## EXISTING LEGEND:

- 102 — SURFACE CONTOUR
- STONE WALL
- STONE RETAINING WALL
- 79.3 WFA2 — LIMIT OF BORDERING VEGETATED WETLAND WITH FLAG NUMBER AND ELEVATION
- LIMIT OF 100-FOOT WETLAND BUFFER ZONE
- EDGE OF GRAVEL ROAD
- × 100.7 — SPOT ELEVATION
- 12"DEC — PROMINENT DECIDUOUS TREE WITH SIZE
- 18"CON — PROMINENT CONIFEROUS TREE WITH SIZE
- CPP — CORRUGATED PLASTIC PIPE
- (FD) — FOUND
- DH — DRILL HOLE
- DHSB — DRILL HOLE IN STONE BOUND
- I.ROD — IRON ROD
- CTR. BK. — CENTER BACK
- PVC — POLYVINYL CHLORIDE
- AC — AIR CONDITIONER
- INV. — INVERT
- VP — VENT PIPE
- CONC. — CONCRETE
- WL — WATER LEVEL
- BH — BULKHEAD
- TBM — BENCHMARK
- S.F. — SQUARE FEET
- AC. — ACRES
- SP — SOLAR PANELS
- CB — CORNER BOARD
- RO — ROOF OVERHANG
- (TYP.) — TYPICAL

## PROPOSED LEGEND:

- 102 — SURFACE CONTOUR
- S — S — SEWER PIPE
- EROSION CONTROL LINE
- RETAINING WALL
- × 100.7 — SPOT ELEVATION
- PSCO — SEWER CLEANOUT

## NOTES:

1) ELEVATIONS SHOWN HEREON ARE REFERENCED TO AN ASSUMED DATUM.

2) UTILITIES ARE SHOWN HEREON FROM FIELD LOCATIONS OF SURFACE VISIBLE STRUCTURES. UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.

3) THE LIMIT OF BORDERING VEGETATED WETLANDS SHOWN HEREON WAS DELINEATED BY HANCOCK ASSOCIATES AND LOCATED VIA AN ON-THE-GROUND INSTRUMENT SURVEY.

4) THE SURVEYED PREMISES AS SHOWN HEREON IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA, OR OTHER FLOOD AREA, AS SHOWN ON FEMA NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 25017C0378F, HAVING AN EFFECTIVE DATE OF JULY 7, 2014.

5) THE EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY HANCOCK ASSOCIATES IN AUGUST OF 2019.

6) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ELEVATIONS OF THE EXISTING BUILDING SEWER OUTLET AND OF THE EXISTING PUMP CHAMBER INLET AND REPORT ANY DISCREPANCY TO THIS OFFICE PRIOR TO COMPLETING INSTALLATION.

7) ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATIONS SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.

8) PROPOSED BUILDING FOUNDATION CONFIGURATION AND LOCATION ON THE LOT AS SHOWN ARE CONCEPTUAL AND SHALL BE VERIFIED AS TO CONFORMANCE WITH FINAL ARCHITECTURAL PLANS AND ZONING ORDINANCES PRIOR TO CONSTRUCTION.

