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**TOWN OF NEWBURGH  
PLANNING BOARD  
TECHNICAL REVIEW COMMENTS**

**PROJECT: CRONK ESTATES III**  
**PROJECT NO.: 2015-14**  
**PROJECT LOCATION: SECTION 1, BLOCK 2, LOT 17.24 (LOT 8)**  
**PROJECT REPRESENTATIVE: TALCOTT ENGINEERING**  
**REVIEW DATE: 11 SEPTEMBER 2015**  
**MEETING DATE: 17 SEPTEMBER 2015**

1. Plans have been revised based on input from the Public Hearing. A No Outlet sign has been added to the Private Road sign at the intersection of Peaceful Court and Cronk Road. Work hours have been identified restricting work from 9 a.m. to 5 p.m., Monday through Friday. This seems slightly restrictive and is more restrictive than Town of Newburgh Code Requirements.
2. A revised Storm Water Management Report has been submitted identifying capacity within the existing storm water management system for the proposed increased impervious area for the additional lot.

Respectfully submitted,

***McGoey, Hauser and Edsall  
Consulting Engineers, D.P.C.***

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Patrick J. Hines  
Principal

# Talcott Engineering DESIGN, PLLC

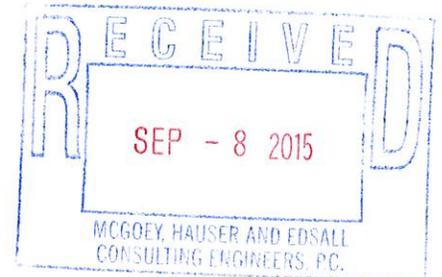
1 GARDNERTOWN ROAD ~ NEWBURGH, NY 12550  
(845) 569-8400\* ~ (fax) (845) 569-4583

Town of Newburgh  
Planning Board  
308 Gardnertown Road  
Newburgh, NY 12550

September 4, 2015

Attn: John Ewasutyn, Chairman

Re: Project Narrative  
P.B. Project No. 2015-14  
Cronk Estates III  
SBL: 1-2-17.24  
Job No. 14199-GGD



## PROJECT NARRATIVE

Dear John,

Please be advised that Talcott Engineering has prepared revised plans for the above referenced project. Revisions, per the public hearing, are as follows;

- 1) Limits of disturbance is now shown.
- 2) A "NO OUTLET" sign has been added to the beginning of Peaceful Court.
- 3) Work hours are listed on plans.

With respect to the neighbors' concerns regarding road repair, the existing maintenance agreement (emailed 9/2/15) already has a clause in it that requires the applicant to make the repairs discussed at my site meeting with the neighbors (see paragraph 4).

TE has prepared eleven sets of revised plans and one set of drainage calculations for delivery to the Planning Board on Wednesday, September 9<sup>th</sup> for the September 17<sup>th</sup> Planning Board Meeting. I will also deliver one set of plans and drainage calculations to Pat Hines for review.

Respectfully yours,

Charles T. Brown, P.E. – President  
Talcott Engineering

PC: Pat Hines

# Taconic Design

ENGINEERING, PLLC.

3125 ROUTE 9W\* NEW WINDSOR, NY 12553  
(845)-569-8400 \* (fax) (845)-569-4583

## STORMWATER MANAGEMENT REPORT

for the

<sup>+1</sup>  
**6 LOT RESIDENTIAL SUBDIVISION  
KNOWN AS "CRONK ESTATES II"**

Peaceful Court  
SBL: 1-2-17.2  
Town of Newburgh  
Orange County, New York

### Report prepared for:

Fox Crest Lane, LLC  
15 Madeline Terrace  
Spring Valley, NY 10977

### Report prepared by:

Charles T. Brown, PE  
Taconic Design Engineering, PLLC  
3125 Route 9W  
New Windsor, NY 12553  
(845) 569-8400

Revised: June 24, 2011  
Revised: June 10, 2011  
Revised: May 25, 2011  
Revised: April 18, 2011  
February 23, 2011  
Job #09185

*JOB #14199 9/2/15  
(100 SQ ON 6 LOT)*

### Contents:

- I Commentary
- II Pond Volume Calculations
- III Hydraulic Calculations for Quality
- IV Hydraulic Calculations for Quantity and Channel Protection
- V Outlet Control Structure and Pond Profile
- VI Pond Construction Standard Specifications
- VII Calculation of Off-Site Swale

Pre & Post Development Drainage Area Maps Included

# I Commentary

## **1.0 Purpose:**

The purpose of this study is to address the potential impacts, if any, which would be generated by the 6<sup>1</sup> lot residential subdivision, of a 21 acre parcel (SBL: 1-2-17.2), known as "Cronk Estates II", located on Peaceful Court, in the Town of Newburgh, Orange County, New York, and to develop a stormwater management plan for the site.

## **2.0 Project Description:**

The proposed project is a 6<sup>1</sup> lot residential subdivision of a 21 acre parcel. The proposed lots will be serviced by town water or on site wells and septic systems that have been designed to current New York State Health Department regulations and all other applicable standards. Project plans detail all improvements as well as erosion and sedimentary control measures and are a part of this report.

## **3.0 Drainage Analysis:**

This study analyses the pre-development and post-development storm drainage flows using the Soil Conservation Service method as outlined in TR-55 ("Urban Hydrology for Small Watersheds", June 1986). Quantitative storm water flows are evaluated per Town of Newburgh and New York State DEC standards. The rational method is used for on site piping design.

### **3.1 Drainage Areas:**

#### **General**

All areas are evaluated for 1 year, 2 year, 10 year and 100 year storms for existing and developed conditions.

The site area containing all proposed development is comprised of three (3) drainage areas, described below as follows:

#### **Drainage Area "A"**

This area is the center portion of the site and drains north to the existing lots of the "Cronk Estates" subdivision and "Peaceful Court" for the developed condition. It contains all proposed impervious areas, and a micropool extended detention basin (P-1) to mitigate quantity for the development of the site. Rooftop disconnection, dry swales, bioretention swales, soil restoration and forebays are used to address water quality. These measures were selected based on the site topography and soil conditions for the maximum runoff reduction credit possible.

### Drainage Area "B"

This area drains to the east property line. For the developed condition for quantity, some of this area is shifted to "Area A", reducing runoff to less than pre-development rates for all design storms. Soil restoration and conservation easements are used to address water quality.

### Drainage Area "C"

This area drains to the west property line. For the developed condition for quantity, some of this area is shifted to "Area A", reducing runoff to less than pre-development rates for the 10 and 100 year storms. Soil restoration and conservation easements are used to address water quality.

### Drainage Area Summary

Requirements for treatment and methods of treatment for the proposed drainage areas are fully described in the forthcoming sections. The existing and proposed drainage areas are summarized below.

<u>Drainage Area</u>	<u>Area</u>	<u>CN</u>	<u>Tc</u>
AEX	6.56	70	0.30
APR	8.12	74 75	0.30
BEX	9.96	70	0.30
BPR	8.56	70	0.30
CEX	4.43	70	0.30
CPR	4.29	71	0.30

### 3.2 Soils:

Based on the Orange County Soil Survey (Oct, 1981), it was determined that the soils within the drainage areas are as follows:

<u>Symbol</u>	<u>Description</u>	<u>Hydrologic Group (HSG)</u>
MdB	Mardin Gravelly Silt Loam	"C"
NaD	Nassau Shally Silt Loam	"C"
BnC	Bath Nassau Complex	"C"
SxC	Swartswood	"C"

The runoff curve numbers (CN) have been based on "C" soils.

### 3.3 Land Coverage:

The type of land coverage for the areas analyzed was determined by field investigation combined with referencing the USGS topo maps, the aerial survey of this site and the soil survey. The majority of the parcel in existing conditions is woods.

#### 4.0 Qualitative Analysis:

The SPDES permit for this project is required under GP-0-10-001. For post construction water quality for Area "A", the methods outlined in GP-0-10-001 have been used (plans and calculations are attached). In Section III of this report, the water quality volume (WQv), as set forth in the current N.Y.S.D.E.C. Design Standard "Stormwater Management Design Manual", has been determined and results based upon actual proposed impervious areas for the drainage area are summarized below.

<u>Drainage Area</u>	<u>Area</u>	<u>Rainfall</u>	<u>Impervious</u>	<u>WQv required (ac.ft)</u>	<u>WQv proposed (ac. ft)</u>
APR	8.12	1.2 in	9.6%	0.162	0.198*

#### \*WQv provided Area "A"

Dry Swales	0.042
Forebays	0.034
Permanent Pool	0.081
Bioretention Swales	<u>0.041</u>
Total	0.198 ac ft

Note: In addition to the above, the pond extended detention provides 0.32 ac ft of water quality storage.

WQv for Areas "B" and "C" is not required (see below), however the last 150' (downhill) of these areas is to be protected forest by conservation easement.

#### Runoff Reductions:

Area "A": The minimum runoff reduction (RRv min) is met using the measures defined in this report, but 100% runoff reduction is not achieved. However, as all of drainage Area "A", with the exception of an insignificant area around the pond, is treated with green infrastructure water quality practices, selected for highest credit toward runoff reduction, the runoff reduction criteria has been met for this project.

Areas "B" and "C": As these areas contain NO impervious areas, impervious areas can not be treated, therefore 100% runoff reduction for these areas is not required.

#### 5.0 Quantitative Analysis:

All areas are analyzed for 1yr, 2yr, 10yr and 100yr storms for existing and developed conditions. Section IV of this report includes calculations for the stage storage discharges of the outlet pipes of the outlet control structures.

Storm	1 year	2 year	10 year	100 year
Rainfall	2.8 in	3.5 in	6.0	8.0 in
AEX	3.1	5.2	14.3	22.8
APR	4.9 <i>5.2</i>	7.8 <i>8.2</i>	20.2 <i>20.7</i>	31.1 <i>31.8</i>
AR	0.5 <i>0.6</i>	2.0 <i>2.2</i>	7.4 <i>7.6</i>	9.8 <i>10.00</i>
% Reduction	83.9% <i>80.1%</i>	61.5% <i>57.7%</i>	48.3% <i>46.9%</i>	57.0% <i>56.1%</i>
				<i>1.38' FREEBOARD</i>

Worksheet 2: Runoff curve number and runoff

Project CRONE ESTATES II By GOB Date 4/12/11

Location PERCELA CT, NEWBURGH Checked \_\_\_\_\_ Date \_\_\_\_\_

Circle one: Present Developed AREA "A" \* 14199 9/3/15

1. Runoff curve number (CN)

Soil name and hydrologic group (appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN <sup>1/</sup>			Area <input checked="" type="checkbox"/> acres <input type="checkbox"/> mi <sup>2</sup> <input type="checkbox"/> %	Product of CN x area
		Table 2-2	Fig. 2-3	Fig. 2-4		
					3.08	215.60
BmC, Sx C, "C" NaD	WOODS (6000)	70			<del>2.77</del> 4.19	<del>207.90</del> 293.30
- u -	LAWN	74			<del>4.08</del> 3.15	<del>301.92</del> 233.10
- u -	IMPERVIOUS	98			<del>0.96</del> 0.78	<del>94.08</del> 76.44
Totals =					8.12	602.84

<sup>1/</sup> Use only one CN source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{602.84}{8.12} = 74.2$$

$$\text{Use CN} = \boxed{74}$$

2. Runoff

Frequency ..... yr  
 Rainfall, P (24-hour) ..... in  
 Runoff, Q ..... in  
 (Use P and CN with table 2-1, fig. 2-1, or eqs. 2-3 and 2-4.)

