

CARACCIOLI LAW PLLC

175 East Seventh Street
Oswego, New York 13126

Phone (315) 343-1939
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Via Federal Express & Email

June 2, 2023

Town of New Haven Planning Board
Post Office Box 141
4279 State Route 104
New Haven, New York 13121
Attention: Michael Donovan, Chairman

**Re: 178 Darrow Road
Site Plan Application for Concrete Batch Plant Modifications**

Dear Mr. Donovan and Members of the Planning Board:

I represent Circle T Enterprises, LLC, the owner of real property located at 178 Darrow Road, in the Town of New Haven. As you know, my client has been operating a concrete batch plant at this location since it was granted site plan approval by decision dated August 31, 2021.

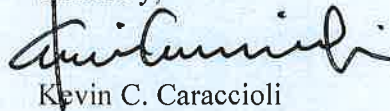
Enclosed please find in triplicate the following:

1. Application for Proposed Development (site plan);
2. Short EAF, Part 1 with EAF Mapper;
3. Site Plan Map;
4. Sketch of 2nd Silo;
5. Specifications of 2nd Silo, with dimensions;
6. Property Description Report for 178 Darrow Road, with aerial view; and
7. Supplemental Information.

Kindly confirm receipt of this material and further confirm that my client's application will be added to the June 21st agenda for consideration.

Thank you for your attention to this matter. If there is an application fee for this matter, please advise and I will remit payment immediately (the Town's website does not specify an application fee).

Sincerely,



Kevin C. Caraccioli

KCC/sir

Encl.

Cc: Circle T Enterprises, LLC
Lesley Schmidt, Esq., Attorney for the Planning Board
Ronald Marsden, Code Enforcement Officer

TOWN OF NEW HAVEN

APPLICATION FOR PROPOSED DEVELOPMENT

Application No. _____

Application Date June 2, 2023

1. Applicant's Name: Circle T Enterprises, LLC

2. Applicant's Address: 178 Darrow Road Mexico, New York 13114

3. Applicant's Phone Numbers: Day (315) 591-4303 Evening _____

4. Property To Be Developed

A. Property Owner, Address, and Phone Number:

Circle T Enterprises, LLC

178 Darrow Road Mexico, New York 13114

B. Brief Description of Property as it currently is:

Existing Cement Batch Plant seeking to install a new 53-foot-tall Silo

C. Deed Description: Book 2021 Page 1723

D. Real Property Tax Description: 132.00-02-39.05

Section 132.00 Block 02 Lot 39.05

E, Total Acreage: 27.27

5. Existing Use of Property:

Cement Batch Plant

A. List all property owners contiguous to proposed Development:

NAME	ADDRESS
Elizabeth Alnutt	192 Darrow Road
Patsy Spears	162 Darrow Road
Ronald Shene	142 Darrow Road
Joseph A. Cortese	Off Darrow Road
Anthony Carlo	74 Darrow Road
Timothy J. Allen & Deborah Allen	3185 County Route 6

Attach additional names and addresses, if necessary.

B. Identify any and all existing streets, highways, roads, easements or rights-of-way that abut the proposed development:

Property is abutted by Darrow Road

C. Will the proposed development require the construction of any new streets, or the acquisition of easements and/or rights-of-way? If so, briefly describe what will be required. No

D. Is the proposed development improved by a water, sewer or lighting district? No

If yes, list improvements: _____

If no, explain the plan to manage water, sewage disposal and utility services for the proposed development:

Onsite septic system to dispose of sewage. There is electricity to the site.

The site is also under a stormwater pollution prevention plan (SWPPP)

E. Describe the lot size (s) for the proposed development:

The existing acreage that comprises the Cement Batch Plant is approximately 6.3 acres. The new Silo will be erected in the existing footprint of the Batch Plant.

F. Describe the type (s) of structures to be constructed in the proposed development: One 53-foot-tall Cement Silo

G. Briefly describe the project: The existing Cement Batch Plant will install a 53-foot Silo to accompany the existing Silo. Additional revisions to the approved site plan will be sought.

H. Are there any wetlands, wooded areas, public land or facilities or other significant physical features on or contiguous to the site of the proposed development? Yes. If yes, briefly describe

NYS DEC wetland is located nearby but outside the area of the Batch Plant.

I. Are there any other existing restrictions on the use of the land including easements, deed restrictions or covenants that may impede or prohibit your application? No If yes, briefly explain

6. Name and address of Professional advisors, including professional engineer, land surveyor and attorney:

Name Caraccioli Law, PLLC Title: Attorney

Address 175 East Seventh Street Oswego, New York 13126

Telephone No. (315) 343-1939 License No. _____

Name MBL Engineering, PLLC Title: Professional Engineer

Address 16510 Balch Place, Mannsville, NY 13661

Telephone No. (315) 486-0501 License No. _____

7. Name of Proposed Use, if any: Cement Batch Plant Silo Project & Site Plan Revisions

8. Does the proposed development cover applicant's entire property? No . If no, explain what portion of the existing property will remain undeveloped, and whether the applicant intends to develop the property in the future.

Of the 27.27 acres, only 6.3 acres is used for the Cement Batch Plant. The new Silo will be installed in the existing footprint of the Batch Plant. Additionally, several revisions to the approved site plan are being requested (see attached).

9. State the approximate cost of the proposed development and length of time within which it will be completed.

Cost Approximately \$100,000.00 Length of Time Mid 2023

Please attach to this application all documents and items required by Section 3.30 of the Town of New Haven Site Plan Review Ordinance:

The applicant shall submit, in triplicate, a site plan and supporting data prepared by an architect, engineer, land surveyor or planner, and shall include the following information presented in drawn form and accompanied by a written text:

1. Survey of the property to scale with north arrow and date, showing existing features of the property, including contours, large trees, buildings, structures, streets, utility easements, rights of way, land use and ownership of surrounding property.
2. Site plan showing proposed lots, blocks; building locations and land use areas.
3. Traffic circulation, parking and loading spaces and pedestrian walks.
4. Landscaping plans, including site grading, landscape design and open areas.
5. Preliminary architectural drawings for buildings to be constructed.
6. Preliminary engineering plans, including street improvements, storm drainage system, public utility extensions, water supply and sanitary sewer facilities.
7. Engineering feasibility studies of any anticipated problems which might arise due to the proposed development, as required by the Planning Board.
8. Construction sequence and time schedule for completion of each phase for buildings, parking spaces and landscaped areas.
9. A description of the proposed uses, including hours of operation, number of employees, expected volume of business, type and volume of traffic expected to be generated, and a description of any hazardous materials, fumes, noise to be generated and/or stored on site.
10. A completed short form environmental assessment form as provided in part 617 of the State Environmental Quality Review Regulations, part 617 of title six of the official Compilation of Codes, Rules and Regulations of the State of New York.
11. A list of all federal, state, county and local permits required for the proposed use, including, but not limited to, SPEDES permit for storm water discharge.

I, Jason Simmons, the undersigned, on behalf of Circle T Enterprises, LLC, do hereby acknowledge that the information that I have provided in this application for proposed development in the Town of New Haven is true and accurate and I have made no attempt to falsify or lie about any of the information contained herein. I have read a copy of the Town of New Haven [Site Plan Review Ordinance] [Local Law No. 1 of the year 1994] and I agree to comply with the terms and conditions therein.

I understand that my application must first be approved by the Town of New Haven Planning Board before I can construct anything on the site of the proposed development, and that by signing this application does not mean that I have been approved, nor does it guarantee that I will be approved for development, as submitted.

Circle T Enterprises, LLC

By:  _____
Applicant's Signature

Jason Simmons, Member
Print Name

June 2, 2023
Date of Application

FOR OFFICIAL USE ONLY

Date Application Received: _____

Date of Checklist Review: _____

239_m Referral to County: _____

Date of Public Hearing: _____

Short Environmental Assessment Form

Part 1 - Project Information


Instructions for Completing

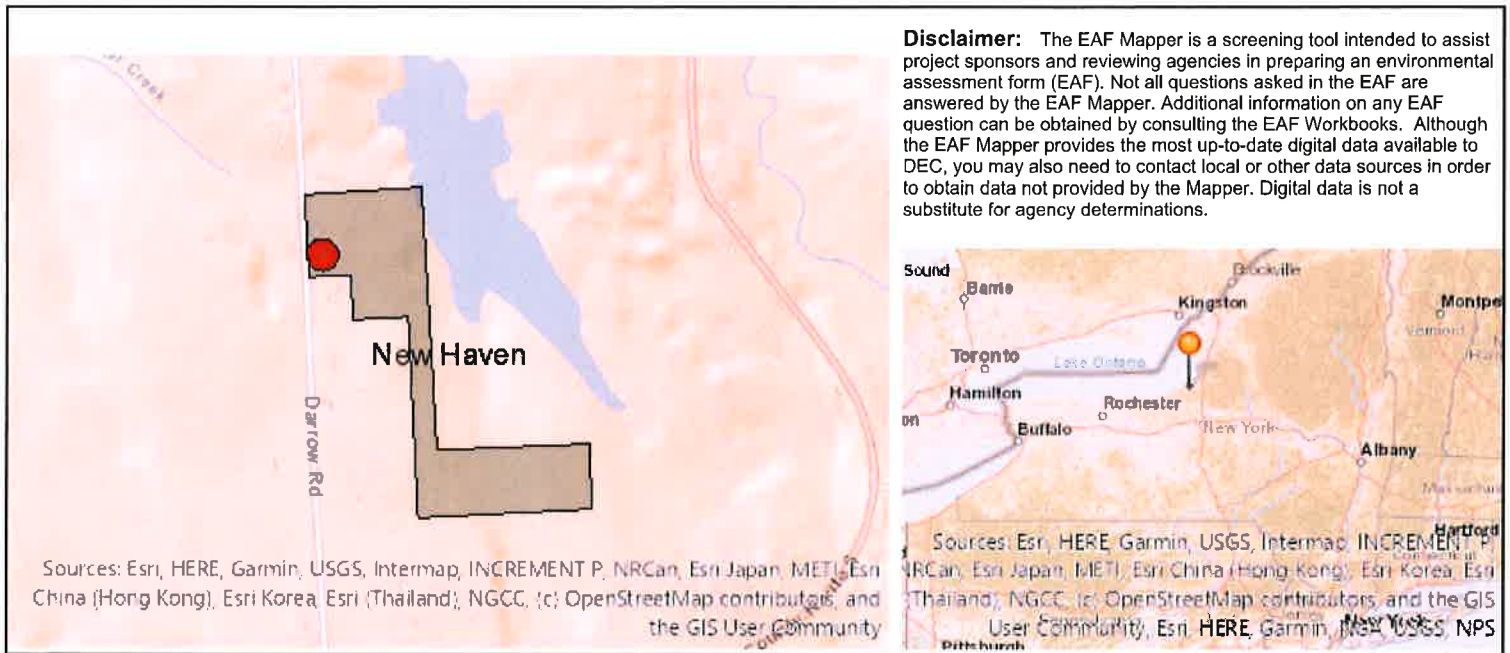
Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information							
Circle T Enterprises LLC, Ready Mix Division							
Name of Action or Project: New Silo for Cement Batch Plant Operations							
Project Location (describe, and attach a location map): 178 Darrow Road, Town of New Haven, County of Oswego							
Brief Description of Proposed Action: Existing business with an approved site plan seeks to install one (1) 450 bbl single compartment silo measuring 53' in height to match the current silo used in the business, and to be located between the existing silo and the container as depicted on the approved site plan map. Project applicant also seeks to modify various provisions of the approved site plan.							
Name of Applicant or Sponsor: Circle T Enterprises LLC, Ready Mix Division		Telephone: 315-591-4303 E-Mail: circletreadymix@yahoo.com					
Address: 320 Mt. Pleasant Road							
City/PO: Fulton		State: New York	Zip Code: 13069				
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">YES</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	NO	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	YES						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">YES</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	NO	YES	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO	YES						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
3. a. Total acreage of the site of the proposed action? _____ 6.3 acres b. Total acreage to be physically disturbed? _____ 0 acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ 27.27 acres							
4. Check all land uses that occur on, are adjoining or near the proposed action: <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban) <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input checked="" type="checkbox"/> Other(Specify): Rural Residential <input type="checkbox"/> Parkland							

