June 1, 2023

City of Stamford
Planning Board
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

RE: ***Subdivision Application***
503 Wire Mill Road – Stamford, CT

Dear Mr. Blessing,

As discussed, on behalf of 503 WMR LLC (owner & applicant), enclosed please find an application for Subdivision of Properties. We are proposing a subdivision of the one property into total of three (3) lots, each meeting the minimum lot size of 1 acre in the RA-1 Zone. The proposed subdivision consists of a total of 3.62 acres (157,569 sf) of land and will include 15,825SF (10%) of Open Space. The proposed lots will be improved with new single-family homes (and associated utilities) all served by the existing Studio Road right-of-way with the remaining unbuilt portions of the cul-de-sac to be physically constructed by the applicant.

In support of the application enclosed please find:

1. Checks in the amount of $1,575;
2. Twelve (12) copies of Application for Subdivision of Property;
3. Twelve (12) copies of Preliminary Subdivision Checklist;
4. Twelve (12) copies of Consolidation Map;
5. Twelve (12) copies of Property Descriptions;
6. Twelve (12) copies of Property & Topographic Survey;
7. Twelve (12) copies of Preliminary Subdivision Map;
8. Twelve (12) sets of Site Development Plans;
9. Twelve (12) sets of the Landscape Plan;
10. Twelve (12) copies of the Drainage Report;
11. Twelve (12) copies of the Arborist Report; and
12. Agent Authorization Letter.

We look forward to presenting this subdivision before the Planning Board. Please do not hesitate to contact us should you have any questions or require additional information.

Sincerely,

Raymond R. Mazzeo, AICP

Enclosures

City of Stamford
Planning Board • Land Use Bureau
Government Center • 888 Washington Boulevard • Stamford, CT 06904-2152
Phone: (203) 977-4076

STAMFORD PLANNING BOARD
APPLICATION FOR THE SUBDIVISION OF PROPERTY

Complete, notarize and forward twelve (12) copies of the application and a **Preliminary Subdivision Plan certified by a Registered Land Surveyor** to the Clerk of the Planning Board with the requested application filing fee (**see Fee Schedule below**) payable to the City of Stamford. **NOTE: Include the $1,000.00 Public Hearing Fee if three (3) or more lots. COST OF REQUIRED ADVERTISEMENTS ARE PAYBLE BY THE APPLICANT.**

Fees:

Two (2) Lots	$335.00
Three (3) Lots or More	$275.00 plus $300.00 for each lot in excess of the first two (2) lots
Public Hearing Fee	$1,000.00 (Required for 3+ Lots)

LIST NAME(S): 503 WMR LLC

ADDRESS(ES) OF APPLICANT(S): 503 Wire Mill Road - Stamford, CT 06903-4716

INFORMATION ABOUT PROPERTY BEING SUBDIVIDED

LOCATION OF PROPERTY PROPOSED FOR SUBDIVISION:
503 Wire Mill Road Parcel 3 per Filed Map#15307 prepared by Redniss & Mead

BLOCK NO.: 378 ZONE: RA-1 NUMBER OF LOTS AFTER DIVISION: 3

IF NEW STREET(S) IS/ARE PROPOSED, PROPOSED STREET NAME(S):
TBD

NAME & ADDRESS TO WHICH ALL CORRESPONDENCE SHOULD BE SENT:
c/o Redniss and Mead - 22 First Street, Stamford, CT 06905

PHONE: 203-327-0500

DATED AT STAMFORD, CONNECTICUT THIS 1 DAY OF June 2023

THE APPLICANT HAS SEARCHED TITLE AND WILL ABIDE BY EXISTING DEED RESTRICTION AND COVENANTS WHICH EXISTS, OR SWEARS THAT NONE EXIST.

SIGNED BY: _____ (Owner or Agent)

STATE OF CONNECTICUT
COUNTY OF FAIRFIELD ss:) Stamford June 1 2023 (Date)

personally appeared Raymond R. Mazzeo signer of the foregoing Application, who made oath to the truth of the content hereof, before me, and also swears that there is no injunction of pending litigation concerning this property.

SEAL

DAVID PINTO
Notary Public, State of Connecticut
My Commission Expires Mar 31, 2026

_____
Notary Public ~~or Commissioner of the Superior Court~~
Commission Expires: March 31, 2026

DO NOT FILL IN BELOW. FOR PLANNING DEPARTMENT USE ONLY.

RECEIVED: _____ APPLICATION NO. _____

EPB_____ HEALTH_____ TRAFFIC_____ ENGINEERING_____ FIRE_____

EXTENSION OF TIME_____ OTHER_____

City of Stamford
Planning Board • Land Use Bureau
Government Center • 888 Washington Boulevard • Stamford, CT 06904-2152
Phone: (203) 977-4076

PRELIMINARY SUBDIVISION CHECKLIST

The completed Application for Subdivision of Property (*Pg. 1*) shall be accompanied by a completed Preliminary Subdivision Checklist (*Pg. 2 - 4*), a filing fee as indicated on *Pg. 1* and twelve (12) copies of the Preliminary Subdivision Plan meeting all the requirements listed below.

In light of State Statue requirements for timely action by the Planning Board in these matters, staff is instructed to refuse any subdivision application that does not conform to the requirements listed below and the Zoning Regulations of the City of Stamford. The Board, or its designee, shall certify said application as complete.

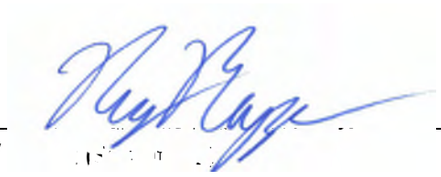
FILING REOUIREMENTS	✓ Items Submitted	Staff Review
1. A vicinity sketch, at a scale of eight hundred (800) feet to the inch suitable for the purpose of orientation, showing existing streets in the area generally contiguous to the proposed subdivision and how they may connect or relate to streets proposed in the subdivision in order to produce the most advantageous development for the entire neighboring area.	X	
2. The proposed name of the subdivision, the name(s) of the owner(s) of record, the subdivider and the surveyor and/or engineer.	X	
3. The names of adjacent subdivisions and the names of record owners of adjacent parcels of subdivided and unsubdivided land.	X	
4. The boundary lines, accurate in scale, of the tract to be subdivided.	X	
5. The location, widths and names of all constructed or unconstructed public or private streets or other ways of access, with both right-of-way and traveled way shown, within or immediately adjacent to the tract and other significant features such as but not limited to existing permanent buildings, utility poles, hydrants, stone walls and railroad lines. The location of existing houses on adjacent properties within one hundred (100) feet of the subdivision.	X	
6. The location of municipal boundaries, zone boundary lines, setback lines, State channel encroachment lines and Flood Hazard Boundaries.	X	
7. Where the total area to be subdivided is in excess of one acre and/or contains wetlands, soils information showing SCA (Soil Conservation Service), soil types and boundaries shall be provided by a certified soil scientist. If required for clarity of presentation, the soils information may be depicted on a separate map identical in scale to the preliminary plan.	X	
8. The location of significant natural features including wetlands (based on SCS soil types) and watercourses; rock outcroppings; and all trees of twelve (12) inch diameter or greater within fifty (50) feet of the center line of all new streets and twenty-five (25) feet of the center line of all new common driveways.	X	
9. The approximate location of existing sewers, water mains, culverts and other underground utilities or structures within the tract and immediately adjacent thereto, with pipe sizes indicated where connections are proposed.	X	
10. The certified location of existing wells and septic systems and to the extent feasible, the approximate location of those on adjacent properties within seventy-five (75) feet of the subdivision; natural or man-made drainage ways; pools and underground tanks.	X	
11. Topographical data having contour intervals not greater than two (2) feet shall be supplied.	X	
12. Where the lots are to be served by individual septic systems, areas having slopes in excess of twenty-five percent (25%) shall be delineated.	X	

13. Where new driveways and/or roads are to be constructed, proposed sight-lines shall be delineated on a plan at a scale of one (1) inch equals twenty (20) or forty (40) feet. The plans shall indicate modifications required to attain and maintain acceptable sight-lines.	X	
14. Copies of any private restrictions to be included in the deeds of conveyance should accompany the submission of the preliminary plan.	n/a	
15. The approximate area of each proposed lot in terms of square feet or acreage.	X	
16. Potential house sites and drivways for each lot and well and/or spetic systems, if on-site sewage and wells are to be used.	X	
17. Proposed method of soil erosion control both during and following construction.	X	
18. In the case of new building lots traversed by or adjoining major rivers, the following data shall be shown:		
a. Related elevation between the water's edge (bank) and at twenty-five (25) foot intervals back from the water's edge, with a minimum of three (3) elevations from and including bank elevations.	n/a	
b. Elevations referred to in Item (a) shall be taken every fifty (50) feet along the water's edge, except there shall not be less than two (2) such lines of elevations in any case.	n/a	
c. "Water's edge" and "top of bank" shall be noted.	n/a	
d. A cross section of the river shall be shown indicating the elevation of the riverbed, water's edge, and top of bank at each point referred to in Item (b) above.	n/a	
e. New City Datum (NGVD29) shall be used and a note to that effect shall be put on the drawing in connection with items (a) through (c) above.	n/a	
f. Existing encroachment lines of 100-year storm elevations.	n/a	
19. In the case of any subdivision located with the Coastal Boundary, the following information shall be provided:		
a. Identification of coastal resources.	n/a	
b. Identification of affected coastal use policies.	n/a	
c. Identification of adverse impact on coastal resources, if any, and proposed measures to mitigate any adverse impacts.	n/a	
d. Statement of Consistence with applicable goals and policies of the Coastal Management Act.	n/a	
20. Where the preliminary plan includes only a portion of the applicant's contiguous holding, the applicant shall also indicate on a plan, the probable future street and lot arrangement.	n/a	
21. In cases where the subdivider proposes to construct or reconstruct a street or common driveway serving four (4) or more lots, the subdivider shall submit to the Planning Board certification by a professional engineer, licensed by the State of Connecticut, attesting to the adequacy of the existing storm and/or sanitary sewer system into which the proposed system will empty.	X	
22. Statement from a professional engineer, licensed by the State of Connecticut (signed and sealed), confirming the absence of impacts on drainage, soils, infrastructure, and adjoining properties.	X	

23. Proposed subdivisions encompassing land in area equal to or greater than three (3) times the minimum lot size of the Zone(s) in which located shall be required to contribute to the open space needs of the community and open space objectives of the Master Plan.	X	
24. Such other information as the Planning Board may require.	TBD	

I certify that the application includes all of the above requirements as noted. Please explain reasons for any ommissions.

Raymond R. Mazzeo, AICP
Owner / Agent (Please Print)



Owner / Date June 1, 2023

Staff Review Date

June 1, 2023

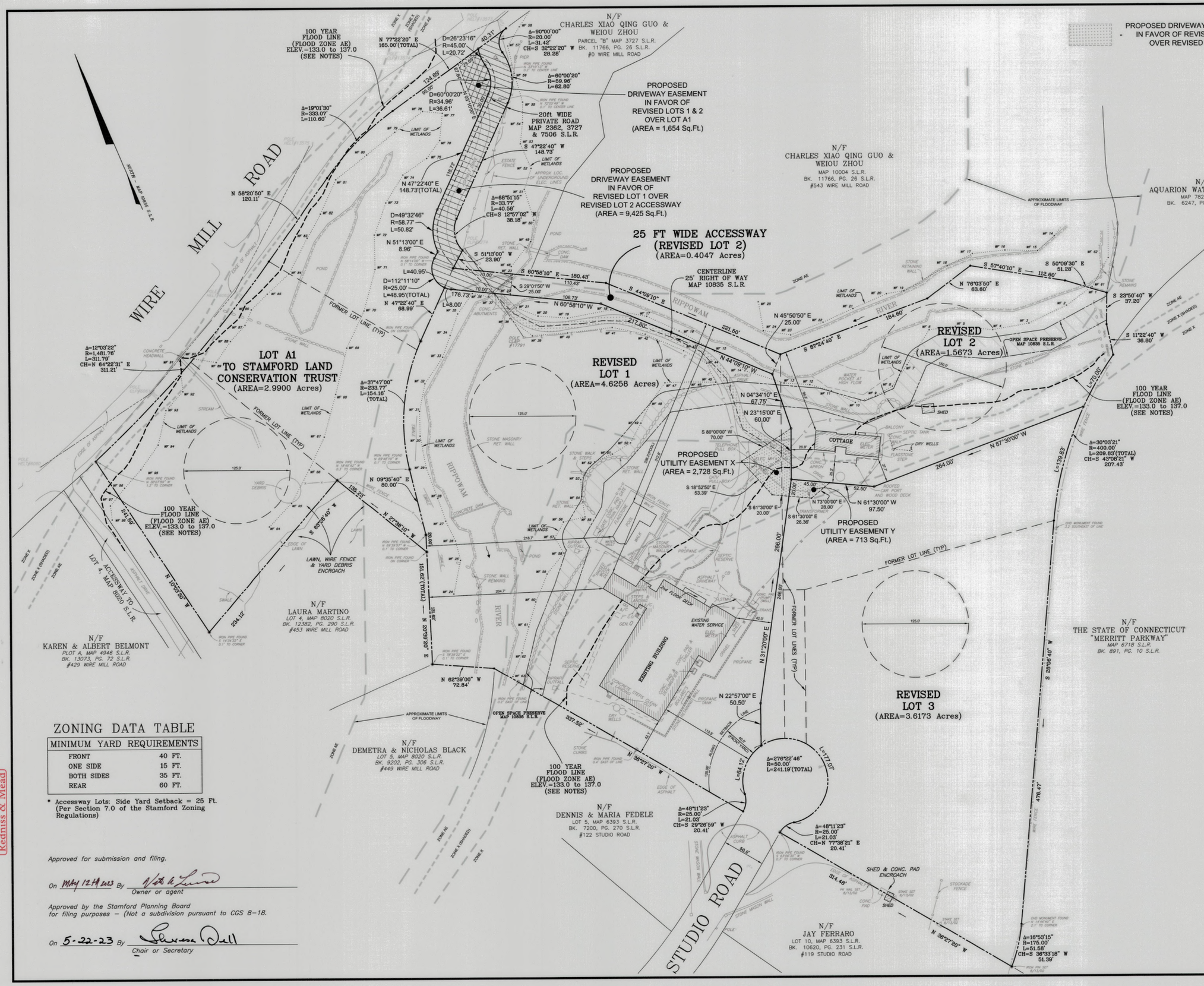
General Property Description
Subdivision Application

Block #: 378
Area: 3.6173 Acres

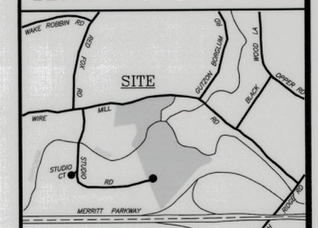
All those parcels of land commonly known as 503 Wire Mill Road (Lot 3) located in the City of Stamford, and generally described as follows:

Beginning at the southwesterly corner of the Merritt Parkway, said land is bound by the following:

Easterly:	738'± by land n/f of the State of Connecticut;
Northerly:	362' ± by land n/f of 503 WMR LLC;
Westerly:	316.5'± by land n/f of 503 WMR LLC; and
Southerly	483' ± by the terminus of Studio Road and land n/f of Jay Ferraro.



BLOCK: 378 ZONE: RA-1



STAMFORD,CT 1"=800'

ORIENTATION

NOTES:

1. *This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. as a Property Survey the Boundary Determination Category of which is a Resurvey of the record boundaries and an Original Survey of the new lot lines, each conforming to Horizontal Accuracy Class A-2. It is intended to depict an adjustment of lot lines and a consolidation of parcels.*
2. *Reference is made to maps 2362, 3727, 4231, 4946, 6393 6718, 7506, 7805, 7823, 8020, 8222, 10004 & 10835 of the Stamford Land Records*
3. *Reference is made to deed of record found in Bk. 13062, on Pg. 238 of the Stamford Land Records.*
4. *Reference is made to dam and flood rights as described in Bk. 428, Pg. 342 of the Stamford Land Records.*
5. *Reference is made to instruments of record as labeled hereon.*
6. *Areas of the surveyed parcels:*
   - *Revised Lot 1 = 201,499 Sq.Ft. or 4.6258 Acres*
   - *Revised Lot 2 (Lot) = 68,272 Sq.Ft. or 1.5673 Acres*
   - *(Accessway) = 17,631 Sq.Ft. or 0.4047 Acres*
   - *(Total) = 85,903 Sq.Ft. or 1.9720 Acres*
   - *Revised Lot 3 = 157,569 Sq.Ft. or 3.6173 Acres*
   - *Lot A1 = 130,243 Sq.Ft. or 2.9900 Acres*
   - *Total Area = 575,214 Sq.Ft. or 13.2051 Acres*
7. *Each parcel conforms to current zoning requirements.*
8. *Elevations depicted hereon are based on the North American Vertical Datum of 1988 (NAVD-88).*
9. *Portions of the property lie within Flood Zones AE and X as depicted on Federal Emergency Management Agency - Flood Insurance Rate Map Community No. 09001C0506F-Panel No. 506 effective date of June 18, 2010. Base flood elevation (BFE) ranges between 133.0 and 137.0 (BFE at section line AV=133.9 and at section line AW=136.4). The BFE was established by field survey on April 10 - 12, 2002.*
10. *Wetlands depicted on subject parcels were field identified and flagged by Otto R. Theall, Professional Soil Scientist, Professional Wetland Scientist in April 2002 and were field located by this office on April 10 - 12, 2002.*
11. *Wetlands depicted on abutting parcels (N/F Cleveland A. Christophe & Cheryl S. Christophe) were field identified and flagged by Otto R. Theall, Professional Soil Scientist, Professional Wetland Scientist on August 12, 1999 and were field located by this office on August 16, 1999.*
12. *Reference is made to an unrecorded map titled "Property & Topographic Survey depicting 503 Wire Mill Road - Stamford, CT prepared for 503 WMR LLC" dated 2/27/2023 and prepared by this office.*
13. *Record Owners: 503 WMR LLC*

ZONING DATA TABLE

MINIMUM YARD REQUIREMENTS	
FRONT	40 FT.
ONE SIDE	15 FT.
BOTH SIDES	35 FT.
REAR	60 FT.

* Accessway Lots: Side Yard Setback = 25 Ft. (Per Section 7.0 of the Stamford Zoning Regulations)

Approved for submission and filing.

On May 12th 2023 *By* _____ *Owner or agent*

Approved by the Stamford Planning Board for filing purposes - (Not a subdivision pursuant to CGS 8-18.

On 5-22-23 *By* _____ *Chair or Secretary*

THIS IS AN ORIGINAL MYLAR PRODUCED FOR FILING ON THE LAND RECORDS
Redniss & Mead

No.	By	Date	Revision Note
1	JPP	5/3/2023	PER CITY OF STAMFORD COMMENTS.

PROPERTY SURVEY

DEPICTING A

CONSOLIDATION OF PARCELS and ADJUSTMENT OF LOT LINES

(503 WIRE MILL ROAD)

STAMFORD, CT

PREPARED FOR

503 WMR LLC

REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax 203.357.1118
www.rednissmead.com

Scale: 1"=50' (0, 50, 100)

Drawn By: JPP | Checked By: | Date: 3/14/2023

To my knowledge and belief this map is substantially correct as noted hereon

JORGE P. PEREIRA CT. L.S. #70179

5/3/2023

DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration hereon null & void.

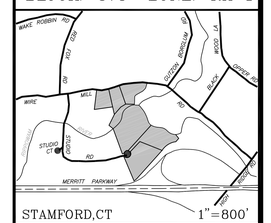
Sheet No: ADJ

Comm. No.: 6154A-1

5/3/2023 3:59 PM H:\Jobfiles2\6000\6100\6154\dwg\6154_CONS-ADJ.dwg

Filed Map No. 15307 S.L.R 2023-05-23

BLOCK: 378 ZONE: RA-1



STAMFORD,CT 1"=800'

ORIENTATION

NOTES:

1. *This survey has been prepared in accordance with Sections 20–300b–1 thru 20–300b–20 of the Regulations of Connecticut State Agencies and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. as a Property and Topographic Survey the Boundary Determination Category of which is a Resurvey conforming to Horizontal Accuracy Class A–2 and the locations and elevations of which conform to Topographic Accuracy Class T–2. It is intended to depict property boundaries, locations and elevations of improvements and topographic features.*
2. *Reference is made to maps 2362, 3727, 4231, 4946, 6393 6718, 7506, 7805, 7823, 8020, 8222, 10004 & 10835 of the Stamford Land Records*
3. *Reference is made to deed of record found in Bk. 13062, on Pg. 238 of the Stamford Land Records.*
4. *Reference is made to dam and flood rights as described in Bk. 428, Pg. 342 of the Stamford Land Records.*
5. *Reference is made to instruments of record as labeled hereon.*
6. *Areas of the surveyed parcels:*
   Parcel 1, Map 7506 S.L.R. = 49,173 Sq.Ft. or 1.1289 Acres
   Parcel 2, Map 7506 S.L.R. = 43,960 Sq.Ft. or 1.0092 Acres
   Parcel 3, Map 8020 S.L.R. = 44,685 Sq.Ft. or 1.0258 Acres
   Parcel 1, Map 10835 S.L.R. = 214,388 Sq.Ft. or 4.9217 Acres
   Parcel 2, Map 10835 S.L.R. (Total)= 110,743 Sq.Ft. or 2.5423 Acres
   (Lot = 106,314 Sq.Ft. or 2.4406 Acres)
   (Accessway =4,429 Sq.Ft. or 0.1017 Acres)
   Parcel 3, Map 10835 S.L.R. = 112,265 Sq.Ft. or 2.5772 Acres
   Total Area = 575,214 Sq.Ft. or 13.2051 Acres
7. *Elevations depicted hereon are based on the North American Vertical Datum of 1988 (NAVD–88).*
8. *Portions of the property lie within Flood Zones AE and X as depicted on Federal Emergency Management Agency – Flood Insurance Rate Map Community No. 090010506F–Panel No. 506 effective date of June 18, 2010. Base flood elevation (BFE) ranges between 133.0 and 137.0 (BFE at section line AV=133.9 and at section line AW=136.4). The BFE was established by field survey on April 10 – 12, 2002.*
9. *Wetlands depicted on subject parcels were field identified and flagged by Otto R. Theall, Professional Soil Scientist, Professional Wetland Scientist in April 2002 and were field located by this office on April 10 – 12, 2002.*
10. *Wetlands depicted on abutting parcels (N/F Cleveland A. Christophe & Cheryl S. Christophe) were field identified and flagged by Otto R. Theall, Professional Soil Scientist, Professional Wetland Scientist on August 12, 1999 and were field located by this office on August 16, 1999.*
11. *Record Owners: 503 WMR LLC*

ZONING DATA TABLE

MINIMUM YARD REQUIREMENTS	
FRONT	40 FT.
ONE SIDE	15 FT.
BOTH SIDES	35 FT.
REAR	60 FT.

PROPERTY & TOPOGRAPHIC SURVEY
DEPICTING
503 WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
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22 First Street | Stamford, CT 06905
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www.rednissmead.com

Scale: 1"=40' (0 40 80)
Drawn By: TRM Checked By: Date: 2/27/2023

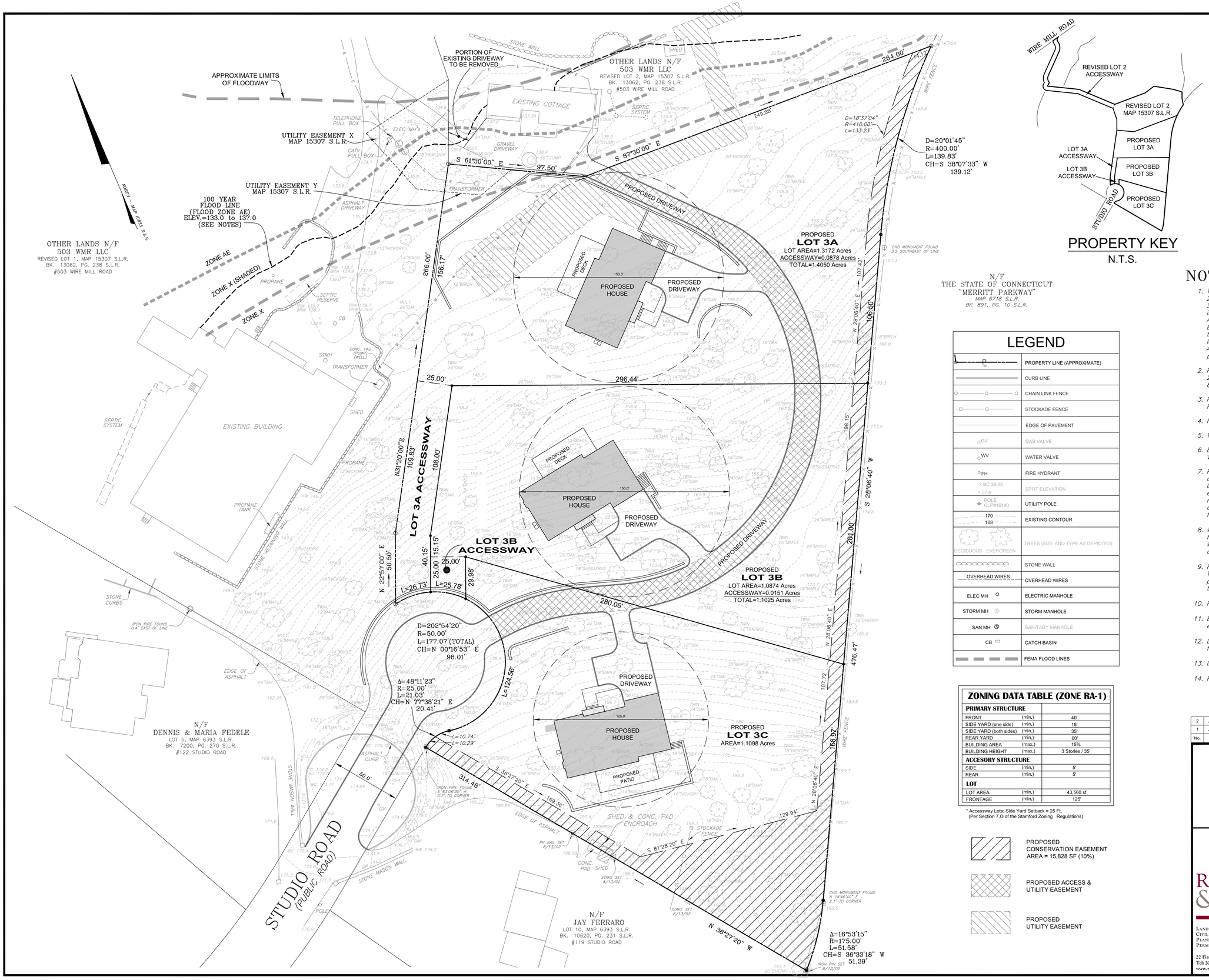
To my knowledge and belief this map is substantially correct as noted hereon.

JORGE P. PEREIRA CT. L.S. #70179
2/27/2023
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alteration renders any declaration hereon null & void.

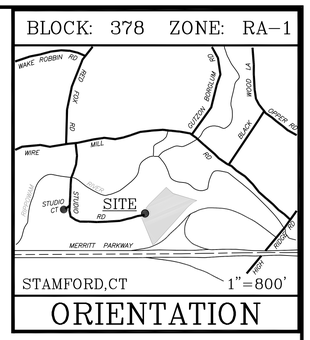
Sheet No: PSTS
Comm. No.: 6154A–1

2/26/2023 2:27 PM N:\Jobs\6xx\6154A\dwg\6154A Proj 6154 PSTS 2022.dwg



PROPERTY KEY

N.T.S.



ORIENTATION

LEGEND

	PROPERTY LINE (APPROXIMATE)
	CURB LINE
	CHAIN LINK FENCE
	STOCKADE FENCE
	EDGE OF PAVEMENT
GV	GAS VALVE
WV	WATER VALVE
FH	FIRE HYDRANT
× BC 39.05 × 37.4	SPOT ELEVATION
POLE CLP#16140	UTILITY POLE
170 168	EXISTING CONTOUR
DECIDUOUS EVERGREEN	TREES (SIZE AND TYPE AS DEPICTED)
	STONE WALL
OVERHEAD WIRES	OVERHEAD WIRES
ELEC MH	ELECTRIC MANHOLE
STORM MH	STORM MANHOLE
SAN MH	SANITARY MANHOLE
CB	CATCH BASIN
	FEMA FLOOD LINES

ZONING DATA TABLE (ZONE RA-1)

PRIMARY STRUCTURE		
FRONT	(min.)	40'
SIDE YARD (one side)	(min.)	15'
SIDE YARD (both sides)	(min.)	35'
REAR YARD	(min.)	60'
BUILDING AREA	(max.)	15%
BUILDING HEIGHT	(max.)	3 Stories / 35'
ACCESORY STRUCTURE		
SIDE	(min.)	5'
REAR	(min.)	5'
LOT		
LOT AREA	(min.)	43,560 sf
FRONTAGE	(min.)	125'

* Accessway Lots: Side Yard Setback = 25 Ft.
(Per Section 7.O of the Stamford Zoning Regulations)

PROPOSED CONSERVATION EASEMENT AREA = 15,828 SF (10%)

PROPOSED ACCESS & UTILITY EASEMENT

PROPOSED UTILITY EASEMENT

NOTES:

1. *This survey has been prepared in accordance with Sections 20–300b–1 thru 20–300b–20 of the Regulations of Connecticut State Agencies and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. as a Subdivision Map the Boundary Determination Categories of which are a Resurvey of the boundary perimeter and an Original Survey of the created lot lines, each of which conform to Horizontal Accuracy Class A–2 and are intended to depict the layout of lots and associated public or private highways, easements and lands.*
2. *Reference is made to Revised Lot 3. Map 15307 and to maps 2362, 3727, 4231, 4946, 6393 6718, 7506, 7805, 7823, 8020, 8222, 10004 & 10835 of thStamford Land Records.*
3. *Reference is made to deed of record found in Bk. 13062, on Pg. 238 of the Stamford Land Records.*
4. *Reference is made to instruments of record as labeled hereon.*
5. *Total Area of the surveyed parcels = 157,569 SF (3.6173 Acres).*
6. *Elevations depicted hereon are based on the North American Vertical Datum of 1988 (NAVD–88).*
7. *Portions of the property lie within Flood Zones AE and X as depicted on Federal Emergency Management Agency – Flood Insurance Rate Map Community No. 09001C0506F–Panel No. 506 effective date of June 18, 2010. Base flood elevation (BFE) ranges between 133.0 and 137.0 (BFE at section line AV=133.9 and at section line AW=136.4). The BFE was established by field survey on April 10 – 12, 2002.*
8. *Wetlands depicted on abutting parcels were field identified and flagged by Otto R. Theall, Professional Soil Scientist, Professional Wetland Scientist in April 2002 and were field located by this office on April 10 – 12, 2002.*
9. *Reference is made to an unrecorded map titled "Property & Topographic Survey depicting 503 Wire Mill Road – Stamford, CT prepared for 503 WMR LLC" dated 2/27/2023 and prepared by this office.*
10. *Record Owners: 503 WMR LLC*
11. *Easements to be established where necessary (ie: access easements, utility easements, etc).*
12. *Lot 2, Lot 3A, Lot 3B and Lot 3C are all being accessed from Studio Road.*
13. *Installations of in–ground fuel storage tanks are prohibited.*
14. *Proposed electrical wires to be overhead / underground.*

No.	By	Date	Revision Note
2	JPP	8/16/2023	PER CITY OF STAMFORD PLANNING BOARD COMMENTS.
1	JPP	6/28/2023	UPDATE NOTES.

PRELIMINARY SUBDIVISION MAP

DEPICTING

REVISED LOT 3, MAP 15307 S.L.R.

(PORTION OF 503 WIRE MILL ROAD)

STAMFORD, CT

PREPARED FOR

503 WMR LLC

REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax 203.357.1118
www.rednissmead.com

Scale: 1"=30' (0, 30, 60)

Drawn By: JPP | Checked By: | Date: 5/30/2023

To my knowledge and belief this map is substantially correct as noted hereon

JORGE P. PEREIRA CT. L.S. #70179

8/16/2023

DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration hereon null & void.

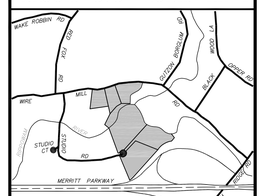
Sheet No:

PSUB

Comm. No.: 6154A–1

8/16/2023 2:00 PM H:\Jobfiles2\6000\6100\6154\dwg\6154_PSUB_plus lot 2dwg.dwg

BLOCK: 378 ZONE: RA-1



STAMFORD,CT 1"=800'

ORIENTATION

WIRE MILL ROAD

RIPPOWAM RIVER

STUDIO ROAD

100 YEAR FLOOD LINE (FLOOD ZONE AE) ELEV.=133.0 to 137.0 (SEE NOTES)

N/F CLEVELAND A. CHRISTOPHE & CHERYL S. CHRISTOPHE PARCEL "F" MAP 5732 S.L.R. BK. 5208, PG. 174 S.L.R.

N/F CLEVELAND A. CHRISTOPHE & CHERYL S. CHRISTOPHE MAP 10008 S.L.R. BK. 5208, PG. 174 S.L.R. #543 WIRE MILL ROAD

N/F BRIDGEPORT HYDRAULIC COMPANY MAP 7823 S.L.R. BK. 1069, PG. 408 S.L.R. BK. 4692, PG. 199 S.L.R.

N/F KAREN & CHRISTOPHER EDDOWES LOT A, MAP 8020 S.L.R. BK. 4336, PG. 129 S.L.R. #453 WIRE MILL ROAD

N/F DEMETRA & NICHOLAS BLACK LOT 5, MAP 8020 S.L.R. BK. 4815, PG. 103 S.L.R. #449 WIRE MILL ROAD

N/F DENNIS & MARIA FEDELE LOT 9, MAP 8393 S.L.R. BK. 4212, PG. 61 S.L.R. #122 STUDIO ROAD

N/F ROGER & JANICE PEARSON LOT 10, MAP 8393 S.L.R. BK. 4736, PG. 303 S.L.R. #119 STUDIO ROAD

N/F THE STATE OF CONNECTICUT "MERRITT PARKWAY" MAP 6726 S.L.R.

OPEN SPACE PRESERVE MAP 10835 S.L.R.

APPROXIMATE LIMITS OF FLOODWAY

ZONE AE

ZONE AE (TRANSCRIPTION)

ZONE X (SHADED)

ZONE X (TRANSCRIPTION)

LIMIT OF WETLANDS

POND

STREAM

SWALE

STONE RETAINING WALL

STONE MASONRY RET. WALL

CONCRETE HEADWALL

STONE WALL

WIRE FENCE

ASPHALT DRIVE

25' EPB UPLAND REVIEW AREA

REVISED LOT 2 (FILED MAP #15307 S.L.R.)

EXISTING STRUCTURE TO REMAIN

WATER POCKET AT HIGH FLOW

SITE RETAINING WALL (TYP.)

REVISED LOT 1 (FILED MAP #15307 S.L.R.)

LOT 3A

LOT 3B

LOT 3C

DECK WITH WALK-OUT BELOW

POTENTIAL 5-BEDROOM DWELLING

WALKOUT

POTENTIAL DRIVEWAY

LOT 3A ACCESSWAY

LOT 3B ACCESSWAY

A/C UNITS (TYP.)

PROPOSED CONSERVATION EASEMENT AREA

ASPHALT CURB

PROPERTY BOUNDARY (TYP.)

70' DIAMETER CUL-DE-SAC

18' WIDE ASPHALT DRIVEWAY

SAWCUT ROADWAY AT NEW ROAD EDGE, REMOVE AND RESTORE PORTION OF EXISTING CUL-DE-SAC TO BE CONVERTED TO LAWN.

BILCO DOOR

A/C UNITS (TYP.)

LIMIT OF ROOF (TYP.)

PATIO

26'

No.	Date	Revision
1	05/30/2023	ORIGINAL ISSUE DATE

SITE DEVELOPMENT PLAN

DEPICTING

WIRE MILL ROAD

STAMFORD, CT

PREPARED FOR

503 WMR LLC

SCALE: 1"=30' 0 30 60

DRAWN BY: PBS CHECKED BY: TM

REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax 203.357.1118
www.rednissmead.com

TEODORO MILONE CT. P.E. 22563

May 30, 2023

DATE

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SHEET No:

SE-1

Comm. No.: 6154

RIPPOWAM RIVER

ZONE AE

LIMIT OF WETLANDS

OPEN SPACE PRESERVE MAP 10835 S.L.R.

WATER POCKET AT HIGH FLOW

REVISED LOT 2

REVISED LOT 1

LOT 3A

LOT 3B

LOT 3C

FFE=156.50
GFE=155.00
LFE=146.50

FFE=173.00
GFE=171.00
LFE=163.00

FFE=186.5
GFE=184.0

ZONE AE (TRANSCRIPTION)

ZONE X (SHADED)

ZONE X (TRANSCRIPTION)

100 YEAR FLOOD LINE (FLOOD ZONE AE) ELEV.=133.0 to 137.0 (SEE NOTES)

25' EPB UPLAND REVIEW AREA

APPROXIMATE LIMIT WHERE BACK OF CURB IS GRADED 2.5" BELOW TOP OF CURB ELEVATION

APPROXIMATE LIMIT WHERE BACK OF CURB IS GRADED 2.5" BELOW TOP OF CURB ELEVATION

STUDIO ROAD

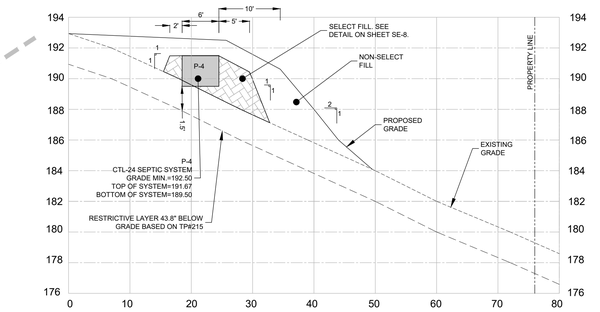
#122 STUDIO ROAD

#119 STUDIO ROAD

N/F DENNIS & MARIA FEDELE
LOT 5, MAP 6393 S.L.R.
BK. 4016, PG. 61 S.L.R.

N/F ROGER & JANICE PEARSON
LOT 10, MAP 6393 S.L.R.
BK. 4736, PG. 303 S.L.R.

N/F STATE OF CONNECTICUT "MERRITT PARKWAY" MAP 67-18 S.L.R.

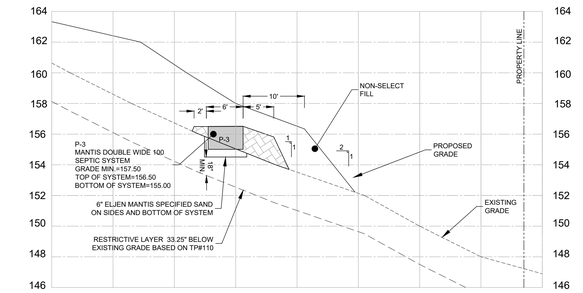


NOTE:

THIS CROSS-SECTIONS DEPICTED IS A SPECIFIC SECTION THROUGH THE PROPOSED LEACHING FACILITIES. IT SHOULD NOT BE CONSTRUED AS AN "AVERAGE" SECTION ACROSS THE ENTIRE SYSTEM FOR USE IN DETERMINING REQUIRED AMOUNTS OF FILL. IT IS THE RESPONSIBILITY OF THE INSTALLER TO DETERMINE THE REQUIRED AMOUNTS OF FILL.

SECTION A-A'

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=4'



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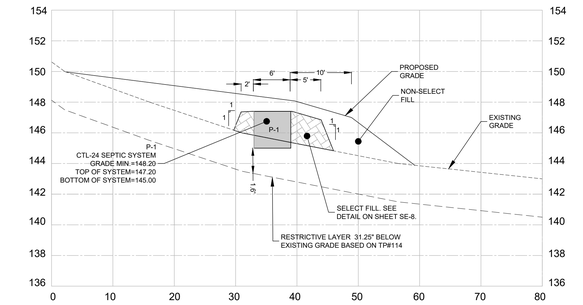
SECTION B-B'

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=4'



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SECTION C-C'

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=4'

No.	Date	Revision
I	05/30/2023	ORIGINAL ISSUE DATE

SITE GRADING PLAN
DEPICTING
WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
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SCALE: 1"=30' 0 30 60

DRAWN BY: PBS | CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563

May 30, 2023

DATE

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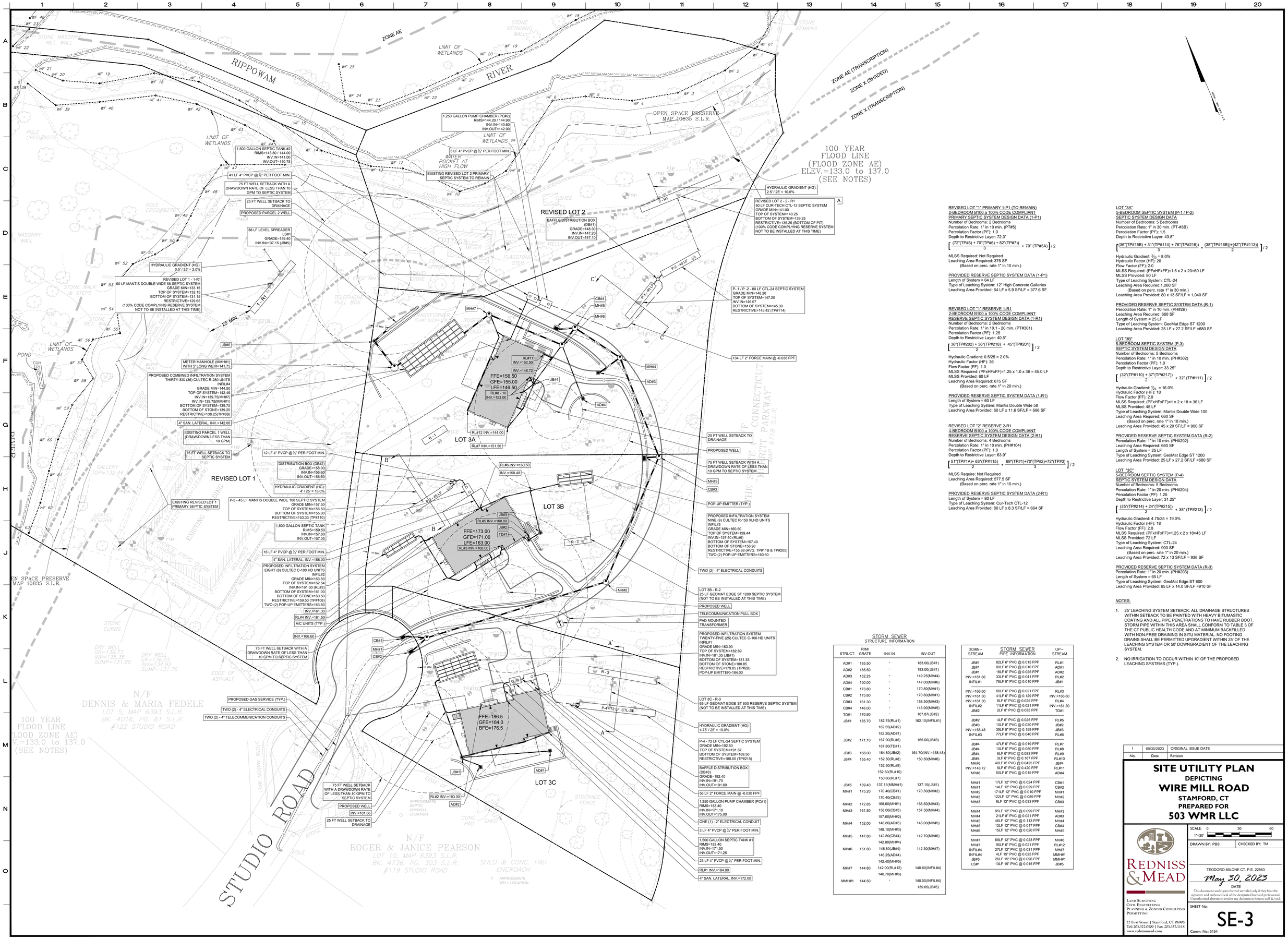
SHEET No:

SE-2

Comm. No.: 6154



REVISED LOT "1" PRIMARY 1-P1 (TO REMAIN)
2-BEDROOM B100 a 100% CODE COMPLIANT
PRIMARY SEPTIC SYSTEM DESIGN DATA (1-P1)
Number of Bedrooms: 2 Bedrooms
Percolation Rate: 1" in 10 min. (PT#5)
Percolation Factor (PF): 1.0
Depth to Restrictive Layer: 72.3"

$$\left[\frac{(72"(TP\#5) + 70"(TP\#6) + 82"(TP\#7))}{3} + 70"\ (TP\#5A)\right] / 2$$

MLSS Required: Not Required
Leaching Area Required: 375 SF
(Based on perc. rate 1" in 10 min.)

PROVIDED RESERVE SEPTIC SYSTEM DATA (1-P1)
Length of System = 64 LF
Type of Leaching System: 12" High Concrete Galleries
Leaching Area Provided: 64 LF x 5.9 SF/LF = 377.6 SF

REVISED LOT "1" RESERVE 1-R1
2-BEDROOM B100 a 100% CODE COMPLIANT
RESERVE SEPTIC SYSTEM DESIGN DATA (1-R1)
Number of Bedrooms: 2 Bedrooms
Percolation Rate: 1" in 10.1 - 20 min. (PT#301)
Percolation Factor (PF): 1.25
Depth to Restrictive Layer: 40.5"

$$\left[\frac{36"(TP\#202) + 36"(TP\#218) + 45"(TP\#201)}{2}\right] / 2$$

Hydraulic Gradient: 0.5/25 = 2.0%
Hydraulic Factor (HF): 36
Flow Factor (FF): 1.0
MLSS Required: (PF*HF*FF)=1.25 x 1.0 x 36 = 45.0 LF
MLSS Provided: 60 LF
Leaching Area Required: 675 SF
(Based on perc. rate 1" in 20 min.)

PROVIDED RESERVE SEPTIC SYSTEM DATA (1-R1)
Length of System = 60 LF
Type of Leaching System: Mantis Double Wide 58
Leaching Area Provided: 60 LF x 11.6 SF/LF = 696 SF

REVISED LOT "2" RESERVE 2-R1
4-BEDROOM B100 a 100% CODE COMPLIANT
RESERVE SEPTIC SYSTEM DESIGN DATA (2-R1)
Number of Bedrooms: 4 Bedrooms
Percolation Rate: 1" in 10 min. (PH#104)
Percolation Factor (PF): 1.0
Depth to Restrictive Layer: 63.9"

$$\left[\frac{51"(TP\#1A) + 63"(TP\#115)}{2} + \frac{69"(TP\#1) + 70"(TP\#2) + 72"(TP\#3)}{3}\right] / 2$$

MLSS Require: Not Required
Leaching Area Required: 577.5 SF
(Based on perc. rate 1" in 10 min.)

