

Charles Surmonte P.E. & L.S.

Professional Engineer and Land Surveyor

301 Main Street, Allenhurst, NJ 07711

Phone 732-660-0606 Fax 732-660-0404

Soils/Drainage Analysis

Block 7, Lot 2

120 Corlies Avenue

Allenhurst, N.J.

8 October 2020

On September 24, utilizing a backhoe, two (2) soil profile pits were dug in the rear yard of the subject property. The location of each profile pit is provided on attached plan. Also attached are copies of the soil log for each as well as the results of a tube permeameter test conducted on a sample drawn at a depth of 3 feet from test pit 2.

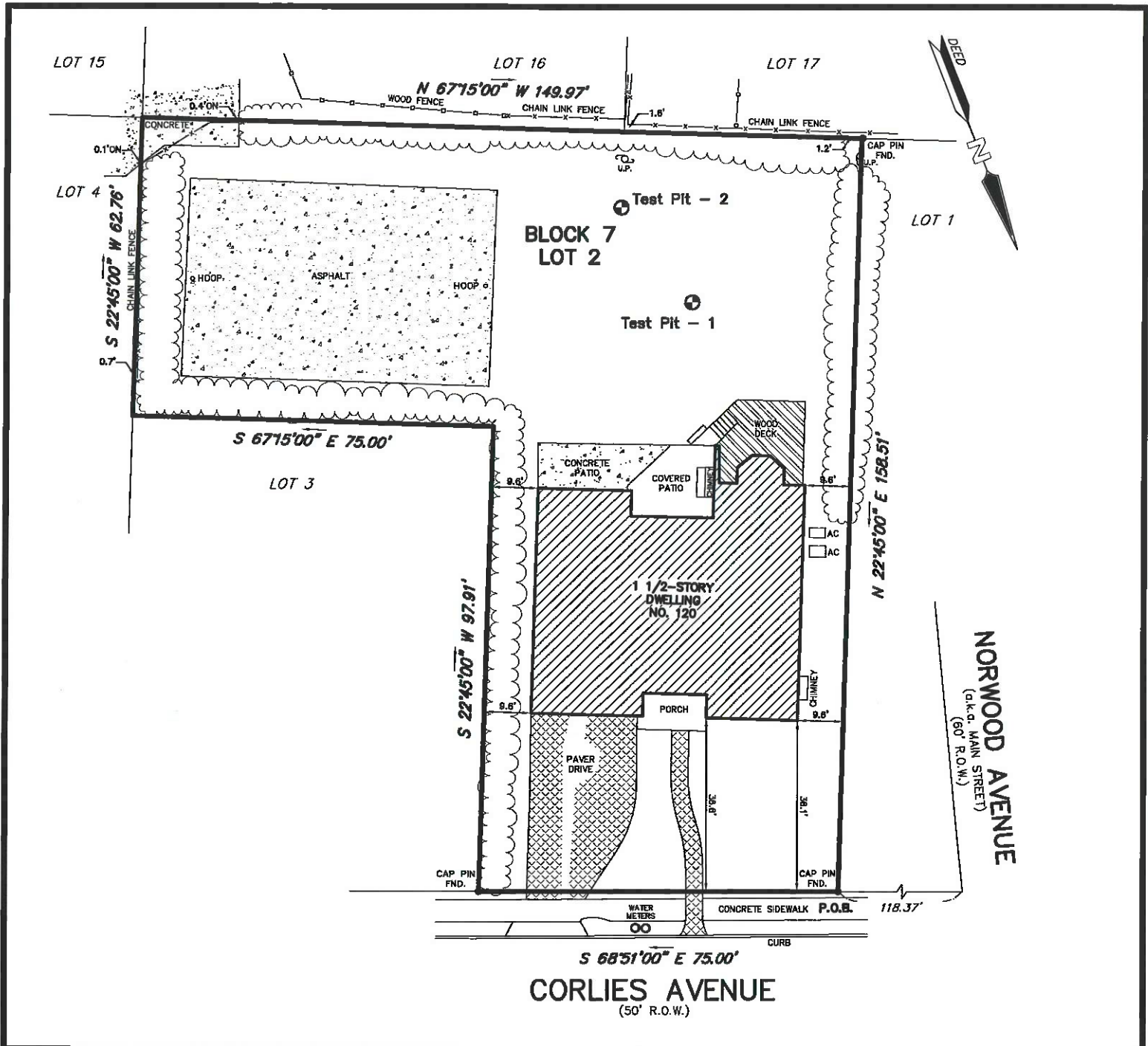
The logs indicate no evidence of the seasonal high water table at a depth of 12 feet. Therefore, there shall be a vertical separation of greater than two (2) feet between said seasonal high water table elevation and the bottom of the proposed pool.

