

I CERTIFY THAT I HAVE CONFORMED WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS IN PREPARING THIS PLAN.

HAYES ENGINEERING, INC.

LEGEND OF ABBREVIATIONS

6712/470 - BOOK/PAGE REFERENCE RECORDED AT THE ESSEX SOUTH DISTRICT REGISTRY OF DEEDS

(FD) - FOUND

SBDH - STONE BOUND DRILL HOLE

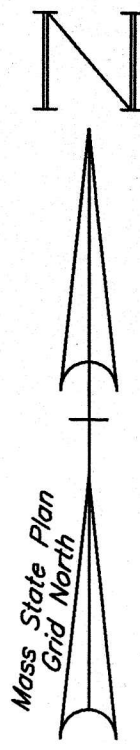
BENCHMARKS (NAVD 88):

- 1) TOP TACK ELEVATION = 135.74
- 2) TOP PK NAIL ELEVATION = 128.49

Coordinate System

N 925,790.972 m
E 248,188.185 m

Massachusetts Mainland State Plane Coordinates in meters based upon Beverly Airport Primary Control Station designation BYD D (PID - A15565) NAD 83(2011) position.

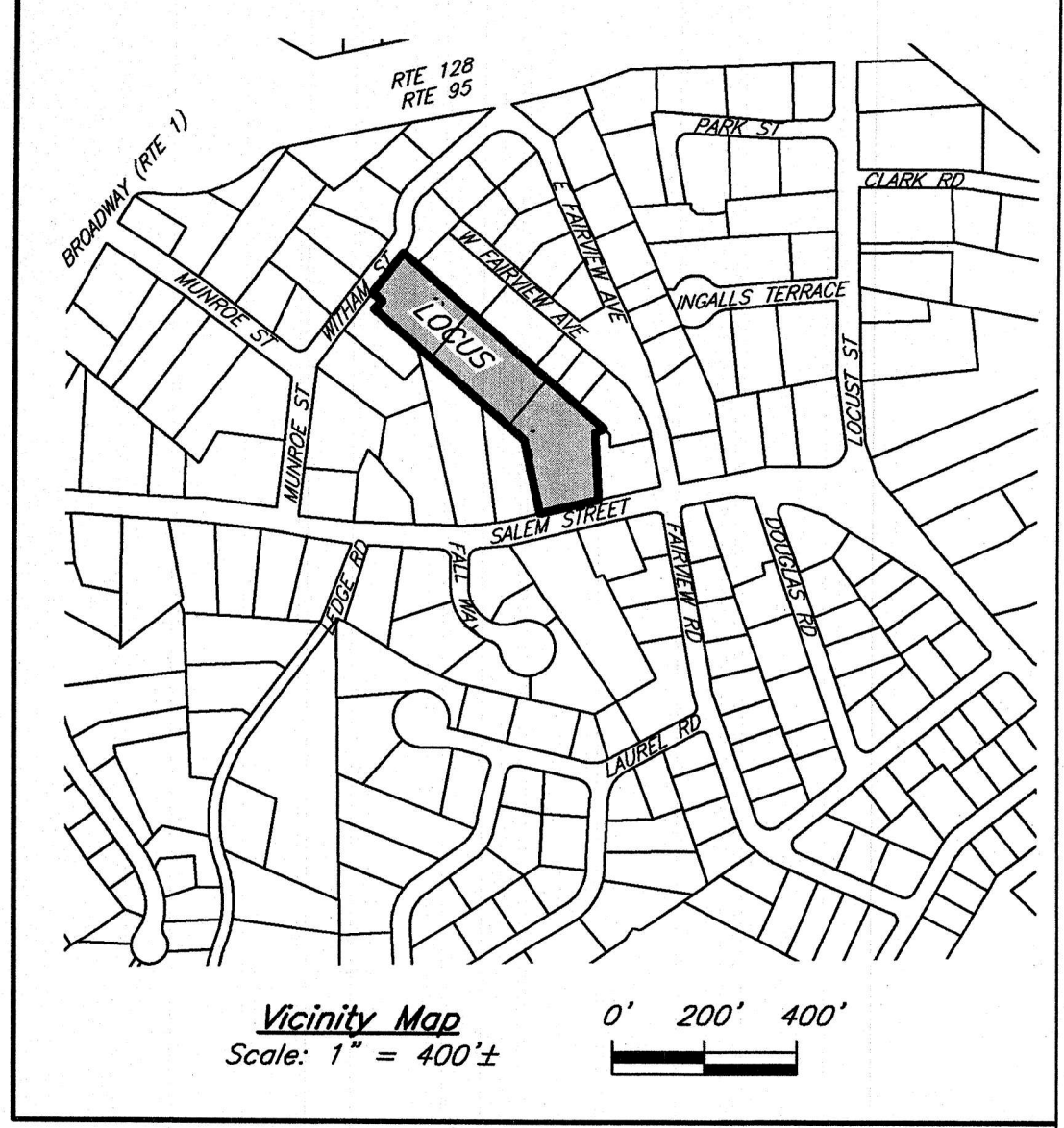