PROVIDED RESERVE SEPTIC SYSTEM DATA (2-R1)
Length of System = 80 LF
Type of Leaching System: Cur-Tech CTL-12
Leaching Area Provided: 80 LF x 8.3 SF/LF = 664 SF

LOT "3A"
5-BEDROOM SEPTIC SYSTEM (P-1 / P-2)
SEPTIC SYSTEM DESIGN DATA
Number of Bedrooms: 5 Bedrooms
Percolation Rate: 1" in 30 min. (PT-#3B)
Percolation Factor (PF): 1.5
Depth to Restrictive Layer: 43.8"

$$\left[\frac{(36"(TP\#15B) + 31"(TP\#114) + 76"(TP\#216))}{3} + \frac{(38"(TP\#16B)) + (42"(TP\#113))}{2}\right] / 2$$

Hydraulic Gradient: 5/20 = 8.0%
Hydraulic Factor (HF): 20
Flow Factor (FF): 2.0
MLSS Required: (PF*HF*FF)=1.5 x 2 x 20=60 LF
MLSS Provided: 80 LF
Type of Leaching System: CTL-24
Leaching Area Required:1,000 SF
(Based on perc. rate 1" in 30 min.)
Leaching Area Provided: 80 x 13 SF/LF = 1,040 SF

PROVIDED RESERVE SEPTIC SYSTEM DATA (R-1)
Percolation Rate: 1" in 10 min. (PH#2B)
Leaching Area Required: 660 SF
Length of System = 25 LF
Type of Leaching System: GeoMat Edge ST 1200
Leaching Area Provided: 25 LF x 27.2 SF/LF =680 SF

LOT "3B"
5-BEDROOM SEPTIC SYSTEM (P-3)
SEPTIC SYSTEM DESIGN DATA
Number of Bedrooms: 5 Bedrooms
Percolation Rate: 1" in 10 min. (PH#302)
Percolation Factor (PF): 1.0
Depth to Restrictive Layer: 33.25"

$$\left[\frac{(32"(TP\#110) + 37"(TP\#217))}{2} + 32"\ (TP\#111)\right] / 2$$

Hydraulic Gradient: 5/20 = 16.0%
Hydraulic Factor (HF): 18
Flow Factor (FF): 2.0
MLSS Required: (PF*HF*FF)=1 x 2 x 18 = 36 LF
MLSS Provided: 45 LF
Type of Leaching System: Mantis Double Wide 100
Leaching Area Required: 660 SF
(Based on perc. rate 1" in 10 min.)
Leaching Area Provided: 45 x 20 SF/LF = 900 SF

PROVIDED RESERVE SEPTIC SYSTEM DATA (R-2)
Percolation Rate: 1" in 10 min. (PH#202)
Leaching Area Required: 660 SF
Length of System = 25 LF
Type of Leaching System: GeoMat Edge ST 1200
Leaching Area Provided: 25 LF x 27.2 SF/LF =680 SF

LOT "3C"
5-BEDROOM SEPTIC SYSTEM (P-4)
SEPTIC SYSTEM DESIGN DATA
Number of Bedrooms: 5 Bedrooms
Percolation Rate: 1" in 20 min. (PH#204)
Percolation Factor (PF): 1.25
Depth to Restrictive Layer: 31.25"

$$\left[\frac{(25"(TP\#214) + 24"(TP\#215))}{2} + 38"\ (TP\#213)\right] / 2$$

Hydraulic Gradient: 4.75/25 = 19.0%
Hydraulic Factor (HF): 18
Flow Factor (FF): 2.0
MLSS Required: (PF*HF*FF)=1.25 x 2 x 18=45 LF
MLSS Provided: 72 LF
Type of Leaching System: CTL-24
Leaching Area Required: 900 SF
(Based on perc. rate 1" in 20 min.)
Leaching Area Provided: 72 x 13 SF/LF = 936 SF

PROVIDED RESERVE SEPTIC SYSTEM DATA (R-3)
Percolation Rate: 1" in 20 min. (PH#203)
Length of System = 65 LF
Type of Leaching System: GeoMat Edge ST 600
Leaching Area Provided: 65 LF x 14.0 SF/LF =910 SF

NOTES:

1. 25' LEACHING SYSTEM SETBACK: ALL DRAINAGE STRUCTURES WITHIN SETBACK TO BE PAINTED WITH HEAVY BITUMASTIC COATING AND ALL PIPE PENETRATIONS TO HAVE RUBBER BOOT. STORM PIPE WITHIN THIS AREA SHALL CONFORM TO TABLE 3 OF THE CT PUBLIC HEALTH CODE AND AT MINIMUM BACKFILLED WITH NON-FREE DRAINING IN SITU MATERIAL. NO FOOTING DRAINS SHALL BE PERMITTED UPGRADIENT WITHIN 25' OF THE LEACHING SYSTEM OR 50' DOWNGRADIENT OF THE LEACHING SYSTEM.
2. NO IRRIGATION TO OCCUR WITHIN 10' OF THE PROPOSED LEACHING SYSTEMS (TYP.).

STORM SEWER
STRUCTURE INFORMATION

STRUCT.	RIM/ GRATE	INV.IN	INV.OUT
AD#1	185.50	-	183.00(JB#1)
AD#2	185.50	-	183.00(JB#1)
AD#3	152.25	-	149.25(MH#4)
AD#4	150.00	-	147.00(MH#6)
CB#1	173.80	-	170.80(MH#1)
CB#2	173.80	-	170.80(MH#1)
CB#3	161.30	-	158.30(MH#3)
CB#4	146.00	-	143.00(MH#5)
TD#1	170.90	-	167.87(JB#2)
JB#1	185.70	182.75(RL#1)	182.10(INFIL#1)
		182.55(AD#2)	
		182.20(AD#1)	
JB#2	171.10	167.90(RL#5)	165.00(JB#3)
		167.80(TD#1)	
JB#3	168.00	164.80(JB#2)	164.70(INV.=158.48)
JB#4	155.40	152.50(RL#8)	150.50(MH#6)
		152.50(RL#9)	
		152.50(RL#10)	
		150.60(RL#7)	
JB#5	139.40	137.15(MMH#1)	137.15(LS#1)
MH#1	175.20	170.40(CB#1)	170.30(MH#2)
		170.40(CB#2)	
MH#2	172.85	168.60(MH#1)	168.50(MH#3)
MH#3	161.50	158.00(CB#3)	157.50(MH#4)
		157.60(MH#2)	
MH#4	152.00	148.80(AD#3)	148.00(MH#5)
		148.10(MH#3)	
MH#5	147.80	142.80(CB#4)	142.70(MH#6)
		142.80(MH#4)	
MH#6	151.80	148.80(JB#4)	142.30(MH#7)
		146.25(AD#4)	
		142.40(MH#5)	
MH#7	144.80	142.00(RL#12)	140.60(INFIL#4)
		140.70(MH#6)	
MMH#1	144.50	-	140.00(INFIL#4)
			139.65(JB#5)

DOWN-STREAM	STORM SEWER PIPE INFORMATION	UP-STREAM
JB#1	82LF 6" PVC @ 0.015 FPF	RL#1
JB#1	80LF 8" PVC @ 0.010 FPF	AD#1
JB#1	18LF 6" PVC @ 0.025 FPF	AD#2
INV.=181.66	33LF 6" PVC @ 0.041 FPF	RL#2
INFIL#1	78LF 8" PVC @ 0.010 FPF	JB#1
INV.=166.60	66LF 6" PVC @ 0.021 FPF	RL#3
INV.=161.30	41LF 6" PVC @ 0.129 FPF	INV.=166.60
INV.=161.30	8LF 6" PVC @ 0.025 FPF	RL#4
INFIL#2	11LF 6" PVC @ 0.021 FPF	INV.=161.30
JB#2	2LF 8" PVC @ 0.035 FPF	TD#1
JB#2	4LF 6" PVC @ 0.025 FPF	RL#5
JB#3	10LF 8" PVC @ 0.020 FPF	JB#2
INV.=158.48	39LF 6" PVC @ 0.159 FPF	JB#3
INFIL#3	77LF 8" PVC @ 0.040 FPF	RL#6
JB#4	47LF 6" PVC @ 0.019 FPF	RL#7
JB#4	10LF 6" PVC @ 0.050 FPF	RL#8
JB#4	6LF 6" PVC @ 0.083 FPF	RL#9
JB#4	3LF 6" PVC @ 0.167 FPF	RL#10
MH#6	40LF 8" PVC @ 0.0425 FPF	JB#4
INV.=148.72	9LF 6" PVC @ 0.420 FPF	RL#11
MH#6	50LF 8" PVC @ 0.015 FPF	AD#4
MH#1	17LF 12" PVC @ 0.024 FPF	CB#1
MH#1	14LF 12" PVC @ 0.029 FPF	CB#2
MH#2	171LF 12" PVC @ 0.010 FPF	MH#1
MH#3	122LF 12" PVC @ 0.089 FPF	MH#2
MH#3	9LF 12" PVC @ 0.033 FPF	CB#3
MH#4	95LF 12" PVC @ 0.099 FPF	MH#3
MH#4	21LF 8" PVC @ 0.021 FPF	AD#3
MH#5	46LF 12" PVC @ 0.113 FPF	MH#4
MH#5	12LF 12" PVC @ 0.017 FPF	CB#4
MH#6	15LF 12" PVC @ 0.020 FPF	MH#5
MH#7	69LF 12" PVC @ 0.023 FPF	MH#6
MH#7	95LF 8" PVC @ 0.021 FPF	RL#12
INFIL#4	27LF 12" PVC @ 0.031 FPF	MH#7
INFIL#4	4LF 15" PVC @ 0.025 FPF	MMH#1
JB#5	26LF 15" PVC @ 0.096 FPF	MMH#1
LS#1	13LF 15" PVC @ 0.015 FPF	JB#5

No.	Date	Revision
1	05/30/2023	ORIGINAL ISSUE DATE

SITE UTILITY PLAN
DEPICTING
WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

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TEODORO MILONE CT. P.E. 22563
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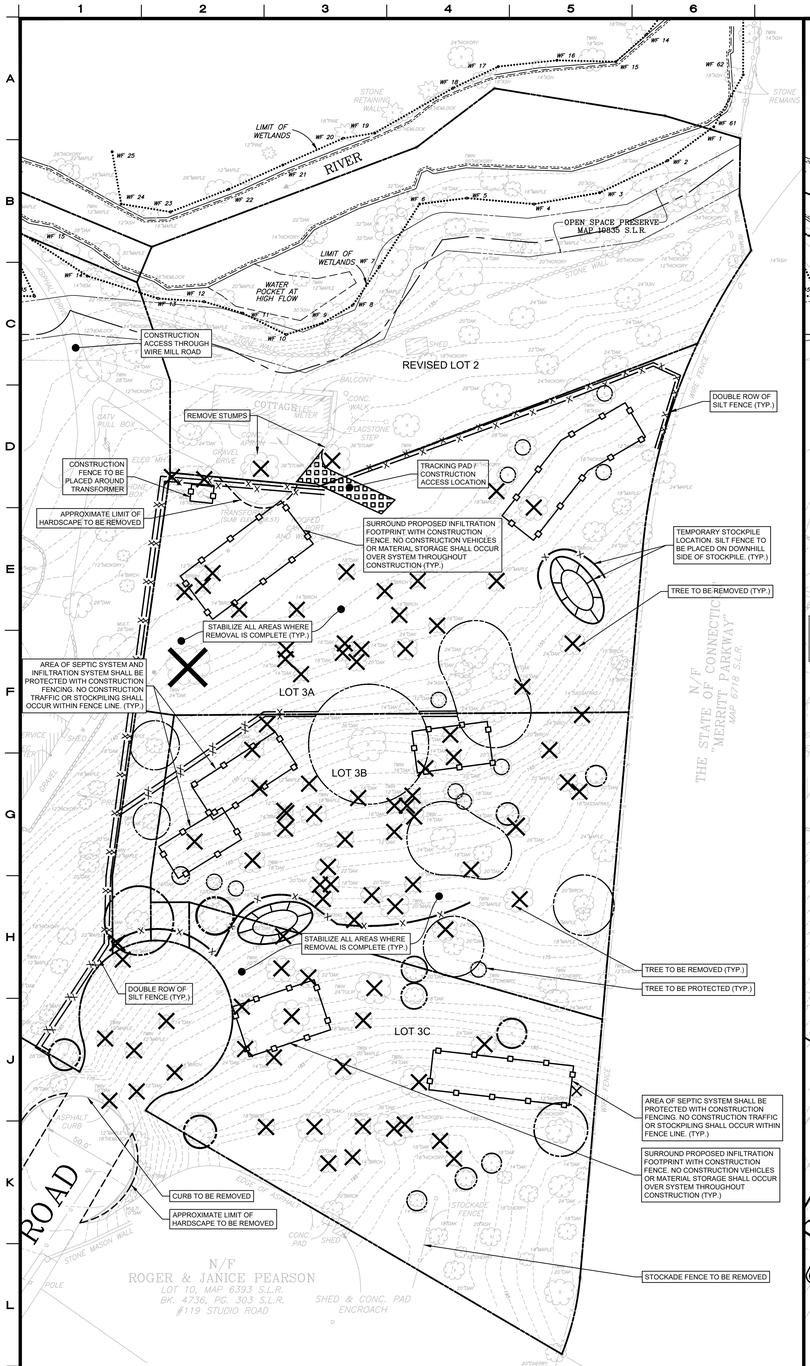
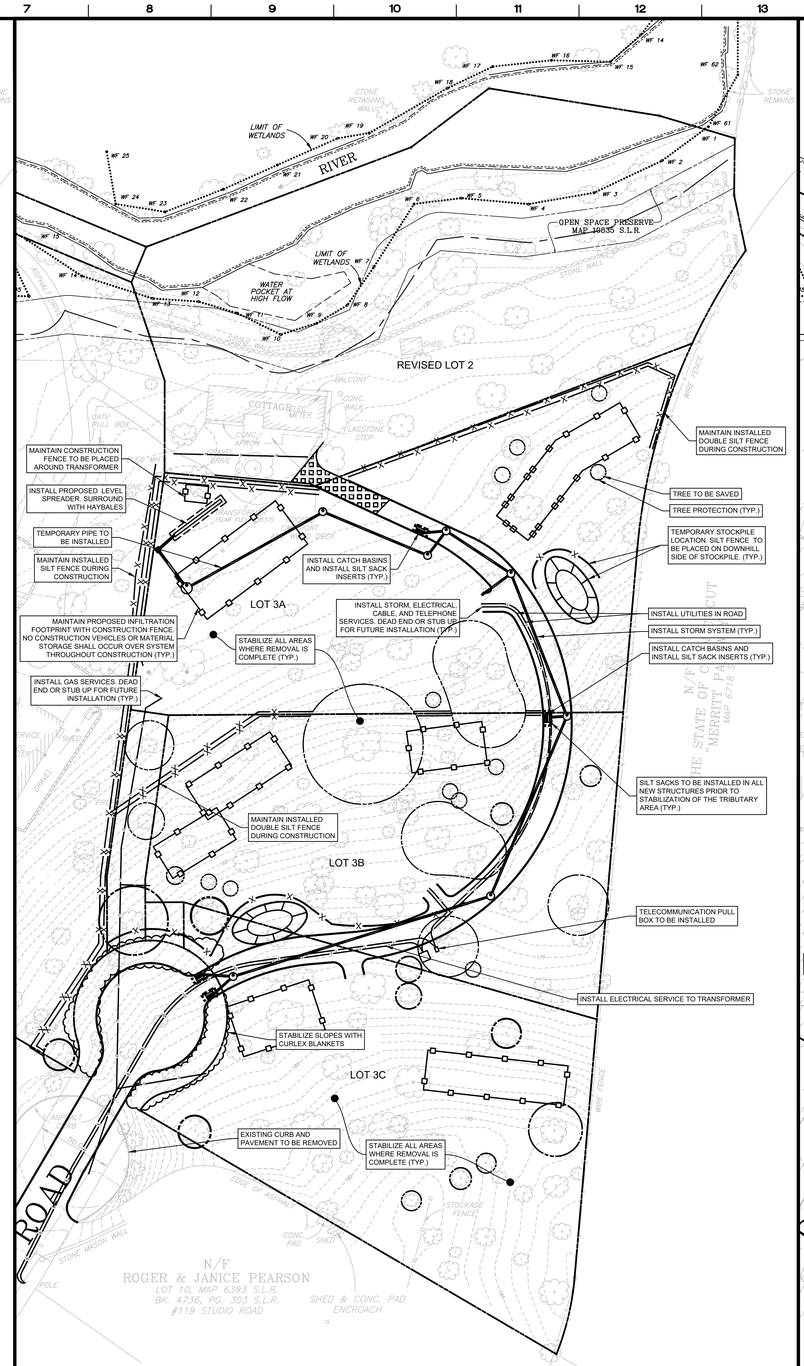
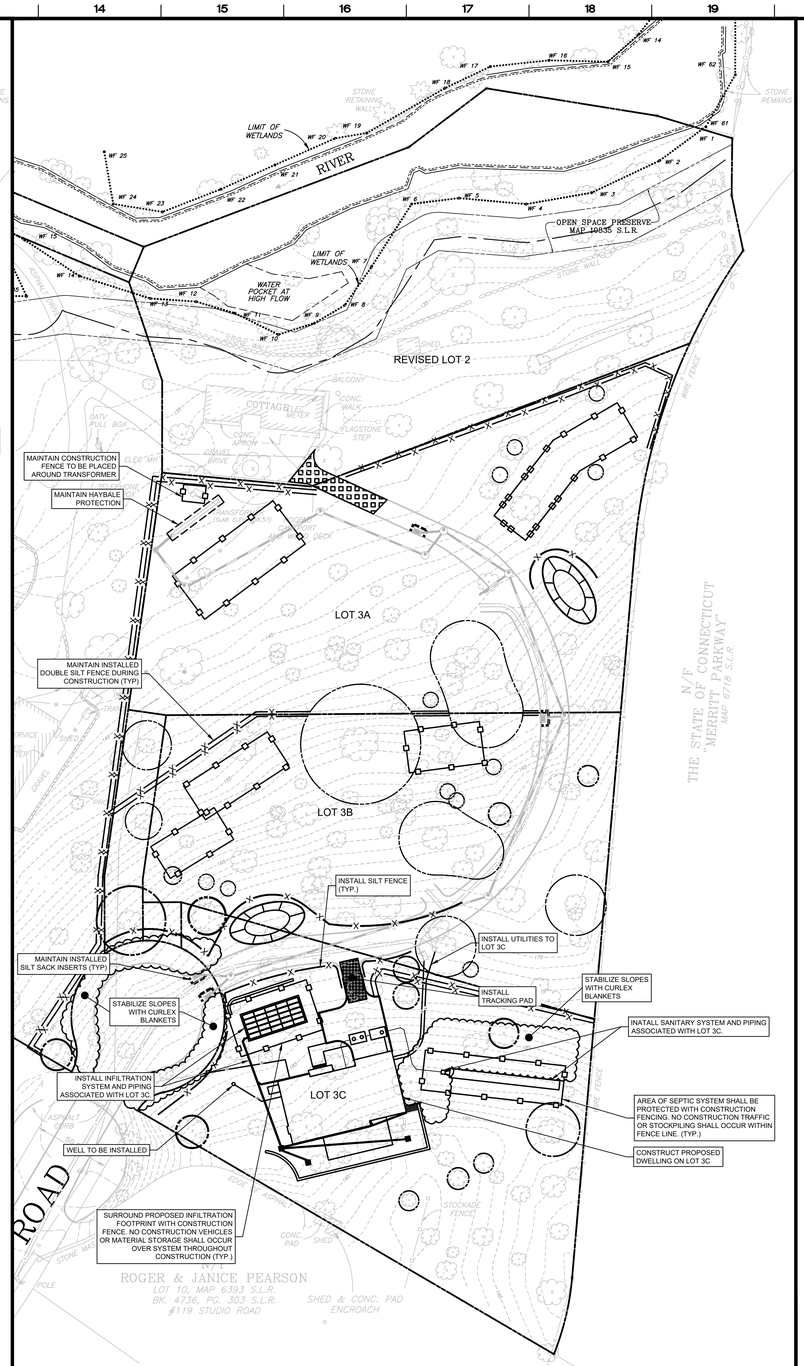
SHEET No:
SE-3
Comm. No.: 6154



PHASE 1: SITE PREPARATION / DEMOLITION



PHASE 2: CONSTRUCTION OF COMMON ROADWAY AND UTILITIES



PHASE 3: CONSTRUCTION OF LOT #3C

CONSTRUCTION PHASING (PHASE 1 - 3):

The following description of construction phasing is intended to demonstrate a feasible sequence of construction. A construction sequencing and logistics plan shall be prepared by the contractor and submitted to city staff prior to obtaining Building Permit.

PHASE 1 - SITE PREPARATION/DEMOLITION:

- **INSTALL TRACKING PAD FOR CONSTRUCTION ACCESS**
- **INSTALL PERIMETER SILT FENCE AS SHOWN ON THE PLANS**
- **INSTALL TREE PROTECTION. COORDINATE WITH WILLIAM KENNY ASSOCIATES FOR LOCATIONS OF TREES TO BE PROTECTED.**
- **INSTALL CONSTRUCTION FENCE AROUND INFILTRATION SYSTEMS.**
- **TREE/BRUSH REMOVAL**
- **REMOVE EXISTING STRUCTURES, PAVEMENT, HARDSCAPES IN ACCORDANCE WITH ALL NECESSARY REGULATIONS.**
- **STABILIZE ALL DISTURBED AREAS WITH MULCH, TEMPORARY GRASS SEED AS NECESSARY PRIOR TO COMMENCING PHASE 2**

PHASE 2 - CONSTRUCTION OF COMMON ROADWAY AND UTILITIES:

- **INSTALL SEDIMENT & EROSION CONTROLS ASSOCIATED WITH THIS PHASE OF CONSTRUCTION.**
- **MAINTAIN AREAS OF INFILTRATION PROTECTION AND ALL SEDIMENT & EROSION CONTROLS.**
- **INSTALL UTILITIES (STORM, SANITARY, ELECTRIC, TELEPHONE, CABLE, GAS, AND WATER FROM STUDIO ROAD RIGHT-OF-WAY TO PROPOSED PROPERTY BOUNDARIES.**
- **INSTALL ROADWAY INFILTRATION SYSTEMS AND DRAINAGE SYSTEMS TO LEVEL SPREADERS.**
- **INSTALL NEW ROADWAY BASE & ASPHALT BINDER COURSE. ALL DRAINAGE STRUCTURES ALONG NEW ROADWAY SHALL BE ABLE TO RECEIVE RUNOFF WITHOUT PONDING OCCURRING AROUND STRUCTURE.**
- **INSTALL SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH DRAINAGE SYSTEM.**
- **STABILIZE ALL DISTURBED AREAS WITH MULCH, TEMPORARY GRASS SEED AS NECESSARY PRIOR TO COMMENCING PHASE 3.**

PHASE 3 - CONSTRUCTION OF LOT #3C:

- **INSTALL TRACKING PADS FOR CONSTRUCTION ACCESS**
- **INSTALL SILT FENCE AS SHOWN ON THE PLANS.**
- **MAINTAIN ALL SEDIMENT AND EROSION CONTROLS PREVIOUSLY INSTALLED IN AN EFFECTIVE CONDITION DURING THIS PHASE. REPLACE NON-FUNCTIONAL CONTROLS AS NECESSARY.**
- **EXCAVATE AND INSTALL BUILDING FOUNDATION.**
- **INSTALL CONSTRUCTION DEWATERING AND TEMPORARY FILTERING SYSTEM AS NECESSARY. COORDINATE DEWATERING WITH SITE GEOTECHNICAL ENGINEER AND/OR CIVIL ENGINEER.**
- **INSTALL UTILITIES**
- **BACKFILL FOUNDATION, CONSTRUCT BUILDING AND ROUGH GRADE DRIVEWAY AROUND DWELLING.**
- **INSTALL STORMWATER INFILTRATION SYSTEM.**
- **FINAL GRADING**
- **INSTALL LANDSCAPING. SEED, & MULCH DISTURBED AREAS.**
- **PREPARE DRIVEWAY FOR PAVING AND PAVE.**
- **CLEAN AFFECTED PORTION OF ON AND OFF SITE ROADS AND DRIVEWAYS.**
- **REMOVE ACCUMULATED SILT & DEBRIS FROM AREA DRAIN/CATCH BASIN SUMPS & PIPES.**
- **REMOVE ACCUMULATED SEDIMENT FROM AFFECTED AREAS AND DISPOSE OF LEGALLY.**
- **REMOVE TEMPORARY SEDIMENT & EROSION CONTROLS ASSOCIATED WITH THE INDIVIDUAL LOTS ONLY ONCE SITE IS STABILIZED. MAINTAIN ALL OTHER SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH AREAS TO BE DEVELOPED**
- **MAKE ANY NECESSARY REPAIRS TO PERMANENT SEDIMENT & EROSION CONTROLS SUCH AS PLANTINGS.**

No.	Date	Revision
1	05/30/2023	ORIGINAL ISSUE DATE

SEDIMENT & EROSION CONTROL PLAN

DEPICTING

WIRE MILL ROAD

STAMFORD, CT

PREPARED FOR

503 WMR LLC

SCALE: 1"=40' (0, 40, 80)

DRAWN BY: AS | CHECKED BY: TM

REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

TEODORO MILONE CT. P.E. 22563

May 30, 2023

DATE

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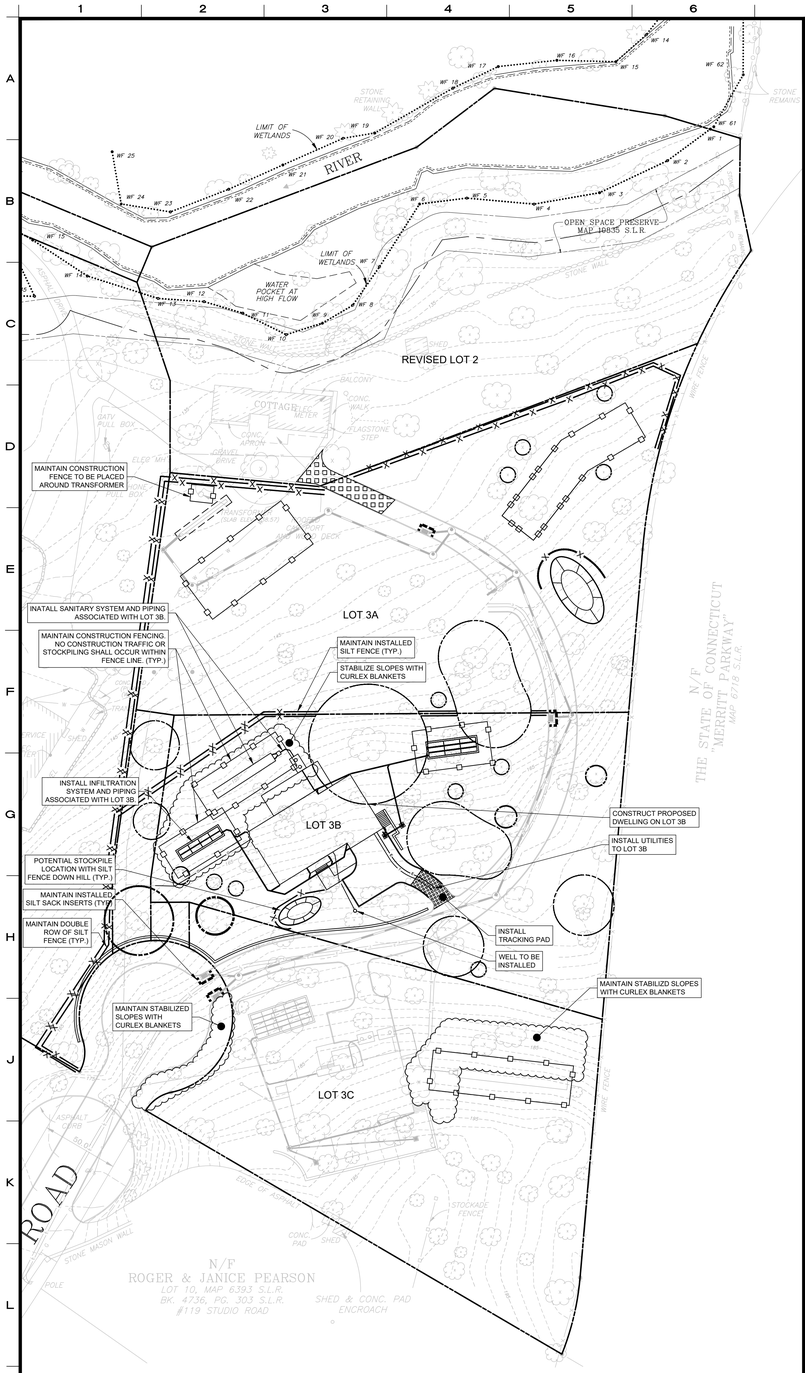
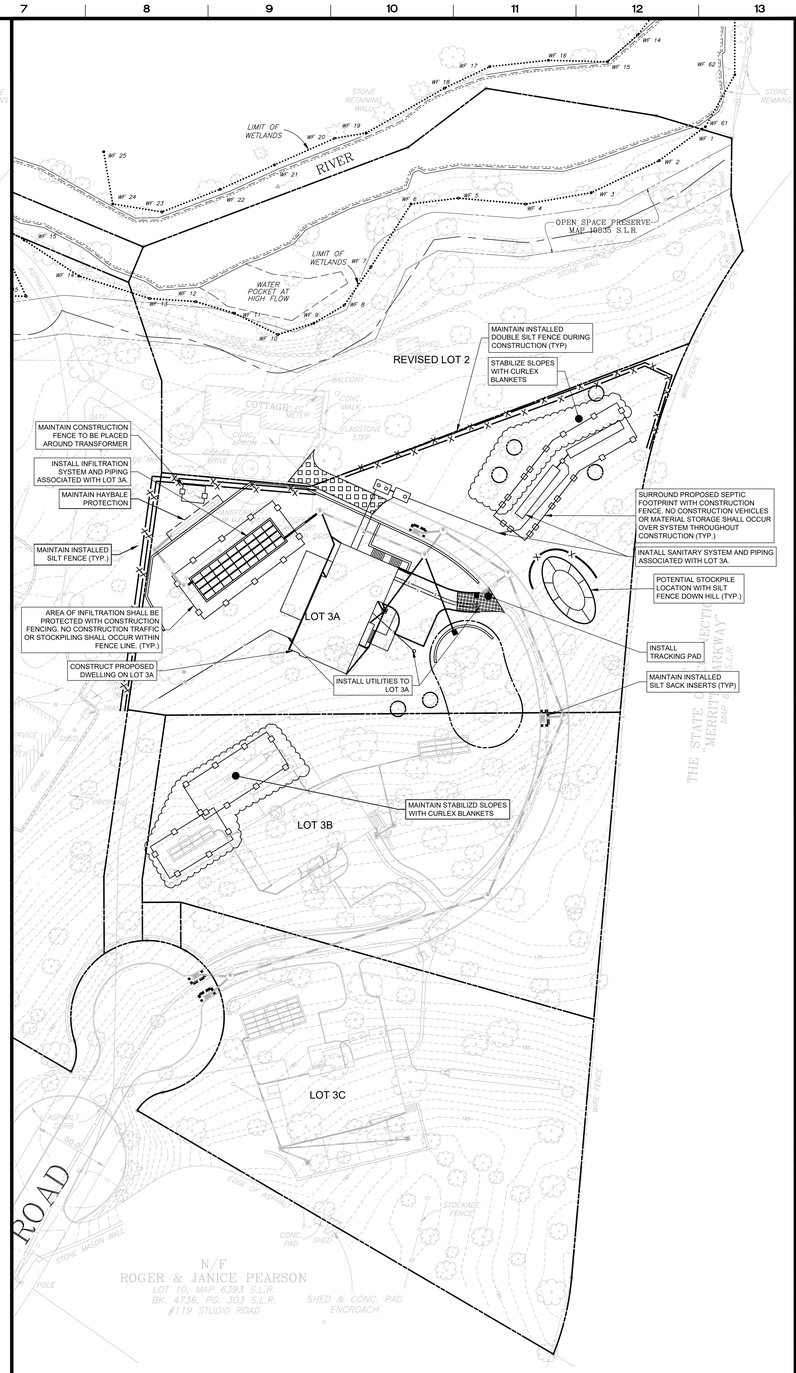
SHEET No:

SE-4A

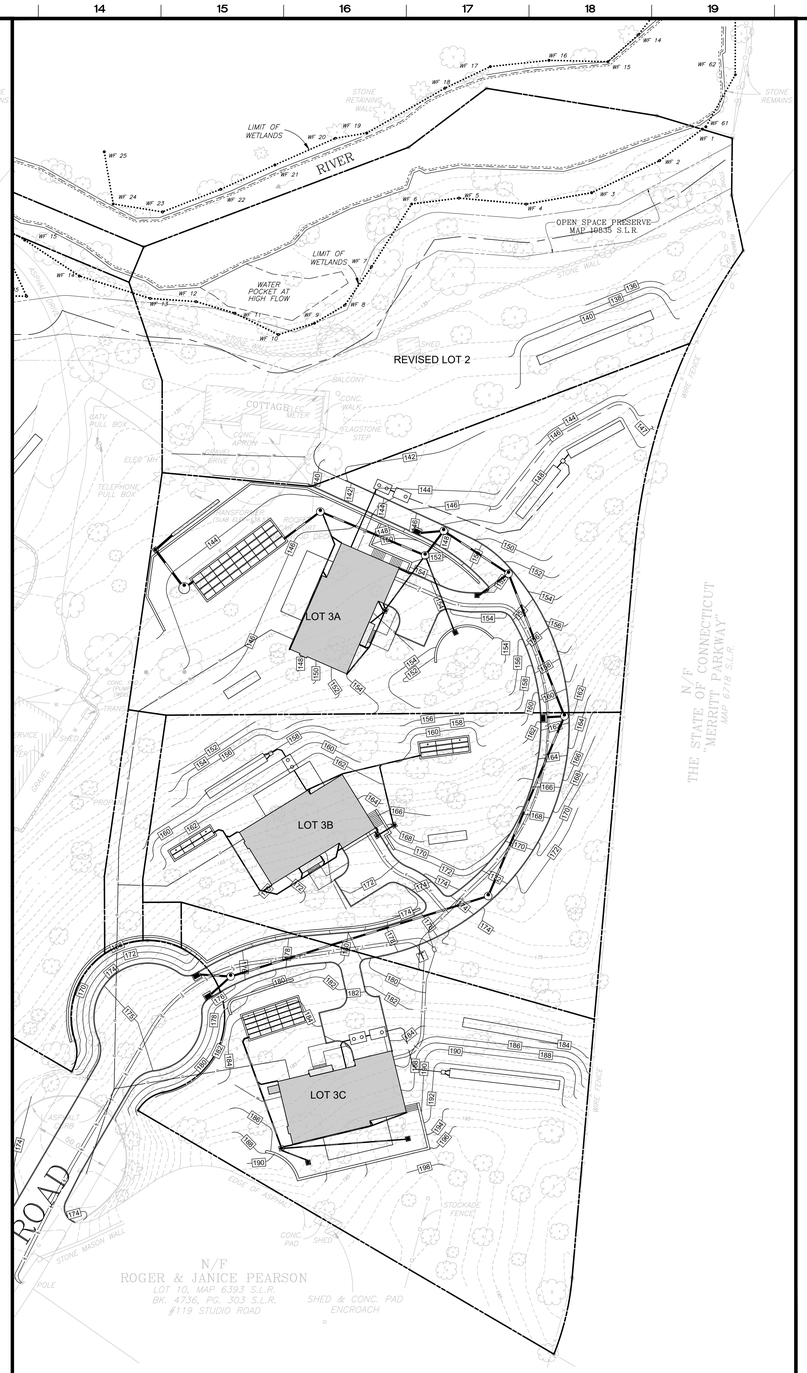
Comm. No.: 6154



PHASE 4: CONSTRUCTION OF LOT #3B



PHASE 5: CONSTRUCTION OF LOT #3A



PHASE 6: SITE GRADING, LANDSCAPING, WORK CLEAN UP

CONSTRUCTION PHASING (PHASE 4 - 6):

The following description of construction phasing is intended to demonstrate a feasible sequence of construction. A construction sequencing and logistics plan shall be prepared by the contractor and submitted to city staff prior to obtaining Building Permit.

PHASE 4 - CONSTRUCTION OF LOT #3B:

- **INSTALL TRACKING PADS FOR CONSTRUCTION ACCESS**
- **INSTALL SILT FENCE AS SHOWN ON THE PLANS.**
- **MAINTAIN ALL SEDIMENT AND EROSION CONTROLS PREVIOUSLY INSTALLED IN AN EFFECTIVE CONDITION DURING THIS PHASE. REPLACE NON-FUNCTIONAL CONTROLS AS NECESSARY.**
- **EXCAVATE AND INSTALL BUILDING FOUNDATION.**
- **INSTALL CONSTRUCTION DEWATERING AND TEMPORARY FILTERING SYSTEM AS NECESSARY. COORDINATE DEWATERING WITH SITE GEOTECHNICAL ENGINEER AND/OR CIVIL ENGINEER.**
- **INSTALL UTILITIES**
- **BACKFILL FOUNDATION, CONSTRUCT BUILDING AND ROUGH GRADE DRIVEWAY AROUND DWELLING.**
- **INSTALL STORMWATER INFILTRATION SYSTEM.**
- **FINAL GRADING**
- **INSTALL LANDSCAPING. SEED, & MULCH DISTURBED AREAS.**
- **PREPARE DRIVEWAY FOR PAVING AND PAVE.**
- **CLEAN AFFECTED PORTION OF ON AND OFF SITE ROADS AND DRIVEWAYS.**
- **REMOVE ACCUMULATED SILT & DEBRIS FROM AREA DRAIN/CATCH BASIN SUMPS & PIPES.**
- **REMOVE ACCUMULATED SEDIMENT FROM AFFECTED AREAS AND DISPOSE OF LEGALLY.**
- **REMOVE TEMPORARY SEDIMENT & EROSION CONTROLS ASSOCIATED WITH THE INDIVIDUAL LOTS ONLY ONCE SITE IS STABILIZED. MAINTAIN ALL OTHER SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH AREAS TO BE DEVELOPED.**
- **MAKE ANY NECESSARY REPAIRS TO PERMANENT SEDIMENT & EROSION CONTROLS SUCH AS PLANTINGS.**
- **WHERE AREAS OF LOTS 1 & 2 ARE STABILIZED, REMOVE SEDIMENT & EROSION CONTROLS ON THESE LOTS. ALL OTHER SEDIMENT & EROSION CONTROLS TO REMAIN.**

PHASE 5 - CONSTRUCTION OF LOT #3A:

- **INSTALL TRACKING PADS FOR CONSTRUCTION ACCESS**
- **INSTALL SILT FENCE AS SHOWN ON THE PLANS.**
- **MAINTAIN ALL SEDIMENT AND EROSION CONTROLS PREVIOUSLY INSTALLED IN AN EFFECTIVE CONDITION DURING THIS PHASE. REPLACE NON-FUNCTIONAL CONTROLS AS NECESSARY.**
- **REMOVE EXISTING DWELLING AND PAVEMENT WHEN APPROPRIATE.**
- **EXCAVATE AND INSTALL BUILDING FOUNDATION.**
- **INSTALL CONSTRUCTION DEWATERING AND TEMPORARY FILTERING SYSTEM AS NECESSARY. COORDINATE DEWATERING WITH SITE GEOTECHNICAL ENGINEER AND/OR CIVIL ENGINEER.**
- **INSTALL UTILITIES**
- **BACKFILL FOUNDATION, CONSTRUCT BUILDING AND ROUGH GRADE DRIVEWAY AROUND DWELLING.**
- **INSTALL STORMWATER INFILTRATION SYSTEM.**
- **FINAL GRADING**
- **INSTALL LANDSCAPING. SEED, & MULCH DISTURBED AREAS.**
- **PREPARE DRIVEWAY FOR PAVING AND PAVE.**
- **CLEAN AFFECTED PORTION OF ON AND OFF SITE ROADS AND DRIVEWAYS.**
- **REMOVE ACCUMULATED SILT & DEBRIS FROM AREA DRAIN/CATCH BASIN SUMPS & PIPES.**
- **REMOVE ACCUMULATED SEDIMENT FROM AFFECTED AREAS AND DISPOSE OF LEGALLY.**
- **REMOVE TEMPORARY SEDIMENT & EROSION CONTROLS ASSOCIATED WITH THE INDIVIDUAL LOTS ONLY ONCE SITE IS STABILIZED. MAINTAIN ALL OTHER SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH AREAS TO BE DEVELOPED.**
- **MAKE ANY NECESSARY REPAIRS TO PERMANENT SEDIMENT & EROSION CONTROLS SUCH AS PLANTINGS.**

PHASE 6 - SITE GRADING, LANDSCAPING, AND SITEWORK CLEANUP:

- **INSTALL ANY NECESSARY SEDIMENT AND EROSION CONTROLS.**
- **INSTALL CURBS & SIDEWALKS ALONG TURN OF RIVER ROAD FRONTAGE**
- **MAKE REPAIRS TO BINDER COURSE INSTALLED IN PHASE 2 & PREPARE FOR FINAL PAVING.**
- **ENSURE THAT TURN OF RIVER ROADWAY IS REPAIRED TO SATISFY THE ENGINEERING BUREAU.**
- **INSTALL LANDSCAPING AND FINAL SITE STABILIZATION.**
- **FINAL GRADING.**
- **INSTALL ROADWAY CURBS & FINAL PAVEMENT.**
- **CLEAN AFFECTED PORTIONS OF ON & OFF SITE ROADS AND DRIVEWAYS.**
- **REMOVE ACCUMULATED SILT & DEBRIS FROM AREA DRAIN/CATCH BASIN SUMPS & PIPES.**
- **REMOVE ACCUMULATED SEDIMENT FROM AFFECTED AREAS AND DISPOSE OF LEGALLY.**
- **REMOVE TEMPORARY SEDIMENT & EROSION CONTROLS ONLY ONCE SITE IS STABILIZED.**
- **MAKE ANY NECESSARY REPAIRS TO PERMANENT SEDIMENT & EROSION CONTROLS SUCH AS PLANTINGS.**

No.	Date	Revision
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SEDIMENT & EROSION CONTROL PLAN

DEPICTING

WIRE MILL ROAD

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PREPARED FOR

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TEODORO MILONE CT. P.E. 22563

May 30, 2023

DATE

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SHEET No:

SE-4B

Comm. No.: 6154

Recorded by: JMA
Date: 7/16/02
Sanitarian: LOU FURNARI
Project: ORLIN

Hole: PH#1
Depth: 24"
Dia: 14"
Presoak Time: 1 HOUR +

Time	Reading In Inches Total	Increment Drop In Inches
11: 40	12"	–
11: 42	12–9/16"	9/16"
11: 44	13–7/16"	14/16"
11: 46	14–4/16"	13/16"
11: 48	14–9/16"	5/16"
11: 50	15"	7/16"
11: 52	15–7/16"	7/16"
11: 54	15–13/16"	6/16"
11: 56	16–3/16"	6/16"
11: 58	16–9/16"	6/16"
12: 00	16–13/16"	4/16"
12: 02	17–1/16"	4/16"
12: 04	17–6/16"	5/16"
12: 06	17–11/16"	5/16"
12: 08	18"	5/16"
12: 10	18–5/16"	5/16"
12: 12	18–9/16"	4/16"
12: 16	18–13/16"	4/16"
12: 21	19–9/16"	12/16"
12: 26	19–15/16"	6/16"
12: 31	20–5/16"	6/16"
12: 36	20–11/16"	6/16"
12: 41	21–1/16"	6/16"

Minimum Uniform Drop 4/16 Inches in 5 Minutes.
Percolation Rate = 1 Drop in 20 Minutes.

Recorded by: JMA
Date: 7/16/12
Sanitarian: LOU FURNARI
Project: ORLIN

Hole: PH#2
Depth: 24"
Dia: 15"
Presoak Time: 1 HOUR +

Time	Reading In Inches Total	Increment Drop In Inches
11: 41	13"	–
11: 43	13–9/16"	9/16"
11: 45	13–15/16"	6/16"
11: 47	14–5/16"	6/16"
11: 49	14–11/16"	6/16"
11: 51	15–2/16"	7/16"
11: 53	15–11/16"	9/16"
11: 55	16–1/16"	6/16"
11: 57	16–8/16"	7/16"
11: 59	16–14/16"	6/16"
12: 01	17–2/16"	4/16"
12: 03	17–7/16"	5/16"
12: 05	17–11/16"	4/16"
12: 07	18"	5/16"
12: 09	18–6/16"	6/16"
12: 11	18–12/16"	6/16"
12: 13	19"	4/16"
12: 17	19–3/16"	3/16"
12: 22	19–7/16"	4/16"
12: 27	19–13/16"	6/16"
12: 32	20–3/16"	6/16"
12: 37	20–10/16"	7/16"
12: 42	21"	6/16"

Minimum Uniform Drop 4/16 Inches in 5 Minutes.
Percolation Rate = 1 Drop in 20 Minutes.

Recorded by: JMA
Date: 7/16/02
Sanitarian: LOU FURNARI
Project: ORLIN

Hole: PH#3
Depth: 25"
Dia: 16"
Presoak Time: 1 HOUR +

Time	Reading In Inches Total	Increment Drop In Inches
1:16	13–4/16"	–
1:21	15–11/16"	2–7/16"
1:26	16–12/16"	1–1/16"
1:31	17–12/16"	1"
1:36	18–11/16"	15/16"
1:41	19–10/16"	15/16"
1:46	20–10/16"	1"
1:51	21–4/16"	10/16"
1:56	22–1/16"	13/16"
2:01	22–14/16"	13/16"
2:06	23–11/16"	13/16"
2:11	24–7/16"	12/16"
2:16	25–3/16"	12/16"

Minimum Uniform Drop ____ Inches in ____ Minutes.
Percolation Rate = 1 Drop in 10 Minutes.

Recorded by: SMK
Date: 7/16/02
Sanitarian: LOU FURNARI
Project: ORLIN

Hole: PH#4
Depth: 25"
Dia: 12"
Presoak Time: 11: 20

Time	Reading In Inches Total	Increment Drop In Inches
12: 50	14–9/16"	–
12: 55	16–1/16"	1–8/16"
1: 00	17–1/16"	1"
1: 05	18–1/16"	1"
1: 10	18–15/16"	14/16"
1: 15	19–4/16"	5/16"
1: 20	20–1/16"	13/16"
1: 25	20–7/16"	6/16"
1: 30	21–3/16"	12/16"
1: 35	21–8/16"	5/16"
1: 40	22–2/16"	10/16"

Minimum Uniform Drop ____ Inches in ____ Minutes.
Percolation Rate = 1 Drop in 10 Minutes.

Recorded by: SMK
Date: 7/16/02
Sanitarian: LOU FURNARI
Project: ORLIN

Hole: PH#5
Depth: 25.5"
Dia: 12"
Presoak Time: 11: 20

Time	Reading In Inches Total	Increment Drop In Inches
12: 51	14–4/16"	–
12: 56	18–9/16"	4–5/16"
1: 01	20–8/16"	1–15/16"
1: 06	22–1/16"	1–9/16"
1: 11	24"	1–15/16" REFILL
1: 16	17–5/16"	–
1: 21	19–15/16"	2–10/16"
1: 26	22"	2–1/16"
1: 31	23–14/16"	1–14/16" REFILL
1: 36	16–4/16"	–
1: 41	19–2/16"	2–14/16"
1: 46	21–2/16"	2"
1: 51	23–2/16"	2"
1: 56	DRY	–

Minimum Uniform Drop ____ Inches in ____ Minutes.
Percolation Rate = 1 Drop in 10 Minutes.

Recorded by: LPD
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#1B
Depth: 22"
Dia: 10"
Presoak Time: 10:00

Time	Reading In Inches Total	Increment Drop In Inches
11: 49	6–1/16"	–
11: 54	8–8/16"	2–5/16"
11: 59	9–12/16"	1–6/16"
12: 04	10–12/16"	1"
12: 09	11–11/16"	15/16"
12: 14	12–7/16"	12/16"
12: 19	13–3/16"	12/16"
12: 24	14"	13/16"
12: 29	14–10/16"	10/16"
12: 34	15–7/16"	13/16"
12: 39	16–4/16"	13/16"
12: 44	16–12/16"	8/16"
12: 49	17–4/16"	8/16"
12: 54	17–12/16"	8/16"

Minimum Uniform Drop 8/16" Inches in 5 Minutes.
Percolation Rate = 1 Drop in 10 Minutes.

Recorded by: LPD
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#2B
Depth: 24"
Dia: 9"
Presoak Time: 10:00

Time	Reading In Inches Total	Increment Drop In Inches
11: 50	5–13/16"	–
11: 55	10–10/16"	4–13/16"
12: 00	13–5/16"	2–11/16"
12: 05	15–6/16"	2–1/16"
12: 10	17"	1–10/16"
12: 15	18–3/16"	1–3/16"
12: 20	19–3/16"	1"
12: 25	20–3/16"	1"
12: 30	21–3/16"	1"
12: 35	22–14/16"	11/16"
12: 40	22–9/16"	11/16"
12: 45	23–4/16"	11/16"

Minimum Uniform Drop 11/16" Inches in 5 Minutes.
Percolation Rate = 1 Drop in 7.27 Minutes.