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES	
If Yes, identify: _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Are public transportation services available at or near the site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES	
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Will the proposed action connect to an existing public/private water supply?	NO	YES	
If No, describe method for providing potable water: _____ _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Will the proposed action connect to existing wastewater utilities?	NO	YES	
If No, describe method for providing wastewater treatment: _____ N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ The Project will remain a minimum of 100 feet from the NYSDEC Designated Wetland NH-11 The National Wetland marginal to NYSDEC Designated Wetland NH-11 will not be affected The National Wetland marginal to Otter Creek will not be affected. _____			

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input checked="" type="checkbox"/> Agricultural/grasslands <input checked="" type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input type="checkbox"/> Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Is the project site located in the 100-year flood plan?	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, <div style="margin-left: 40px;"> a. Will storm water discharges flow to adjacent properties? b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: </div>	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The existing project is subject to a SWPPP and MSGP but no changes to either plan are anticipated.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO	YES
The existing project is subject to a SWPPP and MSGP but no changes to either plan are anticipated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: Circle T Enterprises, LLC, Ready Mix Division Date: June 2, 2023 Signature:  Title: Authorized Member		



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

THE DRINKING WAS REPEATED AT THE SCENE LOCATED IN THE TITL' BLOOD. AN OBSERVER IN THE STATED SCENE MAY BE INTRODUCED WHEN CHARGED AND RECORDED BY HIS OWN. THE DRINKING SCENE MAY BE IN THE TITL' BLOOD TO OBTAIN THE ACTUAL SCENE OF THE DRINKING.

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE 05/16/2023

SHEET #
C-101

DATE: _____

PROJECT #
21-147

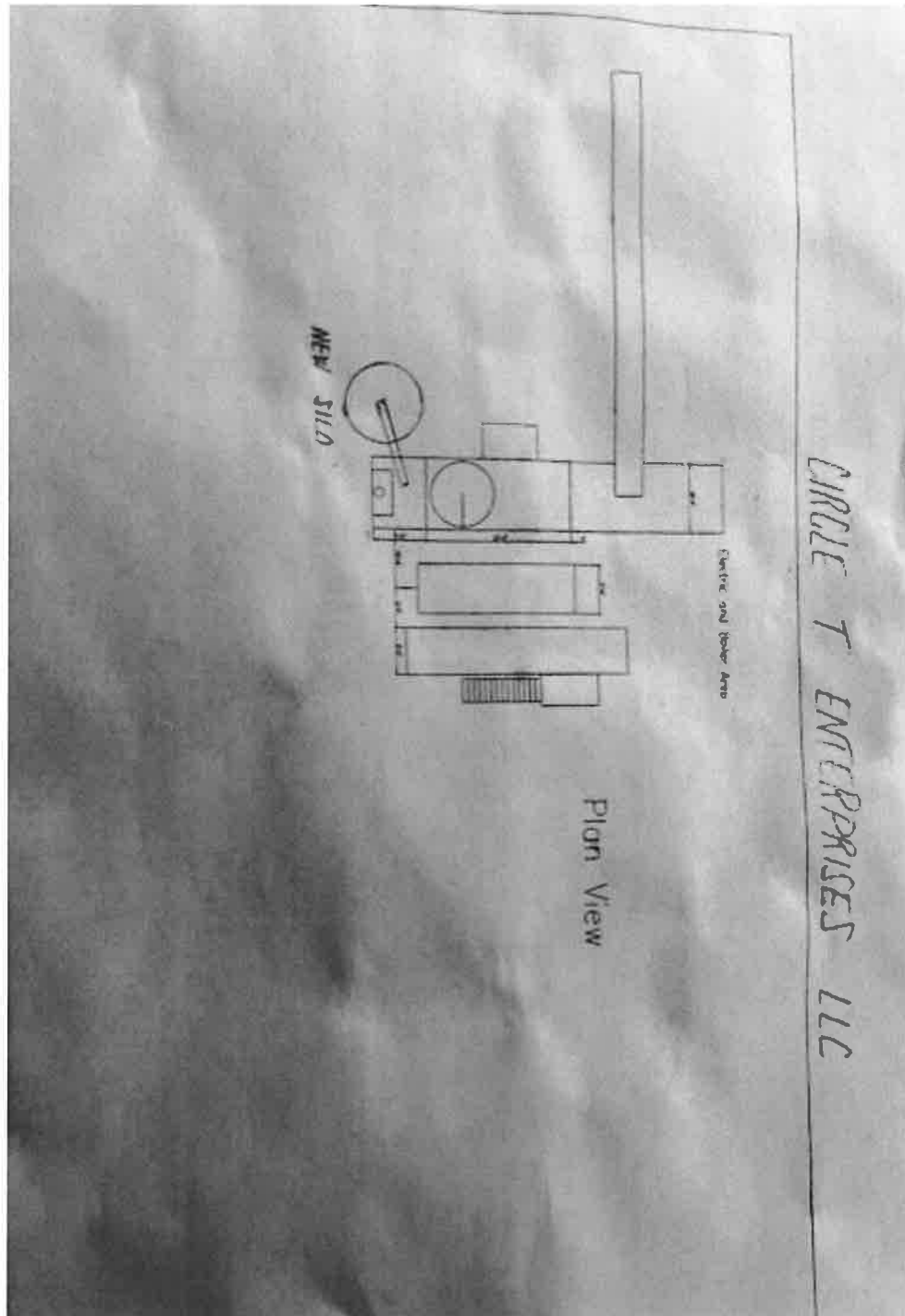
CIRCLE T CONCRETE PLANT
178 DARROW ROAD
TOWN OF NEW HAVEN
OSWEGO COUNTY

MBL
ENGINEERING, PLLC

OVERALL
SITE PLAN

A	5/16/73	REVISED SITE PLAN APPROVAL
NO.	DATE	DRAWING RELEASE

CIRCLE T ENTERPRISES
Darrow Road Batch Plant
2nd Silo -Sketch Plan





MARUSI & SON EQUIPMENT CORP.

465 DANBURY ROAD
WILTON, CT 06897
888-837-5829
www.marusi.com
August 19, 2022

Mr. Mark McCraith
Circle T Enterprises, LLC

One 350 bbl Single compartment Silo with all standard equipment
Legs with 3'-8" clearance under discharge, jam gate, outside ladder with fall arrest cable
system, full railing, 4" dia. fill pipe with aluminum adapter, 330 sq ft pulse jet dust
collector, 1/2" air-line, 1/2" electrical conduit, pop off valve, manhole, Solimar vibratory
discs, sand blast, prime and paint - White, Gray, Tan, Yellow
1 High Level Indicator with Light Package
3 Low Level Indicator with Light Package
1 Work Platform
20' stand

Price FOB manufacture

\$50,750.00

450 bbl single silo

Add

\$ 2,670.00

10 butterfly gate

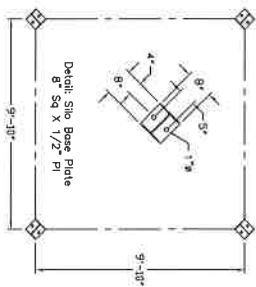
\$ 1,000.00

12" x 20' screw conveyor

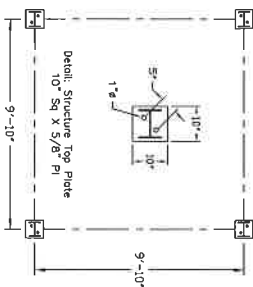
\$ 9,310.00

Thank you
Larry

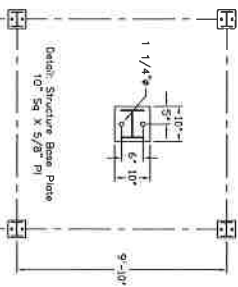
Lawrence Marusi
President
888-837-5829 o
203-762-3115 o
914-325-6477 c

[illegible]

