

**VOLUME OF FORCE MAIN**  
 $V = 3.14(R)^2(H)$   
 $V = 3.14(0.083\text{ ft})^2(166\text{ ft}) = 3.59\text{ ft}^3$   
 $= 3.59\text{ ft}^3(7.48\text{ gal/cf})$   
 $= 26.85\text{ gal}$

**PUMP CHAMBER (EMERGENCY STORAGE VOLUME)**  
 $V = L \times W \times H$   
 $V = 7.91\text{ ft} \times 4.25\text{ ft} \times 7.48\text{ gal/ft} = 251.5\text{ gal/ft}$   
 $V = 251.5\text{ gal/ft} \times (\text{TBD} - \text{TBD}) = \text{TBD gal (1.0 days)}$  (OK)

**1,000 GALLON PUMP CHAMBER**  
 $\text{TDH} = \Delta h + \text{FRICTION} + \text{PIPE EQUIV.}$   
 $\Delta h = \text{TBD} - 95.25 = \text{XX}$   
 $\text{FRICTION} = 7' \text{ OF } 2" \text{ @ } 29\text{ GPM} = 0.7$   
 $\text{PIPE EQUIVALENTS} = 1.5$   
**TOTAL DYNAMIC HEAD = 8.5**  
**USE A MYERS SSM331 (1/3 HP) PUMP**  
**FLOAT SETTINGS @ 4 CYC/DAY**  
**442 GALLONS**  
**251.5 GALS/FT = 1.75'/4" = 0.4'**

**Septic Tank Notes:**

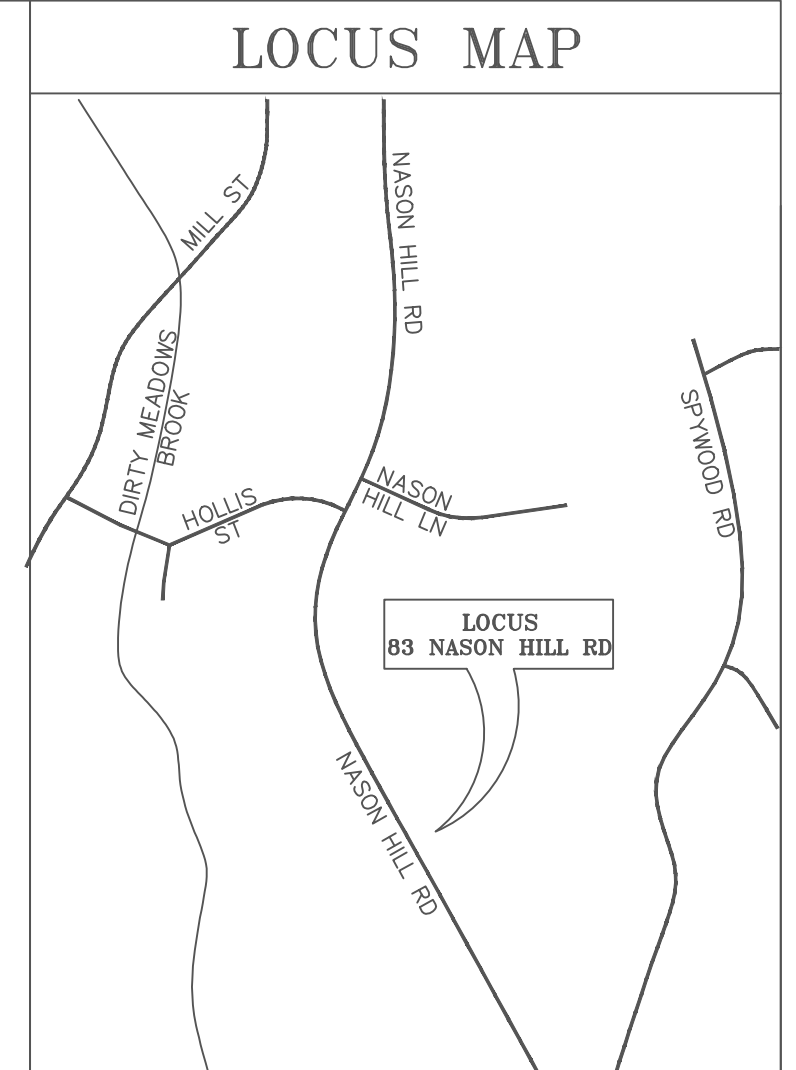
1. Septic Tank shall be steel reinforced concrete.
2. Septic Tank to withstand H-10 loading (HD TOP).
3. All pipe connections and concrete construction to be watertight.
4. Inlet and Outlet tees to be SCH 40 PVC. Tees to be centered under manhole cover.
5. Recommended manufacturer-LaMarre Concrete or approved equivalent.