Recorded by: LPD
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#3B
Depth: 25"
Dia: 12"
Presoak Time: 10:00

Time	Reading In Inches Total	Increment Drop In Inches
11: 52	9–10/16"	–
11: 57	18–2/16"	8–8/16"
12: 02	20–12/16"	2–10/16"
12: 07	21–3/16"	7/16"
12: 12	21–7/16"	4/16"
12: 17	12–2/16"	REFILL
12: 22	16–7/16"	4–5/16"
12: 27	19–12/16"	3–5/16"
12: 32	21"	1–4/16"
12: 37	21–2/16"	2/16"
12: 42	21–4/16"	2/16"
12: 47	21–7/16"	3/16"
12: 52	21–10/16"	3/16"
12: 57	21–13/16"	3/16"

Minimum Uniform Drop 3/16" Inches in 5 Minutes.
Percolation Rate = 1 Drop in 26.6 Minutes.

Recorded by: LPD
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#4B
Depth: 22"
Dia: 10"
Presoak Time: 10:00

Time	Reading In Inches Total	Increment Drop In Inches
2: 50	10–4/16"	–
2: 55	14–4/16"	4"
3: 00	16–13/16"	2–9/16"
3: 05	18–10/16"	1–13/16"
3: 10	20–10/16"	2"
3: 15	10–8/16"	REFILL
3: 20	14–8/16"	4"
3: 25	16–10/16"	2–2/16"
3: 30	18–1/16"	1–7/16"
3: 35	19–8/16"	1–7/16"
3: 40	20–10/16"	1–2/16"
3: 45	BOTTOM	DRAINED

Minimum Uniform Drop NA Inches in 5 Minutes.
Percolation Rate = 1 Drop in NA Minutes.

Recorded by: SJK
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#5B
Depth: 23"
Dia: 10"
Presoak Time: 11:00

Time	Reading In Inches Total	Increment Drop In Inches
2: 34	8"	–
2: 39	9–5/8"	1–5/8"
2: 44	11"	1–3/8"
2: 49	12–2/8"	1–2/8"
2: 54	13–2/8"	1"
2: 59	14"	6/8"
3: 04	14–6/8"	6/8"
3: 09	15–7/8"	5/8"
3: 14	15–7/8"	4/8"
3: 19	16–2/8"	3/8
3: 24	16–6/8"	4/8"
3: 29	17–2/8"	4/8"
3: 34	17–6/8"	4/8"
3: 39	18–2/8"	4/8"

Minimum Uniform Drop 4/8" Inches in 5 Minutes.
Percolation Rate = 1 Drop in 10 Minutes.

Recorded by: SJK
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#6B
Depth: 23"
Dia: 10"
Presoak Time: 11:00

Time	Reading In Inches Total	Increment Drop In Inches
2: 35	8–4/8"	–
2: 40	10–4/8"	2"
2: 45	11–6/8"	1–2/8"
2: 50	13"	1–2/8"
2: 55	13–6/8"	6/8"
3: 00	14–4/8"	6/8"
3: 05	15–3/8"	7/8"
3: 10	15–7/8"	4/8"
3: 15	16–3/8"	4/8"
3: 20	17–2/8"	7/8"
3: 25	17–5/8"	3/8"
3: 30	18"	3/8"
3: 35	18–3/8"	3/8"
3: 40	18–6/8"	3/8"

Minimum Uniform Drop 3/8" Inches in 5 Minutes.
Percolation Rate = 1 Drop in 13.33 Minutes.

Recorded by: SJK
Date: 01/12/07
Sanitarian: –
Project: ORLIN

Hole: PT#7B
Depth: 23"
Dia: 10"
Presoak Time: 11: 00

Time	Reading In Inches Total	Increment Drop In Inches
2: 36	8–1/8"	–
2: 41	9–5/8"	1–4/8"
2: 46	10–4/8"	7/8"
2: 51	11–5/8"	1–1/8"
2: 56	12–4/8"	7/8"
3: 01	13–2/8"	6/8"
3: 06	13–7/8"	5/8"
3: 11	14–3/8"	4/8"
3: 16	15"	5/8"
3: 21	15–6/8"	6/8"
3: 26	16–1/8"	3/8"
3: 31	16–4/8"	3/8"
3: 36	16–7/8"	3/8"
3: 41	17–2/8"	3/8"

Minimum Uniform Drop 3/8" Inches in 5 Minutes.
Percolation Rate = 1 Drop in 13.33 Minutes.

Recorded By: JWB
Hole: 101
Depth: 20"
Date: 10/20/22
Project: 6154
Diameter: 7"
2:00 PM
22:07 hrs

Minimum Uniform Drop: 8/16 inches in 5 minutes

Percolation Rate = 1"drop in 10.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
12:07 PM	6 4/16	-
12:12 PM	7 12/16	1 8/16
12:17 PM	8 8/16	12/16
12:22 PM	9 1/16	9/16
12:27 PM	9 10/16	9/16
12:32 PM	10 2/16	8/16
12:37 PM	10 10/16	8/16
12:42 PM	11 2/16	8/16
12:47 PM	11 10/16	8/16
12:52 PM	12 2/16	8/16
12:57 PM	12 10/16	8/16
1:02 PM	13 2/16	8/16
1:07 PM	13 10/16	8/16

Recorded By: JWB
Hole: 102
Depth: 20"
Date: 10/20/22
Project: 6154
Diameter: 7"
2:00 PM
22:05 hrs

Minimum Uniform Drop: 4/16 inches in 5 minutes

Percolation Rate = 1"drop in 20.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
12:05 PM	7 4/16	-
12:10 PM	8 5/16	1 1/16
12:15 PM	8 12/16	7/16
12:20 PM	9 4/16	8/16
12:25 PM	9 8/16	4/16
12:30 PM	9 14/16	6/16
12:35 PM	10 4/16	6/16
12:40 PM	10 8/16	4/16
12:45 PM	10 12/16	4/16
12:50 PM	11	4/16
12:55 PM	11 4/16	4/16
1:00 PM	11 8/16	4/16
1:05 PM	11 12/16	4/16

Recorded By: JWB
Hole: 103
Depth: 24"
Date: 10/20/22
Project: 6154
Diameter: 7"
2:00 PM
9:02 hrs

Minimum Uniform Drop: 8/16 inches in 5 minutes

Percolation Rate = 1"drop in 10.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
11:02 PM	7 14/16	-
11:07 PM	11 8/16	3 10/16
11:12 PM	13 10/16	2 2/16
11:17 PM	15 2/16	1 8/16
11:22 PM	16 4/16	1 2/16
11:27 PM	17 6/16	1 2/16
11:32 PM	18	10/16
11:37 PM	18 10/16	10/16
11:42 PM	19 2/16	8/16
11:47 PM	19 10/16	8/16
11:52 PM	20 2/16	8/16
11:57 PM	20 10/16	8/16
12:02 AM	21 2/16	8/16

Recorded By: JWB
Hole: 104
Depth: 24"
Date: 10/20/22
Project: 6154
Diameter: 7"
2:00 PM
9:05 hrs

Minimum Uniform Drop: 8/16 inches in 5 minutes

Percolation Rate = 1"drop in 10.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
11:05 PM	12 4/16	-
11:10 PM	14 6/16	2 2/16
11:15 PM	16	1 10/16
11:20 PM	17	1
11:25 PM	18 14/16	1 14/16
11:30 PM	19 12/16	14/16
11:35 PM	20 6/16	10/16
11:40 PM	21	10/16
11:45 PM	21 8/16	8/16
11:50 PM	22	8/16
11:55 PM	22 8/16	8/16
12:00 AM	23	8/16
12:05 AM	23 8/16	8/16

Recorded By: JWB
Hole: 201
Depth: 18"
Date: 10/20/22
Project: 6154
Diameter: 7"
10:00 AM
3:27 hrs

Minimum Uniform Drop: 4/16 inches in 5 minutes

Percolation Rate = 1"drop in 20.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
1:27 PM	12 8/16	-
1:32 PM	13 2/16	10/16
1:37 PM	13 10/16	8/16
1:42 PM	14	6/16
1:47 PM	14 6/16	6/16
1:52 PM	14 11/16	5/16
1:57 PM	15	5/16
2:02 PM	15 4/16	4/16
2:07 PM	15 8/16	4/16
2:12 PM	15 12/16	4/16
2:17 PM	16	4/16
2:22 PM	16 4/16	4/16
2:27 PM	16 8/16	4/16

Recorded By: JWB
Hole: 202
Depth: 18"
Date: 10/20/22
Project: 6154
Diameter: 7"
10:00 AM
3:25 hrs

Minimum Uniform Drop: 8/16 inches in 5 minutes

Percolation Rate = 1"drop in 10.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
1:25 PM	9 4/16	-
1:30 PM	10 14/16	1 10/16
1:35 PM	11 14/16	1
1:40 PM	13	1 2/16
1:45 PM	13 12/16	12/16
1:50 PM	14 8/16	12/16
1:55 PM	15 2/16	10/16
2:00 PM	15 12/16	10/16
2:05 PM	16 4/16	8/16
2:10 PM	16 12/16	8/16
2:15 PM	17 4/16	8/16
2:20 PM	17 12/16	8/16
2:25 PM	18 4/16	8/16

Recorded By: JWB
Hole: 203
Depth: 18"
Date: 10/20/22
Project: 6154
Diameter: 7"
10:00 AM
2:22 hrs

Minimum Uniform Drop: 4/16 inches in 5 minutes

Percolation Rate = 1"drop in 20.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
12:22 PM	13 4/16	-
12:27 PM	13 12/16	8/16
12:32 PM	14 4/16	8/16
12:37 PM	14 10/16	6/16
12:42 PM	14 14/16	4/16
12:47 PM	15 4/16	6/16
12:52 PM	15 8/16	4/16
12:57 PM	15 12/16	4/16
1:02 PM	16	4/16
1:07 PM	16 4/16	4/16
1:12 PM	16 8/16	4/16
1:17 PM	16 12/16	4/16
1:22 PM	17	4/16

Recorded By: JWB
Hole: 204
Depth: 18"
Date: 10/20/22
Project: 6154
Diameter: 7"
10:00 AM
2:20 hrs

Minimum Uniform Drop: 4/16 inches in 5 minutes

Percolation Rate = 1"drop in 20.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
12:20 PM	11 4/16	-
12:25 PM	12 4/16	1
12:30 PM	12 12/16	8/16
12:35 PM	13 1/16	5/16
12:40 PM	13 6/16	5/16
12:45 PM	13 12/16	6/16
12:50 PM	14	4/16
12:55 PM	14 4/16	4/16
1:00 PM	14 8/16	4/16
1:05 PM	14 12/16	4/16
1:10 PM	15	4/16
1:15 PM	15 4/16	4/16
1:20 PM	15 8/16	4/16

Recorded By: VJH
Hole: 301
Depth: 14"
Date: 02/01/23
Project: 6154
Diameter: 9"
12:27 PM
2:02 hrs

Minimum Uniform Drop: 7/16 inches in 7 minutes

Percolation Rate = 1"drop in 16.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
2:29 PM	2 9/16	-
2:36 PM	4 9/16	2
2:43 PM	5 3/16	10/16
2:50 PM	5 15/16	12/16
2:57 PM	6 11/16	12/16
3:04 PM	7 7/16	12/16
3:11 PM	7 14/16	7/16
3:18 PM	8 7/16	9/16
3:25 PM	8 14/16	7/16
3:32 PM	9 5/16	7/16
3:39 PM	9 12/16	7/16

Recorded By: VJH
Hole: 302
Depth: 18"
Date: 02/01/23
Project: 6154
Diameter: 7"
11:55 AM
2:30 hrs

Minimum Uniform Drop: 1 9/16 inches in 7 minutes

Percolation Rate = 1"drop in 4.48 minutes

Time	Reading In Inches Total	Increment Drop In Inches
2:25 PM	6 10/16	-
2:32 PM	11 10/16	5
2:39 PM	15 10/16	4
2:40 PM	4 3/16	Refill
2:47 PM	9 7/16	5 4/16
2:54 PM	11 15/16	2 8/16
3:01 PM	14 12/16	2 13/16
3:07 PM	4	Refill
3:14 PM	7 12/16	3 12/16
3:21 PM	10 9/16	2 13/16
3:28 PM	12 10/16	2 1/16
3:35 PM	14 8/16	1 14/16
3:42 PM	16 8/16	2
3:47 PM	3 14/16	Refill
3:54 PM	6 14/16	3
4:01 PM	8 14/16	2
4:08 PM	10 7/16	1 9/16

Recorded By: VJH
Hole: 303
Depth: 18"
Date: 02/01/23
Project: 6154
Diameter: 7"
12:00 PM
2:27 hrs

Minimum Uniform Drop: 8/16 inches in 7 minutes

Percolation Rate = 1"drop in 14.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
2:27 PM	4 11/16	-
2:34 PM	6 13/16	2 2/16
2:41 PM	8 11/16	1 14/16
2:48 PM	9 9/16	14/16
2:55 PM	10 12/16	1 3/16
3:02 PM	11 10/16	14/16
3:09 PM	12 2/16	8/16
3:16 PM	12 11/16	9/16
3:23 PM	13 3/16	8/16
3:30 PM	13 11/16	8/16

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 1A
R & M Inspector: JOHN ANDERSON
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 52"	Soil Description
0–3	TOP SOIL
3–17	ORANGE BROWN SANDY FINE SILTY LOAM
17–52	ORANGE BROWN SILTY SAND AND GRAVEL WITH COBBLES

Ledge at: 52" Mottling at: NONE
Water at: NONE Roots to: NONE

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 1
R & M Inspector: JOHN ANDERSON
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 69"	Soil Description
0–3	TOP SOIL
3–17	ORANGE BROWN SANDY FINE SILTY LOAM
17–63	ORANGE BROWN SILTY SAND AND GRAVEL WITH COBBLES
63–69	SAND

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to: 30"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 2
R & M Inspector: JOHN ANDERSON
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 70"	Soil Description
0–2	TOP SOIL
2–14	ORANGE BROWN FINE SANDY SILTY LOAM
14–70	ORANGE BROWN SILTY SAND AND GRAVEL WITH COBBLES

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to: 32"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 3
R & M Inspector: JOHN ANDERSON
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 72"	Soil Description
0–4	TOP SOIL
4–22	ORANGE BROWN SILTY LOAM
22–72	ORANGE SILTY SAND AND GRAVEL WITH COBBLES

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to: 18"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 5
R & M Inspector: SUSAN KEHKEN
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 72"	Soil Description
0–10	TOP SOIL
10–32	ORANGE BROWN SILTY LOAM
32–54	ORANGE BROWN SILTY SOIL WITH SAND, GRAVEL AND COBBLES
54–72	SAND WITH SILT AND GRAVEL

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to:

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 4
R & M Inspector: SUSAN KEHKEN
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 65"	Soil Description
0–5	TOP SOIL
5–34	ORANGE BROWN SILTY LOAM
34–65	ORANGE BROWN SILTY SOIL WITH SAND, GRAVEL AND COBBLES

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to:

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 6
R & M Inspector: SUSAN KEHKEN
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 70"	Soil Description
0–6	TOP SOIL
6–23	ORANGE BROWN SILTY LOAM
23–30	GREY SAND
30–70	SAND AND GRAVEL WITH COBBLES

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to:

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 7
R & M Inspector: SUSAN KEHKEN
Date: 7/16/02
Sanitarian: LOU FURNARI

Depth: 82"	Soil Description
0–5	TOP SOIL
5–34	ORANGE BROWN SILTY LOAM
34–82	SAND AND GRAVEL WITH COBBLES

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to:

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: 5A
R & M Inspector: SUSAN KEHKEN
Date: 5/27/04
Sanitarian: JANE GIBEAULT

Depth: 70"	Soil Description
0–9	TOP SOIL
9–40	ORANGE BROWN SILTY LOAM
40–70	TAN BROWN SAND AND GRAVEL WITH SOME ROCKS

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to: 40"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#1B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 77"	Soil Description
0–9"	TOPSOIL
9"–24"	ORANGE BROWN LOAM
24"–39"	GREY SAND AND GRAVEL
39"–77"	COMPACT GREY SAND AND GRAVEL

Ledge at: – Mottling at: 39"
Water at: – Roots to: 36"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#2B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 75"	Soil Description
0–9"	TOPSOIL
9"–24"	ORANGE BROWN LOAM
24"–39"	GREY SAND AND GRAVEL
39"–75"	COMPACT GREY SAND & GRAVEL

Ledge at: – Mottling at: 33"
Water at: – Roots to: 33"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#3B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 75"	Soil Description
0–8"	TOPSOIL
8"–32"	ORANGE BROWN LOAM
32"–35"	GREY SAND AND GRAVEL
35"–75"	COMPACT GREY SAND & GRAVEL

Ledge at: – Mottling at: 35"
Water at: – Roots to: 39"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#4B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 65"	Soil Description
0–6"	TOPSOIL
6"–29"	ORANGE BROWN LOAM
29"–39"	GREY SAND & GRAVEL
39"–65"	COMPACT GREY SAND & GRAVEL

Ledge at: – Mottling at: 35"
Water at: – Roots to: 35"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#5B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 65"	Soil Description
0–9"	TOPSOIL
9"–28"	ORANGE BROWN LOAM
28"–42"	GREY SAND & GRAVEL
42"–65"	COMPACT GREY SAND & GRAVEL

Ledge at: – Mottling at: 33"
Water at: – Roots to: 40"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#6B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 74"	Soil Description
0–8"	TOPSOIL
8"–28"	ORANGE BROWN LOAM
28"–41"	GREY SAND AND GRAVEL
41"–74"	ORANGE/TAN SAND & GRAVEL & STONES

Ledge at: – Mottling at: 28"
Water at: – Roots to: 36"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#7B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 71"	Soil Description
0–9"	TOPSOIL
9"–34"	ORANGE BROWN LOAM
34"–71"	COMPACTED GREY SAND & GRAVEL

Ledge at: – Mottling at: 34"
Water at: – Roots to: 35"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#8B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 66"	Soil Description
0–9"	TOPSOIL
9"–39"	ORANGE BROWN LOAM
39"–66"	TAN GREY FINE SAND AND GRAVEL

Ledge at: – Mottling at: 39"
Water at: – Roots to: 43"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#9B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 72"	Soil Description
0–5	TOP SOIL
5–34	ORANGE BROWN SILTY LOAM
34–65	ORANGE BROWN SILTY SOIL WITH SAND, GRAVEL AND COBBLES

Ledge at: NONE Mottling at: NONE
Water at: NONE Roots to:

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#10B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 68"	Soil Description
0–10"	TOPSOIL
10"–35"	ORANGE BROWN LOAM
35"–68"	COARSE SAND AND GRAVEL

Ledge at: – Mottling at: NONE
Water at: – Roots to: 42"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#11B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 68"	Soil Description
0–9"	TOPSOIL
9"–28"	ORANGE BROWN LOAM
28"–44"	COARSE SAND & GRAVEL
44"–68"	GREY FINE SAND

Ledge at: – Mottling at: 44"
Water at: – Roots to: 27"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#12B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 70"	Soil Description
0–8"	TOPSOIL
8"–37"	ORANGE BROWN LOAM
37"–58"	FINE SAND
58"–70"	COARSE SAND
–	–

Ledge at: – Mottling at: 44"
Water at: – Roots to: 42"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#13B
R & M Inspector: SMK/LPD
Date: 12/06/06
Sanitarian: JANE GIBEAULT

Depth: 55"	Soil Description
0–8"	TOPSOIL
8"–29"	ORANGE BROWN LOAM
29"–55"	BANK RUN GRAVEL

Ledge at: – Mottling at: NONE
Water at: – Roots to: 30"

SUBSURFACE SOIL INVESTIGATION
SOIL PROFILE

Test Pit#: TP#14B
R & M Inspector: SMK/L

Subsurface Soil Investigation
Soil Profile

Test Pit #: 101 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 32"

Depth: 70"	Soil Description
0"-7"	Topsoil & Brown Loam
7"-32"	Orange Brown Sandy Loam
32"-70"	Grey Moderately Compacted Fine Sandy Loam with stones

Subsurface Soil Investigation
Soil Profile

Test Pit #: 102 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 37"

Depth: 72"	Soil Description
0"-8"	Topsoil/Brown Loam
8"-37"	Orange Brown Sandy Loam
37"-72"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 37"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 103 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 36"

Depth: 67"	Soil Description
0"-9"	Topsoil & Brown Loam
9"-36"	Orange Brown Sandy Loam
36"-67"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 36"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 104 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 25"

Depth: 65"	Soil Description
0"-8"	Topsoil & Brown Loam
8"-25"	Brown Sandy Loam
25"-65"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 36"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 105 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 30"
Water at: - Roots at: 42"

Depth: 69"	Soil Description
0"-10"	Topsoil & Brown Loam
10"-30"	Orange Brown Sandy Loam
30"-69"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 30"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 106 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 33"
Water at: - Roots at: 33"

Depth: 67"	Soil Description
0"-9"	Topsoil & Brown Loam
9"-33"	Orange Brown Sandy Loam
33"-67"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 33"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 107 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 32"
Water at: - Roots at: 32"

Depth: 72"	Soil Description
0"-10"	Topsoil & Brown Loam
10"-32"	Orange Brown Sandy Loam
32"-72"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 32"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 108 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 30"
Water at: - Roots at: 30"

Depth: 62"	Soil Description
0"-6"	Topsoil & Brown Loam
6"-30"	Orange Brown Sandy Loam
30"-62"	Grey Tan Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 30"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 109 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 34"
Water at: - Roots at: 34"

Depth: 68"	Soil Description
0"-14"	Topsoil & Brown Loam
14"-34"	Orange Brown Sandy Loam
34"-68"	Grey Moderately Compacted Fine Sandy Loam with stones

Subsurface Soil Investigation
Soil Profile

Test Pit #: 110 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 32"
Water at: - Roots at: 32"

Depth: 66"	Soil Description
0"-9"	Topsoil & Brown Loam
9"-32"	Orange Brown Sandy Loam
32"-66"	Grey Moderately Compacted Fine Sandy Loam with stones

Hardpan @ 32"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 111 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 42"

Depth: 67"	Soil Description
0"-6"	Topsoil & Brown Loam
6"-42"	Orange Brown Sandy Loam
42"-67"	Grey Fine Sand with Large Boulders at bottom

Hardpan @ 32"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 112 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 39"

Depth: 68"	Soil Description
0"-8"	Topsoil & Brown Loam
8"-38"	Orange Brown Silty Loam
38"-68"	Grey Bank Run Sandy Gravel

Subsurface Soil Investigation
Soil Profile

Test Pit #: 113 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 42"
Water at: - Roots at: 28"

Depth: 68"	Soil Description
0"-8"	Topsoil & Brown Loam
8"-28"	Orange Brown Sandy Loam
28"-42"	Bank Run Gravel
42"-68"	Mottled Grey Compact Sandy Silty Loam

Subsurface Soil Investigation
Soil Profile

Test Pit #: 114 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 31"
Water at: - Roots at: 31"

Depth: 60"	Soil Description
0"-19"	Topsoil & Brown Loam
19"-31"	Orange Brown Sandy Loam
31"-60"	Grey fine Sandy Loam

Hardpan @ 31"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 115 Date: 10/19/2022
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 36"

Depth: 63"	Soil Description
0"-9"	Topsoil & Brown Loam
9"-36"	Dark Orange Brown Sandy Loam
36"-63"	Bank Run Gravel with stones and boulders

Subsurface Soil Investigation
Soil Profile

Test Pit #: 201 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 45"
Water at: 54" Roots at: 35"

Depth: 70"	Soil Description
0"-7"	Topsoil
7"-45"	Brown Fine Sand
45"-70"	Grey Fine Moderately Compacted Sand w/ Mottles

Subsurface Soil Investigation
Soil Profile

Test Pit #: 202 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 36"
Water at: 56" Roots at: -

Depth: 82"	Soil Description
0"-10"	Topsoil/Fill
10"-42"	Light Brown Hard Pan
42"-82"	Dark Brown Hard Pan

Subsurface Soil Investigation
Soil Profile

Test Pit #: 203 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 26"
Water at: - Roots at: 40"

Depth: 55"	Soil Description
0"-7"	Topsoil
7"-26"	Orange Brown Silty Loam
26"-55"	Grey Mottled Fine Sand

Subsurface Soil Investigation
Soil Profile

Test Pit #: 204 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 36"
Water at: - Roots at: 56"

Depth: 78"	Soil Description
0"-6"	Topsoil/Leaf Litter
6"-36"	Orange Brown Fine Sandy Loam w/ Large Cobbles
36"-78"	Grey Sand w/ Moderate Compaction & Large Cobbles

Subsurface Soil Investigation
Soil Profile

Test Pit #: 205 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 55"
Water at: - Roots at: 63"

Depth: 88"	Soil Description
0"-4"	Topsoil/Leaf Litter
4"-55"	Orange Red Silty Loam w/ boulders
55"-80"	Grey Mottled Silt
80"-88"	Light Brown Sand

Subsurface Soil Investigation
Soil Profile

Test Pit #: 206 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 45"
Water at: - Roots at: 49"

Depth: 68"	Soil Description
0"-9"	Topsoil/Leaf Litter
9"-45"	Orange Brown Silty Loam
45"-53"	Red Fine Sand
53"-68"	Grey Fine Sand

Subsurface Soil Investigation
Soil Profile

Test Pit #: 207 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 57"
Water at: - Roots at: 46"

Depth: 71"	Soil Description
0"-6"	Topsoil/Leaf Litter
6"-57"	Orange Brown Fine Sandy Loam
57"-71"	Grey Fine Sand w/ Mottles

Subsurface Soil Investigation
Soil Profile

Test Pit #: 208 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 32"
Water at: - Roots at: 31"

Depth: 63"	Soil Description
0"-6"	Topsoil/Leaf Litter
6"-57"	Orange Brown Fine Sandy Loam
57"-71"	Grey Fine Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 209 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 32"
Water at: - Roots at: 36"

Depth: 66"	Soil Description
0"-5"	Topsoil/Leaf Litter
5"-32"	Orange Brown Fine Sandy Loam
32"-66"	Grey Fine Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 210 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 36"
Water at: - Roots at: 36"

Depth: 69"	Soil Description
0"-8"	Topsoil/Leaf Litter
8"-36"	Orange Brown Fine Sandy Loam
36"-69"	Grey Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 211 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 30"
Water at: - Roots at: 43"

Depth: 68"	Soil Description
0"-6"	Topsoil/Leaf Litter
6"-30"	Orange Brown Fine Sandy Loam
30"-68"	Grey Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 212 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 32"
Water at: - Roots at: 36"

Depth: 66"	Soil Description
0"-5"	Topsoil/Leaf Litter
5"-32"	Orange Brown Fine Sandy Loam
32"-66"	Grey Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 213 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 38"
Water at: - Roots at: 57"

Depth: 74"	Soil Description
0"-4"	Topsoil/Leaf Litter
4"-38"	Orange Brown Fine Sandy Loam
38"-74"	Grey Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 214 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 25"
Water at: - Roots at: 25"

Depth: 75"	Soil Description
0"-7"	Topsoil/Leaf Litter
7"-25"	Orange Brown Fine Sandy Loam
25"-75"	Grey Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 215 Date: 12/19/2022
Inspector: DRG Sanitarian: J. Polur
Ledge at: - Mottling at: 24"
Water at: - Roots at: 30"

Depth: 70"	Soil Description
0"-4"	Topsoil/Leaf Litter
4"-24"	Orange Brown Fine Sandy Loam
24"-70"	Grey Sand w/ Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 216 Date: 02/13/2023
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 30"

Depth: 76"	Soil Description
0"-9"	Topsoil
9"-18"	Orange Brown Sandy Loam
18"-30"	Tan Silty Loam
30"-76"	Olive Grey Coarse Sand and loam with crushed stone / Mod. Compac.

Subsurface Soil Investigation
Soil Profile

Test Pit #: 217 Date: 02/13/2023
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 32"

Depth: 68"	Soil Description
0"-8"	Topsoil
8"-37"	Orange Brown Sandy Loam
37"-68"	Olive Grey Silty Loam / Moderate Compaction
	Hardpan @ 37"

Subsurface Soil Investigation
Soil Profile

Test Pit #: 218 Date: 02/13/2023
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: 36"
Water at: 68" Roots at: 36"

Depth: 72"	Soil Description
0"-12"	Topsoil
12"-36"	Orange Brown Sandy Loam
36"-72"	Olive Grey Silty Loam / Moderate Compaction

Subsurface Soil Investigation
Soil Profile

Test Pit #: 219 Date: 02/13/2023
Inspector: TM Sanitarian: J. Polur
Ledge at: - Mottling at: -
Water at: - Roots at: 42"

Depth: 72"	Soil Description
0"-10"	Topsoil
10"-42"	Orange Brown Sandy Loam
42"-72"	Olive Grey Silty Loam
	Hardpan @ 42"

No.	Date	Revision
I	05/30/2023	ORIGINAL ISSUE DATE

SOIL DATA
DEPICTING
WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING
22 First Street | Stamford, CT 06905
Tel: 203.322.0500 | Fax: 203.357.1118
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SCALE: N.T.S.
DRAWN BY: PBS CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
May 30, 2023
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration hereon null & void.

SHEET No:
SE-6
Comm. No.: 6154

GENERAL NOTES:

1. These drawings are intended only to depict the design of site grading, drainage, septic, utilities, and sediment and erosion controls to demonstrate subdivision feasibility. These drawings are for approval purposes only. No construction may begin prior to obtaining all necessary permits and approvals.
2. All survey data, boundary lines, topography, building locations and area calculations are from a survey prepared by Redniss & Mead, Inc. entitled Property & Topographic Survey dated February 27, 2023. Elevations depicted or labeled are based on NAVD-88.
3. Wetlands depicted on the subject parcels were field identified and flagged by Otto R. Theall, Professional Soil Scientist, in April 2002 and field located by this office on April 10-12, 2002.
4. Refer to plans prepared by CAH Architecture and Design, LLC for information and design of the proposed buildings. These drawings depict site plans corresponding to the latest architectural plans received from architect received on July 22, 2022.
5. Property lies in a RA-1 zone.
6. Portions of the property lie within Flood Zones AE and X as depicted on the Flood Insurance Rate Map Community No. 09001C0506F Panel 506, effective date June 18, 2010. Base flood elevation (BFE) ranges between 133.0 and 137.0 (BFE at section line AA=133.9 and at section AA=136.4). The BFE was established by field survey on April 10-12, 2002.
7. All construction shall comply with the City of Stamford requirements, the State of Connecticut Basic Building Code Americans with Disabilities Act (ADA), the Connecticut Guidelines for Soil and Erosion and Sediment Control, OSHA, CT DOT Form 818 (latest edition).
8. All development activities to be undertaken within the street right-of-way and other public lands shall comply fully with City standards unless approved deviation is specifically set forth as part of this application. All work shall comply with the CT DOT Form 818 with the latest special Provisions and Typical State Standard Details.
9. Contractor shall supply complete shop drawings including manufacturer's product data sheets to the Site Engineer, for all construction material used in conjunction with these drawings. Contractor shall allow a 5 day review period, prior to fabrication and installation.
10. Information on existing utilities has been compiled from various sources including utility company records, municipal record maps and field survey and is not guaranteed to be correct or complete. The contractor is solely responsible for determining actual locations and elevations of all utilities including underground services.
11. The properties shall be served by private wells and septic systems.
12. Prior to any excavation the Contractor and/or Applicant, in accordance with Public Act 77-350, shall be required to contact "Call Before You Dig" at 1-800-922-4455 for mark-out of underground utilities. Dig test pit(s) at utility crossing(s) to check actual clearances with new utilities prior to construction. If conflicts are found the contractor shall notify the engineer, at which time the sewer in question shall be redesigned. If such redesign is not possible, the existing pipes or utilities shall be relocated to avoid the conflict. Such relocation shall be done with knowledge of and in accordance with the owner of the utility.
13. It shall be the responsibility of the contractor to provide any excavation safeguards, necessary barricades, flagmen, etc., for traffic control and site safety. All work shall be done in accordance with OSHA requirements. The contractor shall be responsible for compliance with OSHA requirements.
14. When preparing the existing site for the proposed development, all materials removed shall be disposed of in conformance with all governing agencies.
15. Remove stumps and brush from site, or chip and use during landscaping. Do not bury stumps on site.
16. Building elevations are subject to change and shall be finalized prior to building permit.
17. Special attention of the contractor is called to the required type and compaction of pipe bedding and backfill specified on these drawings. These requirements will be strictly enforced.
18. A preconstruction meeting shall be held with the Owner, Architect and Engineer to review the scope of construction. The Contractor shall be responsible to coordinate the preconstruction meeting
19. The work shall be done in conformance with the contract documents/plans unless changes have been approved in writing by the design engineer prior to the work being done.

STANDARD CITY OF STAMFORD NOTES:

20. A Street Opening Permit is required for all work within the City of Stamford Right-of-Way.
21. All work within the City of Stamford Right-of-Way shall be constructed to City of Stamford requirements, the State of Connecticut Basic Building Code and the Connecticut Guidelines for Soil Erosion and Sedimentation Control.
22. The Engineering Bureau of the City of Stamford shall be notified three days prior to any commencement of construction work within the City of Stamford Right-of-Way.
23. Trees within the City of Stamford Right-of-Way to be removed shall be posted in accordance with the Tree Ordinance.
24. Prior to any excavation the Contractor and/or Applicant/Owner, in accordance with Public Act 77-350, shall be required to contact "Call Before You Dig" at 1-800-922-4455 for mark our of underground utilities.
25. All retaining walls three (3) feet or higher measured from finished grade at the bottom of the wall to finished grade at the top of the wall and retaining walls supporting a surcharge or impounding Class I, II, or III-A liquids are required to have a Building Permit. Retaining walls shall be designed and inspected during construction by a Professional Engineer licensed in the State of Connecticut. Prior to the issuance of a Certificate of Occupancy, retaining walls shall be certified by a Professional Engineer licensed in the State of Connecticut.
26. Certification will be required by a professional engineer licensed in the State of Connecticut that work has been completed in compliance with the approved drawings.
27. A Final Improvement Location Survey will be required by a professional land surveyor licensed in the State of Connecticut.
28. Connection to a city-owned storm sewer shall required the Waver Covering Storm Connection to be filed with the City of Stamford Engineering Bureau.
29. Granite block or other decorative stone or brick, depressed curb, driveway apron, and curbing within the City of Stamford Right-of-Way shall require the Waiver Covering Granite Block Depressed Curb and Driveway Aprons to be filed with the City of Stamford Engineering Bureau.
30. Sediment and erosion controls shall be maintained and repaired as necessary throughout construction until the site is stabilized.
31. To obtain a Certificate of Occupancy, submittal must include all items outlined in the Checklist for Certificate of Occupancy (Appendix D of the City of Stamford Drainage Manual).

EARTHWORK & GRADING:

32. Grade away from building walls at 2% minimum (typical).
33. Earth slopes shall be no steeper than 2:1 (horz.:vert.)
34. No work shall commence until erosion controls have been inspected and approved by the EPB or their designee(s).
35. General fill beyond paved areas shall be free of brush rubbish, stumps and stones larger than 8". Fill shall be placed in compacted layers not to exceed 8" in thickness. The dry density after compaction shall not be less than 95% of the Standard Proctor Test and done in accordance with the requirements of ASTM D698. After compacting, the fill shall be 4" below the required grade as shown on the plan.
36. General fill may be silt, loam, sand or gravel mixture classified as SP, SW, SM, GP, GM, ML per the United Soil Classification System. It shall have not more than 40% fines passing the #100 sieve, not more than 8% passing the #200 sieve, and no stones larger than 8".
37. Subgrade and fill shall be uniformly compacted by the use of equipment manufactured for that purpose. Rollers shall deliver a ground pressure of not less than 300 pounds per linear inch of contact width and weigh not less than 10 tons. Vibratory units shall have a static weight of not less than 4 tons. The amount of compactive effort shall be as directed by the Engineer, but in no case shall be less than 4 complete passes of the compacting equipment being used.
38. Disturbed areas shall be top soiled, seeded with grass and mulched in a manner conforming to the recommendations of the "Guidelines for Soil Erosion and Sediment Control", published by The Connecticut Council on Soil and Water Conservation, May 2002.
39. After the areas to be topsoiled have been brought to grade, the subgrade shall be loosened by scarifying to a depth of at least 2" to ensure bonding of the topsoil and subsoil.
40. Topsoil shall be friable and loamy with high organic content. It shall be free of debris, rocks larger than 2" and roots. Topsoil shall have at least 1.5 percent by weight of fine textured stable organic material and no greater than 6 percent. Topsoil shall not have less than 20% fine textured material (passing the No. 200 sieve) and not more than 15% clay. pH range shall be 6.0-7.5 and soluble salts shall not exceed 500ppm.
41. Fill or topsoil shall not be placed nor compacted while in a frozen or muddy condition or while subgrade is frozen.
42. Excavation for pipes or concrete pavement repair may require either a braced excavation or open cut designed according to the requirements of OSHA, 29 CFR Part 1926. The lateral support systems and slopes should also be designed such that building footings, slabs on grade, adjacent pavement and existing ut ilities are protected and supported and not allowed to settle. The contractor shall be responsible for having a Professional Engineer, registered in the State of Connecticut design the excavation support method. The designs shall be submitted to the owner or his geotechnical engineer for review. The contractor shall submit plans showing the type, limits, design and sequence of construction for the lateral support system.
43. During the excavation, it is anticipated that existing utilities and sewers may be exposed. The contractor shall provide protection and support of these facilities and repair any damage caused by the work in a manner satisfactory to the owner. The condition of the existing facilities shall be observed by the owner's representative who shall determine if the facilities shall be replaced. Replacement of the facilities shall be done in a manner satisfactory to the owner and in compliance with applicable Codes.

STORM AND SANITARY SEWER SYSTEMS:

44. All pipe shall be installed straight and at the vertical and horizontal alignment shown. Pipes shall have a uniform slope as specified.
45. Minimum cover on all pipes shall be two feet (2) unless otherwise noted.
46. All storm pipe specified as Poly Vinyl Chloride Pipe (PVCP) shall be SDR 35 with rubber gasketed joints and meet the requirements of ASTM D3034 and D3212.
47. All sanitary sewer pipe shall be Poly Vinyl Chloride Pipe (PVCP) and shall be Schedule 40 with solvent weld joints.
48. Dig test pits at utility and sewer crossings to check actual clearances with these facilities prior to construction. Dig test pits at the connection points to existing sanitary sewer pipes to confirm that the elevation of the proposed gravity sewer is appropriate. If conflicts are found the contractor shall notify the engineer at which time the sewer in question shall be redesigned. If such redesign is not possible, the existing pipes or utilities shall be relocated to avoid conflict.
49. All catch basins and area drains shall have a two foot (2) sump with bell traps or 90° PVC elbows.
50. Manhole diameters listed are minimum sizes and are assumed to be 4' inside diameter. If precast manholes are used, larger manholes must be used if recommended by the manufacturer.
51. All existing and proposed catch basins, manhole rims and utility facilities shall be raised or lowered to be flush with finished grade.
52. Locate and abandon existing sanitary laterals at the property line with the end capped and mortared. Other existing utilities shall be abandoned in accordance with the requirements of the utility owner(s).
53. When connecting new pipes to existing structures such as manholes and catch basins, the structure shall be completely cleaned out. The hole made in the structure shall be made as small as possible. The structure shall be repaired to match its original type of construction. The joint between the structure and the pipe shall be made watertight by filling the joint with mortar.
54. Flow in existing sewer system must not be interrupted. Any temporary routing of this sewer flow must be done in conformance with all applicable rules and regulations.
55. Under no circumstances shall trench water be allowed to drain off through sanitary sewer lines.
56. All crushed stone shall be Gradation No. 4 as per CT DOT Form 818, Article M.01.02. Stone shall consist of sound, tough, durable particles free from soft, thin, elongated, laminated, friable, micaceous, or disintegrated pieces of mud, dirt or other deleterious material.
57. The storm and sanitary sewer shall be encased in concrete for a distance of 10 feet on either side of any intersection between the sanitary sewer and storm sewer. Where concrete encasement is required, temporarily support the pipes in place. Use sufficient concrete to encase piping not less than 6 inches at all points. The encasement shall be adequately supported with a stone base and shall be keyed into the foundation wall to prevent damage from settlement.
58. Sanitary Sewer Testing: The sanitary sewer line shall be Low Pressure Air Tested, at the expense of the contractor; Testing to be in accordance with recommended procedure in "Unibell's" "Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe" UNI B-6. The minimum starting pressure for the test is 3.5 P.S.I. (in excess of the groundwater pressure at the top of the pipe) and there shall be no more than 0.5 P.S.I. drop in five (5) minutes. Manholes to be visually inspected. Lateral plugs shall be airtight to allow proper testing. Inspecting Engineer and the Engineering Bureau shall be informed of testing scheduled three days in advance so they can witness the testing.
59. At the end of construction, after the site has be fully stabilized, all new and previously existing storm sewer facilities including, but not limited to, catch basins, area drains, manholes, junction boxes, flow control structures, pipes, oil grit separators, permeable pavers and porous pavement shall be fully cleaned with equipment designed for that purpose to the satisfaction of the inspecting engineer.

UTILITIES:

60. Utilities shown on these plans are "not guaranteed" to be complete or correct. Prior to any site activities, the contractor shall be responsible for verification of clearances of proposed utilities from existing utilities. This verification shall include physical observation by means of test pits of the locations of affected utilities. The contractor shall notify the site engineer immediately of any conflict.
61. Easements may be required in favor of the various utility companies.
62. Electric, telephone, cable, gas, and water services shall be installed in conformance to the requirements of the governing utility companies.
63. It is the contractor's responsibility to install utilities as shown on this sheet. The contractor shall work with the utility companies and site engineer to insure the installation is in conformance to the requirements of the governing utility company. All conduits shall be concrete encased as may be required by the governing utility company. Proposed electric, telephone, cable, gas and water services are shown for schematic purposes only and are subject to change pending utility company review. These utilities shall be designed by others and installed in conformance to the requirements of the governing utility companies.
64. All proposed utility facilities shall be raised or lowered to be flush with finished grade.
65. Where necessary, existing utilities shall be reinstalled to meet all minimum coverage requirements.
66. Utility connections at building face shall be coordinated with the building contractors.
67. The contractor must supply and install drag lines with all conduits.
68. In general, each utility shall have a minimum clearance of three feet to any other underground utility.
69. Any and all utilities abandoned shall be capped or removed in accordance with utility companies' requirements.
70. Existing fire valves shall be cut flush to grade in accordance with Aquarion Water Company requirements.
71. The electric transformer and generator shall be located to meet all applicable Zoning setbacks.
72. Electric, telephone, cable, gas and water services shall be installed in conformance to the requirements of the governing utility companies.
73. Gas service to the meter room shall be installed by the utility company.
74. Detectable Tape shall be used to mark piping listed below. The identification tape shall be buried at least 6-inches to 10-inches below final grade but no closer than 12-inches to the buried utility piping or service.

Electric	Red	Caution Electric Line Buried Below
Telephone & Control	Orange	Caution Telephone Line Buried Below
Natural Gas	Yellow	Caution Gas Line Buried Below
Water Systems	Blue	Caution Water Line Buried Below
Fire Protection Systems	Blue	Caution Fire Line Buried Below Sprinkler
Mains	Blue	Caution Sprinkler Line Buried Below Sewer
System	Green	Caution Sewer Line Buried Below
IS & S Communication Conduit	Orange	Conc. N/A

75. Underground-Type Plastic Line Marker: Manufacturer's standard permanent, bright-colored detectable tape, continuous-printed plastic tape, intended for direct-burial service; not less than 6" wide X 4 mils thick.

PAVEMENT AND PAVEMENT MARKINGS:

76. Areas of new asphalt shall follow the details on Sheets SE-7-10.
77. Areas of asphalt pavement that are disturbed by the construction of this project shall be replaced in accordance with the asphalt pavement repair detail. The finished grade of asphalt paving shall blend to existing grade and the edge of the concrete pavement smoothly with no slopes exceeding 4%.
78. Existing features such as but not limited to walks, curbs, and pavement damaged by construction activities shall be repaired at no additional cost to the owner.
79. Bituminous curbs damaged by the project shall be replaced with the new bituminous curbing machine laid Class 3 as described in Sections 8.15 and M.04 of the CT DOT Form 818.
80. Saw cut perimeter of area to be excavated. Saw cut shall be straight and vertical.
81. A testing lab who shall verify the base course material by means of a sieve analysis and perform compaction testing of the base and each course of pavement. Site Engineer shall review with the contractor the required testing at the preconstruction meeting. Site Engineer shall approve base course prior to placement of each layer of pavement.
82. A qualified independent testing agency to perform field inspections and tests and to prepare test reports. Testing agency will conduct and interpret tests and state in each report whether tested work complies with or deviates from specified requirements.
83. Additional testing, at Contractor's expense, will be performed to determine compliance of corrected work with specified requirements. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements as directed by the Site Engineer.
84. Contractor is responsible to place the hot-mix asphalt mix as required in the drawings, details and the applicable Section of the CT DOT FORM 818 (latest edition).
85. Compaction shall be constructed as specified in the CT DOT FORM 818 (latest edition), Section 4.06 specification, the drawings and the details. Testing lab shall verify compaction of each course of pavement as directed by the Site Engineer.
86. After the asphalt pavement has cured sufficiently to support the weight of a water truck without marking the newly installed pavement, it shall be water tested for low spots, areas of little or no drainage, etc. A water truck shall spray a sufficient amount of water on all pavement sections to observe the drainage of water. There shall be positive drainage on all areas of the pavement. Any visible low spots where significant water (greater than or equal to 3/16" in depth) is felt standing, shall be clearly marked for the Contractor to repair prior to final acceptance. These areas must be sawcut and removed down to the base course prior to replacement with asphalt mixture as per the original approved design. The base course and edges of sawcut asphalt must be treated with tack oil prior to new section of asphalt being installed. The Owner's Representative or inspecting A/E shall be notified 48 hours in advance of water test so that he may be present during the test.
87. The inspecting engineer and contractor will review the testing requirements at the preconstruction meeting. At this meeting, samples to be tested and compaction testing protocol will be discussed. Testing and approval of the subgrade, base course and asphalt layers prior to the installation of the next layer to determine if the work complies or deviates from the specified requirements. Prior to installation of the base course, contractor shall contact inspecting engineer to determine the suitability of the subgrade material, base course and asphalt. Additional excavation or base course may be required.
88. Finished paving shall be free of ``bird baths'' and be smooth at the slopes specified on the plans.
89. Finished grade shall be within 1/2 inch of that noted on the drawings.
90. The pavement shall be protected from vehicular traffic of any kind with the use of barricades, etc. for a minimum period of 24 hours after final rolling. Maintain and protect asphalt surface from scrapes, scars, spills, hydraulic leaks, and any other construction damage for the remainder of construction until Owner's Representative acceptance. Contractor is responsible for clearing, repairing, seal coating, patching, and re-striping as necessary to obtain Owner's Representative's final approval/acceptance.
91. Thicknesses of all layers shown are after compaction. Compact all layers to 95% per ASTM D 1557 (Modified Proctor Method).
92. Removal of pavement markings along state road ways shall be completed by non-destructive method in compliance with the CT DOT Form 818 Section 12.11 as revised.
93. New pavement markings shall be painted with epoxy resin paint in compliance with the CT DOT Form 818 Section 12.10 as revised.
94. New sign material and sheeting shall be made of retroreflective material in compliance with CT DOT Form 818 Section 12.08 as revised.
95. All signs and pavement markings installed along the state road must conform to the ``Manual on Uniform Traffic Control Devices,'' the latest State of Connecticut Catalog of Signs and standard as revised.
96. All pavement striping and replacement shall conform to the city of Stamford standards and the latest edition of AASHTO Highway Design Manual.

