AGENDA Lexington Planning Board

Thursday, June 21, 2018 Hudson Room, Cary Memorial Building, 1605 Mass Avenue 7:00 PM

Staff Reports

- 1. General Update (as needed)
- 2. Hartwell Avenue Zoning Inititative Update

Development Administration

- 1. 285 Woburn Street: Approval Not Required
- 2. 32 & 40 Hartwell Avenue: Special Permit Decision
- 3. 443 Lincoln Street: Definitive Balanced Housing Development (Public Hearing)
- 4. 114 Wood Street: Sketch Site Sensitive Development
- 5. 287 Waltham Street: Sketch Site Sensitive Development

Board Administration

- 1. Board Member Updates
- 2. Comprehensive Plan Update
- 3. Upcoming Meetings & Anticipated Schedule

Adjourn



Meeting broadcast by LexMedia

LEXINGTON PLANNING BOARD

AGENDA ITEM TITLE:

Minutes

PRESENTER:

<u>ITEM</u> NUMBER:

SUMMARY:

SUGGESTED MOTION:

FOLLOW-UP:

DATE AND APPROXIMATE TIME ON AGENDA:

LEXINGTON PLANNING BOARD

ITEM NUMBER:

AGENDA ITEM TITLE:

General Update (as needed)

PRESENTER:

Carol Kowalski

SUMMARY:

The general update is a standing agenda item providing the Planning Office staff the opportunity to update the community and Board on day-to-day matters.

SUGGESTED MOTION:

Staff's update requires no action on the part of the Board.

FOLLOW-UP:

DATE AND APPROXIMATE TIME ON AGENDA:

LEXINGTON PLANNING BOARD

AGENDA ITEM TITLE:

Hartwell Avenue Zoning Inititative Update

PRESENTER:

<u>ITEM</u> <u>NUMBER:</u>

SUMMARY:

This is a standing agenda item to provide updates to the Planning Board on the status of the Hartwell Zoning Initiative.

SUGGESTED MOTION:

Staff's update requires no action on the part of the Board.

FOLLOW-UP:

DATE AND APPROXIMATE TIME ON AGENDA:

LEXINGTON PLANNING BOARD

AGENDA ITEM TITLE:

285 Woburn Street: Approval Not Required

PRESENTER:

Carol Kowalski

SUMMARY:

Attached are the ANR plans

SUGGESTED MOTION:

FOLLOW-UP:

DATE AND APPROXIMATE TIME ON AGENDA:

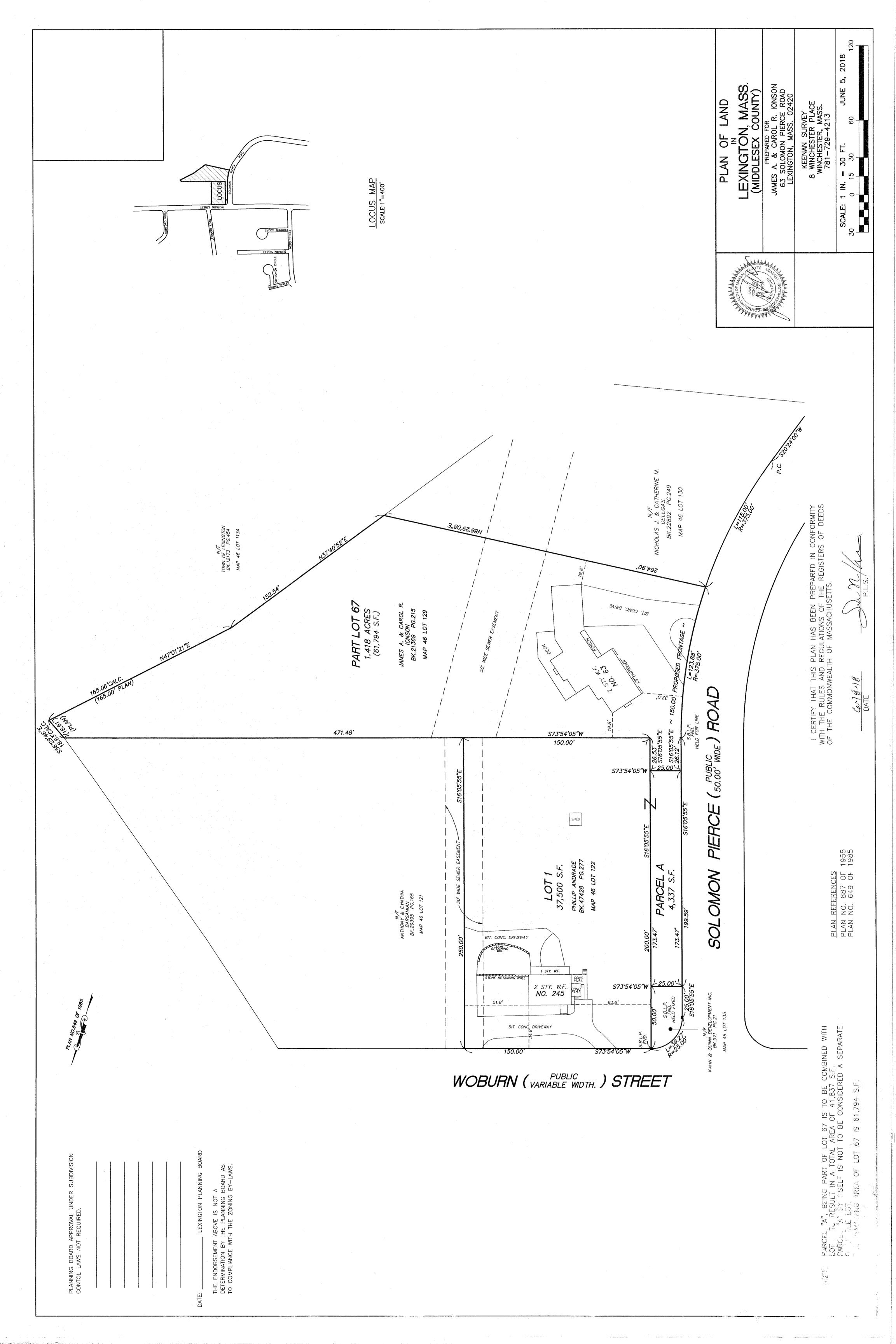
6/21/2018

ATTACHMENTS:

Description

285 Woburn ANR Plan

Type Backup Material ITEM NUMBER:



LEXINGTON PLANNING BOARD

AGENDA ITEM TITLE:

32 & 40 Hartwell Avenue: Special Permit Decision

PRESENTER:

<u>ITEM</u> <u>NUMBER:</u>

SUMMARY:

During the June 7th meeting the Planning Board voiced support for the applicants request and instructed staff to draft a decision granting the waivers the applicant was seeking.

SUGGESTED MOTION:

Vote to approve the project and sign the decision.

FOLLOW-UP:

DATE AND APPROXIMATE TIME ON AGENDA:

LEXINGTON PLANNING BOARD

AGENDA ITEM TITLE:

443 Lincoln Street: Definitive Balanced Housing Development (Public Hearing)

PRESENTER:

<u>ITEM</u> <u>NUMBER:</u>

SUMMARY:

This is a continued public hearing which was opened on April 26, 2018. The application was filed by Symes Permitting and Development, LLC., for a Definitive Balanced Housing Development. The applicant has submitted additional and revised documents which have been reviewed by planning & engineering staff. They include the following documents which are attached below:

- Letter from City of Cambridge to Lexington's Conservation Commission
- Summary of Plan Revisions
- Revised Plan Set
- Revised Long Term Operations & Management Plan for site
- Design Report Letter
- Hydraulic Report
- Pressure Sewer Layout

SUGGESTED MOTION:

If the Board believes enough information has been provided then staff recommends closing the public hearing.

FOLLOW-UP:

DATE AND APPROXIMATE TIME ON AGENDA:

6/21/2018

ATTACHMENTS:

Description

Type Backup Material

443 Lincoln Cambridge Letter to ConComm 5-25-18

- 443 Lincoln Summary of Plan Revisions 5-30-18
- 443 Lincoln Revised Plans 5-30-18
- 443 Lincoln LTO&M Revised 5-23-18
- 443 Lincoln Street Design Report Letter
- 443 Lincoln Street Hydraulic Report
- 443 Lincoln Street Pressure Sewer Layout

Backup Material Backup Material Backup Material Backup Material Backup Material



CITY OF CAMBRIDGE

MASSACHUSETTS

Water Department 250 Fresh Pond Parkway Cambridge, Mass. 02138

(617) 349-4770



May 25, 2018

Conservation Commission Town of Lexington 1625 Massachusetts Avenue Lexington, MA 02420

via email

Re: 443 Lincoln St., Lexington, MA

Dear Commission Members:

The Cambridge Water Department (CWD) appreciates the opportunity to submit comments on the proposed development at 443 Lincoln Street. Water from the site drains towards Hobbs Brook and the Hobbs Brook Reservoir, important surface waters within the City of Cambridge drinking water supply system. CWD reviewed the Notice of Intent, the Homes at Hobbs Brook Definitive Plan revised May 15, 2018, the Stormwater Management Permit Application dated February 20, 2018, a revised Erosion and Sedimentation Control Plan (Cambridge Water Dept. Sketch, May 23, 2018), and the Schedule for Inspection and Maintenance (updated May 23, 2018) for the Long Term Operation and Maintenance Plan. After reviewing these materials, CWD has the following comments regarding the project:

- 1. Proposed sewer line and flushing stations 310 CMR 22.20B prohibits new "sewer lines and appurtenances" in the Zone A except to eliminate existing pollution. Where this exception is met, this regulation requires the sewer lines and manholes to be water tight.
 - a. The applicant confirmed that the proposed sewer line and flushing station pump tanks will be water tight. The applicant also agreed to elevate the vents for the pump tanks above the ground-level position shown on sheet 10 of the plan set.
 - b. With this change, CWD believes that the proposed system will be an improvement over existing conditions. The proposed project will replace an existing subsurface disposal system with four tanks of only 150 gallons each (an assumed reduction in underground storage over existing conditions) and eliminate groundwater discharges of sewage effluent.
- 2. Stormater Management CWD believes that the proposed stormwater management system (deep sump catch basins, a sediment forebay, and infiltration basin), is designed to sufficiently treat stormwater from the proposed development.

- 3. To ensure the long term protection of the Hobbs Brook and Hobbs Brook Reservoir, CWD requests that an Order of Conditions issued for the project:
 - a. Require the development to follow the Schedule for Inspection and Maintenance as updated May 23, 2018 and/or specifically reference the deicing, herbicide, pesticide, and fertilizer use restrictions outlined in this document.
 - b. Require the party responsible for implementing the Long Term Operation and Maintenance Plan to submit an annual report to the Conservation Commission showing compliance with the Schedule for Inspection and Maintenance as updated May 23, 2018. CWD requests to receive a copy of this report.

Sincerely,

famillamell

Jamie O'Connell, Watershed Protection Supervisor City of Cambridge Water Department (617) 349-4781

cc: David Kaplan, Watershed Manager, CWD Stephen S. Corda, Managing Director, CWD Cambridge Water Board

STAMSKI AND MCNARY, INC.

1000 Main Street Acton, Massachusetts 01720 (978) 263-8585 FAX (978) 263-9883

JOSEPH MARCH, P.E., P.L.S. GEORGE DIMAKARAKOS, P.E.

May 30, 2018

Lexington Planning Board 201 Bedford Street Rm 202 Lexington, MA 02420

Re: Homes at Hobbs Brook 443 Lincoln Street

Members of the Board,

On behalf of our client, Symes Development and Permitting, LLC, our office has revised the Definitive Balanced Housing Development Plan Set dated May 30, 2018. The plan revisions are in response to written comments made by the Cambridge Water Department in a letter to the Conservation Commission dated May 25, 2018, comments made at the May 29, 2018 Conservation Commission hearing, and comments made by the Engineering Division.

A summary of the Plan revisions are as follows:

- The Stormwater Schedule for Inspection and Maintenance, Long Term Pollution Prevention Plan, and Erosion and Sedimentation Control Plan (Sheet 11) have been updated per direction of the Cambridge Water Department.
- Roof Drywell details and specifications have been updated per comments made at the Conservation Commission hearing (Sheet 9).
- Water service connections have been adjusted to maintain separation per direction of the Engineering Division (Sheet 6).

<u>Responses to Cambridge Water Department Letter to Conservation Commission dated May 25.</u> 2018

- 1. General Note 22 (Sheet 9) has been added to specify that the proposed sewer lines, flushing station, grinder pump stations, and access covers will be water tight. A vent pipe extension will also be installed to elevate the pump tank vent above ground level.
- 2. No response needed.
- 3. The Stormwater Schedule for Inspection and Maintenance (attached) and the Long Term Pollution Prevention Plan (Sheet 11) have been updated to specify restrictions on allowable deicing chemicals, herbicides, pesticides, and fertilizers. The Erosion and Sedimentation Control Plan (Sheet 11) has also been updated to include information on designated snow storage areas.

Response to Comments from Conservation Commission at May 29, 2018 hearing

- The geotextile fabric has been removed from underneath the stone bed in the "Stormtech SC 310" Detail (Sheet 9).
- The bottom of stone elevation for Roof Drywell A has been raised to 176.50' to alleviate concerns over the required 2' separation to groundwater. The tables in the Roof Drywell Details (Sheet 9) have been expanded to include the Estimated Seasonal High Groundwater (E.S.H.G.W.), the Test Pit from which in which it was determined, and the offset to E.S.H.G.W. proposed.

Response to Comments made by the Engineering Division

- Water services have been modified (Sheet 6) to maintain a 3' separation between service connections.
- General Note 23 (Sheet 9) has been added to call for a minimum of 18" vertical separation between the crown of pressure sewer lines and invert of water lines when the minimum 10' horizontal separation cannot be maintained. This note can also be found within the Utility Services Detail (Sheet 6).
- It is our understanding that the "E/ONE Pressure System Design Report", dated February 2, 2018, accounts for the existing low pressure service connection at the abutting Grey Oaks Circle. We have spoken to F.R. Mahony and they will submit an additional letter next week for the record file that the proposed pressure sewer system will not have any adverse effects on that existing system..

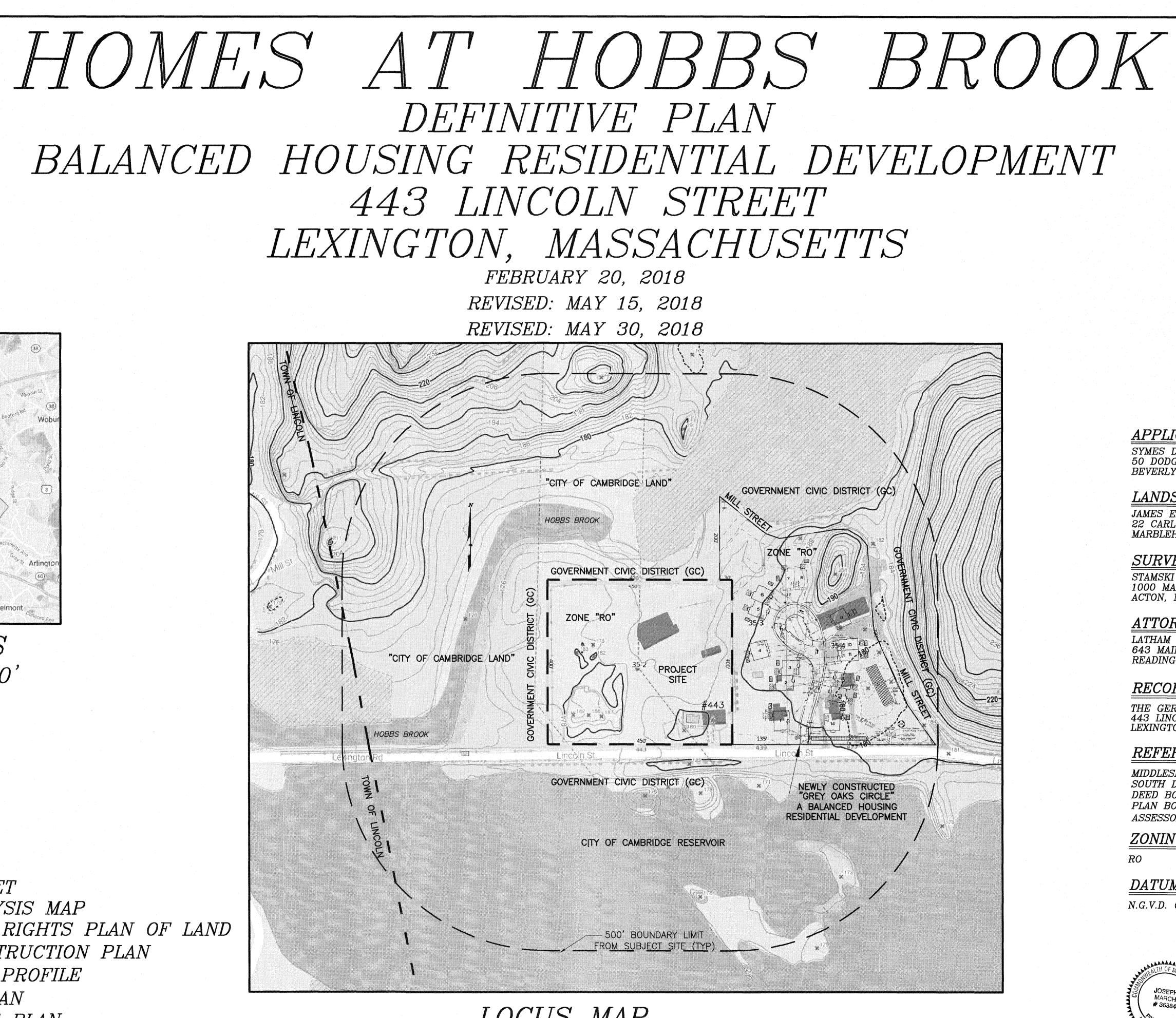
Additionally, the siltation barrier has been extended per the direction of the Cambridge Water Department. A secondary siltation barrier has also been added along the westerly lot line for proposed mitigation work. Erosion control details have also been updated to conform to Town of Lexington standard details.

