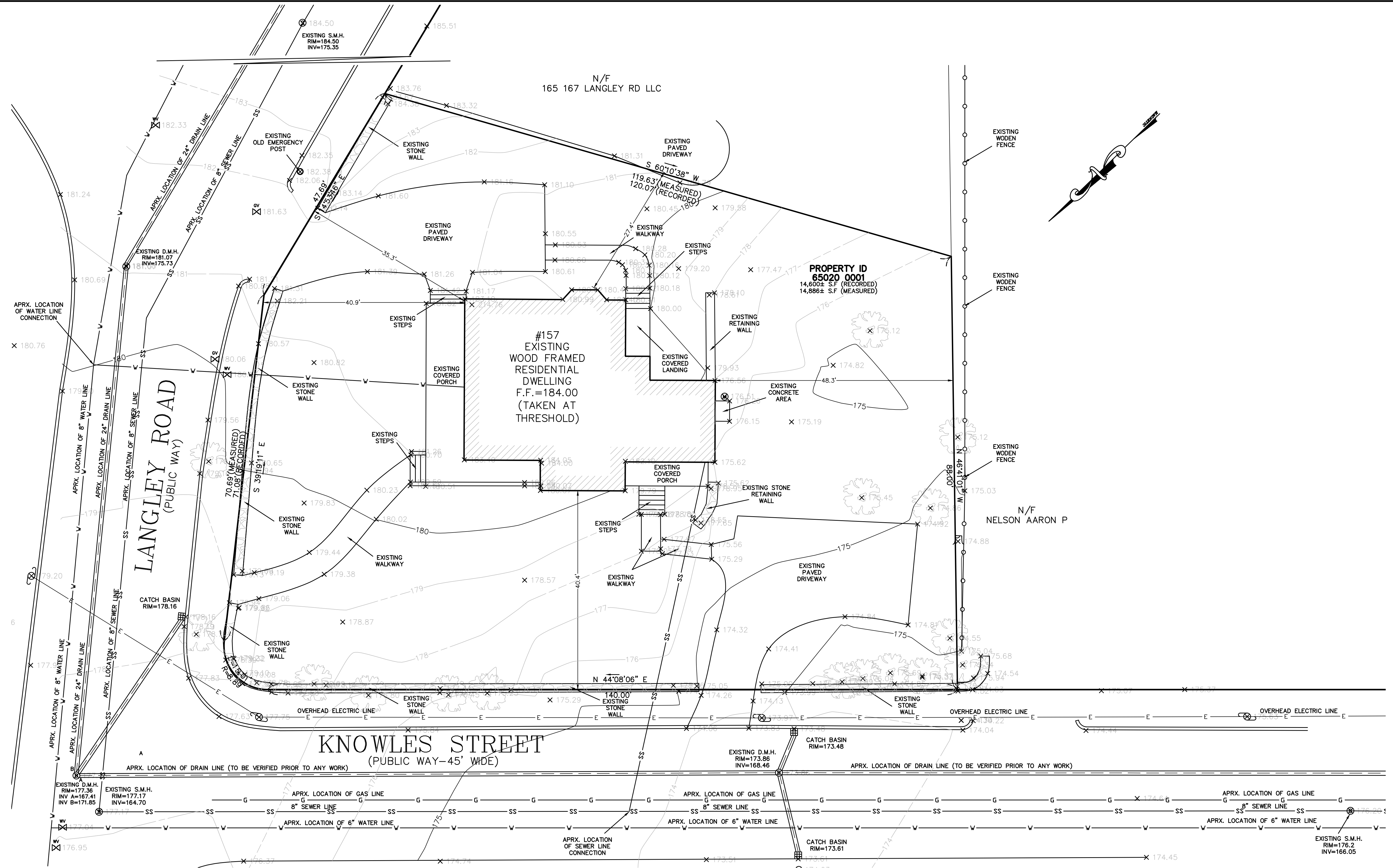
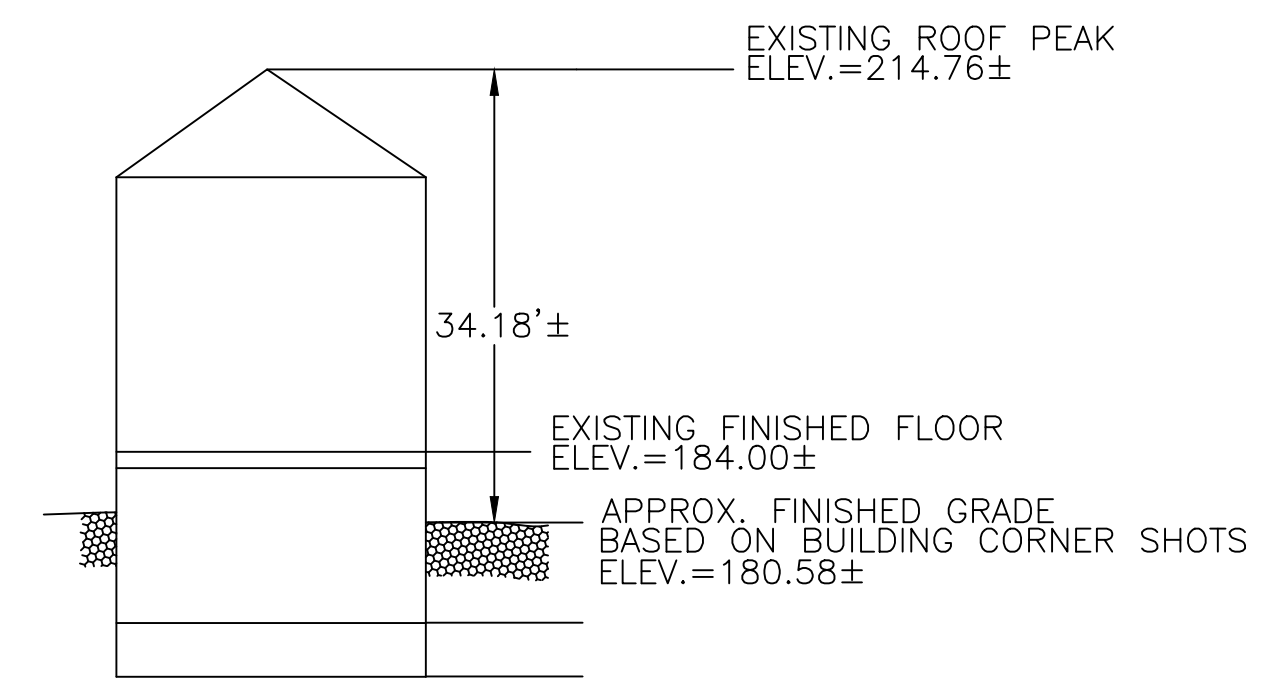


