

**Town of Washington Planning Board
Wetlands and Watercourse Permit Application**

Street Address of Project Site: 119 North Mabbettsville Rd.

Name of Applicant(s): David Mellins

Address: 900 West 190th Street, Apt. 9N

Telephone: 917 478-6492

Name and Address of Record Owner(s): _____

Tax Map Number of all parcels involved in the proposed activity: 135889-6865-00-304694-00000

1) Detailed Description of Proposed Activity: Removal of ash trees killed or debilitated by emerald ash borer, and removal of sugar maple trees that threaten electrical pole, electrical line, house and deck. Selective thinning of branches and understory to improve view of waterfall.

Embankment planting to prevent erosion. Patio Construction to North and Southwest of house.

Divert East running roof water into underground cistern to prevent erosion and basement flooding

2) Describe the area of the wetland and/or watercourse or control area in which the work would occur:

A 250 ft (approx) stretch of Shaw Creek which runs Southwest at a distance of 100 ft (approx) due West of house and deck.

3) Provide the names and addresses of all abutting property owners.

1. Wormell, william H (Primary) - 40 Rascal Rd; Washington, NY 12545

2. Stevens, Winslow B IV (Primary); Stevens, Judith H (Additional) -- 5 Verbank Rd; Millbrook, NY 12545

- 4) Provide an explanation of why the proposed activity cannot be located at another site, i.e., out of the wetland, watercourse, water body or controlled areas.

Trees are located adjacent to electric pole and line. Tree is tilted toward house. Branches of trees encroach on house and deck structure. Ement is subject to erosion and to steep for safe mowing, groundcover is the correct solution. Patios will provide much needed space for outdoor recreation and light entertainment.

- 5) Provide a description of the vegetative cover of the area, including dominant species. The description of the vegetative cover of the regulated area shall include the dominant species and their wetland classified status as referred to in *The National List of Plant Species That Occur in Wetlands, New York or Northeast (Region 1)* published by the U.S. Fish and Wildlife Service or the most recent edition.

Predominantly sugar maples, ash trees, invasive species of honeysuckle and multiflora roses. Lawn and meadow grass mixture.

- 6) Provide a description of the soil types on the site.

Nassau-Cardigan very rocky. Nassau and similar soils 45%. Cardigan and similar soils 35%.

Minor components 20%. Nassau -Channery - silt loam (0-5"), very channery silt loam (5-16"), unweathered bedrock (16-20"). Parent material slate and shale. Drainage 1-6"/hr.

Cardigan -silt loam (0-30"). Well drained. Parent material - loamy till or coluvium. Drainage 1-6"/hr.

- 7) Provide a map showing all wetlands, watercourses, water bodies and controlled areas on the site under review and within 200 feet of the site boundaries. The Planning Board reserves the right to require land data information for distances of greater than 200 feet based on the Board's assessment of field conditions.

- 8) Provide a map at a scale no greater than one inch equals 50 feet (1" = 50') and containing contour

intervals of one (1) foot or less in the regulated area showing the area of wetland or watercourse directly or indirectly affected, with the location of the proposed activity thereon.

9) Provide a Short Form Environmental Assessment Form. The Planning Board reserves the right to require the applicant to prepare a Long Form EAF after the initial review of an application.

10) Provide maps and information as follows:

- a) Ground water table elevations indicating depth to ground water, direction of flow and hydrologic connections with surface water features.
- b) Location of the construction area and area proposed to be disturbed, and its relation to property lines, roads, buildings, regulated areas within a minimum of two-hundred (200) feet or such other distance as determined by the Planning Board.
- c) Applications affecting the water retention capacity, water flow, or other drainage characteristics of any wetland, watercourse or water body shall include a statement of the impact of the project on upstream and downstream areas giving appropriate consideration to flood and drought levels and the amount of rainfall.
- d) Where creation of a lake or pond is proposed, details of the construction of any dams, embankments, outlets or other water control devices and an analysis of the wetland hydrologic system including seasonal water fluctuation, inflow/outflow calculations and subsurface soil, geology and groundwater conditions.
- e) Locations and specifications for any proposal to drain, fill, grade, dredge and clear vegetation, including areas and quantities proposed for deposition or removal, the procedures to be used and dominant species of vegetation to be removed.
- f) Locations and details of any existing and proposed storm water drainage facilities, including any point discharges, artificial inlets, or other conveyances which would discharge into regulated areas, and measures proposed to control erosion both during and after the proposed work including a schedule for installation and maintenance for such measures.
- g) An analysis of hydrologic systems located within and connected to the regulated areas and a narrative to explain how the regulated areas will be affected by the proposed action including water retention capacity, water flow and drainage characteristics. Applications for projects affecting the water-retention capacity, water flow, or other drainage characteristics of any pond, lake, reservoir, natural drainage system, or wetland shall include a statement and numerical calculations of the impact of the project on upstream and downstream areas, giving appropriate consideration of other than normal levels of watercourses and amounts of rainfall, specifically the 100-year storm event.