GENERAL NOTES:

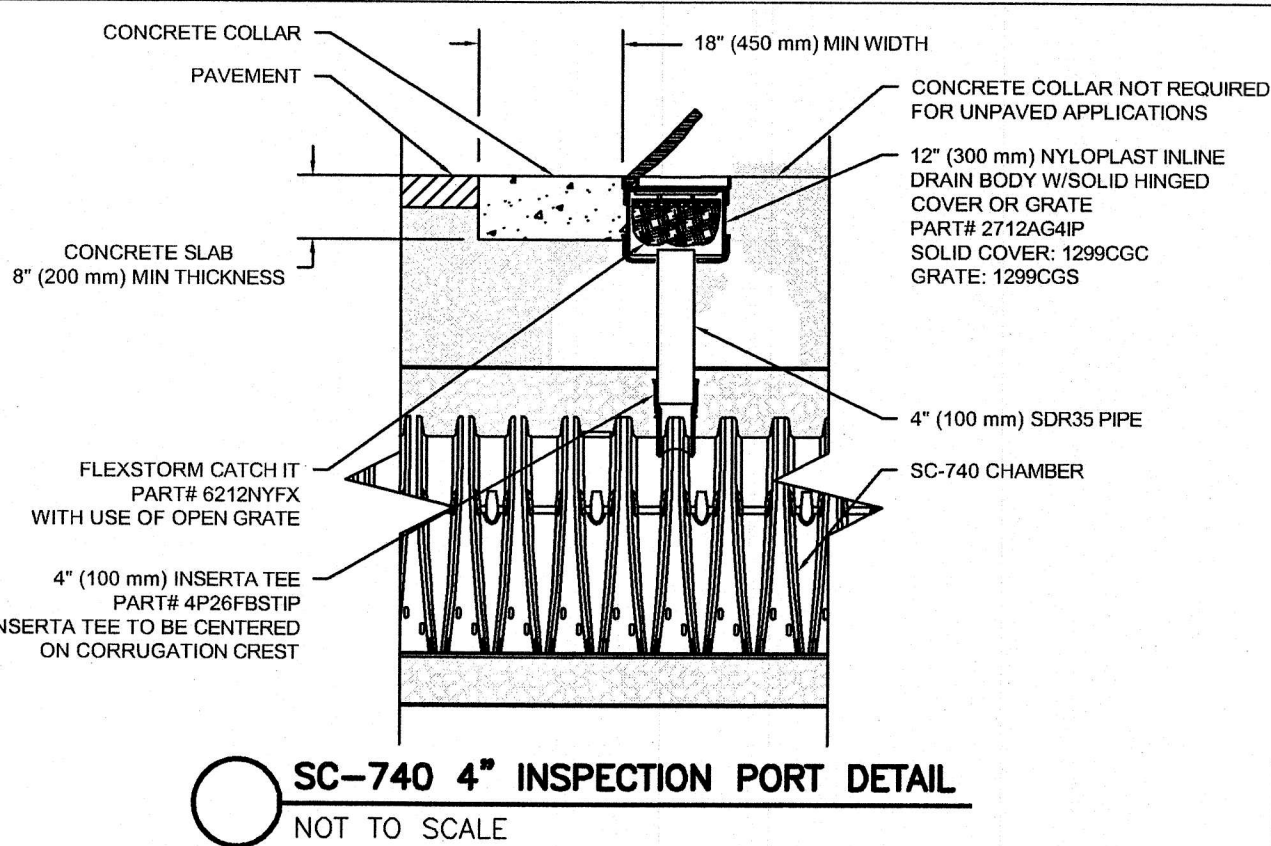
- PROPERTY LINE INFORMATION TAKEN FROM "LOTING PLAN OF LAND IN LYNNFIELD, MA" BY HANCOCK ASSOCIATES DATES JUNE 12, 2019
- EXISTING TREES TAKEN FROM "DEFINITIVE SUBDIVISION PLAN" "EXISTING CONDITIONS PLAN OF LAND IN LYNNFIELD, MA" BY HANCOCK ASSOCIATES DATED APRIL 5, 2018 REVISED TO JULY 3, 2018
- ALL CLEARING, EXCAVATING, AND FILLING WILL BE PERFORMED IN ACCORDANCE WITH SECTION 8.2.1 OF THE RULES & REGULATIONS OF THE PLANNING BOARD GOVERNING THE SUBDIVISION OF LAND IN LYNNFIELD, MASSACHUSETTS (R&R) SECTION 7.5
- EXISTING ABUTTING HOMES TAKEN FROM THE TOWN OF LYNNFIELD TOPOGRAPHIC MAPS.