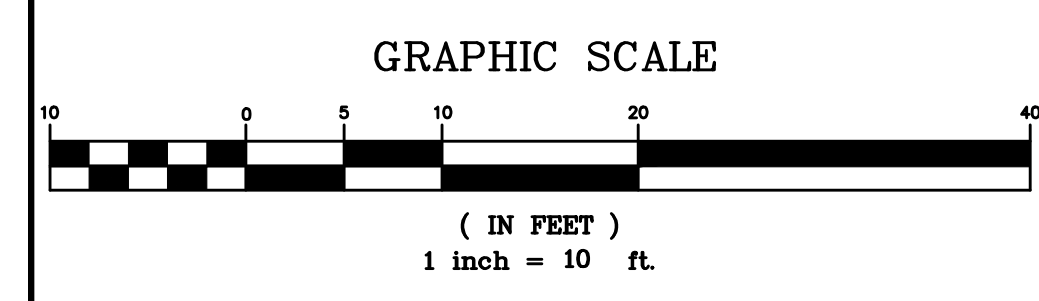
LEGEND	
□	BOUND
○	IRON PIN/PIPE
○	STONE POST
⊗	TREE
⊗	TREE STUMP
⊗	SHRUBS/FLOWERS
⊗	SIGN
●	BOLLARD
⊙	SEWER MANHOLE
⊙	DRAIN MANHOLE
⊙	CATCH BASIN
⊙	WATER MANHOLE
⊙	WATER VALVE
⊙	HYDRANT
⊙	GAS VALVE
⊙	ELECTRIC MANHOLE
⊙	ELECTRIC HANDHOLE
⊙	UTILITY POLE
⊙	LIGHT POLE
⊙	MANHOLE
⊙	SPOT GRADE
TW	TOP OF WALL
BW	BOTTOM OF WALL
▨	EXISTING BUILDING
▨	RETAINING WALL
▨	STONE WALL
○	FENCE
○	TREE LINE
S	SEWER LINE
D	DRAIN LINE
W	WATER LINE
G	GAS LINE
E	UNDERGROUND ELECTRIC LINE
OHW	OVERHEAD WIRES
145	CONTOUR LINE (MJR)
146	CONTOUR LINE (MNR)



- NOTES:
1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 06/08/2021.
 2. DEED REFERENCE: BOOK 15136, PAGE 295
PLAN REFERENCE: PLAN BOOK 6426, PAGE 201
MIDDLESEX COUNTY SOUTH DISTRICT REGISTRY OF DEEDS
 3. THIS PLAN IS NOT INTENDED TO BE RECORDED.
 4. I CERTIFY THAT THE DWELLING SHOWN IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE X, ON FLOOD HAZARD BOUNDARY MAP NUMBER 25017C0554E, ON PANEL NUMBER 0554E, IN COMMUNITY NUMBER: 250208, DATED JUNE 04, 2010.
 5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
 6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.
 7. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS PETER NOLAN & ASSOCIATES LLC ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.
 8. THE ELEVATIONS SHOWN ARE BASED ON CITY OF NEWTON DATUM.
 9. ZONING DISTRICT: MR.-1, LOT CREATED BEFORE 12/07/1953.



EXISTING PROFILE
NOT TO SCALE



SCALE	1"=10'
DATE	7/9/2021
SHEET	1
PLAN NO.	1 OF 4
CLIENT:	157 LANGLEY ROAD NEWTON MASSACHUSETTS
DRAWN BY	KK
CHKD BY	ETS
APPD BY	PJN
PETER NOLAN & ASSOCIATES LLC LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS 80 JEWETT STREET, SUITE 1, NEWTON MA 02458 PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691 EMAIL: pnolan@pnasurveyors.com	
SHEET NO. 1	

PETER NOLAN & ASSOCIATES LLC SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORKING ACCORDANCE WITH THE CONTRACT DOCUMENTS.
THE EXTENT OF PETER NOLAN & ASSOCIATES LIABILITY FOR THIS PLAN IS LIMITED TO THE EXTENT OF ITS FEE, LESS THIRD PARTY COST.
COPYRIGHT 2021 PETER NOLAN & ASSOCIATES LLC
All Rights Reserved
NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING, OR OTHERWISE, WITHOUT THE PRIOR WRITTEN PERMISSION OF PETER NOLAN & ASSOCIATES LLC. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF PETER NOLAN & ASSOCIATES LLC SHALL RENDER IT INVALID AND UNUSABLE.

LEGEND table with symbols for UTILITY POLE, WATER GATE, GAS GATE, SEWER MANHOLE, CLEANOUT, DRAIN MANHOLE, CATCH BASIN, TREE, LIGHT POLE, SIGN, etc.

NOTE: SEWER AND WATER MAIN LINE LOCATION TO BE CONFIRMED BY CONTRACTOR

NOTE: ANY PROPOSED RETAINING WALLS SHALL BE DESIGNED BY OTHERS.

NOTE: SURFACE WATER TO BE DIVERTED FROM ALL SIDES OF FOUNDATION WALL

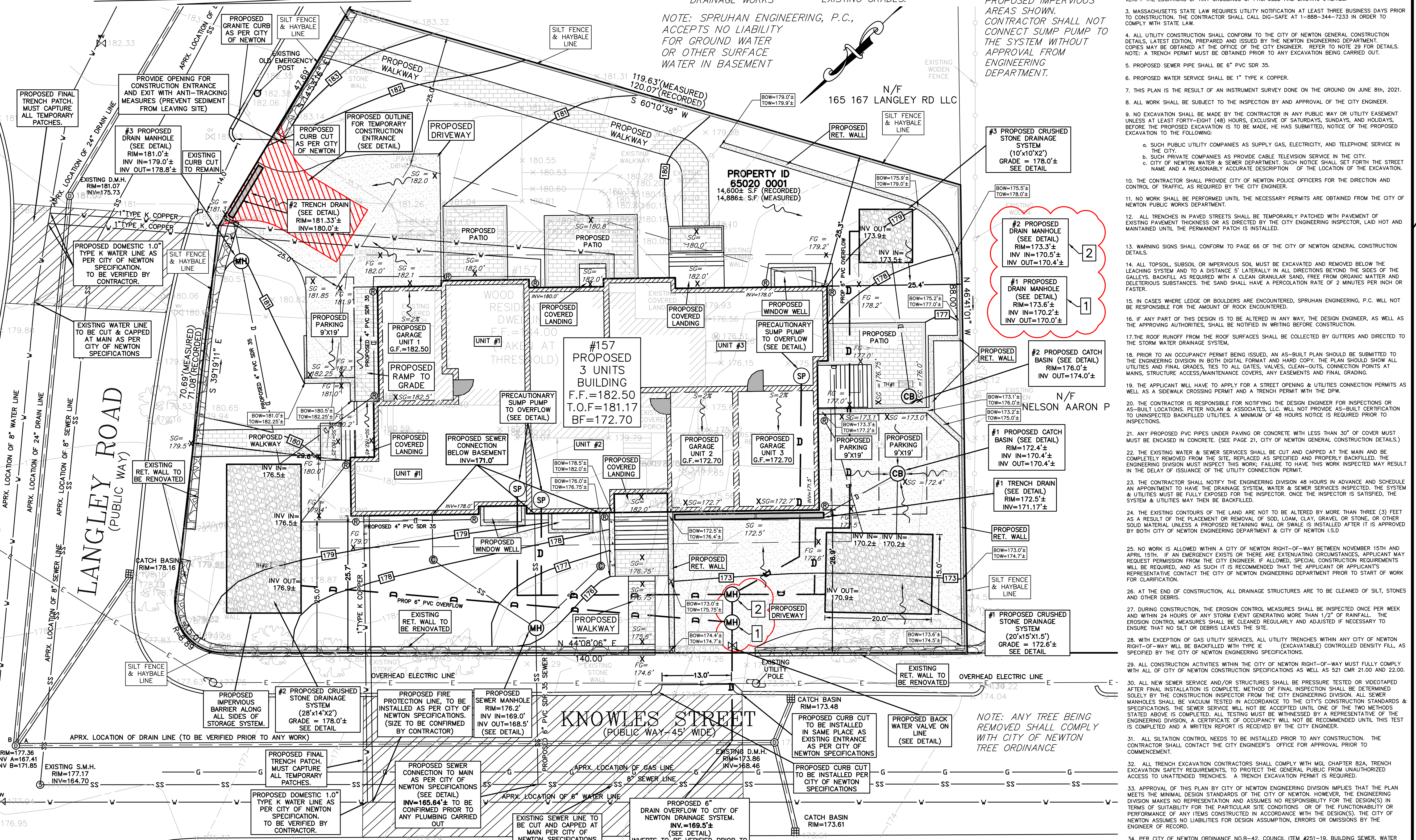
NOTE: CONTRACTOR TO CONFIRM LOCATION OF DOWN SPOUTS PRIOR TO CARRYING OUT ANY DRAINAGE WORKS