11) Attach a letter of determination from the United States Army Corps of Engineers that the wetlands and watercourses are not subject to regulation under Section 404 of the Federal Clean Water Act, or a copy of a 404 permit application, If area is governed by NYSDEC or USACE, then copy of applicable letter from the oversight agency is required.

12) Identify any requested waivers from the information requirements herein.

13) Property Data for All Applications:

- a) Attach a copy of the current deed and any easements affecting the property to this application.
- b) Are there agricultural and/or forestry exemptions affecting the property?
No Yes . If yes, please list in detail:

The signature of the Owner or Agent of the Owner below shall mean that the applicant is familiar with and will comply with the requirements of the Town Wetland and Watercourse Law and any amendments therein and other appropriate Town ordinances and regulations.

Applicant Signature: David Mellins

Date: July 1, 2021

ADDENDUM TO DAVID MELLINS
WETLAND AND WATERCOURSE APPLICATION
JULY 30, 2021

1. As of July 2021, selective ash trees infective with emerald ash borer were removed from the forested embankment leading from our lawn down to Shaw creek. Moreover, sugar maple branches, which had previously threatened the structure of the house, deck and electric lines were removed. We were requested to suspend this work by the Town of Washington building inspector until such time as a Wetlands and Waterway permit or authorization from the town building and zoning board could be secure. We are requesting permission to be able to continue judiciously removing some lower limbs of sugar maples and other trees to enhance the view of the bend in Shaw Creek due Southwest of the house and deck. This work will be conducted with concern for the maintenance of the forest health and wetland environment on the embankment leading to Shaw Creek.
2. With the authorization of James Finley, we proceeded this July (2021) with the planting of ground cover on the bare slope below the retaining wall due North of the house. This action was completed to minimize soil erosion that might compromise the stream.
3. Because water consistently seeps into our basement and leads to the growth of black mold in the mortar joints of the original field stone basement (19th century), we propose to divert East running roof water via pipes to an elongated underground cistern buried at the Western border of the gravel parking area, just East of the hornbeam hedge (see Site and Materials Plan). This diversion will also decrease stress and preserve the structure of the retaining wall, as well as diminish the unfiltered runoff of stormwater into Shaw Creek and the pond above the waterfall and dam.
4. We propose to build two patios, one due North of the house and one due Southwest at the Southwest corner of the lawn. The stones for these patios will be set in stone dust above item four to maximize water permeability.
5. To neutralize any loss in water permeability by the replacement of 450 sq ft of lawn with field stone in this upper patio, we will divert South running roof water via pipes into a SC-310 STORMTECH Chamber underground cistern. This cistern will detain 178 cubic feet of storm water, the equivalent of 3.5 inches of rainwater onto the 600 sq/ft surface of the East facing roof. To put this into context, this July (an exceedingly wet month), New York State on average experienced 8.53 inches of rain. A perk test at the site of the cistern measured the absorption rate to be 1" per hour, more than sufficient to allow the cistern to disperse water into the surrounding soil.
6. Loss in water permeability at the site of the lower (Southwest) patio has already been offset by the diversion of West running roof water into a dry well located to the Northwest of the deck during the last round of renovations.