SEDIMENT AND EROSION CONTROL NOTES:

97. Sheets SE-4A and SE-4B are intended to describe the soil sediment and erosion control treatment of this site only. For other details with respect to construction, see appropriate drawings.
98. All sediment and erosion controls shall be done in conformance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated May 2002 prepared by The Connecticut Council on Soil and Water Conservation.
99. The contractor is assigned the responsibility for implementing this sediment and erosion control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan notifying the Zoning Department of any transfer of this responsibility, and EPB that construction is to begin three (3) days prior to commencing work.
100. Temporary sediment control measures and tree protection must be installed in accordance with drawings and manufacturer recommendations prior to work in any upland areas.
101. No construction or construction equipment or storage of materials will be allowed on the downhill side of the silt fence or within fenced off areas, except during construction of the proposed facilities shown beyond the fences.
102. Where existing trees are to be saved, trees shall be protected with tree protection where shown. Tree limbs shall be trimmed as needed to protect the trees from damage by construction operations. Such trimming shall be minimized. Armoring and any limb trimming should be done before construction begins. Tree protection should be maintained during construction. Equipment Trafficking and materials storage over the tree roots shall be avoided.
103. Tracking pads shall be installed at start of construction and maintained in an effective condition throughout the duration of construction. Pads consist of 2" - 4" crushed stone, 6" minimum thickness and extend the width of the construction access. The length of the access shall be sufficient to prevent dirt from being tracked onto off site roads (minimum length of 50').
104. The location of each stockpile will vary throughout the construction period. Excavated silt and earth stockpiles shall be stored on site. Silt fence shall be placed at the base of the stockpile to prevent sediment from leaving the site and to protect storm drains, wetlands and watercourses.
105. Silt fence shall be Mirafi envirofence, Amoco siltstop or equivalent approved by Site Engineer. Filter fabric used shall be Mirafi 100x or equivalent. Install silt fence according to manufacturer's instruction, particularly, bury lower edge of fabric into ground.
106. All roof leader downspouts shall temporarily discharge onto splash pads measuring at least 8' wide by 18" long, or approved equal.
107. Land disturbance shall be kept to a minimum. All disturbed area shall be planted in where permanent plantings are called for as soon as practicable. Seed and mulch disturbed areas with grass seed where permanent plantings are not called for, as soon as practicable. Prepare seedbed (4" thick minimum) with topsoil. Seed, rake, roll, water and mulch areas according to mixes below. Water as often as necessary (up to 3 times per day) to establish cover. Mulch seeded areas at 1 to 2 tons/acre with salt hay. Maintain mulch and watering until grass is 3" high with 85% cover. Reseed or overseed if necessary.

Temporary Seed Mix:

Perennial ryegrass	40 lbs/ac.	(1 lb/1000 sf.)

Permanent Lawns:

Kentucky Bluegrass	20 lbs/ac.	
Creeping Red Fescue	20 lbs/ac.	
Perennial Ryegrass	5 lbs/ac.	
	45 lbs/ac.	(1 lb/1000 sf.)

Optimum Seeding Dates:
April 15 through June 15
August 15 through October 1

108. Any disturbed area shall be restored to the preconstruction condition. Existing shrubs shall be carefully dug up, stored in a temporary nursery during the project and replanted as directed by the Owner. The time during which these bushes are out of the ground must be minimized. The contractor shall keep the shrubs watered and out of the direct sun during this time.
109. If disturbed areas can not be seeded immediately due to the time of year, mulch area until seeding can occur; remove mulch and seed and remulch when season permits.
110. Mulch shall be replaced with erosion control blankets where specified on the plan. Blankets shall be jute netting installed as per the details. Additional areas may have to be covered with blankets as directed by the Site Engineer. Other blankets and methods may be used if approved by the site engineer.
111. If dewatering is required during construction, all dewatering pumping must have sediment and erosion control provisions to maintain clear water discharge (not muddy). Such provisions shall be approved by the site engineer or governing agencies. All pump discharge from dewatering shall be clear at the point where it flows off the property. Each dewatering pump intake shall be placed in a clean, perforated 55 gallon drum, surrounded by at least 18 inches of 3/4" crushed stone on all sides. The entire surface of the drum (sides, top and bottom) shall be protected from silty water entering the drum. If trench dewatering is required during construction, pump discharges shall pass through a sediment filter. If muddy and/or silty discharge is observed the site engineer may require a silt sack to be installed at the end of the pump discharge line. The project Licensed Environmental Professional or contractor shall be responsible for obtaining any permits related to dewatering activities.
112. If excessive groundwater is encountered during construction, the site and/or Geotechnical Engineer may require that the pump discharge shall pass through a settlement basin of adequate size to further clarify the discharge prior to entering the storm drainage system. Such basin could be made from an excavated pit or by using a sealed trash dumpster. The basin would have a piped overflow leading into the storm drainage system. Alternative methods may be used, such as well points, other types of pump intake filters and settlement basins, if approved by the inspecting engineer and governing agencies. All pump discharge from dewatering shall be clear at the point where it flows off the property.
113. Temporary dewatering discharge to storm system provided CT DEEP Water Permitting & Enforcement Division and City of Stamford Stormwater Management Department approves the discharge. Alternate temporary dewatering discharge line to sanitary manhole if the required approvals to discharge to storm system are not obtainable. The project Licensed Environmental Professional is responsible for obtaining required permits for discharge.
114. All runoff from dewatering activities shall be filtered through 2 rows of silt fence backed with haybales and directed towards a temporary sediment trap.
115. Upon installation of each catch basin and area drain, immediately surround it with haybales as per sediment filter detail.
116. Haybales shall be new and are to be replaced whenever their condition deteriorates beyond reasonable usability.
117. Temporarily block pipes leading into the storm water infiltration system until upland areas are thoroughly stabilized. Under no circumstances shall sediment or silty water be allowed to enter the infiltration system.
118. Pavement and curbing should be placed as soon as possible after drainage is installed.
119. Loaded trucks shall be covered as required to keep down dust.
120. Affected portions of off site roads and sidewalks must be swept clean when required to keep down dust and prevent safety hazards or at least once a week during construction and as directed by Site Engineer.
121. Dust control to be achieved with watering down disturbed areas as required.
122. After each storm event or once bi-weekly, all sediment and erosion controls shall be inspected. Any corrective actions to mitigate environmental concerns will be ordered by the site engineer or environmental engineer. It is the Owner's responsibility to retain such consultant.
123. Additional sediment and erosion control measures may be installed during the construction period if found necessary by the inspecting engineer or any Governing Agency.
124. All permanent and temporary sediment control devices will be maintained in effective condition throughout the construction period until upland disturbed areas are thoroughly stabilized. Upon completion of work and stabilization of all upland areas, all temporary sediment control devices and tree protection should be removed from the site and any silt disposed of legally.
125. Excavated material from temporary silt traps must be stockpiled on uphill side of silt fence.
126. Excavated silt and earth stockpiles shall not be permitted to be stored on site. Excess material shall be disposed of legally.
127. Periodically and upon completion of the job, clean silt from any effected storm sewer systems including pipes and inlets. Use silt during final landscaping or dispose off-site legally.

SEPTIC SYSTEM NOTES:

1. These drawings are also intended to depict a replacement septic system for the main dwelling along with the barn lateral connection into the proposed septic tanks. No construction may begin prior to obtaining all necessary permits and approvals.
2. All construction shall be in accordance with the most current State of Connecticut Department of Health Services Technical Standards and Specifications, the City Health Department approval and any other governing agency.
3. This septic system has not been sized to collect the discharge from a garbage disposal, water softener and/or whirlpool bath filter backwash.
4. There shall be no tubs with capacities equal to or greater than 100 gallons discharging into the septic system.
5. Prior to construction, the Contractor shall contact the Inspecting Engineer and the City of Stamford Health Department Sanitarian, at least 72 hours prior to starting, to establish the schedule for the inspection program. No work shall commence until required permits have been issued and the an inspection schedule has been established with the engineer and the Health Department. If not, the installation will not be certified.
6. No construction may begin prior to obtaining all necessary permits and approvals.
7. Prior to any excavation, the contractor and/or applicant, shall contact "Call Before You Dig" at 1-800-922-4455, for mark out of underground utilities.
8. No trafficking, parking, storage of fill or construction material shall be allowed over the septic system. Install construction fence around septic area prior to any construction activities.
9. No irrigation shall occur within 10' of the existing or proposed septic system.
10. Within 5' of the septic system, foundation material, bedding, haunching, initial backfill, and the bottom foot of general backfill shall be replaced with SM, SC, or ML soil as per "Unified Soil Classification System" with maximum particle size of 1-1/2", for 3 linear feet of trench. Water stop to be keyed into trench bottom and walls a minimum of one foot. No stones larger than 6" shall be within 12" of the pipe.
11. 10' upstream of structures and within 25' of the septic system, foundation material, bedding, haunching, initial backfill, and the bottom foot of general backfill shall be replaced with SM, SC, or ML soil as per "Unified Soil Classification System" with maximum particle size of 1-1/2", for 3 linear feet of trench. Water stop to be keyed into trench bottom and walls a minimum of one foot. No stones larger than 6" shall be within 12" of the pipe.
12. Foundation or curtain drains located down gradient of other septic systems shall not be allowed within 50 feet of the septic system. The septic systems shall not be allowed within 25 feet of any foundation or curtain drains located up gradient of the system.
13. Finished grade shall provide protection cover over all parts of the systems (12" minimum). Final grades may be higher than those shown if grading is done in such a manner as to prevent water ponding on the septic system.
14. Following the inspection of installed systems (prior to backfilling) by the Sanitarian; the finished grading, with 4" minimum top soil, seeding and mulch, shall be completed and shall provide positive drainage of all surfaces.
15. The Owner shall inspect the septic tank annually, and have soils pumped out every two years depending on accumulation.
16. The contractor cannot backfill the septic system until the contractor receives approval from a Professional Engineer and Health Department.
17. Select fill, when used, shall be comprised of clean sand and gravel, free from organic matter and foreign substances. The fill material shall meet the following requirements unless approved by the engineer;
(A) The fill shall not contain any material larger than three(3) inches.
(B) Up to 45% of the dry weight of the representative sample may be retained on the #4 sieve.
(C) The material that passes the #4 sieve is then re-weighed and the sieve analysis started.
(D) The remaining sample shall meet the following wet sieve gradation criteria:

Sieve Size	Percent Passing
#4	100%
#10	70% - 100%
#40	10% - 50% (See Note Below)
#100	0% - 20%
#200	0% - 5%

(E) Percent Passing the #40 sieve can be increased to no greater than 75% if the percent passing the #100 sieve does not exceed 10% and the #200 sieve does not exceed 5%.

18. The responsibility for the preparation of a leaching area utilizing "select material" is that of the licensed installer. The installer shall take the necessary steps to protect the underlying naturally occurring soils from over-compaction and siltation once exposed.
19. The select fill percolation rate shall be 1" in 20 minutes or faster but slower than 1" in 1 minute. Site engineer to perform percolation test prior to backfilling.
20. All select fill material must meet the requirements specified in Section VIII A of the State of Connecticut Public Health Code Technical Standards. A sieve analysis must be submitted and approved by the engineer prior to the installation.
21. Fill shall be placed on the perimeter of the trench area and spread with a small crawler, tractor or other approved machinery.
22. Contractor shall contact the certifying engineer and the Health Department at least 48 hours prior to construction; if not, the system installation will not be certified.
23. A Connecticut registered Professional Engineer acceptable to the Director of Health shall inspect construction to insure compliance with the plans.
24. The contractor cannot backfill the septic system until the contractor receives approval from a Professional Engineer and Health Department.
25. Submit shop drawings of all products (pipe, castings & structures) to an inspecting engineer for review and approval prior to fabrication and installation. Allow 5 days review period.
26. An "As Built" plan, certified by a Professional Land Surveyor shall be submitted to the Department of Health before a "Permit to Use" is issued.

PIPING:

27. All pipes shall be grouted securely into the structure walls.
28. Sewer pipe from the building to the septic tank to be extra heavy 4" C.I.P. ASTM A74 with rubber gasketed joints or Schedule 40 PVC pipe with solvent weld joints. Other gravity pipe to be PVC ASTM SDR 35 D3034 with rubber gaskes joints; or equal. No bends shall exceed 45° and all bends must be fittings.
29. All pipe shall be laid on 4" of compacted sand. Initial backfill shall be sand up to 6" above the top of the pipe. Backfill above the sand shall be clean fill compacted in 6" lifts with no stones larger than 12".
30. All piping and plumbing work associated with the pumping system shall be performed by a plumber licensed in the State of Connecticut. All electrical work shall be performed by an electrician licensed in the State of Connecticut.
27. The force main shall be 2" Schedule 40 pressure pipe with solvent cement joints or 2" polyethylene pipe, NSF approved and shall be in accordance with ASTM 2239 and manufacturer's recommended procedure.
28. The force main shall be installed so that its top will be at least 42" below finished grade and no low or high points occur within the pipe run. Pipe shall pitch so it drains towards the pump chamber.
29. Discharge lines shall be equipped with union disconnect fitting or lift-out adapter, and check valve. Leave polypropylene rope or stainless steel chain for future maintenance.

SEPTIC TANK/ DISTRIBUTION BOXES:

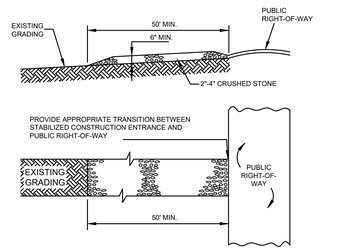
30. The septic tank shall have two chambers, inlet and outlet baffles, gas deflector and outlet filter and shall be able to withstand H-10 loading, refer to detail. Both septic tanks shall be 1,500 gallon.
31. Distribution boxes shall be precast concrete. Distribution boxes shall be raised within 12" of finished grade and be watertight. Raise lids with brick, mortar and bitumastic around the structure to comply with the Connecticut Public Health Code. Access cover shall be installed to surface under paved areas.
32. The contractor shall submit shop drawings of all products to Inspecting Engineer for review and approval prior to actual installation. Allow 5 working days for shop drawing review.
33. The septic tanks, pump chambers and distribution boxes shall be set even on a minimum of 6" compacted bedding of sand, gravel or crush stone.
34. The septic tank shall be watertight; Tank leakage testing should be performed utilizing either a vacuum test or water pressure test in accordance with testing requirements from the Connecticut Public Health Code.

PREPARATION OF THE PRIMARY LEACHING AREAS:

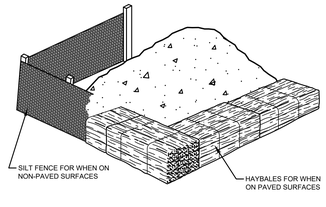
35. Prior to placement of leaching facilities look for existing drainage pipes. If such pipes are encountered, contact the design engineer for inspection/redesign.
36. Prior to placement of leaching facilities, remove all trees, grass, topsoil, vegetation, leaves & litter, shrubs, stumps, rocks larger than 24", roots within 5' of the system or under fill footprint. Voids made by stump and rock removal shall be filled with select fill material.
37. Care must be taken so as not to over compact the ground in the leaching area. If such over compaction does occur, the overlying compacted material shall be percolation tested to determine if a redesign or replacement with "select fill" is necessary.
38. Non-select fill may be till, loam, sand or gravel mixture classified as SP, SW, SM, GP, GM, ML per the Unified Soil Classification System. It shall have not more than 40% fines passing the #100 sieve, not more than 8% passing the #200 sieve, and no stones larger than 10". Non-select fill shall not be mechanically compacted but allowed to settle naturally over 3 to 6 month period.

PUMP CHAMBERS:

39. The contractor shall submit an owners manual for the pump to the owner at the end of construction.
40. Effluent pump in pump chamber #1 to be Goulds Pump WE Series, Model 3885 - WE05H Model number., contractor shall provide a control valve such that the flow is throttled and adjust control valve in the field such that the pump cycle does not exceed a pump rate of 41.0 gallons per minute. Effluent pump in pump chamber #2 to be Goulds Pump WE Series, Model 3885 - WE05H Model number, contractor shall provide a control valve such that the flow is throttled and adjust control valve in the field such that the pump cycle does not exceed a pump rate of 55.6 gallons per minute. Pump shall be ordered with power cord long enough to reach the exterior junction box. Engineer to confirm pump selection once contractor provides elevation of existing septic system and elevations are finalized. Pump selection Information provided as a place holder.
41. The pumping system shall comply with all applicable codes and requirements and be installed in accordance with the manufacturers recommendations.
42. Pump shall be equipped with a control panel and high water alarm (audio & light), Model ST 230 by CSI Controls or equivalent approved by the engineer and shall be located in an area approved by the owner.
43. All electrical work shall be done by a licensed electrician. Alarm and pump to be installed on separate circuits. Alarm circuit to have test, on/off and silencer switches. Electrical alarm as shown on the details of reserved capacity above the high water alarm level in the event of a power failure.
44. Underground electric conduits shall be installed in accordance with City of Stamford requirements to contain electric supply and alarm cables.
45. Location of electrical junction box, control panel for pumping system shall be approved by owner prior to installation.
46. Alarm shall be installed on the first floor. It is recommended that the alarm be incorporated with the telephone service system for the building.
47. Force main shall have a $\frac{1}{2}$" diameter drill hole inside the pump chamber to allow the force main to drain back into the chamber.



STABILIZED CONSTRUCTION ENTRANCE
(TRACKING PAD)
N.T.S.



SEDIMENT FILTER FOR STOCK PILE
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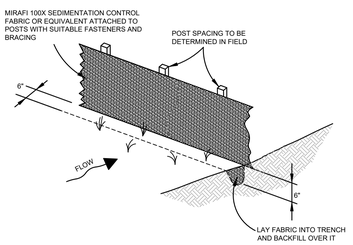

FABRIC & POST SILTATION BARRIER
(SILT FENCE)
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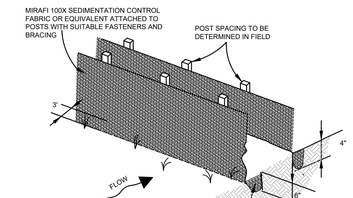

DOUBLE FABRIC & POST SILTATION BARRIER
(DOUBLE-SILT FENCE)
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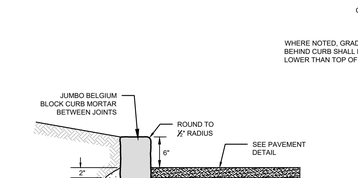

JUMBO BELGIUM BLOCK CURB
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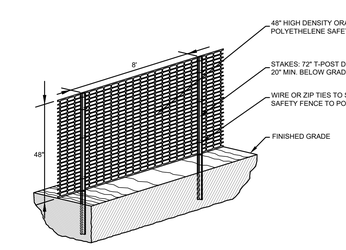
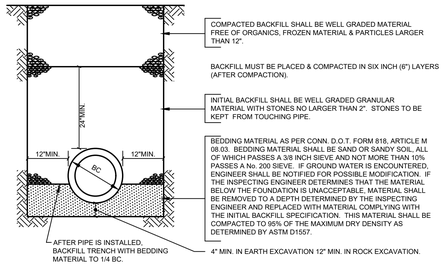

EXISTING GRADING
PUBLIC RIGHT-OF-WAY
48" HIG

WATER STOP: 10' UPSTREAM OF STRUCTURES AND WHERE SHOWN, FOUNDATION MATERIAL, BEDDING, HAUNCHING, INITIAL BACKFILL, AND THE BOTTOM FOOT OF GENERAL BACKFILL TO BE REPLACED WITH SM, SC, OR ML SOIL AS PER UNIFIED SOIL CLASSIFICATION SYSTEM* WITH MAXIMUM PARTICLE SIZE OF 1-1/2", FOR 3 LINEAR FEET OF TRENCH. WATER STOP TO BE KEYED INTO TRENCH BOTTOM AND WALLS A MINIMUM OF ONE FOOT. NO STONES LARGER THAN 6" SHALL BE WITHIN 12" OF THE PIPE.
ALL FOUNDATION, INITIAL BACKFILL & BACKFILL MATERIAL TO BE APPROVED BY THE INSPECTING ENGINEER.

ANY DEVIATION FROM THESE METHODS & MATERIALS MUST BE APPROVED IN WRITING BY THE INSPECTING ENGINEER.

ALL MATERIAL TO BE COMPACTED TO 95% OF THE MAX. DRY DENSITY AS DETERMINED BY ASTM D1557, EXCEPT COMPACTED BACKFILL* NOT UNDER PAVEMENT WHICH SHALL BE COMPACTED TO A DENSITY AT LEAST EQUAL TO THAT OF THE ADJACENT UNDISTURBED MATERIAL.



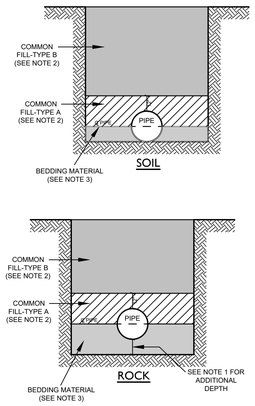
COMPACTED BACKFILL SHALL BE WELL GRADED MATERIAL FREE OF ORGANICS, FROZEN MATERIAL & PARTICLES LARGER THAN 12".

BACKFILL MUST BE PLACED & COMPACTED IN SIX INCH (6") LAYERS (AFTER COMPACTION).

INITIAL BACKFILL SHALL BE WELL GRADED GRANULAR MATERIAL WITH STONES NO LARGER THAN 2". STONES TO BE KEPT FROM TOUCHING PIPE.

BEDDING MATERIAL AS PER CONN. D.O.T. FORM 818, ARTICLE M 08.03. BEDDING MATERIAL SHALL BE SAND OR SANDY SOIL, ALL OF WHICH PASSES A 3/8 INCH SIEVE AND NOT MORE THAN 10% PASSES A No. 200 SIEVE. IF GROUND WATER IS ENCOUNTERED, ENGINEER SHALL BE NOTIFIED FOR POSSIBLE MODIFICATION. IF THE INSPECTING ENGINEER DETERMINES THAT THE MATERIAL BELOW THE FOUNDATION IS UNACCEPTABLE, MATERIAL SHALL BE REMOVED TO A DEPTH DETERMINED BY THE INSPECTING ENGINEER AND REPLACED WITH MATERIAL COMPLYING WITH THE INITIAL BACKFILL SPECIFICATION. THIS MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

PVC/RCP PIPE TRENCH BEDDING DETAIL
(48" DIA. & UNDER)
N.T.S.



NOTES:
1. THE TRENCH SHALL BE EXCAVATED TO THE DEPTH REQUIRED, SO AS TO PROVIDE A UNIFORM AND CONTINUOUS BEARING AND SUPPORT FOR THE PIPE BARREL ON SOLID AND UNDISTURBED GROUND AT EVERY POINT ALONG ITS LENGTH, EXCEPT FOR SUCH LOCAL DEPRESSIONS AS ARE REQUIRED THE FINISHED TRENCH BOTTOM OVER A MAXIMUM LENGTH OF 16' NEAR THE MIDDLE OF EACH LENGTH OF PIPE BY THE WITHDRAWAL OF PIPE SLINGS OR OTHER LIFTING TACKLE. WHEN REQUIRED, BELL HOLES SHALL BE PROVIDED. THE FINISHED TRENCH BOTTOM SHALL BE ACCURATELY PREPARED BY MEANS OF HAND TOOLS.
2. MATERIAL FOR BACKFILLING SHALL BE EARTH MATERIALS ENTIRELY FREE FROM VEGETATION, TRASH, LUMBER, FROZEN, SOFT OR ORGANIC MATERIALS. NO STONES OR ROCK LARGER THAN THE SIZES LISTED BELOW WILL BE PERMITTED IN THE BACKFILL:

COMMON FILL-TYPE A: NO STONES OR ROCKS LARGER THAN 1"
COMMON FILL-TYPE B: NO STONES OR ROCKS LARGER THAN 4"

COMMON FILL MATERIAL MAY BE OBTAINED FROM THE TRENCH EXCAVATION PROVIDED IT HAS BEEN APPROVED BY THE ENGINEER AND HAS BEEN TESTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

a.a. ALL MATERIALS TO BE USED FOR BACKFILL, INCLUDING COMMON FILL AND BEDDING MATERIALS, SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH. ALL BACKFILL AND BEDDING MATERIALS WHETHER OBTAINED FROM THE TRENCH EXCAVATION OR FROM AN OFF-SITE SOURCE MUST BE TESTED AS DIRECTED BY THE ENGINEER.

a.b. SAMPLES OF THE MATERIALS SHALL BE SUBMITTED TO AN APPROVED TESTING AGENCY FOR ANALYSIS. THE TEST RESULTS AND REPORT STATING THAT THE MATERIALS MEET THE REQUIREMENTS THESE SPECIFICATIONS AND THE SPECIFICATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES (WHERE APPLICABLE) SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH.

IF APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BACKFILL, THE CONTRACTOR SHALL OBTAIN THE NECESSARY APPROVED COMMON FILL MATERIALS FROM AN OFF-SITE SOURCE.

3. MATERIALS USED FOR BEDDING AND THE HAUNCH AROUND THE PIPE SHALL BE A COARSE TO FINE SANDY MATERIAL WITH MAXIMUM STONE SIZE OF 1 INCH. THE MATERIAL SHALL CONFORM TO ASTM D2487 STANDARD METHOD FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES" USING THE UNIFIED SOIL CLASSIFICATION SYSTEM, EXCEPT WHERE A HIGHER STANDARD IS REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS OR BY RULES OR REGULATIONS OF FEDERAL, STATE OR LOCAL GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE OF THE WORK.

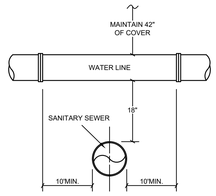
THE MATERIAL SHALL MEET A CLASS II DESIGNATION: SOIL TYPES GW, GP, SW AND SP; NON-COHESIVE, WELL GRADED AND CONTAINING SOME FINES ARE INCLUDED IN THIS CLASS. WHERE VOIDS, FINER GRAINED SOILS OR MOVEMENT MAY ALLOW MIGRATION OF THIS MATERIAL, A FILTER FABRIC AS DIRECTED BY THE ENGINEER WILL BE USED IN THE TRENCH BOTTOM AND SIDES BEFORE THE SELECT FILL BEDDING IS PLACED.

BEDDING MATERIAL MAY BE OBTAINED FROM THE TRENCH EXCAVATION PROVIDED IT HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIRE- MENTS STATED ABOVE AND APPROVED BY THE ENGINEER. IF THE APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BEDDING, THE CONTRACTOR SHALL OBTAIN THE NECESSARY TESTED AND APPROVED BEDDING MATERIALS FROM AN OFF-SITE SOURCE.

4. REFER TO SECTION 2210 OF THE CONNECTICUT-AMERICAN WATER COMPANY SPECIFICATIONS.

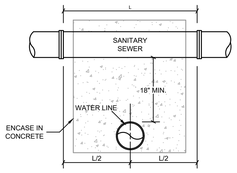
TRENCH BACKFILL MATERIALS
N.T.S.

NOTE: WHERE THE WATER LINE PASSES ABOVE THE SANITARY SEWER, THE JOINTS OF THE SANITARY SEWER SHALL BE A MINIMUM OF TEN FEET HORIZONTALLY FROM THE POINT OF CROSSING. MAINTAIN 18" OF VERTICAL SEPARATION BETWEEN THE PIPES.

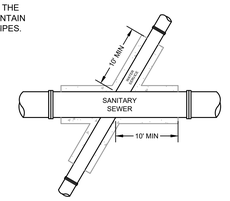


WATER LINE OVER SANITARY OR STORM PIPE

NOTE: WHERE THE WATER LINE PASSES BENEATH THE SANITARY SEWER, THE JOINTS OF THE PIPES SHALL BE A MINIMUM OF TEN FEET FROM THE POINT OF CROSSING. BOTH PIPES SHALL BE ENCASED IN CONCRETE FOR A MINIMUM OF TEN FEET PAST THE POINT OF CROSSING IN BOTH DIRECTIONS. MAINTAIN 18" OF VERTICAL SEPARATION BETWEEN THE PIPES.



WATER LINE UNDER SAN. OR STORM PIPE PROFILE VIEW

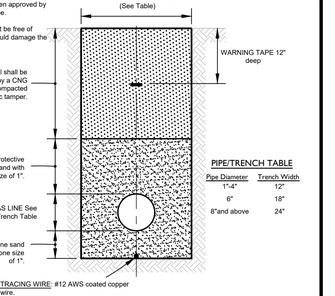


WATER LINE UNDER SAN. OR STORM PIPE PLAN VIEW

REQUIREMENTS AS STATED IN THE TWO NOTES ABOVE APPLY WHEN HORIZONTAL SEPARATION BETWEEN THE SEWER & WATER LINES IS LESS THAN TEN FEET AND VERTICAL SEPARATION IS LESS THAN 18".

CROSSINGS OF WATER SERVICE AND SAN. & STORM PIPES
N.T.S.

Notes:
1. A minimum of 1'0" vertical clearance and 5'0" horizontal clearance will be maintained between the gas line and all other structures.
2. Minimum cover for mains shall be 3'0" from finished grade as measured from gutter line.
   a. In the traveled portion of the road - from the top of the pipe to the top of the trench using the shallow side for measurement.
   b. Off the traveled portion when section is at a higher elevation than the traveled way - elevation to be taken from gutter line.
   c. Off the traveled portion when section is at a lower elevation than the traveled way from the top of the pipe to the top of the trench using the shallow side for measurement.
3. Minimum cover of service lines in private property shall be 2'0" only when approved by the CNG inspector or designee.
4. The bottom of the trench must be free of rocks, debris, or water that could damage the pipe or its coating.
5. Tracing Wire is a #12 AWS coated copper tracing wire to be installed in the center of the trench prior to 6" of sand padding. (Connection will be made by a CNG Representative).
6. Exposed piping will be backfilled with a minimum of 12" of sand prior to leaving the job site each day and witnessed by a CNG Representative or CNG Contractor.
7. Only personnel qualified by CNG will be allowed to install gas lines.
8. The builder will supply a suitable location to store the pipe and materials and will be responsible for its security.

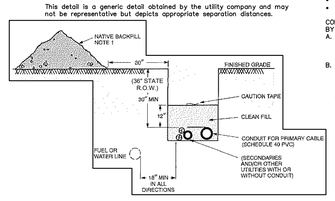


PIPE/TRENCH TABLE

Pipe Diameter	Trench Width
1"-4"	12"
6"	18"
8"and above	24"

GAS LINE TRENCH DETAIL
N.T.S.

This detail is a generic detail obtained by the utility company and may not be representative but depicts appropriate separation distances.



BACKFILL:
MATERIAL FOR BACKFILLING SHALL BE EARTH MATERIALS ENTIRELY FREE FROM VEGETATION, TRASH, LUMBER, FROZEN, SOFT OR ORGANIC MATERIALS. NO STONES OR ROCK LARGER THAN THE SIZES LISTED BELOW WILL BE PERMITTED IN THE BACKFILL:
- COMMON FILL-TYPE A: NO STONES OR ROCKS LARGER THAN 1"
- COMMON FILL-TYPE B: NO STONES OR ROCKS LARGER THAN 4"

COMMON FILL MATERIAL MAY BE OBTAINED FROM THE TRENCH EXCAVATION PROVIDED IT HAS BEEN APPROVED BY THE ENGINEER AND HAS BEEN TESTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
A. ALL MATERIALS TO BE USED FOR BACKFILL, INCLUDING COMMON FILL AND BEDDING MATERIALS, SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH. ALL BACKFILL AND BEDDING MATERIALS WHETHER OBTAINED FROM THE TRENCH EXCAVATION OR FROM AN OFF-SITE SOURCE MUST BE TESTED AS DIRECTED BY THE ENGINEER.
B. SAMPLES OF THE MATERIALS SHALL BE SUBMITTED TO AN APPROVED TESTING AGENCY FOR ANALYSIS. THE TEST RESULTS AND REPORT STATING THAT THE MATERIALS MEET THE REQUIREMENTS THESE SPECIFICATIONS AND THE SPECIFICATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES (WHERE APPLICABLE) SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH.

NOTES
1. Minimum cover from top of a conduit bank to the pavement or earth surface to be 36".
2. Duct bank shall extend beyond the property line and capped. Exact location of termination are per field direction. Allow for 20' deviation from locations shown on this plan.
3. Ducts shall be Schedule 40 pvc. Use premanufactured spacers between conduits as necessary. Bends shall be sweeps, 4'-"C" Duct telephone bends meeting GTE 8343, United CHS-71 and NEMA TC-10 Specifiotions.
4. Slope all conduit to drain toward manholes and away from structures.
5. All work shall be performed according to utility company requirements.
6. Ensure that the bottom of the trench is well-tamped and free of rocks
7. Install the conduit, gluing and all couplings
8. Install communication and other utility cables or conduits in the trench.
9. Backfill with 12" lifts and clean fill not to contain stones larger than 4 inches in maximum diameter.
10. Install cable warning.
11. Fill in the remainder of the trench with native backfill
12. Install pull line, including 10 feet of slack, and secure to conduit plug at each end of conduit run.
13. All underground conduit to schedule 40 PVC conduit.
14. Actual utility layout may vary depending on final utility company coordination. Coordination of final layout shall be the contractor's responsibility.
15. All underground utilities crossing a roadway shall be concrete encased.
16. Concrete encasement shall be color red within the limits of the state right-of-way.

PREFERRED:

FIG. 1 2 DUCTS

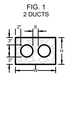


FIG. 2 4 DUCTS

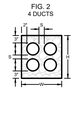


FIG. 4 8 DUCTS

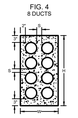
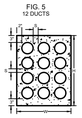


FIG. 5 12 DUCTS



ALL DIMENSIONS IN INCHES												
	2" DUCT			3" DUCT			4" DUCT			5" DUCT		
FIG.	W	H	S	W	H	S	W	H	S	W	H	S
1	10 1/2"	6 3/4"	15 3/4"	12 3/4"	9 3/4"	15 3/4"	14 3/4"	10 3/4"	15 3/4"	16 3/4"	11 3/4"	15 3/4"
1A	6 1/2"	12 3/4"	15 3/4"	7 3/4"	14 3/4"	15 3/4"	8 3/4"	16 3/4"	15 3/4"	9 3/4"	18 3/4"	15 3/4"
2	10 1/2"	13 3/4"	15 3/4"	12 3/4"	16 3/4"	15 3/4"	14 3/4"	18 3/4"	15 3/4"	16 3/4"	20 3/4"	15 3/4"
2A	14 1/2"	6 3/4"	15 3/4"	22 3/4"	9 3/4"	15 3/4"	26 3/4"	10 3/4"	15 3/4"	30 3/4"	11 3/4"	15 3/4"
4	14 1/2"	13 3/4"	15 3/4"	18 3/4"	23 3/4"	15 3/4"	22 3/4"	26 3/4"	15 3/4"	26 3/4"	29 3/4"	15 3/4"
4A	26 3/4"	6 3/4"	15 3/4"	34 3/4"	9 3/4"	15 3/4"	42 3/4"	10 3/4"	15 3/4"	50 3/4"	11 3/4"	15 3/4"
5	14 1/2"	20 3/4"	15 3/4"	18 3/4"	30 3/4"	15 3/4"	22 3/4"	34 3/4"	15 3/4"	26 3/4"	38 3/4"	15 3/4"
5A	26 3/4"	24 3/4"	15 3/4"	34 3/4"	27 3/4"	15 3/4"	42 3/4"	30 3/4"	15 3/4"	50 3/4"	33 3/4"	15 3/4"
6									2	30 3/4"	29 3/4"	15 3/4"
6A									2	30 3/4"	33 3/4"	15 3/4"
7A									2	30 3/4"	38"	17 3/4"

ALTERNATE:
(SEE NOTE 4)

FIG. 1A 2 DUCTS

FIG. 2A 4 DUCTS

FIG. 4A 8 DUCTS

FIG. 5A 12 DUCTS

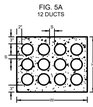
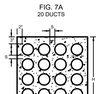
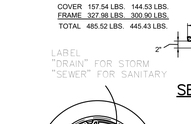


FIG. 6A 16 DUCTS

FIG. 7A 20 DUCTS



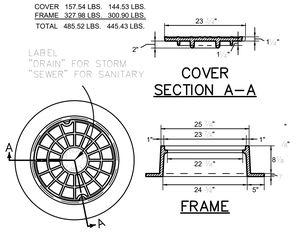
CONDUIT BANK CONSTRUCTION
N.T.S.



MANHOLE INVERT
N.T.S.

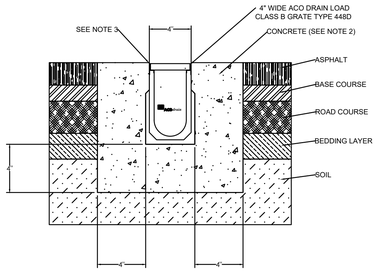
APPROXIMATE WEIGHTS

	STEEL	IRON
COVER	157.54 LBS.	144.53 LBS.
FRAME	327.98 LBS.	300.90 LBS.
TOTAL	485.52 LBS.	445.43 LBS.



CAMPBELL FOUNDRY PATTERN NO. 1027*
*PATTERN NO. 1027A SHALL BE USED FOR LOW PROFILE AREAS.

STORM AND SANITARY MANHOLE FRAME AND COVER
N.T.S.



NOTES:
1. Specific site conditions may require an increase in these dimensions or reinforcement. It is the customer's responsibility to ensure the concrete encasement is designed for the application. *Engineering advice may be required.*
2. A minimum concrete strength of 25MPa is recommended. The concrete should be vibrated to eliminate air pockets.
3. The finished level of the concrete surround must be approx. 3mm above the top of the channel edge.
4. Refer to ACO's latest installation instructions for complete details.

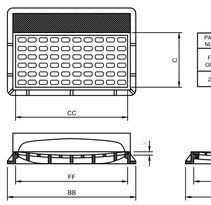
The grated trench drainage system shall be ACO KlassikDrain KS100* system as manufactured by ACO Polycrete Pty Ltd.

The constant depth / sloped* system shall be complete with the manufacturer's standard grate type 448D & part no. 142216, locked down with 'QuickLok'. The system shall be complete with all associated auxiliary attachments.

All materials and components within the scope of this system shall be obtained from this manufacturer and the work shall be carried out as specified on the drawings.

The system shall be installed in accordance with the manufacturer's printed instructions.

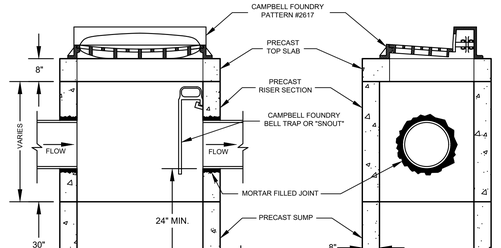
TRENCH DRAIN #1 KLASSICDRAIN-KS100 DETAIL
N.T.S.



PATTERN NUMBER	DIMENSIONS IN INCHES								
FLAT GRATE	B	BB	C	CC	E	EE	F	FF	X
2617	36	54	21 3/4	47 3/4	5 1/2	4	30	48	1 1/4

CAMPBELL FOUNDRY CO. PATTERN NUMBER 2617

CAST IRON CATCH BASIN
(CURB INLET)
N.T.S.



NOTES:
1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN H-20 TRUCK LOAD.
2. ALL JOINTS TO BE MORTARED.
3. CATCH BASIN SHALL CONFORM TO ASTM C478.
4. ALL CRUSHED STONE SHALL BE GRADATION NO. 4 AS PER CT D.O.T. FORM 818, ARTICLE M.01.01. STONE SHALL CONSIST OF SOUND, TOUGH, DURABLE PARTICLES FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRIABLE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.
5. IF CRUSHED STONE IS TO BE PLACED ON FILL. ALL FILL BELOW THE CB SHALL BE COMPACTED TO 95% OF THE MAXIMUM PRT DENSITY AS PER ASTM D.1557.

CATCH BASIN DETAIL
N.T.S.

No.	Date	Revision
I	05/30/2023	ORIGINAL ISSUE DATE

DETAILS
DEPICTING
WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING
22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

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DRAWN BY: AS | CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
May 30, 2023
DATE

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SHEET No:
SE-8
Comm. No.: 6154

5/24/2023 11:05 AM H:\Utilities\2500\01\05\15\dwg\6154 Notes & Details.dwg

CULTEC RECHARGER® 360HD PRODUCT SPECIFICATIONS

GENERAL
CULTEC RECHARGER® 360HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS
1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE:
   A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
6. THE CHAMBER SHALL BE ARCHED IN SHAPE.
7. THE CHAMBER SHALL BE OPEN-BOTTOMED.
8. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (915 mm) TALL, 60 INCHES (1525 mm) WIDE AND 50 INCHES (1275 mm) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 360HD SHALL BE 3.67 FEET (1.12 m).
10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCH (250mm) HDPE OR 12 INCH (300mm) PVC.
12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 360HD CHAMBER SHALL BE 10.0 FT³ / FT (.929 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 360HD SHALL BE 36.68 FT³ / UNIT (1.038 m³ / UNIT) - WITHOUT STONE.
14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
15. THE RECHARGER® 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS.
16. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
17. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 m).

END CAP PARAMETERS
1. THE CULTEC RECHARGER® 360HD END CAP (REFERRED TO AS "END CAP") SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
3. THE END CAP SHALL BE ARCHED IN SHAPE.
4. THE END CAP SHALL BE OPEN-BOTTOMED.
5. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
6. THE END CAP SHALL HAVE 5 CORRUGATIONS.
7. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 36.5 INCHES (927 mm) TALL, 60 INCHES (1525 mm) WIDE AND 18 INCHES (458 mm) LONG. WHEN JOINED WITH A RECHARGER 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 15 INCHES (381 mm).
8. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 FT³ / FT (0.48 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 8.46 FT³ / UNIT (0.183 m³ / UNIT) - WITHOUT STONE.
9. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
10. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES
11. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL
CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 360HD STORMWATER CHAMBERS.

FEED CONNECTOR PARAMETERS
1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

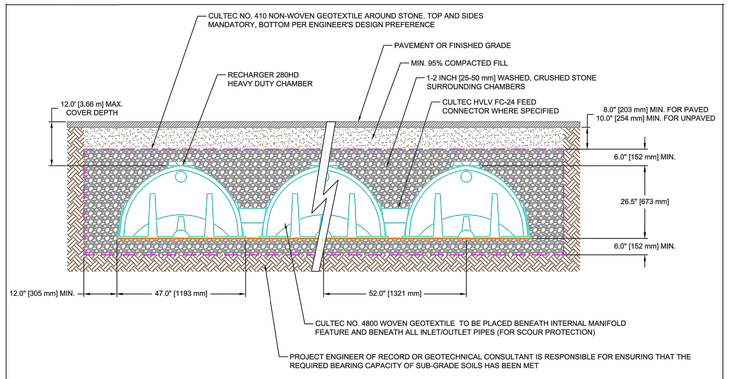
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

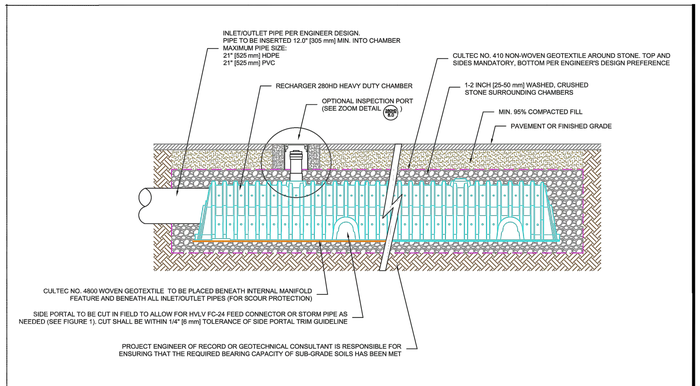
CULTEC NO. 4800™ WOVEN GEOTEXTILE
CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2, 740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.
14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

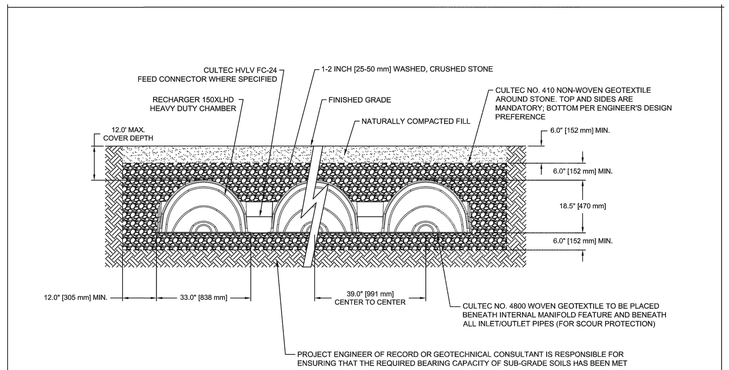
360HD 1.0 **GENERAL NOTES**



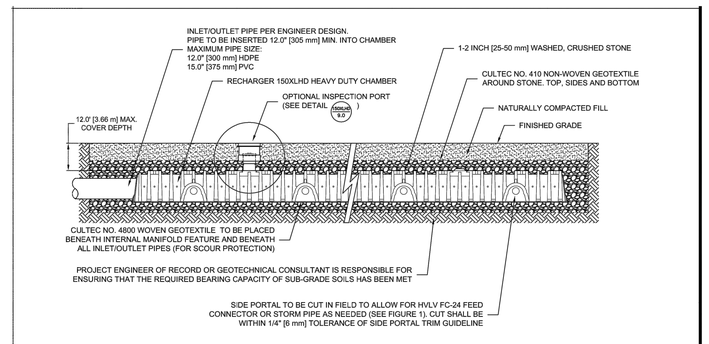
280HD 4.0 **CULTEC RECHARGER 280HD HEAVY DUTY CROSS SECTION**



280HD 9.0 **CULTEC INTERNAL MANIFOLD - OPTIONAL INSPECTION PORT DETAIL**

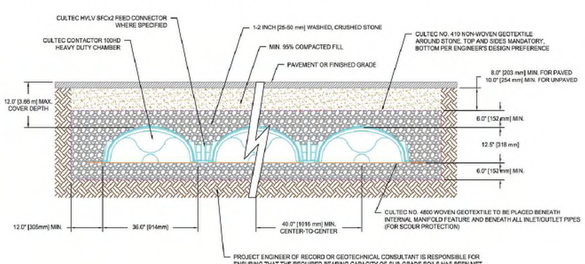


150XLHD 5.0 **CULTEC RECHARGER 150XLHD HEAVY DUTY CROSS SECTION**

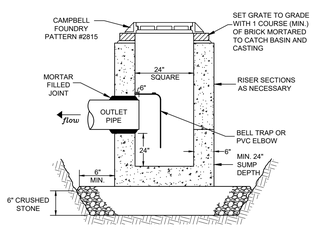


150XLHD 10.0 **CULTEC INTERNAL MANIFOLD - OPTIONAL INSPECTION PORT DETAIL**

Typical Cross Section for Traffic Application

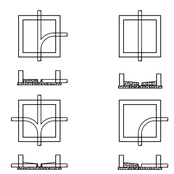


CULTEC C-100 HD CROSS SECTION
N.T.S.

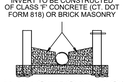


NOTES:
1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN H-20 TRUCK LOAD.
2. ALL JOINTS TO BE MORTARED.
3. AREA DRAIN SHALL CONFORM TO ASTM C478.
4. ALL CRUSHED STONE SHALL BE GRADATION NO. 4 AS PER CT D.O.T. FORM 818, ARTICLE M.01.01. STONE SHALL CONSIST OF SOUND, TOUGH, DURABLE PARTICLES FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRIABLE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.

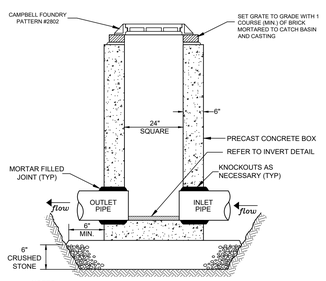
24" AREA DRAIN
N.T.S.



INVERT TO BE CONSTRUCTED OF CLASS 'F' CONCRETE (CT. DOT FORM 818) OR BRICK MASONRY

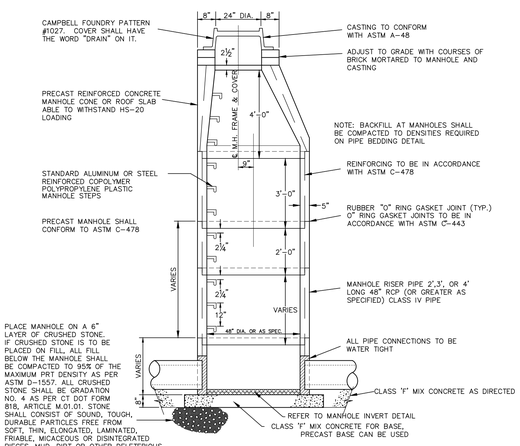


JUNCTION BOX INVERT DETAIL
N.T.S.



NOTES:
1. ALL COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS OF AN H-20 TRUCK LOAD.
2. ALL JOINTS TO BE MORTARED.
3. JUNCTION BOXES SHALL CONFORM TO ASTM C478.
4. ALL CRUSHED STONE SHALL BE GRADATION NO. 4 AS PER CT D.O.T. FORM 818, ARTICLE M.01.01. STONE SHALL CONSIST OF SOUND, TOUGH, DURABLE PARTICLES FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRIABLE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.