NOTE: ANY PROPOSED RETAINING WALL IN SETBACK SHALL NOT EXCEED 4 FEET IN HEIGHT IN REFERENCE TO EXISTING GRADES.

NOTE: DRAINAGE SYSTEM IS DESIGNED FOR 100 YEAR STORM EVENT FOR ALL RUNOFF FROM PROPOSED IMPERVIOUS AREAS SHOWN. CONTRACTOR SHALL NOT CONNECT SUMP PUMP TO THE SYSTEM WITHOUT APPROVAL FROM ENGINEERING DEPARTMENT.

NOTES

- 1. ELEVATIONS REFER TO CITY OF NEWTON DATUM.
2. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.
3. MASSACHUSETTS STATE LAW REQUIRES UTILITY NOTIFICATION AT LEAST THREE BUSINESS DAYS PRIOR TO CONSTRUCTION...



NOTE: CONTRACTOR TO ENSURE THAT THE BUILDING FOOTPRINT REPRESENTED ON THIS PLAN IS THE SAME AS THE PROPOSED ARCHITECTURAL/STRUCTURAL PLANS AND INCORPORATES ALL OVERHANGS, CANTILEVERS AND ANY COMPONENT THAT IS SUBJECT TO ZONING RESTRICTIONS...

NOTE: CONTRACTOR TO ENSURE ALL RAIN WATER FROM SPLASH BLOCKS (IF ANY) IS DIVERTED AWAY FROM BUILDING FOUNDATION AND DIVERTED AWAY FROM NEIGHBORING PROPERTIES

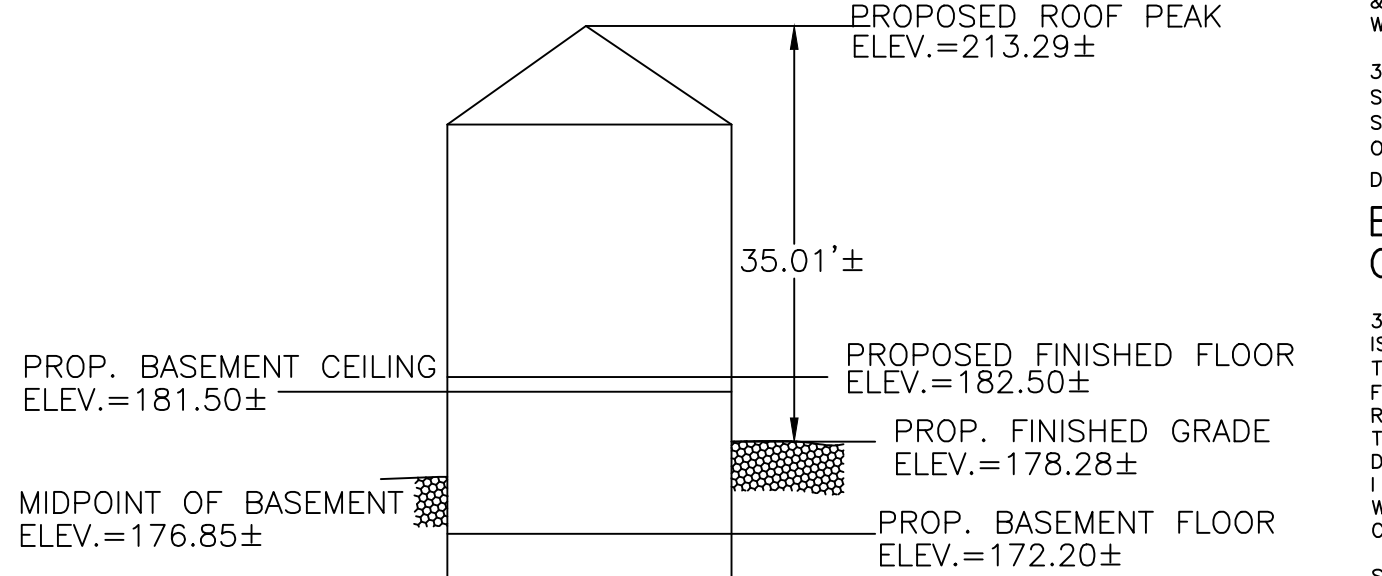
- 1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 06/08/2021.
2. DEED REFERENCE: BOOK 15136, PAGE 295
3. THIS PLAN IS NOT INTENDED TO BE RECORDED.
4. I CERTIFY THAT THE DWELLING SHOWN IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE...

ZONING LEGEND

Table with columns: MIN. AREA, MIN. FRONTAGE, MIN. YARD FRONT (LANGLEY), MIN. YARD FRONT (KNOWLES), SIDE, REAR, MAX. LOT COV., MIN. OPEN SPACE, MAX. BLDG. HEIGHT. Includes required and proposed values.

DRAINAGE AREA SUMMARY

EXISTING ROOF = 1,515.25 S.F.
EXISTING PAVED DRIVEWAY = 1,834.92 S.F.
EXISTING PORCH/LANDING/STEPS = 590.18 S.F.
EXISTING WALKWAY = 399.58 S.F.
EXISTING LANDSCAPE AREA = 10,546.07 S.F.