**Pump Chamber Notes:**

1. Pump Chamber shall be steel reinforced concrete.
2. Pump Chamber to withstand H-10 loading (HD TOP).
3. All pipe connections and concrete construction to be watertight.
4. Inlet and Outlet tees to be SCH 40 PVC. Tees to be centered under manhole cover.
5. Recommended manufacturer-LaMarre Concrete or approved equivalent.

**Distribution Box Notes:**

1. Distribution box to withstand H-10 loading.
2. Provide inlet tee or baffle where slope of inlet pipe exceeds 0.08'/ft. or in pumped system.
3. First two feet of pipe exiting d-box to be laid level.
4. Recommended manufacturer-LaMarre Concrete or approved equivalent.



**ASSESSOR'S REFERENCE:**  
 PARCEL ID: 8 0 136

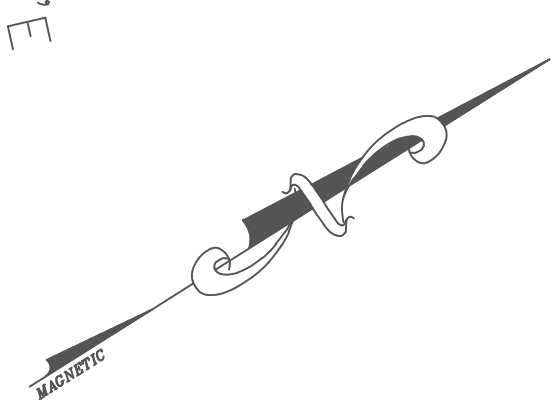
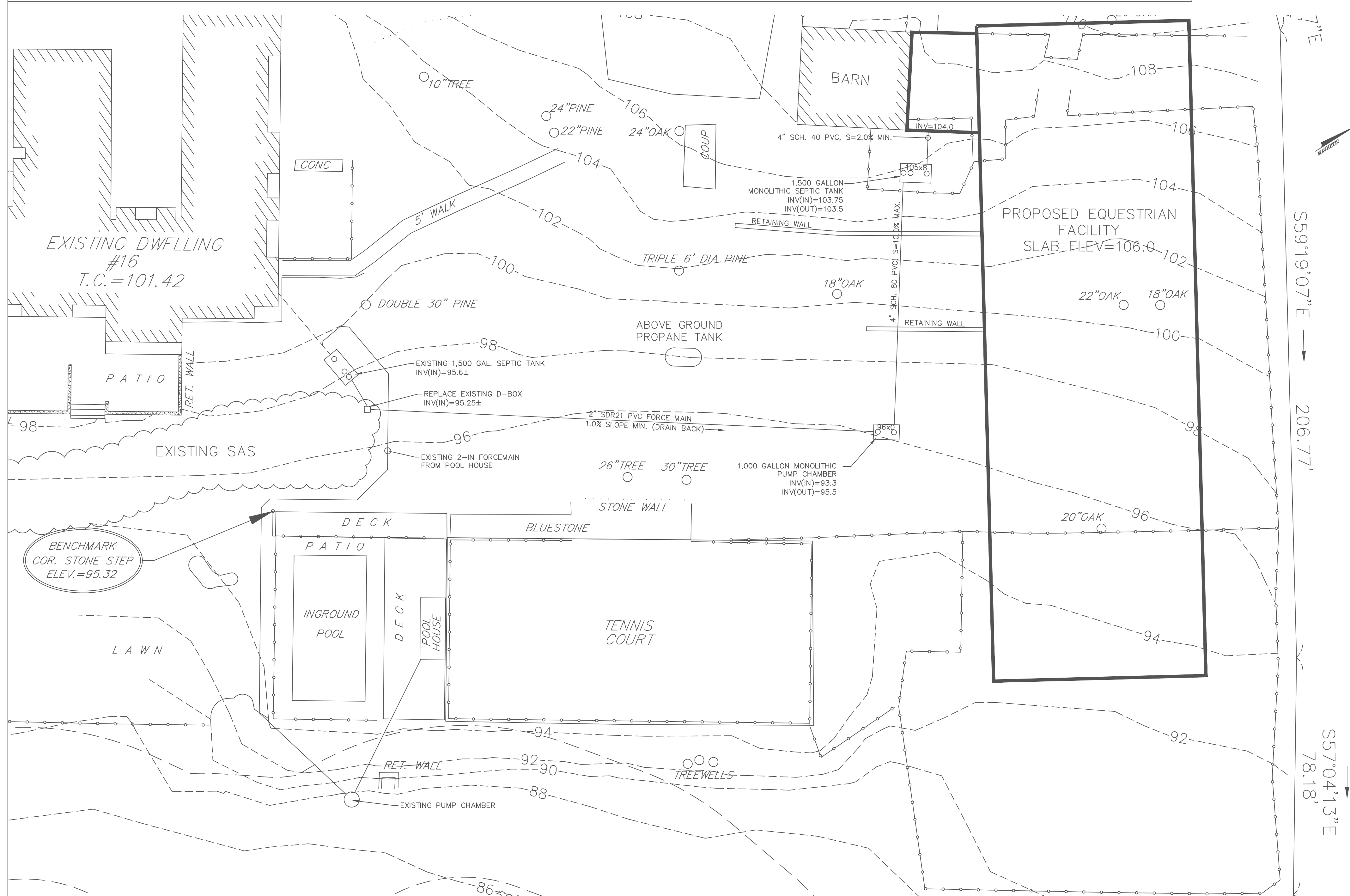
**DEED REFERENCE:**  
 MIDDLESEX SOUTH REGISTRY OF DEEDS  
 Bk. 67128, Pg. 535-539