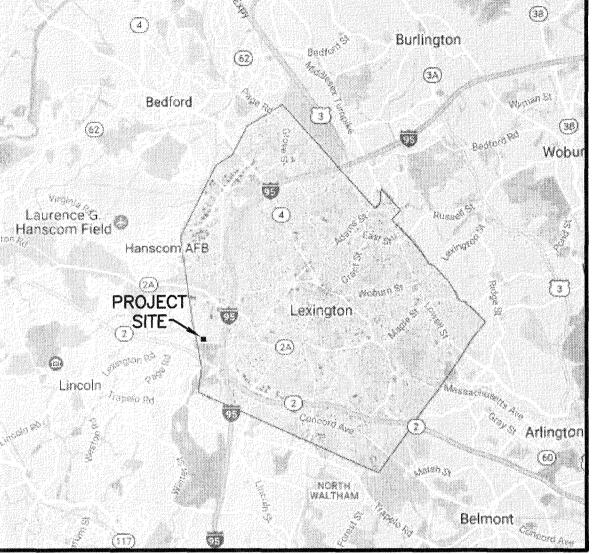
Thank you for your attention to this mater. We look forward to further discussing this project at the next Planning Board hearing. Please contract our office if there are questions.

Respectfully,

Stamski and McNary, Inc.

Paul Kirchner, E.J.T Richard J. Harrington, P.E.





TOWN LOCUS SCALE: 1"=10,000'

SHEET INDE	X
SHEET 1	TITLE SHEET
SHEET 2	SITE ANALYSIS MAP
SHEET 3	PROPERTY RIGHTS PLAN OF LAND
SHEET 4	SITE CONSTRUCTION PLAN
SHEET 5	PLAN AND PROFILE
SHEET 6	UTILITY PLAN
SHEET 7	LANDSCAPE PLAN
SHEET 8	CONVENTIONAL SUBDIVISION PROOF PLAN
SHEET 9-10	CONSTRUCTION DETAILS
SHEET 11	EROSION AND SEDIMENT CONSTROL PLAN

LOCUS MAP SCALE: 1"=120' 0 60 120 240 360 480 480 FT

APPLICANT

SYMES DEVELOPMENT & PERMITTING, LLC 50 DODGE STREET BEVERLY, MA 01915

LANDSCAPE ARCHITECT

JAMES EMMANUEL, ASSOCIATES 22 CARLTON ROAD MARBLEHEAD, MA 01945

SURVEYOR/ENGINEER

STAMSKI AND MCNARY, INC. 1000 MAIN STREET ACTON, MA 01720

ATTORNEY

LATHAM LAW OFFICES, LLC 643 MAIN STREET READING, MA 01867-3096

RECORD OWNER

THE GERTRUDE M. PIANTEDOSI TRUST 443 LINCOLN STREET LEXINGTON. MA

REFERENCE

MIDDLESEX REGISTRY OF DEEDS SOUTH DISTRICT DEED BOOK 65347 PAGE 366 PLAN BOOK 239 PLAN 26 ASSESSOR'S MAP 35 PARCEL 2

ZONING DISTRICT

DATUM

RO

N.G.V.D. OF 1929

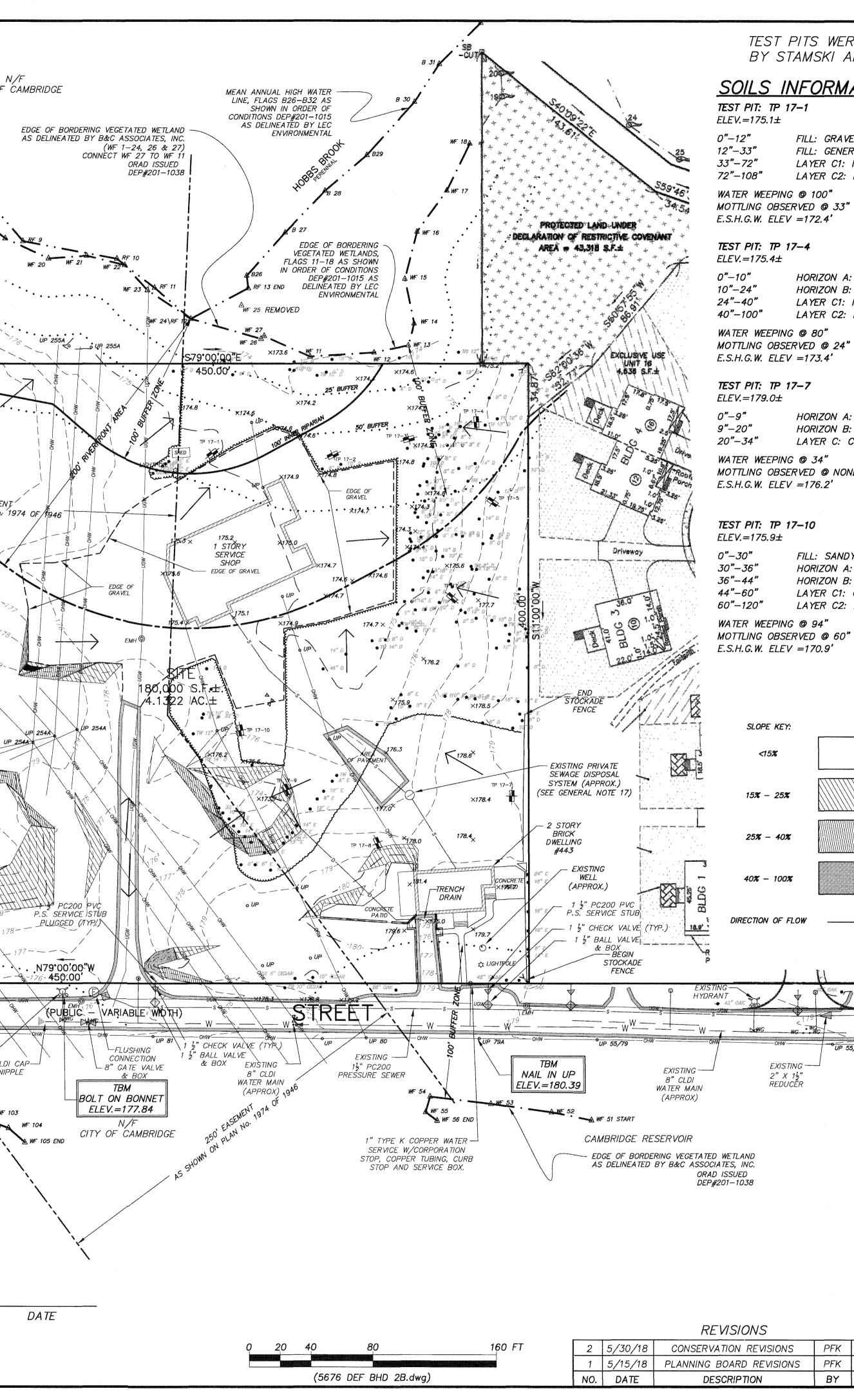




SHEET No. 1 OF 11

PROJECT No. SM-5676

LEGEND:	
N/F NOW OR FORMERLY 	MEAN ANNUAL HIGH-WATER
● € TREE	TED BY B&C ASSOCIATES, INC. ON SEPTEMBER 27, 2016 (RF 1-13) CONNECT RF 13 TO B26
UP UTILITY POLE	CONNECT RF 13 TO B26 ORAD ISSUED DEP#201—1038
GG GAS GATE GAS SERVICE (BURIED)	
WG · WATER GATE 	RF 8
O DMH DRAIN MANHOLE	WF 13 WF 74 . WF 15 WF 16 . WF 17 .
EXISTING CONTOUR	A WF 18
→ EXISTING CONTOUR ↓ LIGHTPOLE	WF 19
△ WETLAND FLAG 99X9 SPOT ELEVATION	
OOOOO STONE WALL EDGE OF PAVEMENT	UP 258 o UP 258
RF 5	·····
· · · · · · · · · · · · · · · · · · ·	19 T
EDGE OF BORDERING VEGETATED WETLAND	
ON SEPTEMBER 27, 2016 ORAD ISSUED	- OHW - OH
DEP#201-1038	
/ . . .	
	250' EASEMEN
	AS SHOWN ON PLAN NO.
MEAN ANNUAL HIGH-WATER AS DELINEATED BY B&C ASSOCIATES, INC. ON SEPTEMBER 27, 2016 RF 4 WF B	ARFA
ON SEPTEMBER 27, 2016 ORAD ISSUED DEP#201-1038	
100' BUFFER ZONE	HIM OHM
A WF 7	را
i	7
WF 6	
	Min of the office of the offic
A WF 5	UP 25
<i>j i i i i i i i i i i</i>	
hw 4	
RF 3	
RF 2	
RF 1 START WF 2 WF 1 START	I I I I I I I I I I I I I I I I I I I
0 UP 55\84_OHWOHWOHWOHW	175 - LINCOLN
UP 83	EXISTING
	8" CLD & NIF
	WE 101 START
	WF 102
	CAMBRIDGE RESERVOIR
"THE DIAN IS SUBJECT TO A COVENANT DATED "	EDGE OF BORDERING VEGETATED WETLAND AS DELINEATED BY B&C ASSOCIATES, INC. ORAD ISSUED
"THIS PLAN IS SUBJECT TO A COVENANT DATED" "THIS PLAN IS SUBJECT TO A CERTIFICATE OF ACTION DATED"	DEP#2011038
"THIS PLAN IS SUBJECT TO A CERTIFICATE OF ACTION DATED"	APPROVED BY: LEXINGTON PLANNING BOARD
I,, CLERK OF THE TOWN OF LEXINGTON, MASSACHUSETTS HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE LEXINGTON	
PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED	
DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.	
TOWN CLERK DATE	



TEST PITS WERE PERFORMED ON DECEMBER 15, 2017 BY STAMSKI AND MCNARY, INC., RICHARD J. HARRINGTON, P.E., S.E. No. 1012

SOILS INFORMATION

FILL: GRAVEL PARKING FILL: GENERAL FILL LAYER C1: MEDIUM SAND LAYER C2: FINE SAND

HORIZON A: SANDY LOAM HORIZON B: LOAMY SAND LAYER C1: MEDIUM SAND LAYER C2: FINE SAND

MOTTLING OBSERVED @ 24"

HORIZON A: SANDY LOAM HORIZON B: LOAMY SAND LAYER C: COARSE SAND MOTTLING OBSERVED @ NONE

· · · · · · · · · · · · · · · · · · ·
FILL: SANDY LOAM
HORIZON A: SANDY LOAM
HORIZON B: LOAMY SAND
LAYER C1: COARSE SAND
LAYER C2: MEDIUM SAND
VG @ 94"
SERVED @ 60"

	TEST PIT: TP 17–2 ELEV.=174.7±	TEST PIT: TP 17-3 ELEV.=174.4±
	0"–66" FILL 66"–120" LAYER C: MEDIUM SAND	0"—36" FILL 36"—110" LAYER C: MEDIUM SAND
	WATER WEEPING @ 84" MOTTLING OBSERVED @ 66" E.S.H.G.W. ELEV =169.2'	WATER WEEPING @ 74" MOTTLING OBSERVED @ 36" E.S.H.G.W. ELEV =171.4'
	TEST PIT: TP 17–5 ELEV.=177.3±	TEST PIT: TP 17–6 ELEV.=176.4±
1	0"-12" HORIZON A: SANDY LOAM 12"-14" HORIZON B: LOAMY SAND 14"-40" LAYER C1: MEDIUM SAND 40"-108" LAYER C2: FINE SAND	
	WATER WEEPING @ NONE MOTTLING OBSERVED @ 40" E.S.H.G.W. ELEV =174.0'	WATER WEEPING @ NONE MOTTLING OBSERVED @ 36" E.S.H.G.W. ELEV =173.4'
	TEST PIT: TP 17-8 ELEV.=178.4±	TEST PIT: TP 17-9 ELEV.=175.4±
1	0"-17" HORIZON A: SANDY LOAM	0-36" FILL: SANDY LOAM

FILL: SANDY LOAM 0-36 HORIZON B: LOAMY SAND 36"-40" HORIZON A: SANDY LOAM 40"-44" HORIZON B: LOAMY SAND LAYER C2: COARSE SAND 44"—109" LAYER C: MEDIUM SAND WATER WEEPING @ 100"

MOTTLING OBSERVED @ 44" E.S.H.G.W. ELEV =171.7'

UTILITY NOTE:

LAYER C1: FINE SAND

17"—27"

27"—40"

40"-108"

WATER WEEPING @ 50"

E.S.H.G.W. ELEV =174.2'

MOTTLING OBSERVED @ 50"

1. ALL UNDERGROUND UTILITIES SHOWN HERE WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE CHAPTER 370, ACTS OF 1963 MASS. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS THE APPROPRIATE PUBLIC UTILITY ENGINEERING DEPARTMENT MUST BE CONSULTED. DIG SAFE TELEPHONE No. 1-888-344-7233.

2. EXISTING TOPOGRAPHY & SITE FEATURES OBTAINED FROM AN ON THE GROUND FIELD SURVEY.

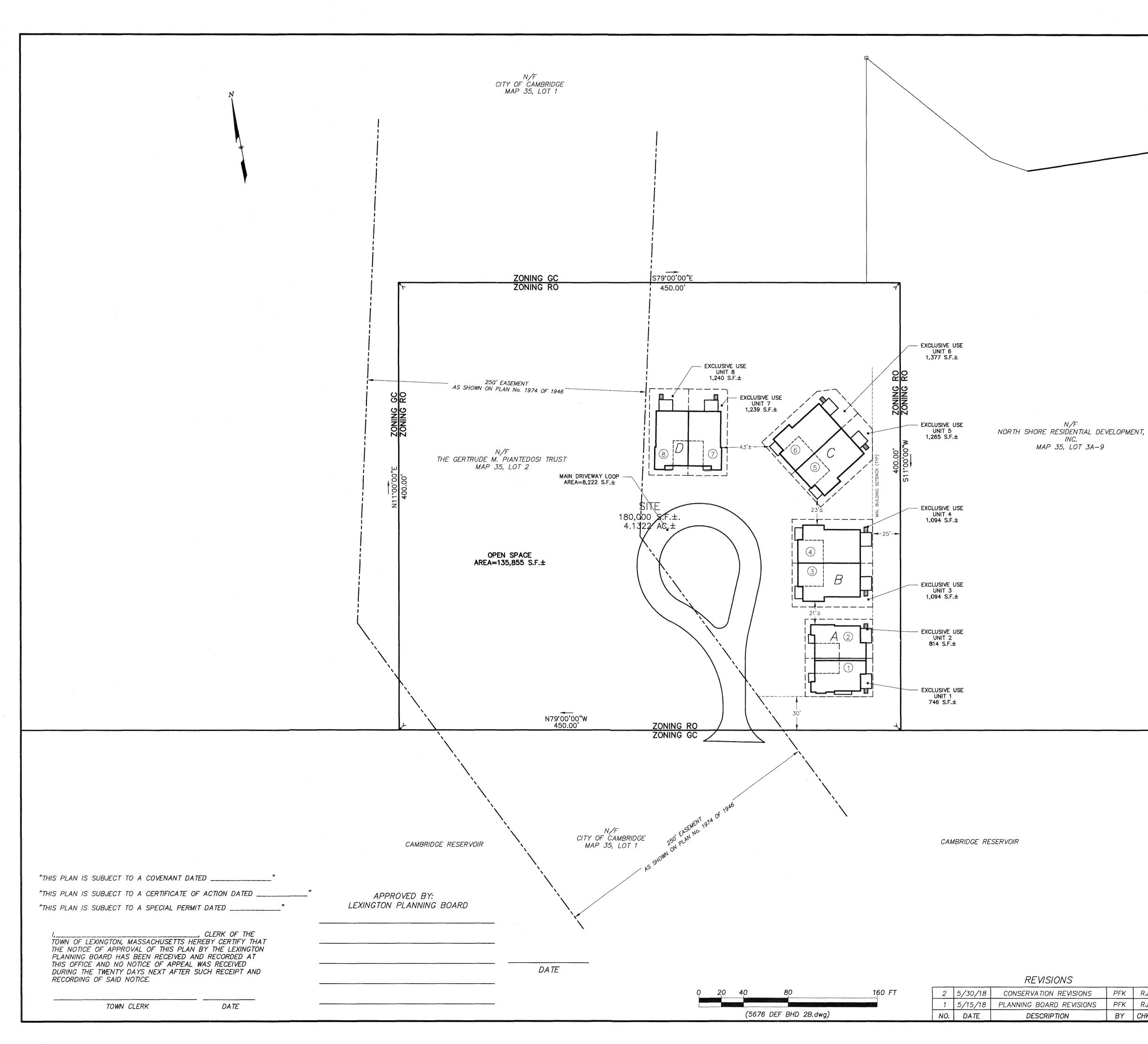
3. THE LOCUS PROPERTY IS NOT LOCATED WITHIN A FLOOD ZONE AS DEPICTED ON THE MOST RECENT FLOOD INSURANCE RATE MAP.