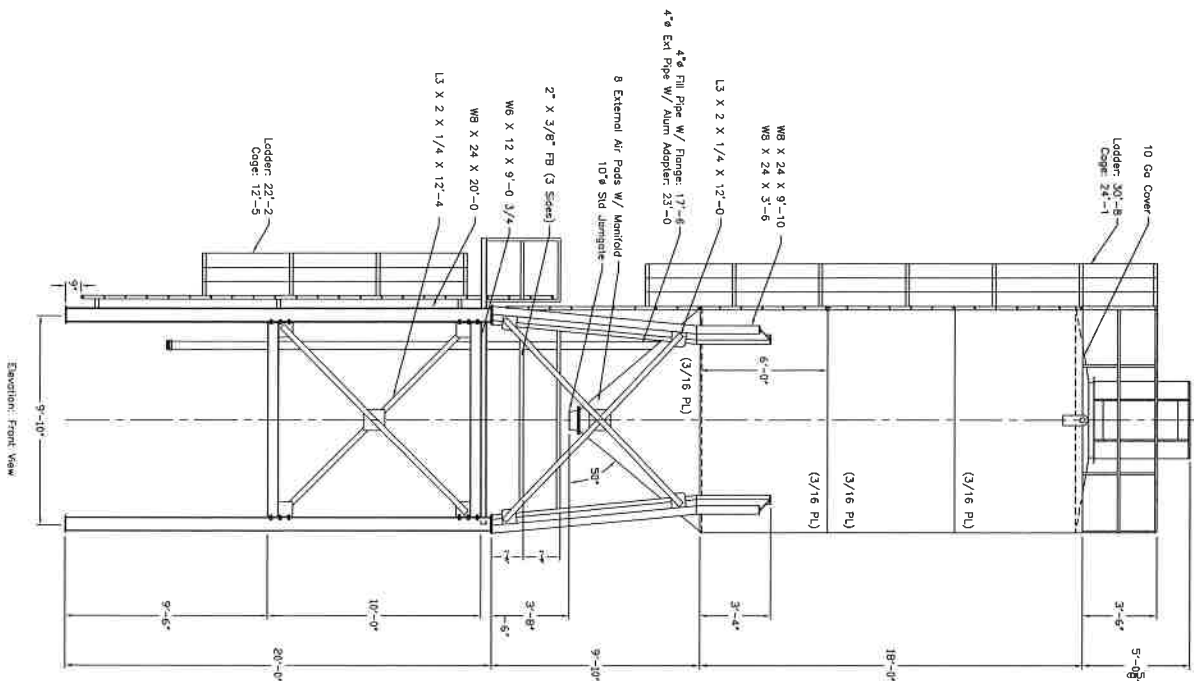
Plan: Silo Base Plate Layout



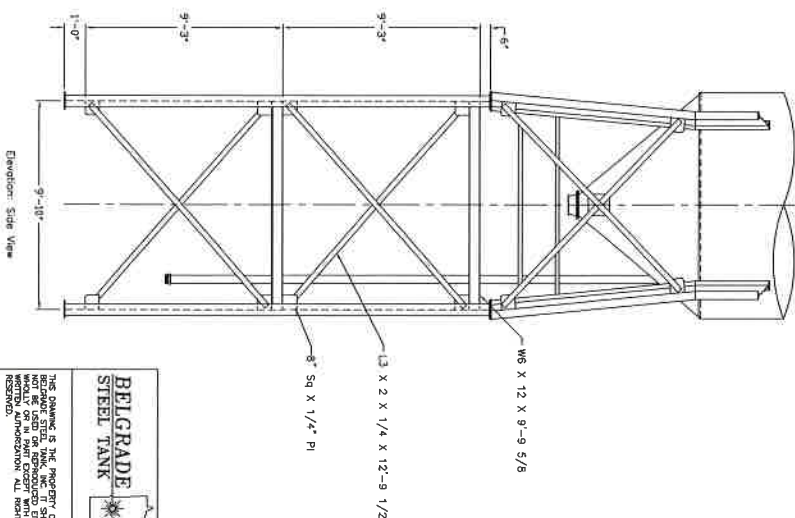
Plan: Structure Top Plate Layout




Plan: Structure Base Plate Layout



Elevation: Front View



Elevation: Side View

<p>THE BELGRADE & CO. CORPORATION BELGRADE STEEL, INC. 1000 N. 10TH AVENUE, SUITE 100, BELGRADE, MONT. 59006 • (409) 328-2211 • FAX (409) 328-2211 RESIDENTIAL • COMMERCIAL • INDUSTRIAL</p>		<p>BELGRADE STEEL TANK</p> 
<p>SIZE 450 BBL. DAVIC. SLO. WITH 20" - 8 NON DAVE. THRU STRUCTURE</p>		<p>DATE 2/17/90</p>
<p>OWNER SLOAN</p>	<p>DATE 2/17/90</p>	<p>DESIGNED BY J. W. LAM</p>
<p>SCALE 1/4" = 1'-0"</p>	<p>SHEETS 1 OF 1</p>	<p>REVISED</p>
<p>NO. 1</p>	<p>APPROVED BY</p>	
<p>DESIGNED BY</p>		
<p>DATE</p>		
<p>BY</p>		
<p>FOR</p>		
<p>NO.</p>		

GENERAL NOTES:
 1.) Point Options (Please Circle One)
 White, Grey, Tan, Or Yellow
 2.) Include (2) BLU Plug



Property Description Report For: 178 Darrow Rd, Municipality of New Haven



Status:	Active
Roll Section:	Taxable
Swis:	353800
Tax Map ID #:	132.00-02-39.05
Property Class:	710 - Manufacture
Site:	RES 1
In Ag. District:	No
Site Property Class:	312 - Vac w/imprv
Zoning Code:	01
Neighborhood Code:	38200
School District:	Mexico
Total Assessment:	2023 - Tentative \$500,000 2022 - \$500,000 2021 - \$52,000
Property Desc:	Lot 111 100-011-000
Deed Page:	1723
Grid North:	1255753

Total Acreage/Size:	27.27
Land Assessment:	2023 - Tentative \$54,540 2022 - \$54,540 2021 - \$29,800
Full Market Value:	2023 - Tentative \$649,351 2022 - \$558,659 2021 - \$52,000
Equalization Rate:	----
Deed Book:	2021
Grid East:	890510

Area

Living Area:	0 sq. ft.	First Story Area:	0 sq. ft.
Second Story Area:	0 sq. ft.	Half Story Area:	0 sq. ft.
Additional Story Area:	0 sq. ft.	3/4 Story Area:	0 sq. ft.
Finished Basement:	0 sq. ft.	Number of Stories:	0
Finished Rec Room	0 sq. ft.	Finished Area Over Garage	0 sq. ft.

Structure

Building Style:	0	Bathrooms (Full - Half):	0 - 0
Bedrooms:	0	Kitchens:	0
Fireplaces:	0	Basement Type:	0
Porch Type:	0	Porch Area:	0.00
Basement Garage Cap:	0	Attached Garage Cap:	0.00 sq. ft.
Overall Condition:	0	Overall Grade:	
Year Built:		Eff Year Built:	

Owners

Circle T Enterprises LLC
178 Darrow Rd
Mexico NY 13114

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book and Page
2/10/2021	\$1	312 - Vac w/imprv	Land & Building	Simmons, Jason	No	No	No	2021/1723
8/23/2015	\$51,150	210 - 1 Family Res	Land & Building	Stevens, Brian J	Yes	Yes	No	2015/8757

Utilities

Sewer Type:	Private	Water Supply:	Private
Utilities:	Electric	Heat Type:	0
Fuel Type:	0	Central Air:	No

Improvements

Structure	Size	Grade	Condition	Year
Shed-galvnzd	4,225.00 sq ft	Economy	Fair	1980
Barn-1.0 gen	800.00 sq ft	Economy	Fair	1989
Barn-1.0 gen	3,200.00 sq ft	Economy	Normal	1989

Land Types

Type	Size
Primary	5.00 acres
Residual	22.27 acres

Special Districts for 2023 (Tentative)

Description	Units	Percent	Type	Value
FD381-New Haven FD	0	0%		0
WD385-Water 5	2	0%		0

Special Districts for 2022

Description	Units	Percent	Type	Value
FD381-New Haven FD	0	0%		0
WD385-Water 5	2	0%		0
UW999-Unpaid Water	0	0%	T	0

Special Districts for 2021

Description	Units	Percent	Type	Value
FD381-New Haven FD	0	0%		0
WD385-Water 5	2	0%		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %
------	-------------	--------	----------	----------	--------	--------	--------	-------

Taxes

Year	Description	Amount
2023	County	\$9,274.00
2022	County	\$1,701.99
2022	School	\$9,025.71

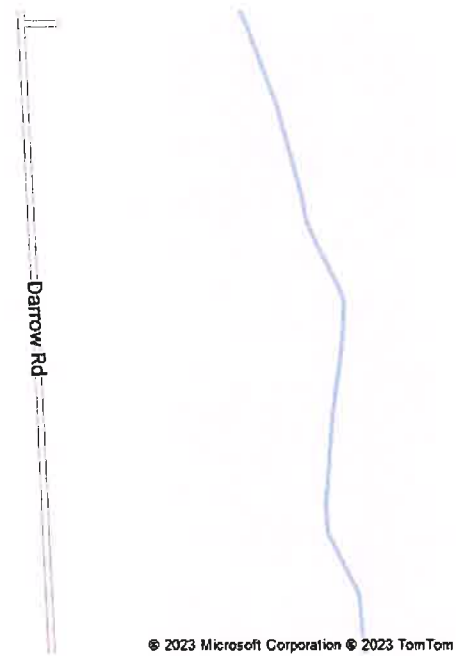
*** Taxes reflect exemptions, but may not include recent changes in assessment.**

Notes

CIRCLE T ENTERPRISES, LLC
178 Darrow Road
New Haven, New York

CEMENT BATCH PLANT and RELATED IMPROVEMENTS -
2nd Silo

Site Plan Revisions - June 2023



CIRCLE T ENTERPRISES, LLC
CEMENT BATCH PLANT SITE PLAN REVISIONS

TOWN OF NEW HAVEN PLANNING BOARD

SUPPLEMENTAL INFORMATION

June 2023

Respectfully Submitted,

CARACCIOLI LAW, PLLC
Attorneys for Circle T Enterprises, LLC
175 East Seventh Street
Oswego, New York 13126
(315) 343-1939
kcc@caracciolilaw.com

SUPPLEMENTAL INFORMATION

Circle T Enterprises, LLC (Circle T) is the owner of the cement batch plant located at 178 Darrow Road in the Town of New Haven. Circle T received site plan approval from the Town of New Haven Planning Board on August 31, 2021. The site plan approval included a list of 23 conditions. A copy of the Decision and conditions is attached to this supplement as ***Exhibit 1***.

Of the many conditions imposed, Circle T has been compliant with each and has demonstrated that the initial concerns expressed by people opposed to the business operation were largely unfounded or over exaggerated.

Circle T now desires to revisit several conditions and seeks modification of the most onerous conditions.

Stormwater Management

While Circle T does not seek to modify the Stormwater Pollution Prevention Plan (SWPPP), it provides the attached memo from MBL Engineering in support of the revisions proposed – which is to erect a second silo on the project site. As noted in the Stormwater Management Memo, the addition of the second silo will not alter the SWPPP. The memo is attached to this supplement as ***Exhibit 2***.

Compliance with Site Plan

Attached to this supplemental information as ***Exhibit 3*** are several photographs recently taken of the batch plant operations as it currently exists. As you will see from the photos, the site plan has been followed and, in some cases, exceeded. Additional cement sound barriers have been erected to further dampen sound from escaping the property (anecdotally, if one were to stand down on Darrow Road and closest to the nearest residential neighbor you would strain to hear sound coming from the Circle T operations, and any sound that emanates is well within acceptable decibel ranges. Moreover, the sound is intermittent.)

Condition # 9 – Traffic

Circle T seeks to modify this condition to allow vehicles entering and exiting the property to travel north or south along Darrow Road. Circle T is the only commercial operation with vehicles that is prohibited from traveling in a northerly direction down Darrow Road. In fact, many of Circle T's competitors are permitted to utilize both directions along Darrow Road on a daily basis with impunity. The current restrictions constitute an unreasonable restraint on free trade and commerce and has no basis for continuing. The Town installed a speedometer directly to the north of Circle T's entrance, with the speedometer facing south (to alert vehicles traveling north of their speed). Presumably this was installed for everyone other than Circle T, as it has been obligated to travel southbound out of the premises. Allowing Circle T vehicles to travel northbound will have the added benefit of slowing down vehicles inasmuch as the large cement trucks utilized by Circle T take a significant amount of time to accelerate to the 45-mph posted speed limit.

Condition # 10 – Hours of Operation

The hours of operation imposed by the Planning Board were a direct reaction of concerns raised by neighboring property owners that excessive noise would be produced by the facility and be disruptive to their quiet enjoyment. However, the nature of the operation, the enclosure of the facility together with the location of the operation and buffering that has been erected has resulted in a nearly quiet operation. Accordingly, the hours of operation should be modified to allow the facility to operate from sunup to sundown, or 5:00 a.m. to 9:00 p.m. during the week (with no batching to occur after 6:00 p.m.), and 5:00 a.m. to 5:00 p.m. on Saturdays. The facility will continue to be closed on Sundays.

Conclusion

Circle T has operated its cement batch plant at 178 Darrow Road in the Town of New Haven for nearly 2 years now and there have been minimal disturbances, and no enforcement actions undertaken to address alleged violations of the site plan approval granted on August 31, 2021. While the company has abided by the conditions imposed in the site plan approval, there are a few conditions it seeks to modify at this time to enhance the ability to compete for business in the highly competitive field of building construction supplies.

Circle T's competitors are able to travel down Darrow Road in both directions, and frequently do, without any restrictions. The current restriction has imposed an unreasonable restraint on Circle T's business and is no longer a reasonable condition to impose. Accordingly, it is requested that the travel restrictions be removed and Circle T vehicles be allowed to travel in both directions along Darrow Road. An added benefit of allowing northbound travel will naturally result in slower traffic since the Circle T vehicles travel at a lower speed than most vehicles utilizing Darrow Road.

The hours of operation should be modified to allow for expanded operation. The location and minimal noise impact on the neighboring properties supports the request for expanding the hours of operation.

Based on the foregoing, and all of the supporting documentation provided with the site plan application, it is respectfully requested that the site plan, as modified, be approved in its entirety.

-End-

CIRCLE T ENTERPRISES, LLC
CEMENT BATCH PLANT SITE PLAN REVISIONS

TOWN OF NEW HAVEN PLANNING BOARD

EXHIBIT 1

Town of New Haven Planning Board
Decision
August 31, 2021

Planning Board DECISION

OFFICE USE ONLY

Application No.: 1
Date Received by 8/31/2021
Municipal Clerk: Jennifer Woolson

At a meeting of the Planning Board on August 25, 2021, the following motion was made Karen Valentino, second by James Searles :
(name of planning board member)

I move that the Planning Board ☐ deny
☐ approve
☒ approve with conditions (see below)

the application for ☒ Site Plan Review Approval
☐ Preliminary Subdivision Approval
☐ Final Subdivision Approval
☐ Special Use Permit Approval
☐ Other _____


made by Jason Simmons and Circle T Enterprises, LLC
(applicant name)
for property located at 178 Darrow Rd/132.00-02-39.05
(address / tax map number)

Approval of this application is subject to the following conditions:
Attached hereto and made a part of this Decision are the conditions, all consented to by Applicant.