OWNER

DAVID MELLINS

ADDRESS

**119 NORTH
MABBETTSVILLE RD
MILLBROOK, NY
12545**

PROPOSED ACTION

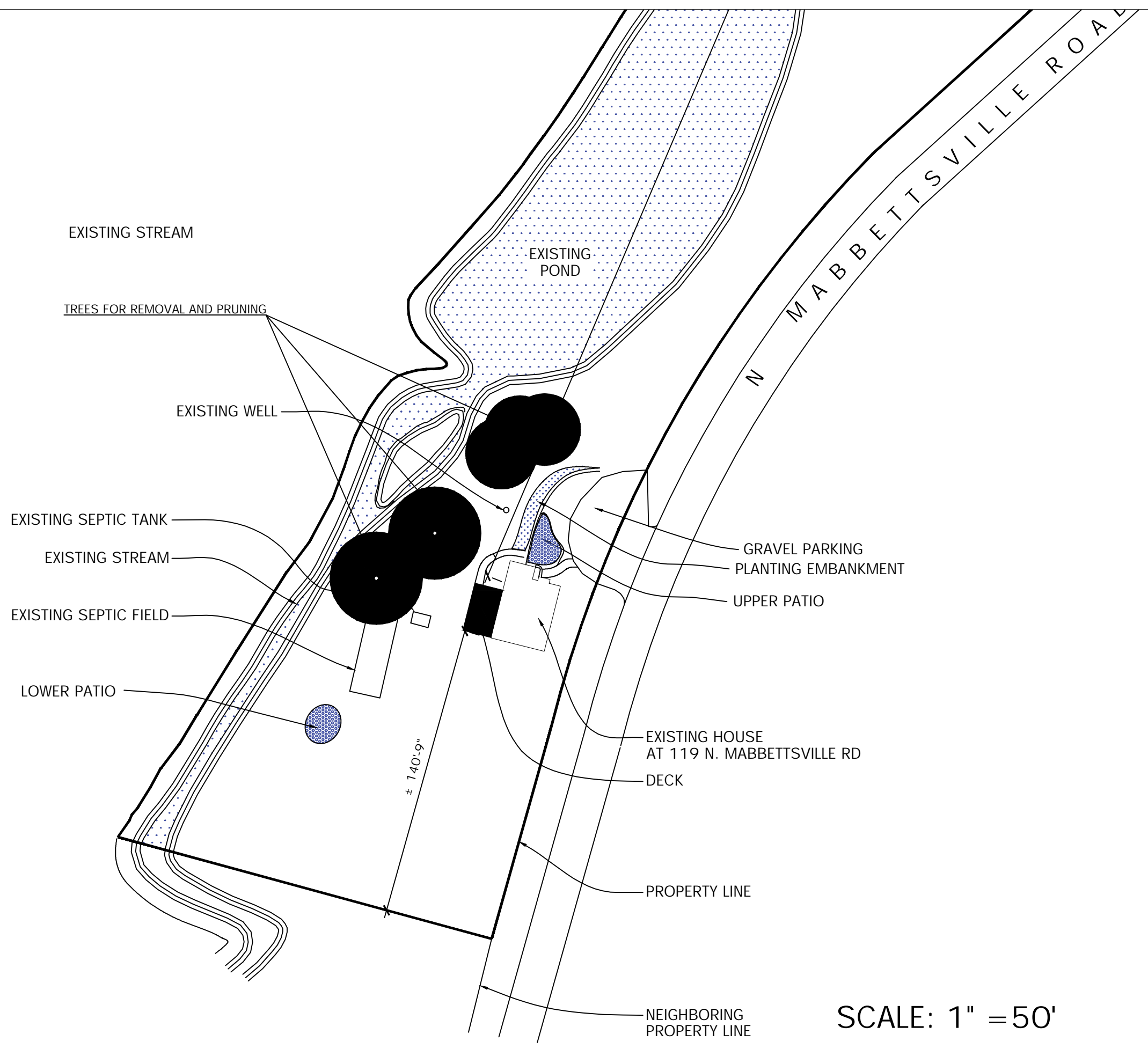
1. TREE/BRANCH REMOVAL
2. EMBANKMENT PLANTING
3. PATIO CONSTRUCTIONS

GENERAL CONTRACTOR

**MCEATHRON
CONTRACTING**

DATE

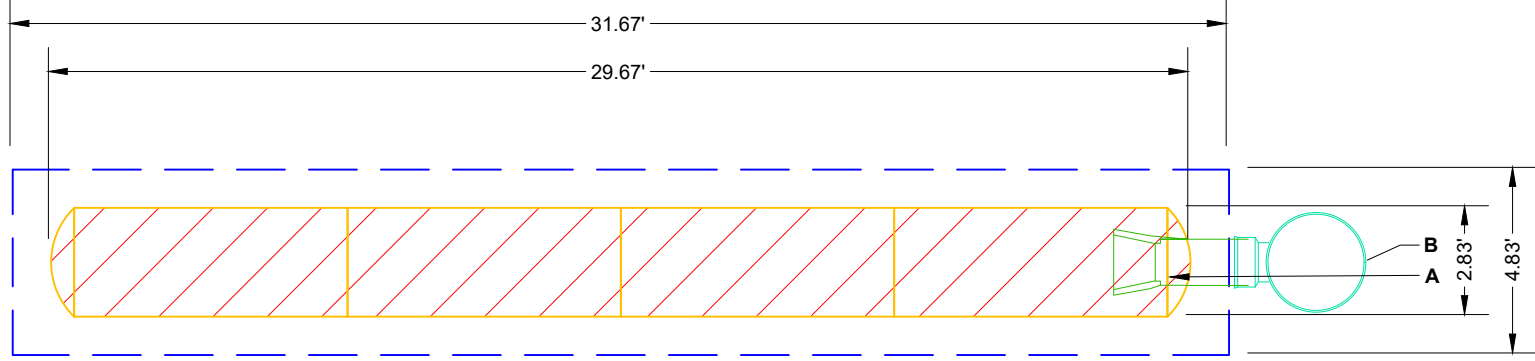
JULY 1, 2021



SCALE: 1" = 50'

PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS	
4	STORMTECH SC-310 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	9.83
2	STORMTECH SC-310 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	3.83
6	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	3.33
6	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	3.33
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	3.33
178	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	2.33
		TOP OF SC-310 CHAMBER:	1.83
		12" ISOLATOR ROW PLUS INVERT:	0.58
		BOTTOM OF SC-310 CHAMBER:	0.50
153	SYSTEM AREA (SF)	BOTTOM OF STONE:	0.00
73.0	SYSTEM PERIMETER (ft)		

				*INVERT ABOVE BASE OF CHAMBER	
PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW	
PREFABRICATED END CAP	A	12" BOTTOM PREFABRICATED END CAP, PART#: SC310EPE12BR / TYP OF ALL 12" ISOLATOR ROW PLUS CONNECTIONS	0.90"		
NYLOPLAST (INLET W/ ISO PLUS ROW)	B	30" DIAMETER (24.00" SUMP MIN)			