Storm #1	Storm #2	Storm #3	Storm #4
1 yr	2 yr	10 yr	100 yr
2.8	3.5	6.0	8.0
0.78	1.24	3.19	4.93
0.84	1.30	3.28	5.04

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 1 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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Hydrograph Name: APR-1

Storm Data

Drainage Area Data

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Frequency : 1 Yrs.  
Rainfall : 2.80 In.  
Runoff : 0.83 In.

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Area: 8.1 Ac. T.C.: 0.30 Hrs.  
CN : 75 Ia/P: 0.10  
\*\*\*\* Hydrograph Status: Valid \*\*\*\*

Time (Hrs)	Flow (CFS)						
11.00	0.3	13.60	0.7	16.20	0.3	18.80	0.2
11.10	0.3	13.70	0.6	16.30	0.3	18.90	0.1
11.20	0.3	13.80	0.6	16.40	0.3	19.00	0.1
11.30	0.3	13.90	0.6	16.50	0.3	19.10	0.1
11.40	0.4	14.00	0.6	16.60	0.3	19.20	0.1
11.50	0.4	14.10	0.5	16.70	0.2	19.30	0.1
11.60	0.5	14.20	0.5	16.80	0.2	19.40	0.1
11.70	0.6	14.30	0.5	16.90	0.2	19.50	0.1
11.80	0.7	14.40	0.5	17.00	0.2	19.60	0.1
11.90	0.9	14.50	0.5	17.10	0.2	19.70	0.1
12.00	1.3	14.60	0.5	17.20	0.2	19.80	0.1
12.10	1.9	14.70	0.5	17.30	0.2	19.90	0.1
12.20	3.0	14.80	0.4	17.40	0.2	20.00	0.1
12.30	4.6	14.90	0.4	17.50	0.2	20.10	0.1
12.40	5.2	15.00	0.4	17.60	0.2	20.20	0.1
12.50	4.7	15.10	0.4	17.70	0.2	20.30	0.1
12.60	3.8	15.20	0.4	17.80	0.2	20.40	0.1
12.70	2.9	15.30	0.4	17.90	0.2	20.50	0.1
12.80	2.1	15.40	0.4	18.00	0.2	20.60	0.1
12.90	1.7	15.50	0.4	18.10	0.2	20.70	0.1
13.00	1.2	15.60	0.3	18.20	0.2	20.80	0.1
13.10	1.1	15.70	0.3	18.30	0.2	20.90	0.1
13.20	0.9	15.80	0.3	18.40	0.2	21.00	0.1
13.30	0.8	15.90	0.3	18.50	0.2		
13.40	0.7	16.00	0.3	18.60	0.2		
13.50	0.7	16.10	0.3	18.70	0.2		

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 2 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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WORKING CURVE  
FOR POND NO.PONDA15

DT= 0.10 HRS

ELEV (FT)	DISC. (CFS)	STORAGE		O2/2 (CFS)	S2/DT (CFS)	S2/DT+O2/2 (CFS)
		S2 (AC FT)	S2 (CFS-HRS)			
632.00	0.0	0.00	0.0	0.0	0.0	0.0
633.00	0.2	0.30	3.6	0.1	36.0	36.1
634.00	6.2	0.62	7.5	3.1	75.0	78.1
635.00	8.8	0.99	12.0	4.4	120.0	124.4
636.00	10.7	1.44	17.4	5.4	174.0	179.4
637.00	12.4	1.97	23.8	6.2	238.0	244.2

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 3 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-1  
POND #PONDA15  
STORM FREQUENCY: 1 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
11.00	0.3	0.2	0.2	0.0	632.01	0.00
11.10	0.3	0.3	0.5	0.0	632.01	0.00
11.20	0.3	0.3	0.8	0.0	632.02	0.01
11.30	0.3	0.3	1.1	0.0	632.03	0.01
11.40	0.4	0.4	1.5	0.0	632.04	0.01
11.50	0.4	0.4	1.9	0.0	632.05	0.02
11.60	0.5	0.5	2.4	0.0	632.07	0.02
11.70	0.6	0.6	3.0	0.0	632.08	0.02
11.80	0.7	0.7	3.7	0.0	632.10	0.03
11.90	0.9	0.8	4.5	0.0	632.12	0.04
12.00	1.3	1.1	5.6	0.0	632.16	0.05
12.10	1.9	1.6	7.2	0.0	632.20	0.06
12.20	3.0	2.5	9.7	0.1	632.27	0.08
12.30	4.6	3.8	13.4	0.1	632.37	0.11
12.40	5.2	4.9	18.2	0.1	632.50	0.15
12.50	4.7	5.0	23.1	0.2	632.64	0.19
12.60	3.8	4.3	27.2	0.2	632.75	0.22
12.70	2.9	3.4	30.4	0.2	632.84	0.25
12.80	2.1	2.5	32.7	0.2	632.91	0.27
12.90	1.7	1.9	34.4	0.2	632.95	0.28
13.00	1.2	1.5	35.7	0.2	632.99	0.29
13.10	1.1	1.2	36.7	0.3	633.01	0.30
13.20	0.9	1.0	37.4	0.4	633.03	0.31
13.30	0.8	0.9	37.9	0.5	633.04	0.31
13.40	0.7	0.8	38.2	0.5	633.05	0.31
13.50	0.7	0.7	38.4	0.6	633.05	0.31
13.60	0.7	0.7	38.5	0.6	633.06	0.32
13.70	0.6	0.7	38.6	0.6	633.06	0.32
13.80	0.6	0.6	38.6	0.6	633.06	0.32
13.90	0.6	0.6	38.6	0.6	633.06	0.32
14.00	0.6	0.6	38.6	0.6	633.06	0.32
14.10	0.5	0.6	38.6	0.6	633.06	0.32
14.20	0.5	0.5	38.5	0.6	633.06	0.32
14.30	0.5	0.5	38.4	0.6	633.05	0.31
14.40	0.5	0.5	38.3	0.6	633.05	0.31

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 4 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-1  
POND #PONDA15  
STORM FREQUENCY: 1 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
14.60	0.5	0.5	38.2	0.5	633.05	0.31
14.70	0.5	0.5	38.2	0.5	633.05	0.31
14.80	0.4	0.5	38.2	0.5	633.05	0.31
14.90	0.4	0.4	38.1	0.5	633.05	0.31
15.00	0.4	0.4	38.0	0.5	633.05	0.31
15.10	0.4	0.4	37.9	0.5	633.04	0.31
15.20	0.4	0.4	37.8	0.5	633.04	0.31
15.30	0.4	0.4	37.7	0.5	633.04	0.31
15.40	0.4	0.4	37.6	0.5	633.04	0.31
15.50	0.4	0.4	37.5	0.4	633.03	0.31
15.60	0.3	0.4	37.5	0.4	633.03	0.31
15.70	0.3	0.3	37.4	0.4	633.03	0.31
15.80	0.3	0.3	37.3	0.4	633.03	0.31
15.90	0.3	0.3	37.2	0.4	633.03	0.31
16.00	0.3	0.3	37.1	0.4	633.02	0.30
16.10	0.3	0.3	37.0	0.4	633.02	0.30
16.20	0.3	0.3	36.9	0.4	633.02	0.30
16.30	0.3	0.3	36.8	0.3	633.02	0.30
16.40	0.3	0.3	36.8	0.3	633.02	0.30
16.50	0.3	0.3	36.8	0.3	633.02	0.30
16.60	0.3	0.3	36.8	0.3	633.02	0.30
16.70	0.2	0.3	36.8	0.3	633.02	0.30
16.80	0.2	0.2	36.7	0.3	633.01	0.30
16.90	0.2	0.2	36.6	0.3	633.01	0.30
17.00	0.2	0.2	36.5	0.3	633.01	0.30
17.10	0.2	0.2	36.4	0.3	633.01	0.30
17.20	0.2	0.2	36.3	0.3	633.00	0.30
17.30	0.2	0.2	36.2	0.3	633.00	0.30
17.40	0.2	0.2	36.1	0.2	633.00	0.30
17.50	0.2	0.2	36.1	0.2	633.00	0.30
17.60	0.2	0.2	36.1	0.2	633.00	0.30
17.70	0.2	0.2	36.1	0.2	633.00	0.30
17.80	0.2	0.2	36.1	0.2	633.00	0.30
17.90	0.2	0.2	36.1	0.2	633.00	0.30
18.00	0.2	0.2	36.1	0.2	633.00	0.30

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 6 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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HYDROGRAPH #APR-1  
POND #PONDA15  
STORM FREQUENCY: 1 YRS.

SUMMARY OF POND ROUTING RESULTS

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PEAK INFLOW : 5.2 CFS @ T = 12.40 HRS.  
PEAK DISCHARGE : 0.6 CFS @ T = 13.50 HRS.  
PEAK STORAGE VOLUME : 0.32 AC.FT.  
PEAK STORAGE ELEVATION : 633.06  
FREEBOARD : 3.94 FT.

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TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 1 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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Hydrograph Name: APR-2

Storm Data

Drainage Area Data

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Frequency : 2 Yrs.  
Rainfall : 3.50 In.  
Runoff : 1.30 In.