4. PROJECT SITE IS NOT HABITAT FOR RARE SPECIES OR RARE WILDLIFE.

5. EXISTING SEWER & WATER MAIN INFORMATION OBTAINED FROM TOWN OF LEXINGTON, MASSACHUSETTS ENGINEERING DIVISION; SEWER & WATER MAIN CONSTRUCTION AS-BUILT PLAN DATED SEPTEMBER 14, 2001; LINCOLN STREET (STA 9+13 TO 20+19) [R.S.708B].

1		[]		· · · · · · · · · · · · · · · · · · ·	0 1/8
- + *		and the second s			EXISTING HYDRANT
21/9 WG • WG	sss	ss	s	EMH W	s s
XISTING " X 1½" EDUCER	EXISTING 2" PC200 PVC PRESSURE SEWER	ОНWОНW	B" GATE VALV & BOX	E	
	BA		MES AT HOB OUSING RES		EVELOPMENT

			JOSEPH MARCH # 36384	SITE ANAI locat LEXINGTON, MA (middlesez	ED IN
			THE ALTH OF MASS	PREPAR SYMES DEVELOPMENT SCALE: 1" = 40' DA	
1004 J Ven			GEORGE DIMAKARAKOS CIVIL No. 41281	PREPAR STAMSKI AND 1000 MAIN STR	MCNARY, INC
IS	PFK	RJH	A STEISTERED GIVE	ENGINEERING – PLA	NNING – SURVEYING
DNS	PFK	RJH	(PROVIDENCE ENTRY	SHEET No. 2 OF 11	PROJECT No. SM-5676
	BY	CHK'D		OIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	



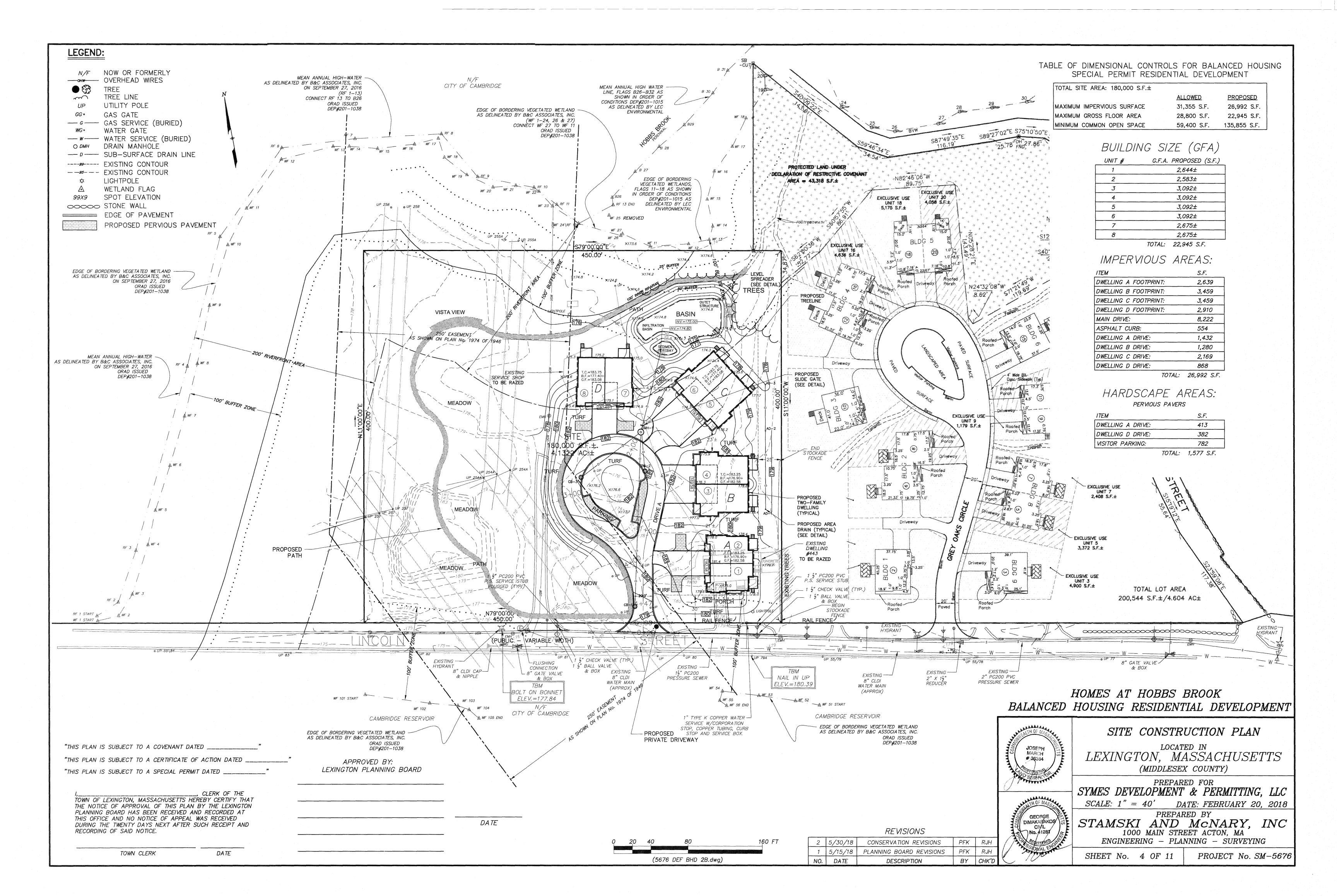
	1			
			an the state of the second second	
		FOR REGIST	RY OF DEE	DS USE ONL
	KNOWLEDO	E, TO THE BEST GE, INFORMATION WAS PREPARE	N, AND BE	LIEF, THAT
	WITH THE	RULES AND RE 5 OF DEEDS.		
	JOSEPH	MARCH, PLS	*****	DATE
LEGEN	D:			
••••••••••••••••••••••••••••••••••••••				
N/F	NOW OF	R FORMERLY		
OH/W		AD WIRES		
6 5 7	TREE			
	TREE LI	NE		
UP	UTILITY	POLE		
GG •	GAS GA	TF		
G		RVICE (BURI	ED)	
WG•	WATER	•	/	
W	WATER	SERVICE (BL	JRIED)	
O DMH	DRAIN I	MANHOLE	•	
—— D ———	- SUB-SI	JRFACE DRAI	N LINE	
	- EXISTIN	G CONTOUR		
95	· EXISTIN	G CONTOUR		
\$	LIGHTPO	DLE		
\triangle	WETLAN	D FLAG		
99X9	SPOT E	LEVATION		
00000	> STONE	WALL		
	EDGE C	F PAVEMENT	Г	

PROPOSED PERVIOUS PAVEMENT

NOTE:

OPEN SPACE EXCLUDES BUILDINGS, EXCLUSIVE USE AREAS, AND THE MAIN DRIVEWAY LOOP.

	· · ·			HOMES AT HOBBS BROOK HOUSING RESIDENTIAL DEVELOPMENT
			JOSEPH MARCH # 36384	PROPERTY RIGHTS PLAN OF LAND LOCATED IN LEXINGTON, MASSACHUSETTS (MIDDLESEX COUNTY)
			GEORGE DIMAKAPAKOS	PREPARED FOR SYMES DEVELOPMENT & PERMITTING, LLC SCALE: 1" = 40' DATE: FEBRUARY 20, 2018 PREPARED BY STAMSKI AND MCNARY INC
IONS	PFK	RJH	No. 41281	STAMSKI AND MCNARY, INC 1000 MAIN STREET ACTON, MA ENGINEERING - PLANNING - SURVEYING
SIONS	PFK BY	RJH CHK ' D	ONAL ENGAT	SHEET No. 3 OF 11 PROJECT No. SM-5676



AVERAGE EXISTING GRADE CALCULATION / BUILDING HEIGHT

UNIT	EXISTING GR	ADE ELEVATIO 2	NS AT BUILDII 3	NG CORNERS	AVERAGE EXISTING GRADE	HIGHEST RIDGE	BUILDING HEIGHT
1	181.4	179.9	179.7	179.6	180.15	217.43	37.28
2	181.4	179.9	178.4	178.2	179.48	217.43	37.96
3	176.3	178.6	178.4	177.0	177.58	213.60	36.03
4	176.3	178.6	178.5	175.9	177.33	213.60	36.28
5	174.7	175.6	177.7	174.2	176.05	214.10	38.05
6	174.7	175.6	174.3	174.6	174.80	214.10	39.30
7	175.1	175.2	175.1	174.9	175.08	214.68	39.61
8	175.1	175.2	175.4	175.4	175.28	214.68	39.41

SITE CONSTRUCTION PLAN

UNIT	FFE	T.C.	G.F.	B.F.
1	184.33	183.25	182.58	176.90*
2	184.33	183.25	182.58	176.90*
3	184.33	183.25	182.58	176.90*
4	184.33	183.25	182.58	176.90*
5	184.83	183.75	183.08	177.40*
6	184.83	183.75	183.08	177.40*
7	184.83	183.75	183.08	177.40*
8	184.83	183.75	183.08	177.40*
* CRAWL SPACE - MAX HEIGHT = 6'-8"** ** MEASURED FROM BOTTOM JOIST TO BASEMENT FLOOR				

"THIS PLAN IS SUBJECT TO A COVENANT DATED ______"

1

"THIS PLAN IS SUBJECT TO A CERTIFICATE OF ACTION DATED _____ "THIS PLAN IS SUBJECT TO A SPECIAL PERMIT DATED _____

APPROVED BY: LEXINGTON PLANNING BOARD

CLERK OF THE TOWN OF LEXINGTON, MASSACHUSETTS HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE LEXINGTON PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK

DATE

PROPOSED · PROPOSED HYDRANT PROP 12" ADS N-12 L=76', S=0.017 CENTERLINE GRADE L=37', S=0.020 PROP 12" ADS N-12 -L=182', S=0.005 +2% ± 4.5' MIN _____ DMH-1 STA. 1+98.71 - CB-3 STA. 2+79.71 RIM=180.80 RIM=182.40 INV. IN=175.32 (CB-1) INV. IN=175.32 (CB-2) INV. IN=175.32 (CB-3) INV. OUT=176.63 (DMH-1) INV. OUT=175.22 (TO BASIN) INSTALL A SLIDE GATE PRIOR TO SEDIMENT FOREBAY CB-1 STA. 0+17.73 RIM=178.80 INV. OUT=176.23 (DMH-1) CB-2 STA. 1+69.23 RIM=180.80 - PROPOSED 8" INV. OUT=176.06 (DMH-1) WATER MAIN +50 +50 +50 +50 +10+00 1+00 2+00 3+00

PROFILE: SCALE: 1"= 40' H.