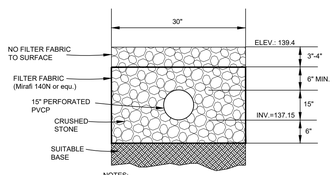
JUNCTION BOX
N.T.S.



PLACE MANHOLE ON A 6" LAYER OF CRUSHED STONE. IF CRUSHED STONE IS TO BE PLACED ON FILL, ALL FILL BELOW THE MANHOLE SHALL BE COMPACTED TO 95% OF THE MAXIMUM PRT DENSITY AS PER ASTM D-1557. ALL CRUSHED STONE SHALL BE GRADATION NO. 4 AS PER CT DOT FORM 818, ARTICLE M.01.01. STONE SHALL CONSIST OF SOUND, TOUGH, DURABLE PARTICLES FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRIABLE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.

STORM MANHOLE
N.T.S.

NOTE: MANHOLE STRUCTURE SHALL BE ORDERED SUCH THAT THERE IS A MINIMUM OF 12" BETWEEN THE TOP OF STRUCTURE AND FINISHED GRADE.



NOTES:
1. CRUSHED STONE SHALL BE GRADATION NO. 4 PER CONN. DOT, FORM 818, SECTION M01.01
2. 15" PVCP PIPE SHALL HAVE PERFORATIONS ON THE BOTTOM OF THE PIPE.

CRUSHED STONE LEVEL SPREADER
N.T.S.

No.	Date	Revision
1	05/30/2023	ORIGINAL ISSUE DATE

DETAILS
DEPICTING
WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING
22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax 203.357.1118
www.rednissmead.com

SCALE:
DRAWN BY: AS | CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
May 30, 2023
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration hereon null & void.

SHEET No:
SE-9
Comm. No.: 6154

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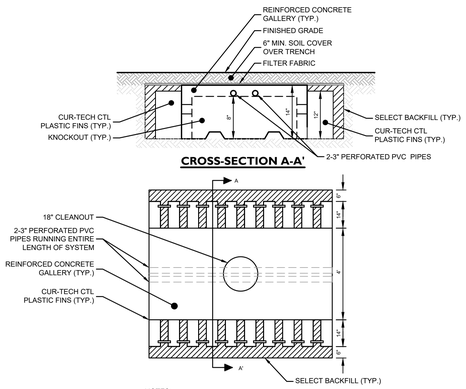
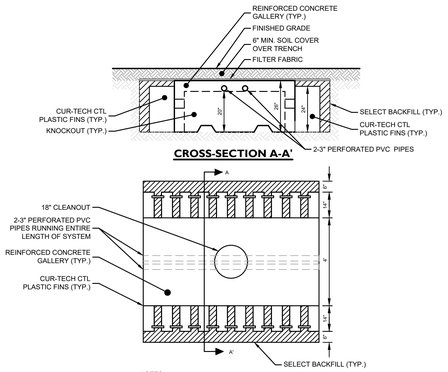


NOTES:

1. CONCRETE GALLERY TO BE SUPPLIED BY CT PRECAST FOR USE WITH THE CUR-TECH SYSTEM.
2. SELECT BACKFILL TO BE EITHER WASHED CONCRETE SAND CONFORMING TO ASTM C-33 OR SELECT FILL CONFORMING TO THE CT PUBLIC HEALTH CODE.
3. BREAKOUT ANY CHAMBER END KNOCKOUTS THAT ARE TO BE SET AGAINST ANOTHER CHAMBER. KNOCKOUTS ON ANY CHAMBER NOT SET AGAINST ANOTHER SHALL REMAIN.
4. INSTALLATION SHALL FOLLOW MANUFACTURER'S GUIDELINES.

CUR-TECH CTL-12 GALLERY SYSTEM

N.T.S.

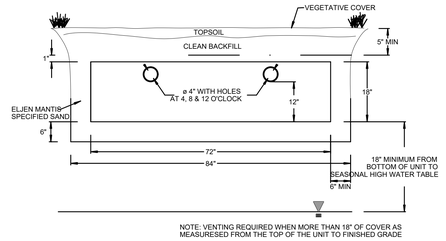


NOTES:

1. CONCRETE GALLERY TO BE SUPPLIED BY CT PRECAST FOR USE WITH THE CUR-TECH SYSTEM.
2. SELECT BACKFILL TO BE EITHER WASHED CONCRETE SAND CONFORMING TO ASTM C-33 OR SELECT FILL CONFORMING TO THE CT PUBLIC HEALTH CODE.
3. BREAKOUT ANY CHAMBER END KNOCKOUTS THAT ARE TO BE SET AGAINST ANOTHER CHAMBER. KNOCKOUTS ON ANY CHAMBER NOT SET AGAINST ANOTHER SHALL REMAIN.
4. INSTALLATION SHALL FOLLOW MANUFACTURER'S GUIDELINES.

CUR-TECH CTL-24 GALLERY SYSTEM

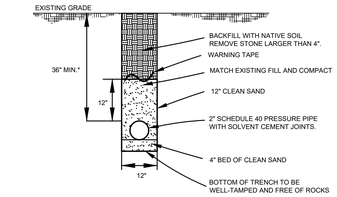
N.T.S.



NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURESED FROM THE TOP OF THE UNIT TO FINISHED GRADE

MANTIS DOUBLE WIDE 100 SEPTIC SYSTEM

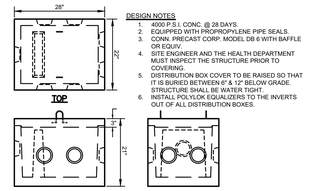
N.T.S.



*DEPTH OF 42" BELOW GRADE NOT REQUIRED IF EFFLUENT IS ALLOWED TO DRAIN BACK INTO SEPTIC TANK

SANITARY FORCE MAIN

N.T.S.



DESIGN NOTES

1. 4000 P.S.I. CONC. @ 28 DAYS.
2. EQUIPPED WITH PROPROPYLENE PIPE SEALS.
3. CONN. PRECAST CORP. MODEL DB 6 WITH BAFFLE OR EQUIV.
4. SITE ENGINEER AND THE HEALTH DEPARTMENT MUST INSPECT THE STRUCTURE PRIOR TO COVERING.
5. DISTRIBUTION BOX COVER TO BE RAISED SO THAT IT IS BURIED BETWEEN 6" & 12" BELOW GRADE. STRUCTURE SHALL BE WATER TIGHT.
6. INSTALL POLYLOK EQUALIZERS TO THE INVERTS OUT OF ALL DISTRIBUTION BOXES.

BAFFLE DISTRIBUTION B-BOX DETAIL

N.T.S.

PUMP CHAMBER SIZING CALCULATIONS:
(BASED ON EASTERN PRECAST 1,250 GALLON REGULAR DUTY PUMP CHAMBER DIMENSIONS)

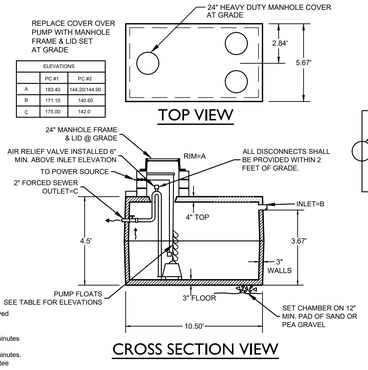
PUMP SETTINGS		
FLOATS FOR:	PC#1 ELEV.	PC#2 ELEV.
HIGH LEVEL ALARM	169.45	138.95
PUMP ON	169.10	138.60
PUMP OFF	168.70	138.20
BOTTOM OF CHAMBER	167.68	137.18

EMERGENCY STORAGE:

(PC#1) HEIGHT ABOVE ALARM: 171.1 - 169.45 = 1.65 ft.
(PC#2) HEIGHT ABOVE ALARM: 140.6 - 138.95 = 1.65 ft
AREA = 5.167' (W) x 10' (L) = 51.67 SF
(1.65 FT) x 51.67 FT^2 = 85.26 FT^3 OR 638± GAL.
638 GAL. > 600 GAL. AVG. DAILY DESIGN VOLUME

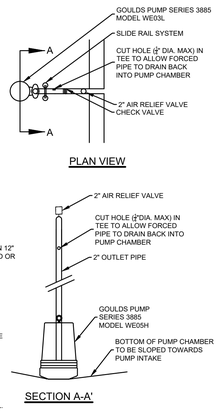
NOTES:

1. Both pumps shall be Goulds Pumps Series 3885 Model WE05H or approved equivalent.
2. Pump #1 will operate at 41.0 gpm with a total dynamic head of 27.8 ft. Pump cycle time = [(0.4) x 51.67 ft^3 x 7.4805 gal/ft^3] / 41.0 gpm = 3.77 minutes
3. Pump #2 will operate at 55.6 gpm with a total dynamic head of 22.05 ft. Pump cycle time = [(0.4) x 51.67 ft^3 x 7.4805 gal/ft^3] / 55.6 gpm = 2.78 minutes.
4. Each discharge line shall have a gate valve installed prior to the 2"x2"x2" tee connection to adjust discharge rate and cycle time.
5. Pump shall be equipped with control panel and high water alarm (audio & light).
6. Pump shall be submerged in water at all times as recommended by the manufacturer.
7. Floats shall be set so the pumps are submerged or there is a minimum of 12" of water in the tank at all times. Low water level alarm shall be set 6" below the top of the pump motor.
8. Install waterproof electrical junction box as needed to connect pumps to power source, controls and alarm system.
9. All work shall comply with the electrical and plumbing code.
10. Position pump system so gate valves are accessible from the opening.
11. Site engineer to be notified 48 hours prior to the installation of the pump system and shall be on-site during installation.
12. Flow shall be allowed to drain back into the tank.



NOTES:

1. TANK DEPICTED FROM EASTERN PRECAST CO. INC. - 1,250 GALLON REGULAR DUTY PUMP CHAMBER. AN ALTERNATE CHAMBER SHALL BE REVIEWED AND APPROVED FOR USE BY THE SITE ENGINEER. IF A DIFFERENT CHAMBER IS PROPOSED, SITE ENGINEER WILL REVIEW & POTENTIALLY MODIFY FLOAT ELEVATIONS PRIOR TO INSTALLATION.
2. MH FRAME & LID SHALL BE 24" HEAVY DUTY.
3. CONSTRUCTION JOINT SEALED WITH ASPHALT CEMENT OR EQUIV.
4. PAINT EXTERIOR WITH HEAVY BITUMASTIC.
5. REFER TO SANITARY PUMP SYSTEM DETAIL FOR PUMP DETAIL, FLOAT-ALARM ELEVATIONS AND SLIDE RAIL SPECIFICATION.
6. BOTTOM OF STRUCTURE MUST BE LEVEL AND SUPPORTED TO BELOW FROST LINE WITH A PAD OF SAND OR PEA GRAVEL AT LEAST 12" THICK & EXTENDING 36" BELOW GROUND LEVEL.



1,250 GAL. PUMP CHAMBER

(BY CT PRECAST OR EQUIV.)

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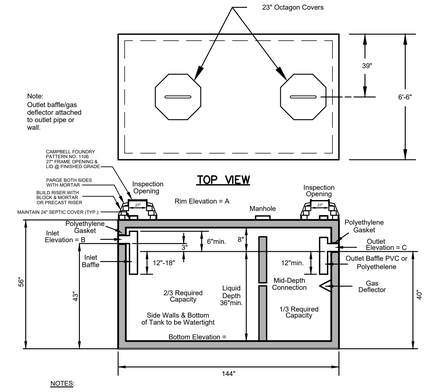

SEPTIC TANK ELEVATIONS		
	TANK #1	TANK #2
A	183.40	143.80/144.00
B	171.50	141.00
C	171.25	140.75

NOTES:

1. Septic tank to be sized to provide 1,500 gallon capacity.
2. Concrete to be 4000 psi at 28 days per ASTM standards.
3. Septic tank construction shall conform to ASTM C-1227.
4. Manhole covers to have the following placards:
   - DANGER! NOXIOUS GASES!
   - TANK CONTAINS TWO COMPARTMENTS"
5. Tank information (such as size, date of manufacture, name of manufacturer and indication of limit of external loads/ cover depths shall be located on the top of the tank between the outlet access hole and outlet wall or on the vertical wall between the top of the tank and the top of the outlet opening.
6. All covers shall be provided with handles consisting of 3/8" coated rebar or approved plastic with at least 2 ounces of steel attached.
7. Manholes shall not be covered more than 6" from finished grade.
8. Aashto HS-10 Traffic Load.
9. Construction joint sealed with asphalt cement or equivalent.
10. Tank shall comply with the State of Conn. Public Health Code.
11. Provide a Polylok septic tank non-bypass filter device sized for 600 GPD (or equivalent approved by the engineer). Submit shop drawings of filter prior to installation.
12. Septic tank to be made by Eastern Precast or approveD equivalent. Exterior Dimensions 8.5' (L) x 4.833' (W) x 5.33' (H).
13. Septic tank exterior shall be painted with heavy bitumastic.

1,500 GAL. SEPTIC TANK DETAIL

(BY EASTERN PRECAST OR EQUIV.)

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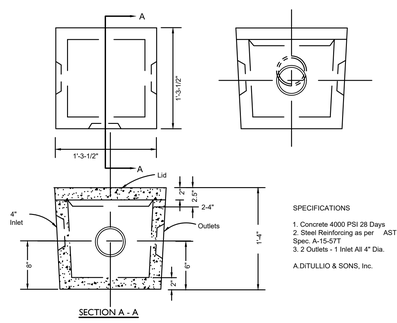

SPECIFICATIONS

1. Concrete 4000 PSI 28 Days
2. Steel Reinforcing as per ASTM Spec. A-15-57T
3. 2 Outlets - 1 Inlet All 4" Dia.

A.DITULLIO & SONS, Inc.

SECTION A - A

DISTRIBUTION BOX DETAIL

N.T.S.

No.	Date	Revision
I	05/30/2023	ORIGINAL ISSUE DATE

DETAILS
DEPICTING
WIRE MILL ROAD
STAMFORD, CT
PREPARED FOR
503 WMR LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING
22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

SCALE:

DRAWN BY: AS | CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563

May 30, 2023
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaratives hereon null & void.

SHEET No:

SE-10

Comm. No.: 6154

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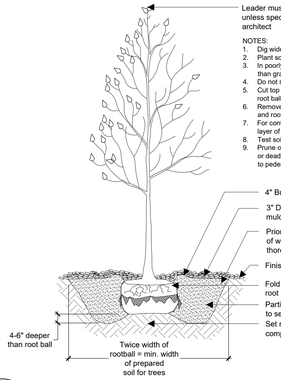
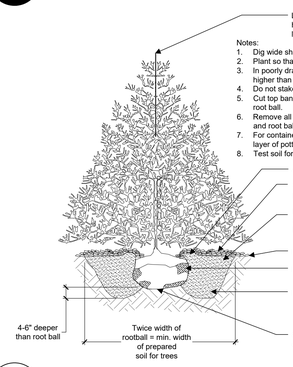


1 SP-1.0 Deciduous Tree Planting

Scale: NTS



2 SP-1.0 Evergreen Tree Planting

Scale: NTS

Proposed Plant List

Trees

Qty.	Symbol	Botanical Name	Common Name	Size	Cond	Remarks
5	ARR	*Acer rubrum* 'Red Sunset'	Red Maple	2"-2.5" CAL.	B&B	Full, nicely shaped, matching
5	QR	*Quercus rubra*	Red Oak	2"-2.5" CAL.	B&B	Full, nicely shaped, matching
3	PG	*Picea glauca*	White Spruce	6'-8' HT.	B&B	Full, natural shape
18	TC	*Tsuga canadensis*	Canadian Hemlock	6'-8' HT.	B&B	Full, natural shape
24	TP	*Tsuga plicatum 'Green Giant'*	Western Arborvitae	6'-8' HT.	B&B	Full, nicely shaped

Planting Notes

1. Be aware of all underground utilities prior to any planting operations. Contact "Call Before You Dig" prior to excavation.
2. All plantings are to be installed by a qualified landscape contractor.
3. The contractor shall be required to carry workmen's compensation insurance and comprehensive general liability insurance. Certificates will be required prior to signing contracts.
4. Notify owner or landscape architect 72 hours minimum in advance of starting planting operations. Receive approval for layout of all bed lines and material locations prior to installation.
5. The landscape architect reserves the right to reject inferior plant materials and substitutions. The landscape architect is willing to make two trips to suppliers to review and approve materials. Previously unapproved materials may be rejected at the site. Minimally, all materials will conform to the "American Standard for Nursery Stock" (ANSI Z60.1 - 2004) of the American Association of Nurserymen.
6. The contractor shall provide a minimum of one representative plant per variety with an attached label indicating the name, size, and origin of all plant material for the Landscape Architect's approval.
7. The location of all plant material shall be approved by the Landscape Architect prior to planting installation.
8. All plant material shall have a nursery tag depicting plant species and variety.
9. When there is a discrepancy between plant quantities shown on the plant list & the plan, use the quantities from the plant list.
10. Test soil for ph and nutrients, adjust as required and receive approval prior to planting.
11. Treat all unpaved surfaces and disturbed areas with 6" minimum of topsoil as supplied by Harvest New England @ 860-674-8855, and blended per the following composition of 50% Screened Topsoil and 50% Compost, prior to stabilization. Fine grade and seed with approved seed blend to create finished lawn, or as otherwise directed by the Landscape Architect.
12. Pit to be 2 times wider than root ball or widest spread of container or bare roots.
13. Set crown of root ball 2" above finished grade.
14. Do not add fertilizer to planting soil for fall plantings.
15. All plant material shall be guaranteed by the contractor to be in good, healthy and flourishing condition for a period of one year from the date of acceptance. The contractor shall replace, as soon as weather and seasonal conditions permit, all dead plants and all plants not in a vigorous, thriving condition, as determined by the landscape architect during, and at the end of the guarantee period. Warranty replacement will be provided at no cost to the owner and include materials and labor. Contractor is responsible for repair of any damage incurred during replacement of warranty materials. Warranty period to begin at the final approval of plantings by Landscape Architect and client. Contractor is responsible for maintaining the plant material until final approval is given. This will include watering the plants.
16. All existing and proposed vegetation shown on the site plan drawings shall be maintained in a healthy and vigorous growing condition throughout the duration of the project. All vegetation not so maintained shall be replaced with new comparable material at the beginning of the next growing season.
17. All plant material shall be installed in accordance with the details on the contract drawings.
18. All planting beds shall receive 3" minimum of shredded cedar or pine bark mulch. All planting beds shown shall be mulched as a continuous bed.
19. Contractor shall make fine grade adjustments as necessary, and sod to create finished lawn or as otherwise directed by landscape architect.
20. Final grade in all cases shall slope away from building a minimum of ¼" per foot.

Arborist Recommendation Notes

Below are the tree recommendations from the Hutchinson Tree Care Specialists, Inc. site inspection and tree report. See attached document for further information.

Twenty-one trees consisting of various species were identified during the inspection which were of fair or good quality. These trees have been marked with orange ribbon, numbered and have diameter measure in the field.

The inventory numbers have been transferred onto the site map to plot their location. Some of these trees may prove to be worth saving if their location does not interfere with developing the lots. See the list below of trees below, correlating numbers located on the plan, and recommendations for preservation or removal.

1. Remove because in close proximity to construction.
2. Remove because in close proximity to construction.
3. Remove because in close proximity to construction.
4. Prune to remove dead wood. Root fertilize at completion of site development.
5. Prune to remove dead wood. Root fertilize at completion of site development.
6. Prune to remove dead wood. Root fertilize at completion of site development.
7. Prune to remove dead wood. Root fertilize at completion of site development.
8. Prune to remove dead wood. Root fertilize at completion of site development.
9. Remove because in close proximity to construction.
10. Prune to remove dead wood. Root fertilize at completion of site development.
11. Prune to remove dead wood. Install one support cable for improved structural support. Root fertilize at completion of site development.
12. Prune to remove dead wood. Root fertilize at completion of site development.
13. Prune to remove dead wood. Root fertilize at completion of site development.
14. Remove because in close proximity to construction.
15. Remove because in close proximity to construction.
16. Prune to remove dead wood. Root fertilize at completion of site development.
17. Prune to remove dead wood. Root fertilize at completion of site development.
18. Prune to remove dead wood. Root fertilize at completion of site development.
19. Prune to remove dead wood. Install one support cable for improved structural support. Root fertilize at completion of site development.
20. Prune to remove dead wood. Root fertilize at completion of site development.
21. Prune to remove dead wood. Root fertilize at completion of site development.

Protection Notes: All trees designated for preservation should have root zones fenced to drip line. Excavation, trenching, stock piling of materials and equipment access should not be permitted within critical root zones (fenced areas).

WIRE MILL ROAD SUBDIVISION

503 Wire Mill Road
Stamford, CT 06803

Symbol Legend

- Property Line
- Note Call-Off
- 1 ARR — Planting Call-Off
- #10 — Existing Tree ID
- Existing Tree to Remain
- Proposed Deciduous Tree
- Proposed Evergreen Tree
- Building
- Proposed Site Walls

No.	Title	Date

Revisions:

0 10 20 40

WESLEY STOUT ASSOCIATES
96 Main Street, New Canaan, CT 06840
203 966-3100 · FAX 203 966-3731
www.wesleystout.com

Landscape Layout Plan: Overall

Date: 5/30/2023
Scale: 1" = 20'
Sheet:

SP-1.0

Hutchinson
Tree Care Specialists, Inc.

(203) 966-5163 · FAX (203) 966-5641
www.hutchtree.com · info@hutchtree.com

Mailing Address: P.O. Box 235, New Canaan, CT 06840
CT Aborist and Custom Grounds License #62070

May 30th, 2023

Tom Cross
Wesley Stout Associates
96 Main Street
New Canaan, CT. 06840

Re: 503 Wire Mill Road
Stamford, CT.

On Monday and Tuesday, February 06th and 07th 2023, I visited the site to inspect the trees within the proposed 3 lot subdivision. The subdivision area is a stand of non-maintained woodland trees. The majority of the trees are of poor quality, many of which have developed unbalanced canopies due to crowding, high canopy structure, (which is not uncommon for woodland trees competing for sunlight) and/or structural flaws and defects from previous damage and lack of care.

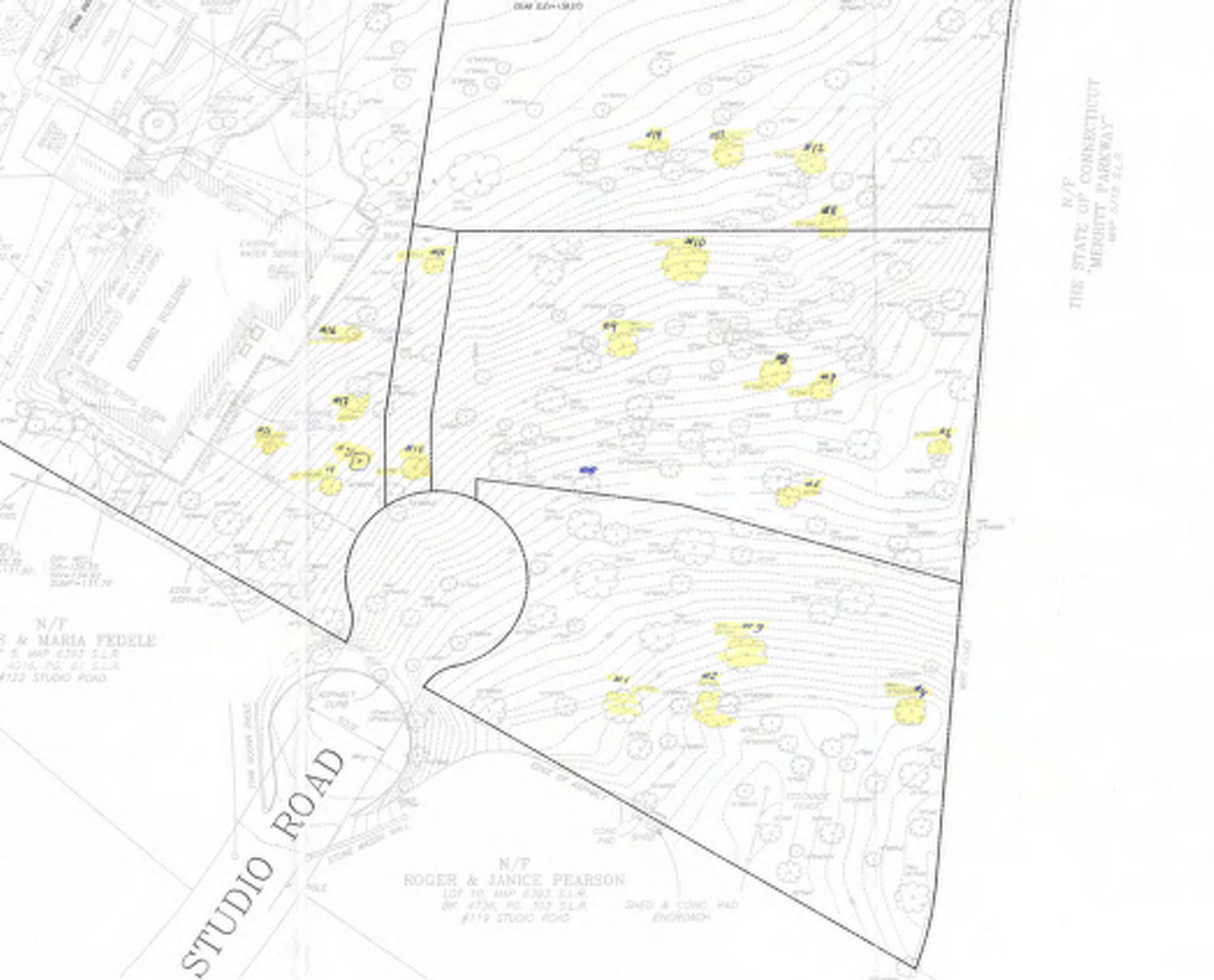
Twenty-one trees consisting of various species were identified during the inspection which were of fair or good quality. These trees have been marked with orange ribbon, numbered and have had diameter measured in the field.

The inventory numbers have been transferred onto the site map to plot their location. Some of these trees may prove to be worth preserving if their location does not interfere with developing the lots.

Please see the attached list of trees, correlating inventory numbers and recommendations for preservation.

R. Whitehead

Rich Whitehead
Licensed Arborist / Turf and Ornamentals


N/F
THE STATE OF CONNECTICUT
"MERRITT PARKWAY"
N/F
& MARIA FEDELE
STUDIO ROAD
N/F
ROGER & JANICE PEARSON

SITE ENGINEERING REPORT

503 Wire Mill Road
Stamford, CT

Prepared For
503 WMR LLC

Prepared by
Redniss & Mead, Inc.
22 First Street
Stamford, CT
(203) 327-0500

Issued on
May 30, 2023

Ted Milone, P.E., LEED AP BD+C
CT #22563

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FEMA FIS Study Excerpt
USGS Quadrangle Map – Site Vicinity Map
NOAA Atlas 14 Volume 10 – Precipitation Frequency
NRCS Web Soil Survey

Appendix B: Existing Conditions Drainage Basin Map
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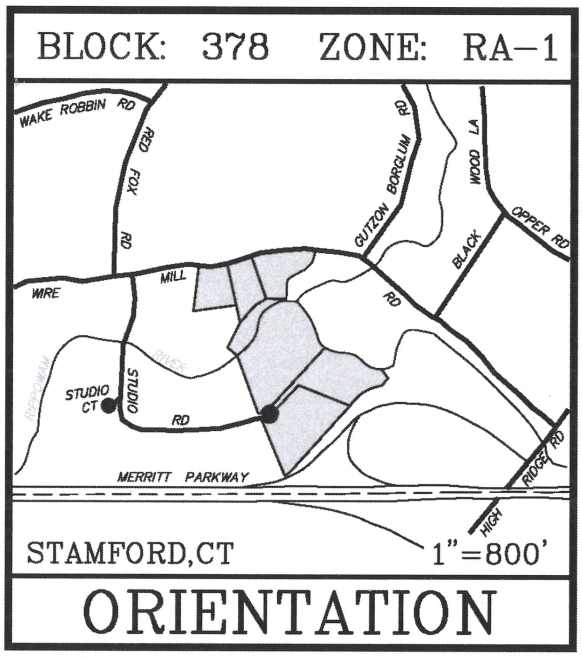
Appendix C: LID Map

Appendix D: Water Quality Volume Calculations
BMP Volume Calculations
Drawdown Calculations
Level Spreader Sizing Calculations

Appendix E: HydroCAD Report

Appendix F: Draft Operation and Maintenance Agreement

Appendix G: DCIA Tracking Spreadsheet
Checklist for Stormwater Management Report


BLOCK: 378 ZONE: RA-1
WAKE ROBBIN RD
RED FOX RD
GUITZON BORGLUM RD
WOOD LA
COPPER RD
BLACK
MILL
WIRE
RD
STUDIO CT
STUDIO
RD
MERRITT PARKWAY
RIDGE RD
HIGH
STAMFORD,CT
1"=800'
ORIENTATION

Narrative

Project Description:

503 WMR LLC, is submitting application to the Planning Board for a three-lot subdivision for Revised Lot 3 as depicted on the Property Survey depicting a Consolidation of Parcels and Adjustment of Lot Lines Map No. 15307 S.L.R. Revised Lot 3, Map No. 15307 S.L.R is 3.6± acres and lies within the R-1 Zoning District, east of Wire Mill Road at the northerly tip of Studio Road. The 3-parcel subdivision shall be served by private well and septic systems. This Site Engineering Report reflects the Site Civil Plan set (SE-1 through SE-10 dated May 30, 2023) prepared by Redniss & Mead, Inc.

Existing Conditions:

The property is vacant consisting of non-maintained woodland trees with 479 SQ. FT. of impervious coverage. Site elevations range from 139.0 at the northern portion of the property to 199.0 at the southern portion of the property abutting 119 Studio Road. The site primarily consists of moderate slopes ranging from 5-10%. The property does not lie within a drinking water supply watershed or within the FEMA flood zone AE (el. 133 – 137) as depicted on the Flood Insurance Rate Map 09001C0506F, effective June 18, 2010.

Drainage Patterns & Conveyance Systems

Stormwater runoff from the property sheet flows overland onto Revised Lot 1 and 2 and eventually is tributary to the Rippowam River. For this reason, this study includes Revised Lot 1 and Revised Lot 2, Map No. 15307 S.L.R. and off-site areas to the Rippowan River point of concern as depicted on the Existing Conditions Drainage Basin Map in Appendix B. The study area is approximately 10.51 acres of which 0.92 acres is impervious coverage.

Soils

The USDA Natural Resources Conservation Service's Web Soil Survey describes the soils within the development area on the property (within the disturbance limits) to be primarily Canton and Charlton Soils and Charlton-Urban Land complex within Hydrologic Soils Group B. The remaining portion of the site, which is proposed to remain undeveloped, consists of various sandy loams. Soil testing, consisting of a series of deep test pits, was performed on-site to identify any sub-grade restrictive soil conditions and to confirm the hydrologic soil classification. A total of fifty-five (55) deep test pits were performed. Mottling and ledge were encountered on the property, although groundwater was not encountered. The location of each test is depicted on the Proposed LID Map (Appendix C).

Saturated hydraulic conductivity testing is not required as the USDA Web Soil Survey classified on site soils as HSG B. As such, an infiltration rate of 0.52 inches per hour was used in accordance with Table 5-1 in the City of Stamford Stormwater Drainage Manual.

Proposed Conditions:

The development includes extending the Studio Road cul-de-sac and installing an 18' wide common driveway to serve three (3) new single-family dwellings. The individual lots would include a driveway, patio or deck, walkways and other incidental site improvements as depicted on the plans. The proposed improvements would result in an increase in impervious coverage of 33,706 SQ.FT.. The increases are 28,453 SQ.FT. on Lots 3A, 3B, and 3C, 305 SQ.FT on Revised Lot 2, and 4,948 SQ.FT. associated with extending the Studio Road cul-de-sac. Refer to Proposed Conditions Drainage Basin Map in Appendix B.

Project Classification

The proposed development is classified as a development project with land disturbance greater than ½ acre, therefore shall comply with Standards 1 through 5 of the Stamford Drainage Manual.

Stormwater Management System

To comply with Standard 1, this project retains 100% of the Water Quality Volume (WQV) via underground infiltration best management practices (BMP's - see "Proposed Stormwater Treatment Practices"). With respect to Standard 2, a waiver is being requested to allow increased flow towards the Rippowam River since the increase of flow towards a large river will have no adverse impacts to the river, neighboring properties or City owned infrastructure. The Rippowam River (Lower Reach) downstream of the confluence of Haviland Brook has a watershed area of 28.7 square miles with a peak discharge of 2,400 cfs during a 10-year storm event and 4,800 cfs during a 50-year storm event as depicted in Flood Insurance Study Number 09001CV001C, Volume 1, Section 3, Table 5, last revised October 16, 2013, for Fairfield County, CT included in Appendix A.

Methodology & General Design Criteria

A waiver is being requested to allow increased flow towards the Rippowam River since the increase of flow towards a large river will have no adverse impacts to the river, neighboring properties or City owned infrastructure. Comparison of the peak discharge rates for pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the proposed development will increase over existing conditions. The peak rates of runoff have been mitigated to the greatest extent practical (see "Hydrologic Analysis of Peak Rates of Runoff") and 100% of the Water Quality Volume requirement is provided. The stormwater mitigation systems have been designed for Type III, 24-hour storm events with storm rainfall amounts, and distributions obtained from the latest NOAA Atlas 14 Point Precipitation Frequency Estimates and Storm Distributions (Appendix A).

Proposed LID Techniques

Low impact development and site planning techniques were used to the maximum extent practicable given the existing constraints of this site. LID techniques include minimizing impervious coverage, limiting areas of disturbance to for the proposed development, and maintaining all improvements out of regulated or flood hazard areas.

Proposed Stormwater Treatment Practices

The design approach chosen to satisfy Standard 1 of the Stamford Drainage Manual is to provide the required water quality volume via subsurface infiltration. These systems are described in detail below. Reference is also made to Appendix D which includes information on water quality volumes, BMP volume, and drawdown times. It shall be noted that all infiltration systems are at least 1' above their respective restrictive soil elevations. As such, 100% of the available volume has been modeled and accounted for in terms of water quality and retention volume provided.

- **Infiltration #1** is located northwest of the proposed residence on Lot 3C. It will consist of twenty-five (25) Cultec C-100HD units with 6" of stone below and above the units and will collect, treat, and infiltrate stormwater runoff generated from approximately three-quarters of the roof of the associated dwelling as well as the rear patio area. The total impervious area collected is 3,218 SQ. FT. The BMP is designed to store 811± CU.FT. of stormwater within the 733± SQ.FT. footprint system and drain within 25.5± hours.
- **Infiltration #2** is located northwest of the proposed residence on Lot 3B. It will consist of eight (8) Cultec C-100HD units with 6" of stone below and above the units and will collect, treat, and infiltrate stormwater runoff generated from the western portion of the dwelling roof. The total impervious area collected is 1,832 SQ. FT. The BMP is designed to store 290± CU.FT. of stormwater within the 271± SQ.FT. footprint system and drain within 24.7± hours.
- **Infiltration #3** is located east of the proposed residence on Lot 3B. It will consist of nine (9) Cultec R-150 XLHD units with 6" of stone below and above the units and will collect, treat, and infiltrate stormwater runoff generated from eastern portion of the dwelling roof as well as the driveway area. The total impervious area collected is 3,459 SQ. FT. The BMP is designed to store 534± CU.FT. of stormwater within the 377± SQ.FT. footprint system and drain within 32.8± hours.
- **Infiltration #4** is located west of the proposed residence on Lot 3A. It will consist of thirty-six (36) Cultec R-280 units with 6" of stone below and above the units and will collect, treat, and infiltrate stormwater runoff generated from the Lot 3A dwelling roof and driveway, and a majority of the combined driveway system extending from the new cul-de-sac through the Lot 3A driveway. The total impervious area collected is 22,213 SQ. FT. The BMP is designed to store 2,187± CU.FT. of stormwater within the 1,265± SQ.FT. footprint system and drain within 39.9± hours.
-

A summary of the Water Quality required and provided by the stormwater practice is provided below:

Standard 1 (Retention and Treatment) Calculations					
Drainage Area ID	**Description**	**Total Area (SF)**	**Impervious Area (SF)**	**WQV Required (CF)**	**Retention Volume Provided (CF)**
Lot 3A	Lot 3A Total Site	61,203	10,343	1030.7	-
Lot 3B	Lot 3B Total Site	48,026	10,559	992.0	-
Lot 3C	Lot 3C Total Site	48,340	8,030	803.7	-
TOTAL PRE - BMP		**157,569**	**28,932**	**2,826**	**0**
Infil #1	Lot 3C Roof and Patio	4,484	3,218	260.0	811
Infil #2	Lot 3B Roof Area	1,832	1,832	145.0	290
Infil #3	Lot 3B Roof, Driveway & Patio	3,855	3,459	275.5	534
Infil #4	Lot 3A Roof, Driveway, & Walkway, Lot 3C Driveway, and Access Driveway*	54,263	22,213	1892.1	2187
On-site Bypass	Remaining Site Area	101,581	3,071	653.6	-
TOTAL POST-BMP		**166,015**	**33,793**	**3,226**	**3,822**

*Infil#4 Area includes 8,446 SF of off-site area (4,861 SF of which is impervious area)

Hydrologic Analysis of Peak Rates of Runoff

Hydrologic models have been prepared utilizing the SCS Runoff Curve Number Method from NRCS TR-55 to analyze the pre- and post-development rainfall runoff rates and volumes. Watershed areas, curve numbers (CN), and times of concentration (TC) were calculated for each contributing watershed. The pre-development drainage basin boundaries and the post-development drainage basin boundaries are shown in Appendix B. The results of the HydroCad model used to analyze the pre- and post-development watershed conditions are presented in Appendix E. A comparison of the pre- and post-development peak discharge rates is provided in the tables below.

Links 1L & 2L	Storm Sewer Peak Flow (cfs)			
Return Period (years)	Ex (1L)	Pr (2L)	Change	% Change
1	2.59	2.55	-0.04	-1.5%
2	4.88	5.57	0.69	14.1%
5	9.45	10.25	0.80	8.5%
10	13.82	14.76	0.94	6.8%
25	20.41	21.26	0.85	4.2%
50	25.65	26.41	0.76	3.0%

Comparison of the peak discharge rates for pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the proposed development will increase. This represents a conservatively imperceptible increase of 0.025% during a 10-year storm event and 0.014% during the 50-year storm event within the Rippowam River. As such a waiver is being requested to allow the increase flow towards a large river will have no adverse impacts to the river, neighboring properties or City owned infrastructure. It should be noted Revised Lots 1 and 2 are also owned by 503 WMR LLC.

Compliance with Stormwater Management Standards

The project site will be designed to meet the Stamford Stormwater Management Standards to the maximum extent practicable as summarized below:

Standard 1: Runoff and Pollutant Reduction

A. The runoff and pollutant reduction requirements for this project are to retain 100% of the WQV on-site using Non-Structural Practices or Infiltration BMP's. The proposed Stormwater Treatment Practice (subsurface infiltration) stores more than the required WQV. See "Proposed Conditions" for a detailed description of the system, its required WQV and provided storage volume.
B. Not Applicable. Stormwater systems retain 100% of WQV.
C. The proposed development has been designed to minimize site disturbance and overall impact on the site by limiting the footprint of construction activities. To prevent impacts to the Rippowam River, it is proposed to delineate all construction activities with silt fence and install an anti-tracking pad at the construction entrance to prevent polluted runoff from flowing into the River.
D. Noted
E. Not required as the development does not contain a parking lot that serves six or more parking spaces.
F. The development considers non-structural practices such as preserving natural areas and limiting clearing and grubbing as applicable to the design.

Standard 2: Peak Flow Control

A. Stream channel protection is not required for this project as the subject development does not propose one or more acres of impervious coverage.
B. The proposed stormwater system is designed to adequately pass flows leading to, from and through it up to and including the 25-year design storm event as required in section 3 of the drainage manual. Refer to the HydroCAD model found in Appendix E.
C. A waiver is being requested to increase flow towards the Rippowam River as the increase towards a large river will not result in adverse impacts to the river, neighboring properties or City owned infrastructure.
    a. The Rippowam River (Lower Reach) downstream of the confluence of Haviland Brook has a peak discharge of 2,400 cfs during a 10-year storm event and 4,800 cfs during a 50-year storm event as depicted in Flood Insurance Study Number 09001CV001C, Volume 1, Section 3, Table 5, last revised October 16, 2013, for Fairfield County, CT. This represents a conservatively imperceptible increase of 0.025% during a 10-year storm event and 0.014% during the 50-year storm event within the Rippowam River. As such a waiver is being requested to allow the increase flow towards a large river will have no adverse impacts to the river, neighboring properties or City owned infrastructure. It should be noted Revised Lots 1 and 2 are also owned by 503 WMR LLC. Reference is made to the HydroCAD report found in Appendix E.

D. Infiltration systems #1, 2 and 3 convey the 100-year storm runoff through the pop-up emitters when the systems exceed capacity. Infiltration system #4 is proposed to overflow via a meter manhole with a weir and discharge to grade via level spreader. The outlet pipe and the level spreader have been sized to convey the 100-year storm runoff from the system.
E. Noted

Standard 3: Construction Erosion and Sediment Control

A. The Sediment and Erosion Control plan depicts erosion control measures to be implemented on the site to control construction related impacts. Sediment and erosion controls such as silt fencing, stone tracking pads at construction zone entrance/exit point, hay bale inlet protection, and silt fence are proposed.

Standard 4: Operation and Maintenance

A. A Standard City of Stamford Drainage Maintenance Agreement will be executed with the Environmental Protection Board (EPB). A draft maintenance agreement has been prepared and is included in Appendix F.
B. The construction plans will include notes describing the long-term maintenance requirements for the site-specific drainage system(s) including routine and non-route inspection and maintenance tasks to be undertaken after construction is completed as well as the schedule for implementing these tasks. This information will be added to the plan set prior to filing for a building permit.

Standard 5: Stormwater Management Report

A. This document and its associated appendices serve as the required Stormwater Management Report.
B. Based on the above information, the proposed improvements are designed in accordance with the City of Stamford Stormwater Drainage Manual and will not adversely impact adjacent or downstream properties or City-owned drainage facilities.

Conclusion:

As noted above, the proposed improvements are designed in accordance with the City of Stamford Stormwater Drainage Manual and will not adversely impact adjacent or downstream properties or City-owned drainage facilities.