The results of the tube permeameter test indicates a permeability rate of 3.0 inches per hour, placing the soil in permeability class K3 (2-6 inches per hour). The USDA Soil Conservation Service classifies K3 soils as having 'moderately rapid' permeability. Therefore, considering the permeability rate of the soil, together with the depth to the water table, it is my professional opinion that a sub-surface drainage system can be designed for this site that can adequately store/infiltrate the stormwater runoff anticipated from the additional roof area proposed, the additional patio area proposed in the rear yard and the seasonal drainage as needed to adjust the pool water level for a winterized covered condition.



Charles Surmonte P.E. & L.S.

N.J. License No. 35885



R.C. BURDICK, P.E. P.P. P.C.

1023 OCEAN RD. PT. PLEASANT, N.J. 08742

PHONE 732-892-5050

FAX 732-892-5888

SOIL BORING NO. 1

120 Corlies Ave.

Lot 2, Block 7

Allenhurst Borough

Monmouth County, New Jersey

Project No. 20-7122

0 – 2'0"	Grayish brown sandy topsoil mix, 10 YR 5/2
2'0" – 6'0"	Light yellowish brown sand with debris, 10 YR 6/4
6'0" – 12'0"	Grayish brown sand with debris, 10 YR 5/2

Boring performed on 9/24/2020

Boring location: 30' to rear from covered porch

Seasonal high water not indicated

Standing water not encountered

Weather: 63° Overcast

Boring performed by R.C. Burdick P.E.P.P.P.C



Robert C. Burdick P.E. 30929

R.C. BURDICK, P.E. P.P. P.C.

1023 OCEAN RD. PT. PLEASANT, N.J. 08742

PHONE 732-892-5050

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SOIL BORING NO. 2

120 Corlies Ave.

Lot 2, Block 7

Allenhurst Borough

Monmouth County, New Jersey

Project No. 20-7122

0 – 1'0"	Grayish brown sandy topsoil mix, 10 YR 5/2
1'0" – 8'0"	Light yellowish brown sand with debris, 10 YR 6/4
8'0" +	Debris

Boring performed on 9/24/2020

Boring location: Low area of lot at rear lot line

Seasonal high water not indicated

Standing water not encountered

Weather: 63° Overcast

Boring performed by R.C. Burdick P.E.P.P.P.C



Robert C. Burdick P.E. 30929

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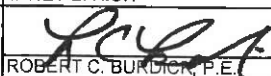
ROBERT C. BURDICK, P.E.*
 JONATHAN T. MILLER, P.E.
 STANLEY HANS, P.L.S.
 *NJ, PA. Licensed

1023 OCEAN ROAD
 POINT PLEASANT, N.J. 08742
 732-892-5050
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Tube Permeameter Test Data For Suitable Fill

Client: Surmonte
 Location: 120 Corlies Av
 Test No.: 7122
 Date Collected: 9/24/2020

Lot: 2 Block: 7
 Township: Allenhurst
 Date Tested: 9/29/2020

1.	Material Tested:	Fill	Native Soil (indicate Depth):
2.	Type of Sample:	Undisturbed	<input checked="" type="checkbox"/> Disturbed
3.	Sample Dimensions:		
	Inside Radius of Tube, R, cm:	2	
	Length of Sample, L, in:	3.94	
4.	Bulk Density Determination, (Disturbed Samples only):		
	Sample Weight (Wt. Tube w/ Sample - Wt. Tube w/o Sample):	177.5	
	Sample Volume (L x 2.54 cm/in x 3.14 R ²), cc	125.70	
	Bulk Density (Sample Wt. / Sample Volume), grams/cc	1.41	
5.	Standpipe Used:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
6.	Height of Water Level Above Rim of Test Basin, in.:		
	At the Beginning of each Test Interval, H1:	6.25	
	At the End of each Test Interval, H2:	5.25	
7.	Rate of Water Level Drop:		
	Time, Start of Test Interval, T1:(min)	Time, End of Test Interval, T2: (min)	Length of Test interval, T (Min)
	0	20.00	20.00
	0	20.00	20.00
	0	20.00	20.00
	Average Time		20.00
8.	Calculation of Permeability:		
	K, (in./hr) =	$60 \text{ min/hr} \times r^2 / R^2 \times L(\text{in}) / T(\text{min}) \times \ln(H1 / H2) =$	
	K, (in./hr) =	60 2.400 2.00 3.94 20.00 Ln 6.25 5.25	
	SOIL PERMEABILITY CLASS:		K3
9.	Defects in Sample (check appropriate items):		<input checked="" type="checkbox"/> None
	Cracks	<input type="checkbox"/> Large Gravel	
	Worm Channels	<input type="checkbox"/> Large Roots	
	Root Channels	<input type="checkbox"/> Dry Soil	
	Soil/Tube Contact	<input type="checkbox"/> Smearing	
	Compaction	<input type="checkbox"/> Other:	
10.	I hereby certify that the information furnished on this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A.58:10A et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.		
Signature of Site Evaluator:		Date:	9/29/2020
		JANET E. RICH	
Signature of Professional Engineer:		NJPE#:	30929
		 ROBERT C. BURDICK, P.E.	

Affix Seal