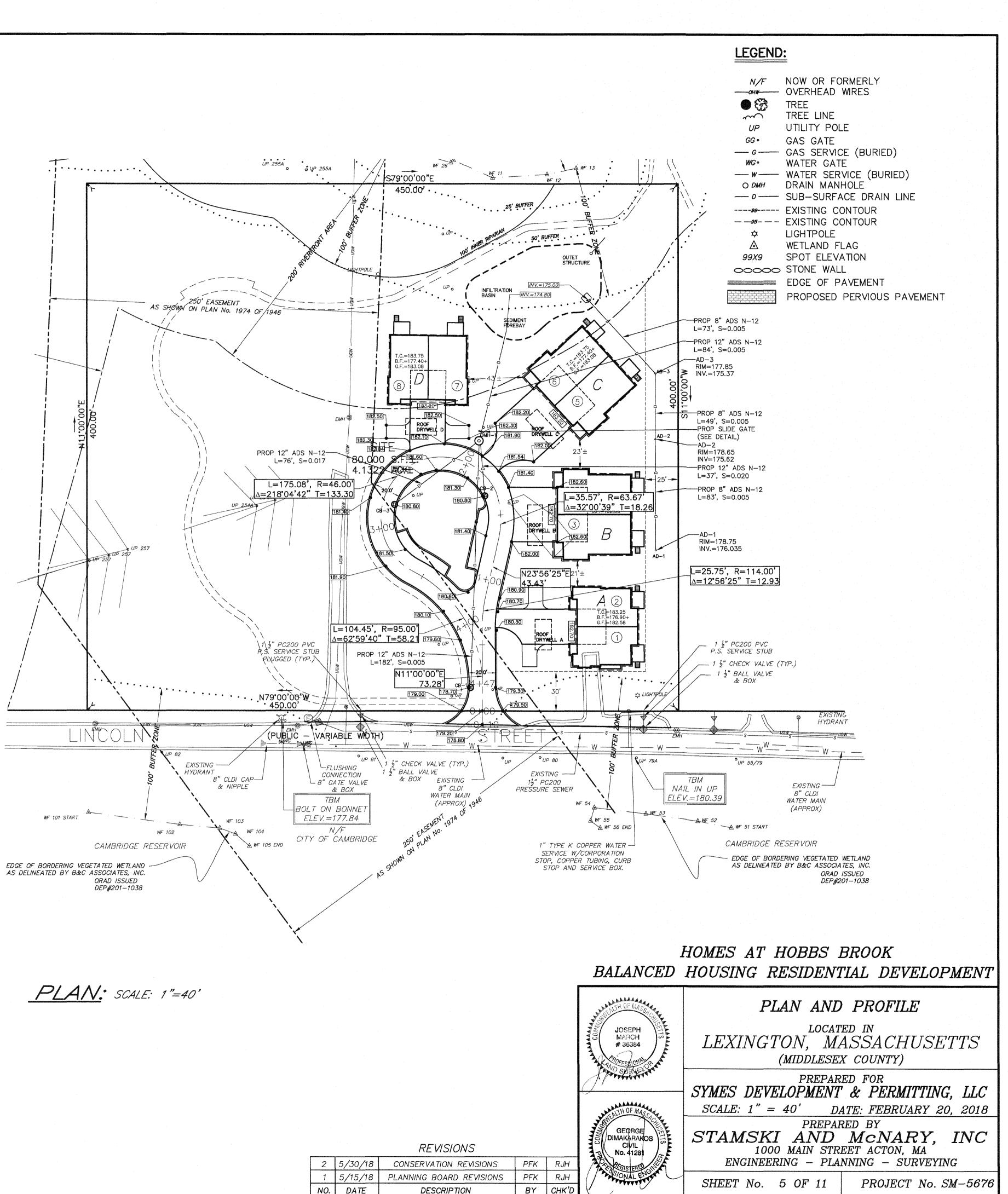


EXISTING CENTERLINE GRADE

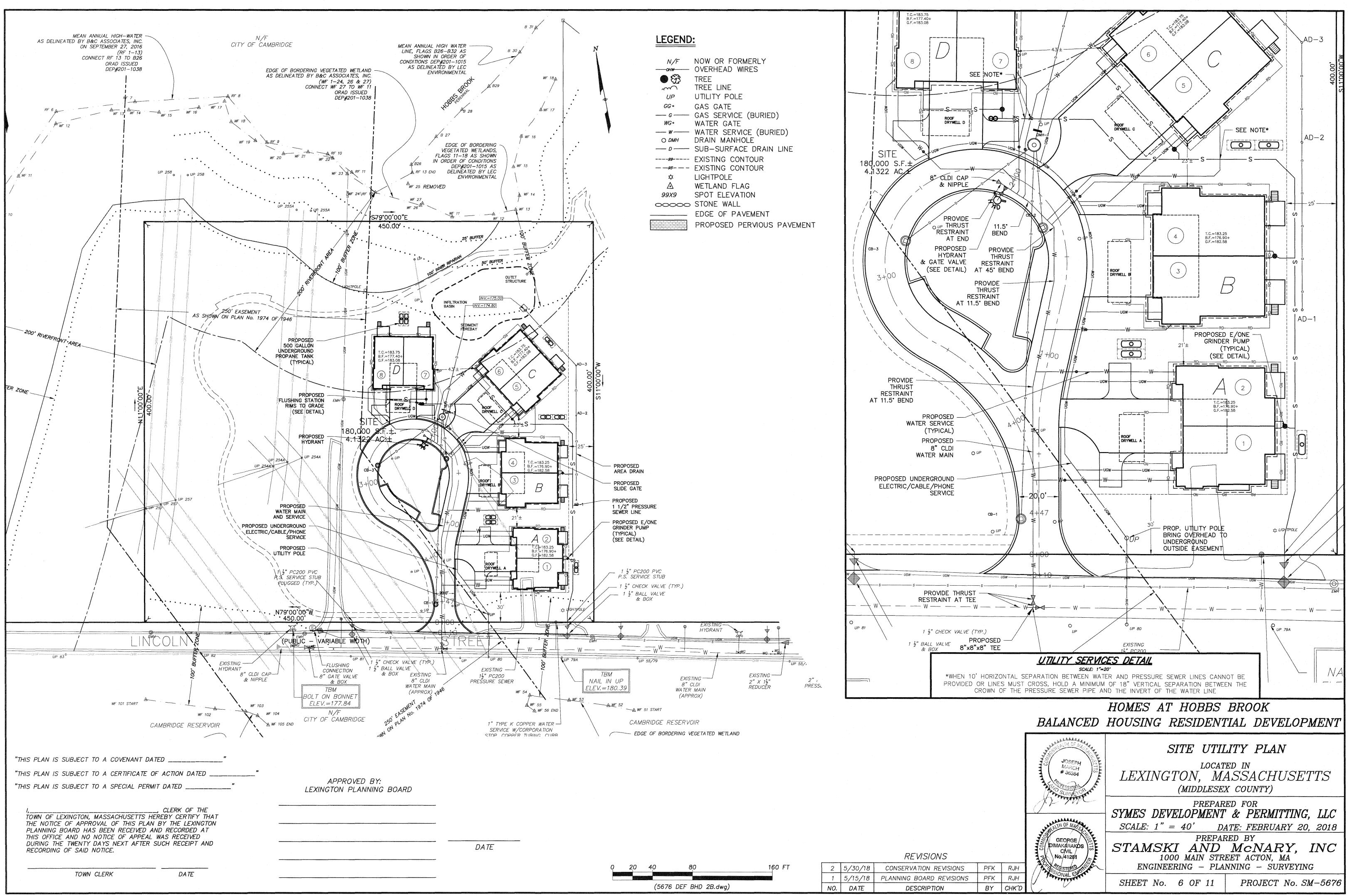
79.8

4+00

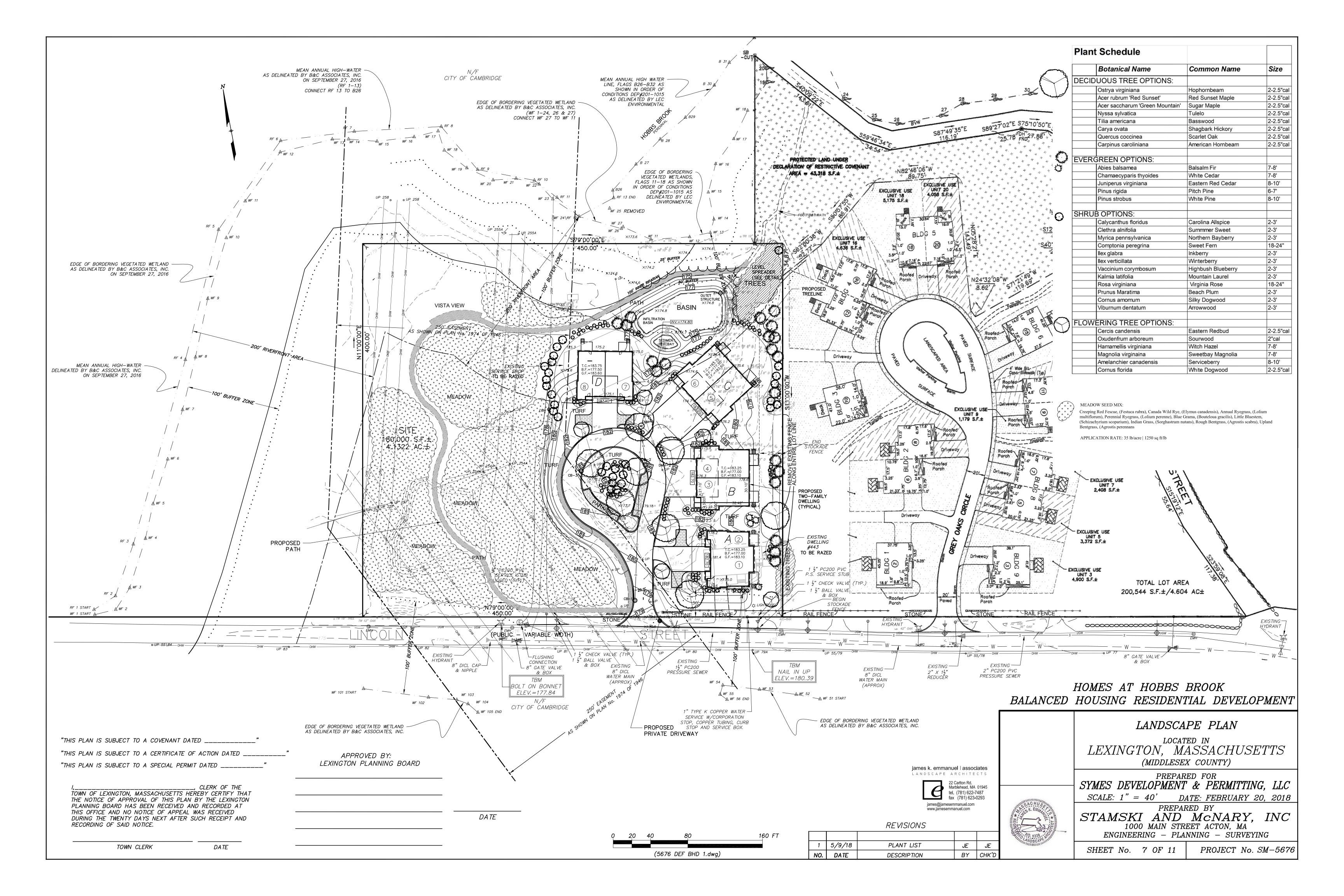
+50



	π.	VISI	UNS
/30/18	CONSERV	ATION	REVI
/15/18	PLANNING	BOAR	D REV



			REVISIONS
0 20 40 80 160 FT	2	5/30/18	CONSERVATION REVISION
	1	5/15/18	PLANNING BOARD REVIS
(5676 DEF BHD 2B.dwg)	NO.	DATE	DESCRIPTION



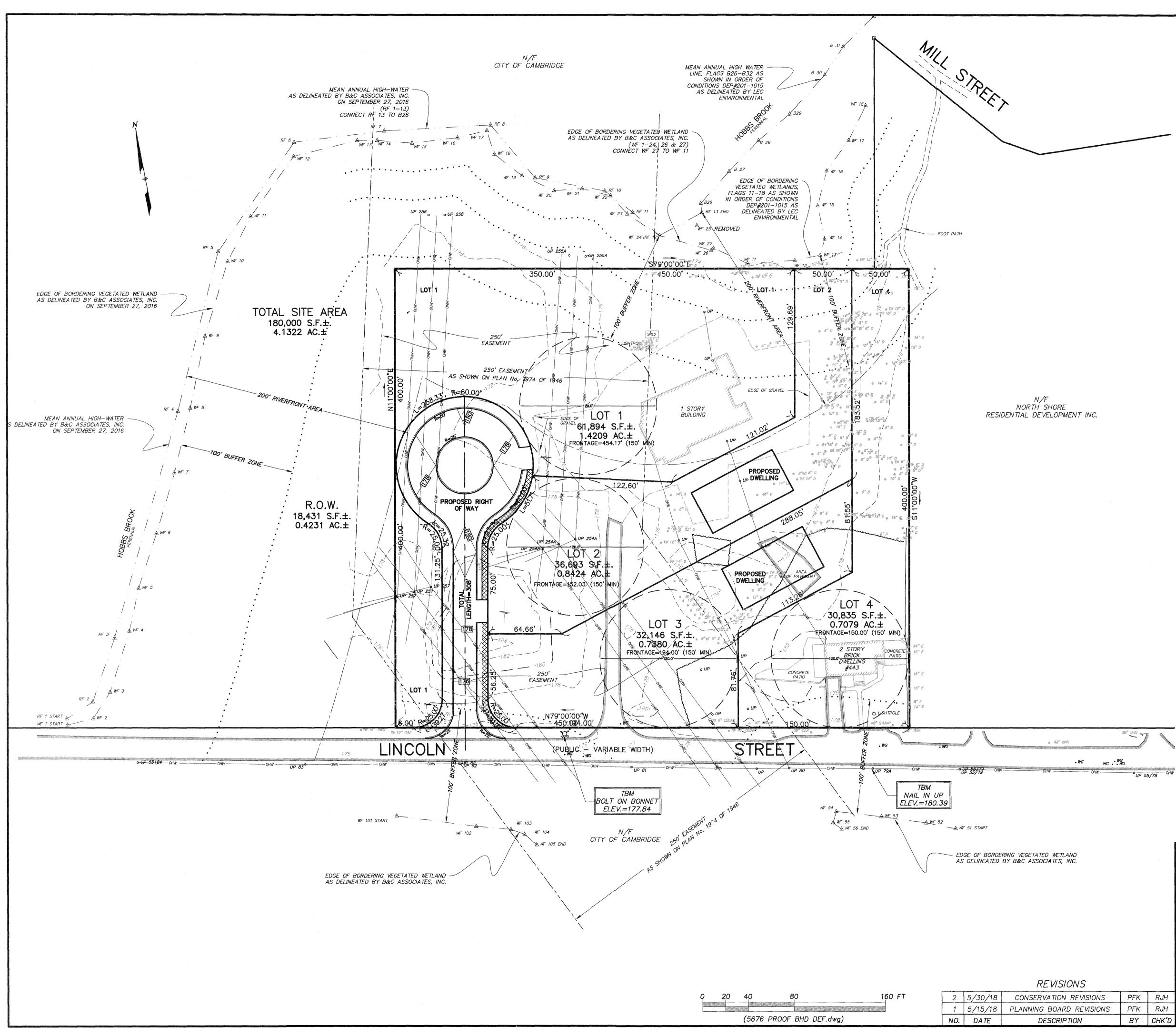


TABLE OF DEVELOPMENT DATA - BALANCED HOUSING DEVELOPMENT TOTAL LAND AREA: 180,000 S.F.± TOTAL LAND AREA FOR 4 LOTS: 161,569 S.F. ± TOTAL LAND AREA WITHIN PROP RIGHT OF WAY (ROW): 18,431 S.F.+ AREA OF IMPERVIOUS SURFACES WITHIN ROW: 11,967 S.F. \pm MAX. GROSS FLOOR AREA (4 LOTS X 7,200 S.F.): 28,800 S.F. MAX. AREA OF IMPERVIOUS SURFACE: 31,355 S.F.± 19,388 S.F.± 4 LOTS; AREA 161,569 S.F. X 0.12 = IMPERVIOUS SURFACE WITHIN ROW = 11,967 S.F.± NUMBER OF DWELLINGS - NO LIMIT SITE COVERAGE - NO LIMIT MINIMUM COMMON OPEN SPACE: 59,400 S.F.± (TOTAL LAND AREA X 33%) EACH DWELLING TO BE PROVIDED WITH A CRAWL SPACE WITH A FLOOR TO CEILING HEIGHT LESS THAN SEVEN FEET.

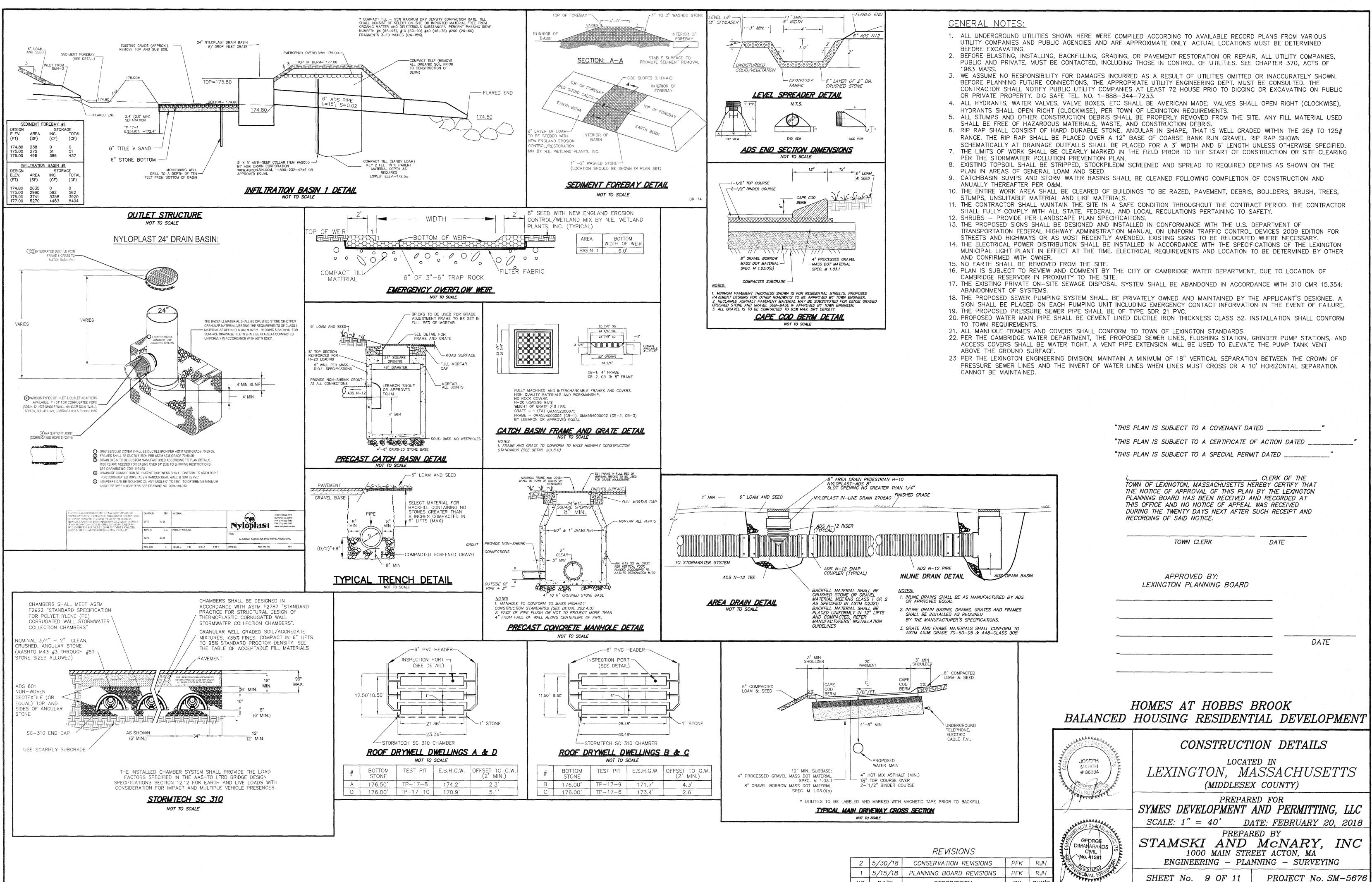
ON-SITE RIVERFRONT AREA: 60,666 S.F. 10% MAX : 6,067 S.F.