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Area: 8.1 Ac. T.C.: 0.30 Hrs.  
CN : 75 Ia/P: 0.10  
\*\*\* Hydrograph Status: Valid \*\*\*

Time (Hrs)	Flow (CFS)						
11.00	0.4	13.60	1.0	16.20	0.4	18.80	0.2
11.10	0.4	13.70	1.0	16.30	0.4	18.90	0.2
11.20	0.5	13.80	1.0	16.40	0.4	19.00	0.2
11.30	0.5	13.90	0.9	16.50	0.4	19.10	0.2
11.40	0.6	14.00	0.9	16.60	0.4	19.20	0.2
11.50	0.7	14.10	0.9	16.70	0.4	19.30	0.2
11.60	0.7	14.20	0.8	16.80	0.4	19.40	0.2
11.70	0.9	14.30	0.8	16.90	0.4	19.50	0.2
11.80	1.2	14.40	0.8	17.00	0.4	19.60	0.2
11.90	1.4	14.50	0.7	17.10	0.4	19.70	0.2
12.00	2.0	14.60	0.7	17.20	0.3	19.80	0.2
12.10	3.0	14.70	0.7	17.30	0.3	19.90	0.2
12.20	4.7	14.80	0.7	17.40	0.3	20.00	0.2
12.30	7.3	14.90	0.7	17.50	0.3	20.10	0.2
12.40	8.2	15.00	0.6	17.60	0.3	20.20	0.2
12.50	7.4	15.10	0.6	17.70	0.3	20.30	0.2
12.60	5.9	15.20	0.6	17.80	0.3	20.40	0.2
12.70	4.6	15.30	0.6	17.90	0.3	20.50	0.2
12.80	3.4	15.40	0.6	18.00	0.3	20.60	0.2
12.90	2.7	15.50	0.6	18.10	0.3	20.70	0.2
13.00	1.9	15.60	0.5	18.20	0.3	20.80	0.2
13.10	1.7	15.70	0.5	18.30	0.3	20.90	0.2
13.20	1.4	15.80	0.5	18.40	0.3	21.00	0.2
13.30	1.3	15.90	0.5	18.50	0.3		
13.40	1.2	16.00	0.5	18.60	0.2		
13.50	1.1	16.10	0.5	18.70	0.2		

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 2 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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WORKING CURVE  
FOR POND NO.PONDA15

DT= 0.10 HRS

ELEV (FT)	DISC. (CFS)	STORAGE		O2/2 (CFS)	S2/DT (CFS)	S2/DT+O2/2 (CFS)
		S2 (AC FT)	S2 (CFS-HRS)			
632.00	0.0	0.00	0.0	0.0	0.0	0.0
633.00	0.2	0.30	3.6	0.1	36.0	36.1
634.00	6.2	0.62	7.5	3.1	75.0	78.1
635.00	8.8	0.99	12.0	4.4	120.0	124.4
636.00	10.7	1.44	17.4	5.4	174.0	179.4
637.00	12.4	1.97	23.8	6.2	238.0	244.2

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 3 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-2  
POND #PONDA15  
STORM FREQUENCY: 2 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
11.00	0.4	0.2	0.2	0.0	632.01	0.00
11.10	0.4	0.4	0.6	0.0	632.02	0.00
11.20	0.5	0.5	1.1	0.0	632.03	0.01
11.30	0.5	0.5	1.6	0.0	632.04	0.01
11.40	0.6	0.6	2.2	0.0	632.06	0.02
11.50	0.7	0.7	2.9	0.0	632.08	0.02
11.60	0.7	0.7	3.6	0.0	632.10	0.03
11.70	0.9	0.8	4.4	0.0	632.12	0.04
11.80	1.2	1.1	5.5	0.0	632.15	0.05
11.90	1.4	1.3	6.8	0.0	632.19	0.06
12.00	2.0	1.7	8.5	0.1	632.24	0.07
12.10	3.0	2.5	10.9	0.1	632.30	0.09
12.20	4.7	3.9	14.7	0.1	632.41	0.12
12.30	7.3	6.0	20.6	0.1	632.57	0.17
12.40	8.2	7.8	28.3	0.2	632.78	0.23
12.50	7.4	7.8	35.9	0.2	632.99	0.30
12.60	5.9	6.7	42.4	1.1	633.15	0.35
12.70	4.6	5.3	46.6	1.7	633.25	0.38
12.80	3.4	4.0	48.9	2.1	633.30	0.40
12.90	2.7	3.1	49.9	2.2	633.33	0.40
13.00	1.9	2.3	50.0	2.2	633.33	0.40
13.10	1.7	1.8	49.6	2.2	633.32	0.40
13.20	1.4	1.6	49.0	2.1	633.31	0.40
13.30	1.3	1.3	48.2	2.0	633.29	0.39
13.40	1.2	1.3	47.5	1.9	633.27	0.38
13.50	1.1	1.2	46.8	1.8	633.25	0.38
13.60	1.0	1.1	46.1	1.7	633.24	0.37
13.70	1.0	1.0	45.4	1.6	633.22	0.37
13.80	1.0	1.0	44.8	1.5	633.21	0.36
13.90	0.9	1.0	44.3	1.4	633.20	0.36
14.00	0.9	0.9	43.8	1.3	633.18	0.36
14.10	0.9	0.9	43.4	1.3	633.17	0.35
14.20	0.8	0.9	43.0	1.2	633.16	0.35
14.30	0.8	0.8	42.6	1.2	633.15	0.35
14.40	0.8	0.8	42.2	1.1	633.15	0.34

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 4 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-2  
POND #PONDA15  
STORM FREQUENCY: 2 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
14.60	0.7	0.7	41.5	1.0	633.13	0.34
14.70	0.7	0.7	41.2	1.0	633.12	0.34
14.80	0.7	0.7	40.9	0.9	633.11	0.33
14.90	0.7	0.7	40.7	0.9	633.11	0.33
15.00	0.6	0.7	40.5	0.9	633.10	0.33
15.10	0.6	0.6	40.2	0.8	633.10	0.33
15.20	0.6	0.6	40.0	0.8	633.09	0.33
15.30	0.6	0.6	39.8	0.8	633.09	0.33
15.40	0.6	0.6	39.6	0.7	633.08	0.32
15.50	0.6	0.6	39.5	0.7	633.08	0.32
15.60	0.5	0.6	39.4	0.7	633.08	0.32
15.70	0.5	0.5	39.2	0.7	633.07	0.32
15.80	0.5	0.5	39.0	0.7	633.07	0.32
15.90	0.5	0.5	38.8	0.6	633.06	0.32
16.00	0.5	0.5	38.7	0.6	633.06	0.32
16.10	0.5	0.5	38.6	0.6	633.06	0.32
16.20	0.4	0.5	38.5	0.6	633.06	0.32
16.30	0.4	0.4	38.3	0.6	633.05	0.31
16.40	0.4	0.4	38.1	0.5	633.05	0.31
16.50	0.4	0.4	38.0	0.5	633.05	0.31
16.60	0.4	0.4	37.9	0.5	633.04	0.31
16.70	0.4	0.4	37.8	0.5	633.04	0.31
16.80	0.4	0.4	37.7	0.5	633.04	0.31
16.90	0.4	0.4	37.6	0.5	633.04	0.31
17.00	0.4	0.4	37.5	0.4	633.03	0.31
17.10	0.4	0.4	37.5	0.4	633.03	0.31
17.20	0.3	0.4	37.5	0.4	633.03	0.31
17.30	0.3	0.3	37.4	0.4	633.03	0.31
17.40	0.3	0.3	37.3	0.4	633.03	0.31
17.50	0.3	0.3	37.2	0.4	633.03	0.31
17.60	0.3	0.3	37.1	0.4	633.02	0.30
17.70	0.3	0.3	37.0	0.4	633.02	0.30
17.80	0.3	0.3	36.9	0.4	633.02	0.30
17.90	0.3	0.3	36.8	0.3	633.02	0.30
18.00	0.3	0.3	36.8	0.3	633.02	0.30

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 5 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-2  
POND #PONDA15  
STORM FREQUENCY: 2 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
18.20	0.3	0.3	36.8	0.3	633.02	0.30
18.30	0.3	0.3	36.8	0.3	633.02	0.30
18.40	0.3	0.3	36.8	0.3	633.02	0.30
18.50	0.3	0.3	36.8	0.3	633.02	0.30
18.60	0.2	0.3	36.8	0.3	633.02	0.30
18.70	0.2	0.2	36.7	0.3	633.01	0.30
18.80	0.2	0.2	36.6	0.3	633.01	0.30
18.90	0.2	0.2	36.5	0.3	633.01	0.30
19.00	0.2	0.2	36.4	0.3	633.01	0.30
19.10	0.2	0.2	36.3	0.3	633.00	0.30
19.20	0.2	0.2	36.2	0.3	633.00	0.30
19.30	0.2	0.2	36.1	0.2	633.00	0.30
19.40	0.2	0.2	36.1	0.2	633.00	0.30
19.50	0.2	0.2	36.1	0.2	633.00	0.30
19.60	0.2	0.2	36.1	0.2	633.00	0.30
19.70	0.2	0.2	36.1	0.2	633.00	0.30
19.80	0.2	0.2	36.1	0.2	633.00	0.30
19.90	0.2	0.2	36.1	0.2	633.00	0.30
20.00	0.2	0.2	36.1	0.2	633.00	0.30
20.10	0.2	0.2	36.1	0.2	633.00	0.30
20.20	0.2	0.2	36.1	0.2	633.00	0.30
20.30	0.2	0.2	36.1	0.2	633.00	0.30
20.40	0.2	0.2	36.1	0.2	633.00	0.30
20.50	0.2	0.2	36.1	0.2	633.00	0.30
20.60	0.2	0.2	36.1	0.2	633.00	0.30
20.70	0.2	0.2	36.1	0.2	633.00	0.30
20.80	0.2	0.2	36.1	0.2	633.00	0.30
20.90	0.2	0.2	36.1	0.2	633.00	0.30
21.00	0.2	0.2	36.1	0.2	633.00	0.30

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 6 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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HYDROGRAPH #APR-2  
POND #PONDA15  
STORM FREQUENCY: 2 YRS.

SUMMARY OF POND ROUTING RESULTS

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PEAK INFLOW	:	8.2 CFS	@	T =	12.40 HRS.
PEAK DISCHARGE	:	2.2 CFS	@	T =	12.90 HRS.
PEAK STORAGE VOLUME	:	0.40 AC.FT.			
PEAK STORAGE ELEVATION	:	633.33			
FREEBOARD	:	3.67 FT.			

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TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 1 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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Hydrograph Name: APR-10

Storm Data

Drainage Area Data

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Frequency : 10 Yrs.  
Rainfall : 6.00 In.  
Runoff : 3.28 In.