PROPOSED PROFILE NOT TO SCALE

* MIDPOINT OF BASEMENT ELEVATION LOWER THAN AVERAGE GRADE ELEVATION THEREFORE PROPOSED BASEMENT MEETS DEFINITION OF BASEMENT

PETER NOLAN & ASSOCIATES, LLC and SPRUHAN ENGINEERING, P.C. logos and contact information.

157 LANGLEY ROAD NEWTON MASSACHUSETTS

REVISION BLOCK

Table with columns: DESCRIPTION, DATE. One revision: REVISED AS PER CLIENT 5/13/2022.

All legal rights including, but not limited to, copyright and design patent rights, in the designs, arrangements and plans shown on this document are the property of Peter Nolan & Associates, LLC, or Spruhan Engineering, P.C.

CIVIL PLAN

Table with fields: SCALE (1"=10'), DATE (5/9/2022), DRAWN BY (OG), CHECKED BY (PN), APPROVED BY (ES), SHEET (2 OF 4).

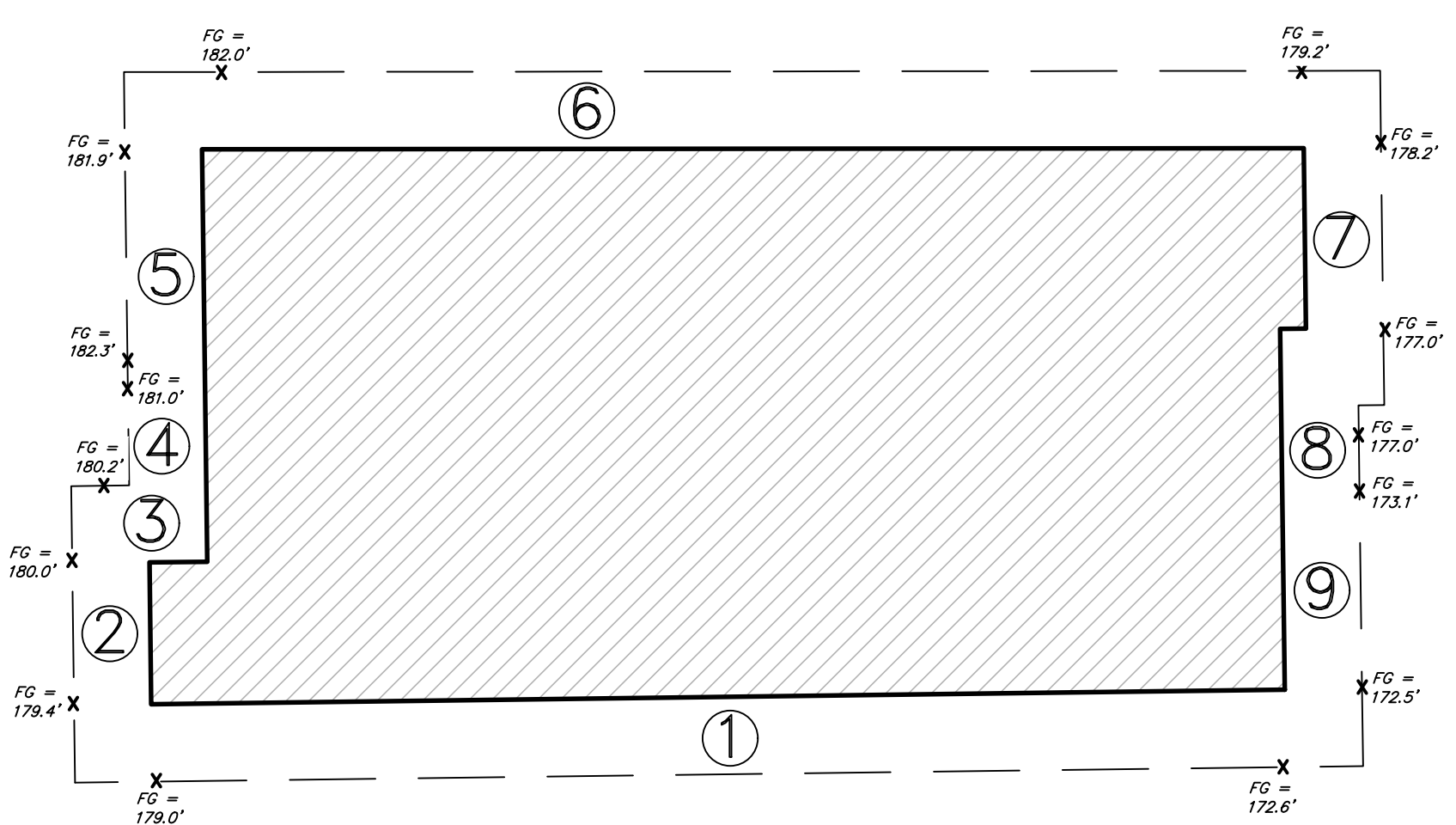
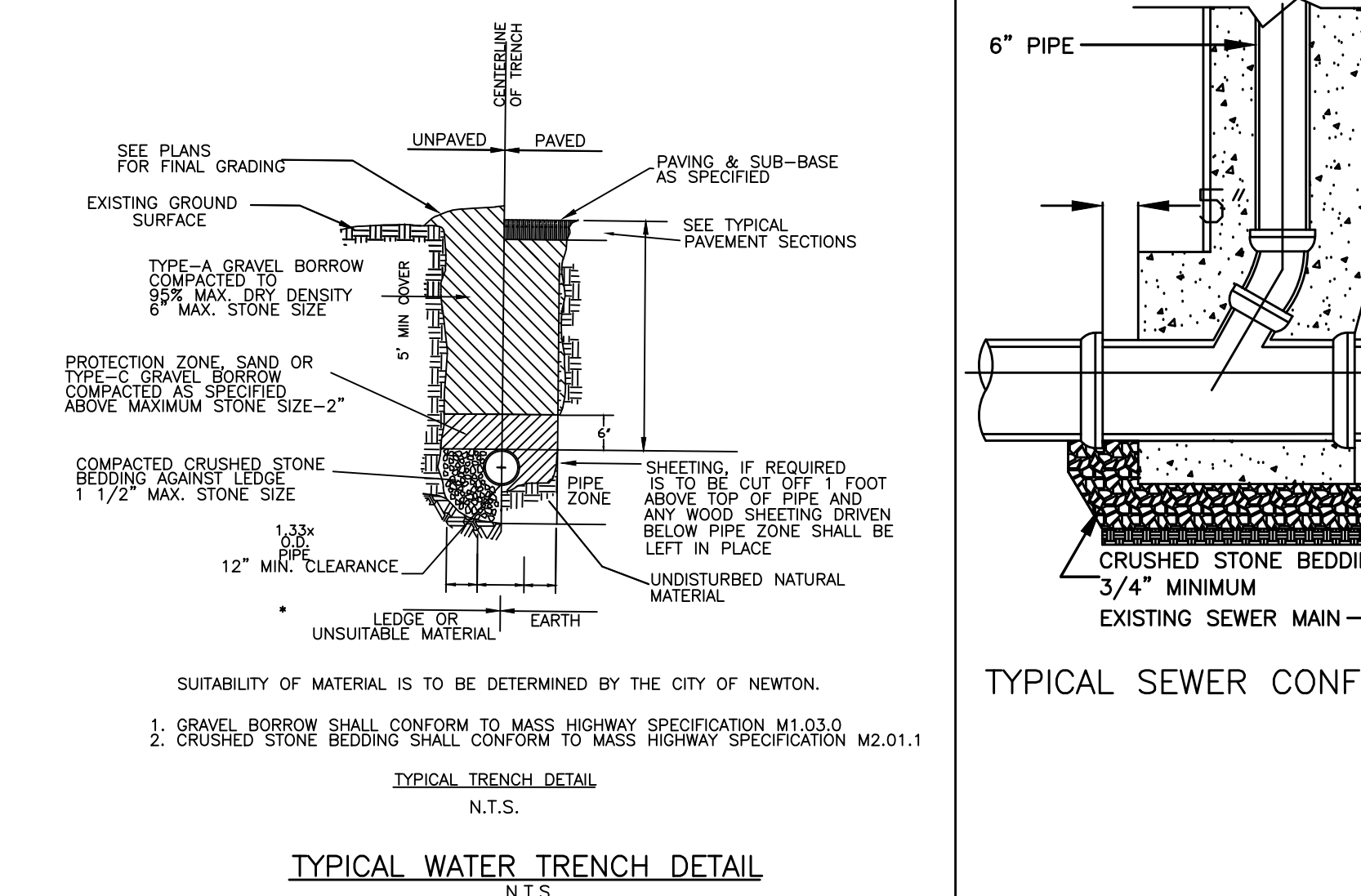
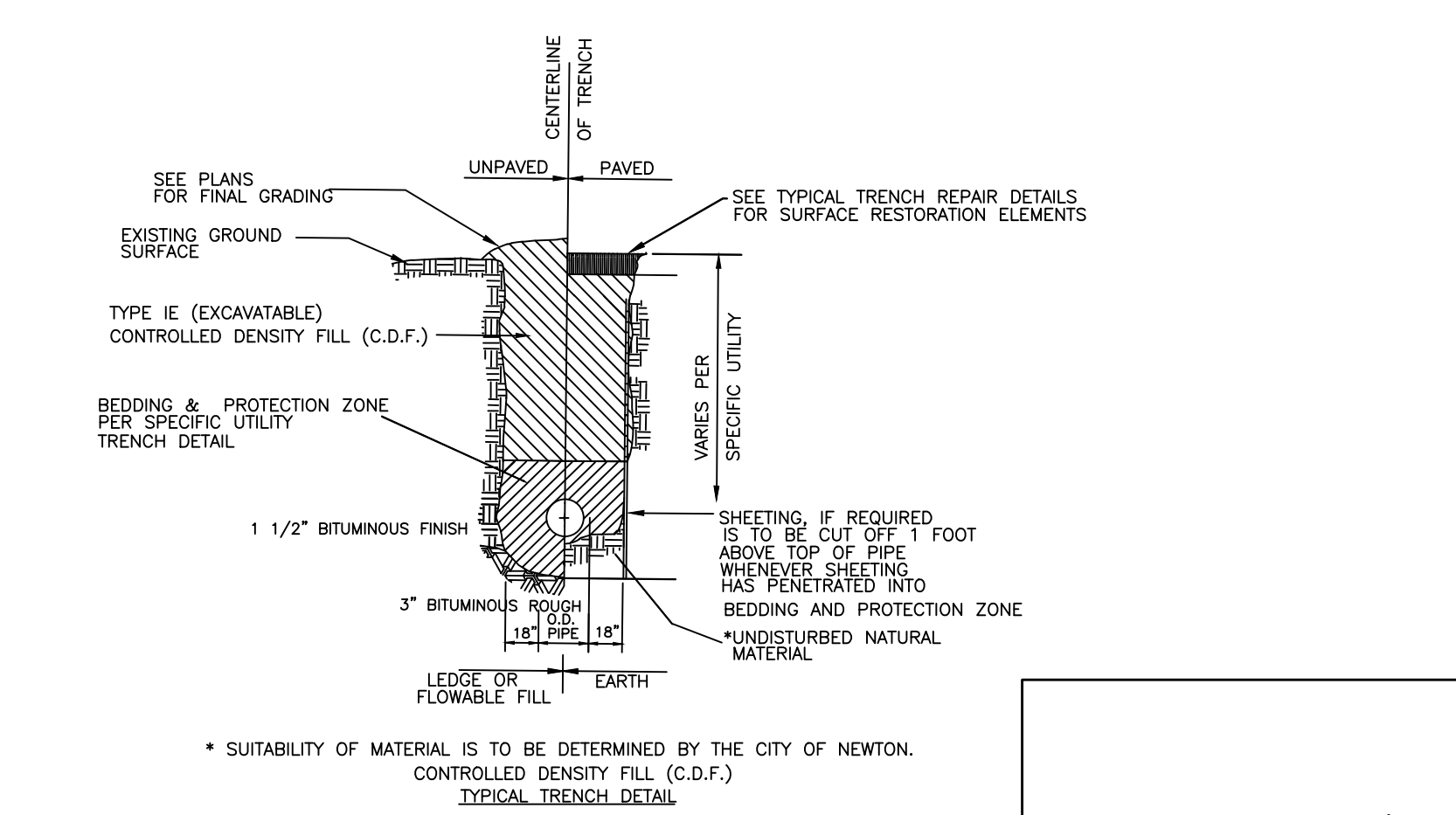
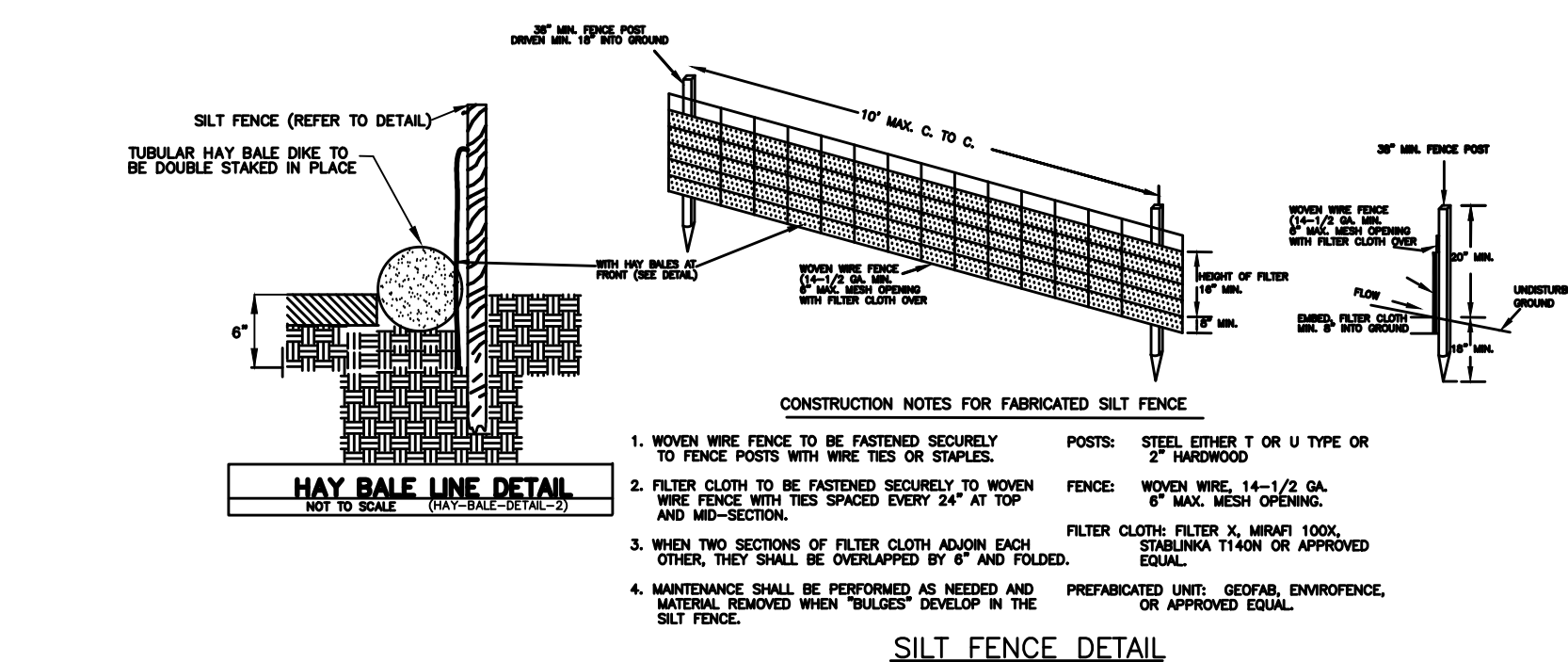
DEEP OBSERVATION HOLE LOG:

GENERAL SOIL CONDITIONS FOR THE AREA PERFORMED AT 157 LANGLEY RD, NEWTON, MA. BY SPRUHAN ENGINEERING, P.C.
 DATED: 04/13/2022
 HOLE NUMBER: TH #1 and TH #2
 GENERAL SITE CONDITIONS: BUILDING, PAVED AREAS, GRASS.

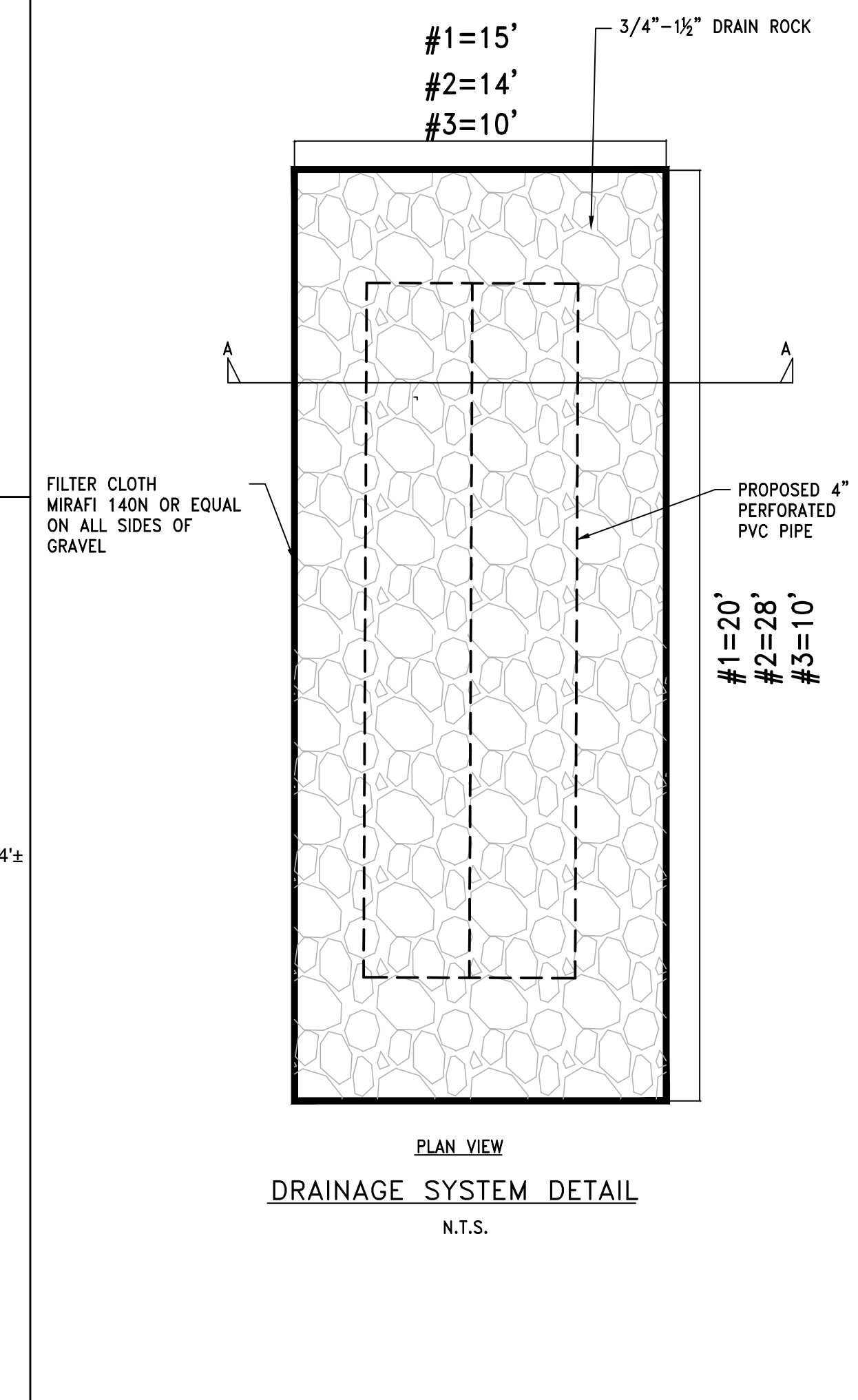
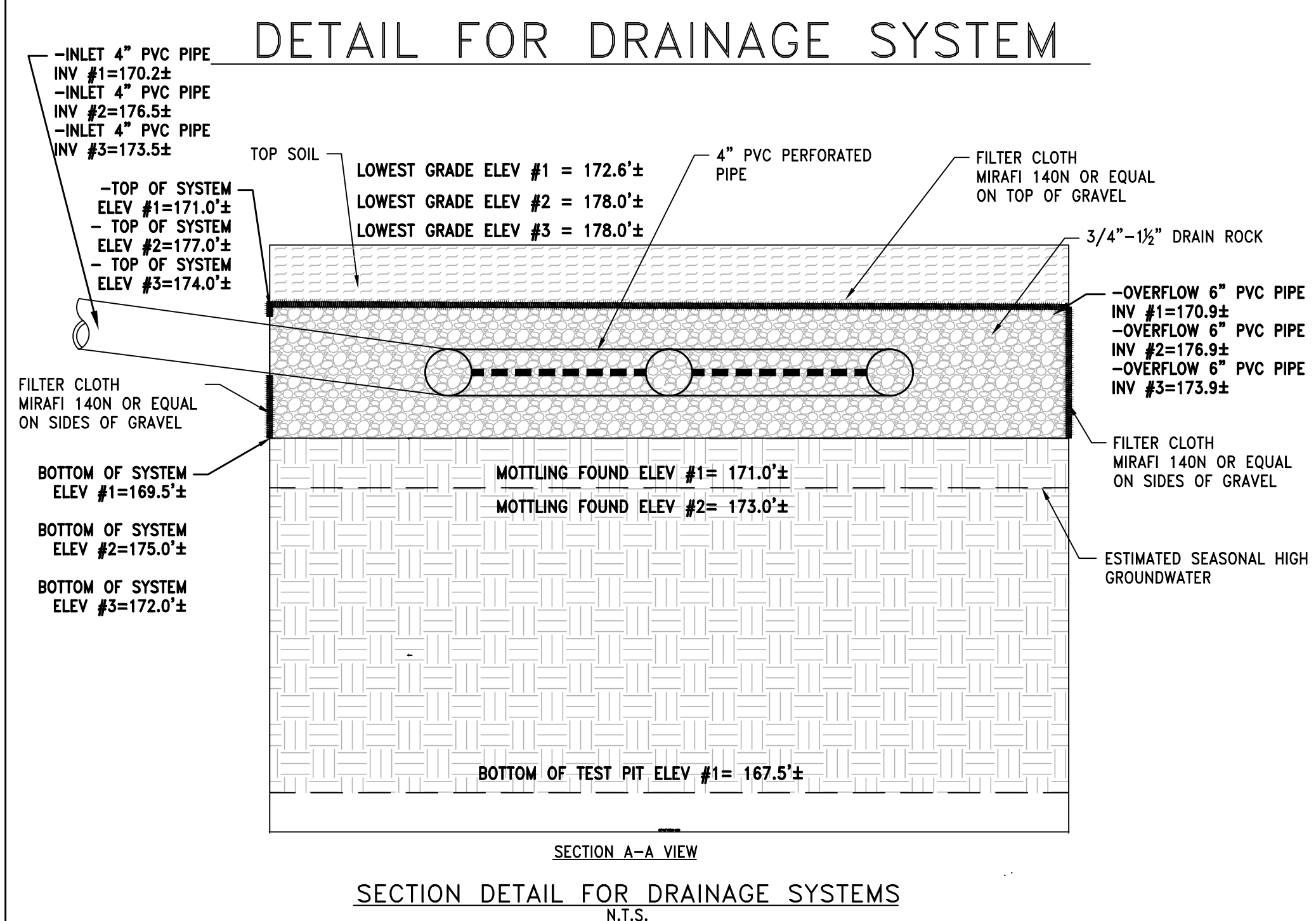
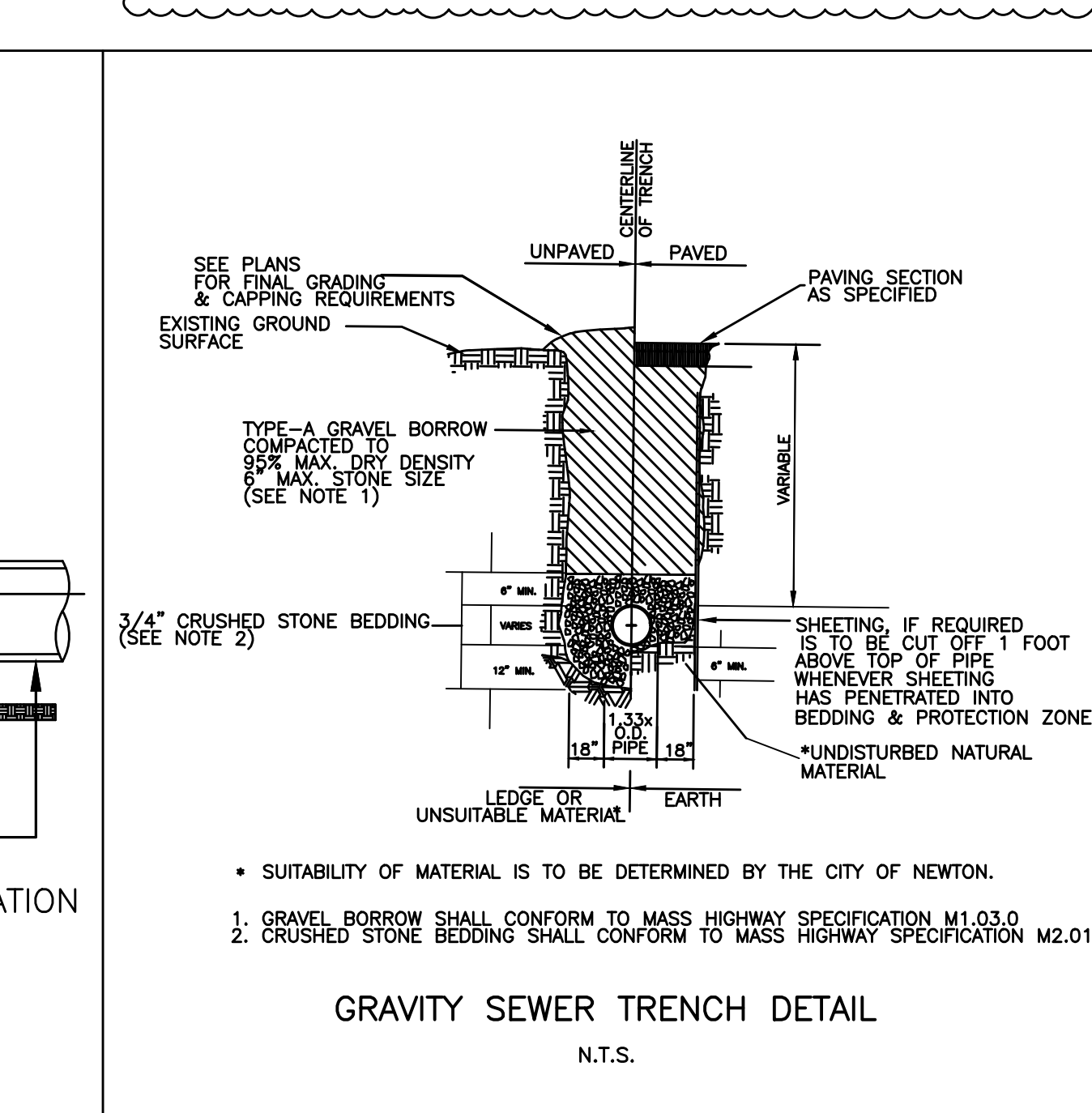
