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# Anellotech

Marc Schneidkraut, P.E.  
Anellotech, Inc.  
401 N. Middletown Road, Building 170A  
Pearl River, NY, 10965  
August 26, 2014

Cheryl Coopersmith  
Chief Clerk to the Planning Board  
Town of Orangetown Building Department  
20 Greenbush Road  
Orangeburg, New York, 10962



Dear Cheryl:

Anellotech submitted a Planning Board application on July 15, 2014, for project name: "Anellotech: Addition to Building 123". The relevant address for the project is 401 N. Middletown Road, Building 123, Pearl River, NY, 10965.

Kenneth DeGennaro, P.E., C.F.M. of Brooker Engineering, PLLC visited Anellotech on July 22, 2014 and requested modifications to the Site Plan. Ken also requested a copy of the drainage calculations. Civil-Tec (Engineering and Surveying company working with Anellotech) updated the Site Plan per Ken's comments.

Attached here is a package of information that was also submitted to Ken DeGennaro.

- 1) Letter from Rachel Barese (Civil-Tec) discussing revisions (8/12/14)
- 2) Revised Site Plan (Rev 2) (8/14/14)
- 3) Stormwater Summary (6/17/14)
- 4) Stormwater Calcs (6/17/14)
- 5) Curve Number Calculations (6/18/14)

Sincerely,

*Marc Schneidkraut*

Marc Schneidkraut, P.E.  
Anellotech, Inc.



August 12, 2014

Town of Orangetown  
26 Orangeburg Road  
Orangeburg, New York 10962

Re: Anellotech Bldg 123 Extension

The Site Plan for the Anellotech Bldg 123 Extension has been revised based upon comments provided by Ken De Genarro, P.E. of Brooker Engineering. Based upon his comments, the drainage calculations have been provided to him. The Drywell detail has been revised to indicate that filter fabric will be required between the stone surround and the soil. Roof leaders have been added from the proposed building as well as a portion of the existing building (to offset the increased impervious from the driveway). Drywells will now have a grate in the cover which will provide access for maintenance. The new location of the riprap swale is now shown and a riprap swale detail has been added. The Pavement Detail has been revised to meet the Town specifications. A driveway detail showing the curb cut is now shown. It is now noted that the proposed building will be a slab on grade with no basement.

Please contact me at (845) 610-3621 or by email at [rbarese@civil-tec.com](mailto:rbarese@civil-tec.com) with any questions or concerns.

Thank you.  
Sincerely,

A handwritten signature in cursive script that reads "Rachel Barese".

Rachel Barese, P.E.  
President



**Anellotech, Inc.**  
**Town of Orangetown, Rockland County, New York**  
**Section 68.08 Block 1 Lot 1**  
**Project Number 3042**  
**June 17, 2014**

The Site Plan for Anellotech, Inc. in the Town of Orangetown, New York proposes an addition to an existing building. The area to be disturbed is less than 0.2 acres. The area is currently cleared and open space surrounding the existing building. The proposed addition will be 46' x 49' and will have one proposed loading dock and one "Fork Lift and Empty Pallet Area." A new driveway is also proposed. In accordance with NYSDEC regulations, we have reviewed the stormwater from the site and are proposing 2 dry wells with stone surrounding them.

The site is comprised of soil which is labeled Udorthents (Us) which is generally well draining fill. The soil does not have a classification but based on its description as a well draining soil, we have considered it a B soil for our curve number calculations. All CN calculations are attached. The existing CN is based on a covering of impervious and good lawn with all discharge as runoff. The proposed CN is also based on a covering of impervious and good lawn.

The calculated CNs were used in conjunction with the Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2009 to calculate the stormwater volume in both the existing and proposed conditions. Please see the attached Hydraflow output for all volumes. To offset the increase in runoff flows, the water from the roof leaders will be directed to two dry wells near the building expansion. The dry wells are designed to retain the increased volume of runoff for the 100 year storm. The existing 100 year event indicates a volume of 3,160 CF and the proposed 100 year event indicates a volume of 4,012 CF or an increase of 942 CF. The dry wells and surrounding stone will retain in excess of this 942 CF. The location of these dry wells has been shown on the Site Plan. The calculations for the volume storage of the dry wells are attached.

In summary, the proposed stormwater facilities should be adequate for the proposed site improvements. The proposed detention will allow for a net decrease in larger storm events.



**Anellotech, Inc.**  
**Town of Orangetown, Rockland County, New York**  
**Section 68.08 Block 1 Lot 1**  
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Based on Hydraflow, the difference in existing and proposed conditions for the 100 year storm is an increase of 942 CF which must be detained.

Use 8' diameter drywell, 6' deep, with 20" stone surround.

Area of 8' diameter drywell =  $3.14 \times 4\text{ft}^2 = 50.24 \text{ SF}$

Area of 11.33' diameter (including stone) =  $3.14 \times (11.33\text{ft}/2)^2 = 100.77 \text{ SF}$

Area of stone =  $100.77 \text{ SF} - 50.24 \text{ SF} = 50.53 \text{ SF}$

Volume of 8' diameter drywell =  $50.24 \text{ SF} \times 6 \text{ ft (depth)} = 301.44 \text{ CF}$

Volume of Stone =  $50.53 \text{ SF} \times 6 \text{ FT} + (3.14 \times (11.33\text{ft}/2)^2 \times (20"/12')) = 471.13 \text{ CF}$

40% Voids =  $471.13 \text{ CF} \times 40\% = 188.45 \text{ CF}$

Volume of storage =  $301.44 \text{ CF} + 188.45 \text{ CF} = 489.89 \text{ CF}$

$942/489.89 = 1.92$

Use 2 8' diameter drywells, 6' deep, with 20" stone surround.

WATERSHED/ SUBBASIN ID	HYDROLOGIC GROUP	COVER TYPE	HYDROLOGIC COND.	TOTAL AREA(AC)	IMPERVIOUS AREA		PERVIOUS AREA		WEIGHTED CN
					AREA(AC)	CN	AREA(AC)	CN	
Existing	B	Impervious	Good	0.01	0.01	98	0.00	98	98
	B	Lawn	Good	0.17	0.00	98	0.17	79	79
	TOTAL:			0.18	0.01		0.17	13.43	80
Proposed	B	Impervious	Good	0.12	0.12	98	0.00	98	98
	B	Lawn	Good	0.06	0.00	98	0.06	79	79
	TOTAL:			0.18	0.12		0.06	4.74	92