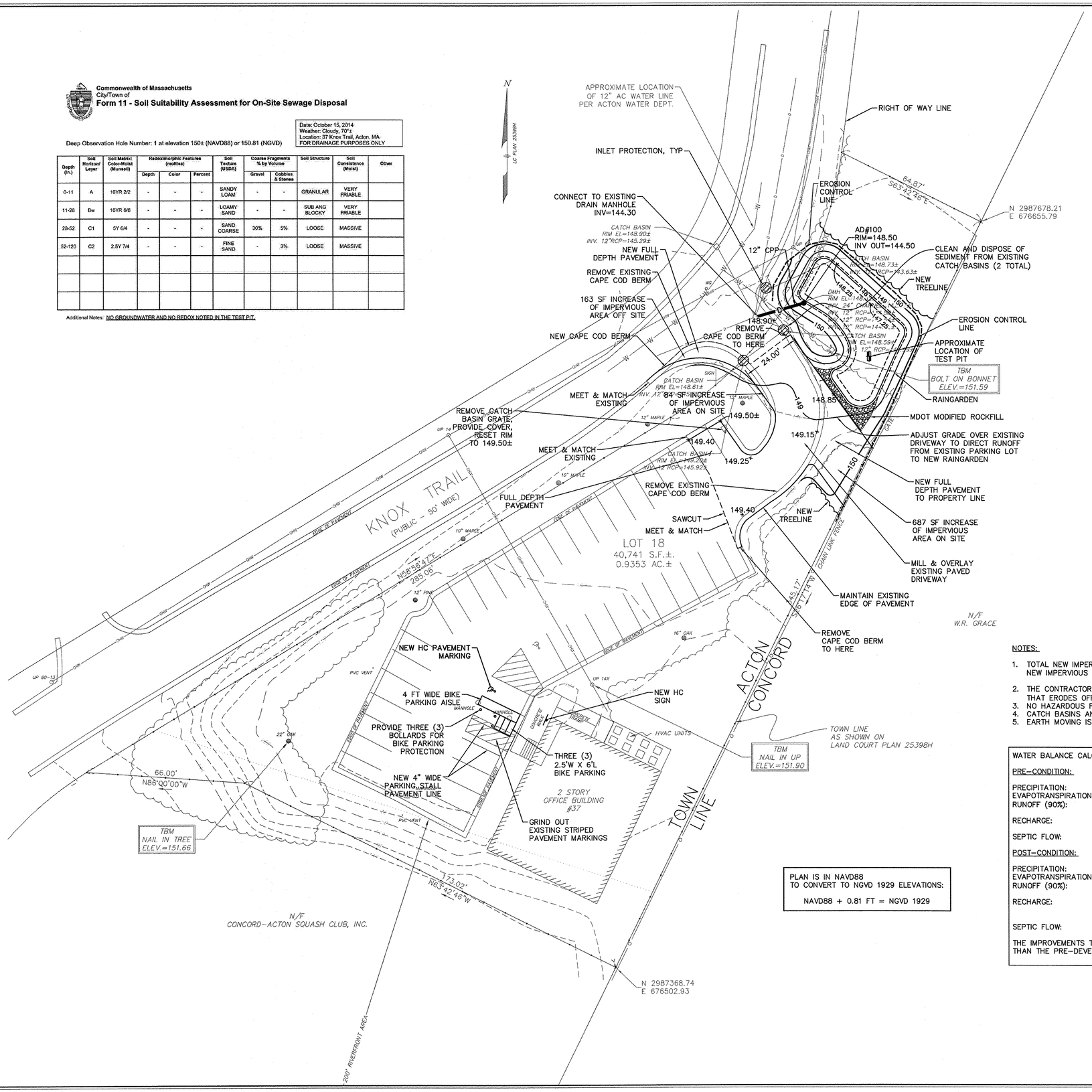
Commonwealth of Massachusetts
City/Town of
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Date: October 15, 2014
Weather: Cloudy, 70°±
Location: 37 Knox Trail, Acton, MA
FOR DRAINAGE PURPOSES ONLY

Deep Observation Hole Number: 1 at elevation 150± (NAVD88) or 150.81 (NGVD)

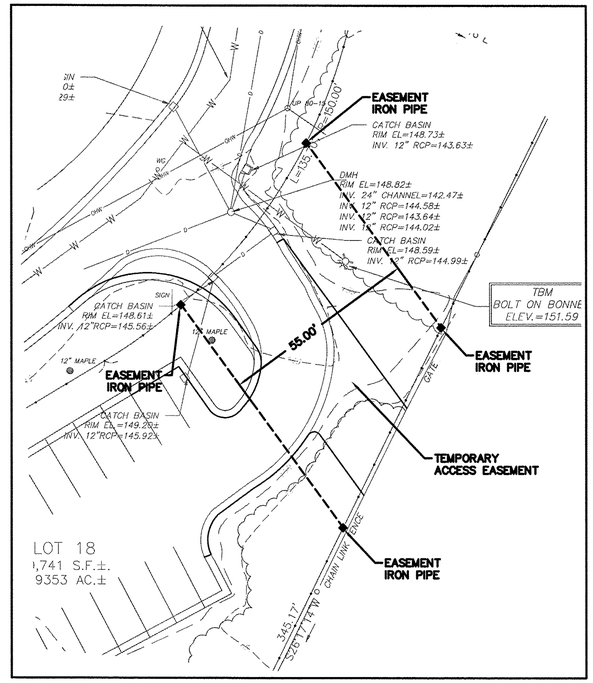
Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-11	A	10YR 2/2	-	-	-	SANDY LOAM	-	-	GRANULAR	VERY FRIABLE	
11-28	Bw	10YR 6/6	-	-	-	LOAMY SAND	-	-	SUB ANG BLOCKY	VERY FRIABLE	
28-52	C1	5Y 6/4	-	-	-	SAND COARSE	30%	5%	LOOSE	MASSIVE	
52-120	C2	2.5Y 7/4	-	-	-	FINE SAND	-	3%	LOOSE	MASSIVE	