LEGEND:

N/F	NOW OR FORMERLY OVERHEAD WIRES
6 3	TREE
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	TREE LINE
UP	UTILITY POLE
GG•	GAS GATE
G	GAS SERVICE (BURIED)
WG•	WATER GATE
W	WATER SERVICE (BURIED)
O DMH	DRAIN MANHOLE
D	SUB-SURFACE DRAIN LINE
	EXISTING CONTOUR
<i>95</i>	EXISTING CONTOUR
\$	LIGHTPOLE
$\triangle$	WETLAND FLAG
99X9	SPOT ELEVATION
00000	STONE WALL
	EDGE OF PAVEMENT

				HOMES AT HOBBS B	ROOK	
			BALANCED	HOUSING RESIDEN	TIAL DEVELOPMEN	T
JOSEPH MARCH # 36384			MARCH JSK	CONVENTIONAL SUBDIVISION PROOF PLAN Located in LEXINGTON, MASSACHUSETTS (MIDDLESEX COUNTY)		
J'Erry Frank			fren frence	SYMES DEVELOPMENT	•	
			GEORGE DIMAKAFAKOS CIVIL No. 4/1281	PREPA STAMSKI AND 1000 MAIN STI	ATE: FEBRUARY 20, 2018 RED BY MCNARY, INC REET ACTON, MA	
ONS	PFK	RJH	ALCUSTERED STATE	ENGINEERING – PL	ANNING – SURVEYING	
SIONS	PFK	RJH	ANALE CAN	SHEET No. 8 OF 11	PROJECT No. SM-567	76
	BY	CHK'D				5

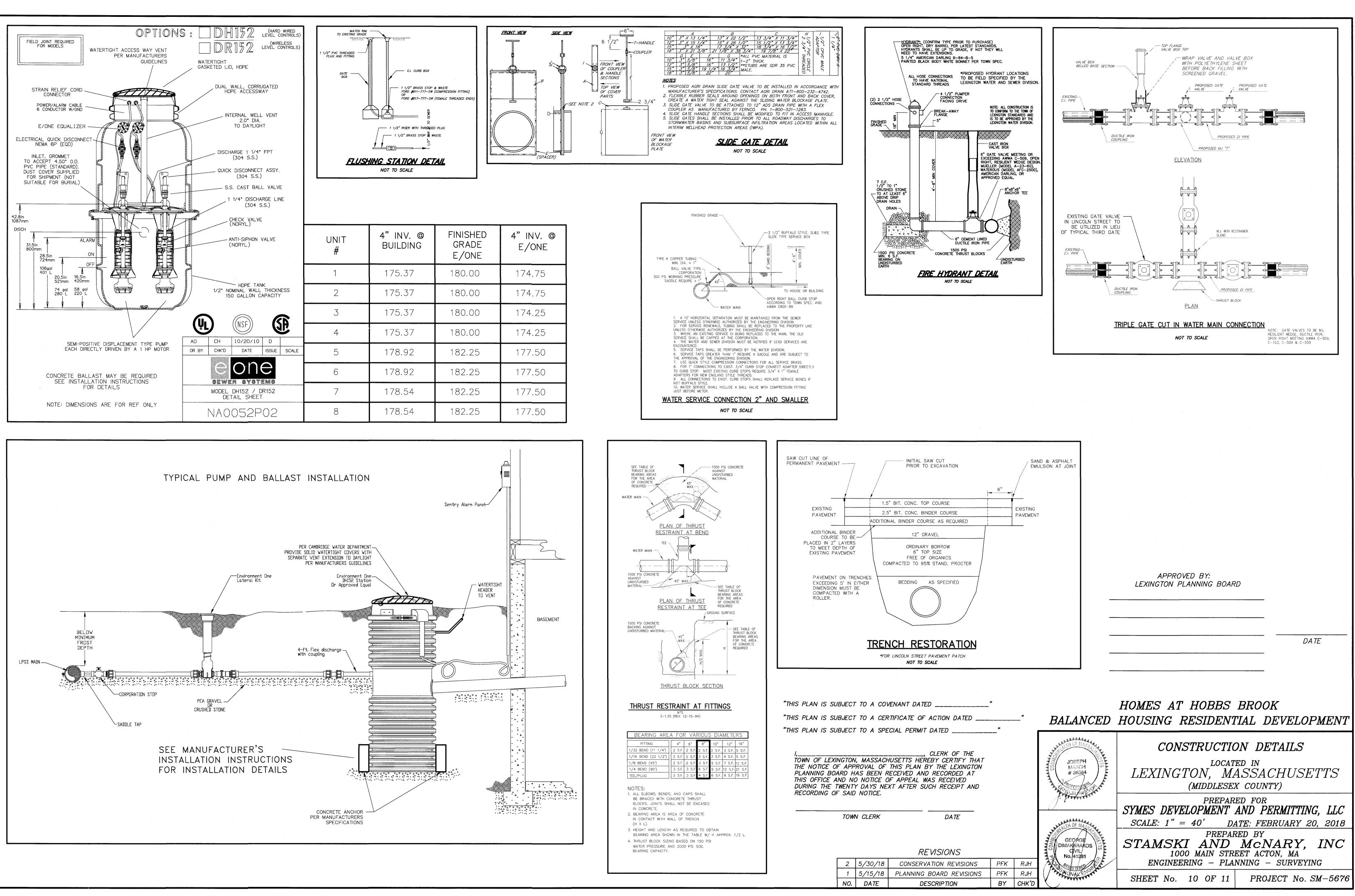
 $\sim 7$ 

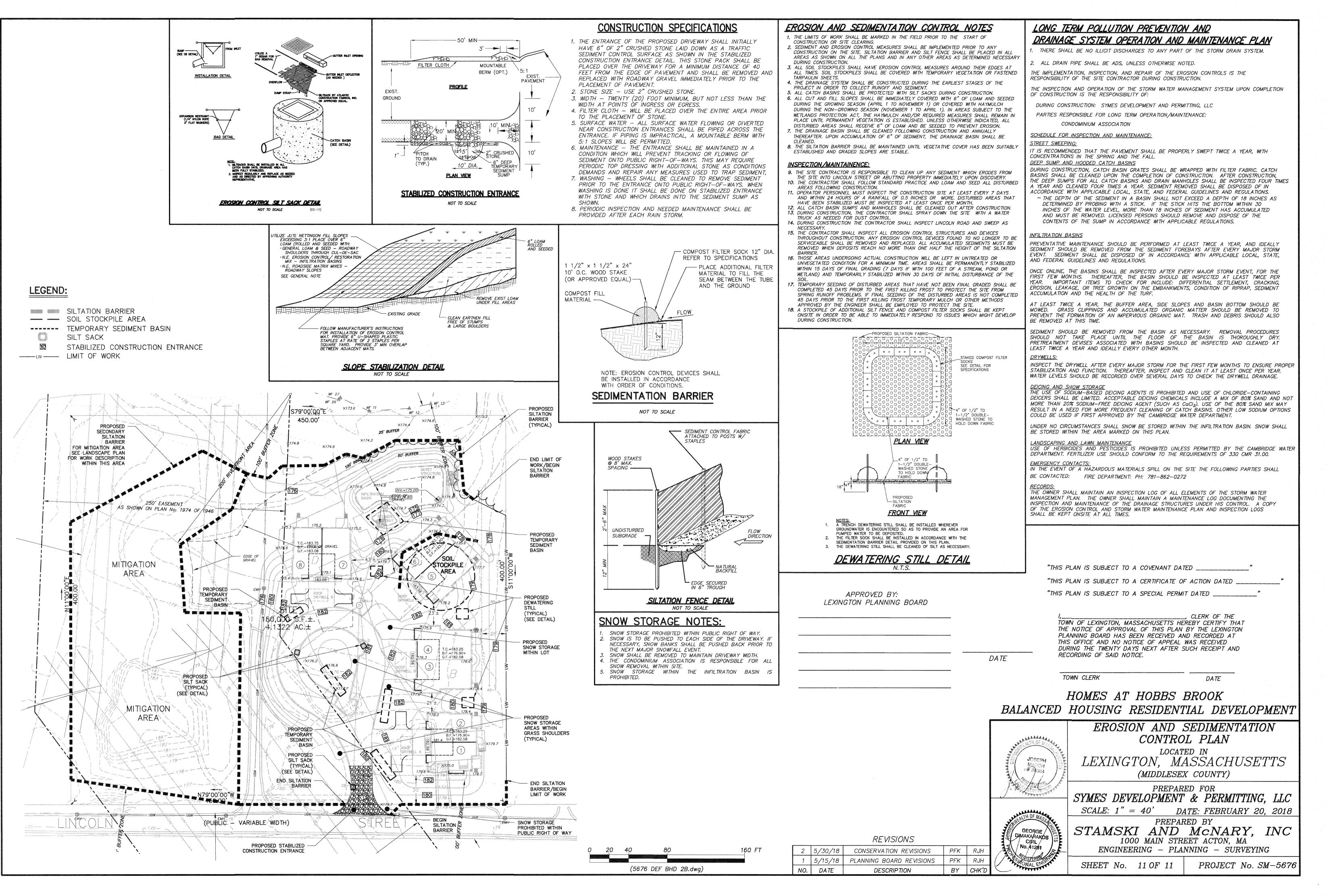


DESCRIPTION

BY CHK'D

NO. DATE





#### Homes at Hobbs Brook UPDATED: May 23, 2018 Schedule for Inspection and Maintenance:

#### **Driveway Sweeping:**

It is recommended that the pavement shall be properly swept twice a year, with concentrations in the spring and the fall.

#### **Deep Sump Hooded Catch Basins and Drain Manholes:**

During construction, catch basin grates shall be wrapped with filter fabric. Catch basins shall be cleaned upon the completion of construction. After construction, the deep sumps for all catch basins and drain manholes shall be inspected four times a year and cleaned four times a year. Sediment removed shall be disposed of in accordance with applicable local, state, and federal guidelines and regulations. The depth of the sediment in a basin shall not exceed a depth of 18 inches as determined by probing with a stick. If the stick hits the bottom within 30 inches of the water level, more than 18 inches of sediment has accumulated and must be removed. Licensed persons should remove and dispose of the contents of the sump in accordance with applicable regulations.

#### **Roof Drywells:**

Inspect the system after every major storm (1" in 24 hours) for the first 3 months to ensure proper stabilization and function. Thereafter, inspect and clean it at least twice per year. Water levels should be recorded over several days to check the structures drainage. Also, mosquito controls may be necessary.

#### Sediment Forebay: (Infiltration Basin 1)

The floor and sidewalls of the sediment forebay must be stabilized before use. Sediment forebays shall be inspected monthly and cleaned a minimum of four times per year and when sediment depth is between 3-6 inches. After sediment removal, any damaged vegetation must be replaced. Grass in the forebay shall not exceed 6 inches in length and any scouring and gullying shall be repaired as necessary.

#### **Infiltration Basin:** (Infiltration Basin 1)

Preventative maintenance should be performed at least twice a year, and ideally sediment should be removed from the sediment forebay after every major storm event. Sediment shall be disposed of in accordance with applicable local, state, and federal guidelines and regulations.

Once online, the basin shall be inspected after every major storm event (1" in 24 hours), for the first 3 months. Thereafter, the basin should be inspected at least twice per year. Important items to check for include: differential settlement, cracking, erosion, leakage, or tree growth on the embankments, condition of riprap, sediment accumulation and the health of the turf.

At least twice a year, the buffer area and side slopes of the basin should be mowed. Grass clippings and accumulated organic matter should be removed to prevent the formation of an impervious organic mat. Trash and debris should also be removed at this time. Scarify bottom area and add additional sand if necessary. Sediment should be removed from the basin as necessary. Removal procedures should not take place until the floor of the basin is thoroughly dry. Pretreatment devises associated with basins should be inspected and cleaned at least twice a year and ideally every other month.

Snow shall not be stored within the infiltration basin.

#### **Deicing and Snow Storage:**

The use of sodium-based deicing agents is prohibited and use of chloride-containing deicers shall be limited. Acceptable deicing chemicals include a mix of 80% sand and not more than 20% sodium-free deicing agent (such as CaCl₂). Use of the 80% sand mix may result in a need for more frequent cleaning of catch basins. Other low sodium options could be used if first approved by the Cambridge Water Department.

Under no circumstances shall snow be stored within the infiltration basin. Snow shall be stored in the areas marked on the "Erosion and Sedimentation Control Plan".

#### Landscaping and Lawn Maintenance:

Use of herbicides and pesticides is prohibited unless permitted by the Cambridge Water Department. Fertilizer use should conform to the requirements of 330 CMR 31.00.

#### **Emergency Contacts:**

In the event of a hazardous materials spill on the site the following parties shall be contacted: Fire Department: ph: 781-862-0272

#### **Records:**

The Condominium Association shall maintain an inspection log of all elements of the storm water management plan. The Condominium Association shall maintain a maintenance log documenting the inspection and maintenance of the drainage structures. A copy of the erosion control and storm water maintenance plan and inspection logs shall be kept onsite at all times.

#### **Responsible Party:**

The Condominium Association shall be responsible for the inspection and maintenance of the street sweeping, snow removal, catch basins, drainage manholes, infiltration basins, and drywells.

**Budget:** The estimated annual operation and maintenance budget is \$3,000.

**Illicit Discharges:** THERE WILL BE NO ILLICIT DISCHARGES ON SITE.

Name:	

Signature:	
0	



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

## E/ONE Pressure System Design Report For 443 LINCOLN STREET

Lexington, MA February 2, 2018





30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704 1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

February 2, 2018

Richard J. Harrington, P.E. Stamski and McNary, Inc. 1000 Main Street Acton, MA 01720

RE: 443 Lincoln Street, Lexington, MA

Dear Richard;

This preliminary design analysis examines the use of the E/One Pressure Sewer System for your project. E/One has begun its fiftieth year of installation and O&M experience along with considerable research and development leading to continuous product and system improvements. E/One remains the worldwide industry standard and industry leader in the pressure sewer technology. The unique characteristics of the E/One Pressure Sewer approach provides not only a technical solution, but also an economic advantage to be realized with low up front and O&M costs.

#### System Analysis

This project proposes to collect wastewater from 8 single family residences from 4 duplex structures and discharge to the existing 1-1/2 inch PVC pressure sewer in Lincoln Street.

Using the information you provided and previous plans and reports for the Grey Oaks Circle abutting project, we ran the enclosed preliminary pressure sewer pipe sizing analysis. This was run through our Low Pressure Sewer Design Software that employs our Flow Velocity and Friction Head Loss vs. Pumps in Simultaneous Operation Spreadsheet. We have used the surface topography provided to make our analyses.

#### Zone Layout

Using your site plan we laid out a system of 4 flow zones leading to the final discharge point. We followed topography from your plan sheet 2 of 4 and matched to plans by Tutela Engineering Associates, Inc. for Sewer and Water Main Connection dated February 2001. The initial design report by FRMA had 3 flow zones terminating ay Weston Street at elevation 198. We have added Zone 1.1 common piping for your project to discharge to the former Zone # 1.

Computations are based on the Hazen-Williams formula for friction loss, using calculations of cross-sectional area and flow rate to determine pipe sizes that create



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

"self-cleaning" velocities of 2.0 fps or higher. A "C" factor of 150, SDR 21 PVC pipe and the average expected daily volumes for single family homes are also used in this analysis.

The highest Total Dynamic Head generated is approximately 110 feet which comprised of static head and friction loss in the proposed pipeline. This is well below our pump's continuous-run rating of 185 ft, and well within its intermittent, i.e., normal, operating range. Flow velocity throughout the system meets or exceeds 2 fps. These characteristics and low retention time indicate that this will be a reliable, low-maintenance system.

#### **Design Flows & System Velocity**

We normally use average daily flows for system designs rather than the peak design flows commonly used for gravity sewer sizing. We do this because the system is sealed and void of inflow and infiltration commonly allowed for in gravity sewer designs. We size the system for an average daily flow of 200+/- gpd generally for single family homes. The pumps selected are rated to flows up to 700 gpd thus peak flows are easily handled. We size the pipelines for the proper scouring velocity based on the pump's output which has a consistent flow rate over a wide range of head conditions. We then look at the pipeline retention time to optimize the line size for the lowest retention that will pass wastewater in a short period of time to reduce sediment in the lines and prevent odor issues. This makes for a very reliable and maintenance free wastewater collection system.

Often we are asked to use the published "State" design values from various flow tables in order to secure approval. We can do this; but then we run the reports based on the actual predicted average flow to optimize the line size as mentioned above.

Many of our installations have seen flows that more closely mirror the EPA water use goals of 70 gpd/capita. We also look at seasonal uses a little more closely due to greater reductions in flow in the offseason. In applications of this type we look to find the best for both seasons.

#### Appurtenances

• Cleanouts, Air/Vacuum Release

Our normal recommendations for valve placement are as follows: flushing connections at 1,000' to 1,500' intervals and at branch ends and junctions; isolation valves at branch junctions; and air release valves at peaks of 25 ft. or more and/or at intervals of 2,000 to 2,500 ft.