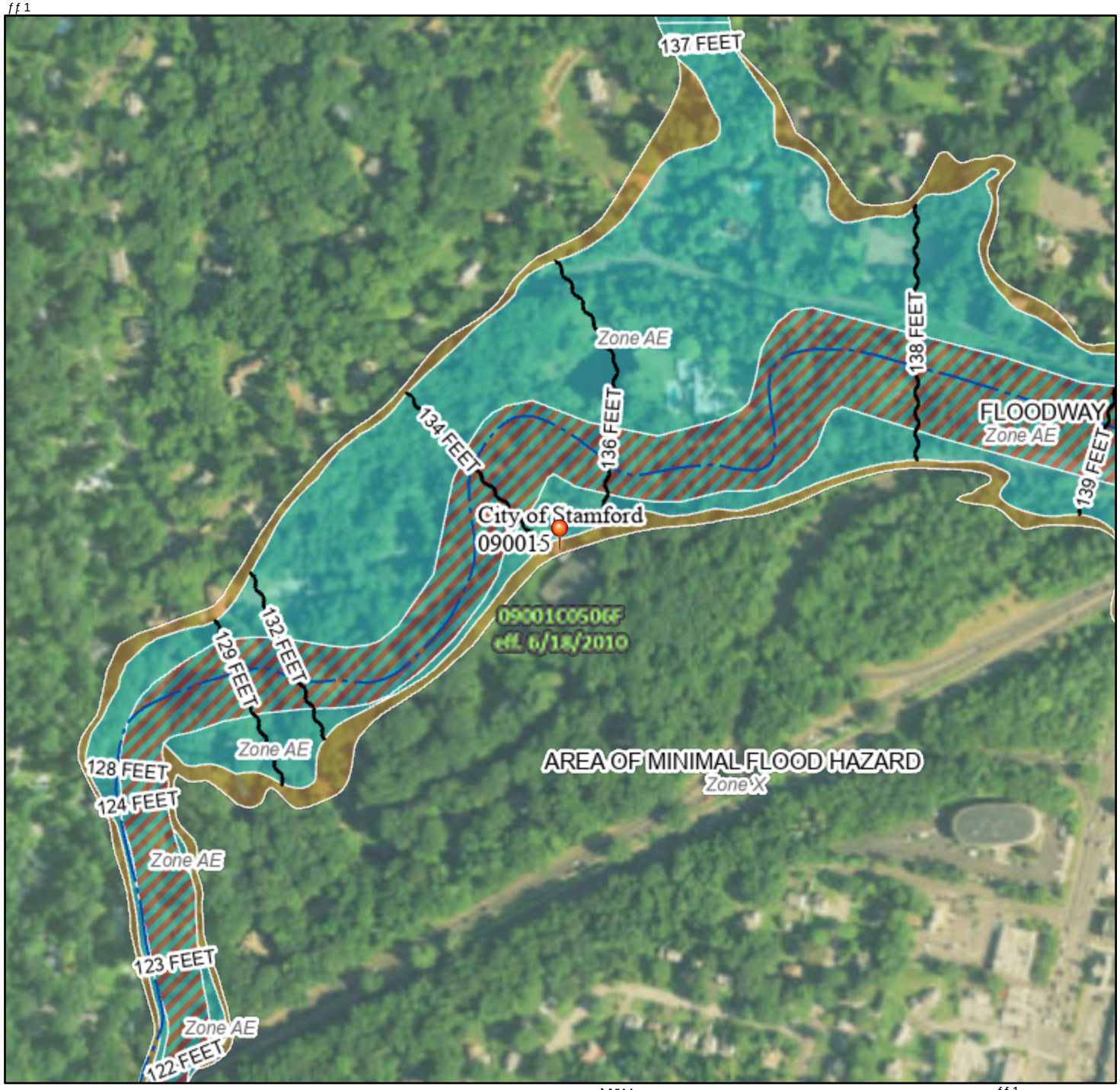
Appendix A

FEMA Flood Insurance Map
FEMA FIS Study Excerpt
USGS Quadrangle Map – Site Vicinity Map
City of Stamford Rainfall Intensity – Duration Curves
NOAA Atlas 14 Volume 10 – Precipitation Frequency
NRCS Web Soil Survey

1DWLRQDO)ORRG-EDUGDHU)6WWH

FEMA

ff 1



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R DQQXDO FKDQFHIORRGZ WKDYHUDJH
G-BWKOHVV WKDQRQHIRRW RU ZWKGUDLQDJH
DUHDV R OHVV WKDQRQH VTXDUHPEOH=RQH;

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&KDQFH)ORRG-EDUG =RQH;

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/HYHH 6HHRWHV =RQH;

$UHDZWK)ORRG5LVNGXHWR/HYHH =RQH'

$UHDR DQQLBO)ORRG-EDUG =RQH;
(IHFWLYHBV
$UHDR 8QGHWHUPQHG)ORRG-EDUG =RQH'

&KQQHO &XOYHUW RU 6WUXFWHU
/HYHH L'NH RU)ORRGZDO

&URVV6HFWLRQ ZWK$QQXDO &KQQH
DWHU 6UIDFHOHYDWLRQ
&RDWDO 7UDQVHFW
%DVH)ORRGHYDWLRQL LQH %(
/LPLW R 6WUXG
-XULVGLFWLRQ%RXQGDU\
&RDWDO 7UDQVHFW %DVHOLQH
3URJHOH%DVHOLQH
+GURJUDSKLF)HDWXUH

L'LWDO DWD$YDLODEOH
1R'LWDO DWD$YDLODEOH
8QPDSSHG

7KHSLQGLVSODHGRQWKHBSLV DQDSSURBLPDWH
SRQW VHOHFWHGEWKHXHU DQGGRHV QRW UHSUHV
DQDWKRUL WDWLYHSURFHUW\ ORFDWLRQ

7KLV BSFRBOLHV ZWK)BV VWDQGDUG/ IRU WKHXHR
GL.LWDO IORRGBPS/LI LW LV QRW YRLGV/GHVFULEHGEHORZ
7KHEDVHBS VKRZQFRBOLHV ZWK)BV EDVHBS
DFFXUDWVWDQGDUG/

7KHIORRGKDUGLQRUBWLQLV GHULYHGLUHFWO\IURPWKH
DWKRUL WDWLYH)HEVHUYLFHV SURYLGHGEY)7KLVBS
ZV HSRUWHGRQ DW $ DQGGRHV QW
UHOHFW FKQQHV RU DQGRQWV VXEVHIXQW WR WKLVGDWHDQG
WLFI 7KH)HDQGHIHFWLYHLQRUBWLQRBFKQQHRU
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OHHQG VFDOHEDU BSFUHTWLRQGDWH FRRL W\LGHQWLILHUV
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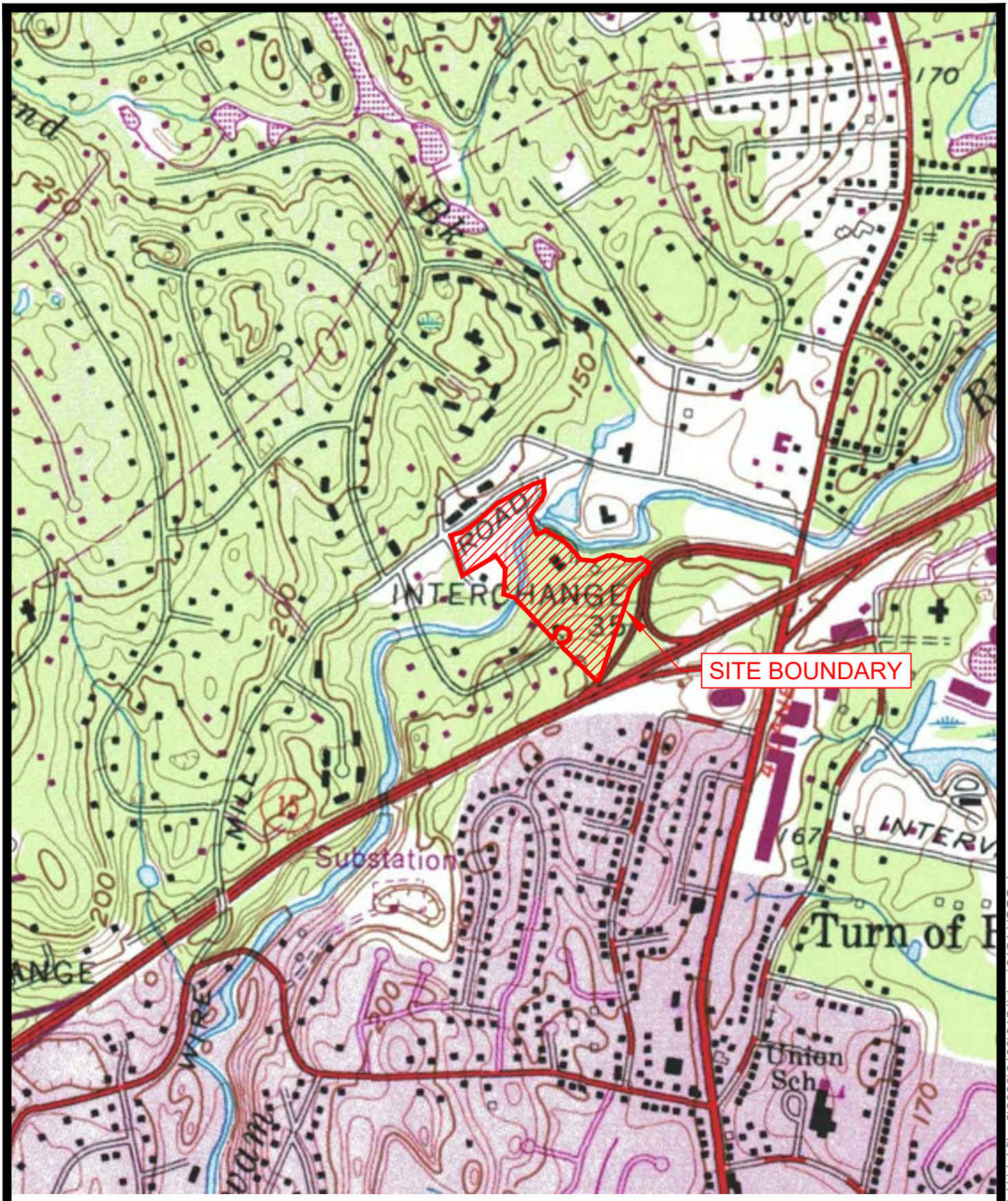
XQPSSHGDQGXQRGHUQ}GDUHDV FDQQRW EHXVHGIRU
UHDODWRU\SUSRVHV

%DVHPS 86DWLRQDO DS 2UWKRLPDJHU\ DWDUHUHVHGZRWEHU

TABLE 5 - SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT-ANNUAL-CHANCE	2-PERCENT-ANNUAL-CHANCE	1-PERCENT-ANNUAL-CHANCE	0.2-PERCENT-ANNUAL-CHANCE
POPLAR PLAINS BROOK					
At confluence with Saugatuck River (Lower Reach)	0.94	145	195	245	480
PUMPKIN GROUND BROOK					
At confluence with Long Brook	6.12	1,165	1,640	1,895	2,875
At Beaver Dam Lake	1.15	935	1,330	1,550	2,290
PUTNAM PARK BROOK					
Upstream of confluence of Wolf Pit Brook	0.93	130	175	220	320
RIDGEFIELD BROOK					
At State Route 35	2.60	125	185	235	410
RIPPOWAM RIVER (LOWER REACH)					
At the mouth	37.5	2,900	5,800	7,400	9,300
At the Stillwater Pond	33.4	2,670	5,350	6,820	8,580
Downstream of confluence of Haviland Brook	28.7	2,400	4,800	6,140	7,710
Upstream of confluence of Haviland Brook	24.6	2,160	4,320	5,500	6,920
RIPPOWAM RIVER (UPPER REACH)					
At New Canaan-Stamford corporate limits	34.85	1,760	3,170	3,910	7,060
Upstream of confluence of Laurel Brook	5.15	720	1,240	1,550	2,700
Upstream of Lockwood Pond	4.33	610	1,040	1,300	2,270
At Siscowit Reservoir	3.46	480	830	1,040	1,810



USGS QUADRANGLE MAP

503 WIRE MILL ROAD

STAMFORD, CT

COMM. NO.: 6154 DATE: 05/30/2023 SCALE: 1"=1,000'

REDNISS & MEAD

5/24/2023 11:25 AM H:\Jobfiles2\6000\6100\6154\dwg\6154 USGS.dwg

NOAA Atlas 14, Volume 10, Version 3
Location name: Stamford, Connecticut, USA*
Latitude: 41.1121°, Longitude: -73.552°
Elevation: 134.75 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.368** (0.279-0.469)	**0.426** (0.323-0.544)	**0.522** (0.395-0.668)	**0.601** (0.453-0.774)	**0.711** (0.520-0.944)	**0.794** (0.570-1.07)	**0.879** (0.615-1.22)	**0.972** (0.650-1.37)	**1.10** (0.712-1.60)	**1.21** (0.763-1.78)
10-min	**0.521** (0.395-0.664)	**0.604** (0.458-0.771)	**0.740** (0.559-0.948)	**0.852** (0.641-1.10)	**1.01** (0.737-1.34)	**1.13** (0.808-1.52)	**1.25** (0.871-1.73)	**1.38** (0.922-1.95)	**1.56** (1.01-2.27)	**1.71** (1.08-2.52)
15-min	**0.613** (0.465-0.782)	**0.710** (0.539-0.907)	**0.870** (0.658-1.11)	**1.00** (0.754-1.29)	**1.19** (0.867-1.57)	**1.32** (0.951-1.79)	**1.47** (1.02-2.03)	**1.62** (1.09-2.29)	**1.84** (1.19-2.67)	**2.01** (1.27-2.97)
30-min	**0.858** (0.652-1.10)	**0.996** (0.755-1.27)	**1.22** (0.923-1.56)	**1.41** (1.06-1.81)	**1.66** (1.22-2.21)	**1.86** (1.33-2.50)	**2.06** (1.44-2.85)	**2.27** (1.52-3.21)	**2.57** (1.66-3.73)	**2.80** (1.77-4.14)
60-min	**1.10** (0.839-1.41)	**1.28** (0.972-1.64)	**1.57** (1.19-2.01)	**1.81** (1.36-2.33)	**2.14** (1.56-2.84)	**2.39** (1.72-3.22)	**2.65** (1.85-3.66)	**2.92** (1.95-4.13)	**3.30** (2.13-4.79)	**3.59** (2.27-5.31)
2-hr	**1.42** (1.09-1.80)	**1.67** (1.28-2.12)	**2.07** (1.58-2.64)	**2.41** (1.83-3.08)	**2.87** (2.12-3.79)	**3.22** (2.33-4.32)	**3.58** (2.52-4.95)	**3.98** (2.68-5.60)	**4.55** (2.95-6.57)	**5.01** (3.18-7.35)
3-hr	**1.64** (1.26-2.07)	**1.94** (1.49-2.44)	**2.42** (1.85-3.07)	**2.82** (2.15-3.59)	**3.38** (2.50-4.45)	**3.79** (2.75-5.08)	**4.23** (2.99-5.83)	**4.72** (3.18-6.61)	**5.42** (3.52-7.80)	**5.99** (3.81-8.76)
6-hr	**2.07** (1.61-2.60)	**2.46** (1.91-3.09)	**3.10** (2.39-3.91)	**3.63** (2.79-4.59)	**4.36** (3.25-5.71)	**4.91** (3.59-6.54)	**5.49** (3.91-7.53)	**6.14** (4.15-8.55)	**7.09** (4.62-10.1)	**7.87** (5.02-11.4)
12-hr	**2.58** (2.01-3.21)	**3.08** (2.40-3.83)	**3.89** (3.02-4.86)	**4.56** (3.52-5.73)	**5.49** (4.12-7.14)	**6.18** (4.55-8.18)	**6.92** (4.96-9.45)	**7.76** (5.27-10.7)	**8.99** (5.88-12.8)	**10.0** (6.41-14.5)
24-hr	**3.05** (2.40-3.77)	**3.67** (2.88-4.54)	**4.68** (3.67-5.81)	**5.52** (4.30-6.89)	**6.68** (5.05-8.65)	**7.55** (5.60-9.95)	**8.47** (6.13-11.5)	**9.56** (6.51-13.1)	**11.2** (7.33-15.8)	**12.5** (8.04-18.0)
2-day	**3.42** (2.71-4.21)	**4.18** (3.31-5.15)	**5.43** (4.29-6.70)	**6.46** (5.07-8.01)	**7.89** (6.01-10.2)	**8.94** (6.69-11.7)	**10.1** (7.36-13.7)	**11.5** (7.84-15.6)	**13.6** (8.93-19.0)	**15.3** (9.88-21.9)
3-day	**3.70** (2.95-4.53)	**4.54** (3.61-5.56)	**5.91** (4.68-7.26)	**7.04** (5.55-8.69)	**8.60** (6.58-11.1)	**9.76** (7.33-12.8)	**11.0** (8.07-14.9)	**12.5** (8.60-17.0)	**14.8** (9.80-20.7)	**16.8** (10.9-23.9)
4-day	**3.97** (3.17-4.85)	**4.85** (3.87-5.93)	**6.30** (5.01-7.72)	**7.50** (5.93-9.23)	**9.15** (7.02-11.7)	**10.4** (7.81-13.5)	**11.7** (8.58-15.8)	**13.3** (9.13-18.0)	**15.7** (10.4-21.9)	**17.8** (11.5-25.2)
7-day	**4.75** (3.82-5.77)	**5.72** (4.59-6.95)	**7.30** (5.84-8.89)	**8.61** (6.85-10.5)	**10.4** (8.03-13.2)	**11.8** (8.88-15.2)	**13.2** (9.70-17.7)	**14.9** (10.3-20.1)	**17.4** (11.6-24.1)	**19.6** (12.7-27.5)
10-day	**5.51** (4.45-6.67)	**6.53** (5.27-7.91)	**8.21** (6.59-9.96)	**9.59** (7.66-11.7)	**11.5** (8.89-14.5)	**12.9** (9.78-16.6)	**14.4** (10.6-19.2)	**16.2** (11.2-21.7)	**18.7** (12.5-25.9)	**20.9** (13.5-29.2)
20-day	**7.77** (6.32-9.34)	**8.93** (7.26-10.7)	**10.8** (8.77-13.0)	**12.4** (9.98-15.0)	**14.6** (11.3-18.2)	**16.2** (12.3-20.6)	**17.9** (13.1-23.3)	**19.7** (13.7-26.2)	**22.2** (14.8-30.4)	**24.2** (15.7-33.6)
30-day	**9.62** (7.87-11.5)	**10.9** (8.88-13.0)	**12.9** (10.5-15.5)	**14.6** (11.8-17.6)	**17.0** (13.2-21.1)	**18.8** (14.3-23.6)	**20.6** (15.1-26.6)	**22.4** (15.7-29.7)	**24.9** (16.7-33.9)	**26.7** (17.4-37.0)
45-day	**11.9** (9.76-14.2)	**13.2** (10.9-15.8)	**15.5** (12.7-18.5)	**17.3** (14.1-20.8)	**19.9** (15.5-24.5)	**21.8** (16.6-27.3)	**23.8** (17.4-30.4)	**25.7** (18.0-33.9)	**28.1** (18.9-38.1)	**29.9** (19.5-41.2)
60-day	**13.8** (11.3-16.3)	**15.2** (12.5-18.1)	**17.6** (14.4-20.9)	**19.5** (15.9-23.4)	**22.2** (17.4-27.3)	**24.3** (18.6-30.3)	**26.4** (19.3-33.6)	**28.3** (19.9-37.3)	**30.8** (20.7-41.6)	**32.5** (21.2-44.7)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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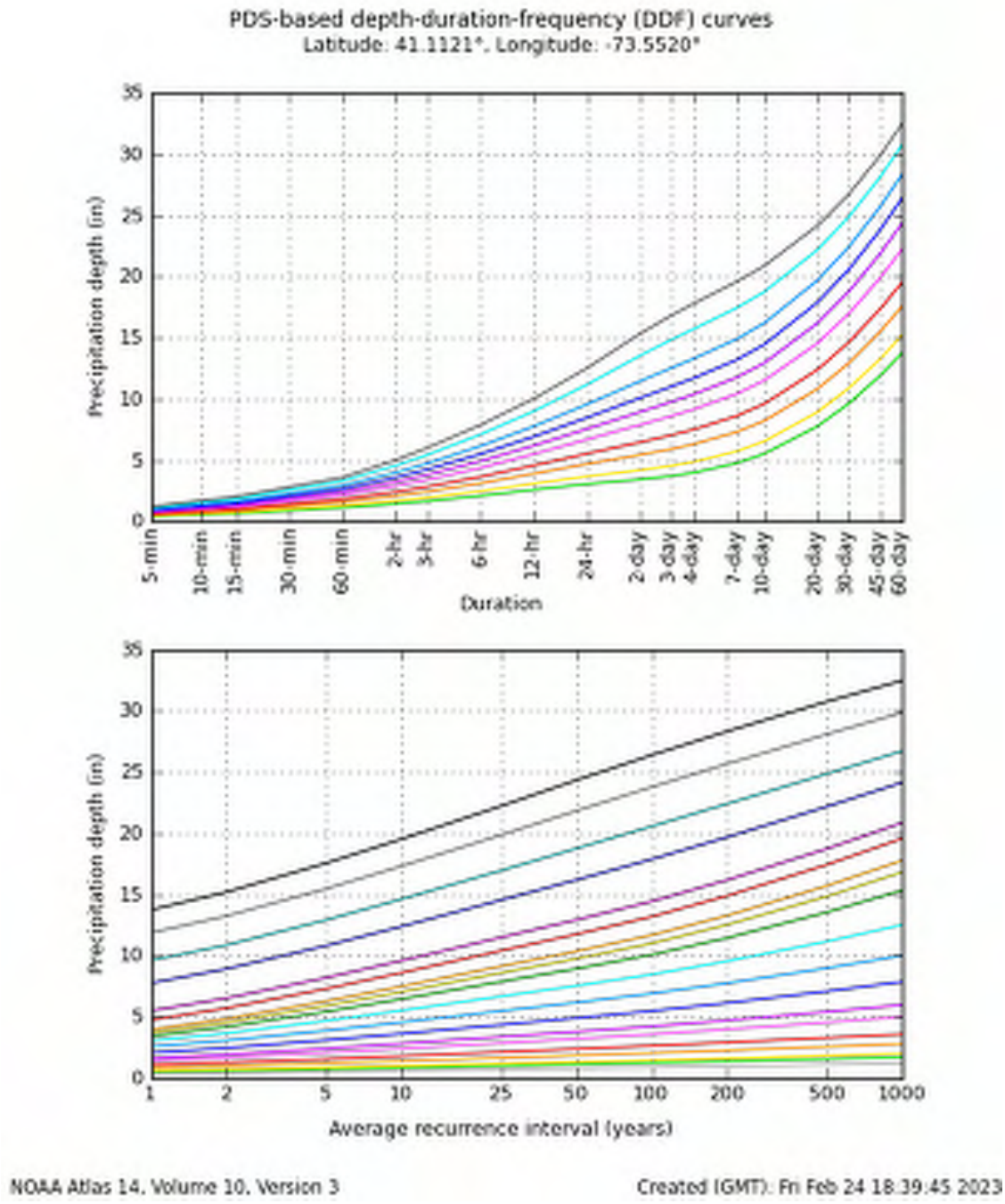
PF graphical



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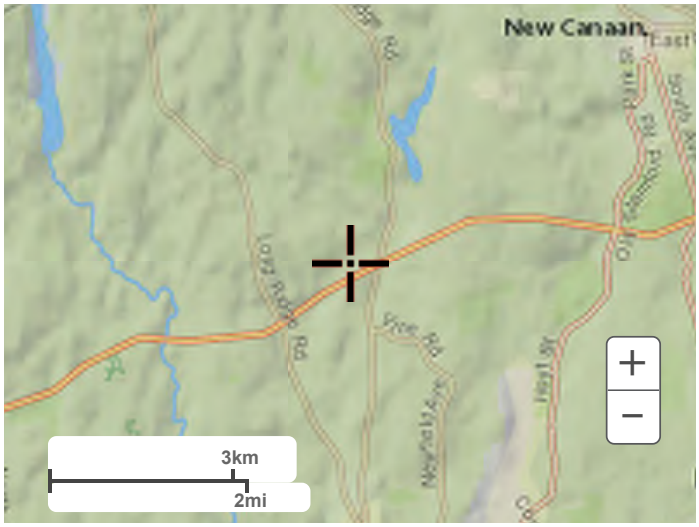
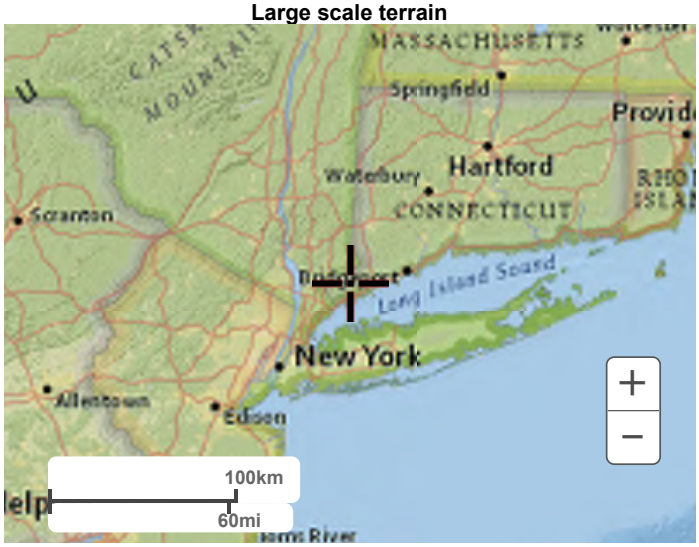
Maps & aerials

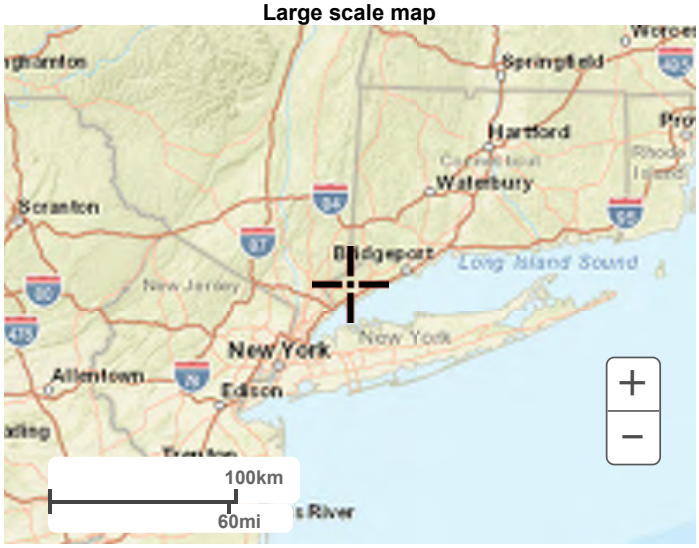
Small scale terrain



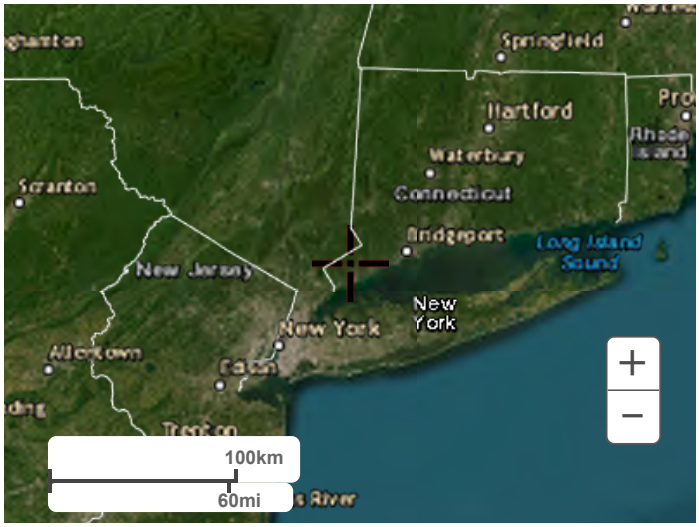
Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Map Scale: 1:2,870 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 4, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	A	0.3	1.6%
60D	Canton and Charlton soils, 15 to 25 percent slopes	B	5.4	25.6%
102	Pootatuck fine sandy loam	B	5.1	24.0%
103	Rippowam fine sandy loam	B/D	0.6	3.0%
260B	Charlton-Urban land complex, 3 to 8 percent slopes	B	2.0	9.5%
306	Udorthents-Urban land complex	B	1.2	5.6%
701A	Ninigret fine sandy loam, 0 to 3 percent slopes	C	5.7	26.8%
W	Water		0.8	4.0%
Totals for Area of Interest			**21.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix B

Existing On-Site Drainage Basin Map
Proposed On-Site Drainage Basin Map

RIPPOWAM RIVER

LIMIT OF WETLANDS

OPEN SPACE PRESERVE MAP 10835 S.L.R.

WATER POCKET AT HIGH FLOW

STONE WALL

SHED

COTTAGE

ELEC. METER

ELEC. MH

STONE MASONRY RET. WALL

STONE RET. WALL

SWALE

POND

IRON FENCE

GUARD RAIL

POOL

WALK

STEPS & LANDING

STONE WALL

EXISTING BUILDING

CONCRETE STEPS, SLAB & LANDING

OPEN SPACE PRESERVE MAP 10835 S.L.R.

100 YEAR FLOOD LINE (FLOOD ZONE AE) ELEV=133.0 to 137.0 (SEE NOTES)

REVISED LOT 2 (OFF-SITE)

LOT 3A

REVISED LOT 1 (OFF-SITE)

LOT 3B

LOT 3C

935 LF OF WOODED SHALLOW CONCENTRATED FLOW @ 0.074 FPF

STOCKADE FENCE

STUDIO ROAD

100 LF OF WOODED SHEET @ 0.070 FPF

(OFF-SITE)

TP#101 TP#102 TP#103 TP#104 TP#105 TP#106 TP#107 TP#108 TP#109 TP#110 TP#111 TP#112 TP#113 TP#114 TP#115 TP#116 TP#117 TP#118 TP#119 TP#120 TP#121 TP#122 TP#123 TP#124 TP#125 TP#126 TP#127 TP#128 TP#129 TP#130 TP#131 TP#132 TP#133 TP#134 TP#135 TP#136 TP#137 TP#138 TP#139 TP#140 TP#141 TP#142 TP#143 TP#144 TP#145 TP#146 TP#147 TP#148 TP#149 TP#150 TP#151 TP#152 TP#153 TP#154 TP#155 TP#156 TP#157 TP#158 TP#159 TP#160 TP#161 TP#162 TP#163 TP#164 TP#165 TP#166 TP#167 TP#168 TP#169 TP#170 TP#171 TP#172 TP#173 TP#174 TP#175 TP#176 TP#177 TP#178 TP#179 TP#180 TP#181 TP#182 TP#183 TP#184 TP#185 TP#186 TP#187 TP#188 TP#189 TP#190 TP#191 TP#192 TP#193 TP#194 TP#195 TP#196 TP#197 TP#198 TP#199 TP#200 TP#201 TP#202 TP#203 TP#204 TP#205 TP#206 TP#207 TP#208 TP#209 TP#210 TP#211 TP#212 TP#213 TP#214 TP#215 TP#216 TP#217 TP#218 TP#219 TP#220 TP#221 TP#222 TP#223 TP#224 TP#225 TP#226 TP#227 TP#228 TP#229 TP#230 TP#231 TP#232 TP#233 TP#234 TP#235 TP#236 TP#237 TP#238 TP#239 TP#240 TP#241 TP#242 TP#243 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TP#673 TP#674 TP#675 TP#676 TP#677 TP#678 TP#679 TP#680 TP#681 TP#682 TP#683 TP#684 TP#685 TP#686 TP#687 TP#688 TP#689 TP#690 TP#691 TP#692 TP#693 TP#694 TP#695 TP#696 TP#697 TP#698 TP#699 TP#700 TP#701 TP#702 TP#703 TP#704 TP#705 TP#706 TP#707 TP#708 TP#709 TP#710 TP#711 TP#712 TP#713 TP#714 TP#715 TP#716 TP#717 TP#718 TP#719 TP#720 TP#721 TP#722 TP#723 TP#724 TP#725 TP#726 TP#727 TP#728 TP#729 TP#730 TP#731 TP#732 TP#733 TP#734 TP#735 TP#736 TP#737 TP#738 TP#739 TP#740 TP#741 TP#742 TP#743 TP#744 TP#745 TP#746 TP#747 TP#748 TP#749 TP#750 TP#751 TP#752 TP#753 TP#754 TP#755 TP#756 TP#757 TP#758 TP#759 TP#760 TP#761 TP#762 TP#763 TP#764 TP#765 TP#766 TP#767 TP#768 TP#769 TP#770 TP#771 TP#772 TP#773 TP#774 TP#775 TP#776 TP#777 TP#778 TP#779 TP#780 TP#781 TP#782 TP#783 TP#784 TP#785 TP#786 TP#787 TP#788 TP#789 TP#790 TP#791 TP#792 TP#793 TP#794 TP#795 TP#796 TP#797 TP#798 TP#799 TP#800 TP#801 TP#802 TP#803 TP#804 TP#805 TP#806 TP#807 TP#808 TP#809 TP#810 TP#811 TP#812 TP#813 TP#814 TP#815 TP#816 TP#817 TP#818 TP#819 TP#820 TP#821 TP#822 TP#823 TP#824 TP#825 TP#826 TP#827 TP#828 TP#829 TP#830 TP#831 TP#832 TP#833 TP#834 TP#835 TP#836 TP#837 TP#838 TP#839 TP#840 TP#841 TP#842 TP#843 TP#844 TP#845 TP#846 TP#847 TP#848 TP#849 TP#850 TP#851 TP#852 TP#853 TP#854 TP#855 TP#856 TP#857 TP#858 TP#859 TP#860 TP#861 TP#862 TP#863 TP#864 TP#865 TP#866 TP#867 TP#868 TP#869 TP#870 TP#871 TP#872 TP#873 TP#874 TP#875 TP#876 TP#877 TP#878 TP#879 TP#880 TP#881 TP#882 TP#883 TP#884 TP#885 TP#886 TP#887 TP#888 TP#889 TP#890 TP#891 TP#892 TP#893 TP#894 TP#895 TP#896 TP#897 TP#898 TP#899 TP#900 TP#901 TP#902 TP#903 TP#904 TP#905 TP#906 TP#907 TP#908 TP#909 TP#910 TP#911 TP#912 TP#913 TP#914 TP#915 TP#916 TP#917 TP#918 TP#919 TP#920 TP#921 TP#922 TP#923 TP#924 TP#925 TP#926 TP#927 TP#928 TP#929 TP#930 TP#931 TP#932 TP#933 TP#934 TP#935 TP#936 TP#937 TP#938 TP#939 TP#940 TP#941 TP#942 TP#943 TP#944 TP#945 TP#946 TP#947 TP#948 TP#949 TP#950 TP#951 TP#952 TP#953 TP#954 TP#955 TP#956 TP#957 TP#958 TP#959 TP#960 TP#961 TP#962 TP#963 TP#964 TP#965 TP#966 TP#967 TP#968 TP#969 TP#970 TP#971 TP#972 TP#973 TP#974 TP#975 TP#976 TP#977 TP#978 TP#979 TP#980 TP#981 TP#982 TP#983 TP#984 TP#985 TP#986 TP#987 TP#988 TP#989 TP#990 TP#991 TP#992 TP#993 TP#994 TP#995 TP#996 TP#997 TP#998 TP#999 TP#1000

EXISTING CONDITIONS DRAINAGE BASIN MAP

WIRE MILL ROAD

STAMFORD, CT

REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

COMM. NO.:	DATE:
6154	05/30/2023
	SCALE: 1"=100'

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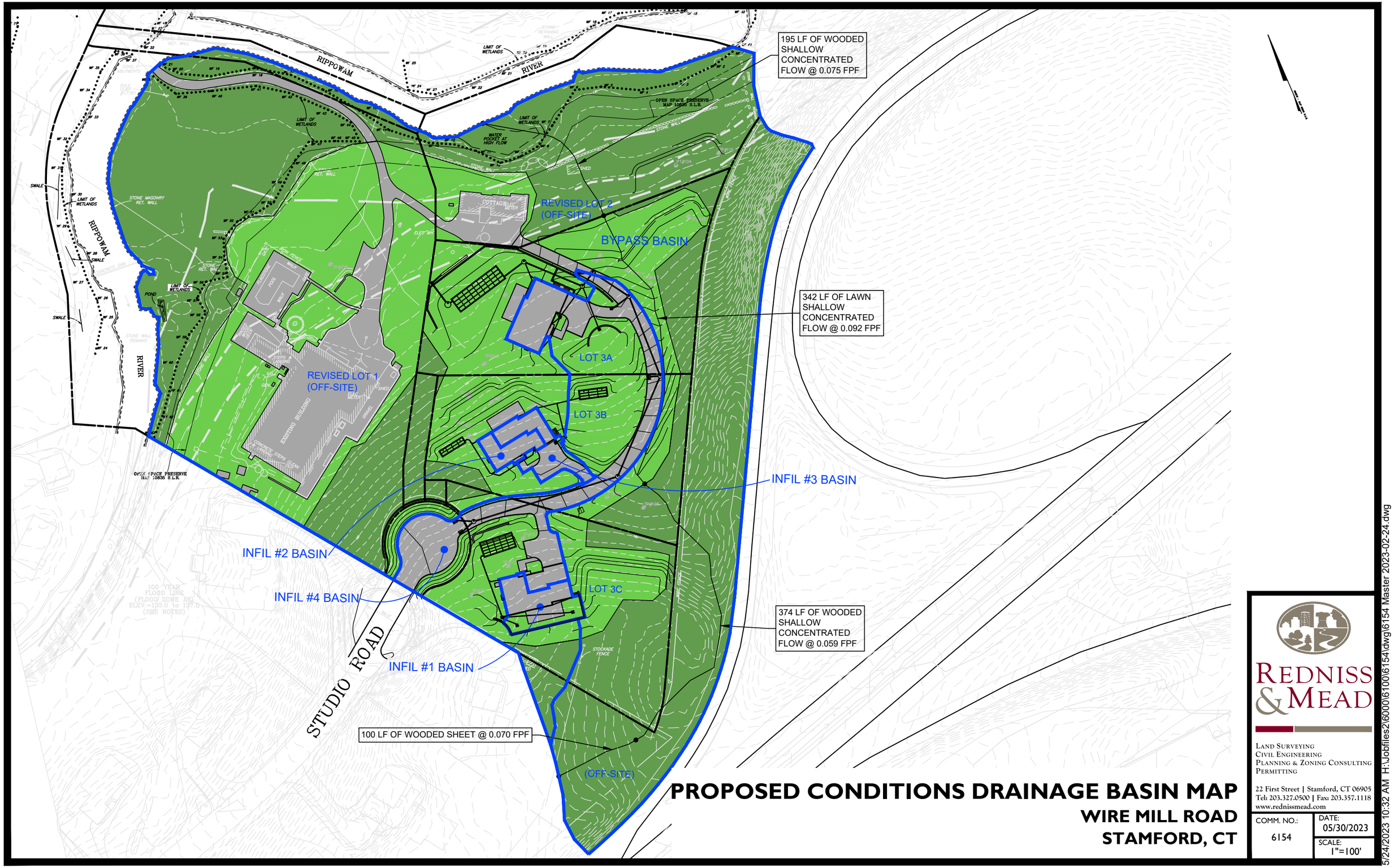

PROPOSED CONDITIONS DRAINAGE BASIN MAP

WIRE MILL ROAD
STAMFORD, CT

REDNISS & MEAD

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COMM. NO.:	DATE:
6154	05/30/2023
	SCALE: 1"=100'

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Appendix C

LID Review Map

LIMIT OF DISTURBANCE: 134,425 SF (3.08 AC)

NOTE: ALL SITE SOILS CLASSIFIED AS NRCS HSG B

LEGEND

- LIMIT OF DISTURBANCE
- TEST PIT LOCATION — TP#X
- WATERSHED TO BMP
- PROPOSED BMP
- STEEP SLOPES
- PROPOSED BUILDING
- IMPERVIOUS AREA
- PERVIOUS AREA
- FLOODPLAIN

SUMMARY TABLE

TOTAL SITE AREA	157,569 SF	TOTAL DISTURBED AREA	134,425 SF
PRE-DEVELOPMENT IMPERVIOUS	479 SF	POST-DEVELOPMENT IMPERVIOUS	28,932 SF
REQUIRED RETENTION/ TREATMENT VOLUME	2,826 CF	PROVIDED RETENTION/ TREATMENT VOLUME	3,823 CF
PRE-DEVELOPMENT DCIA	479 SF	POST-DEVELOPMENT DCIA	3,071 SF
DIFFERENCE IN DCIA		2,592 SF	

LOW IMPACT DEVELOPMENT MAP

WIRE MILL ROAD

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COMM. NO.: 6154
DATE: 05/30/2023
SCALE: 1"=100'

5/24/2023 10:33 AM H:\Jobfiles2\6000\6100\6154\dwg\6154 Master 2023-02-24.dwg

Appendix D

Water Quality Volume Calculations
BMP Volume Calculations
72 Hour Drawdown Calculations
Level Spreader Sizing Calculations

Water Quality Volume Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Individual Parcel WQV's

Lot 3A Site WQV

Area=	1.405	acres
Impervious Area=	0.237	acres[d]
I=	0.169	[a]
R=	0.202	[b]
WQV=	0.024	ac. ft. [c]

WQV=	**1,030.74**	**ft.^{3}**

Lot 3B Site WQV

Area=	1.103	acres
Impervious Area=	0.242	acres[d]
I=	0.220	[a]
R=	0.248	[b]
WQV=	0.023	ac. ft. [c]

WQV=	**992.03**	**ft.^{3}**

Lot 3C Site WQV

Area=	1.110	acres
Impervious Area=	0.184	acres[d]
I=	0.166	[a]
R=	0.200	[b]
WQV=	0.018	ac. ft. [c]

WQV=	**803.67**	**ft.^{3}**

WQV Required=	**2,826.44**	**ft.^{3}**
WQV Provided=	**3,822.00**	**ft.^{3}**

[a] I=Percent Impervious Coverage

[b] R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

[c] WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

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Water Quality Volume Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Infil#1 Tributary Area

Area=	0.103	acres
Impervious Area=	0.074	acres[d]
I=	0.718	[a]
R=	0.696	[b]
WQV=	0.006	ac. ft. [c]

WQV=	**260.03**	**ft.^{3}**
WQV PROVIDED=	**811.00**	**ft.^{3}**

[a] I=Percent Impervious Coverage

[b] R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

[c] WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

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Water Quality Volume Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Infil#2 Tributary Area

Area=	0.042	acres
Impervious Area=	0.042	acres[d]
I=	1.000	[a]
R=	0.950	[b]
WQV=	0.003	ac. ft. [c]

WQV=	**145.03**	**ft.^{3}**
WQV PROVIDED=	**290.00**	**ft.^{3}**

[a] I=Percent Impervious Coverage

[b] R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

[c] WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

Water Quality Volume Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Infil#3 Tributary Area

Area=	0.088	acres
Impervious Area=	0.079	acres[d]
I=	0.897	[a]
R=	0.858	[b]
WQV=	0.006	ac. ft. [c]

WQV=	**275.49**	**ft.^{3}**
WQV PROVIDED=	**534.00**	**ft.^{3}**

[a] I=Percent Impervious Coverage

[b] R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

[c] WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

Water Quality Volume Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Infil#4 Tributary Area

Area=	1.246	acres
Impervious Area=	0.510	acres[d]
I=	0.409	[a]
R=	0.418	[b]
WQV=	0.043	ac. ft. [c]

WQV=	**1,892.07**	**ft.^{3}**
WQV PROVIDED=	**2,187.00**	**ft.^{3}**

[a] I=Percent Impervious Coverage

[b] R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

[c] WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

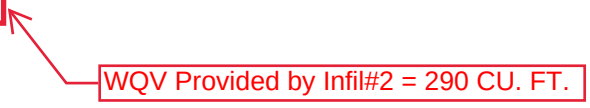
Stage-Area-Storage for Pond 1P: Infil#1

Elevation (feet)	Storage (cubic-feet)
180.85	0
180.90	15
180.95	29
181.00	44
181.05	59
181.10	73
181.15	88
181.20	103
181.25	117
181.30	132
181.35	147
181.40	176
181.45	206
181.50	235
181.55	263
181.60	292
181.65	320
181.70	348
181.75	376
181.80	404
181.85	431
181.90	457
181.95	484
182.00	509
182.05	534
182.10	557
182.15	580
182.20	601
182.25	620
182.30	637
182.35	652
182.40	667
182.45	682
182.50	696
182.55	711
182.60	726
182.65	740
182.70	755
182.75	770
182.80	784
182.85	799
182.90	811
182.95	811
183.00	811
183.05	811
183.10	811
183.15	811
183.20	811
183.25	811
183.30	811
183.35	811
183.40	811
183.45	811
183.50	811
183.55	811
183.60	811
183.65	811
183.70	811
183.75	811
183.80	811
183.85	811
183.90	811
183.95	811
184.00	811
184.05	812
184.10	813
184.15	815
184.20	817
184.25	821
184.30	825
184.35	830
184.40	835
184.45	842
184.50	849
184.55	857
184.60	865
184.65	875
184.70	885
184.75	896
184.80	907
184.85	920
184.90	933
184.95	947
185.00	**961**

WQV Provided by Infil#1 = 811 CU. FT.

Stage-Area-Storage for Pond 3P: Infil #2

Elevation (feet)	Storage (cubic-feet)
160.50	0
160.55	5
160.60	11
160.65	16
160.70	22
160.75	27
160.80	33
160.85	38
160.90	43
160.95	49
161.00	54
161.05	64
161.10	75
161.15	85
161.20	94
161.25	104
161.30	114
161.35	124
161.40	134
161.45	143
161.50	152
161.55	162
161.60	171
161.65	180
161.70	188
161.75	197
161.80	205
161.85	212
161.90	219
161.95	225
162.00	231
162.05	236
162.10	241
162.15	247
162.20	252
162.25	258
162.30	263
162.35	269
162.40	274
162.45	279
162.50	285
162.55	289
162.60	289
162.65	289
162.70	289
162.75	289
162.80	290
162.85	290
162.90	290
162.95	290
163.00	290
163.05	290
163.10	290
163.15	290
163.20	290
163.25	290
163.30	290
163.35	290
163.40	290
163.45	290
163.50	290
163.55	290
163.60	290
163.65	291
163.70	294
163.75	298
163.80	304
163.85	312
163.90	322
163.95	334
164.00	347
164.05	362
164.10	379
164.15	398
164.20	419
164.25	441
164.30	465
164.35	491
164.40	519
164.45	548
164.50	579
164.55	612
164.60	647
164.65	684
164.70	722
164.75	762
164.80	804
164.85	848
164.90	894
164.95	941
165.00	**990**



Stage-Area-Storage for Pond 4P: Infil #3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
156.90	0	159.50	533	162.10	1,096
156.95	8	159.55	533	162.15	1,134
157.00	15	159.60	533	162.20	1,174
157.05	23	159.65	533	162.25	1,214
157.10	30	159.70	533	162.30	1,256
157.15	38	159.75	533	162.35	1,299
157.20	45	159.80	533	162.40	1,344
157.25	53	159.85	533	162.45	1,389
157.30	60	159.90	533	162.50	1,436
157.35	68	159.95	533	162.55	1,484
157.40	75	160.00	533	162.60	1,534
157.45	90	160.05	533	162.65	1,584
157.50	104	160.10	533	162.70	1,636
157.55	119	160.15	534	162.75	1,689
157.60	133	160.20	534	162.80	1,744
157.65	147	160.25	534	162.85	1,799
157.70	161	160.30	534	162.90	1,856
157.75	175	160.35	534	162.95	1,914
157.80	189	160.40	534	163.00	**1,974**
157.85	203	160.45	534		
157.90	217	160.50	534		
157.95	231	160.55	534		
158.00	245	160.60	534		
158.05	258	160.65	534		
158.10	272	160.70	536		
158.15	285	160.75	539		
158.20	298	160.80	544		
158.25	311	160.85	549		
158.30	324	160.90	556		
158.35	337	160.95	564		
158.40	349	161.00	574		
158.45	361	161.05	584		
158.50	373	161.10	596		
158.55	385	161.15	609		
158.60	396	161.20	624		
158.65	407	161.25	639		
158.70	417	161.30	656		
158.75	427	161.35	674		
158.80	435	161.40	694		
158.85	444	161.45	714		
158.90	452	161.50	736		
158.95	459	161.55	759		
159.00	467	161.60	784		
159.05	474	161.65	809		
159.10	482	161.70	836		
159.15	489	161.75	864		
159.20	497	161.80	894		
159.25	504	161.85	924		
159.30	512	161.90	956		
159.35	520	161.95	989		
159.40	527	162.00	1,024		
159.45	533	162.05	1,059		

WQV Provided by Infil#3 = 534 CU. FT.

Stage-Area-Storage for Pond 2P: Infil#4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
139.25	0	141.85	2,246
139.30	25	141.90	2,273
139.35	51	141.95	2,299
139.40	76	142.00	2,324
139.45	101	142.05	2,349
139.50	127	142.10	2,375
139.55	152	142.15	2,400
139.60	177	142.20	2,425
139.65	202	142.25	2,451
139.70	228	142.30	2,476
139.75	253	142.35	2,501
139.80	308	142.40	2,527
139.85	363	142.45	**2,552**
139.90	417		
139.95	471		
140.00	525		
140.05	579		
140.10	632		
140.15	686		
140.20	739		
140.25	792		
140.30	845		
140.35	897		
140.40	950		
140.45	1,001		
140.50	1,053		
140.55	1,104		
140.60	1,155		
140.65	1,206		
140.70	1,256		
140.75	1,306		
140.80	1,356		
140.85	1,406		
140.90	1,455		
140.95	1,504		
141.00	1,552		
141.05	1,600		
141.10	1,647		
141.15	1,694		
141.20	1,740		
141.25	1,785		
141.30	1,830		
141.35	1,874		
141.40	1,917		
141.45	1,960		
141.50	2,001		
141.55	2,041		
141.60	2,080		
141.65	2,118		
141.70	2,153		
141.75	2,187		
141.80	2,218		

72-Hour Draw Down Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Infiltration Draw Down Calculation

Infiltration #1		
Surface Area of Infiltration System (SA)	733	ft^2
Volume of Storage of Infiltration System (VS)	811.0	ft^3
Infiltration Rate (IR)	0.52	in/hr[c]
Theoretical Water Column Height	13.28	in[a]
Time of Draw Down	**25.53**	**hr**[b]

Infiltration #2		
Surface Area of Infiltration System (SA)	271	ft^2
Volume of Storage of Infiltration System (VS)	290.0	ft^3
Infiltration Rate (IR)	0.52	in/hr[c]
Theoretical Water Column Height	12.84	in[a]
Time of Draw Down	**24.69**	**hr**[b]

Infiltration #3		
Surface Area of Infiltration System (SA)	377	ft^2
Volume of Storage of Infiltration System (VS)	534.0	ft^3
Infiltration Rate (IR)	0.52	in/hr[c]
Theoretical Water Column Height	17.00	in[a]
Time of Draw Down	**32.69**	**hr**[b]

Infiltration #4		
Surface Area of Infiltration System (SA)	1,265	ft^2
Volume of Storage of Infiltration System (VS)	2,187.0	ft^3
Infiltration Rate (IR)	0.52	in/hr[c]
Theoretical Water Column Height	20.75	in[a]
Time of Draw Down	**39.90**	**hr**[b]

[a] Theoretical Water Column Height (WCH) = VS/SA*12

[b] Time of Draw Down = WCH/IR

[c] Infiltration Rate (IR) taken from the City of Stamford Stormwater Drainage Manual Table 5-1 for NRCS HSG-B Loam.