**PLAN REFERENCE:**  
 PLAN No. 1016 OF 1977, Bk. 13282, Pg. 725

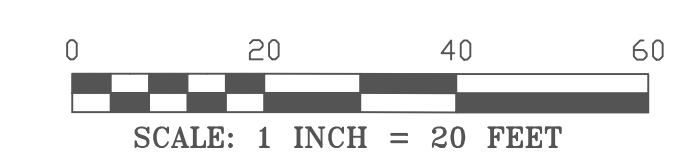
**OWNER OF RECORD:**  
 POLLY RUSSEL KORNBILTH  
 MICHAEL J. NEWMAN

**ZONING CLASSIFICATION:**  
 RESIDENCE C  
 MIN. LOT SIZE = 3 AC  
 MIN. FRONTAGE = 250'

**MIN. SETBACK REQUIREMENTS:**  
 FRONT SET BACKS = 60'  
 SIDE SETBACKS = 40'  
 REAR SETBACKS = 30'



**DRAFT**  
WITH PUMP CHAMBER



| Revision History |              | Sewer Connection Plan<br>16 Nason Hill Road<br>Sherborn, Massachusetts |  |
|------------------|--------------|--|--|
| DESIGNED:        | E. Dickinson | PREPARED BY:   | <b>CIVILized Solutions</b><br>29 Church Street<br>Holliston, MA 01746<br>P: 508.429.7192 |
| CHECKED:         | P. Saulnier  | OWNER(S):  | Wildstar Farm - Michael Newman<br>16 Nason Hill Lane<br>Sherborn, MA 01770               |
| SCALE:           | 1"=20'       | ASSESSOR'S:  | MAP <u>8.0</u><br>LOT <u>136.0</u>   |
| DATE:            | 8/03/2017    |  |  |