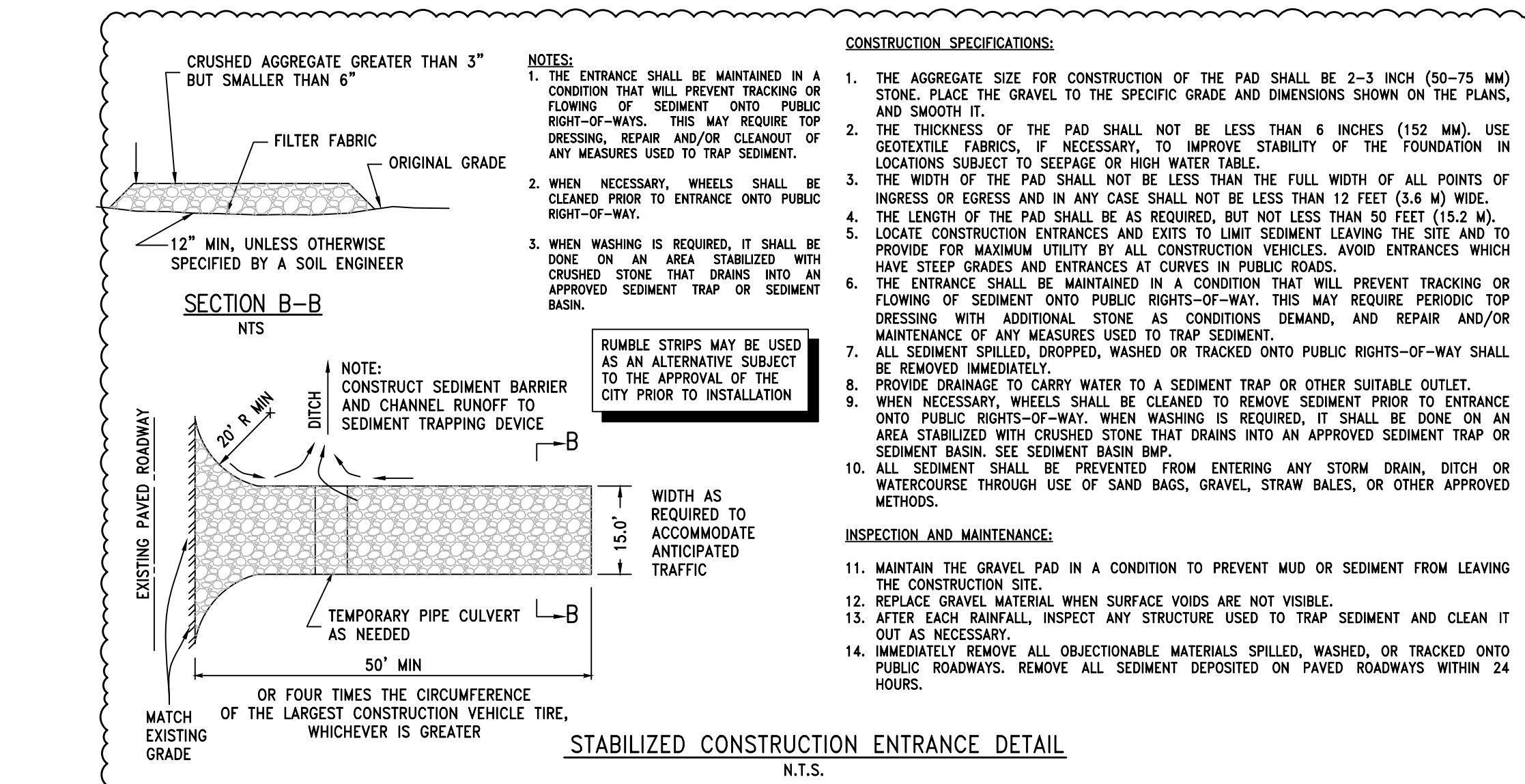
HOLE LOG #1						
DEPTH	ELEVATION	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
0" - 24"	174.5'± - 172.5'±	-	FILL	5 YR	-	
24" - 36"	172.5'± - 171.5'±	Ap	L Snd	5 YR	-	
36" - 60"	171.5'± - 169.5'±	Bv	L Snd	7.5 YR	Ø171.0'	GLACIAL OUTWASH
60" - 120"	169.5'± - 164.5'±	C1	L Snd	10 YR		STANDING WATER Ø84"