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Area: 8.1 Ac. T.C.: 0.30 Hrs.  
CN : 75 Ia/P: 0.10  
\*\*\*\* Hydrograph Status: Valid \*\*\*\*

Time (Hrs)	Flow (CFS)	Time (Hrs)	Flow (CFS)	Time (Hrs)	Flow (CFS)	Time (Hrs)	Flow (CFS)
11.00	1.0	13.60	2.6	16.20	1.1	18.80	0.6
11.10	1.1	13.70	2.5	16.30	1.1	18.90	0.6
11.20	1.2	13.80	2.4	16.40	1.0	19.00	0.6
11.30	1.3	13.90	2.3	16.50	1.0	19.10	0.6
11.40	1.5	14.00	2.2	16.60	1.0	19.20	0.6
11.50	1.7	14.10	2.2	16.70	1.0	19.30	0.6
11.60	1.8	14.20	2.1	16.80	1.0	19.40	0.6
11.70	2.4	14.30	2.0	16.90	0.9	19.50	0.6
11.80	3.0	14.40	2.0	17.00	0.9	19.60	0.5
11.90	3.5	14.50	1.9	17.10	0.9	19.70	0.5
12.00	5.2	14.60	1.8	17.20	0.9	19.80	0.5
12.10	7.5	14.70	1.8	17.30	0.9	19.90	0.5
12.20	11.9	14.80	1.7	17.40	0.8	20.00	0.5
12.30	18.4	14.90	1.7	17.50	0.8	20.10	0.5
12.40	20.7	15.00	1.6	17.60	0.8	20.20	0.5
12.50	18.8	15.10	1.6	17.70	0.8	20.30	0.5
12.60	14.9	15.20	1.5	17.80	0.7	20.40	0.5
12.70	11.5	15.30	1.5	17.90	0.7	20.50	0.5
12.80	8.5	15.40	1.5	18.00	0.7	20.60	0.5
12.90	6.7	15.50	1.4	18.10	0.7	20.70	0.5
13.00	4.9	15.60	1.4	18.20	0.7	20.80	0.5
13.10	4.3	15.70	1.3	18.30	0.7	20.90	0.5
13.20	3.6	15.80	1.3	18.40	0.7	21.00	0.5
13.30	3.3	15.90	1.2	18.50	0.7		
13.40	2.9	16.00	1.2	18.60	0.6		
13.50	2.8	16.10	1.2	18.70	0.6		

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 2 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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WORKING CURVE  
FOR POND NO.PONDA15

DT= 0.10 HRS

ELEV (FT)	DISC. (CFS)	STORAGE		O2/2 (CFS)	S2/DT (CFS)	S2/DT+O2/2 (CFS)
		S2 (AC FT)	S2 (CFS-HRS)			
632.00	0.0	0.00	0.0	0.0	0.0	0.0
633.00	0.2	0.30	3.6	0.1	36.0	36.1
634.00	6.2	0.62	7.5	3.1	75.0	78.1
635.00	8.8	0.99	12.0	4.4	120.0	124.4
636.00	10.7	1.44	17.4	5.4	174.0	179.4
637.00	12.4	1.97	23.8	6.2	238.0	244.2

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 3 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-10  
POND #PONDA15  
STORM FREQUENCY: 10 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
11.00	1.0	0.5	0.5	0.0	632.01	0.00
11.10	1.1	1.1	1.6	0.0	632.04	0.01
11.20	1.2	1.2	2.8	0.0	632.08	0.02
11.30	1.3	1.3	4.1	0.0	632.11	0.03
11.40	1.5	1.4	5.5	0.0	632.15	0.05
11.50	1.7	1.6	7.1	0.0	632.20	0.06
11.60	1.8	1.8	8.9	0.1	632.25	0.07
11.70	2.4	2.1	10.9	0.1	632.30	0.09
11.80	3.0	2.7	13.5	0.1	632.37	0.11
11.90	3.5	3.3	16.7	0.1	632.46	0.14
12.00	5.2	4.4	21.0	0.1	632.58	0.17
12.10	7.5	6.4	27.3	0.2	632.76	0.22
12.20	11.9	9.7	36.8	0.3	633.02	0.30
12.30	18.4	15.2	51.7	2.5	633.37	0.42
12.40	20.7	19.6	68.8	4.9	633.78	0.55
12.50	18.8	19.8	83.7	6.5	634.12	0.66
12.60	14.9	16.8	94.0	7.1	634.34	0.75
12.70	11.5	13.2	100.1	7.4	634.48	0.80
12.80	8.5	10.0	102.7	7.6	634.53	0.82
12.90	6.7	7.6	102.7	7.6	634.53	0.82
13.00	4.9	5.8	100.9	7.5	634.49	0.80
13.10	4.3	4.6	98.0	7.3	634.43	0.78
13.20	3.6	4.0	94.7	7.1	634.36	0.75
13.30	3.3	3.5	91.1	7.0	634.28	0.72
13.40	2.9	3.1	87.2	6.7	634.20	0.69
13.50	2.8	2.9	83.4	6.5	634.11	0.66
13.60	2.6	2.7	79.6	6.3	634.03	0.63
13.70	2.5	2.6	75.9	5.9	633.95	0.60
13.80	2.4	2.5	72.5	5.4	633.87	0.58
13.90	2.3	2.4	69.5	5.0	633.80	0.55
14.00	2.2	2.3	66.8	4.6	633.73	0.53
14.10	2.2	2.2	64.4	4.3	633.67	0.51
14.20	2.1	2.2	62.3	4.0	633.62	0.50
14.30	2.0	2.1	60.4	3.7	633.58	0.48
14.40	2.0	2.0	58.7	3.5	633.54	0.47

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 4 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-10  
POND #PONDA15  
STORM FREQUENCY: 10 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
14.60	1.8	1.9	55.8	3.1	633.47	0.45
14.70	1.8	1.8	54.5	2.9	633.44	0.44
14.80	1.7	1.8	53.4	2.7	633.41	0.43
14.90	1.7	1.7	52.4	2.6	633.39	0.42
15.00	1.6	1.7	51.5	2.4	633.37	0.42
15.10	1.6	1.6	50.7	2.3	633.35	0.41
15.20	1.5	1.6	50.0	2.2	633.33	0.40
15.30	1.5	1.5	49.3	2.1	633.31	0.40
15.40	1.5	1.5	48.7	2.0	633.30	0.39
15.50	1.4	1.5	48.2	2.0	633.29	0.39
15.60	1.4	1.4	47.6	1.9	633.27	0.39
15.70	1.3	1.3	47.0	1.8	633.26	0.38
15.80	1.3	1.3	46.5	1.7	633.25	0.38
15.90	1.2	1.3	46.1	1.7	633.24	0.37
16.00	1.2	1.2	45.6	1.6	633.23	0.37
16.10	1.2	1.2	45.2	1.5	633.22	0.37
16.20	1.1	1.2	44.9	1.5	633.21	0.36
16.30	1.1	1.1	44.5	1.4	633.20	0.36
16.40	1.0	1.1	44.2	1.4	633.19	0.36
16.50	1.0	1.0	43.8	1.3	633.18	0.36
16.60	1.0	1.0	43.5	1.3	633.18	0.35
16.70	1.0	1.0	43.2	1.3	633.17	0.35
16.80	1.0	1.0	42.9	1.2	633.16	0.35
16.90	0.9	1.0	42.7	1.2	633.16	0.35
17.00	0.9	0.9	42.4	1.1	633.15	0.35
17.10	0.9	0.9	42.2	1.1	633.15	0.34
17.20	0.9	0.9	42.0	1.1	633.14	0.34
17.30	0.9	0.9	41.8	1.1	633.14	0.34
17.40	0.8	0.9	41.6	1.0	633.13	0.34
17.50	0.8	0.8	41.4	1.0	633.13	0.34
17.60	0.8	0.8	41.2	1.0	633.12	0.34
17.70	0.8	0.8	41.0	0.9	633.12	0.34
17.80	0.7	0.8	40.9	0.9	633.11	0.33
17.90	0.7	0.7	40.7	0.9	633.11	0.33
18.00	0.7	0.7	40.5	0.9	633.10	0.33

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 5 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

=====

POND ROUTING

HYDROGRAPH #APR-10  
POND #PONDA15  
STORM FREQUENCY: 10 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
18.20	0.7	0.7	40.2	0.8	633.10	0.33
18.30	0.7	0.7	40.1	0.8	633.10	0.33
18.40	0.7	0.7	40.0	0.8	633.09	0.33
18.50	0.7	0.7	39.9	0.8	633.09	0.33
18.60	0.6	0.7	39.8	0.8	633.09	0.33
18.70	0.6	0.6	39.6	0.7	633.08	0.32
18.80	0.6	0.6	39.5	0.7	633.08	0.32
18.90	0.6	0.6	39.4	0.7	633.08	0.32
19.00	0.6	0.6	39.3	0.7	633.08	0.32
19.10	0.6	0.6	39.2	0.7	633.07	0.32
19.20	0.6	0.6	39.1	0.7	633.07	0.32
19.30	0.6	0.6	39.0	0.7	633.07	0.32
19.40	0.6	0.6	38.9	0.6	633.07	0.32
19.50	0.6	0.6	38.9	0.6	633.07	0.32
19.60	0.5	0.6	38.9	0.6	633.07	0.32
19.70	0.5	0.5	38.8	0.6	633.06	0.32
19.80	0.5	0.5	38.7	0.6	633.06	0.32
19.90	0.5	0.5	38.6	0.6	633.06	0.32
20.00	0.5	0.5	38.5	0.6	633.06	0.32
20.10	0.5	0.5	38.4	0.6	633.05	0.31
20.20	0.5	0.5	38.3	0.6	633.05	0.31
20.30	0.5	0.5	38.2	0.5	633.05	0.31
20.40	0.5	0.5	38.2	0.5	633.05	0.31
20.50	0.5	0.5	38.2	0.5	633.05	0.31
20.60	0.5	0.5	38.2	0.5	633.05	0.31
20.70	0.5	0.5	38.2	0.5	633.05	0.31
20.80	0.5	0.5	38.2	0.5	633.05	0.31
20.90	0.5	0.5	38.2	0.5	633.05	0.31
21.00	0.5	0.5	38.2	0.5	633.05	0.31

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 6 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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HYDROGRAPH #APR-10  
POND #PONDA15  
STORM FREQUENCY: 10 YRS.

SUMMARY OF POND ROUTING RESULTS

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PEAK INFLOW	:	20.7 CFS	@	T =	12.40 HRS.
PEAK DISCHARGE	:	7.6 CFS	@	T =	12.80 HRS.
PEAK STORAGE VOLUME	:	0.82 AC.FT.			
PEAK STORAGE ELEVATION	:	634.53			
FREEBOARD	:	2.47 FT.			