☒ Additional conditions are attached.

RECORD OF VOTE

	MEMBER NAME	AYE	NAY
Chair	<u>Linda Bond-Clark</u>	<u>_____</u>	<u>_____</u>
Member	<u>James Searles</u>	<u>_____</u>	<u>_____</u>
Member	<u>Mike Donovan</u>	<u>_____</u>	<u>_____</u>
Member	<u>Michael Cutuli</u>	<u>_____</u>	<u>_____</u>
Member	<u>Karen Valentino</u>	<u>_____</u>	<u>_____</u>


(Recorded by Planning Board Secretary/Clerk)

8-31-2021
(Date)

Conditions for Site Plan Approval at 178 Darrow Rd, Town of New Haven

Applicant: Circle T Enterprises, LLC/Jason Simmons

Approved August 25, 2021, Town of New Haven Planning Board

1. Applicant shall maintain adequate buffering between the batch plant and wetland (mowed lawn and any other requirements by DEC).
2. Applicant shall plant arborvitae along the property line between the batch plant and resident no. 8, which is the southern border off the southwest corner of the batch plant, as delineated on Geologist Giles' noise study, incorporated herein by reference.
3. Applicant shall install buffering such as a wooden fence, earthen barrier (berm) and vegetative barrier to north side of the batch plant. Applicant shall install an L-shaped 8-foot wood privacy fence on top of the berm near resident no. 5, as delineated on Geologist Giles' noise study, incorporated herein by reference.
4. Applicant shall utilize misters, using fresh, potable water only, over aggregate bins and the access road to reduce dust.
5. Applicant shall follow all Federal, State, and Local laws and regulations, including but not limited to compliance with DOT regulations and DEC regulations, including but not limited to SPDES and SWPPP. Applicant shall allow site inspections from the Town of New Haven at any time, with or without notice. To the extent the terms and conditions contained herein conflict with the federal and state regulations under which Applicant's business is controlled, such federal and state regulations shall supersede these terms and conditions.
6. Applicant shall maintain NYSDEC spill hotline number and MSDS aka SDS sheets on site, in addition to following any and all other DEC regulations regarding same. Applicant shall provide MSDS aka SDS sheets to the Town of New Haven Fire Department and update same if there are any changes.
7. Applicant shall maintain eight (8) inch walls between each aggregate bin, and each wall shall be reinforced with rebar.
8. Applicant shall maintain a dust collection system and update same regularly utilizing best management practices, including but not limited to regularly changing filters and ensuring the computer system is fully updated.
9. Applicant shall ensure that all vehicles under its control related to the batch plant, entering and leaving the site, shall travel in a southerly direction down Darrow Road toward County

Route 6, and follow the traffic mitigation plan submitted by applicant on April 2, 2021, incorporated herein by reference. Applicant will inform all other vehicles of the traffic mitigation plan and advise them to follow the plan.

10. Applicant shall maintain the following hours of operation:

a. April through October:

- i. Monday through Friday: 6:00 AM to 6:00 PM
- ii. Saturday: 6:00 AM to 2:00 PM
- iii. Sunday: Closed

b. November through March (weather and DEC regulations permitting):

- i. Monday through Friday: 7:00 AM to 4:00 PM
- ii. Saturday: 7:00 AM to 1:00 PM
- iii. Sunday: Closed

11. Applicant is not permitted to operate the batch plant facility until applicant has provided the Town of New Haven with the MSGP NOI (Multi-Sector General Permit Notice of Intent) that has been duly filed with the NYS DEC, Region 7.

12. Applicant shall allow the Town of New Haven Code Enforcement Officer to routinely test the pH levels and water levels. Any ponds used for wash water shall comply with DEC MSGP Sector E Stormwater Runoff pH limits of 6 to 9 SU. Applicant shall bear the cost of the litmus test instrument, not to exceed \$200.00. The Applicant and Town acknowledge that the NYSDEC, NYS Department of Health and Oswego County Health Department have jurisdiction over the quality of the water utilized by the batch plant facility.

13. Applicant shall participate in a review of the road conditions one (1) year from the date of any approval by the Town of New Haven Planning Board. The review shall include the Town of New Haven Highway Superintendent. If it is determined that a bond is required to fix any damage to the roads as a result of applicant's operation of the batch plant, applicant agrees to post a bond for same in an amount that is mutually agreeable to all parties and based on the assessment by the Highway Superintendent. The Town of New Haven reserves the right to hold this review prior to one (1) year if the road conditions deteriorate prior to that date. The Town of New Haven and applicant reserve the right to hire a neutral third party, at the expense of applicant, to review the road condition at said review. If, in one year from the date of any approval, it is the opinion of the Town's Highway Superintendent, that Applicant's operation has not deteriorated the road, then this provision may be readdressed at the behest of the Town's Highway Superintendent. Applicant will be notified by the Town of the date in which such review will occur.

14. Applicant shall bear the cost of a neutral third party review of noise levels of the batch plant after said plant is operational. Applicant shall notify the Town of New Haven as to the date it intends to be operational. The noise level study shall occur during peak

operational times. Applicant shall implement any and all recommendations and modifications from the noise level review within ninety (90) days of the date of the noise level review report.

15. Applicant shall submit a plan to the Town of New Haven to enclose the batch plant. Such plan shall be submitted within one (1) year from the date of any approval of the batch plant. If applicant fails to timely submit the plan, then the plant's operations shall immediately cease.

16. Applicant shall implement a tire wash process to clean the tires of all trucks exiting the batch plant. All truck tires shall be washed prior to exiting the batch plant and shall be washed in a manner so that any and all debris, stones, dust, dirt, and/or mud are removed and washed from the tires prior to exiting the batch plant and entering onto Darrow Road.

In the event that the tire wash station does not adequately wash the truck tires, then applicant shall be responsible for cleaning the public roads, by reimbursing the Town of New Haven for the cost to clean the roads, upon notice of the Highway Superintendent's determination that the Applicant's business operation caused the unclean road condition.

17. Consistent with NYSDOT regulations, Applicant shall maintain all trucks used by it in the operation of its business, and request all trucks delivering aggregate to be properly outfitted with mud flaps and any other mitigation measures, including maintaining the access road with "cobbling" to reduce the incidence of stone being lodged in truck wheels and being thrown out into the road or yards. Applicant shall maintain "catch stone" at the entrance of the access road from Darrow Road in order to assist with reducing flooding and reducing said issue of stones lodged in truck wheels.

18. Applicant shall maintain a contact number and email address at the facility that is dedicated solely to complaints. Applicant is required to keep a record of any and all complaints received and provide a weekly report to the Town of New Haven Planning Board and Code Enforcement Officer.

19. Applicant shall not expand the batch plant site plan without submitting a new application to the Town of New Haven Planning Board.

20. Applicant shall make a request to the Town Board for the following:

- a. Reduce speed limit to 30 mph on Darrow Road, from Stone Road to County Route 6; and
- b. "No Truck Entrance" signs and weight limit signs on Soper Mills Rd, Stone Road (at the corner of Stone and County Route 6), and Lily Marsh Road (at the intersection of Lily Marsh Road, County Route 51 and County Route 51(a)).

21. Applicant shall notify the Town of New Haven Code Enforcement Officer prior to making any local cement or other such related deliveries to Soper Mills Road, Stone Road, Lily Marsh Road, and the northern section of Darrow Road.

22. VIOLATIONS: A Notice of Violation of any of above listed conditions shall be served by the Town of New Haven Code Enforcement Officer ("CEO"). The applicant has ten (10) days to provide proof of compliance to the CEO and Town of New Haven Planning Board.

After the ten (10) days, if there is no proof of compliance submitted by applicant or the proof of compliance is not adequate, as determined by the CEO, then the provisions of Article VI, Sections 6.10-6.30 of the Town's Site Plan Ordinance, and any other Local Law enacted by the Town with regard to Site Plan Review that supersedes the current Site Plan Ordinance, shall control any violations of the terms and conditions of Applicant's site plan.

Furthermore, the Town of New Haven and the Town of New Haven Planning Board reserve the right to enforce the violations provision of the Site Plan Ordinance, and any other superseding Local Law, and any other legal remedy it deems necessary.

23. SEVERABILITY: In the event that any condition or part thereof of these conditions is found to be invalid or unenforceable, only that particular provision or part so found, and not the entire agreement, will be inoperative.

CIRCLE T ENTERPRISES, LLC
CEMENT BATCH PLANT SITE PLAN REVISIONS

TOWN OF NEW HAVEN PLANNING BOARD

EXHIBIT 2

Stormwater Management Memo
MBL Engineering
May 30, 2023 - Revised

TO: Circle T Enterprises, LLC
FROM: MBL Engineering, PLLC
RE: Appendix I – Stormwater Management Memo
DATE: April 30, 2021
Revised 5/30/23

This memo is a summary of the stormwater management design for the as-built concrete batch plant owned and operated by Circle T Enterprises, located at 178 Darrow Road, Town of New Haven. The memo and attachments are organized as follows:

- Introduction
- Methodology
- Soils
- Pre-developed Conditions
- Post-developed Conditions
- Stormwater Quality/Runoff Reduction
- Conclusion
- Attachments (Bound Separately)
 - » Attachment 1 –Pre & Post-Developed Drainage Area Plan
 - » Attachment 1 – Pre & Post-Development Model Input
 - » Attachment 2 - Pre & Post-Developed Conditions Stormwater Model Output
 - » Attachment 4 – Post Developed Water Quality/Runoff Reduction Calculations

INTRODUCTION

Circle T Enterprises, LLC constructed a concrete batch plant with associated access roads and infrastructure in the Fall of 2021. The purpose of this memo is to summarize pre -and post-development conditions including the stormwater quantity and quality measures to be provided for this development, inclusive of a 2nd silo proposed for the site in June 2023.

METHODOLOGY

The Autodesk Storm and Sanitary Analysis (ASSA) Modeling Software which utilizes the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Technical Release No. 55 (SCS TR-55) and TR-20 (SCS TR-20) methodologies were utilized to determine pre and post-development stormwater runoff rates and to design the stormwater management facilities. The storm sewer system was designed to convey a 10-year storm and flood routes were designed to convey a 100-year frequency.

SOILS

The Soil Survey of Oswego County, New York (USDA SCS 1977) identifies three soil types on the site with Soil Rating D. See the Stormwater Management Plan Appendix C for the Soil Survey Information on the soils located on the project site.

PRE-DEVELOPED CONDITIONS

The 27.27 acre site majorly consists of an existing barn and garage, mowed grass and open field areas. The site has been analyzed as three drainage areas under pre-developed conditions. The site flows to the Northwest, West and East areas of the property to Otter Creek or to a tributary of Catfish Creek. The drainage areas are shown on Attachment 1 – Pre-developed and Post-developed Drainage Area Maps.

The following is a summary of the pre-developed peak stormwater runoff rates for various design storms. The information and models used to estimate these peak flow rates can be found in Attachment 2 – Pre- & Post-Developed Conditions Input and Attachment 3, - Pre- & Post-developed conditions output.

Summary of Pre-Developed Peak Stormwater Rates (cfs) for 10- and 100-year frequency storms

Peak flow rates for the identified design year storm events are summarized in Table 1-1.