HOLE LOG #2						
DEPTH	ELEVATION	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
0" - 24"	179'± - 177'±	-	FILL	5 YR	-	
24" - 36"	177'± - 176'±	Ap	L Snd	5 YR	-	
36" - 60"	176'± - 174'±	Bv	L Snd	7.5 YR	Ø173.0'	GLACIAL OUTWASH
60" - 120"	174'± - 169'±	C1	L Snd	10 YR		

PERCOLATION TEST HOLE PT - 1
 PERCOLATION RATE = 5 MIN/INCH



AVERAGE GRADE PLANE (ALL UNITS IN FEET)					
SEGMENT	LENGTH	POINT 1	POINT 2	MEAN 1 & 2	MEAN x LENGTH
1	88.00	172.60	179.00	175.80	15,470.40
2	11.00	179.40	180.00	179.70	1,976.70
3	4.50	180.20	181.00	180.60	812.70
4	2.00	181.00	182.30	181.65	363.30
5	30.00	182.30	181.90	182.10	5,463.00
6	85.50	182.00	179.20	180.60	15,441.30
7	20.10	178.20	177.00	177.60	3,569.76
8	3.00	177.00	173.10	175.05	525.15
9	18.90	173.10	172.50	172.80	3,265.92
SUM =	263.00				46,888.23
SUM OF MEAN x LENGTH/SUM OF LENGTHS = AVERAGE GRADE PLANE =					178.28



PETER NOLAN & ASSOCIATES, LLC
 LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
 697 CAMBRIDGE STREET, SUITE 1131
 BRIGHTON, MA 02135
 Tel: 857-891-7478
 617-782-1533
 Fax: 617-2025691

SPRUHAN ENGINEERING, P.C.
 80 JEWETT ST. (SUITE 1)
 NEWTON, MA 02458
 Tel: 617-816-0722
 Email: edmond@spruhaneng.com

EDMOND SPRUHAN
 REGISTERED PROFESSIONAL ENGINEER
 5/13/2022

157 LANGLEY ROAD
 NEWTON
 MASSACHUSETTS

REVISION BLOCK	
DESCRIPTION	DATE
REVISED AS PER CLIENT	5/13/2022

All legal rights including, but not limited to, copyright and design patent rights, in the designs, arrangements and plans shown on this document are the property of Peter Nolan & Associates, LLC, or Spruhan Engineering, P.C. They may not be used or reused in whole or in part, except in connection with this project, without the prior written consent of Spruhan Engineering, P.C. Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on this project, and Spruhan Engineering, P.C., must be notified of any variation from the dimensions and conditions shown by these drawings.

DETAILS

SCALE:	N/A
DATE:	5/9/2022
DRAWN BY:	OG
CHECKED BY:	PN
APPROVED BY:	ES

SHEET: 3 OF 4