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TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 1 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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Hydrograph Name: APR-100

Storm Data

Drainage Area Data

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Frequency : 100 Yrs.  
Rainfall : 8.00 In.  
Runoff : 5.04 In.

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Area: 8.1 Ac. T.C.: 0.30 Hrs.  
CN : 75 Ia/P: 0.10  
\*\*\*\* Hydrograph Status: Valid \*\*\*\*

Time (Hrs)	Flow (CFS)	Time (Hrs)	Flow (CFS)	Time (Hrs)	Flow (CFS)	Time (Hrs)	Flow (CFS)
11.00	1.6	13.60	4.0	16.20	1.7	18.80	1.0
11.10	1.7	13.70	3.9	16.30	1.7	18.90	0.9
11.20	1.9	13.80	3.7	16.40	1.6	19.00	0.9
11.30	2.0	13.90	3.6	16.50	1.5	19.10	0.9
11.40	2.2	14.00	3.5	16.60	1.5	19.20	0.9
11.50	2.6	14.10	3.3	16.70	1.5	19.30	0.9
11.60	2.8	14.20	3.2	16.80	1.5	19.40	0.9
11.70	3.6	14.30	3.1	16.90	1.4	19.50	0.9
11.80	4.5	14.40	3.0	17.00	1.4	19.60	0.8
11.90	5.4	14.50	2.9	17.10	1.4	19.70	0.8
12.00	7.9	14.60	2.8	17.20	1.3	19.80	0.8
12.10	11.6	14.70	2.7	17.30	1.3	19.90	0.8
12.20	18.4	14.80	2.7	17.40	1.3	20.00	0.8
12.30	28.2	14.90	2.6	17.50	1.3	20.10	0.8
12.40	31.8	15.00	2.5	17.60	1.2	20.20	0.8
12.50	28.8	15.10	2.4	17.70	1.2	20.30	0.8
12.60	22.9	15.20	2.4	17.80	1.2	20.40	0.8
12.70	17.6	15.30	2.3	17.90	1.2	20.50	0.8
12.80	13.0	15.40	2.2	18.00	1.1	20.60	0.8
12.90	10.3	15.50	2.2	18.10	1.1	20.70	0.8
13.00	7.5	15.60	2.1	18.20	1.0	20.80	0.8
13.10	6.6	15.70	2.0	18.30	1.0	20.90	0.8
13.20	5.6	15.80	2.0	18.40	1.0	21.00	0.8
13.30	5.1	15.90	1.9	18.50	1.0		
13.40	4.5	16.00	1.9	18.60	1.0		
13.50	4.3	16.10	1.8	18.70	1.0		

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

SHEET 2 OF

TYPE OF CALCULATION: STORM WATER MANAGEMENT

COMPUTED BY: CTB

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

CHECKED BY : CTB

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WORKING CURVE  
FOR POND NO.PONDA15

DT= 0.10 HRS

ELEV (FT)	DISC. (CFS)	STORAGE		O2/2 (CFS)	S2/DT (CFS)	S2/DT+O2/2 (CFS)
		S2 (AC FT)	S2 (CFS-HRS)			
632.00	0.0	0.00	0.0	0.0	0.0	0.0
633.00	0.2	0.30	3.6	0.1	36.0	36.1
634.00	6.2	0.62	7.5	3.1	75.0	78.1
635.00	8.8	0.99	12.0	4.4	120.0	124.4
636.00	10.7	1.44	17.4	5.4	174.0	179.4
637.00	12.4	1.97	23.8	6.2	238.0	244.2

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 3 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-100  
POND #PONDA15  
STORM FREQUENCY: 100 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
11.00	1.6	0.8	0.8	0.0	632.02	0.01
11.10	1.7	1.7	2.5	0.0	632.07	0.02
11.20	1.9	1.8	4.3	0.0	632.12	0.04
11.30	2.0	2.0	6.3	0.0	632.17	0.05
11.40	2.2	2.1	8.4	0.1	632.23	0.07
11.50	2.6	2.4	10.7	0.1	632.30	0.09
11.60	2.8	2.7	13.3	0.1	632.37	0.11
11.70	3.6	3.2	16.4	0.1	632.45	0.14
11.80	4.5	4.1	20.4	0.1	632.57	0.17
11.90	5.4	5.0	25.3	0.2	632.70	0.21
12.00	7.9	6.7	31.8	0.2	632.88	0.26
12.10	11.6	9.8	41.4	1.0	633.13	0.34
12.20	18.4	15.0	55.4	3.0	633.46	0.45
12.30	28.2	23.3	75.7	5.9	633.94	0.60
12.40	31.8	30.0	99.8	7.4	634.47	0.79
12.50	28.8	30.3	122.7	8.7	634.96	0.98
12.60	22.9	25.9	139.9	9.3	635.28	1.12
12.70	17.6	20.3	150.9	9.7	635.48	1.21
12.80	13.0	15.3	156.5	9.9	635.58	1.25
12.90	10.3	11.7	158.3	10.0	635.62	1.27
13.00	7.5	8.9	157.2	9.9	635.60	1.26
13.10	6.6	7.1	154.4	9.8	635.55	1.24
13.20	5.6	6.1	150.7	9.7	635.48	1.21
13.30	5.1	5.4	146.4	9.5	635.40	1.17
13.40	4.5	4.8	141.7	9.4	635.31	1.13
13.50	4.3	4.4	136.7	9.2	635.22	1.09
13.60	4.0	4.2	131.7	9.0	635.13	1.05
13.70	3.9	4.0	126.7	8.9	635.04	1.01
13.80	3.7	3.8	121.6	8.6	634.94	0.97
13.90	3.6	3.7	116.7	8.3	634.83	0.93
14.00	3.5	3.6	112.0	8.1	634.73	0.89
14.10	3.3	3.4	107.3	7.8	634.63	0.85
14.20	3.2	3.3	102.8	7.6	634.53	0.82
14.30	3.1	3.2	98.4	7.3	634.44	0.78
14.40	3.0	3.1	94.2	7.1	634.35	0.75

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 5 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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POND ROUTING

HYDROGRAPH #APR-100  
POND #PONDA15  
STORM FREQUENCY: 100 YRS.

TIME (HRS)	INFLOW (CFS)	AVG INFLOW (CFS)	S2/DT+O2/2 (CFS)	OUTFLOW (CFS)	WATER ELEV (FT)	STORAGE (AC FT)
18.20	1.0	1.1	43.5	1.3	633.18	0.35
18.30	1.0	1.0	43.2	1.3	633.17	0.35
18.40	1.0	1.0	42.9	1.2	633.16	0.35
18.50	1.0	1.0	42.7	1.2	633.16	0.35
18.60	1.0	1.0	42.5	1.2	633.15	0.35
18.70	1.0	1.0	42.3	1.1	633.15	0.35
18.80	1.0	1.0	42.2	1.1	633.15	0.34
18.90	0.9	1.0	42.1	1.1	633.14	0.34
19.00	0.9	0.9	41.9	1.1	633.14	0.34
19.10	0.9	0.9	41.7	1.0	633.13	0.34
19.20	0.9	0.9	41.6	1.0	633.13	0.34
19.30	0.9	0.9	41.5	1.0	633.13	0.34
19.40	0.9	0.9	41.4	1.0	633.13	0.34
19.50	0.9	0.9	41.3	1.0	633.12	0.34
19.60	0.8	0.9	41.2	1.0	633.12	0.34
19.70	0.8	0.8	41.0	0.9	633.12	0.34
19.80	0.8	0.8	40.9	0.9	633.11	0.33
19.90	0.8	0.8	40.8	0.9	633.11	0.33
20.00	0.8	0.8	40.7	0.9	633.11	0.33
20.10	0.8	0.8	40.6	0.9	633.11	0.33
20.20	0.8	0.8	40.5	0.9	633.10	0.33
20.30	0.8	0.8	40.4	0.9	633.10	0.33
20.40	0.8	0.8	40.3	0.8	633.10	0.33
20.50	0.8	0.8	40.3	0.8	633.10	0.33
20.60	0.8	0.8	40.3	0.8	633.10	0.33
20.70	0.8	0.8	40.3	0.8	633.10	0.33
20.80	0.8	0.8	40.3	0.8	633.10	0.33
20.90	0.8	0.8	40.3	0.8	633.10	0.33
21.00	0.8	0.8	40.3	0.8	633.10	0.33

TACONIC DESIGN

PROJECT : CRONK II SUBDIVISION

JOB NO.: 14199

LOCATION: CRONK ROAD  
TOWN OF NEWBURGH, NY

DATE :09-03-15

TYPE OF CALCULATION: STORM WATER MANAGEMENT

SHEET 6 OF

COMMENTS: TYPE III DISTRIBUTION  
SOIL CONSERVATION SERVICE METHOD

COMPUTED BY: CTB

CHECKED BY : CTB

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HYDROGRAPH #APR-100  
POND #PONDA15  
STORM FREQUENCY: 100 YRS.