Level Spreader Calculations

Project: *503 Wire Mill Road*	**Project #:** *6154*	**Date:** *5/30/2023*
Location: *Stamford, CT*	**By:** *VJH*	**Checked:** *TM*

Infil#4 Discharge

Level Spreader LS#1		
Q =	**9.10 cfs**	[a]

Assumed V_{MAX} =	2.0 ft/sec	[b]
y =	0.124 ft	[c]
H =	0.186 ft	[d]
L=	4.023 Q	[e]

Length Required	36.61 ft

Length Provided	**38.00 ft**

[a] Flow derived from Runoff Volume Calculation Worksheet

[b] V_{MAX} = Maximum velocity of water over weir (ft/sec)

[c] $y = V^2/g$

[d] H=3/2y

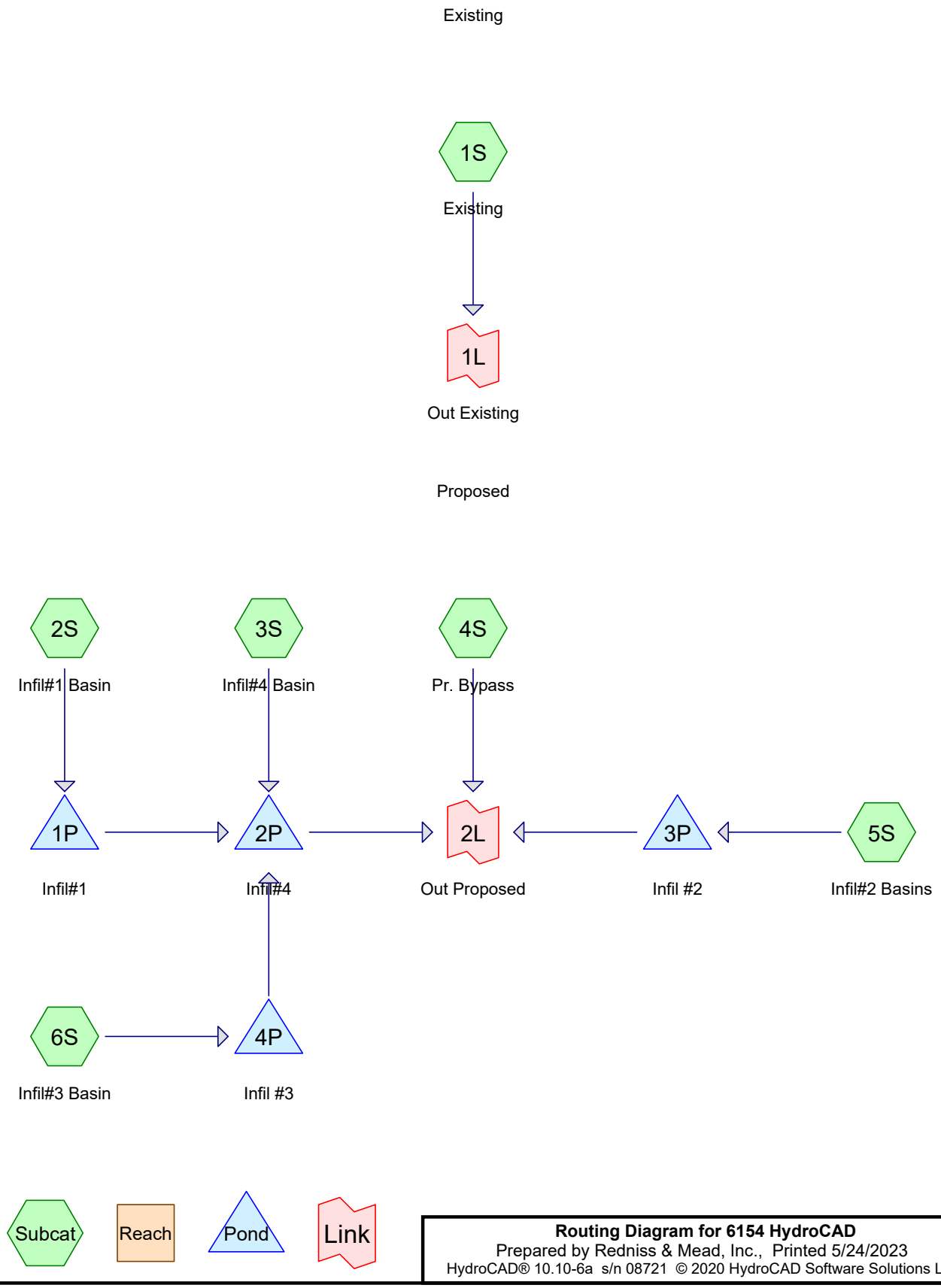
[e] Derived from Broadcrested Weir Equation: $Q = 3.09LH^{3/2}$

y = Depth of water over weir (ft)

H = Head (ft)

Appendix E

HydroCAD Report



Routing Diagram for 6154 HydroCAD
Prepared by Redniss & Mead, Inc., Printed 5/24/2023
HydroCAD® 10.10-6a s/n 08721 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type III 24-hr		Default	24.00	1	3.05	2
2	2-Year	Type III 24-hr		Default	24.00	1	3.67	2
3	5-Year	Type III 24-hr		Default	24.00	1	4.68	2
4	10-Year	Type III 24-hr		Default	24.00	1	5.52	2
5	25-Year	Type III 24-hr		Default	24.00	1	6.68	2
6	50-Year	Type III 24-hr		Default	24.00	1	7.55	2
7	100-Year	Type III 24-hr		Default	24.00	1	8.47	2

Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>0.47"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=2.59 cfs 17,810 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>1.82"
Tc=5.0 min CN=87.55 Runoff=0.23 cfs 682 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>1.05"
Tc=5.0 min CN=76.07 Runoff=1.53 cfs 4,754 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>0.50"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=2.55 cfs 16,537 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>2.82"
Tc=5.0 min CN=98.00 Runoff=0.13 cfs 430 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>2.42"
Tc=5.0 min CN=94.20 Runoff=0.25 cfs 776 cf

Pond 1P: Infil#1 Peak Elev=182.45' Storage=682 cf Inflow=0.23 cfs 682 cf
Outflow=0.00 cfs 0 cf

Pond 2P: Infil#4 Peak Elev=141.81' Storage=2,226 cf Inflow=1.53 cfs 4,997 cf
Outflow=0.23 cfs 2,803 cf

Pond 3P: Infil #2 Peak Elev=163.74' Storage=298 cf Inflow=0.13 cfs 430 cf
Outflow=0.01 cfs 140 cf

Pond 4P: Infil #3 Peak Elev=160.86' Storage=551 cf Inflow=0.25 cfs 776 cf
Outflow=0.01 cfs 242 cf

Link 1L: Out Existing Inflow=2.59 cfs 17,810 cf
Primary=2.59 cfs 17,810 cf

Link 2L: Out Proposed Inflow=2.55 cfs 19,480 cf
Primary=2.55 cfs 19,480 cf

Total Runoff Area = 915,699 sf Runoff Volume = 40,989 cf Average Runoff Depth = 0.54"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>0.76"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=4.88 cfs 29,023 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>2.38"
Tc=5.0 min CN=87.55 Runoff=0.30 cfs 890 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>1.49"
Tc=5.0 min CN=76.07 Runoff=2.22 cfs 6,751 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>0.81"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=4.67 cfs 26,560 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>3.43"
Tc=5.0 min CN=98.00 Runoff=0.16 cfs 524 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>3.02"
Tc=5.0 min CN=94.20 Runoff=0.31 cfs 970 cf

Pond 1P: Infil#1 Peak Elev=184.01' Storage=811 cf Inflow=0.30 cfs 890 cf
Outflow=0.01 cfs 79 cf

Pond 2P: Infil#4 Peak Elev=141.93' Storage=2,291 cf Inflow=2.22 cfs 7,265 cf
Outflow=1.11 cfs 5,070 cf

Pond 3P: Infil #2 Peak Elev=163.97' Storage=339 cf Inflow=0.16 cfs 524 cf
Outflow=0.02 cfs 234 cf

Pond 4P: Infil #3 Peak Elev=161.22' Storage=631 cf Inflow=0.31 cfs 970 cf
Outflow=0.02 cfs 436 cf

Link 1L: Out Existing Inflow=4.88 cfs 29,023 cf
Primary=4.88 cfs 29,023 cf

Link 2L: Out Proposed Inflow=5.57 cfs 31,864 cf
Primary=5.57 cfs 31,864 cf

Total Runoff Area = 915,699 sf Runoff Volume = 64,718 cf Average Runoff Depth = 0.85"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>1.33"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=9.45 cfs 50,820 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>3.32"
Tc=5.0 min CN=87.55 Runoff=0.41 cfs 1,240 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>2.28"
Tc=5.0 min CN=76.07 Runoff=3.45 cfs 10,299 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>1.40"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=8.84 cfs 45,876 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>4.44"
Tc=5.0 min CN=98.00 Runoff=0.20 cfs 678 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>4.01"
Tc=5.0 min CN=94.20 Runoff=0.40 cfs 1,289 cf

Pond 1P: Infil#1 Peak Elev=184.04' Storage=812 cf Inflow=0.41 cfs 1,240 cf
Outflow=0.04 cfs 429 cf

Pond 2P: Infil#4 Peak Elev=142.13' Storage=2,390 cf Inflow=3.46 cfs 11,483 cf
Outflow=3.41 cfs 9,284 cf

Pond 3P: Infil #2 Peak Elev=164.23' Storage=431 cf Inflow=0.20 cfs 678 cf
Outflow=0.02 cfs 388 cf

Pond 4P: Infil #3 Peak Elev=161.69' Storage=831 cf Inflow=0.40 cfs 1,289 cf
Outflow=0.03 cfs 755 cf

Link 1L: Out Existing Inflow=9.45 cfs 50,820 cf
Primary=9.45 cfs 50,820 cf

Link 2L: Out Proposed Inflow=10.25 cfs 55,548 cf
Primary=10.25 cfs 55,548 cf

Total Runoff Area = 915,699 sf Runoff Volume = 110,202 cf Average Runoff Depth = 1.44"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>1.87"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=13.82 cfs 71,469 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>4.11"
Tc=5.0 min CN=87.55 Runoff=0.50 cfs 1,537 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>2.97"
Tc=5.0 min CN=76.07 Runoff=4.51 cfs 13,445 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>1.95"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=12.78 cfs 64,060 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>5.28"
Tc=5.0 min CN=98.00 Runoff=0.24 cfs 806 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>4.84"
Tc=5.0 min CN=94.20 Runoff=0.48 cfs 1,555 cf

Pond 1P: Infil#1 Peak Elev=184.11' Storage=813 cf Inflow=0.50 cfs 1,537 cf
Outflow=0.20 cfs 726 cf

Pond 2P: Infil#4 Peak Elev=142.20' Storage=2,426 cf Inflow=4.54 cfs 15,192 cf
Outflow=4.50 cfs 12,990 cf

Pond 3P: Infil #2 Peak Elev=164.39' Storage=510 cf Inflow=0.24 cfs 806 cf
Outflow=0.02 cfs 516 cf

Pond 4P: Infil #3 Peak Elev=161.98' Storage=1,011 cf Inflow=0.48 cfs 1,555 cf
Outflow=0.03 cfs 1,021 cf

Link 1L: Out Existing Inflow=13.82 cfs 71,469 cf
Primary=13.82 cfs 71,469 cf

Link 2L: Out Proposed Inflow=14.76 cfs 77,566 cf
Primary=14.76 cfs 77,566 cf

Total Runoff Area = 915,699 sf Runoff Volume = 152,873 cf Average Runoff Depth = 2.00"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>2.69"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=20.41 cfs 102,746 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>5.23"
Tc=5.0 min CN=87.55 Runoff=0.63 cfs 1,954 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>3.98"
Tc=5.0 min CN=76.07 Runoff=6.03 cfs 17,985 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>2.79"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=18.67 cfs 91,478 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>6.44"
Tc=5.0 min CN=98.00 Runoff=0.29 cfs 983 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>5.99"
Tc=5.0 min CN=94.20 Runoff=0.59 cfs 1,924 cf

Pond 1P: Infil#1 Peak Elev=184.30' Storage=825 cf Inflow=0.63 cfs 1,954 cf
Outflow=0.52 cfs 1,142 cf

Pond 2P: Infil#4 Peak Elev=142.30' Storage=2,475 cf Inflow=6.25 cfs 20,417 cf
Outflow=6.16 cfs 18,208 cf

Pond 3P: Infil #2 Peak Elev=164.56' Storage=620 cf Inflow=0.29 cfs 983 cf
Outflow=0.03 cfs 692 cf

Pond 4P: Infil #3 Peak Elev=162.31' Storage=1,267 cf Inflow=0.59 cfs 1,924 cf
Outflow=0.03 cfs 1,290 cf

Link 1L: Out Existing Inflow=20.41 cfs 102,746 cf
Primary=20.41 cfs 102,746 cf

Link 2L: Out Proposed Inflow=21.26 cfs 110,379 cf
Primary=21.26 cfs 110,379 cf

Total Runoff Area = 915,699 sf Runoff Volume = 217,069 cf Average Runoff Depth = 2.84"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Summary for Subcatchment 1S: Existing

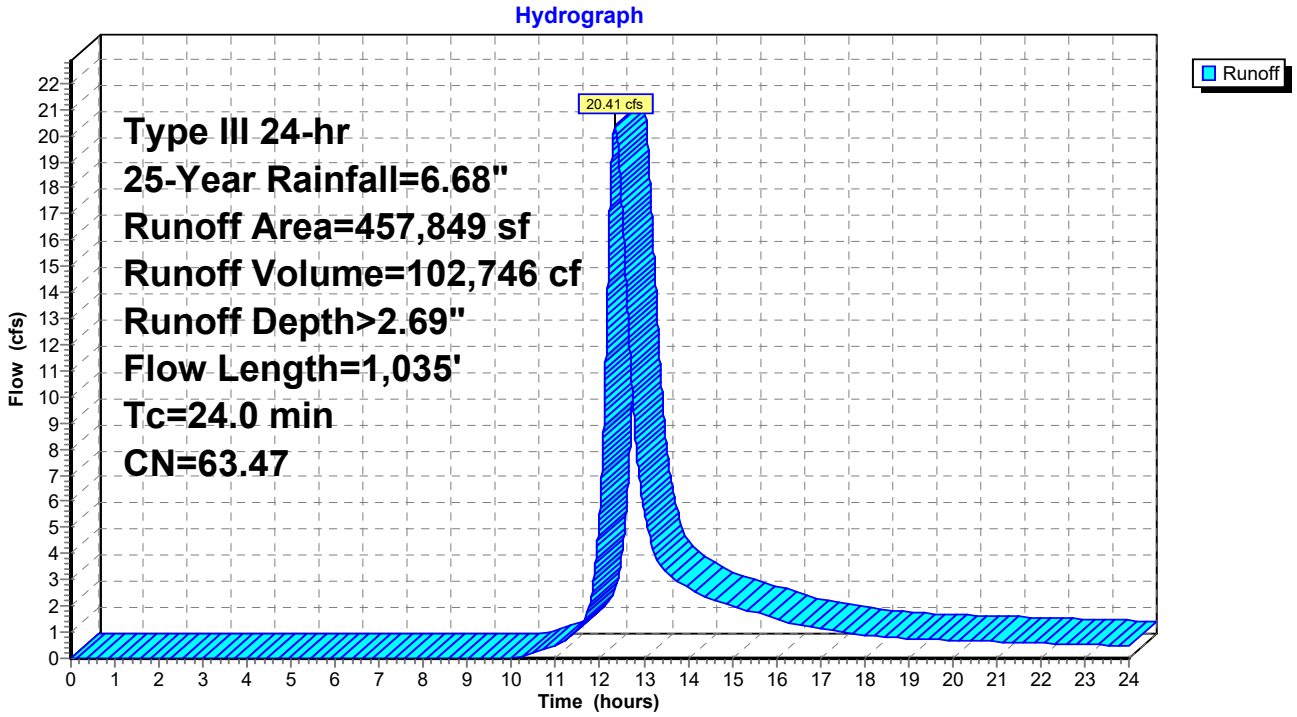
Runoff = 20.41 cfs @ 12.35 hrs, Volume= 102,746 cf, Depth> 2.69"
Routed to Link 1L : Out Existing

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Type III 24-hr 25-Year Rainfall=6.68"

	Area (sf)	CN	Description
*	39,547	98.00	Impervious, Off-site
*	479	98.00	Impervious, Lot 3A
*	60,288	61.00	>75% Grass cover, Good, HSG B, Off-site
*	6,429	61.00	>75% Grass cover, Good, HSG B, Lot 3A
*	200,445	60.00	Woods, Fair, HSG B, Off-site
*	54,295	60.00	Woods, Fair, HSG B, Lot 3A
*	48,026	60.00	Woods, Fair, HSG B, Lot 3B
*	48,340	60.00	Woods, Fair, HSG B, Lot 3C
	457,849	63.47	Weighted Average
	417,823		91.26% Pervious Area
	40,026		8.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0700	0.13		**Sheet Flow, 100 LF of Wooded Sheet** Woods: Light underbrush n= 0.400 P2= 3.45"
11.5	935	0.0740	1.36		**Shallow Concentrated Flow, 935 LF Wooded SCF** Woodland Kv= 5.0 fps
24.0	1,035	Total			

Subcatchment 1S: Existing



Summary for Subcatchment 2S: Infil#1 Basin

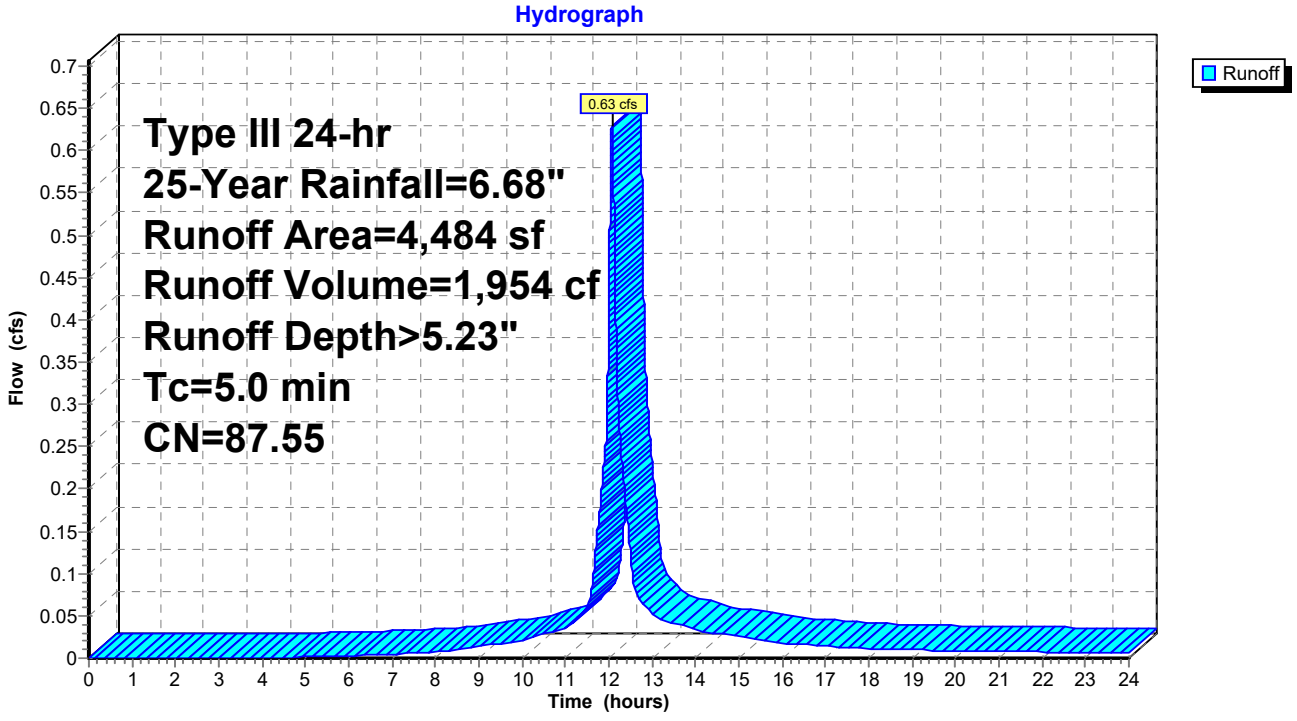
Runoff = 0.63 cfs @ 12.07 hrs, Volume= 1,954 cf, Depth> 5.23"
Routed to Pond 1P : Infil#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Type III 24-hr 25-Year Rainfall=6.68"

	Area (sf)	CN	Description
*	3,218	98.00	Impervious, Lot 3C
*	1,266	61.00	>75% Grass cover, Good, HSG B, Lot 3C
	4,484	87.55	Weighted Average
	1,266		28.23% Pervious Area
	3,218		71.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Infil#1 Basin



Summary for Subcatchment 3S: Infil#4 Basin

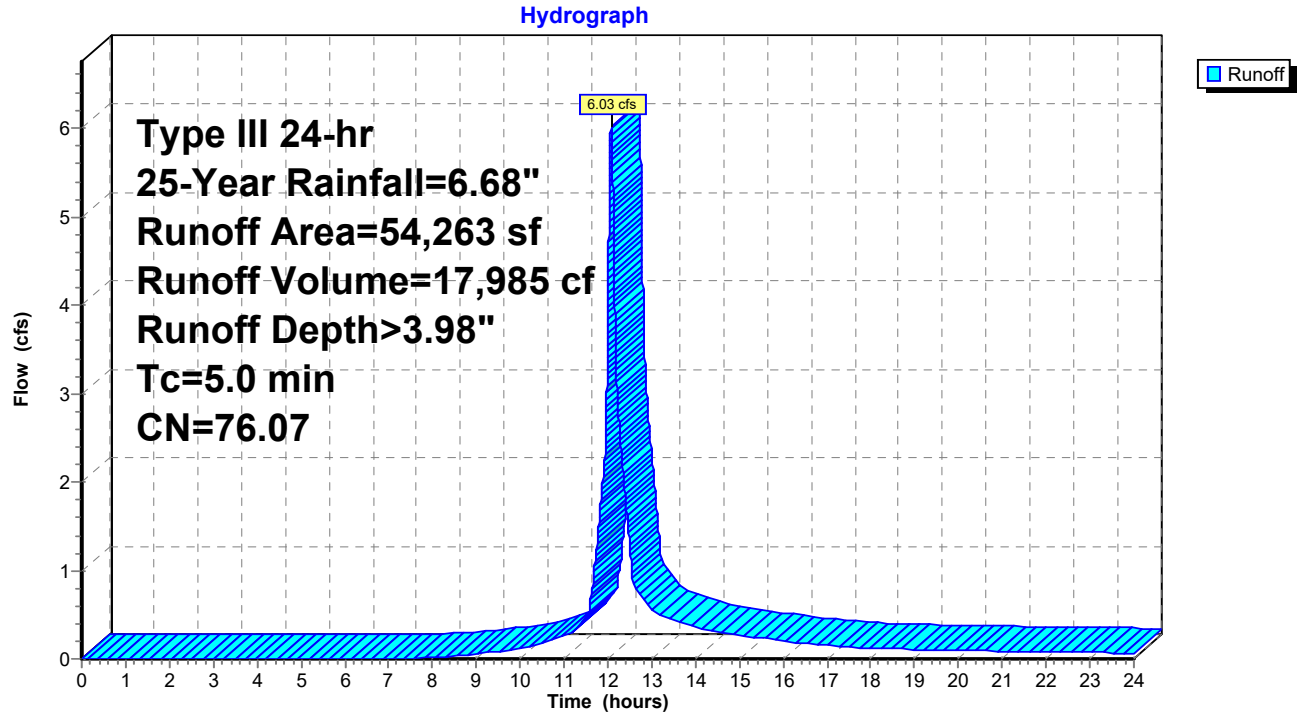
Runoff = 6.03 cfs @ 12.07 hrs, Volume= 17,985 cf, Depth> 3.98"
Routed to Pond 2P : Infil#4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Type III 24-hr 25-Year Rainfall=6.68"

	Area (sf)	CN	Description
*	4,861	98.00	Impervious, Off-site
*	8,103	98.00	Impervious, Lot 3A
*	4,499	98.00	Impervious, Lot 3B
*	4,750	98.00	Impervious, Lot 3C
*	1,396	61.00	>75% Grass cover, Good, HSG B, Off-site
*	6,466	61.00	>75% Grass cover, Good, HSG B, Lot 3A
*	8,800	61.00	>75% Grass cover, Good, HSG B, Lot 3B
*	11,111	61.00	>75% Grass cover, Good, HSG B, Lot 3C
*	2,183	60.00	Woods, Fair, HSG B, Off-site
*	2,094	60.00	Woods, Fair, HSG B, Lot 3C
	54,263	76.07	Weighted Average
	32,050		59.06% Pervious Area
	22,213		40.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Infil#4 Basin



Summary for Subcatchment 4S: Pr. Bypass

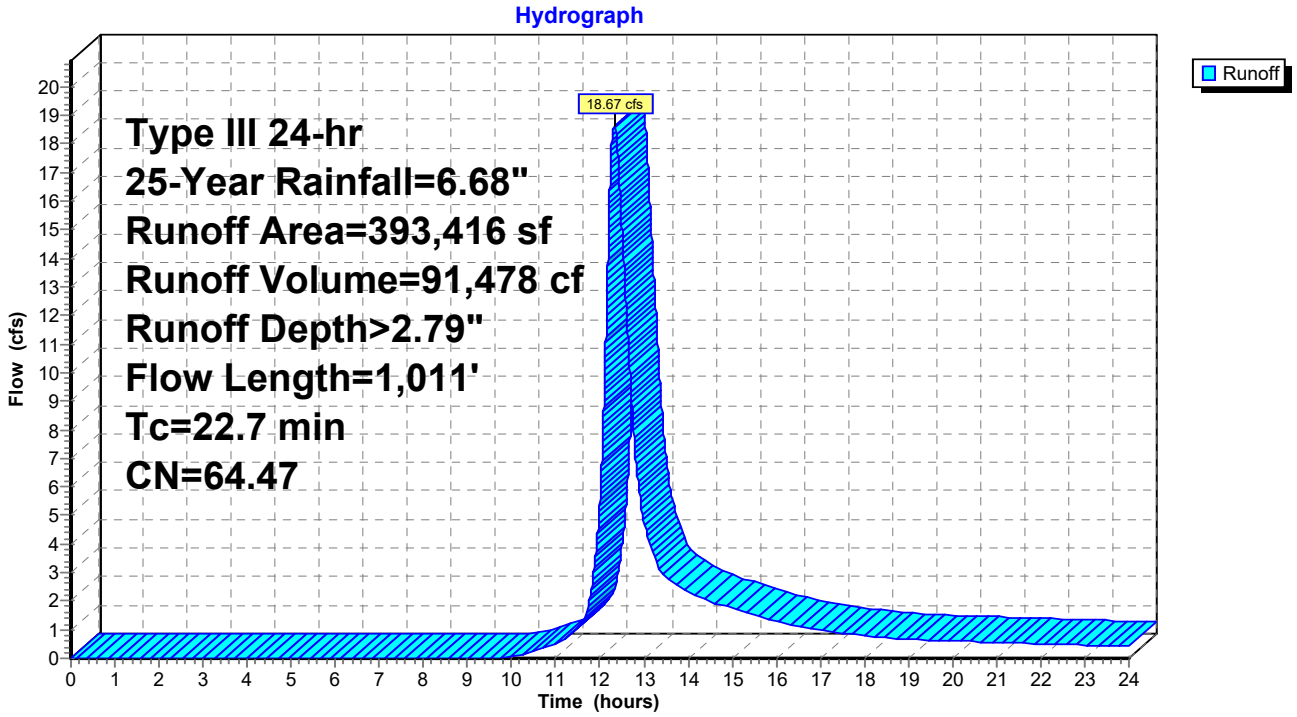
Runoff = 18.67 cfs @ 12.33 hrs, Volume= 91,478 cf, Depth> 2.79"
Routed to Link 2L : Out Proposed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Type III 24-hr 25-Year Rainfall=6.68"

	Area (sf)	CN	Description
*	39,939	98.00	Impervious, Off-site
*	2,240	98.00	Impervious, Lot 3A
*	769	98.00	Impervious, Lot 3B
*	62	98.00	Impervious, Lot 3C
*	62,386	61.00	>75% Grass cover, Good, HSG B, Off-site
*	32,324	61.00	>75% Grass cover, Good, HSG B, Lot 3A
*	18,747	61.00	>75% Grass cover, Good, HSG B, Lot 3B
*	10,352	61.00	>75% Grass cover, Good, HSG B, Lot 3C
*	189,516	60.00	Woods, Fair, HSG B, Off-site
*	12,070	60.00	Woods, Fair, HSG B, Lot 3A
*	9,524	60.00	Woods, Fair, HSG B, Lot 3B
*	15,487	60.00	Woods, Fair, HSG B, Lot 3C
	393,416	64.47	Weighted Average
	350,406		89.07% Pervious Area
	43,010		10.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0700	0.13		**Sheet Flow, 100 LF of Wooded Sheet** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	374	0.0590	1.21		**Shallow Concentrated Flow, 374 LF Wooded SCF** Woodland Kv= 5.0 fps
2.7	342	0.0920	2.12		**Shallow Concentrated Flow, 342 LF Lawn SCF** Short Grass Pasture Kv= 7.0 fps
2.4	195	0.0750	1.37		**Shallow Concentrated Flow, 195 LF Wooded SCF** Woodland Kv= 5.0 fps
22.7	1,011	Total			

Subcatchment 4S: Pr. Bypass



Summary for Subcatchment 5S: Infil#2 Basins

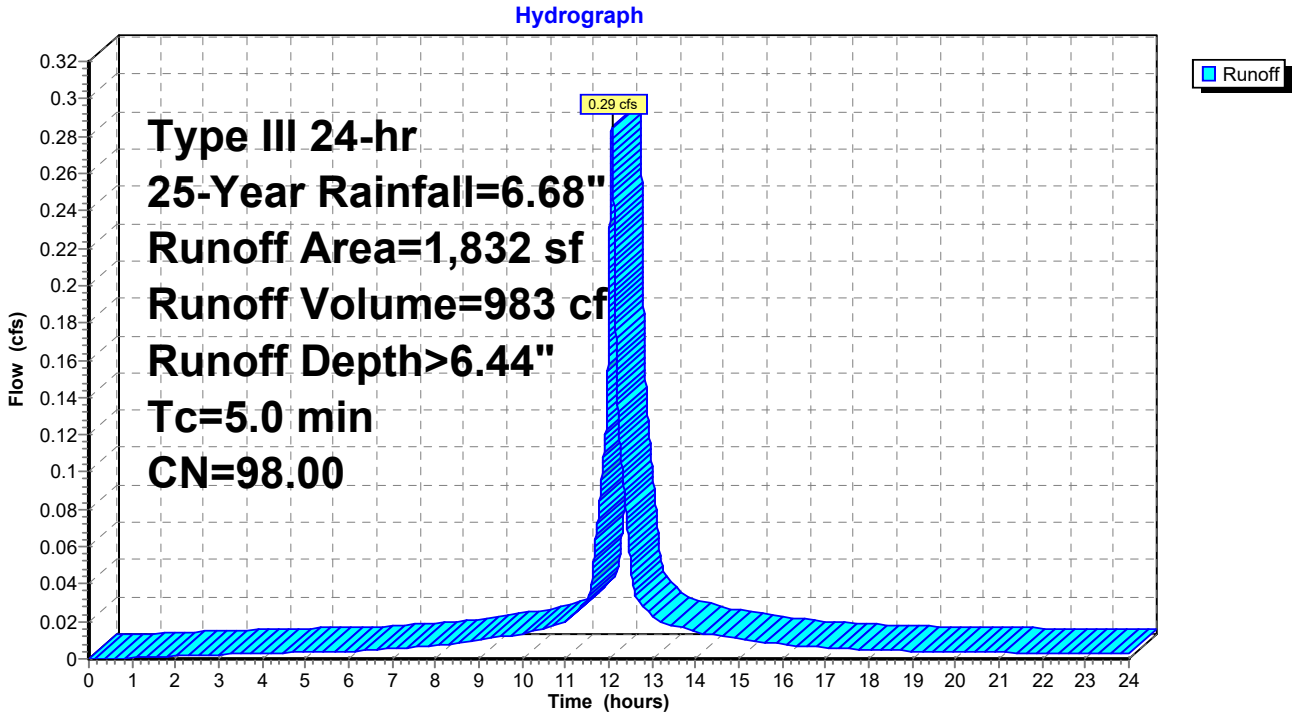
Runoff = 0.29 cfs @ 12.07 hrs, Volume= 983 cf, Depth> 6.44"
Routed to Pond 3P : Infil #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Type III 24-hr 25-Year Rainfall=6.68"

	Area (sf)	CN	Description
*	1,832	98.00	Impervious, Lot 3B
	1,832		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Infil#2 Basins



Summary for Subcatchment 6S: Infil#3 Basin

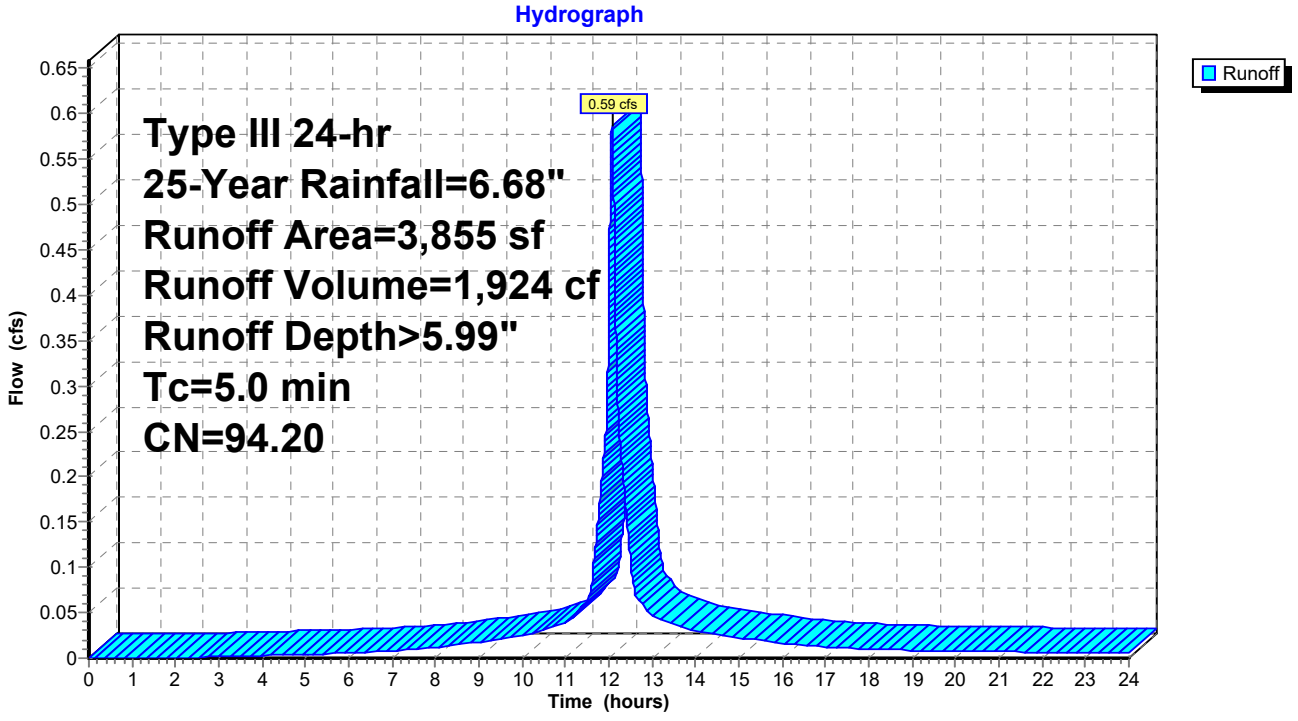
Runoff = 0.59 cfs @ 12.07 hrs, Volume= 1,924 cf, Depth> 5.99"
Routed to Pond 4P : Infil #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Type III 24-hr 25-Year Rainfall=6.68"

	Area (sf)	CN	Description
*	3,459	98.00	Impervious, Lot 3B
*	396	61.00	>75% Grass cover, Good, HSG B, Lot 3B
	3,855	94.20	Weighted Average
	396		10.27% Pervious Area
	3,459		89.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Infil#3 Basin



Summary for Pond 1P: Infil#1

Inflow Area = 4,484 sf, 71.77% Impervious, Inflow Depth > 5.23" for 25-Year event
Inflow = 0.63 cfs @ 12.07 hrs, Volume= 1,954 cf
Outflow = 0.52 cfs @ 12.12 hrs, Volume= 1,142 cf, Atten= 18%, Lag= 3.1 min
Primary = 0.52 cfs @ 12.12 hrs, Volume= 1,142 cf
Routed to Pond 2P : Infil#4

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Peak Elev= 184.30' @ 12.12 hrs Surf.Area= 823 sf Storage= 825 cf

Plug-Flow detention time= 192.4 min calculated for 1,142 cf (58% of inflow)
Center-of-Mass det. time= 88.2 min (876.0 - 787.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	180.85'	457 cf	**18.33'W x 40.00'L x 2.04'H Field A** 1,497 cf Overall - 354 cf Embedded = 1,144 cf x 40.0% Voids
#2A	181.35'	354 cf	**Cultec C-100HD** x 25 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 5 rows
#3	182.88'	0 cf	**0.50'D x 1.12'H Vertical Pipe Emitter**
#4	184.00'	150 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		961 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
184.00	0	0	0
185.00	300	150	150

Device	Routing	Invert	Outlet Devices
#1	Primary	184.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.52 cfs @ 12.12 hrs HW=184.30' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.52 cfs @ 2.62 fps)

Pond 1P: Infil#1 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor®100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 5 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

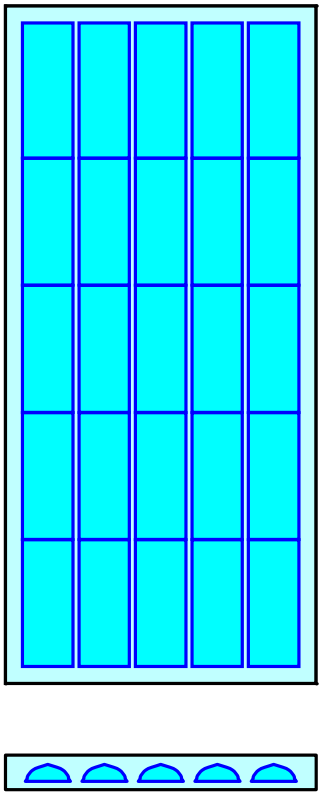
5 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 38.00' Row Length +12.0" End Stone x 2 = 40.00' Base Length
5 Rows x 36.0" Wide + 4.0" Spacing x 4 + 12.0" Side Stone x 2 = 18.33' Base Width
6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

25 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 5 Rows = 353.7 cf Chamber Storage

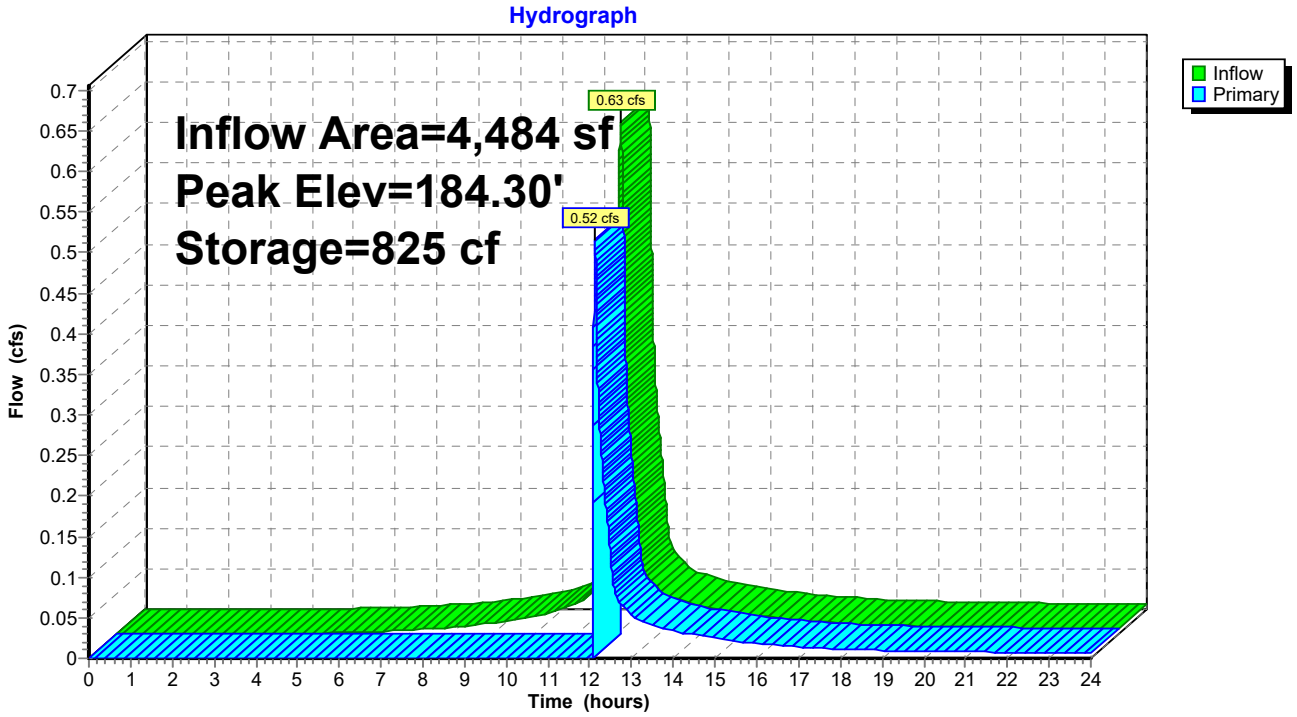
1,497.2 cf Field - 353.7 cf Chambers = 1,143.5 cf Stone x 40.0% Voids = 457.4 cf Stone Storage

Chamber Storage + Stone Storage = 811.1 cf = 0.019 af
Overall Storage Efficiency = 54.2%
Overall System Size = 40.00' x 18.33' x 2.04'

25 Chambers
55.5 cy Field
42.4 cy Stone



Pond 1P: Infil#1



Stage-Area-Storage for Pond 1P: Infil#1

Elevation (feet)	Storage (cubic-feet)
180.85	0
180.90	15
180.95	29
181.00	44
181.05	59
181.10	73
181.15	88
181.20	103
181.25	117
181.30	132
181.35	147
181.40	176
181.45	206
181.50	235
181.55	263
181.60	292
181.65	320
181.70	348
181.75	376
181.80	404
181.85	431
181.90	457
181.95	484
182.00	509
182.05	534
182.10	557
182.15	580
182.20	601
182.25	620
182.30	637
182.35	652
182.40	667
182.45	682
182.50	696
182.55	711
182.60	726
182.65	740
182.70	755
182.75	770
182.80	784
182.85	799
182.90	811
182.95	811
183.00	811
183.05	811
183.10	811
183.15	811
183.20	811
183.25	811
183.30	811
183.35	811
183.40	811
183.45	811
183.50	811
183.55	811
183.60	811
183.65	811
183.70	811
183.75	811
183.80	811
183.85	811
183.90	811
183.95	811
184.00	811
184.05	812
184.10	813
184.15	815
184.20	817
184.25	821
184.30	825
184.35	830
184.40	835
184.45	842
184.50	849
184.55	857
184.60	865
184.65	875
184.70	885
184.75	896
184.80	907
184.85	920
184.90	933
184.95	947
185.00	**961**

Summary for Pond 2P: Infil#4

Inflow Area = 62,602 sf, 46.15% Impervious, Inflow Depth > 3.91" for 25-Year event
Inflow = 6.25 cfs @ 12.10 hrs, Volume= 20,417 cf
Outflow = 6.16 cfs @ 12.10 hrs, Volume= 18,208 cf, Atten= 2%, Lag= 0.4 min
Primary = 6.16 cfs @ 12.10 hrs, Volume= 18,208 cf
Routed to Link 2L : Out Proposed

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Peak Elev= 142.30' @ 12.10 hrs Surf.Area= 1,265 sf Storage= 2,475 cf

Plug-Flow detention time= 77.3 min calculated for 18,208 cf (89% of inflow)
Center-of-Mass det. time= 24.3 min (860.1 - 835.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	139.25'	1,002 cf	**19.17'W x 66.00'L x 3.21'H Field A** 4,059 cf Overall - 1,554 cf Embedded = 2,504 cf x 40.0% Voids
#2A	139.75'	1,554 cf	**Cultec R-280HD** x 36 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 4 rows
		2,556 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	141.75'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=6.16 cfs @ 12.10 hrs HW=142.30' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 6.16 cfs @ 2.25 fps)

Pond 2P: Infil#4 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger® 280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 4 rows

47.0" Wide + 6.0" Spacing = 53.0" C-C Row Spacing

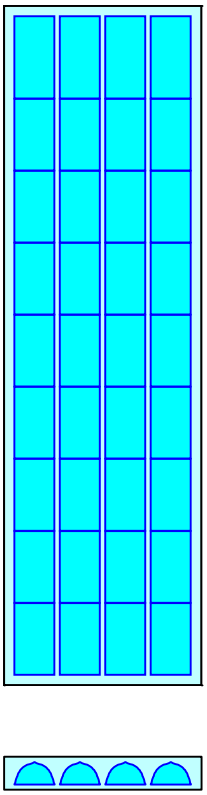
9 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 64.00' Row Length +12.0" End Stone x 2 = 66.00' Base Length
4 Rows x 47.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 19.17' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

36 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 4 Rows = 1,554.4 cf Chamber Storage

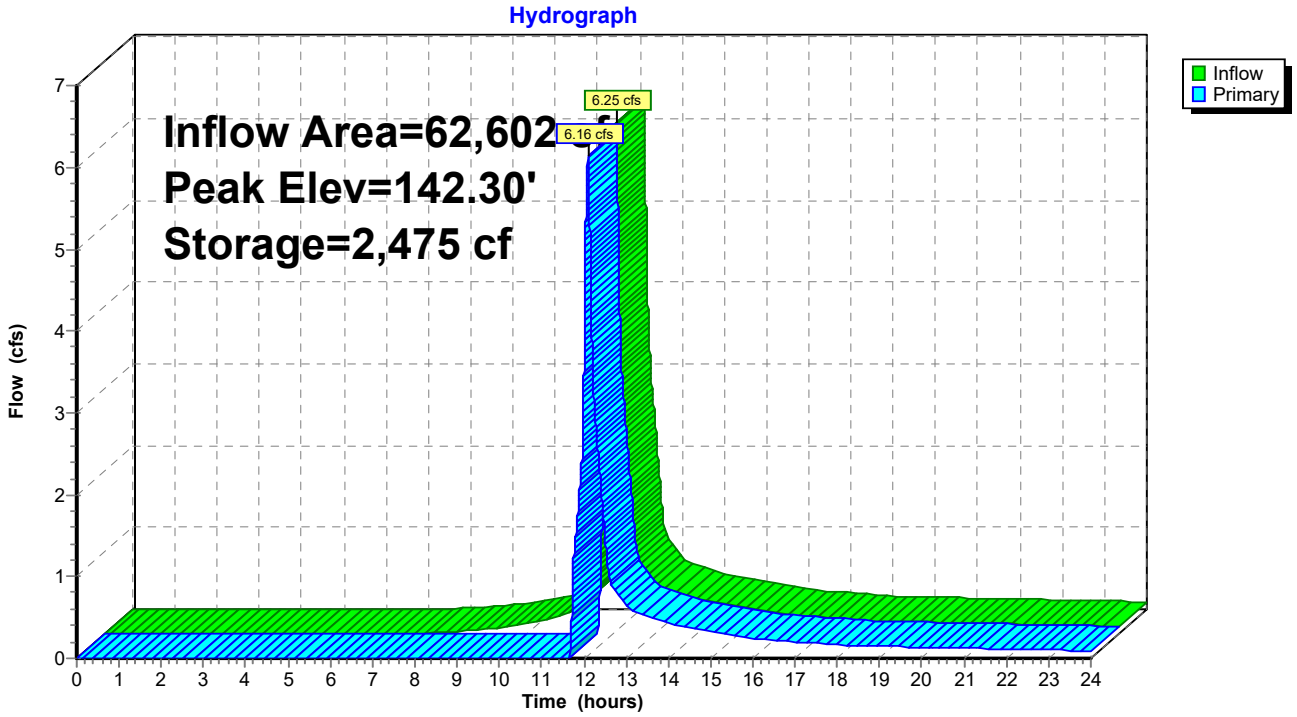
4,058.5 cf Field - 1,554.4 cf Chambers = 2,504.2 cf Stone x 40.0% Voids = 1,001.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,556.0 cf = 0.059 af
Overall Storage Efficiency = 63.0%
Overall System Size = 66.00' x 19.17' x 3.21'

36 Chambers
150.3 cy Field
92.7 cy Stone



Pond 2P: Infil#4



Stage-Area-Storage for Pond 2P: Infil#4

Elevation (feet)	Storage (cubic-feet)
139.25	0
139.30	25
139.35	51
139.40	76
139.45	101
139.50	127
139.55	152
139.60	177
139.65	202
139.70	228
139.75	253
139.80	308
139.85	363
139.90	417
139.95	471
140.00	525
140.05	579
140.10	632
140.15	686
140.20	739
140.25	792
140.30	845
140.35	897
140.40	950
140.45	1,001
140.50	1,053
140.55	1,104
140.60	1,155
140.65	1,206
140.70	1,256
140.75	1,306
140.80	1,356
140.85	1,406
140.90	1,455
140.95	1,504
141.00	1,552
141.05	1,600
141.10	1,647
141.15	1,694
141.20	1,740
141.25	1,785
141.30	1,830
141.35	1,874
141.40	1,917
141.45	1,960
141.50	2,001
141.55	2,041
141.60	2,080
141.65	2,118
141.70	2,153
141.75	2,187
141.80	2,218
141.85	2,246
141.90	2,273
141.95	2,299
142.00	2,324
142.05	2,349
142.10	2,375
142.15	2,400
142.20	2,425
142.25	2,451
142.30	2,476
142.35	2,501
142.40	2,527
142.45	**2,552**

Summary for Pond 3P: Infil #2

Inflow Area = 1,832 sf,100.00% Impervious, Inflow Depth > 6.44" for 25-Year event
Inflow = 0.29 cfs @ 12.07 hrs, Volume= 983 cf
Outflow = 0.03 cfs @ 12.90 hrs, Volume= 692 cf, Atten= 91%, Lag= 49.7 min
Primary = 0.03 cfs @ 12.90 hrs, Volume= 692 cf
Routed to Link 2L : Out Proposed