Additional Notes: NO GROUNDWATER AND NO REDOX NOTED IN THE TEST PIT.



PLAN IS IN NAVD88
TO CONVERT TO NGVD 1929 ELEVATIONS:

NAVD88 + 0.81 FT = NGVD 1929



EASEMENT LAYOUT

NOTES:

1. TOTAL NEW IMPERVIOUS PROPOSED AT 37 KNOX TRAIL 687 SF + 84 SF = 771± SF NEW IMPERVIOUS
   NEW IMPERVIOUS OUTSIDE 37 KNOX TRAIL 163 SF → TOTAL NEW IMPERVIOUS AREA: 934 SF
2. THE CONTRACTOR IS RESPONSIBLE TO PROPERLY CLEAN AND DISPOSE OF ANY SAND, DIRT OR DEBRIS THAT ERODES OFF THE SITE ONTO KNOX TRAIL OR PRIVATE/ABUTTING PROPERTY.
3. NO HAZARDOUS FILL MATERIAL IS ALLOWED ON THE SITE.
4. CATCH BASINS AND RAINGARDEN SHALL BE MAINTAINED ANNUALLY PER DEP STANDARDS.
5. EARTH MOVING IS RESTRICTED FROM THE SITE BETWEEN THE HOURS OF 9 AM AND 4 PM.

WATER BALANCE CALCULATIONS

PRE-CONDITION:

PRECIPITATION:	43.76 INCHES PER YEAR
EVAPOTRANSPIRATION:	50.13 INCHES PER YEAR
RUNOFF (90%):	0 INCHES PER YEAR FOR STORM EVENTS OF 1.25 INCHES OR LESS THIS IS 90% OF ALL STORMS OVER A YEAR
RECHARGE:	STORM EVENTS OF 1.25 INCHES OR SMALLER IN LANDSCAPED AREAS REMAIN ON THE SITE. PARKING LOT RUNOFF IS SENT TO THE CLOSED DRAINAGE SYSTEM
SEPTIC FLOW:	0 INCHES AS BUILDING IS NOT BEING USED

POST-CONDITION:

PRECIPITATION:	43.76 INCHES PER YEAR
EVAPOTRANSPIRATION:	50.13 INCHES PER YEAR
RUNOFF (90%):	0 INCHES PER YEAR FOR STORM EVENTS OF 1.25 INCHES OR LESS THIS IS 90% OF ALL STORMS OVER A YEAR
RECHARGE:	STORM EVENTS OF 1.25 INCHES OR SMALLER IN LANDSCAPED AREAS ARE RECHARGED ON THE SITE. RUNOFF FROM PROPOSED WORK IS RECHARGED BY THE RAIN GARDEN UP TO THE 10-YEAR STORM EVENT (1,040± S.F.)
SEPTIC FLOW:	0 INCHES AS BUILDING IS NOT BEING USED

THE IMPROVEMENTS TO THE STORMWATER SYSTEM WILL PROVIDE MORE RECHARGE IN THE POST-DEVELOPMENT CONDITION THAN THE PRE-DEVELOPMENT CONDITION.

SCALE:
1" = 20'
20 10 0 20 40

Nitsch Engineering
www.nitscheng.com
2 Center Plaza, Suite 430
Boston, MA 02108
T: (617) 338-0063
F: (617) 338-6472

- Civil Engineering
- Land Surveying
- Transportation Engineering
- Sustainable Site Consulting
- Planning
- GIS

SITE PLAN

37 KNOX TRAIL ACTON, MA 01720

PREPARED FOR:
CONCORD PUBLIC SCHOOLS
120 MERIAM ROAD CONCORD, MA 01742

COMMONWEALTH OF MASSACHUSETTS
STEVEN VENTRESCA
CIVIL
No. 46872
REGISTERED PROFESSIONAL ENGINEER
10/24/14

REV.	COMMENTS	DATE
2	TOWN'S COMMENTS	10/24/14
1	TOWN'S COMMENTS	10/6/14

REVISIONS

NITSCH PROJECT #	10079
FILE:	10079CLO.DWG
SCALE:	1" = 20'
DATE:	07/03/2014
PROJECT MANAGER:	SV
SURVEYOR:	
DRAFTED BY:	NGG
CHECKED BY:	SV

C1.0

10/24/2014 2:05 PM

c:\10079 cps acton depot\civil\cad\10079clo.dwg