Flushing can also be accomplished with a portable flushing tool that can be used at each pump to flush the system. As the service left for this property is a 1-1/2 inch



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

lateral line, we would suggest continuing that line size as the common header for each connection which would then be reduced to 1-1/4 inch.

• Service Laterals and Check Valves

Common practice in pressure sewers requires the ability to isolate each lot with a corporation stop off the main and service lateral kit to the lot line. E/One now requires that each pump connection be isolated with a combination curb stop/redundant check valve.

E/One has developed a true wastewater rated check valve which is built in to our stainless steel lateral kit shown in this report. These components are rated to 235 psi and with standard connection fittings rated to 150 psi. These items are included in the budget analyses and shown in this report.

We strongly advise against the use of waterworks check valves as they are not rated for sewage environments. We do not like to recommend brass due to concerns for corrosion. **WEF Manual of Practice FD-12, Second Edition**, page 45 speaks to the limited success of brass or bronze alloys.

"Besides corrosion considerations, brass is subject to de-alloying, while some bronze, such as 85-5-5, will give better performance. The terms *brass* and *bronze* are used loosely, despite having different meanings; the engineer is advised to evaluate these materials with caution."

We have also seen PVC body check valves with pressure rating to 150 psi that do not have the same rating for back pressure on the check valve. This can result in damage to the check valve and pumping issues as the check valve disc can become dislodged under pressure and then become a line obstruction.

• Corporation Stops/ Mainline Connections

Connections to the main pressure line do not require WYE type fittings. We commonly use a TEE or saddle connection. We isolate each connection to the main line with a stainless steel corporation value in the same manner used for other utilities such as gas and water services.

We recommend that the service laterals connect to the mainline and do not need to enter the cleanout manhole as shown in the "discussion plan". You will find this easier to install and service without having to align and install fittings within the cleanout manhole.



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

R

E

#### Budget Notes

We show both our outdoor Model DH071-93 pumps and indoor pump Model IH091-IDU in this report. We have used the Outdoor pump in the budget estimate. We can also provide pricing for our indoor pump model. We have note used the E/One Design Assistant Budget form as it would also include the existing pipe work as a default.

- Onsite pipe installation would likely be in the range of \$15.00 to \$20.00 per foot.
- Laterals \$299 each with added installation cost
- Corporations \$125.00 each with added installation cost
- DH071-93 pumps with Bal-Last \$4,900 each with added installation cost
- IH091 Optional Indoor \$3,900 plus plumbing and wiring cost.
  - I generally include a 5% overhead and 15% contingency in my budgets

Costs of pipeline excavation and pump installation are best obtained from sources in your region. You may be better able to determine these costs.

I am looking forward to working with you on this and future projects. Please contact me if you have any questions or require additional information.

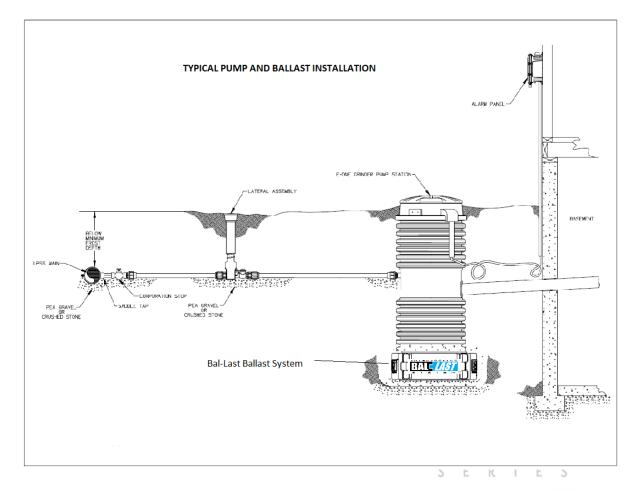
Best regards, *Henry S. Albro* West Townsend Office 781-982-9300, Ext. 222 henryalbro@frmahony.com

Enclosures



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com



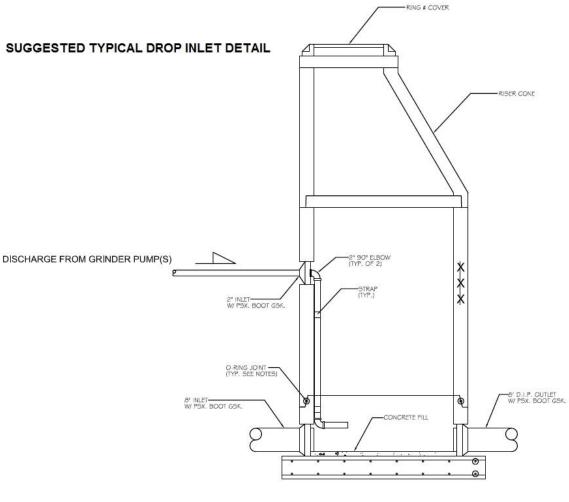
This image shows the typical layout of an outdoor pump unit for single-family home use. The pump unit is furnished complete, ready for installation. The installer needs to confirm the power cord length and discharge and inlet configuration. Standard products are supplied with 32 foot power supply cable. Standard inlets are 4-inch Schedule 40 Grommets (@ zero degrees) with 1-1/4 inch discharge (@ 180 degrees). Other configurations are available.





30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704 1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266





IN-LINE MANHOLE ELEVATION VIEW

This detail is shown as a concept sketch when major grade adjustments are required. We recommend that smaller inlet lines match the crown of outlet gravity sewer lines in all cases in order to direct flow to properly drain to the gravity sewer

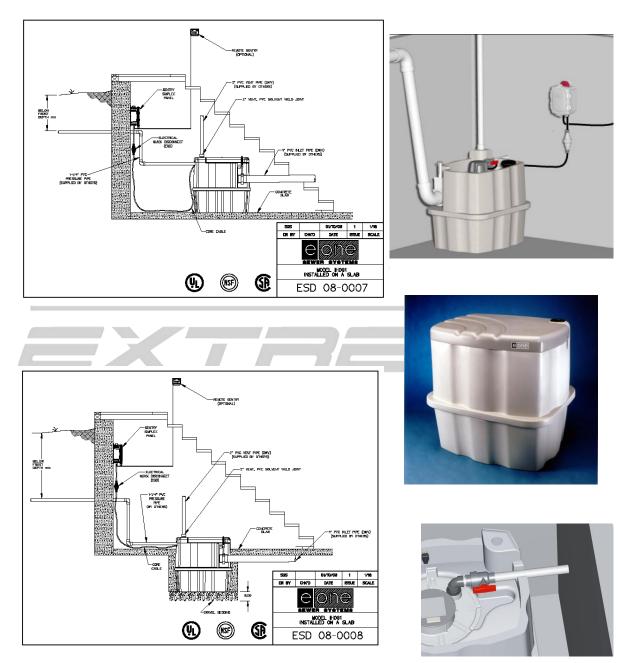
41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704 1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

<u>Model IH091 Indoor Pump</u> Connection options for this station can be adapted to connect above the sill plumbing or below slab plumbing as seen in the sketches below.



30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704 1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com



Standard alarm panels are the Sentry® panel mounted outside of the home as shown in the drawing (above).

Options include emergency generator connection (see photo) and Redundant alarm Remote Sentry® panel shown. Other panel configurations are available. See the partial listing of panel options below.



- Basic Panels include circuit breaker for the pump and separate breaker for the alarm. These panels include alarm light, alarm buzzer and alarm silence button. All F. R. Mahony panels are equipped with dry contacts to enable the connection of the Remote Sentry® (battery powered redundant alarm panel option)
- Standard options include auto transfer generator connection shown above. This panel provides automatic power transfer without having to open the alarm panel or having to operate any manual transfer switching. This feature can be added to the basic panel or the panels offered below.
- Popular options include the "Protection Package" which monitors and protects the system from:
  - Pump Run Dry Condition (Pump running out of water)
  - Pump Overpressure Condition (Closed valve)^{S E R I E}
  - Brownout Condition (Main voltage under 12% of nameplate)
  - High Liquid Level
- The "**Protect Plus**" panel features offer the same items in the "Protection Package" plus the following:
  - High & Low Amperage draw by the pump
  - High & Low voltage to the pump
  - Extended Runtime by the pump (indicating wear or excessive flow) (field adjustable settings)
  - o Monitoring of:
    - Real-time Pump Voltage and Current
    - Cycles & Hours (can be reset)
    - Minimum & Maximum Amperage (can be reset)
    - Minimum, Maximum, Average, and Last Run Cycle (in minutes, can be reset)



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

#### Emergency Generator Transfer Options.

The indoor pump units may be furnished with a receptacle for connection of emergency power supplies. The image to the right shows the connection receptacle on the right side of our Sentry panels. This connection may be connected by your electrician to a remote connection port outside of the home.

Wiring must be performed by a licensed electrician and conforming to NEC and local electrical codes.



The box (left) is shown in the face view (face up) and is intended to be mounted on the outside wall to permit connection of a portable generator to the receptacle on the bottom. Generator operation must always be in well ventilated areas outside of any living space.

The pump may be operated under emergency power provided the automatic transfer option is selected with the Sentry® panel. Normal pump run times are short and should not require the continuous connection of a generator. A single portable generator may be used to

service several homes effectively.

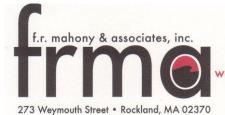




NEMA# L14-20R 20 Amp 1-120/240 VAC



30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704 1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266



water supply and pollution control equipment

tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

Pump models may be the DH071-93 (standard height) for outdoor use or the Model IH091 indoor unit. Both products are UL listed NSF and CSA certified and Massachusetts Plumbing Board Accepted.

### Model DH071-93 Outdoor Pump With Bal-LastTM

The outdoor model is complete - ready for installation and connection to exterior plumbing and power supply. This unit is fully tested for operation and factory leak tested. No assembly is required and there are no floats to adjust. The pump is furnished complete with the alarm panel and direct bury power supply cable. Standard cable length is 32 feet with 50, 75, and 100 and up to 150 foot cables available. (See Alarm Panel options above)



Other station configurations are available for higher flow requirements. Please contact us for more information. Additional information may be found at <a href="http://www.eone.com">www.eone.com</a>

30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704

1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266 188 Pine Hill Road South Kingstown, RI 02879 tel. 781-561-6555



water supply and pollution control equipment

tel. 781.982.9300 fax. 781.982.1056

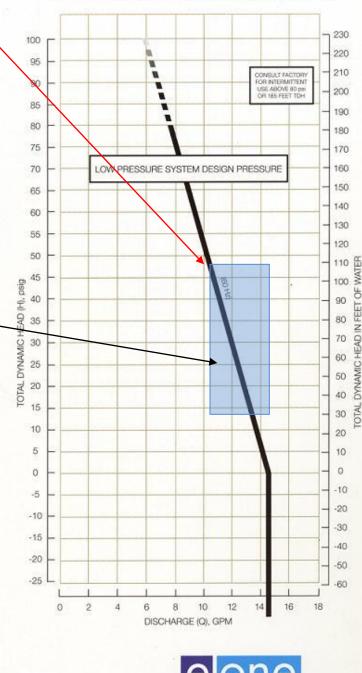
info@frmahony.com www.frmahony.com

### **Operation Conditions**

<u>111</u> Feet is the highest TDH at simultaneous operating conditions with the expected number of pumps operating in each zone, or the head of an individual pump operating in a single zone condition.

Operating range of E/One pumps from 0-185 feet TDH and from 0 to -60 feet TDH. Your System Range

Anti-siphon valves in E/One cores provide for negative head pumping. In common systems with negative heads of 25-30 feet or more we recommend the use of combination air/vacuum release valves as described below.



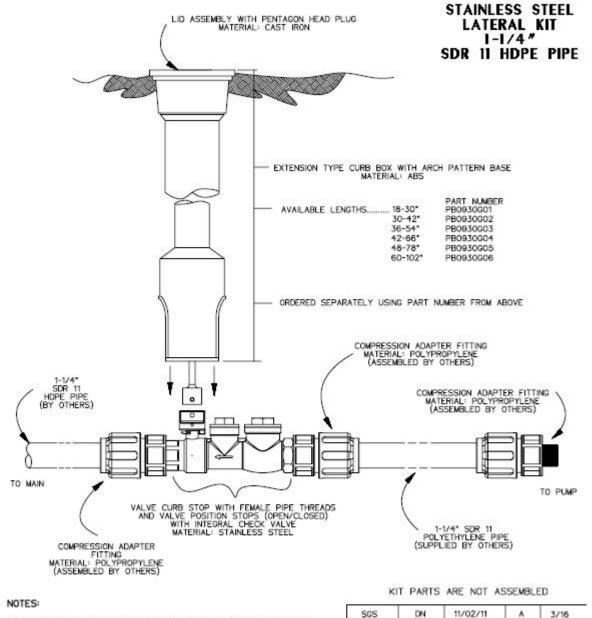
**GRINDER PUMP PERFORMANCE CHARACTERISTICS** 



Environment One Corporation

30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704 1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266 188 Pine Hill Road South Kingstown, RI 02879 tel. 781-561-6555





- 1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY, TO BE ASSEMBLED BY OTHERS
- 2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, AND A LAYER OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS
- 3. ASSEMBLY IS TO BE PRESSURE TESTED (BY OTHERS)
- 4. ASSEMBLY IS TO BE USED WITH SDR11 HDPE PIPE
- 5. TO ORDER SS LATERAL KIT, USE PART NUMBER NC0193G01
- 6. CURB BOX IS TO BE ORDERED SEPARATELY, SEE ABOVE

1071 Floral Avenue Schenectady, NY 12306 tel. 774-402-0354 fax. 518-356-3266

DR BY

CHK'D

DATE

SEWER SYSTEMS

STAINLESS STEEL LATERAL KIT

1-1/4" SDR 11 HDPE PIPE

NA0330P02

ISSUE

SCALE

188 Pine Hill Road South Kingstown, RI 02879 tel. 781-561-6555

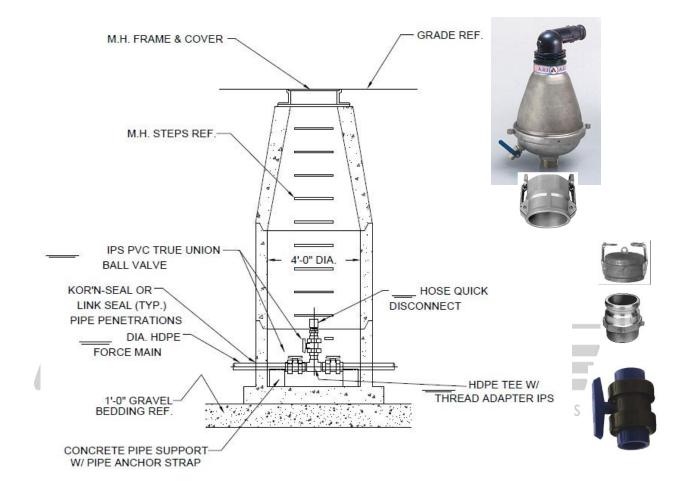
30 DuPaul Street Southbridge, MA 01550 tel. 508.765.0051 fax 508.765.1244 41 Bayberry Hill Road W. Townsend, MA 01474 tel. 978.597.0703 fax 978.597.0704



tel. 781.982.9300 fax. 781.982.1056

info@frmahony.com www.frmahony.com

### Typical Cleanout Detail (Optional Air/Vacuum Valve shown –right)



Cleanout detail can be modified to match typical installation needs. Inline shut offs may be added to isolate flow direction. Image shown is flow through cleanout. These structures can be terminal end of line cleanouts, or junction cleanouts as may be required. Optional air and vacuum relief valves may be added when required.



## **Environment One Corporation**

# Pressure Sewer Preliminary Cost and Design Analysis For 443 Lincoln Street Extension Lexington, MA

Prepared For:						
Stamski and McNary						
1000 Main Street						
Acton	MA	01720	USA			
Tel: (978) 263-8585 ex	<b>ct. 211</b>					
Fax: rjh@stamskiand	Fax: rjh@stamskiandmcnary.com					
Prepared By: frma/eq	/ Henry Al	bro REV				
February 1, 2018						

C:\Users\Henry\Documents\EONE\PROJECTS AND PLAN REVIEWS\Massachusetts\Lexington\443 Lincoln Street\443 Lincoln Street LPSS

### 443 Lincoln Street Extension Lexington, MA

Prepared by : frma/eq/ Henry Albro REV

**On:** February 1, 2018

Notes :

This report looks at adding 8 Pumps to existing zone # 1 with 1-1/2 inch PVC Pipe.