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Peak Elev= 164.56' @ 12.90 hrs Surf.Area= 958 sf Storage= 620 cf

Plug-Flow detention time= 317.8 min calculated for 692 cf (70% of inflow)
Center-of-Mass det. time= 222.8 min (965.0 - 742.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	160.50'	176 cf	**8.33'W x 32.50'L x 2.04'H Field A** 553 cf Overall - 114 cf Embedded = 439 cf x 40.0% Voids
#2A	161.00'	114 cf	**Cultec C-100HD** x 8 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
#3	162.50'	1 cf	**0.67'D x 1.10'H Vertical Pipe Emitter** x 2
#4	163.60'	700 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		990 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.60	0	0	0
165.00	1,000	700	700

Device	Routing	Invert	Outlet Devices
#1	Primary	163.60'	**0.7" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.90 hrs HW=164.56' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 4.72 fps)

Pond 3P: Infil #2 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

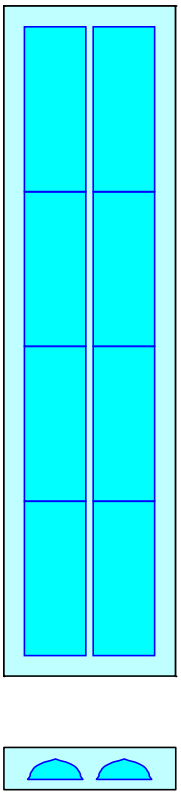
4 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 30.50' Row Length +12.0" End Stone x 2 = 32.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

8 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 113.6 cf Chamber Storage

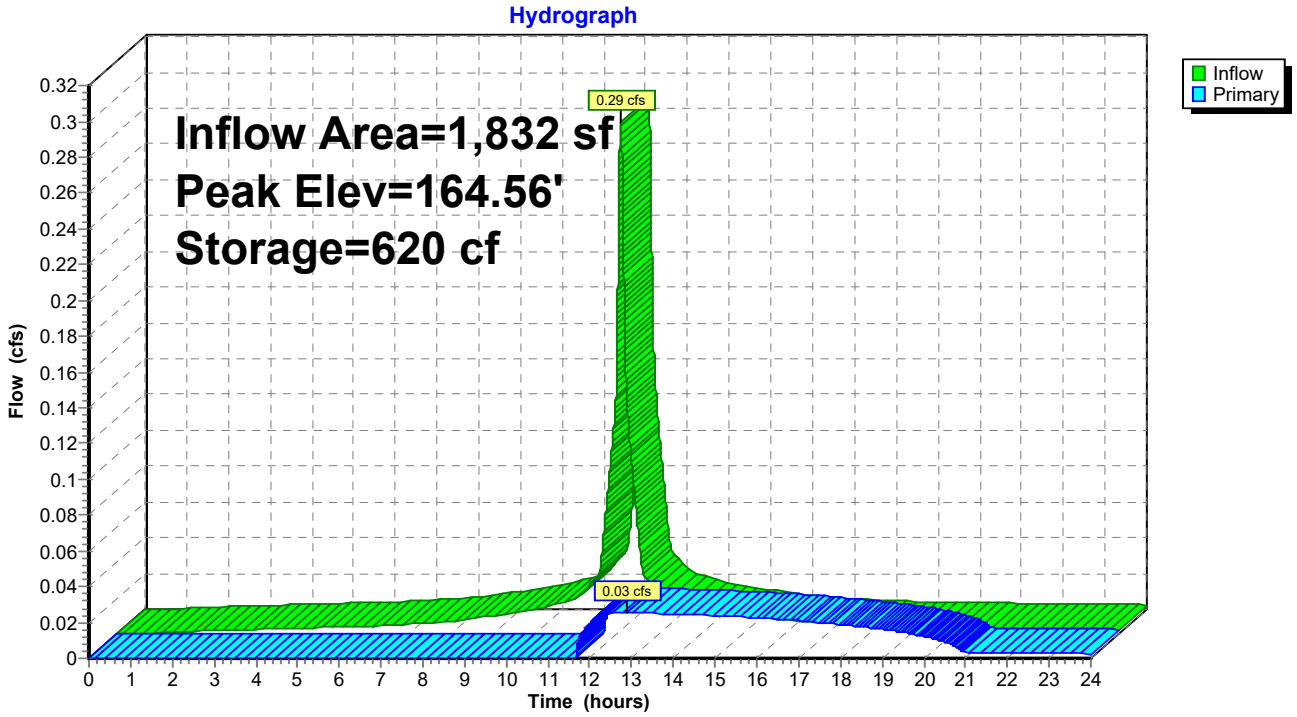
553.0 cf Field - 113.6 cf Chambers = 439.4 cf Stone x 40.0% Voids = 175.8 cf Stone Storage

Chamber Storage + Stone Storage = 289.3 cf = 0.007 af
Overall Storage Efficiency = 52.3%
Overall System Size = 32.50' x 8.33' x 2.04'

8 Chambers
20.5 cy Field
16.3 cy Stone



Pond 3P: Infil #2



Stage-Area-Storage for Pond 3P: Infil #2

Elevation (feet)	Storage (cubic-feet)
160.50	0
160.55	5
160.60	11
160.65	16
160.70	22
160.75	27
160.80	33
160.85	38
160.90	43
160.95	49
161.00	54
161.05	64
161.10	75
161.15	85
161.20	94
161.25	104
161.30	114
161.35	124
161.40	134
161.45	143
161.50	152
161.55	162
161.60	171
161.65	180
161.70	188
161.75	197
161.80	205
161.85	212
161.90	219
161.95	225
162.00	231
162.05	236
162.10	241
162.15	247
162.20	252
162.25	258
162.30	263
162.35	269
162.40	274
162.45	279
162.50	285
162.55	289
162.60	289
162.65	289
162.70	289
162.75	289
162.80	290
162.85	290
162.90	290
162.95	290
163.00	290
163.05	290
163.10	290
163.15	290
163.20	290
163.25	290
163.30	290
163.35	290
163.40	290
163.45	290
163.50	290
163.55	290
163.60	290
163.65	291
163.70	294
163.75	298
163.80	304
163.85	312
163.90	322
163.95	334
164.00	347
164.05	362
164.10	379
164.15	398
164.20	419
164.25	441
164.30	465
164.35	491
164.40	519
164.45	548
164.50	579
164.55	612
164.60	647
164.65	684
164.70	722
164.75	762
164.80	804
164.85	848
164.90	894
164.95	941
165.00	**990**

Summary for Pond 4P: Infil #3

Inflow Area = 3,855 sf, 89.73% Impervious, Inflow Depth > 5.99" for 25-Year event
Inflow = 0.59 cfs @ 12.07 hrs, Volume= 1,924 cf
Outflow = 0.03 cfs @ 13.74 hrs, Volume= 1,290 cf, Atten= 94%, Lag= 100.1 min
Primary = 0.03 cfs @ 13.74 hrs, Volume= 1,290 cf
Routed to Pond 2P : Infil#4

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs
Peak Elev= 162.31' @ 13.74 hrs Surf.Area= 1,234 sf Storage= 1,267 cf

Plug-Flow detention time= 384.6 min calculated for 1,290 cf (67% of inflow)
Center-of-Mass det. time= 288.2 min (1,051.6 - 763.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	156.90'	283 cf	**11.25'W x 33.50'L x 2.54'H Field A** 958 cf Overall - 250 cf Embedded = 708 cf x 40.0% Voids
#2A	157.40'	250 cf	**Cultec R-150XLHD** x 9 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap Row Length Adjustment= +0.75' x 2.65 sf x 3 rows
#3	159.94'	0 cf	**0.67'D x 0.66'H Vertical Pipe Emitter** x 2
#4	160.60'	1,440 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,974 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
160.60	0	0	0
163.00	1,200	1,440	1,440

Device	Routing	Invert	Outlet Devices
#1	Primary	160.60'	**0.7" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 13.74 hrs HW=162.31' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.30 fps)

Pond 4P: Infil #3 - Chamber Wizard Field A

Chamber Model = Cultec R-150XLHD (Cultec Recharger® 150XLHD)
Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf
Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap
Row Length Adjustment= +0.75' x 2.65 sf x 3 rows

33.0" Wide + 6.0" Spacing = 39.0" C-C Row Spacing

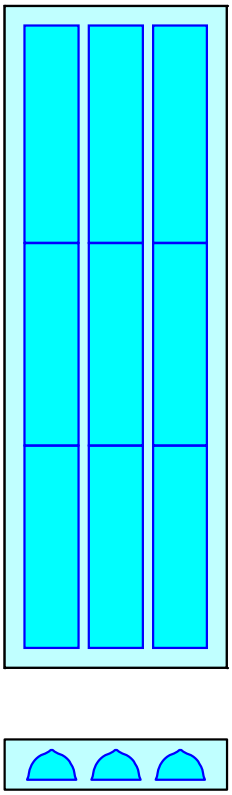
3 Chambers/Row x 10.25' Long +0.75' Row Adjustment = 31.50' Row Length +12.0" End Stone x 2 = 33.50' Base Length
3 Rows x 33.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 11.25' Base Width
6.0" Stone Base + 18.5" Chamber Height + 6.0" Stone Cover = 2.54' Field Height

9 Chambers x 27.2 cf +0.75' Row Adjustment x 2.65 sf x 3 Rows = 250.3 cf Chamber Storage

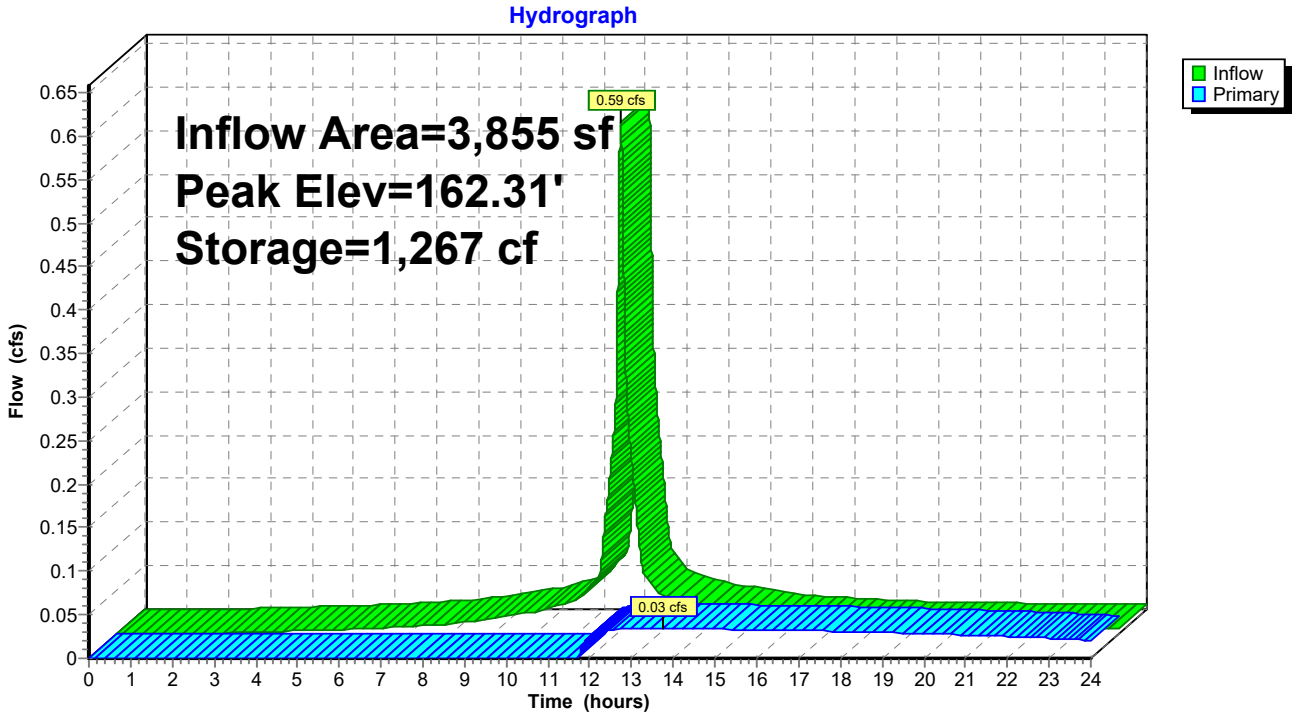
957.9 cf Field - 250.3 cf Chambers = 707.6 cf Stone x 40.0% Voids = 283.0 cf Stone Storage

Chamber Storage + Stone Storage = 533.4 cf = 0.012 af
Overall Storage Efficiency = 55.7%
Overall System Size = 33.50' x 11.25' x 2.54'

9 Chambers
35.5 cy Field
26.2 cy Stone



Pond 4P: Infil #3



Stage-Area-Storage for Pond 4P: Infil #3

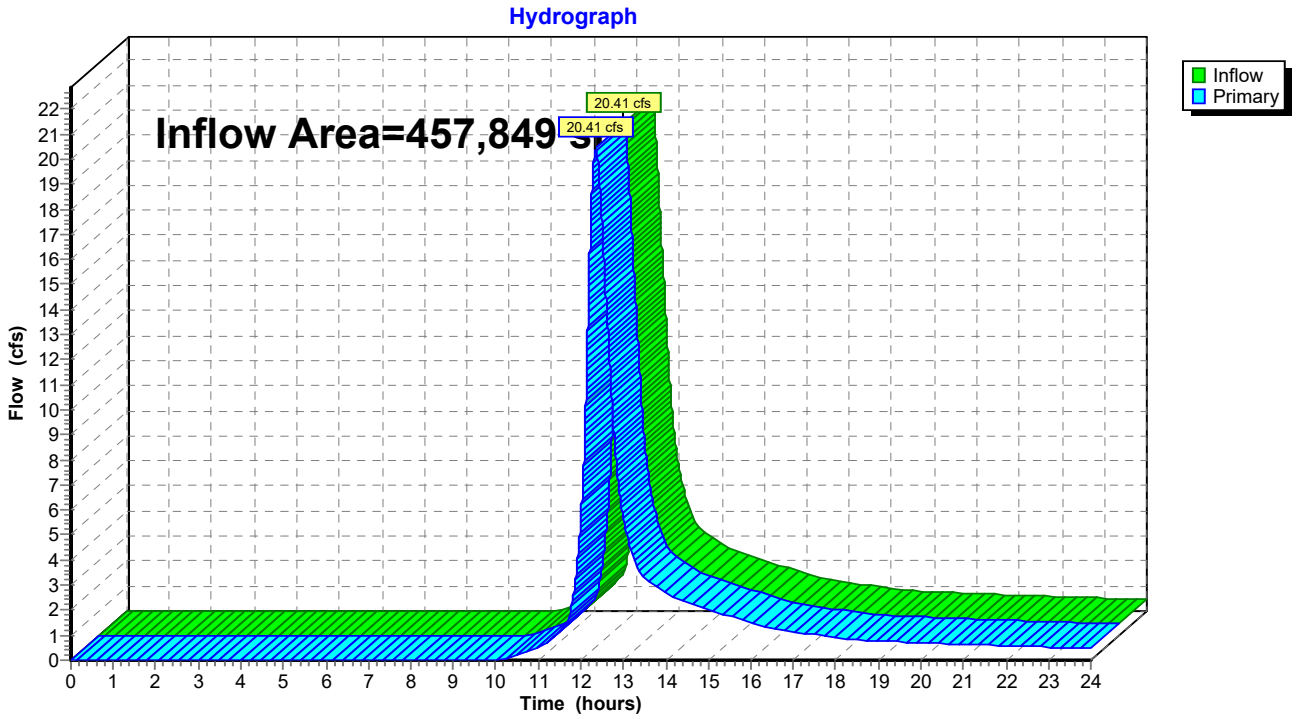
Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
156.90	0	159.50	533	162.10	1,096
156.95	8	159.55	533	162.15	1,134
157.00	15	159.60	533	162.20	1,174
157.05	23	159.65	533	162.25	1,214
157.10	30	159.70	533	162.30	1,256
157.15	38	159.75	533	162.35	1,299
157.20	45	159.80	533	162.40	1,344
157.25	53	159.85	533	162.45	1,389
157.30	60	159.90	533	162.50	1,436
157.35	68	159.95	533	162.55	1,484
157.40	75	160.00	533	162.60	1,534
157.45	90	160.05	533	162.65	1,584
157.50	104	160.10	533	162.70	1,636
157.55	119	160.15	534	162.75	1,689
157.60	133	160.20	534	162.80	1,744
157.65	147	160.25	534	162.85	1,799
157.70	161	160.30	534	162.90	1,856
157.75	175	160.35	534	162.95	1,914
157.80	189	160.40	534	163.00	**1,974**
157.85	203	160.45	534		
157.90	217	160.50	534		
157.95	231	160.55	534		
158.00	245	160.60	534		
158.05	258	160.65	534		
158.10	272	160.70	536		
158.15	285	160.75	539		
158.20	298	160.80	544		
158.25	311	160.85	549		
158.30	324	160.90	556		
158.35	337	160.95	564		
158.40	349	161.00	574		
158.45	361	161.05	584		
158.50	373	161.10	596		
158.55	385	161.15	609		
158.60	396	161.20	624		
158.65	407	161.25	639		
158.70	417	161.30	656		
158.75	427	161.35	674		
158.80	435	161.40	694		
158.85	444	161.45	714		
158.90	452	161.50	736		
158.95	459	161.55	759		
159.00	467	161.60	784		
159.05	474	161.65	809		
159.10	482	161.70	836		
159.15	489	161.75	864		
159.20	497	161.80	894		
159.25	504	161.85	924		
159.30	512	161.90	956		
159.35	520	161.95	989		
159.40	527	162.00	1,024		
159.45	533	162.05	1,059		

Summary for Link 1L: Out Existing

Inflow Area = 457,849 sf, 8.74% Impervious, Inflow Depth > 2.69" for 25-Year event
Inflow = 20.41 cfs @ 12.35 hrs, Volume= 102,746 cf
Primary = 20.41 cfs @ 12.35 hrs, Volume= 102,746 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs

Link 1L: Out Existing

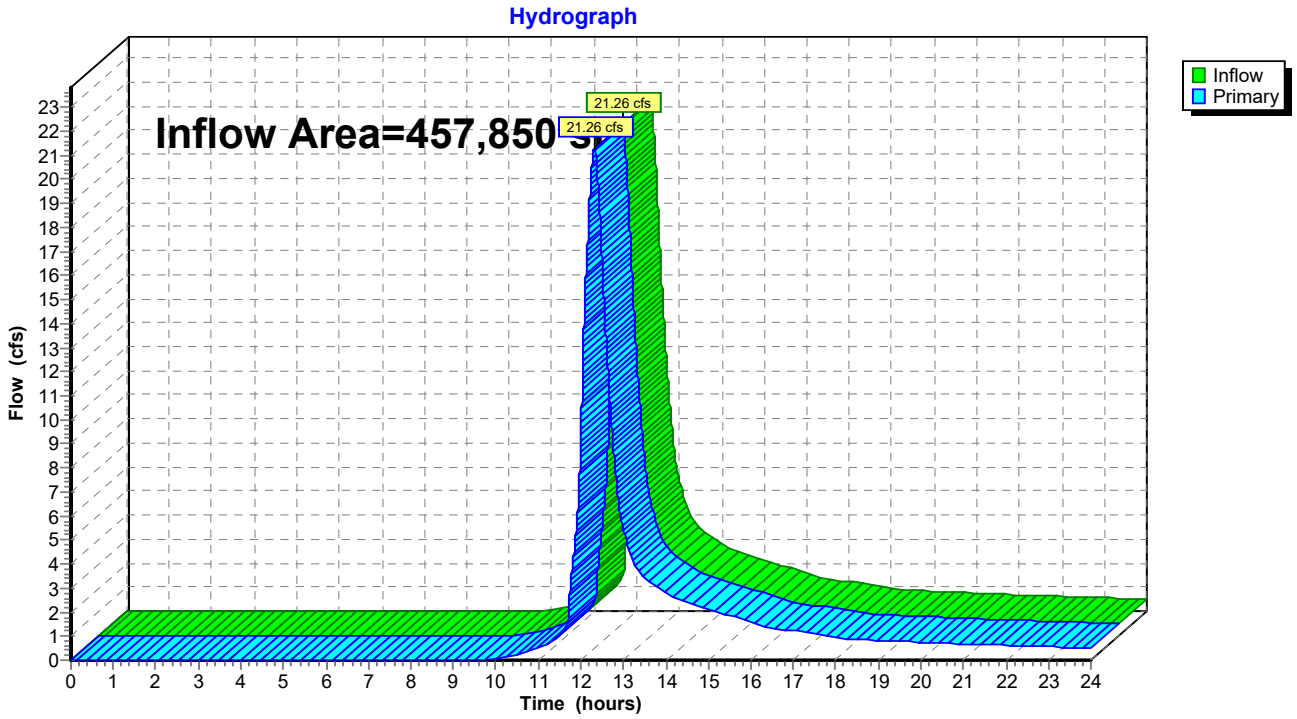


Summary for Link 2L: Out Proposed

Inflow Area = 457,850 sf, 16.10% Impervious, Inflow Depth > 2.89" for 25-Year event
Inflow = 21.26 cfs @ 12.31 hrs, Volume= 110,379 cf
Primary = 21.26 cfs @ 12.31 hrs, Volume= 110,379 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.001 hrs

Link 2L: Out Proposed



Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>3.35"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=25.65 cfs 127,810 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>6.07"
Tc=5.0 min CN=87.55 Runoff=0.73 cfs 2,269 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>4.75"
Tc=5.0 min CN=76.07 Runoff=7.19 cfs 21,496 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>3.46"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=23.33 cfs 113,376 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>7.31"
Tc=5.0 min CN=98.00 Runoff=0.32 cfs 1,115 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>6.85"
Tc=5.0 min CN=94.20 Runoff=0.67 cfs 2,202 cf

Pond 1P: Infil#1 Peak Elev=184.48' Storage=846 cf Inflow=0.73 cfs 2,269 cf
Outflow=0.65 cfs 1,457 cf

Pond 2P: Infil#4 Peak Elev=142.38' Storage=2,517 cf Inflow=7.83 cfs 24,379 cf
Outflow=7.80 cfs 22,169 cf

Pond 3P: Infil #2 Peak Elev=164.67' Storage=700 cf Inflow=0.32 cfs 1,115 cf
Outflow=0.03 cfs 825 cf

Pond 4P: Infil #3 Peak Elev=162.53' Storage=1,460 cf Inflow=0.67 cfs 2,202 cf
Outflow=0.04 cfs 1,427 cf

Link 1L: Out Existing Inflow=25.65 cfs 127,810 cf
Primary=25.65 cfs 127,810 cf

Link 2L: Out Proposed Inflow=26.41 cfs 136,370 cf
Primary=26.41 cfs 136,370 cf

Total Runoff Area = 915,699 sf Runoff Volume = 268,267 cf Average Runoff Depth = 3.52"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Time span=0.00-24.00 hrs, dt=0.001 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=457,849 sf 8.74% Impervious Runoff Depth>4.07"
Flow Length=1,035' Tc=24.0 min CN=63.47 Runoff=31.38 cfs 155,475 cf

Subcatchment2S: Infil#1 Basin Runoff Area=4,484 sf 71.77% Impervious Runoff Depth>6.97"
Tc=5.0 min CN=87.55 Runoff=0.83 cfs 2,604 cf

Subcatchment3S: Infil#4 Basin Runoff Area=54,263 sf 40.94% Impervious Runoff Depth>5.59"
Tc=5.0 min CN=76.07 Runoff=8.42 cfs 25,281 cf

Subcatchment4S: Pr. Bypass Runoff Area=393,416 sf 10.93% Impervious Runoff Depth>4.19"
Flow Length=1,011' Tc=22.7 min CN=64.47 Runoff=28.41 cfs 137,492 cf

Subcatchment5S: Infil#2 Basins Runoff Area=1,832 sf 100.00% Impervious Runoff Depth>8.22"
Tc=5.0 min CN=98.00 Runoff=0.36 cfs 1,256 cf

Subcatchment6S: Infil#3 Basin Runoff Area=3,855 sf 89.73% Impervious Runoff Depth>7.77"
Tc=5.0 min CN=94.20 Runoff=0.75 cfs 2,495 cf

Pond 1P: Infil#1 Peak Elev=184.60' Storage=865 cf Inflow=0.83 cfs 2,604 cf
Outflow=0.73 cfs 1,793 cf

Pond 2P: Infil#4 Peak Elev=142.44' Storage=2,547 cf Inflow=9.14 cfs 28,624 cf
Outflow=9.10 cfs 26,411 cf

Pond 3P: Infil #2 Peak Elev=164.77' Storage=781 cf Inflow=0.36 cfs 1,256 cf
Outflow=0.03 cfs 965 cf

Pond 4P: Infil #3 Peak Elev=162.72' Storage=1,662 cf Inflow=0.75 cfs 2,495 cf
Outflow=0.04 cfs 1,550 cf

Link 1L: Out Existing Inflow=31.38 cfs 155,475 cf
Primary=31.38 cfs 155,475 cf

Link 2L: Out Proposed Inflow=32.01 cfs 164,869 cf
Primary=32.01 cfs 164,869 cf

Total Runoff Area = 915,699 sf Runoff Volume = 324,602 cf Average Runoff Depth = 4.25"
87.58% Pervious = 801,941 sf 12.42% Impervious = 113,758 sf

Appendix F

Draft Operation and Maintenance Agreement

Block 376

AGREEMENT COVENANT

AGREEMENT made this _____ by and between 503 WMR LLC _____ and the **CITY OF STAMFORD,** a municipal corporation lying within the County of Fairfield and State of Connecticut, acting herein by its duly authorized Mayor, Caroline Simmons (hereinafter referred to as the "City"), and the **ENVIRONMENTAL PROTECTION BOARD OF THE CITY OF STAMFORD,** acting herein by its duly authorized Chairman, Gary H. Stone (hereinafter referred to as the "EPB").

WITNESSETH:

WHEREAS, OWNER has commenced the planning and construction of three single-family residences, decks, patios, walkways, and other site improvements _____ on a parcel of land owned by them and as more particularly described on Schedule "A", attached hereto and made a part hereof (the "Property").

WHEREAS, certain drainage facilities ("Drainage Facilities"), including but not limited to structures, pipes, and infiltration systems _____ as more particularly described on Schedule "B" attached (the "Construction Plans") shall be installed in connection with the aforesaid construction and in accordance with the Construction Plans and _____ issued therefore, (the "Permit") and;

WHEREAS, OWNER, the CITY and EPB share a joint concern that the Drainage Facilities be maintained in a functioning condition so as to avoid pollution of surface and groundwaters, flooding and/or improper drainage.

NOW, THEREFORE, in consideration of ten dollars and other good and valuable consideration receipt of which is hereby acknowledged by the OWNER, it is hereby agreed as follows:

1) OWNER shall clean the drainage facilities or cause such facilities to be cleaned by periodic removal of accumulated sediment and debris in a good and workman-like manner, at least two (2) times during every twelve (12) month period, which times shall be in the period between April and June and between October and December and more often as the City may determine to be necessary.

2) OWNER shall sweep, or cause to be swept, garage facilities, driveways and roadway surfaces located on the Property at least once per calendar quarter.

3) OWNER shall utilize only sand or calcium chloride in connection with the de-icing of areas within the Property meaning and intending that road salt (Sodium Chloride) shall not be used for said purpose.

4) OWNER shall repair or replace any defects or defective drainage facilities so as to maintain the drainage facilities, at all times, in a fully functional capacity.

5) OWNER shall file as-built drainage plans with the EPB immediately upon the completion of work. Said plans shall be prepared by a professional engineer/surveyor registered in the State of Connecticut.

6) OWNER grants the CITY and/or EPB, its agents, and employees, the right to enter the Property at all reasonable times upon twenty-four (24) hours notice to the OWNER for the purpose of inspecting the Property to determine if OWNER is complying with the requirements hereunder. A representative of the Owner shall have the right to accompany the City and/or EPB on their inspection of the Property.

7) If, after an inspection is made pursuant to Paragraph Six (6) hereof, the CITY and/or EPB determines that the owner has failed to comply with the aforesaid undertakings, then the CITY and/or EPB shall give written notice of said determination to the then OWNER of the Property which notice shall also specify the said failure. Said notice shall be sent by registered or certified mail to the last known address of said Owner. If the Owner disputes the claim, he shall give written notice thereof to City and/or EPB within ten (10) days of receipt of said notice, and the EPB shall hold a hearing as promptly as possible to decide the merits of the disputed claim. If the claim is not disputed within said ten (10) days, the OWNER shall have thirty (30) days from the receipt of said notice to correct said failure, unless it is impossible to cure said defect within said time, in which case, the necessary repairs shall be immediately commenced and diligently pursued to completion within a reasonable time.

8) If the said failure is not remedied within the time frame herein stated, the CITY and/or EPB may proceed to cure the same and charge the actual cost thereof to the OWNER of the Property.

9) OWNER agrees to reimburse the CITY and/or EPB for reasonable legal fees and court costs if it becomes necessary for the CITY and/or EPB to sue for reimbursement of sums expended by the CITY and/or EPB in performance of OWNER'S obligation.

10) OWNER agrees and covenants to indemnify and save harmless the CITY and the EPB against any and all claims, suits, actions or judgments arising out of the delay in the performance of any of their obligations pursuant to this Agreement.

11) OWNER agrees that this covenant and restriction shall apply to and run with the land. It shall be binding on all future owners, administrators, executors, successors and assigns.

12) The OWNER hereby represents to the CITY and EPB that he/she is the owner, in fee simple, of all of the property described in "Schedule A" attached hereto and made a part hereof.

13) OWNER agrees that this Agreement and restrictive covenant upon execution of the same, shall be recorded on the land records at the OWNER'S expense at the time that a permit is issued for the Property herein and while the OWNER is in title.

14) OWNER agrees not to assert the invalidity of this document.

15) OWNER agrees that nothing herein shall be construed to be a limitation upon the right of the EPB to assert and enforce any rights it may have under federal, state or City statute, ordinance or regulation.

16) This agreement shall be governed by the laws of the State of Connecticut.

IN WITNESS WHEREOF, the said parties hereto have hereunto set their hands and seals, the day and year first above written.

WITNESSED:

_____ **THE CITY OF STAMFORD**

_____ BY: _____

Caroline Simmons
Its duly authorized Mayor

_____ **THE ENVIRONMENTAL PROTECTION BOARD**

_____ BY: _____

Gary H. Stone
Its duly authorized Chairman

_____ **OWNER**

BY: _____

_____

(Owner's Name)

(Acknowledgement on the Following Page)

STATE OF CONNECTICUT}
} ss: STAMFORD Date: _____
COUNTY OF FAIRFIELD }

Personally appeared Caroline Simmons, Mayor of the City of Stamford, signer and sealer of the foregoing Instrument, and acknowledged the same to be his free act and deed and the free act and deed of said City, before me.

_____
Commissioner of the Superior
Court or Notary Public

STATE OF CONNECTICUT}
} ss: STAMFORD Date: _____
COUNTY OF FAIRFIELD }

Personally appeared Gary H. Stone, Chairman of the Environmental Protection Board of the City of Stamford, signer and sealer of the foregoing Instrument, and acknowledged the same to be his free act and deed and the free act and deed of said Commission, before me.

_____
Commissioner of the Superior Court
or Notary Public

STATE OF CONNECTICUT}
} ss: STAMFORD Date: _____
COUNTY OF FAIRFIELD }

Personally appeared_____signer and sealer of the foregoing instrument, and acknowledged the same to be____free act and deed, before me.

_____
Commissioner of the Superior Court
or Notary Public

SCHEDULE "A"

SCHEDULE "B"

Appendix G

DCIA Tracking Spreadsheet
Checklist for Stormwater Management Report

Directly Connected Impervious Area Tracking Worksheet
City of Stamford Drainage Manual

Note to user: complete all cells of this color *only*

Part 1: General Information

Project Name	503 Wire Mill Road
Project Address	503 Wire Mill Road, Stamford, CT
Project Applicant	503 WMR LLC
Date of Submittal	30-May-23
Tax Account Number	

Part 2: Project Details

1. What type of development is this? (choose from dropdown)	New Development	
2. What is the total area of the project site?	157,569	ft^2
3. What is the total area of land disturbance for this project?	134,425	ft^2
4. Does project site drain to High Quality Waters, a Direct Waterfront, or within 500 ft. of Tidal Wetlands? (Yes/No)	No	
5. What is the current ***DCIA*** for the site?	479	ft^2
6. Will the proposed development increase ***DCIA*** (without consideration of proposed stormwater management)? (Yes/No)	Yes	
7. What is the proposed-development ***total impervious area*** for the site?	28,932	ft^2

Part 3: Water Quality Target Total

Does Standard 1 apply based on information above?	**Yes**	
Water Quality Volume (WQV)	**2826.4**	ft^3
Standard 1 requirement	**Retain WQV on-site**	
Required retention volume	**2826.4**	ft^3
Provided retention volume for proposed development	3,822.0	ft^3

Part 4: Proposed DCIA Tracking

Pre-development ***total impervious area***	479	ft^2
Current ***DCIA***	**479**	ft^2
Proposed-development ***total impervious area***	**28,932**	ft^2
Proposed-development ***DCIA*** (after stormwater management)	3,071	ft^2
Net change in ***DCIA*** from pre-development to proposed-development	**2,592**	ft^2

Part 5: Post-Development (As-Built Certified) DCIA Tracking

Post-development (per as-built) ***total impervious area***		ft^2
Post-development (per as-built) ***DCIA*** (after stormwater management)		ft^2
Net change in ***DCIA*** from pre-development to post-development		ft^2

Certification Statement

I hereby certify that the information contained in this worksheet is true and correct.

Engineer's Signature _____ Date May 30, 2023 Engineer's Seal _____

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Phone 203-977-4189

CHECKLISTS

Project Name: Wire Mill Road Subdivision

Project Address 503 Wire Mill Road, Stamford, CT

Property Owner(s) 503 WMR, LLC

Tax Account Number(s) 002-8017 & 003-1160

Engineer's Signature _____ Date: 05/30/2023

All checklists must be completed and submitted. Provide a brief explanation for any items not provided. Check boxes as completed or N/A as not applicable.

✔	**Existing Conditions Plan**
✔	**Stormwater Management Report**
✔	**Stormwater Management Plan / Construction Plan**
	Certificate of Occupancy

Checklist for Existing Conditions Plan

I. General Information

✔	Site address
✔	Orientation, block, zone, City, street name
✔	Applicant name and legal address
✔	Surveyor name, address, contact information
✔	North arrow, bar scale, horizontal and vertical datum
✔	24" x 36" sheet size unless otherwise approved
✔	Existing conditions survey shall be prepared in accordance with the Minimum Standards for Surveys and Maps in the State of Connecticut. The class of survey shall be A-2 and T-2 and shall be represented as such on the map. The base map shall be sealed and signed by a Professional Land Surveyor licensed in the State of Connecticut.
✔	Drawing scale shall be set at 1" = 20' or 1" = 40' when possible

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II. Existing Conditions Plan Elements

✔	Show and label all property boundaries with linear bearing / distances and curve information
✔	Required zoning setbacks
✔	Show and label monument information
✔	Show and label at least one permanent benchmark on the parcel with northing, easting and elevation
✔	Label adjacent property ownership information
✔	Existing contours based on NAVD 88 (no exceptions) at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent at a minimum of 20 ft. beyond the property boundaries of the subject parcel
✔	Show spot elevations at low points, high points, and where topography is flatter than 2 percent
✔	All buildings and structures (label current use and finished floor elevations)
✔	All pavement, parking, driveways, property access points
✔	All roadways, streets, and rights-of-way. Label streets as public or private with street name
✔	All patios, decks, walkways, sidewalks, curb ramps (both adjacent to and opposite and existing roadways or intersections)
✔	Show and label (size, material, inverts) all existing utilities (overhead and underground) within the right-of-way and the project site (label ownership) including but not limited to water, gas and electrical services, wells, storm sewers, sanitary sewers and subsurface sewerage disposal systems.
✔	Show and label existing conveyance systems (swales, ditches, storm drains) including dimensions, elevations, sizes, slopes, and direction of flow
✔	Show and label boundaries of all easements, both public and private, with type, owner, and width
✔	Show and label all other existing features and improvements (e.g. light poles, mature trees of 8" (dbh) diameter or greater, vegetation, walls with top and bottom elevations, fences, pavement markings)

III. Resource Areas

✔	Show and label limits of inland wetlands, tidal wetlands and any associated setbacks.
✔	Show and label existing natural site features including tree canopy, outcroppings, permanent and intermittent watercourses, waterbodies, streams
✔	Show and label limits of floodplain and floodway along with FIRM references (Community Number, Panel, Suffix, and Date) including any effective Letters of Map Revision/Amendment, zone designation and elevation.
✔	Show and label any Conservation Easement Areas
N/A	Show and label Connecticut Coastal Jurisdiction Line (CJL)
✔	Show and label existing steep slopes (25% and greater)

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Checklist for Stormwater Management Report

I. Project Report

A. Applicant / Site Information

✔	Applicant name, legal address, contact information (email & phone)
✔	Engineers name, legal address, contact information (email & phone)
✔	Site address and legal description
✔	Current / proposed zoning and land use
✔	Site vicinity map (8.5" x 11")

B. Project Description and Purpose

✔	Project description including proposed project elements and anticipated construction schedule

C. Existing Conditions Description

✔	Site area, ground cover, vegetation, features (roads, buildings, utilities, etc.)
✔	Site topography, slopes, drainage patterns, conveyances systems (swales, storm drains, etc.), stormwater discharge locations
✔	Receiving waterbody information including stormwater impairments and TMDL information (See the most recent State of Connecticut Integrated Water Quality Report)
✔	Site soils information including soil types, hydrologic soil group, bedrock / outcroppings, groundwater elevation, significant geologic features
✔	Provide NRCS Soils Mapping
✔	Resource protection areas (wetlands, streams, lakes, etc.), buffers, floodplains, floodways

D. Summary of Applicable General Design Criteria

✔	Methodology, design storm frequency
✔	Hydrologic design criteria
✔	Hydraulic design criteria
✔	Flood hazard areas

	Applying under "Lite" Stormwater Management: Skip to Section I (Refer to Flow Chart on page vii of the City of Stamford Stormwater Drainage Manual)

E. Project Type in Accordance with Standard 1 Definitions

✔	Area of disturbance, receiving waterbody classification (High Quality, Tidal Wetlands, Direct Waterfront)
✔	Project type (development, redevelopment, linear development)
✔	Pollutant reduction standard per flowchart Section 2.4

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F. Summary of LID Site Constraints

✔	Description of sensitive areas for protection
✔	Mature tree inventory, which shall include 8-inch (dbh) diameter trees or greater
✔	Steep slopes
✔	Ledge and bedrock depth
✔	Seasonal high groundwater elevation
	Pollutant hotspots
✔	Summary of infiltration rates

G. Summary of Proposed Stormwater Treatment Practices

✔	Proposed LID controls (i.e. minimize impervious, minimize DCIA, minimize disturbance, increase time of concentrations, other LID controls and strategies)
✔	Location, size, types
✔	Design criteria and references
✔	Stormwater treatment practice, drainage area characteristics / details

H. Summary of Compliance with Standards 1

✔	Required pollutant reduction criteria
✔	Provided pollutant reduction (WQV) by stormwater treatment practice
✔	Summary of compliance with Standard 1

I. Summary of Compliance with Standards 2, 3, and 4

	✔	Description of proposed stormwater management system
	✔	Pre-development site hydrology with delineation of each watershed area and sub-basin
	✔	Post-development site hydrology with delineation of each watershed area and sub-basin
	✔	Comparison table of pre- and post-development hydrology, peak flow, volume, and percent difference
	✔	Summary table of watershed areas and sub-basin areas, time of concentration and runoff coefficients
N/A		Summary table demonstrating the 2-year, 24-hour post development peak flow rate is less than or equal to the lowest of either: - The pre-development 1-year, 24-hour storm peak flow rate - 50 percent of the pre-development 2-year, 24-hour storm peak flow rate
	✔	Conveyance protection, emergency outlet sizing
N/A		Hydraulic grade line summary and tail water elevation used in analysis
	✔	Construction erosion and sediment control description, Standard 3
	✔	Operation and Maintenance, maintenance tasks and schedule on construction plans per Standard 4

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J. Summary of Compliance with Applicable Drainage Facility Design Requirements

✔	Description of applicable design requirements and compliance
✔	Description of proposed drainage facilities and compliance

K. Stormwater Management Report

✔	Signed and stamped by professional engineer licensed in the State of Connecticut
✔	Drainage impact statement in accordance with Standard 5B.

II. Supporting Calculations (as appendix to Project Report)

	Applying under "Lite" Stormwater Management: Skip to Section N

L. Water Quality Volume / Water Quality Flow Calculations

✔	Calculations demonstrating the total Water Quality Volume generated by the post-development site and the required retention/treatment volume per Standard 1 in cubic feet.
✔	Calculations demonstrating the total Water Quality Volume retained/treated by each stormwater treatment practice and the total Water Quality Volume generated by the post-development contributing drainage area to each stormwater treatment practice

M. Stormwater Treatment Practice Sizing Calculations

✔	Calculations demonstrating how each stormwater treatment practice has been designed and sized in accordance with the Structural Stormwater BMP Design references in Appendix B. Calculations will vary by stormwater treatment practice, but a minimum, applicants shall provide calculations in accordance with design criteria from the Connecticut Stormwater Quality Manual.

N. Hydrologic and Hydraulic Design Calculations

N/A		Stream channel protection, Standard 2A
	✔	Conveyance protection, Standard 2B
WAIVER REQUESTED	✔	Peak flow control (1-year, 2-year, 5-year, 10-year, 25-year, and 50-year storms), Standard 2C
N/A		Inlet analysis
N/A		Gutter flow (Site by site basis as requested by Engineering Bureau)
	✔	Storm sewers and culverts (velocities, capacity, hydraulics)
N/A		Hydraulic grade line required when pipe is flowing at full capacity o Provide existing and proposed summary table o Provide existing and proposed mapping, label structures
N/A		Detention facilities (outlet structure, stage/storage, freeboard)
	✔	Emergency outlet sizing, safely pass the 100 year storm, Standard 2D
	✔	Outlet protection calculations, based on conveyance protection (i.e. riprap, energy dissipater)

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O. Hydrologic and Hydraulic Model, Existing and Proposed

✔	Drainage routing diagram
✔	Summary
✔	Storage pond input

P. Downstream analysis (Site by site basis as required by the Engineering Bureau)

N/A		Downstream analysis, Standard 2E

III. Supporting Mapping (as appendix to Project Report)

Q. Pre-Development Drainage Basin Area Mapping

✔	11" x 17" or 8.5" x 11" sheet size
✔	Topography, drainage patterns, drainage area boundaries and sub basins, flow paths, times of concentration
✔	Locations of existing stormwater discharges
✔	Perennial and intermittent streams, wetlands, and floodplain / floodways
✔	NRCS soil types, locations, boring locations, infiltration testing locations
✔	Vegetation and groundcover
✔	Existing roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, decks and other structures
✔	Location, size, type of existing structural stormwater controls, facilities and conveyance systems

R. Post-Development Drainage Basin Area Mapping

✔	11" x 17" or 8.5" x 11" sheet size
✔	Topography, drainage patterns, drainage area boundaries and sub basins, flow paths, times of concentration
✔	Locations of proposed stormwater discharges
✔	Perennial and intermittent streams, wetlands, and floodplain / floodways
✔	NRCS soil types, locations, boring locations, infiltration testing locations
✔	Vegetation, ground cover and proposed limits of clearing/disturbance
✔	Proposed, roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, decks and other structures
✔	Location, size, type of proposed structural stormwater controls, facilities and conveyance systems

IV. DCIA Tracking Worksheet (as appendix to Project Report)

✔	DCIA Tracking Worksheet (Use form found in Appendix E)

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V. Proposed LID Review Map

	Applying under "Lite" Stormwater Management - Proposed LID Review Map NOT required.

A. General

✔	Site address
✔	Applicant name, legal address, contact information
✔	Engineers name, address, contact information
✔	North arrow, bar scale, horizontal and vertical datum
✔	Drawing scale shall be set at 1"=20' or 1"=40' when possible
✔	Signed and stamped by a Licensed Professional Engineer in the State of Connecticut
✔	11" x 17" or 24" x 36" sheet size unless otherwise approved
✔	Existing and proposed contours based on NAVD 88 at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent
✔	Locations of existing stormwater discharges
✔	Roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, and decks and other structures
✔	Location, size, ownership of stormwater conveyance systems (swales, pipes, etc.)

B. LID Constraints:

✔	Boring / test pit locations
✔	Infiltration testing locations and results
✔	Vegetation and proposed limits of clearing / disturbance
✔	NRCS soils mapping
✔	Steep slopes
✔	Surface waters / Perennial and intermittent streams
✔	Resource protection areas and buffers, wetlands, floodplain / floodways
✔	Existing vegetation and mature trees, which shall include 8-inch (dbh) diameter trees or greater
	Poor soils (HSG C & D)
✔	Shallow bedrock / ledge
✔	Seasonal high groundwater elevation
	Other site constraints (e.g. brownfield caps)

C. Proposed Stormwater Treatment Measures:

✔	Location, size, type, limits, and WQV provided by each proposed stormwater treatment practices
✔	Drainage area to each proposed stormwater treatment practice (total area, impervious area, WQV)

D. Site Summary Table:

✔	Total site area, disturbed area, pre- and post-development impervious areas
✔	Required pollutant reduction volume (retention or detention)
✔	Provided pollutant reduction volume (retention or detention)

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Checklist for Stormwater Management Plan / Construction Plans

A. General

✔	Site orientation, address and legal description
✔	Applicant name, legal address, contact information
✔	Engineers name, address, contact information
✔	North arrow, bar scale, horizontal and vertical datum
✔	Drawing scale shall be set at 1"=20' or 1"=40' when possible
✔	Stamped by a Licensed Professional Engineer in the State of Connecticut
✔	24" x 36" sheet size unless otherwise approved

B. Site Development Plans

✔	City of Stamford Standard Notes
✔	As required by the Drainage Maintenance Agreement, provide a written narrative describing the nature of the proposed development activity and the program for operation and maintenance of drainage facilities and control measures throughout the life of the project.
✔	Existing and proposed contours based on NAVD 88 at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent
✔	All required spot elevations to clearly depict positive pitch
✔	Top and bottom elevation of all walls
✔	Roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, and decks and other structures
✔	All utilities and easements
✔	Location, size, maintenance access, type of proposed structural stormwater controls and facilities with elevations and inverts
✔	Location, size, maintenance access, type of proposed non-structural stormwater controls and facilities with elevations and inverts
✔	Location, size, type of proposed stormwater infrastructure, inlets, manholes, infiltration and detentions systems, control structures with elevations and inverts
✔	Location, size, ownership of stormwater conveyance systems (swales, pipes, etc.) with elevations and inverts
✔	Identify roof leaders, curtain drains and foundation drains with elevations and inverts
✔	Proposed water quality treatment systems, size and model type
✔	Final stabilization measures which may include slope stabilization

C. Erosion and Sedimentation Control Plan

✔	Phasing and schedule
✔	Construction access and staging and stock pile areas
✔	Operation and maintenance of erosion and sedimentation controls
✔	Tree protection
✔	Downstream protection such as location of silt fencing
✔	Limit of disturbance
✔	Construction fencing

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D. Construction Details

✔	Standard City of Stamford details
✔	Infiltration system details
✔	Control structure details
✔	Water quality treatment details
✔	Infiltration testing results

Checklist for Certificate of Occupancy

	Final Improvement Location Survey
	Stormwater Management Certification Form
	Final DCIA Tracking Worksheet
	Standard City of Stamford Drainage Maintenance Agreement (Agreement Covenant)

Other Certifications at the discretion of the Engineering Bureau and/or EPB

	Wall Certification
	Landscape Certification
	Landscape Maintenance Agreement
	Waiver Covering Storm Sewer Connection
	Waiver Covering Granite Block, Depressed Curb, and Driveway Aprons
	Flood Certification

June 1, 2023

City of Stamford Planning Board
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

Re: 503 Wire Mill Road - Stamford, CT

Dear Mr. Blessing:

This letter serves to authorize Redniss & Mead, with offices at 22 First Street in Stamford, CT, to act as my agent in connection with the preparing, filing, and processing of any and all applications required for Planning and Zoning approvals relating to the above referenced properties.

Thank you for your acknowledgement of said authority.

Sincerely,

503 WMR LLC