed well drilling location prior to commencement of any drilling. The down-gradient side of the containment pit shall be encircled with properly installed silt fencing so as to prevent any overflow of sediment to the wetlands or the Stiles Reservoir surface waters.
- Grub and stockpile the topsoil from the building lot area to the limit of work lines.
- Excavate and construct the house foundation, backyard patio, and beach front site grading.
- Install foundation drain and backfill foundation to the approved grades. Backfill the left side yard area and install roof drain dry well.
- Grade back yard with required fill, and top soil to the approved grades.
- Excavate and construct the septic system and required breakout embankments to the approved grades.
- Dress all non-paved areas with loam, approved grass seed mix, and mulch.
- Grade & install sand beach area, boat access area, and boulder revetment at shoreline during seasonal lake draw down.
- Remove all erosion control measures only upon stabilization of entire building development site and issuance of the final certificate of compliance by the conservation commission. As noted in the wetland restoration protocol (see this sheet), the erosion control barriers shall remain in place until final approval by the conservation commission (a minimum of two years.)

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JOB NUMBER:	SURVEY DATE:	FIELD BOOK NO.	SL-2
COMPUTED: BCM	CHECKED: PG	DRAFTED: BCM	
SCALE: AS NOTED	PLAN DATE: FEBRUARY 7, 2022	SHEET 2 OF 2	

NOI CONSTRUCTION DETAILS & NOTES

PARKER STREET (NORTH)
LOT 1, PLAN BOOK 960, PLAN 82
LEICESTER, MASSACHUSETTS

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