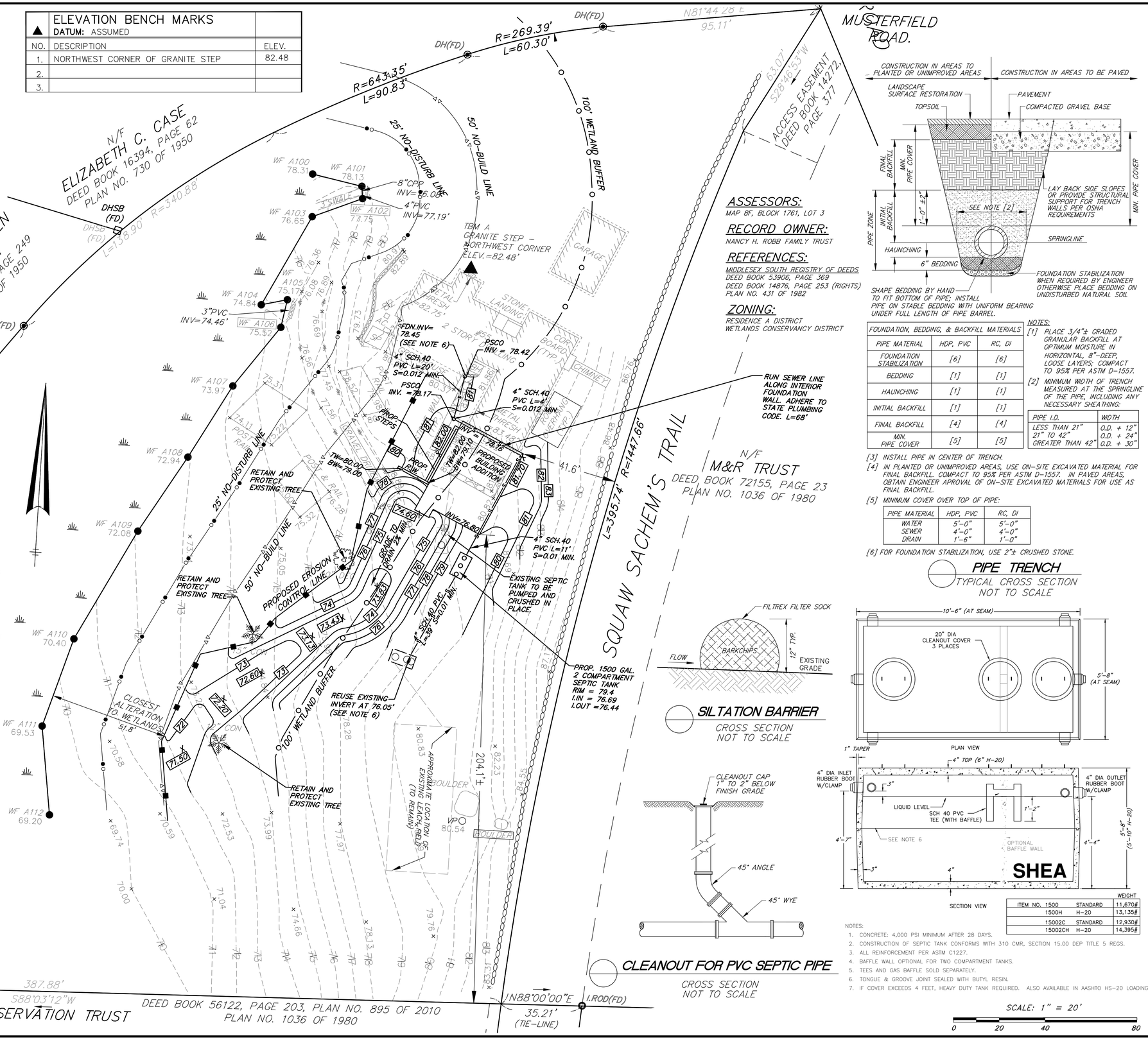
9) CONTRACTOR SHALL FURNISH CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS. THIS WORK SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR.

10) THIS PLAN IS NOT INTENDED TO SHOW AN ENGINEERED BUILDING FOUNDATION DESIGN, WHICH WOULD INCLUDE DETAILS AND FINAL ELEVATIONS OF FOOTINGS, WALLS AND SUBSURFACE DRAINAGE TO PREVENT INTERIOR FLOODING. SEE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

11) CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND / OR REMOVAL HEREON. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.

12) ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.

| ELEVATION BENCH MARKS<br>DATUM: ASSUMED | | |
|---|---|---|
| NO. | DESCRIPTION | ELEV. |
| 1. | NORTHWEST CORNER OF GRANITE STEP | 82.48 |
| 2. | | |
| 3. | | |




## ASSESSORS:

MAP 8F, BLOCK 1761, LOT 3

## RECORD OWNER:

NANCY H. ROBB FAMILY TRUST

## REFERENCES:

MIDDLESEX SOUTH REGISTRY OF DEEDS
DEED BOOK 53906, PAGE 369
DEED BOOK 14876, PAGE 253 (RIGHTS)
PLAN NO. 431 OF 1982

## ZONING:

RESIDENCE A DISTRICT
WETLANDS CONSERVANCY DISTRICT




| FOUNDATION, BEDDING, & BACKFILL MATERIALS | | |
|---|---|---|
| PIPE MATERIAL | HDP, PVC | RC, DI |
| FOUNDATION STABILIZATION | [6] | [6] |
| BEDDING | [1] | [1] |
| HAUNCHING | [1] | [1] |
| INITIAL BACKFILL | [1] | [1] |
| FINAL BACKFILL | [4] | [4] |
| MIN. PIPE COVER | [5] | [5] |

NOTES:

[1] PLACE 3/4"± GRADED GRANULAR BACKFILL AT OPTIMUM MOISTURE IN HORIZONTAL, 8"-DEEP, LOOSE LAYERS; COMPACT TO 95% PER ASTM D-1557.

[2] MINIMUM WIDTH OF TRENCH MEASURED AT THE SPRINGLINE OF THE PIPE, INCLUDING ANY NECESSARY SHEATHING:

| PIPE I.D. | WIDTH |
|---|---|
| LESS THAN 21" | O.D. + 12" |
| 21" TO 42" | O.D. + 24" |
| GREATER THAN 42" | O.D. + 30" |

[3] INSTALL PIPE IN CENTER OF TRENCH.

[4] IN PLANTED OR UNIMPROVED AREAS, USE ON-SITE EXCAVATED MATERIAL FOR FINAL BACKFILL. COMPACT TO 95% PER ASTM D-1557. IN PAVED AREAS, OBTAIN ENGINEER APROVAL OF ON-SITE EXCAVATED MATERIALS FOR USE AS FINAL BACKFILL.

[5] MINIMUM COVER OVER TOP OF PIPE:

| PIPE MATERIAL | HDP, PVC | RC, DI |
|---|---|---|
| WATER | 5'-0" | 5'-0" |
| SEWER | 4'-0" | 4'-0" |
| DRAIN | 1'-6" | 1'-0" |

[6] FOR FOUNDATION STABILIZATION, USE 2"± CRUSHED STONE.

**PIPE TRENCH**
TYPICAL CROSS SECTION
NOT TO SCALE




**SILTATION BARRIER**
CROSS SECTION
NOT TO SCALE




**CLEANOUT FOR PVC SEPTIC PIPE**
CROSS SECTION
NOT TO SCALE




| ITEM NO. 1500 | STANDARD | WEIGHT 11,670# |
|---|---|---|
| 1500H | H-20 | 13,135# |
| 15002C | STANDARD | 12,930# |
| 15002CH | H-20 | 14,395# |

NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
5. TEES AND GAS BAFFLE SOLD SEPARATELY.
6. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
7. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SCALE: 1" = 20'

0 20 40 80

SITE ADDRESS:

# #55 MUSTERFIELD ROAD

Concord, Massachusetts

PREPARED FOR:

## GEORGE A. ROBB

55 Musterfield Road
Concord, Massachusetts 01742


## HANCOCK ASSOCIATES

Civil Engineers

Land Surveyors

Wetland Scientists

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COMMONWEALTH OF MASSACHUSETTS
JOSEPH D. PEZNOLA
CIVIL
No. 38117
REGISTERED PROFESSIONAL ENGINEER
10-18-19

| NO. | BY | APP | DATE | ISSUE/REVISION DESCRIPTION |
|---|---|---|---|---|

DATE: 10/18/19 DRAWN BY: JTL
SCALE: 1"=20' CHECK BY: JP

# SEPTIC SYSTEM MODIFICATION PLAN IN CONCORD, MASSACHUSETTS

PLOT DATE: Oct 18, 2019 9:03 am
PATH: S:\Share\PROJECTS\22718-Robb-Concord\DWG\

DWG: 22718-SP.dwg
LAYOUT: Layout3-Layout1
SHEET: 1 OF 1

PROJECT NO.: 22718