Table 1-1 Peak Runoff Discharge Rates		
Design Storm	10-year (cfs)	100-year (cfs)
Northwest Outlet	4.12	7.86
West Outlet	2.17	4.06
East Outlet	5.74	12.55
Total	12.03	24.47

Source: MBL Engineering, PLLC

cfs- Cubic Feet per Second

POST-DEVELOPED CONDITIONS

The site has been developed with a concrete batch plant and associated access as well as utilities and stormwater controls. As the project resulted in the disturbance of more than 1-acre of land a NYSDEC SPDES Permit for Stormwater Discharges from Construction Activities was obtained for the project. The SPDES Permit requires stormwater quantity and quality measures be provided, and the project developer has complied with the SPDES permit during construction and operation of the facility.

Under post-developed conditions the site consists of five drainage areas, that continue to drain to the existing drainage design points. The entire disturbed area is collected and conveyed to pea gravel strips, or grass buffer areas to pre-treat prior to entering the Dry Swales.

The Dry Swales were designed to provide mitigation for stormwater quality, runoff reduction, and quantity requirements in accordance with NYSDEC GP-0-20-001. Water quality volumes are provided in accordance with the requirements of the NYS Stormwater Management Design Manual. Runoff reduction volume is provided utilizing runoff reducing practices to treat the water quality volume. The post-developed condition calculations are provided in Attachment 4 (Post-Developed Conditions Stormwater Management and Water Quality Calculations) and the post-developed drainage area map is provided in Attachment 1 (Pre-Developed and Post-Developed Drainage Area Maps). Design details of the stormwater management areas are included in Attachment 5 (Contract Drawings). Details of the stage-storage-discharge relationships used in the Autodesk Storm and Sanitary Analysis model and design of the outlet facilities for the SWMA are included in Attachment 2 (Post-Developed Conditions Stormwater Management and Water Quality Calculations).

Notably, the addition of a second cement silo, given its size and proposed placement on the site, and the minimal impervious surface created by its installation, will not negatively impact the post-developed stormwater rates discharging to the design points as further discussed below.

The following is a summary of the post-developed stormwater rates discharging to the two design points for the 10- and 100-year storm events. The table shows that post-developed peak runoff flow rates are less than or equal to pre-developed runoff rates.

Summary of Post-Developed Peak Stormwater Rates (cfs) for 10- and 100-year frequency storms

Peak Runoff Discharge Rates		
Design Storm	10-year (cfs)	100-year (cfs)
Northwest Outlet	1.65	7.69
West Outlet	1.11	3.83
East Outlet	3.63	12.05
Total	6.39	23.57

Source: MBL Engineering, PLLC

cfs- Cubic Feet per Second

The following is a summary of the CPv provided for the 1-year storm event of a 24-hour period as required by the NYSDEC SPDES Permit for Stormwater Discharges from Construction Activities:

Summary of Channel Protection Flows for 1-year frequency storms

	Required CPv	Provided CPv*
Dry Swale	0.14-Ac-ft	0.14 Ac-ft

**The Channel protection volume is achieved by releasing the required CPv volume over 24-hours. This is verified by analyzing the "event mean runoff discharge" at the design point in ASSA and verifying that it is less than the allowed discharge over 24-hours shown above. See calculations attached.*

STORMWATER QUALITY/RUNOFF REDUCTION

Stormwater quality and runoff reduction measures are in accordance with the requirements of the NYS Stormwater Management Design Manual. The infiltration basins and Dry Swales for the site will provide the required stormwater quality measures. The following is a summary of the water quality volume required and the water quality volume provided. Calculations of the stormwater quality volume for the infiltration basins are provided in Attachment 4 (Post-Developed Conditions Stormwater Management and Water Quality Calculations). Details of the design of the SWMA is provided in Attachment 5 (Contract Drawings).

	WQv Required (acre-feet)	WQv Provided (acre-feet)
Dry Swale	0.17	0.25

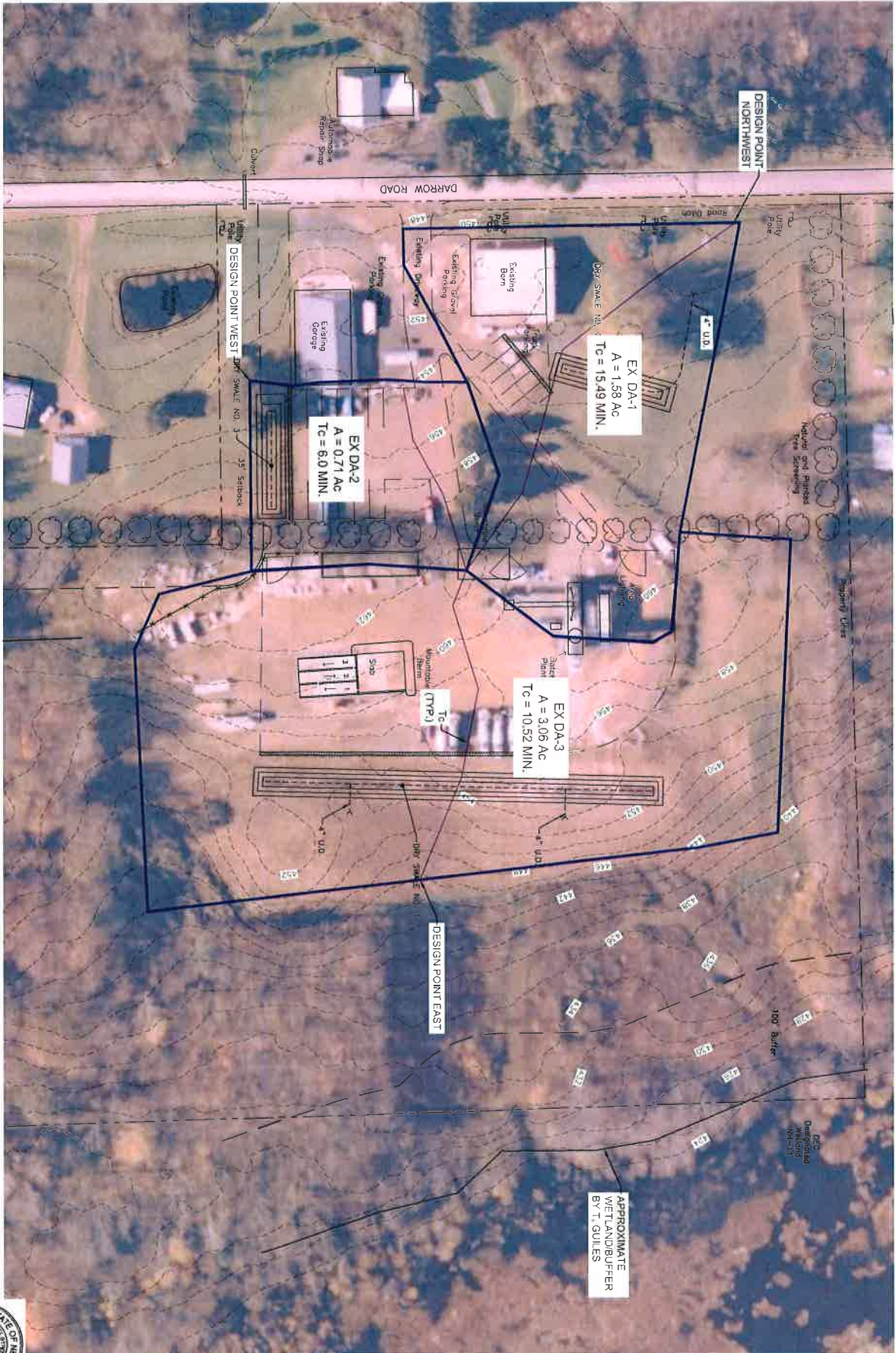
As illustrated in the table above, greater than 100% of the water quality volume has been treated in the infiltration basins which provides greater than the required runoff reduction for the design point. See Attachment 2 for runoff reduction calculations. The table below shows each discharge points runoff reductions.

	Minimum RRV Required (acre-feet)	RRv Provided (acre-feet)
Site	0.03	0.05

CONCLUSION

Through the use of stormwater management best practices, areas have been designed to provide stormwater quality and runoff reduction measures in accordance with the NYS Stormwater Management Design Manual. The addition of a second silo will not alter the stormwater management areas.

**-END OF MEMO-
(Attachments Follow)**



SITE PLAN

SCALE: 1"=40'



THE DRAWING WAS PREPARED BY THE CIVIL ENGINEER IN THE TOWN OF NEW HAVEN, CONNECTICUT, AND IS A REPRESENTATION OF THE EXISTING CONDITIONS. THE CIVIL ENGINEER HAS CONDUCTED A VISUAL INSPECTION OF THE SITE AND HAS FOUND THAT THE INFORMATION PROVIDED IN THIS DRAWING IS ACCURATE TO THE BEST OF HIS KNOWLEDGE AND BELIEF. THE CIVIL ENGINEER HAS NOT CONDUCTED ANY SURVEYING OR MEASUREMENTS TO VERIFY THE INFORMATION PROVIDED IN THIS DRAWING. THE CIVIL ENGINEER HAS NOT CONDUCTED ANY MEASUREMENTS TO VERIFY THE INFORMATION PROVIDED IN THIS DRAWING. THE CIVIL ENGINEER HAS NOT CONDUCTED ANY MEASUREMENTS TO VERIFY THE INFORMATION PROVIDED IN THIS DRAWING.