- ISOLATOR ROW PLUS (SEE DETAIL)
- NO WOVEN GEOTEXTILE
- BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

CONCEPT LAYOUT COPY

MILLBROOK, NY

DRAWN: JP

CHECKED: N/A

DATE:

PROJECT #:

DESCRIPTION

CHK

DRW

REV

888-892-2694 | WWW.STORMTECH.COM

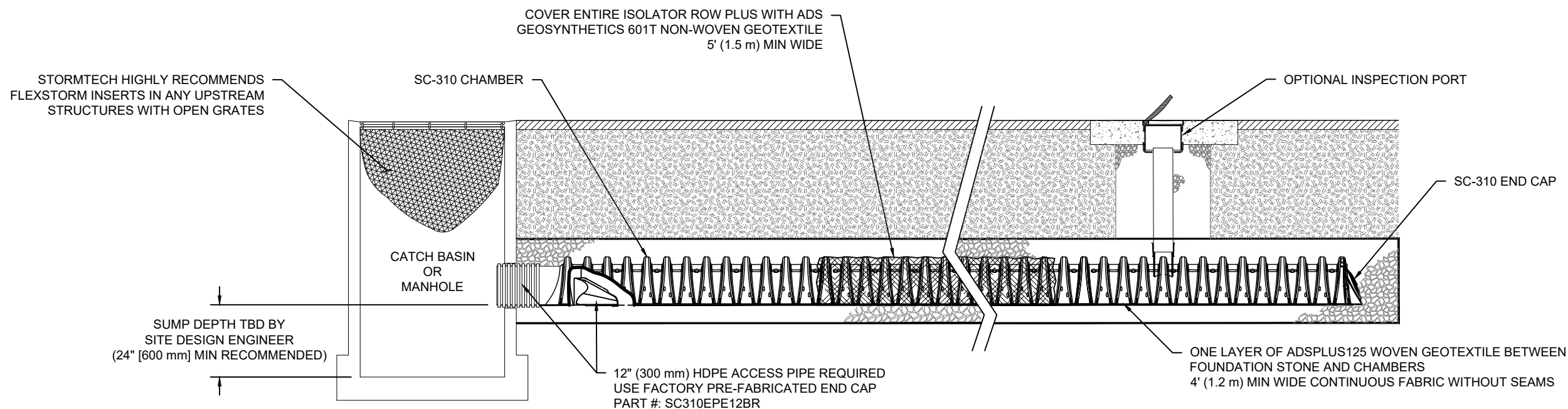
StormTech® Chamber System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

SHEET

2 OF 6



SC-310 ISOLATOR ROW PLUS DETAIL

NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
 - A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR PLUS ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
 - A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

CONCEPT LAYOUT COPY		MILLBROOK, NY	
		DATE:	DRAWN: JP
DESCRIPTION		PROJECT #:	CHECKED: N/A
CHK			
DRW			
REV			

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SHEET

4 OF 6

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	



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INSTRUCTIONS,
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INSTALLATION APP



CONCEPT LAYOUT COPY

MILLBROOK, NY

SC-310 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-310.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE OR POLYETHYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418-16a (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2922 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310 SYSTEM

1. STORMTECH SC-310 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

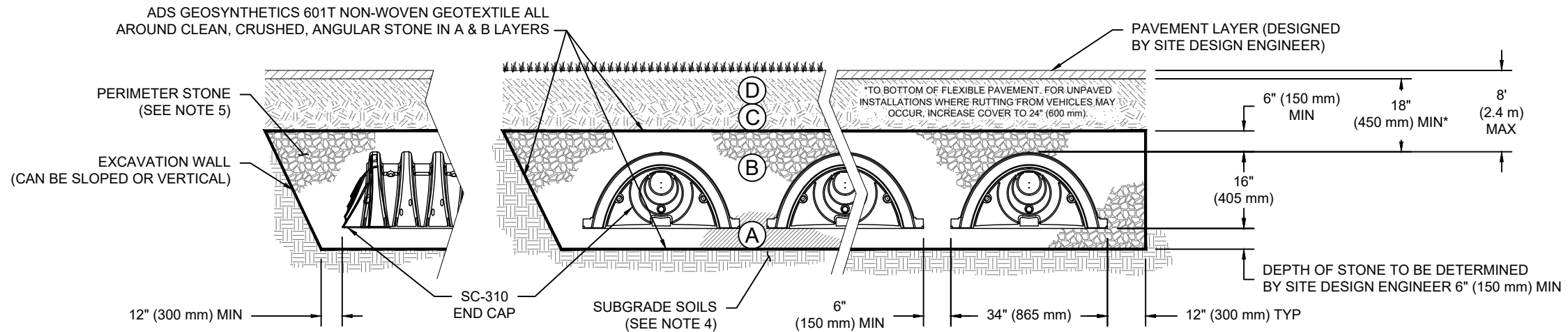
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418-16a (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