TREE LEGEND

- M - MAPLE
- O - OAK
- PO - POPLAR
- CH - CHERRY
- DEC - UNKNOWN DECIDUOUS



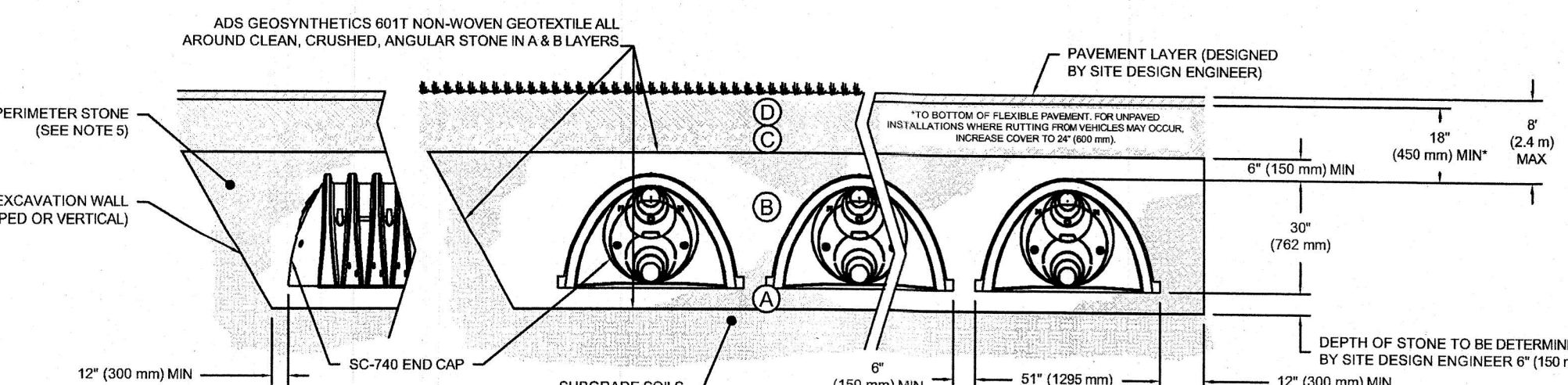
Vicinity Map
Scale: 1" = 400'



ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

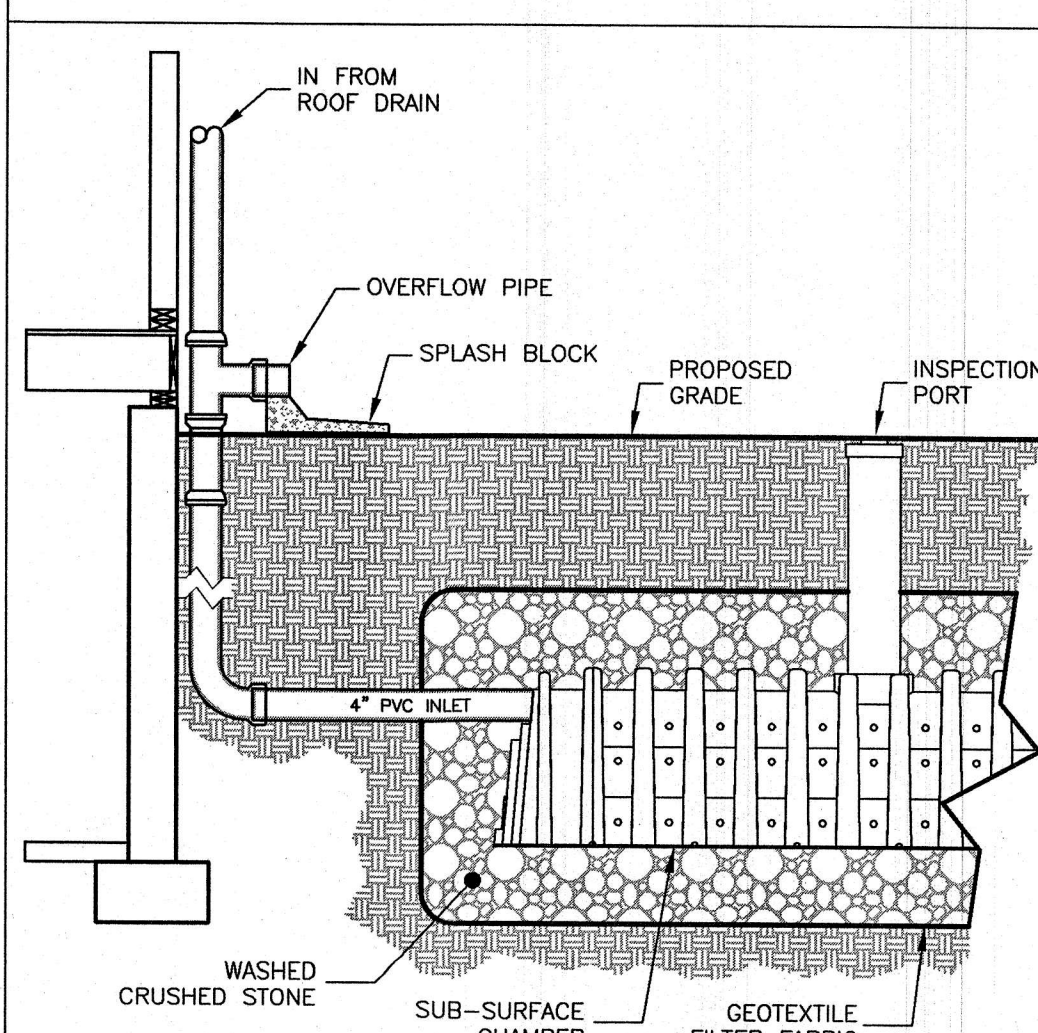
MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	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 EMBEDED 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.	AASHTO M145 A-1, A-2, A-3 OR AASHTO M31 3, 3S7, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 88, 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.	AASHTO M31 3, 3S7, 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.	AASHTO M31 3, 3S7, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{1,2}

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR M4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M4) STONE".
2. 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.
3. 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.



- NOTES:**
- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
 - 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.
 - 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.

SC-740 CROSS SECTION DETAIL
NOT TO SCALE



ROOF DRAIN TO SUB-SURFACE CHAMBER
NOT TO SCALE
NOTE:
1. CHAMBERS SHALL BE INSTALLED A MINIMUM OF 10' FROM HOUSE.

ZONE: SINGLE RESIDENCE (RA)
MINIMUM LOT AREA = 15,000 S.F.
MINIMUM LOT FRONTAGE (CORNER TO CORNER) = 110 FEET
MINIMUM LOT FRONTAGE ON CURVE = 146.67 FEET
MINIMUM LOT WIDTH = 88 FEET
MINIMUM YARD SETBACKS
FRONT = 30 FEET
SIDE = 15 FEET
REAR = 20 FEET
PERMITTED LOT COVERAGE = 35%
PROPERTY IS NOT LOCATED IN THE GROUNDWATER PROTECTION DISTRICT.
PROPERTY IS NOT LOCATED IN A FLOOD PLAIN DISTRICT.

No.	Revision	Date
10		
9		
8		
7		
6		
5		
4		
3		
2		
1		

Hayes

0' 20' 40' 80' 120'

**DEFINITIVE PLAN
GRADING AND STORMWATER MANAGEMENT
LYNNFIELD, MASS.**

ASSESSORS MAP 52 LOT 783 & MAP 53 & 843

<p>OWNER & APPLICANT 914 Salem Street Realty Trust 914 Salem Street Lynnfield, MA 01940</p>	<p>Engineer Hayes Engineering, Inc. 603 Salem Street Wakefield, Mass. 01880 www.hayeseng.com</p>
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Scale: 1" = 40' August 19, 2019

LYNNFIELD PLANNING BOARD	Application Filed: _____
	Final Plan Filed: _____
	Hearing Date: _____
	Plan Approved: _____
	Plan Signed: _____
GRADING SHEET 1 OF 1	
SHEET 4 OF 4	