SHEET #
FIG 1

DATE
APRIL 2021

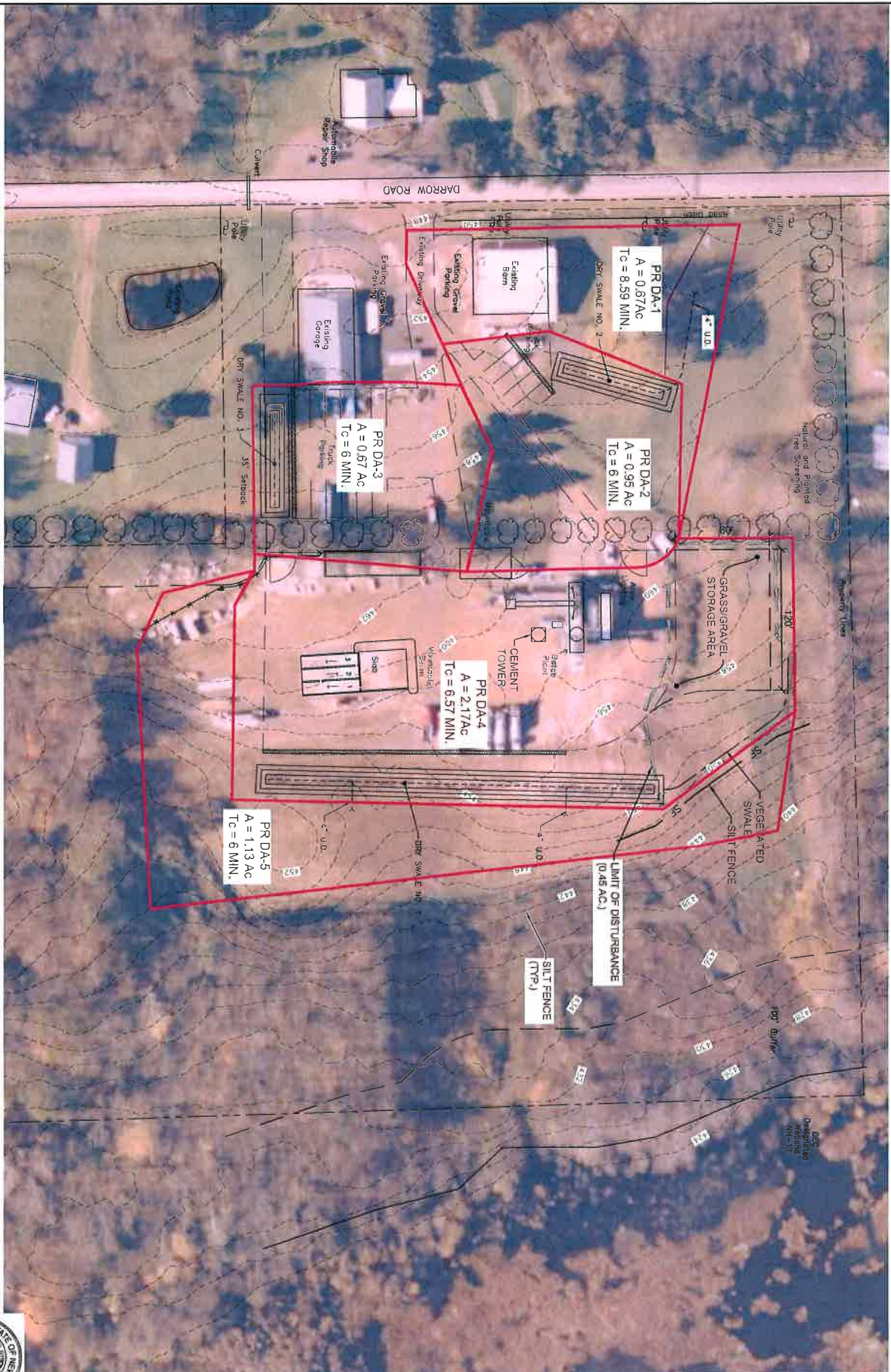
PROJECT #
21-142

CIRCLE T CONCRETE PLANT
178 DARROW ROAD
TOWN OF NEW HAVEN
OSWEGO COUNTY

MBL
ENGINEERING, PLLC

EXISTING
DRAINAGE PLAN

NO.	6	DATE	4/30/21	ISSUED FOR REGULATORY REVIEW
NO.		DATE		DRAWING RELEASE



SITE PLAN

SCALE: 1"=40'



THIS DRAWING WAS PREPARED BY THE ENGINEER IN THE FIELD. ANY CHANGES TO THE DRAWING MUST BE APPROVED BY THE ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO OBTAIN ALL NECESSARY PERMITS AND TO COMPLY WITH ALL APPLICABLE REGULATIONS. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND TO COMPLY WITH ALL APPLICABLE REGULATIONS.



SHEET #
FIG 2

DATE:
APRIL 2021

PROJECT #
21-142

CIRCLE T CONCRETE PLANT
178 DARROW ROAD
TOWN OF NEW HAVEN
OSWEGO COUNTY

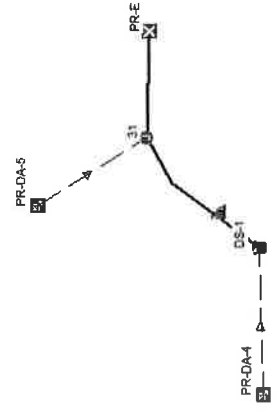
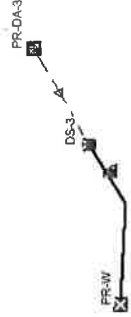
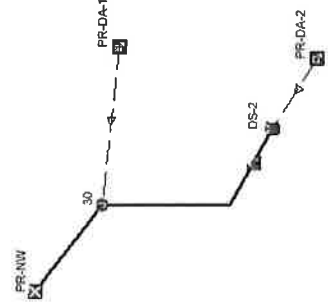
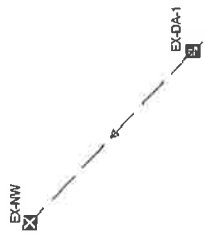


PROPOSED DRAINAGE
& ESC PLAN

NO.	4/30/21	ISSUED FOR REGULATORY REVIEW
DATE		DRAWING RELEASE

ATTACHMENT 2

PRE & -POST-DEVELOPED CONDITIONS STORMWATER MODEL INPUT



Project Description

File Name Model - Circle T Concrete Plant.SPF

Description

Analysis Options

Flow Units cfs
Subbasin Hydrograph Method. SCS TR-20
Time of Concentration..... SCS TR-55
Link Routing Method Hydrodynamic
Storage Node Exfiltration.. Constant rate, wetted area
Starting Date MAY-13-2011 00:00:00
Ending Date MAY-14-2011 04:00:00
Report Time Step 00:01:00

Element Count

Number of rain gages 1
Number of subbasins 8
Number of nodes 11
Number of links 5

Raingage Summary

Gage ID	Data Source	Data Type	Recording Interval	min
RainGage	100-yr	CUMULATIVE	6.00	

Subbasin Summary

Subbasin ID	Total Area acres	Peak Rate Factor
EX-DA-1	1.58	484.00
EX-DA-2	0.71	484.00
EX-DA-3	3.06	484.00
PR-DA-1	0.67	484.00
PR-DA-2	0.95	484.00
PR-DA-3	0.67	484.00
PR-DA-4	2.17	484.00
PR-DA-5	1.13	484.00

Node Summary

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft ²	External Inflow
---------	--------------	------------------------	---------------------	--------------------------------	-----------------

30	JUNCTION	453.00	456.00	5000.00
31	JUNCTION	445.00	450.00	5000.00
EX-E	OUTFALL	440.00	440.00	0.00
EX-NW	OUTFALL	452.00	452.00	0.00
EX-W	OUTFALL	453.00	453.00	0.00
PR-E	OUTFALL	440.00	443.00	0.00
PR-NW	OUTFALL	452.00	455.00	0.00
PR-W	OUTFALL	453.00	455.00	0.00
DS-1	STORAGE	454.00	456.00	0.00
DS-2	STORAGE	453.00	455.00	0.00
DS-3	STORAGE	453.00	455.00	0.00

Link Summary

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
48	30	PR-NW	CONDUIT	10.0	10.0000	0.0110
49	31	PR-E	CONDUIT	10.0	50.0000	0.0110
07	DS-3	PR-W	WEIR			
08	DS-2	30	WEIR			
09	DS-1	31	WEIR			

Cross Section Summary

Link Design ID Flow	Shape	Depth/ Diameter	Width	No. of Barrels	Cross Sectional Area	Full Flow Hydraulic Radius
Capacity		ft	ft		ft ²	ft
cfs						

48	CIRCULAR	3.00	3.00	1	7.07	0.75
249.27						
49	CIRCULAR	3.00	3.00	1	7.07	0.75
557.38						

Runoff Quantity Continuity	Volume acre-ft	Depth inches
Total Precipitation	5.024	5.510
Surface Runoff	0.055	0.060
Continuity Error (%)	-0.000	

Flow Routing Continuity	Volume acre-ft	Volume Mgallons
External Inflow	0.000	0.000
External Outflow	2.657	0.866
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.012	0.004
Continuity Error (%)	0.172	

Composite Curve Number Computations Report

Subbasin EX-DA-1

Soil/Surface Description	Area (acres)	Soil Group	CN
50 - 75% grass cover, Fair	1.00	D	84.00
Paved parking & roofs	0.29	D	98.00
Meadow, non-grazed	0.29	D	78.00
Composite Area & Weighted CN	1.58		85.47

Subbasin EX-DA-2

Soil/Surface Description	Area (acres)	Soil Group	CN
50 - 75% grass cover, Fair	0.44	D	84.00
Paved parking & roofs	0.13	D	98.00
Meadow, non-grazed	0.14	D	78.00
Composite Area & Weighted CN	0.71		85.39

Subbasin EX-DA-3

Soil/Surface Description	Area (acres)	Soil Group	CN
Woods, Fair	1.33	D	79.00
Meadow, non-grazed	1.73	D	78.00
Composite Area & Weighted CN	3.06		78.43

Subbasin PR-DA-1

Soil/Surface Description	Area (acres)	Soil Group	CN
Paved parking & roofs	0.10	D	98.00
> 75% grass cover, Good	0.57	D	80.00
Composite Area & Weighted CN	0.67		82.69

Subbasin PR-DA-2

Soil/Surface Description	Area (acres)	Soil Group	CN
> 75% grass cover, Good	0.84	D	80.00
Paved parking & roofs	0.11	D	98.00
Composite Area & Weighted CN	0.95		82.08

Subbasin PR-DA-3

Soil/Surface Description	Area (acres)	Soil Group	CN
Paved parking & roofs	0.45	D	98.00
> 75% grass cover, Good	0.22	D	80.00
Composite Area & Weighted CN	0.67		91.99

Subbasin PR-DA-4

Area Soil

Soil/Surface Description	(acres)	Group	CN
Meadow, non-grazed	0.92	D	78.00
Dirt roads	0.22	D	89.00
Gravel roads	1.03	D	91.00
Composite Area & Weighted CN	2.17		85.30

Subbasin PR-DA-5

Soil/Surface Description	Area (acres)	Soil Group	CN
Meadow, non-grazed	1.13	D	78.00
Composite Area & Weighted CN	1.13		78.00

SCS TR-55 Time of Concentration Computations Report

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

Tc = Time of Concentration (hrs)
n = Manning's Roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

V = 16.1345 * (Sf^{0.5}) (unpaved surface)
V = 20.3282 * (Sf^{0.5}) (paved surface)
V = 15.0 * (Sf^{0.5}) (grassed waterway surface)
V = 10.0 * (Sf^{0.5}) (nearly bare & untilled surface)
V = 9.0 * (Sf^{0.5}) (cultivated straight rows surface)
V = 7.0 * (Sf^{0.5}) (short grass pasture surface)
V = 5.0 * (Sf^{0.5}) (woodland surface)
V = 2.5 * (Sf^{0.5}) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation

V = (1.49 * (R^{2/3}) * (Sf^{0.5})) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)

Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

Subbasin EX-DA-1

Sheet Flow Computations

		Subarea A	Subarea B	Subarea
C				
	Manning's Roughness:	0.20	0.00	
0.00				
	Flow Length (ft):	100.00	0.00	
0.00				
	Slope (%):	6.00	0.00	
0.00				
	2 yr, 24 hr Rainfall (in):	2.50	2.50	
2.50				
	Velocity (ft/sec):	0.19	0.00	
0.00				
	Computed Flow Time (minutes):	8.99	0.00	
0.00				

Shallow Concentrated Flow Computations

		Subarea A	Subarea B	Subarea
C				
	Flow Length (ft):	285.00	0.00	
0.00				
	Slope (%):	7.00	0.00	
0.00				
	Surface Type:	Unpaved	Unpaved	
Unpaved				
	Velocity (ft/sec):	4.27	0.00	
0.00				
	Computed Flow Time (minutes):	1.11	0.00	
0.00				

=====

Total TOC (minutes):	10.10
----------------------	-------

=====

Subbasin EX-DA-2

Sheet Flow Computations

		Subarea A	Subarea B	Subarea
C				
	Manning's Roughness:	0.01	0.00	
0.00				
	Flow Length (ft):	100.00	0.00	
0.00				
	Slope (%):	5.00	0.00	
0.00				
	2 yr, 24 hr Rainfall (in):	2.50	2.50	
2.50				
	Velocity (ft/sec):	2.26	0.00	
0.00				
	Computed Flow Time (minutes):	0.74	0.00	
0.00				

Shallow Concentrated Flow Computations

		Subarea A	Subarea B	Subarea
C				
0.00	Flow Length (ft):	63.76	0.00	
0.00	Slope (%):	4.70	0.00	
Unpaved	Surface Type:	Paved	Unpaved	
0.00	Velocity (ft/sec):	4.41	0.00	
0.00	Computed Flow Time (minutes):	0.24	0.00	
=====				
	Total TOC (minutes):	0.98		
=====				