CONCEPT LAYOUT COPY
MILLBROOK, NY

DESCRIPTION

CHK

DRW

REV

DATE: PROJECT #:
DRAWN: JP CHECKED: N/A

StormTech®
Chamber System

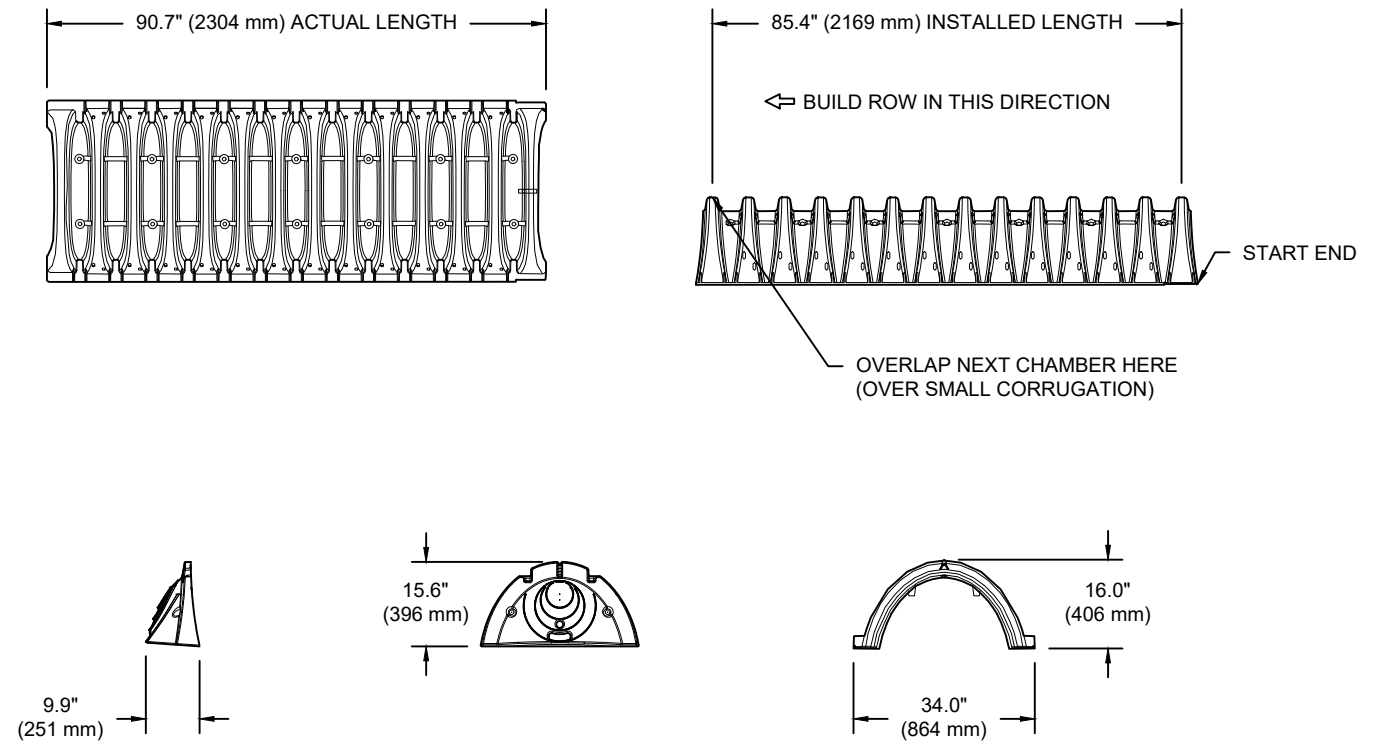
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473



THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

SC-310 TECHNICAL SPECIFICATION

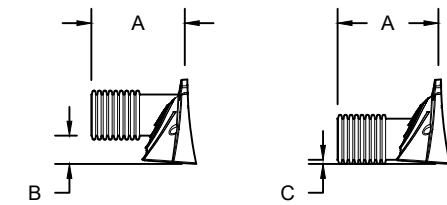
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4"	(864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET	(0.42 m ³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET	(0.88 m ³)
WEIGHT	35.0 lbs.	(16.8 kg)

*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR"
 PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
 PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
 PRE CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC			---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC			---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC			---	0.7" (18 mm)
SC310EPE12B	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)
SC310EPE12BR	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