SUMMARY OF POND ROUTING RESULTS

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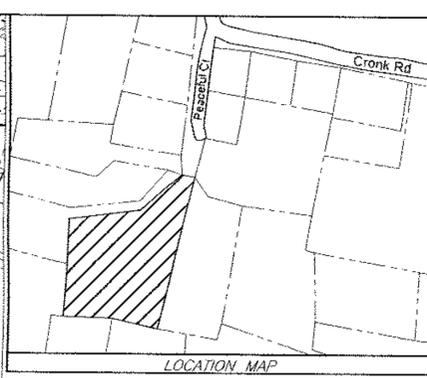
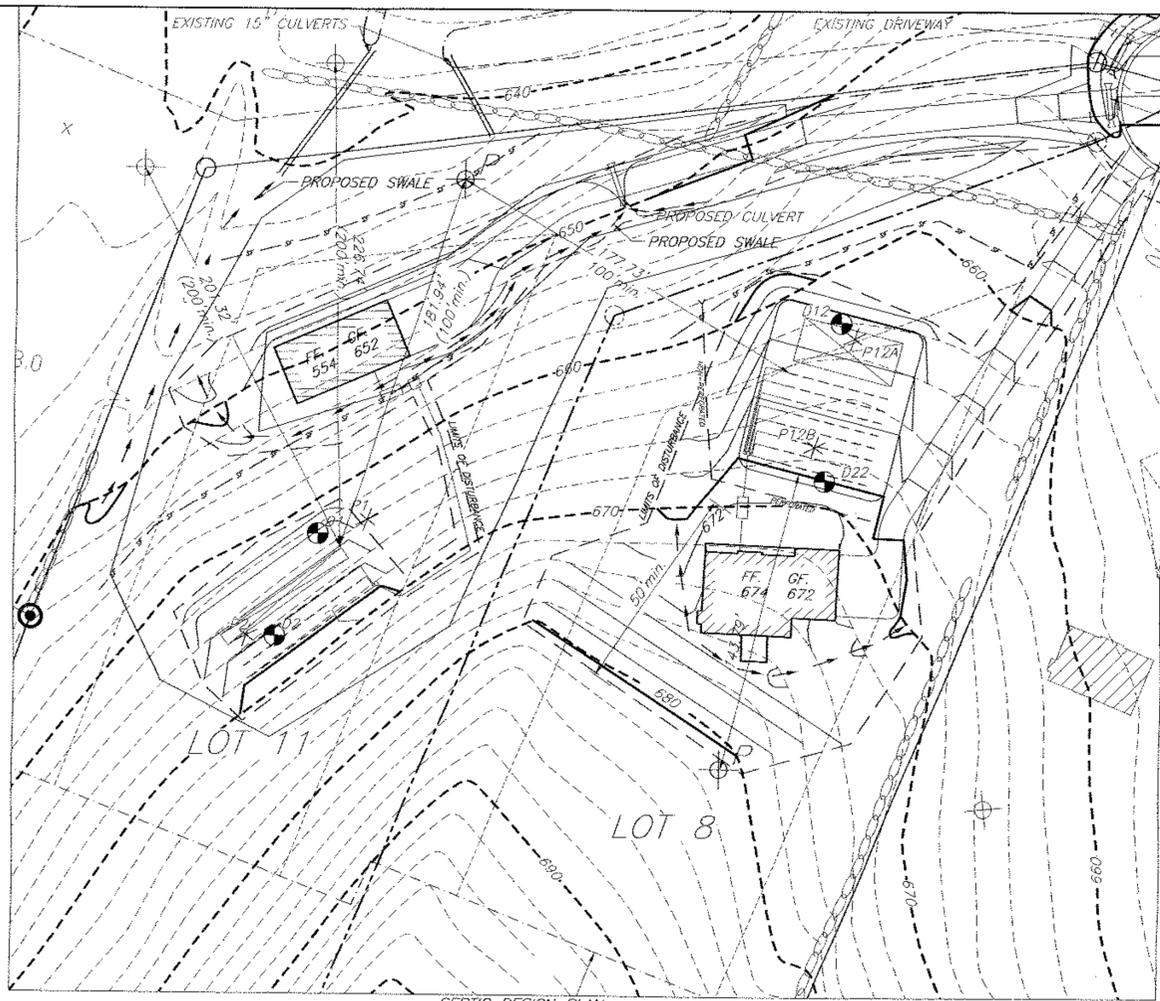
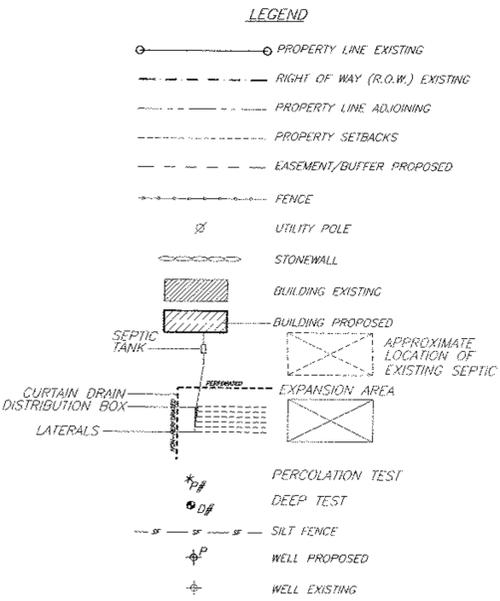
PEAK INFLOW	:	31.8 CFS	@ T =	12.40 HRS.
PEAK DISCHARGE	:	10.0 CFS	@ T =	12.90 HRS.
PEAK STORAGE VOLUME	:	1.27 AC.FT.		
PEAK STORAGE ELEVATION	:	635.62		
FREEBOARD	:	1.38 FT.		

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ZONE: AR DISTRICT	REQUIRED	LOT # 8 PROPOSED	LOT # 11 PROPOSED
MINIMUM LOT AREA	40,000 sf	111,326 SF±	113,242 SF±
MINIMUM YARDS (feet)			
FRONT	50'	115'	70'
REAR	50'	300'	360'
SIDE			
ONE	30'	61'	58'
BOTH	80'	150'	197'
MINIMUM LOT WIDTH (feet)	150'	211'	202'
MINIMUM LOT DEPTH (feet)	150'	530'	500'
MAXIMUM BUILDING COVERAGE (%)	10%	>1%	>1%
MAXIMUM IMPERVIOUS COVERAGE (%)	20%	3%	3%
MAXIMUM HEIGHT (feet)	35' MAX.	35' MAX.	35' MAX.
MINIMUM BUILDING AREA	10,000sf.	35,000sf.	35,000sf.
HABITABLE FLOOR AREA—PER DWELLING UNIT	900 SF MIN.	900 SF MIN.	900 SF MIN.

**MAP REFERENCES:**  
 1. EXISTING FEATURES PER A SUBDIVISION ENTITLED "CRONK ESTATE II" FILED IN ORANGE COUNTY AS FM# 164-12 ON JUNE 1, 2012.

**WORK HOURS**  
 MON-FRI 9AM-5PM  
 SAT-SUN NO WORK



**TOWN OF NEWBURGH CERTIFICATION:**  
 I HEREBY CERTIFY TO THE TOWN OF NEWBURGH THAT THE SEWERAGE SYSTEM DEPICTED ON THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE NEW YORK STATE PUBLIC HEALTH LAW AND ALL REGULATIONS PROMULGATED THEREUNDER."

**LOT 11:**  
 1. NO. OF BEDROOMS—3max  
 2. SEPTIC TANK DESIGN—1,250 gal.  
 3. STABILIZED PERCOLATION RATE—23min/inch  
 4. FLOW RATE (GALS /DAY)—330  
 5. DESIGN LENGTHS:  
 3 BEDROOMS  
 3 LATERALS @ 70' = 210f. (207f. required)\*  
 5. PUMP REQUIRED  
 6. FILL REQUIRED: 18" SHALLOW SYSTEM

**LOT 8: PER FM#164-12**  
 1. NO. OF BEDROOMS—4max  
 2. SEPTIC TANK DESIGN—1,250 gal.  
 3. STABILIZED PERCOLATION RATE—21min/inch  
 4. FLOW RATE (GALS /DAY)—440 (4 BEDROOM) ; 330 (3 BEDROOM)  
 5. DESIGN LENGTHS:  
 3 BEDROOMS  
 6 LATERALS @ 48' = 288f. (275f. required)  
 4 BEDROOMS  
 8 LATERALS @ 48' = 384f. (367f. required)  
 6. FILL REQUIRED: 18" SHALLOW SYSTEM  
 7. CURTAIN DRAIN REQUIRED

\* SEWAGE DISPOSAL SYSTEMS MUST BE CONSTRUCTED USING THE "DUKOR 4 EQUALIZER 36" AS MANUFACTURED BY INFILTRATOR SYSTEMS. SEE INFILTRATOR SYSTEMS NOTES THIS PAGE AND SYSTEM DETAILS ON SHEET 3.

NO.	DEPTH	DATE
D1	48" DEEP	12/15/14
0-11" TOPSOIL		
11"-48" CLAY LOAM		
DIGABLE SHALE @ 48"		
D2	60" DEEP	12/15/14
0-11" TOPSOIL		
11"-60" CLAY LOAM		
P1	12" DEEP	12/15/14
FINISH		
1	11:55	12:19
2	11:35	11:36
3	12:00	12:20
TIME		
1	0:20	0:23
STABILIZED PERCOLATION RATE: 23min/inch.		
P2	12" DEEP	12/15/14
FINISH		
1	11:41	11:47
2	11:36	11:42
3	12:04	12:17
4	11:48	12:05
5	12:05	12:18
TIME		
1	0:05	0:05
2	0:16	0:12
STABILIZED PERCOLATION RATE: 12min/inch.		

NO.	DEPTH	DATE
D12	36" DEEP	12/16/09
0-4" TOPSOIL		
4"-36" SILTY LOAM (SOME MOTTLING)		
ROCK @ 36", NO WATER		
D22	54" DEEP	04/20/10
0-8" TOPSOIL		
8"-54" SANDY LOAM		
ROCK @ 54", NO WATER		
P12A	12" DEEP	04/14/10
FINISH		
1	11:52	12:14
2	11:36	11:54
3	12:38	12:42
4	12:17	12:42
TIME		
1	0:16	0:20
2	0:21	0:21
STABILIZED PERCOLATION RATE: 21min/inch.		
P12B	12" DEEP	04/14/10
FINISH		
1	1:21	1:40
2	1:06	1:22
3	12:41	2:02
4	2:02	2:02
TIME		
1	0:15	0:18
2	0:20	0:20
STABILIZED PERCOLATION RATE: 20min/inch.		

**SURVEYOR'S CERTIFICATION**

I HEREBY CERTIFY THAT:  
 THIS MAP IS BASED UPON THE RESULTS AN ACTUAL SURVEY COMPLETED MAY 2011, FIELD NOTES AND OTHER REFERENCES SHOWN.  
 ALL RECORDED EASEMENTS OR RIGHTS-OF-WAY AS SHOWN IN THE TITLE REPORT AND OTHER REFERENCES ARE SHOWN.  
 ALL OBSERVABLE EVIDENCE OF EASEMENTS ON THE GROUND ARE SHOWN.  
 ALL OBSERVABLE, ABOVE GROUND EVIDENCE OF BUILDINGS, STRUCTURES AND OTHER IMPROVEMENTS ARE SHOWN.  
 UNAUTHORIZED ALTERATION TO A MAP BEARING A LICENSED PROFESSIONAL LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.  
 THIS CERTIFICATION IS NOT AN EXPRESS OR IMPLIED WARRANTY OR GUARANTEE. IT IS PURELY A STATEMENT OF PROFESSIONAL OPINION BASED ON KNOWLEDGE, INFORMATION AND BELIEF, BASED ON EXISTING FIELD EVIDENCE AND DOCUMENTARY EVIDENCE AVAILABLE.  
 CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTRUCTIONS OR SUBSEQUENT OWNERS.  
 PLAN PREPARED PURSUANT TO SECTION 7208m OF THE NEW YORK STATE EDUCATION LAW.  
 SUBJECT TO THE FINDINGS OF AN UP-TO-DATE TITLE SEARCH.