Subbasin EX-DA-3

Sheet Flow Computations

		Subarea A	Subarea B	Subarea
C				
0.00	Manning's Roughness:	0.20	0.00	
0.00	Flow Length (ft):	100.00	0.00	
0.00	Slope (%):	7.00	0.00	
2.50	2 yr, 24 hr Rainfall (in):	2.50	2.50	
0.00	Velocity (ft/sec):	0.20	0.00	
0.00	Computed Flow Time (minutes):	8.45	0.00	

Shallow Concentrated Flow Computations

		Subarea A	Subarea B	Subarea
C				
0.00	Flow Length (ft):	173.61	0.00	
0.00	Slope (%):	4.00	0.00	
Unpaved	Surface Type:	Grass pasture	Unpaved	
0.00	Velocity (ft/sec):	1.40	0.00	
0.00	Computed Flow Time (minutes):	2.07	0.00	
=====				
	Total TOC (minutes):	10.52		
=====				

Subbasin PR-DA-1

Sheet Flow Computations

		Subarea A	Subarea B	Subarea
C				
0.00	Manning's Roughness:	0.20	0.00	
0.00	Flow Length (ft):	100.00	0.00	
0.00	Slope (%):	7.00	0.00	
2.50	2 yr, 24 hr Rainfall (in):	2.50	2.50	
0.00	Velocity (ft/sec):	0.20	0.00	
0.00	Computed Flow Time (minutes):	8.45	0.00	

Shallow Concentrated Flow Computations

		Subarea A	Subarea B	Subarea
C				
0.00	Flow Length (ft):	35.00	0.00	
0.00	Slope (%):	7.00	0.00	
Unpaved	Surface Type:	Unpaved	Unpaved	
0.00	Velocity (ft/sec):	4.27	0.00	
0.00	Computed Flow Time (minutes):	0.14	0.00	

Total TOC (minutes): 8.59

Subbasin PR-DA-2

Total TOC (minutes): 0.00

Subbasin PR-DA-3

Total TOC (minutes): 0.00

Subbasin PR-DA-4

User-Defined TOC override (minutes): 6.57

Subbasin PR-DA-5

=====

Total TOC (minutes):

=====

0.00

Subbasin Runoff Summary

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days hh:mm:ss
EX-DA-1	5.51	3.89	7.88	85.470	0 00:10:06
EX-DA-2	5.51	3.88	4.06	85.390	0 00:06:00
EX-DA-3	5.51	3.19	12.60	78.430	0 00:10:31
PR-DA-1	5.51	3.61	3.31	82.690	0 00:08:35
PR-DA-2	5.51	3.55	5.04	82.080	0 00:06:00
PR-DA-3	5.51	4.59	4.31	91.990	0 00:06:00
PR-DA-4	5.51	3.87	12.16	85.300	0 00:06:34
PR-DA-5	5.51	3.15	5.43	78.000	0 00:06:00

Node Depth Summary

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
30	0.03	0.66	453.66	0 12:09	0	0	0:00:00
31	0.03	0.55	445.55	0 12:10	0	0	0:00:00
EX-E	0.00	0.00	440.00	0 00:00	0	0	0:00:00
EX-NW	0.00	0.00	452.00	0 00:00	0	0	0:00:00
EX-W	0.00	0.00	453.00	0 00:00	0	0	0:00:00
PR-E	0.02	0.32	440.32	0 12:10	0	0	0:00:00
PR-NW	0.03	0.36	452.36	0 12:09	0	0	0:00:00
PR-W	0.00	0.00	453.00	0 00:00	0	0	0:00:00
DS-1	0.63	1.91	455.91	0 12:12	0	0	0:00:00
DS-2	0.71	1.91	454.91	0 12:09	0	0	0:00:00
DS-3	0.68	1.87	454.87	0 12:09	0	0	0:00:00

Node Flow Summary

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days hh:mm
30	JUNCTION	3.29	7.69	0 12:09	0.00	
31	JUNCTION	5.42	12.05	0 12:10	0.00	
EX-E	OUTFALL	12.54	12.54	0 12:10	0.00	
EX-NW	OUTFALL	7.85	7.85	0 12:10	0.00	
EX-W	OUTFALL	4.06	4.06	0 12:08	0.00	
PR-E	OUTFALL	0.00	12.05	0 12:10	0.00	

PR-NW	OUTFALL	0.00	7.69	0	12:09	0.00
PR-W	OUTFALL	0.00	3.83	0	12:09	0.00
DS-1	STORAGE	12.09	12.09	0	12:08	0.00
DS-2	STORAGE	5.03	5.03	0	12:08	0.00
DS-3	STORAGE	4.31	4.31	0	12:07	0.00

Storage Node Summary

Storage Node ID	Maximum	Maximum	Time of Max	Average	Average	Maximum
Maximum Time of Max.	Total	Ponded	Ponded	Ponded	Ponded	Storage Node
Exfiltration	Exfiltration	Exfiltrated				
Rate	Rate	Volume	Volume	Volume	Volume	Outflow
		1000 ft ³	(%)	days hh:mm	1000 ft ³	(%)
cfm	hh:mm:ss	1000 ft ³				cfs
DS-1		10.139	93	0 12:12	2.745	25
22.43	12:12:00	16.765				
DS-2		2.946	93	0 12:09	0.893	28
6.87	12:09:00	5.182				
DS-3		2.757	89	0 12:09	0.807	26
6.70	12:09:00	5.185				

Outfall Loading Summary

Outfall Node ID	Flow	Average	Peak
	Frequency	Flow	Inflow
	(%)	cfs	cfs
EX-E	55.43	0.63	12.54
EX-NW	62.50	0.35	7.85
EX-W	61.64	0.16	4.06
PR-E	54.14	0.49	12.05
PR-NW	58.73	0.26	7.69
PR-W	12.41	0.47	3.83
System	50.81	2.37	47.45

Link Flow Summary

Link ID	Element	Time of	Maximum	Length	Peak Flow	Design	Ratio of
Ratio of	Total	Reported	Peak Flow	Velocity	Factor	Flow	Maximum
Maximum	Time	Type	Occurrence	Attained	during	Capacity	/Design
Flow	Surcharged	Condition	days hh:mm	ft/sec	cfs	cfs	Flow
Depth	minutes						

48		CONDUIT	0	12:09	9.66	4.51	7.69	249.27	0.03
0.17	0	Calculated							
49		CONDUIT	0	12:10	19.18	8.87	12.05	557.38	0.02
0.14	0	Calculated							
07		WEIR	0	12:09			3.83		
0.74									
08		WEIR	0	12:09			4.41		
0.83									
09		WEIR	0	12:12			8.06		
0.82									

Highest Flow Instability Indexes

All links are stable.

Analysis began on: Wed May 17 09:01:06 2023
Analysis ended on: Wed May 17 09:01:08 2023
Total elapsed time: 00:00:02

ATTACHMENT 3

PRE & -POST-DEVELOPED CONDITIONS STORMWATER MODEL OUTPUT

10-Year Pipes

From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Peak Flow	Time of Peak Flow	Max Flow Velocity	Travel Time	Design Flow Capacity	Max Flow Depth
						(%)		(inches)				(cfs)	(days hh:mm)	(ft/sec)	(min)	(cfs)	(ft)
64	PR-NW	10.00	453.00	452.00	1.00	10.0000	CIRCULAR	36.000	0.0110	0.5000	0.5000	1.65	0 12:10	7.63	0.02	249.27	0.21
64	PR-E	10.00	445.00	440.00	5.00	50.0000	CIRCULAR	36.000	0.0110	0.5000	0.5000	2.52	0 12:08	15.77	0.01	557.38	0.17

10-Year Outfalls

Element ID	Invert Elevation	Peak Inflow	Maximum HGL Elevation Attained
	(ft)	(cfs)	(ft)
EX-E	440.00	5.74	440.00
EX-NW	452.00	4.12	452.00
EX-W	453.00	2.17	453.00
PR-E	440.00	2.52	440.15
PR-NW	452.00	1.65	452.17
PR-W	453.00	1.11	453.00

10-Year Storage Nodes

Element ID	Invert Elevation (ft)	Max Elevation (Rim)	Initial Water Elevation (ft)	Exfiltration Rate (inches/hr)	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Peak Outflow (cfs)	Peak Exfiltration (cfm)	Maximum HGL Elevation (ft)	Time of Maximum HGL Occurrence (days hh:mm)
DS-1	454.00	456.00	454.00	2.0000	6.43	6.43	0.27	19.49	455.55	0 12:57
DS-2	453.00	455.00	453.00	2.0000	2.53	2.53	0.56	6.03	454.62	0 12:21
DS-3	453.00	455.00	453.00	2.0000	2.56	2.56	1.11	6.13	454.68	0 12:13

10-Year Junctions

Element ID	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Surcharge Depth	Peak Inflow	Maximum HGL Elevation Attained	Maximum HGL Depth Attained	Time of Maximum HGL Occurrence
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	(ft)	(ft)	(days hh:mm)
64	453.00	456.00	453.00	0.00	456.00	0.00	1.65	453.24	0.24	0 12:09
64	445.00	450.00	445.00	0.00	450.00	0.00	2.52	445.19	0.19	0 12:08

10-Year Weirs

From (Inlet) Node	To (Outlet) Node	From (Inlet) Node Invert Elevation	To (Outlet) Node Invert Elevation	Type	Crest Elevation	Crest Offset	Length	Weir Total Height	Discharge Coefficient	Peak Flow
					(ft)	(ft)	(ft)	(ft)		(cfs)
DS-3	PR-W	453.00	453.00	TRAPEZOIDAL	454.50	1.50	4.00	0.50	3.33	1.11
DS-2	64	453.00	453.00	TRAPEZOIDAL	454.50	1.50	4.00	0.50	3.33	0.56
DS-1	64	454.00	445.00	TRAPEZOIDAL	455.50	1.50	8.00	0.50	3.33	0.27

10-Year Subbasins

Element ID	Area	Drainage Node ID	Weighted Curve Number	Total Precipitation	Total Runoff	Peak Runoff	Time of Concentration
	(acres)			(inches)	(inches)	(cfs)	(days hh:mm:ss)
EX-DA-1	1.58	EX-NW	85.47	3.34	1.92	4.14	0 00:10:06
EX-DA-2	0.71	EX-W	85.39	3.34	1.91	2.18	0 00:06:00
EX-DA-3	3.06	EX-E	78.43	3.34	1.41	5.77	0 00:10:31
PR-DA-1	0.67	64	82.69	3.34	1.70	1.67	0 00:08:35
PR-DA-2	0.95	DS-2	82.08	3.34	1.66	2.54	0 00:06:00
PR-DA-3	0.67	DS-3	91.99	3.34	2.48	2.56	0 00:06:00
PR-DA-4	2.17	DS-1	85.30	3.34	1.90	6.48	0 00:06:34
PR-DA-5	1.13	64	78.00	3.34	1.38	2.53	0 00:06:00

100-Year Pipes

From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (inches)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Max Flow Velocity (ft/sec)	Travel Time (min)	Design Flow Capacity (cfs)	Max Flow Depth (ft)
64	PR-NW	10.00	453.00	452.00	1.00	10.0000	CIRCULAR	36.000	0.0110	0.5000	0.5000	7.69	0 12:09	9.66	0.02	249.27	0.51
64	PR-E	10.00	445.00	440.00	5.00	50.0000	CIRCULAR	36.000	0.0110	0.5000	0.5000	12.05	0 12:10	19.18	0.01	557.38	0.43

100-Year Pipes

Element ID	Invert Elevation	Peak Inflow	Maximum HGL Elevation Attained
	(ft)	(cfs)	(ft)
EX-E	440.00	12.54	440.00
EX-NW	452.00	7.85	452.00
EX-W	453.00	4.06	453.00
PR-E	440.00	12.05	440.32
PR-NW	452.00	7.69	452.36
PR-W	453.00	3.83	453.00