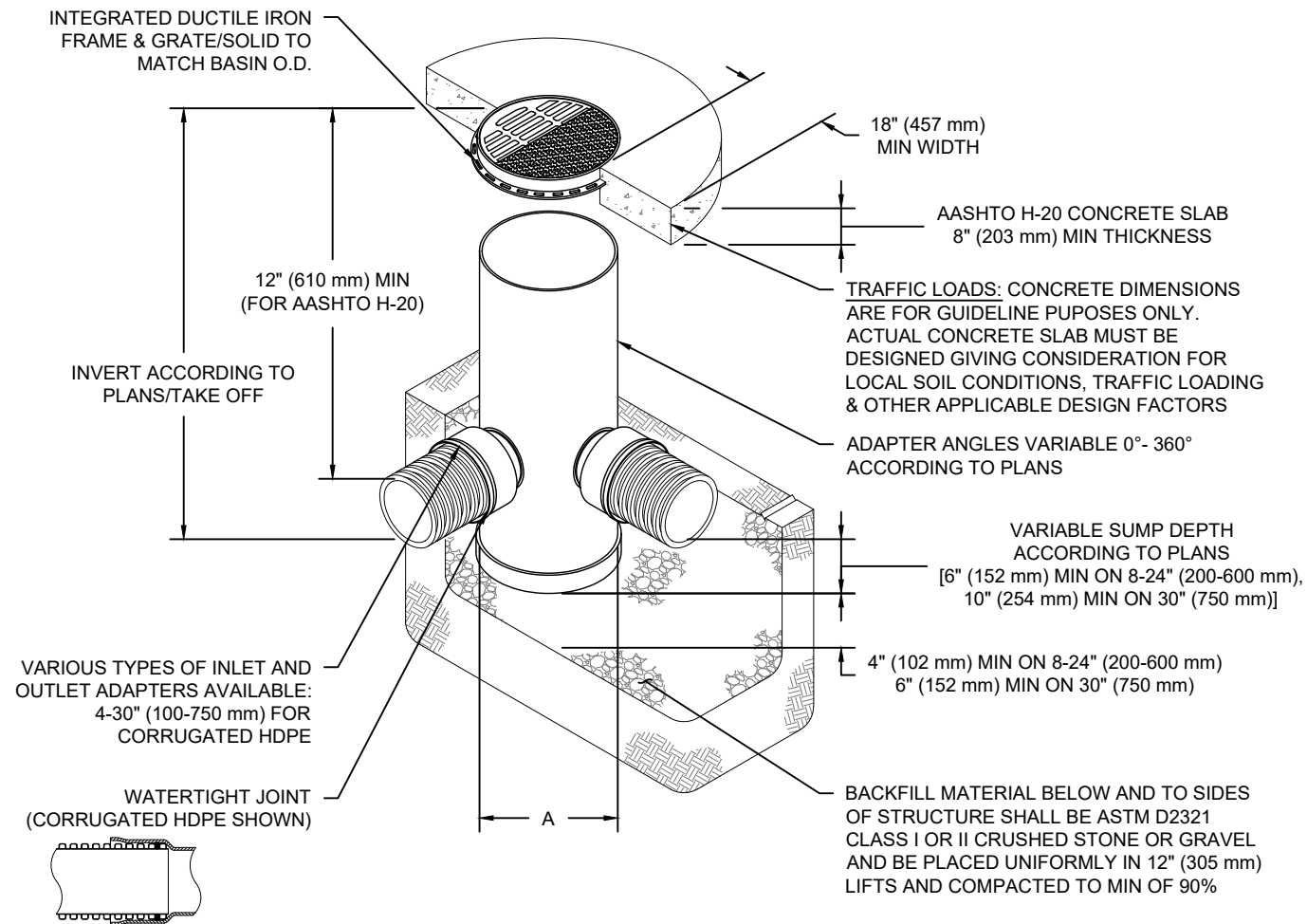
* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

StormTech® Chamber System 888-892-2694 WWW.STORMTECH.COM	CONCEPT LAYOUT COPY MILLBROOK, NY	DRAWN: JP CHECKED: N/A	PROJECT #: DATE:
4640 TRUJMAN BLVD HILLIARD, OH 43026 1-800-733-7473			
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.			
SHEET 5 OF 6			

NYLOPLAST DRAIN BASIN

NTS



NOTES

- 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.NYLOPLAST-US.COM
- TO ORDER CALL: 800-821-6710

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

CONCEPT LAYOUT COPY
MILLBROOK, NY

DATE:
PROJECT #:

DESCRIPTION

CHK

DRW

REV

770-932-2443 | WWW.NYLOPLAST-US.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

Nyloplast[®]

DRAWN: JP
CHECKED: N/A

SHEET

6 OF 6

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AFFIDAVIT TO BE COMPLETED BY AGENT OF OWNER

State of New York }
 }
County of Dutchess } ss:

_____ being duly sworn deposes and says:

1. That he/she is the agent named in the foregoing application for d and that he/she has been duly authorized by the owner in fee to make such application and that the foregoing statements contained therein are true to the best of his/her knowledge and belief.
2. That he/she resides at 119 North Mabbettsville Rd. in the County of Dutchess County and the State of New York.
3. That he/she is the owner_____ of the within property as described in the foregoing application for Wetland / Watercourse Permit approval and that the statements contained therein are true to the best of his/her knowledge and belief.
4. That he/she understands that the Town of Washington Planning Board intends to rely on the foregoing representations in making a determination to issue the requested applications and approvals and that under penalty of perjury he/she declares that he/she has examined this affidavit and that it is true and correct.