DARRIN J. STRIDIRON, PROFESSIONAL LAND SURVEYOR  
 NEW YORK STATE LICENSE No. 050487

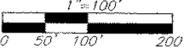
**LOT# 11 NOTES:**

SUBMISSION OF SEPTIC SYSTEM CERTIFICATION AND AS-BUILT TO THE TOWN OF NEWBURGH CODE COMPLIANCE DEPARTMENT IS REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR LOT 11.

**LOT# 8 NOTES:**

SUBMISSION OF SEPTIC SYSTEM CERTIFICATION AND AS-BUILT TO THE TOWN OF NEWBURGH CODE COMPLIANCE DEPARTMENT IS REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR LOT 8.

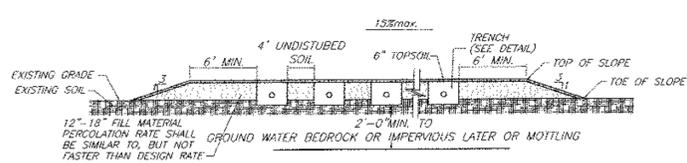
**LAYOUT PLAN:**



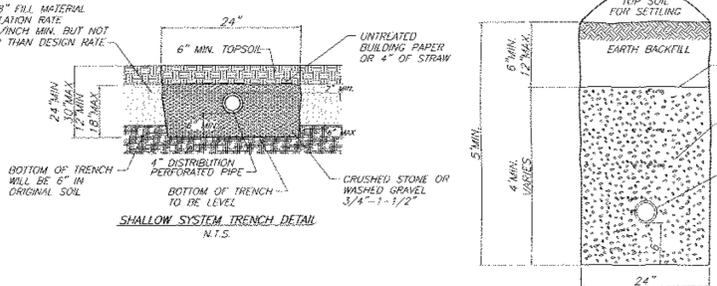
PLANNING BOARD# 2015-14  
 THIS SHEET IS INVALID AND VOID UNLESS ACCOMPANIED BY REMAINING SHEETS IN SET.

<b>SURVEYOR</b>	<b>ENGINEER</b>	<b>TALCOTT ENGINEERING DESIGN PLLC</b>
		1 GARDINERTOWN ROAD NEWBURGH, NY 12550 (845)-569-8400 (FAX)(845)-569-4583 TALCOTTDESIGN12@GMAIL.COM
<b>PROPOSED SUBDIVISION ENTITLED CRONK ESTATES III PEACEFUL COURT, SBL 1-2-17.24, LOT#8, FM# 164-12 TOWN OF NEWBURGH ORANGE COUNTY NY</b>		
DATE	SCALE	JOB NUMBER
06/10/15	AS NOTED	14139-GGD
		SHEET NUMBER
		1 OF 2

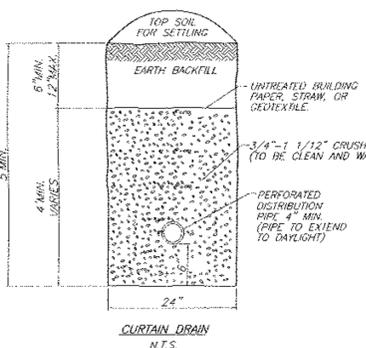
REVISIONS			
REV.	DATE	BY	DESCRIPTION
2	09/04/15 R.B.M.		PUBLIC HEARING
1	07/09/15 R.B.M.		PER PLANNING BOARD COMMENTS



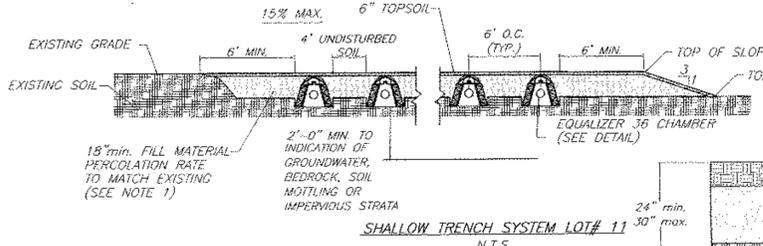
SHALLOW SYSTEM DETAIL  
N.T.S.



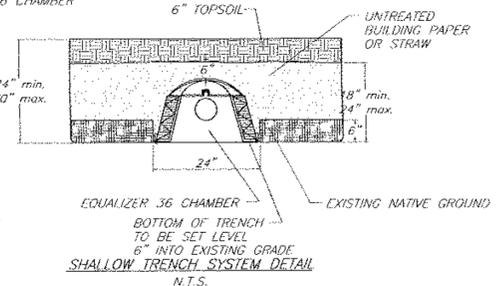
SHALLOW SYSTEM TRENCH DETAIL  
N.T.S.



CURTAIN DRAIN  
N.T.S.



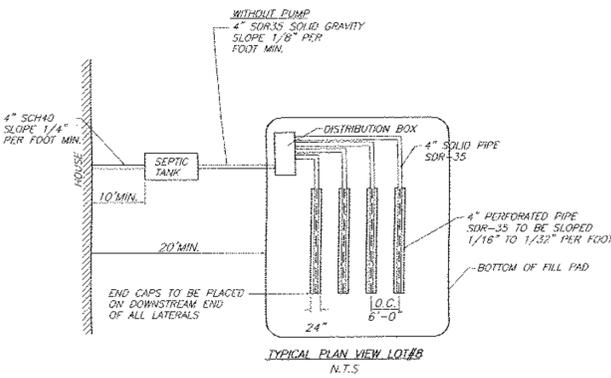
SHALLOW TRENCH SYSTEM LOT# 11  
N.T.S.



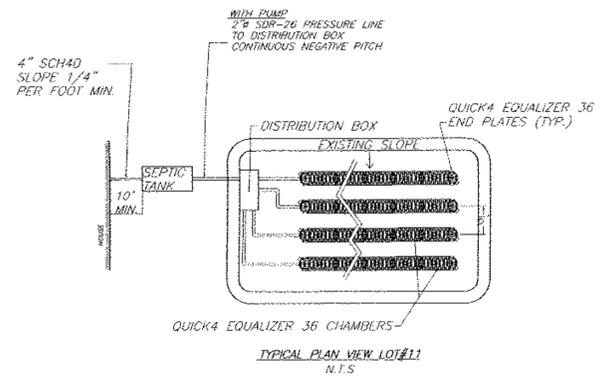
SHALLOW TRENCH SYSTEM DETAIL  
N.T.S.

**SHALLOW TRENCH SYSTEM NOTES:**

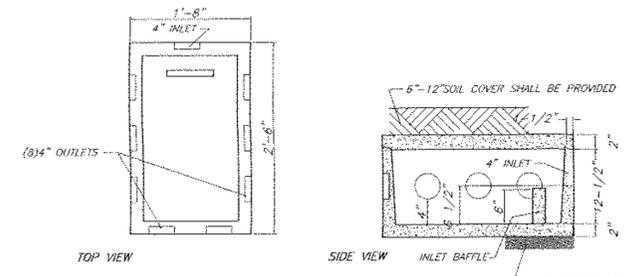
1. USABLE FILL SHOULD HAVE A PERCOLATION RATE SIMILAR TO BUT NOT FASTER THAN THE USABLE SOIL PERCOLATION RATE.
2. MAXIMUM DEPTH OF USABLE FILL PLUS SIX INCHES OF TOPSOIL SHALL NOT EXCEED 30".
3. TRENCH BOTTOMS SHALL BE LEVEL. TRENCHES SHALL BE PARALLEL TO GROUND CONTOURS.
4. ON SLOPED SITES, A DIVERSION DITCH SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT EROSION.
5. FILL SHALL EXTEND AT LEAST 5.5" BEYOND ENDS OF TRENCHES BEFORE STARTING TO GRAD 3 EDGES OF FILL.



TYPICAL PLAN VIEW LOT#8  
N.T.S.

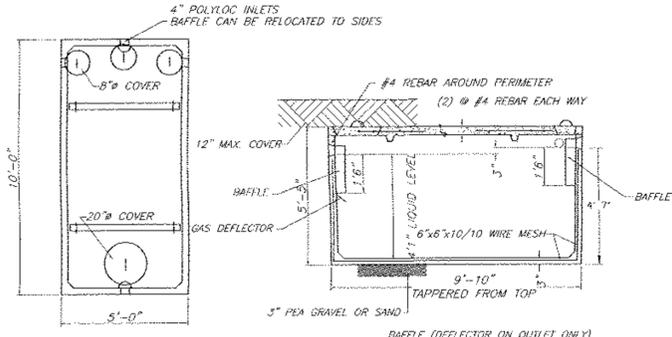


TYPICAL PLAN VIEW LOT#11  
N.T.S.



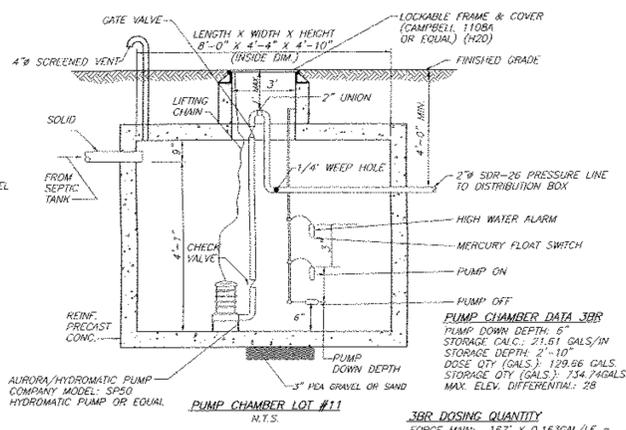
SPECIFICATIONS  
WOODARD'S PRECAST 8 OUTLET DISTRIBUTION BOX  
N.T.S.

CONCRETE MINIMUM STRENGTH - 4,000 PSI AT 28 DAYS  
REINFORCEMENT - FIBER  
AIR ENTRAPMENT - 5%  
PIPE CONNECTION - POLYLOK SEAL (PATENTED)  
LOAD RATING - 300 PSF WEIGHT = 280 lbs



SPECIFICATIONS  
WOODARD'S 1250gal SEPTIC TANK OR EQUAL  
N.T.S.