 $<<<< E N D \quad O F \quad N O T E S >>>>$ 

C:\Users\Henry\Documents\EONE\PROJECTS AND PLAN REVIEWS\Massachusetts\Lexington\443 Lincoln Street\443 Lincoln Street LPS!

PRELIMINARY PRESSURE SEWER - PIPE SIZING AND BRANCH ANALYSIS

Prepared By: frma/eq/ Henry Albro REV

#### 443 Lincoln Street Extension Lexington, MA

February 1, 2018

	Zone	Connects	Number	Accum	Gals/day	Max Flow	Max	Max Flow	Pipe Size	Max	Length of Main	Friction Loss	Friction	Accum Fric	Max Main	Minimum Pump	Static Head	Total
N	Number	to Zone	of Pumps	Pumps	per Pump	Per Pump	Sim Ops	(GPM)	(inches)	Velocity	this Zone	Factor	Loss This	Loss (feet)	Elevation	Elevation	(feet)	Dynamic
			in Zone	in Zone		(gpm)				(FPS)		(ft/100 ft)	Zone					Head (ft)
Т	his spread	sheet was c	alculated	using pip	e diameters	for: SDR	21PVC				Fric	tion loss calc	alations wer	e based on a	Constant for ins	side roughness "C	" of: 1	50
	1.00	2.00	2	10	200	10.89	4	43.56	1.50	5.64	450.00	6.77	30.45	69.56	198.00	176.00	22.00	91.56
	1.10	1.00	8	8	200	10.03	3	30.09	1.50	4.16	475.00	3.85	18.28	87.84	198.00	175.00	23.00	110.84
	2.00	3.00	3	13	200	12.25	4	48.99	2.00	3.78	1,250.00	2.49	31.11	39.11	198.00	176.00	22.00	61.11
	3.00	3.00	2	15	200	13.72	4	44.34	2.00	3.92	300.00	2.67	8.00	8.00	198.00	178.00	20.00	28.00

Page 1 Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One. C:\Users\Henry\Documents\EONE\PROJECTS AND PLAN REVIEWS\Massachusetts\Lexington\443 Lincoln Street\443 Lincoln Street LPSS lexington.EOne Prepared By: frma/eq/ Henry Albro REV

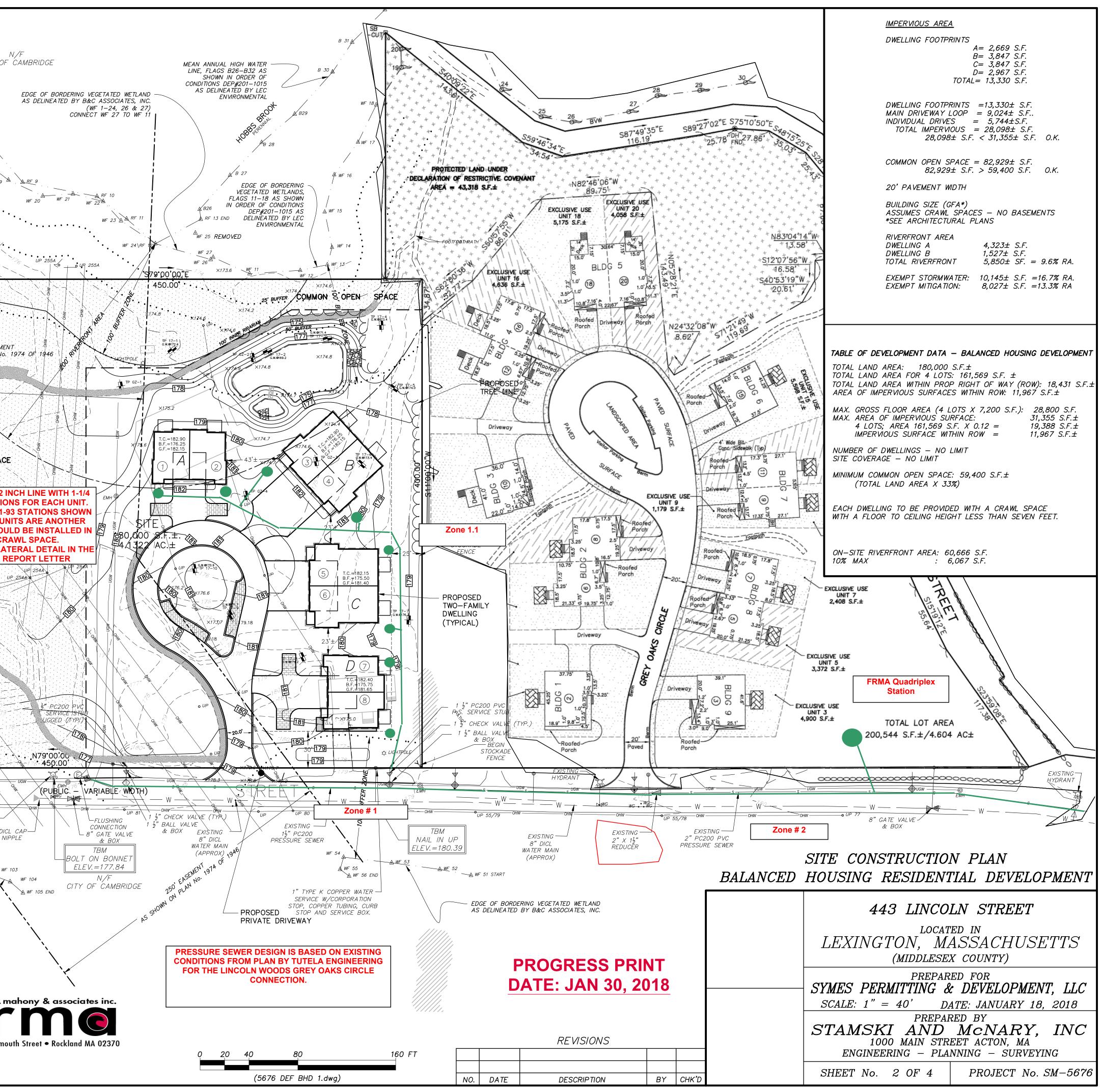
#### PRELIMINARY PRESSURE SEWER - ACCUMULATED RETENTION TIME (HR) 443 Lincoln Street Extension Lexington, MA

February 1, 2018

Zone Number		Accumulated Total of Pumps this Zone		Gallons per 100 lineal feet	Length of Zone	Capacity of Zone	Average Daily Flow	Average Fluid Changes per Day	Average Retention Time (Hr)	Accumulated Retention Time (Hr)
This sprea	dsheet was ca	llculated using pi	pe diameters for: SD	R21PVC				Gals per Day p	er Dwelling	200
1.00	2.00	10	1.50	12.07	450.00	54.32	2,000	36.82	0.65	3.28
1.10	1.00	8	1.50	12.07	475.00	57.33	1,600	27.91	0.86	4.14
2.00	3.00	13	2.00	18.84	1,250.00	235.53	2,600	11.04	2.17	2.63
3.00	3.00	15	2.00	18.84	300.00	56.53	3,000	53.07	0.45	0.45

Page 1 Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One C:\Users\Henry\Documents\EONE\PROJECTS AND PLAN REVIEWS\Massachusetts\Lexington\443 Lincoln Street\443 Lincoln Street LPSS lexington.EOne

LEGEND:		
N/F       NOW OR FORMERLY         OWW       OVERHEAD WIRES         TREE       TREE         TREE LINE       ITREE         UP       UTILITY POLE         GG•       GAS GATE	RF 6 A = A = A = A = A = A = A = A = A = A	N CITY OF F 8 WF 18 WF 19 
EDGE OF PAVEMENT PROPOSED PERVIOUS PAVEMENT PROPOSED OPEN SPACE	ино	
AS DELINEATED BY B&C ASSOCIATES, INC. ON SEPTEMBER 27, 2016	AS SHOWN ON PL	EASEMEN LAN NO.
MEAN ANNUAL HIGH-WATER DELINEATED BY B&C ASSOCIATES, INC. ON SEPTEMBER 27, 2016 100' BUFFER 20A 4 WF 7 4 WF 6 RF 3 4 WF 4	TUVERFRONT AREA	1-1/2 IN IECTION 0H071-9 1091 UN 1T COUI DE CRA ND LAT
RF 1 START A WF 2 WF 1 START A WF 2		182 -181 -180 -179 -177 -177 -177 
Image: Stylest_orm       Image: Stylest_orm         Image: Stylest	UP 83° OHW OHW OHW OHW OHW OHW OHW WF 101 START	w
RO <u>DATUM</u> N.G.V.D. OF 1929	EONE SEWER SYSTEMS 273	f.r. m Weymou



### AGENDA ITEM SUMMARY

### LEXINGTON PLANNING BOARD

#### **AGENDA ITEM TITLE:**

114 Wood Street: Sketch Site Sensitive Development

#### **PRESENTER:**

### <u>ITEM</u> <u>NUMBER:</u>

### **SUMMARY:**

The applicant, Angelo Tortola, submitted an application for review of a Sketch Site Sensitive development in accordance with Chapter 135-6.9 of the Code of Lexington, for land at **114 Wood Street Map 59, Lot 175**. The proposed plan (click link below) depicts 3 units on a  $\pm$ 7.48-acre site. Staff's report can be viewed by clicking the link below.

#### **SUGGESTED MOTION:**

### **FOLLOW-UP:**

### DATE AND APPROXIMATE TIME ON AGENDA:

6/21/2018

### **ATTACHMENTS:**

#### Description

- D Project Narrative
- D Plan Set
- Staff Report

#### Type

Backup Material Backup Material Backup Material



### **VIA: HAND DELIVERY**

May 14, 2018

Mr. Richard Canale, Chairman Lexington Planning Board Town Hall, 1625 Massachusetts Avenue Lexington, Massachusetts 02420

Re: Sketch Plan Application 114 Wood Street Lexington, Massachusetts MAI Project No. 6073

Dear Chairman Canale and Members of the Board:

On behalf of Angelo Tortola (Applicant), Meridian Associates, Inc. (MAI) is pleased to submit the accompanying Sketch Plan Application Package in accordance with Section 135-6.9.3 of the Town of Lexington Zoning Bylaw. The locus property at 114 Wood Street is located within the One-Family Dwelling Zoning District (RO).

The parcel is identified on the Town of Lexington Assessor's Map 59 as Lot 175. Lot 175 has an assessed area of  $7.48\pm$  acres, and the site features currently existing include a single-family dwelling with an associated bituminous driveway, enclosed gardens, a carport, a stonewall, grassed/landscaped and wooded areas, Boston Edison utility structures, and vegetated wetlands. The lot slopes westerly and easterly towards abutting properties. The property abuts land supporting single-family dwellings in a RO district in all directions with the exception of property in the GC district located southeast and east of the subject property.

This applicant is proposing a residential development for the subject property, in conformance with a Balanced Housing "Special Permit Residential Development" per Section 135-6.9.3 of the Town of Lexington Zoning Bylaw.

In support of this filing we are providing the following information:

• One (1) original and two (2) copies of the application packet, including the Form B Application, dated May 14, 2018, this Cover Letter, dated May 14, 2018, and the Designers Certificates (G-CE and G-LA)., dated May 14, 2018;

- Four (4) full sized copies of the Sketch Plan Set (set of six sheets (a) Cover Sheet / Locus Context Map, (b) Site Analysis Plan, (c) Geometric Proof Plan, (d) Grading Proof Plan, (e) Balanced Housing Sketch Plan, dated May 14, 2018;
- One (1) computer disk containing all documents and plans denoted above in a PDF format.

Also, the filing fee (in the amount of \$3,000) will be submitted to the Town of Lexington under separate cover by the Applicant.

We look forward to meeting with the Board at a date and time yet to be determined to discuss the development options. Please do not hesitate to contact us in advance of the meeting date if you have questions or require additional information.

Sincerely,

### **MERIDIAN ASSOCIATES, INC.**

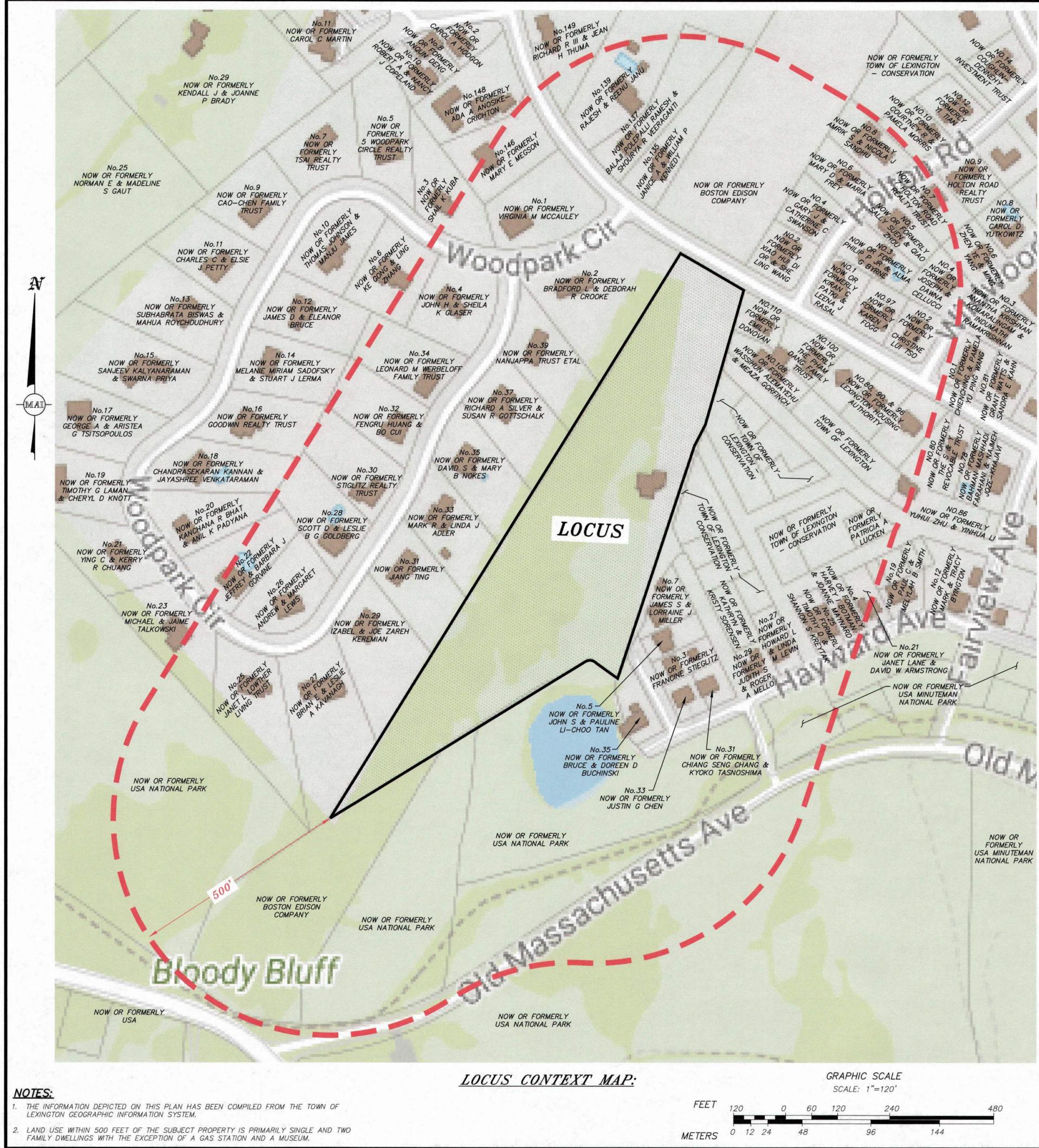
X

Michael J. Novak, PE Senior Project Manager

P:\6073_Wood Street_Lexington\ADMIN\Letters_Memos\PlanningLetter 2018.05.14.doc

Enclosures

cc: Angelo Tortola (2 Sets) Lexington Town Clerk's Office (1 Set)



114 WOOD STREET (ASSESSOR'S MAP 59 - LOT 175) SKETCH SUBDIVISION PLAN SET IN ACCORDANCE WITH SECTION 135-6.9.3 OF THE LEXINGTON ZONING BY LAW

LOCATED IN LEXINGTON, MASSACHUSETTS DATE: MAY 14, 2018

> SHEET 1 SHEET 2 SHEET 3 SHEET 4 SHEET 5 SHEET 6

APPLICANT:

ANEGELO TORTOLA 114 WOOD STREET LEXINGTON, MASSACHUSETTS 02421

RECORD OWNERS:

ANEGELO TORTOLA & MARIANNE TORTOLA 114 WOOD STREET LEXINGTON, MASSACHUSETTS 02421 -DEED BOOK 34651, PAGE 361 *

*DENOTES DOCUMENTS RECORDED AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS.