_____ Agent/
Owner

_____ Agent/Owner

Notary Public

DISCLOSURE OF BUSINESS INTEREST

State of New York }
 }
Count of Dutchess } ss:

David Mellins being duly sworn, deposes and says:

- 1. Pursuant to §803 of the General Municipal Law the following municipal officer(s) or employee(s), and any of their family members, outside employers, business associates, clients, or campaign contributors, have, or will later acquire, an ownership position, employment position, or other contractual interest in the proposed project: (Insert name, home address and municipal position held. Attach additional pages as necessary.)

—

NONE _____

- 2. That the interest of said municipal officer(s) or employee(s) is: (Detail the nature and extent of the interest. Attach additional pages as necessary.)

NONE _____

- 3. That he/she understands that the Town of Washington intends to rely on the foregoing representations in making a determination to issue the requested applications and approvals and that under penalty of perjury he/she declares that he/she has examined this affidavit and that it is true and correct.

Agent/Owner

DavidMellins

Agent/Owner

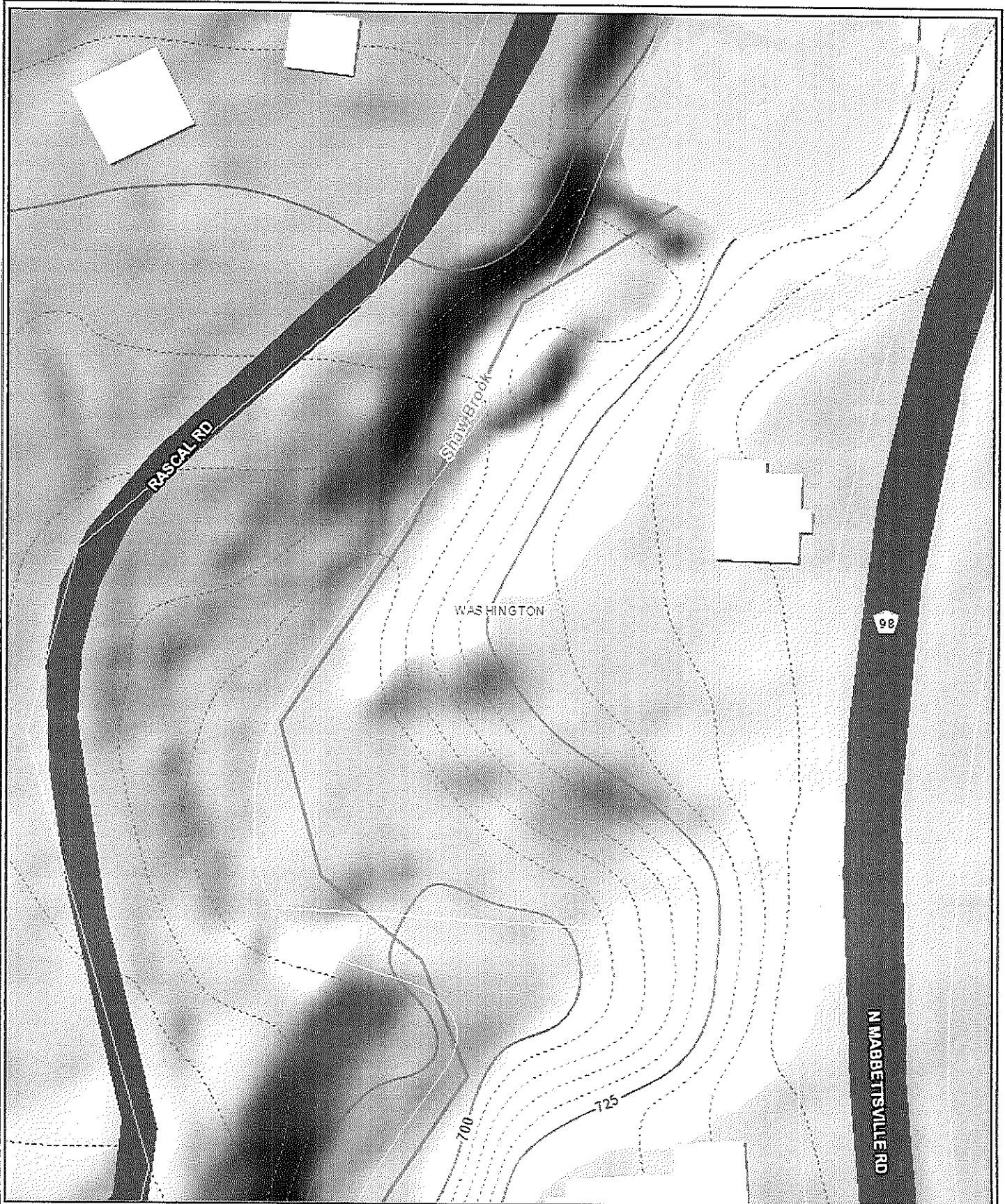
Notary Public





Distances

	Miles	Feet
Total	0.02	93
Seg 1	0.01	30
Seg 2	0.01	63



Parcel Lines
Dutchess County, NY





Dutchess County Clerk Recording Page

Record & Return To:

Date Recorded: 11/16/2016
Time Recorded: 9:26 AM

WENDY BUSH LYONS ESQ
187 EAST MARKET STREET
SUITE 204
RHINEBECK, NY 12572

Document #: 02 2016 7918

Received From: INTEGRITY LAND SERVS LLC

Grantor: KENNEDY KAREN
Grantee: MELLINS DAVID

Recorded In: Deed
Instrument Type:

Tax District: Washington

Examined and Charged As Follows :

Recording Charge: \$190.00
Transfer Tax Amount: \$1,720.00
Includes Mansion Tax: \$0.00
Transfer Tax Number: 2415

Number of Pages: 4

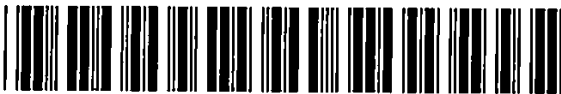
***** Do Not Detach This Page
*** This is Not A Bill**

Red Hook Transfer Tax:

RP5217: Y
TP-584: Y

County Clerk By: cha
Receipt #: 37907
Batch Record: 251

Bradford Kendall
County Clerk



0220167918

Wash 13
60
125
190
1720
1910

DEED

THIS INDENTURE, made the 9th day of November, 2016, BETWEEN

Karen Kennedy, having an address at 119 North Mabbettsville Road, Millbrook, New York 12545,

as party of the first part, and

David Mellins, having an address at 900 West 190th St, Apt. 9N, New York, New York 10040,

as party of the second part,

WITNESSETH, that the party of the first part, in consideration of TEN DOLLARS and other good and valuable consideration paid by the party of the second part, the receipt and adequacy of which is hereby acknowledged, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece, or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the **TOWN OF Washington,** County of Dutchess, and State of New York, more particularly bounded and described as is set forth on Schedule "A" annexed hereto.

BEING AND INTENDED TO BE the same premises conveyed to Karen Kennedy by Deed from Lisa Fresne n/k/a Lisa Foster dated June 1, 2007 and recorded June 7, 2007 in the Dutchess County Clerk's Office as Document No. 02-2007-4038.

TOGETHER WITH all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER WITH** the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

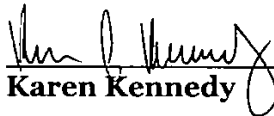
AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

{00023361 1}

AND the party of the first part, in compliance with Section 13 of Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it reads "parties" whenever the sense of the indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN THE PRESENCE OF:



Karen Kennedy ✓

STATE OF NEW YORK, COUNTY OF DUTCHESS) ss.:

On the 7th day of November, in the year 2016, before me, the undersigned, a Notary Public in and for said State, personally appeared Karen Kennedy, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



NOTARY PUBLIC, State of New York ✓

Tax Identification number: 6865-00-304694
119 North Mabbettsville Road
Town of Washington
County of Dutchess
State of New York

CARA A. WHALEN
NOTARY PUBLIC-STATE OF NEW YORK
NO. 02WH6256145
QUALIFIED IN DUTCHESS COUNTY
MY COMMISSION EXPIRES 02-21-2020

Record and Return to:
Wendy Bush Lyons, Esq.
187 East Market St., Suite 204
Rhinebeck, NY 12572

Recorded By:
Integrity Land Services LLC
6054 Route 9
Rhinebeck, New York 12572
Phone: 845-876-2100
KS - D-17497

(00023361 1)

Integrity Land Services LLC
as Agent for
Stewart Title Insurance Company

SCHEDULE A - LEGAL DESCRIPTION

Title No.: ILS-D-17497

ALL that certain plot, piece or parcel of land with the buildings and improvements thereon erected, situate, lying and being in the Town of Washington, County of Dutchess and State of New York, and being designated as Lot Number 1 on a Map entitled "Hanes Subdivision" filed in the Dutchess County Clerk's Office as Map No. 5546 on December 8, 1978 and being more particularly described as follows:

BEGINNING at the southeast corner of the herein described parcel, said point also being the northeast corner of Lot 2 as shown on said Filed Map No. 5548, thence along the division line of Lot 1 on the North and Lot 2 on the South, North 74° 45' West 221 feet plus or minus to a point five (5) feet westerly from the westerly bank of a brook flowing southwesterly, said point being a point on the easterly property line of Dean B. Goddard and Lisa J. Gann, thence northeasterly and five (5) feet westerly and parallel at all times to the westerly bank of the brook 854 feet plus or minus to a point on the southerly road bounds of Daheim Road said line being the division line of said Goddard and Genn on the west and the herein described parcel on the east, thence running along said southerly road bounds of Daheim Road, South 76° 52' East 255 feet plus or minus to the intersection of the westerly road line of County Road 98, thence along said westerly road line of County Road 98, South 9° 00' East 31.00 feet and South 47° 46' West 420.93 feet to the point of curvature of a tangent curve to the left having a radius of 575.00 feet, thence continuing along said road line and along said curve 321.81 feet to the point of tangency of said curve, thence continuing along said westerly road line of County Road 98 South 15° 42' West 106.27 feet to the point of BEGINNING.