CONCRETE MINIMUM STRENGTH - 4,000 PSI AT 28 DAYS  
REINFORCEMENT - 6"x6" OGA. WW, #4 REBAR  
AIR ENTRAPMENT - 5%  
CONSTRUCTION JOINT - BUTYL RUBBER - BASE CEMENT  
PIPE CONNECTION - POLYLOK SEAL (PATENTED)  
LOAD RATING - 300PSF WEIGHT = 8,500LBS



**PUMP CHAMBER NOTES:**

1. CONTRACTOR SHALL DETERMINE LENGTHS OF REQUIRED ELECTRICAL CABLE AND AVAILABLE VOLTAGE PRIOR TO ORDERING EQUIPMENT.
2. ALL WIRING SHALL CONFORM TO NATIONAL ELECTRICAL CODE & LOCAL CODE REQUIREMENTS.
3. THE POWER AND CONTROL WIRING SHALL BE MADE DIRECTLY TO THE CONTROL PANEL WITHOUT AND OUTSIDE SPLICES. CONTROL PANEL TO BE LOCATED INSIDE BASEMENT OF HOUSE AUDIBLE ALARMS AND FLASHING LIGHT.
4. A N.Y.S. PROFESSIONAL ENGINEER MUST CERTIFY TO THE CONSTRUCTION OF THE SYSTEM.
5. QUANTITY DOSED IS BASED UPON 75% OF 4" PIPE AND 100% OF FORCE MAIN.
6. QUANTITY STORED IS BASED UPON (1) DAYS FLOW MINIMUM.
7. AS-BUILT MUST SHOW FORCE MAIN LOCATION.

**SDR DOSING QUANTITY**  
FORCE MAIN: 167' x 0.163GAL/LF = 27.22 GAL  
LATS: 753' x 210LF x 0.653GAL/LF = 102.85 GAL  
130.07 GAL TOTAL

**SEPTIC SYSTEM GENERAL NOTES:**

1. ALL PORTIONS OF THE SEPTIC FIELD WILL BE A MINIMUM DISTANCE OF 200 FEET UP SLOPE AND 100 FEET DOWN SLOPE FROM ANY WELL.
2. SEPTIC TANK TO BE LOCATED A MINIMUM DISTANCE OF 10 FEET FROM ANY BUILDING OR PROPERTY LINE.
3. CLEARINGS, ROOF DRAIN, OR FOOTING DRAINS SHALL NOT BE DISCHARGED IN THE VICINITY OF ABSORPTION FIELD.
4. SWIMMING POOLS, DRIVEWAYS, OR STRUCTURES THAT MAY COMPACT THE SOIL SHALL NOT BE CONSTRUCTED OVER ANY PORTION OF THE ABSORPTION FIELD.
5. NO TRENCHES TO BE INSTALLED IN THE SOIL.
6. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING GRAVEL IN ABSORPTION TRENCH.
7. GROUT ALL PIPE PENETRATIONS TO CONC. SEPTIC TANK & DISTRIBUTION BOX.
8. DISTRIBUTION LINES ARE TO BE CAPPED.
9. THE PERIMETER OF THE ABSORPTION FIELD SHOULD BE GRADED TO DIVERT SURFACE WATER.
10. ALL NEWLY DISBURBED AREAS SHALL BE IMMEDIATELY STABILIZED UPON CONSTRUCTION COMPLETION USING GRASS SEED & MULCH.
11. NO SEWAGE SYSTEM SHALL BE PLACED WITHIN 35' OF ANY WATER COURSE DRAINAGE DITCH.
12. ALL LAUNDRY AND KITCHEN WASTES SHALL BE DISCHARGED INTO SEWAGE SYSTEM.
13. BENDS SHALL BE USED WHEN ENTRANCE OR EXIT FROM SEPTIC TANK IS NOT APPROXIMATELY STRAIGHT. IF BENDS ARE USED AT POINTS OTHER THAN ENTRANCE OR EXIT POINTS, THEN A CLEANOUT IS REQUIRED.
14. THE DESIGN AND LOCATION OF THE SANITARY FACILITIES SHALL NOT BE CHANGED WITHOUT RESUBMISSION FOR APPROVAL.
15. HEAVY EQUIPMENT SHALL BE KEPT OFF THE AREA OF THE ABSORPTION FIELDS EXCEPT DURING THE ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE ABSORPTION FIELD AREA BEFORE, DURING, OR AFTER CONSTRUCTION.
16. THIS SYSTEM WAS NOT DESIGNED TO ACCOMMODATE GARBAGE GRINDERS, JAGUZZI TYP SPA TUBS OVER 100 GALLONS, OR WATER CONDITIONERS. AS SUCH, THESE ITEMS SHALL NOT BE INSTALLED UNLESS THE SYSTEM IS REDESIGNED TO ACCOUNT FOR THESE.
17. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE HOUSE, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT.
18. THE PURCHASER OF THIS LOT SHALL BE PROVIDED WITH A COPY OF THE APPROVED PLANS AND AN ACCURATE AS-BUILT DRAWINGS OF ANY EXISTING SANITARY FACILITIES.

**STANDARD NOTES:**

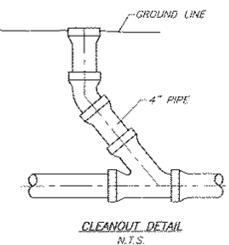
THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:

- "APPENDIX 75-A, WASTE TREATMENT - INDIVIDUAL HOUSEHOLD SYSTEMS, NEW YORK STATE SANITARY CODE."
- "GREEN BOOK, RESIDENTIAL ON-SITE WASTEWATER TREATMENT SYSTEMS (DESIGN HANDBOOK 2012)"
- "RURAL WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH."
- "PLANNING THE SUBDIVISION AS PART OF THE TOTAL ENVIRONMENT, NEW YORK STATE DEPARTMENT OF HEALTH."

"THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES."

ALL WELLS AND S.D.S. EXISTING OR APPROVED WITHIN 200' OF THE PROPOSED WELLS AND S.D.S. ARE SHOWN ON THIS PLAN ALONG WITH ANY OTHER ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY AFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE S.D.S. AND WELL. IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE CERTIFYING ENGINEER THAT THE SEPTIC TANK IS SEALED, WATER TIGHT AND ACCEPTABLE FOR USE. THIS SHALL REQUIRE, AS A MINIMUM, THE FILLING OF THE TANK WITH WATER TO OBSERVE IF IT IS IN FACT SEALED, WATER TIGHT AND ACCEPTABLE FOR USE. ALL PROPOSED WELLS AND SERVICE LINES ON THIS PLAN ARE ACCESSIBLE FOR INSTALLATION AND PLACEMENT.

INDIVIDUAL WELLS AND SEWAGE DISPOSAL SYSTEMS SHALL NO LONGER BE CONSTRUCTED OR USED FOR HOUSEHOLD PURPOSES WHEN PUBLIC FACILITIES BECOME AVAILABLE. CONNECTION TO THE PUBLIC SEWER SYSTEM IS REQUIRED WITHIN 1 YEAR OF AVAILABILITY.



CLEANOUT DETAIL  
N.T.S.

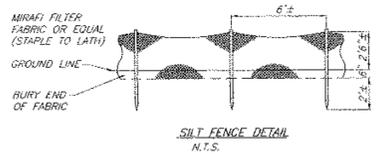
TO BE INSTALLED BEFORE BEND AT ALL BEND LOCATIONS AND AT EVERY 75' OF STRAIGHT PIPE. (DO NOT USE WITH PUMP CHAMBER)



WOODARD'S SPEED LEVELER FSI-A  
N.T.S.

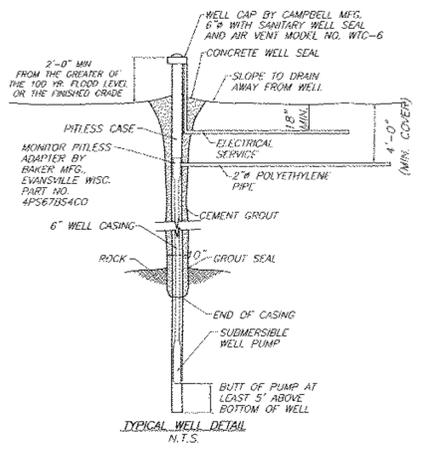
1. INSERT A SPEED LEVELER IN THE END OF ALL OUTLET PIPES IN THE DROPOUT.
2. ROTATE UNTIL EFFLUENT ENTERS ALL OUTLETS EQUALLY.

NOTE:  
SILT FENCE IS TO BE INSTALLED PRIOR TO ANY CONSTRUCTION AND SHALL BE CHECKED AFTER EVERY RAIN STORM. SILT FENCES ARE TO BE REPLACED AS NECESSARY DUE TO DAMAGE OR WHEN FILLED WITH SILT. SILT TO BE REMOVED IN FRONT OF FENCES REGULARLY TO PREVENT EXCESSIVE SOIL BEARING WEIGHT ON THE FENCES AND FENCE POSTS.



SILT FENCE DETAIL  
N.T.S.

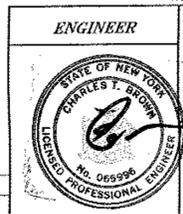
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND MAINTAIN EROSION CONTROL MEASURES. SILT FENCING IS TO BE USED FOR SILTATION CONTROL AROUND ALL AREAS THAT WILL BE DISBURBED DURING CONSTRUCTION. SILT FENCING IS TO BE MAINTAINED TO THE SATISFACTION OF THE ENGINEER AND WILL BE REMOVED BY THE CONTRACTOR ONCE GROUND COVER IS REESTABLISHED.



TYPICAL WELL DETAIL  
N.T.S.

- WELL NOTES:**
1. CASING DEPTH SHALL EXTEND AT LEAST 40' BELOW GROUND IN ANY CONDITION.
  2. WELL TO BE INSTALLED PER 10M/CRR PART 5.
  3. WELL SHALL HAVE A MIN. YIELD OF 5 GPM.
  4. WELL CASING MATERIAL IS TO BE IN COMPLIANCE WITH AWWA STANDARD A-100, LATEST VERSION.

REV.	DATE	BY	DESCRIPTION
1	07/09/15	R.B.M.	PER PLANNING BOARD COMMENTS



PLANNING BOARD# 2015-14  
THIS SHEET IS INVALID AND VOID UNLESS ACCOMPANIED BY REMAINING SHEETS IN SET.

**ENGINEER**  
**TALCOTT ENGINEERING DESIGN PLLC**  
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(845)-569-8400  
(FAX)(845)-569-4583  
TALCOTTDESIGN12@GMAIL.COM

**PROPOSED SUBDIVISION ENTITLED**  
**CRONK ESTATES III**  
PEACEFUL COURT, SBL 1-2-17.24, LOT#8, FM# 164-12  
TOWN OF NEWBURGH ORANGE COUNTY NY

DATE	SCALE	JOB NUMBER	SHEET NUMBER
06/10/15	AS NOTED	14199-GGD	2 OF 2