100-Year Pipes

Element ID	Invert Elevation (ft)	Max (Rim) Elevation	Initial Water Elevation	Exfiltration Rate	Peak Inflow	Peak Lateral Inflow	Peak Outflow	Peak Exfiltration	Peak Flow Rate	Maximum HGL Elevation Attained (ft)	Time of Maximum HGL Occurrence (days hh:mm)
DS-1	454.00	456.00	454.00	2.0000	12.09	12.09	(cfs)	(cfs)	22.43	455.91	0 12:12
DS-2	453.00	455.00	453.00	2.0000	5.03	5.03	4.41	4.41	6.87	454.91	0 12:09
DS-3	453.00	455.00	453.00	2.0000	4.31	4.31	3.83	3.83	6.70	454.87	0 12:09

100-Year Pipes

Element ID	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Surcharge Depth	Peak Inflow	Maximum Elevation Attained	Maximum HGL Depth Attained	Time of Maximum HGL Occurrence
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	(ft)	(ft)	(days hh:mm)
64	453.00	456.00	453.00	0.00	456.00	0.00	7.69	453.66	0.66	0 12:09
64	445.00	450.00	445.00	0.00	450.00	0.00	12.05	445.55	0.55	0 12:10

100-Year Pipes

From (Inlet) Node	To (Outlet) Node	From (Inlet) Node Invert Elevation (ft)	To (Outlet) Node Invert Elevation (ft)	Type	Crest Elevation (ft)	Crest Offset	Length (ft)	Weir Total Height	Discharge Coefficient	Peak Flow (cfs)
DS-3	PR-W	453.00	453.00	TRAPEZOIDAL	454.50	1.50	4.00	0.50	3.33	3.83
DS-2	64	453.00	453.00	TRAPEZOIDAL	454.50	1.50	4.00	0.50	3.33	4.41
DS-1	64	454.00	445.00	TRAPEZOIDAL	455.50	1.50	8.00	0.50	3.33	8.06

100-Year Pipes

Element ID	Area	Drainage Node ID	Weighted Curve Number	Total Precipitation	Total Runoff	Peak Runoff	Time of Concentration
	(acres)			(inches)	(inches)	(cfs)	(days hh:mm:ss)
EX-DA-1	1.58	EX-NW	85.47	5.51	3.89	7.88	0 00:10:06
EX-DA-2	0.71	EX-W	85.39	5.51	3.88	4.06	0 00:06:00
EX-DA-3	3.06	EX-E	78.43	5.51	3.19	12.60	0 00:10:31
PR-DA-1	0.67	64	82.69	5.51	3.61	3.31	0 00:08:35
PR-DA-2	0.95	DS-2	82.08	5.51	3.55	5.04	0 00:06:00
PR-DA-3	0.67	DS-3	91.99	5.51	4.59	4.31	0 00:06:00
PR-DA-4	2.17	DS-1	85.30	5.51	3.87	12.16	0 00:06:34
PR-DA-5	1.13	64	78.00	5.51	3.15	5.43	0 00:06:00

ATTACHMENT 4

POST DEVELOPED WATER QUALITY/RUNOFF REDUCTION CALCULATIONS

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?..... **No**

Design Point: **Site**
P= **1.00** *inch* **Manually enter P, Total Area and Impervious Cover.**

Breakdown of Subcatchments						
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft ³)	Description
1	0.95	0.34	36%	0.37	1,282	DS-2 (PR DA-2)
2	0.67	0.24	35%	0.37	890	DS-3 (PR DA-3)
3	2.17	1.47	68%	0.66	5,196	DS-1 (PR DA-4)
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	3.79	2.05	54%	0.54	7,369	Subtotal 1
Total	3.79	2.05	54%	0.54	7,369	Initial WQv

0.17	af
------	----

Identify Runoff Reduction Techniques By Area			
Technique	Total Contributing Area	Contributing Impervious Area	Notes
	(Acre)	(Acre)	
Conservation of Natural Areas	0.00	0.00	<i>minimum 10,000 sf</i>
Riparian Buffers	0.00	0.00	<i>maximum contributing length 75 feet to 150 feet</i>
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	<i>Up to 100 sf directly connected impervious area may be subtracted per tree</i>
Total	0.00	0.00	

Recalculate WQv after application of Area Reduction Techniques							
	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft ³)		
"<<Initial WQv"	3.79	2.05	54%	0.54	7,369		
Subtract Area	0.00	0.00					
WQv adjusted after Area Reductions	3.79	2.05	54%	0.54	7,369		
Disconnection of Rooftops		0.00					
Adjusted WQv after Area Reduction and Rooftop Disconnect	3.79	2.05	54%	0.54	7,369	0.17	af
WQv reduced by Area Reduction techniques					0	0.00	af

Minimum RRv

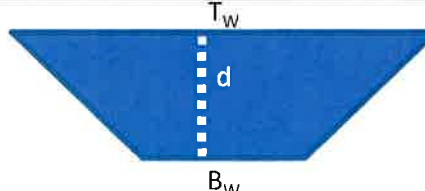
Enter the Soils Data for the site

Soil Group	Acres	S
A	0.00	55%
B	0.00	40%
C	0.00	30%
D	3.42	20%
Total Area	3.42	

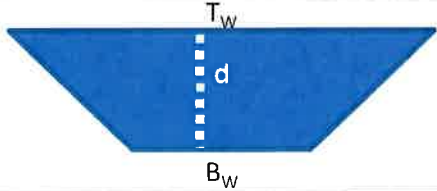
Calculate the Minimum RRv

S =	0.20	
Impervious =	2.05	acre
Precipitation	1	in
Rv	0.95	
Minimum RRv	1,411	ft ³
	0.03	af

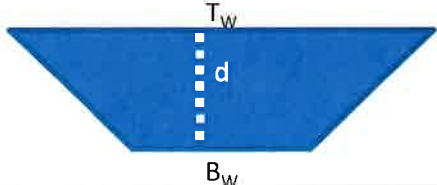
Dry Swale Worksheet

Design Point:	Site						
Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft³)	Precipitation (in)	Description
3	2.17	1.47	0.68	0.66	5196.35	1.00	DS-1 (PR DA-4)
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	68%	0.66	5,196	<<WQv after adjusting for Disconnected Rooftops	
Pretreatment Provided					Pretreatment Technique		
Pretreatment (10% of WQv)			520	ft ³	Pea Gravel Strip		
Calculate Available Storage Capacity							
Bottom Width	8	ft	Design with a bottom width no greater than eight feet to avoid potential gullyng and channel braiding, but no less than two feet				
Side Slope (X:1)	4	Okay	Channels shall be designed with moderate side slopes (flatter than 3:1) for most conditions. 2:1 is the absolute maximum side slope				
Longitudinal Slope	0%	Okay	Maximum longitudinal slope shall be 4%				
Flow Depth	1.5	ft	Maximum ponding depth of one foot at the mid-point of the channel, and a maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Top Width	20	ft					
Area	21.00	sf					
Minimum Length	223	ft					
Actual Length	329	ft					
End Point Depth check	1.50	Okay	A maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Storage Capacity	7,429	ft ³					
Soil Group (HSG)			D				
Runoff Reduction							
Is the Dry Swale contributing flow to another practice?			No	Select Practice			
RRv	1,486	ft³	Runoff Reduction equals 40% in HSG A and B and 20% in HSG C and D up to the WQv				
Volume Treated	3,711	ft ³	This is the difference between the WQv calculated and the runoff reduction achieved in the swale				
Volume Directed	0	ft ³	This volume is directed another practice				
Volume v	Okay		Check to be sure that channel is long enough to store WQv				

Dry Swale Worksheet

Design Point:	Site						
Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft ³)	Precipitation (in)	Description
1	0.95	0.34	0.36	0.37	1282.15	1.00	DS-2 (PR DA-2)
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	36%	0.37	1,282	<<WQv after adjusting for Disconnected Rooftops	
Pretreatment Provided					Pretreatment Technique		
Pretreatment (10% of WQv)			128	ft ³	Grass Filter Strip		
Calculate Available Storage Capacity							
Bottom Width	8	ft	Design with a bottom width no greater than eight feet to avoid potential gullyng and channel braiding, but no less than two feet				
Side Slope (X:1)	4	Okay	Channels shall be designed with moderate side slopes (flatter than 3:1) for most conditions. 2:1 is the absolute maximum side slope				
Longitudinal Slope	0%	Okay	Maximum longitudinal slope shall be 4%				
Flow Depth	1.5	ft	Maximum ponding depth of one foot at the mid-point of the channel, and a maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Top Width	20	ft					
Area	21.00	sf					
Minimum Length	55	ft					
Actual Length	88	ft					
End Point Depth check	1.50	Okay	A maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Storage Capacity	1,976	ft ³					
Soil Group (HSG)			D				
Runoff Reduction							
Is the Dry Swale contributing flow to another practice?			No	Select Practice			
RRv	395	ft ³	Runnoff Reduction equals 40% in HSG A and B and 20% in HSG C and D up to the WQv				
Volume Treated	887	ft ³	This is the difference between the WQv calculated and the runoff reduction achieved in the swale				
Volume Directed	0	ft ³	This volume is directed another practice				
Volume v	Okay		Check to be sure that channel is long enough to store WQv				

Dry Swale Worksheet

Design Point:	Site						
Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft ³)	Precipitation (in)	Description
2	0.67	0.24	0.35	0.37	890.33	1.00	DS-3 (PR DA-3)
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	35%	0.37	890	<<WQv after adjusting for Disconnected Rooftops	
Pretreatment Provided					Pretreatment Technique		
Pretreatment (10% of WQv)			89	ft ³	Pea Gravel Strip		
Calculate Available Storage Capacity							
Bottom Width	8	ft	Design with a bottom width no greater than eight feet to avoid potential gullyng and channel braiding, but no less than two feet				
Side Slope (X:1)	4	Okay	Channels shall be designed with moderate side slopes (flatter than 3:1) for most conditions. 2:1 is the absolute maximum side slope				
Longitudinal Slope	0%	Okay	Maximum longitudinal slope shall be 4%				
Flow Depth	1.5	ft	Maximum ponding depth of one foot at the mid-point of the channel, and a maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Top Width	20	ft					
Area	21.00	sf					
Minimum Length	38	ft					
Actual Length	82	ft					
End Point Depth check	1.50	Okay	A maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Storage Capacity	1,811	ft ³					
Soil Group (HSG)			D				
Runoff Reduction							
Is the Dry Swale contributing flow to another practice?			No	Select Practice			
RRv	362	ft ³	Runoff Reduction equals 40% in HSG A and B and 20% in HSG C and D up to the WQv				
Volume Treated	528	ft ³	This is the difference between the WQv calculated and the runoff reduction achieved in the swale				
Volume Directed	0	ft ³	This volume is directed another practice				

CIRCLE T ENTERPRISES, LLC

CEMENT BATCH PLANT SITE PLAN REVISIONS

TOWN OF NEW HAVEN PLANNING BOARD

EXHIBIT 3

**Photographs of the Current Batch
Plant Operations**

**Circle T Enterprises
Cement Batch Plant Site Plan Review & Revisions
June 2023**



View of enclosed areas of batch plant



View of Conveyer & Current Silo



Second Silo to be Placed Adjacent to the Current Silo



Proposed Location of the Second Silo (Foundation Dug)



Aggregate Bins & Stock Yard



Washout Basin & Protective Barrier



Staging Area



Batch Plant with Dust Collection System



Exit Sign – No Right Turn



Speed Sign on Darrow Road Directly North of Batch Plant