PREPARED BY:

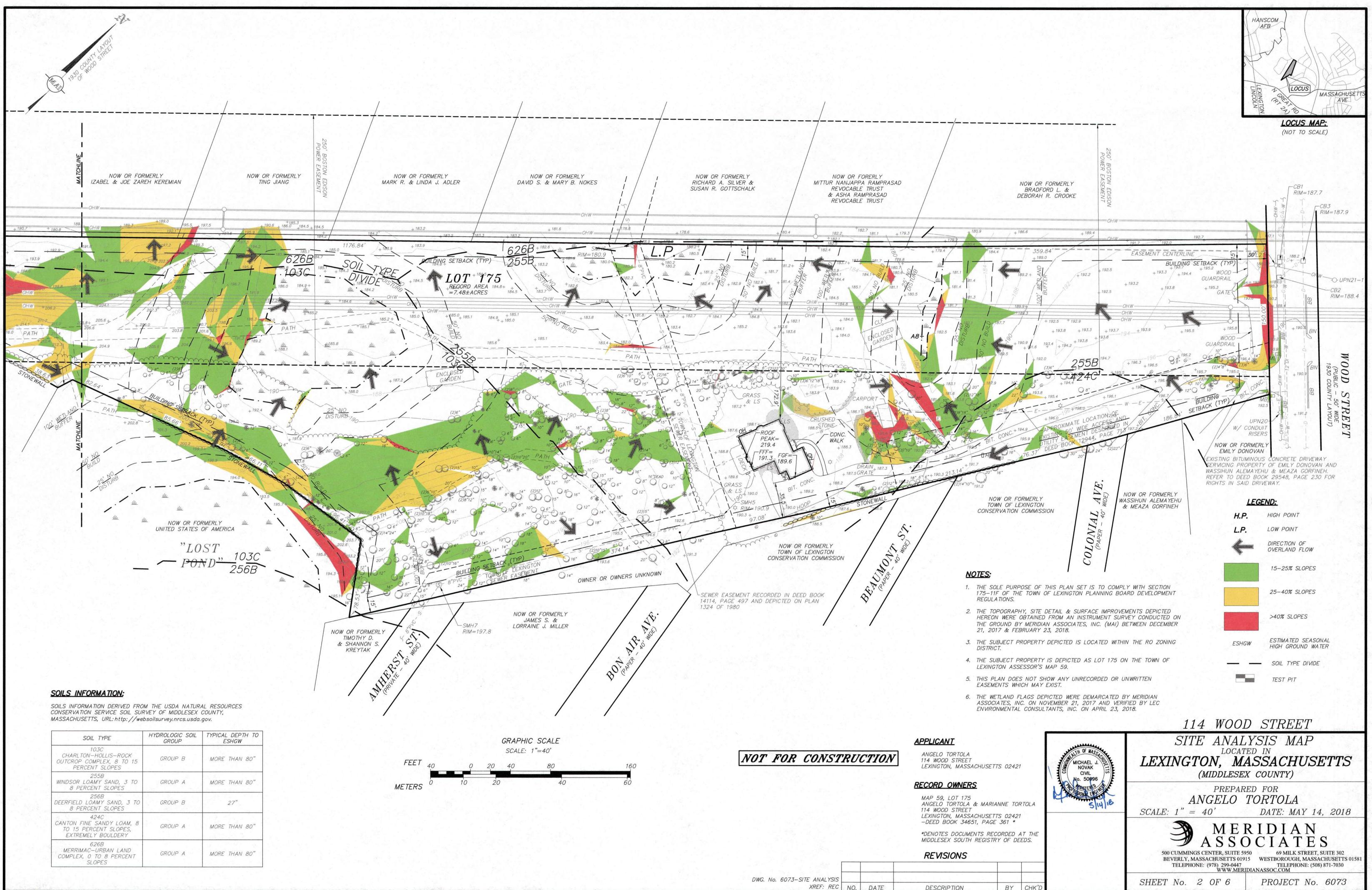
MERIDIAN 69 MILK STREET, SUITE 302 **500 CUMMINGS CENTER SUITE 5950** BEVERLY, MASSACHUSETTS 01915 WESTBOROUGH, MASSACHUSETTS 01581 TELEPHONE: (978) 299-0447 TELE WWW.MERIDIANASSOC.COM TELEPHONE: (508) 871-7030

## DRAWING INDEX:

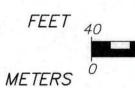
COVER SHEET & LOCUS CONTEXT MAP SITE ANALYSIS MAP SITE ANALYSIS MAP GEOMETRIC PROOF PLAN OF LAND GRADING PROOF PLAN OF LAND SKETCH PLAN

> DWG. No. 6073-CVR (IMAGE: GIS Map 200scale)

right © by Meridian Associates, Inc. All right

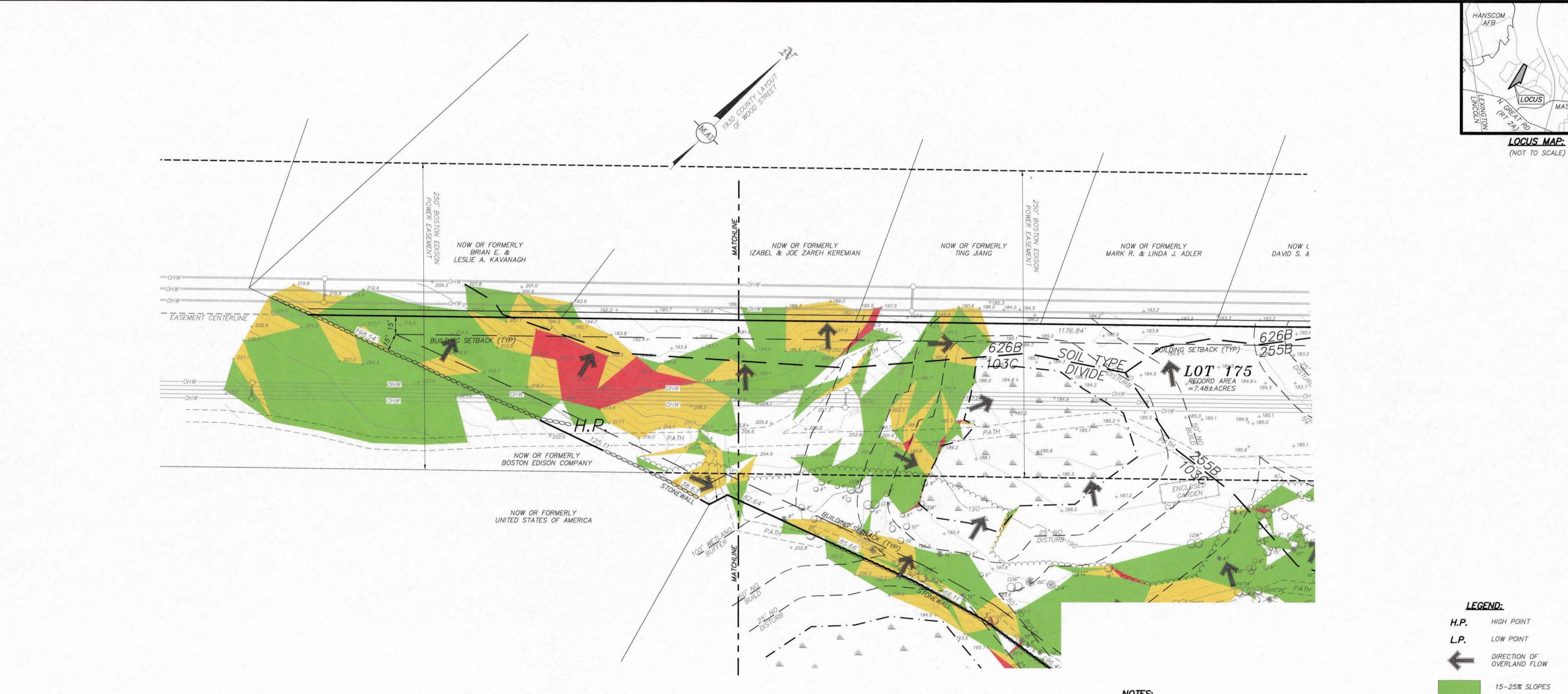


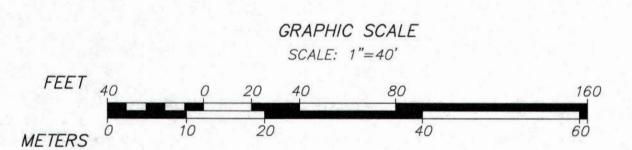
SOIL TYPE	HYDROLOGIC SOIL GROUP	TYPICAL DEPTH TO ESHGW
103C CHARLTON-HOLLIS-ROCK OUTCROP COMPLEX, 8 TO 15 PERCENT SLOPES	GROUP B	MORE THAN 80"
255B WINDSOR LOAMY SAND, 3 TO 8 PERCENT SLOPES	GROUP A	MORE THAN 80"
256B DEERFIELD LOAMY SAND, 3 TO 8 PERCENT SLOPES	GROUP B	27"
424C CANTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES, EXTREMELY BOULDERY	GROUP A	MORE THAN 80"
626B MERRIMAC-URBAN LAND COMPLEX, O TO 8 PERCENT SLOPES	GROUP A	MORE THAN 80"



TION	 BY	CHK'

Copyright & by Meridian Associates, Inc. All

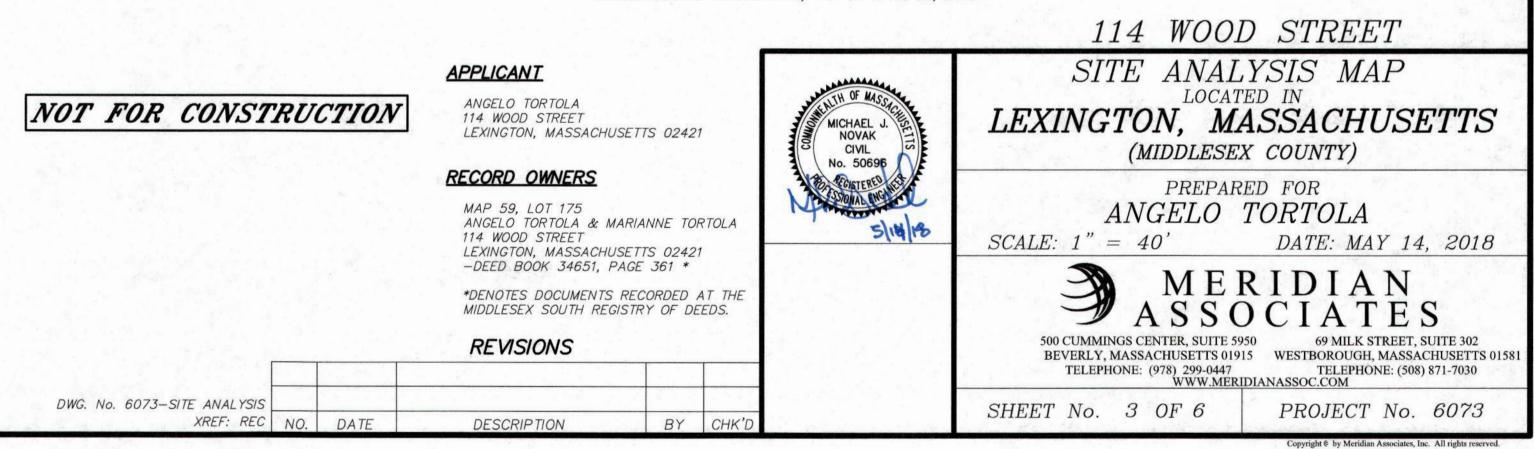




### SOILS INFORMATION:

SOILS INFORMATION DERIVED FROM THE USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY OF MIDDLESEX COUNTY, MASSACHUSETTS, URL: http://websoilsurvey.nrcs.usda.gov.

SOIL TYPE	HYDROLOGIC SOIL GROUP	TYPICAL DEPTH TO ESHGW
103C CHARLTON-HOLLIS-ROCK OUTCROP COMPLEX, 8 TO 15 PERCENT SLOPES	GROUP B	MORE THAN 80"
255B WINDSOR LOAMY SAND, 3 TO 8 PERCENT SLOPES	GROUP A	MORE THAN 80"
256B DEERFIELD LOAMY SAND, 3 TO 8 PERCENT SLOPES	GROUP B	27"
424C CANTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES, EXTREMELY BOULDERY	GROUP A	MORE THAN 80"
626B MERRIMAC-URBAN LAND COMPLEX, O TO 8 PERCENT SLOPES	GROUP A	MORE THAN 80"



### NOTES:

1. THE SOLE PURPOSE OF THIS PLAN SET IS TO COMPLY WITH SECTION 175-11F OF THE TOWN OF LEXINGTON PLANNING BOARD DEVELOPMENT REGULATIONS.

MASSACHUSE AVE

25-40% SLOPES

>40% SLOPES

---- SOIL TYPE DIVIDE

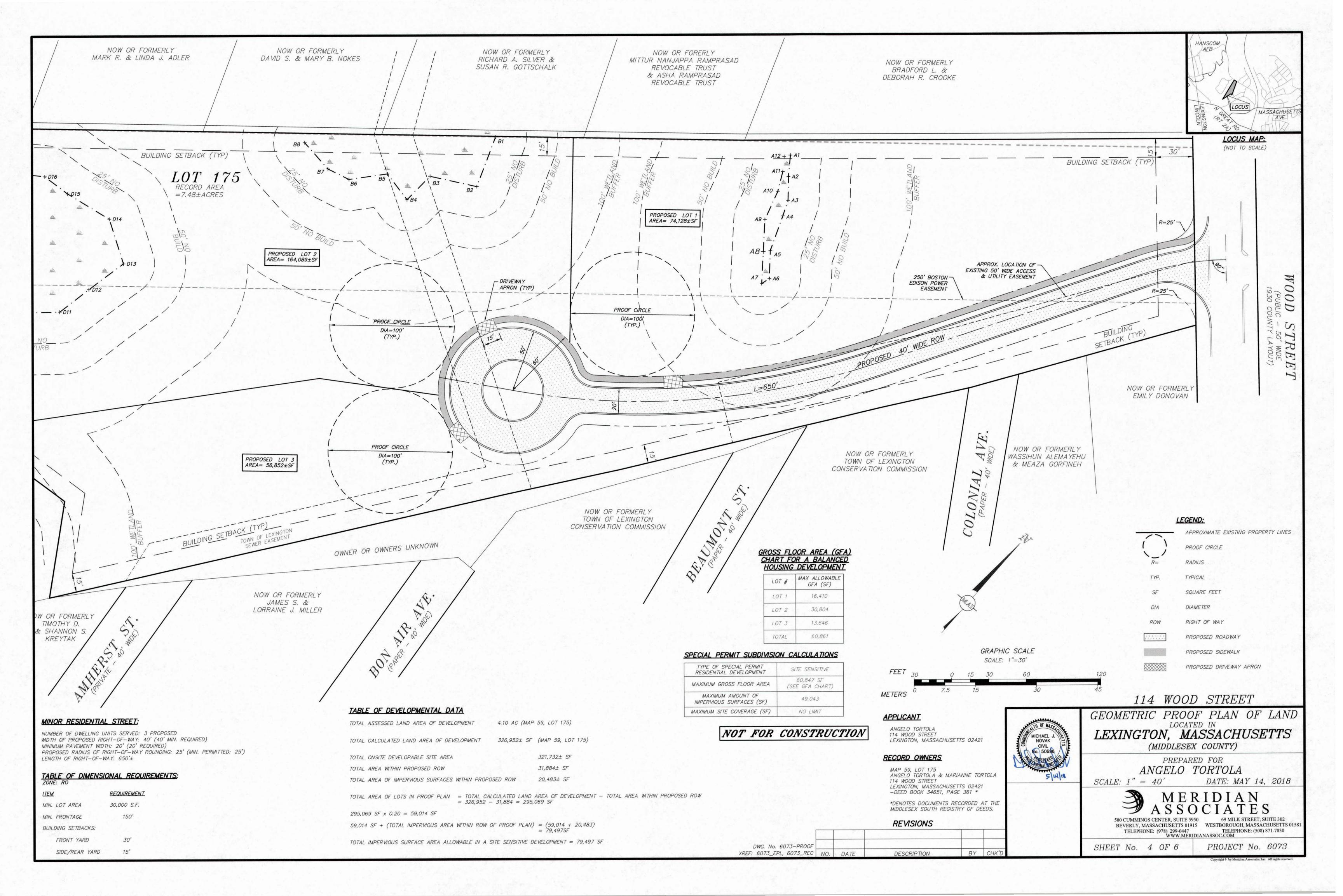
TEST PIT

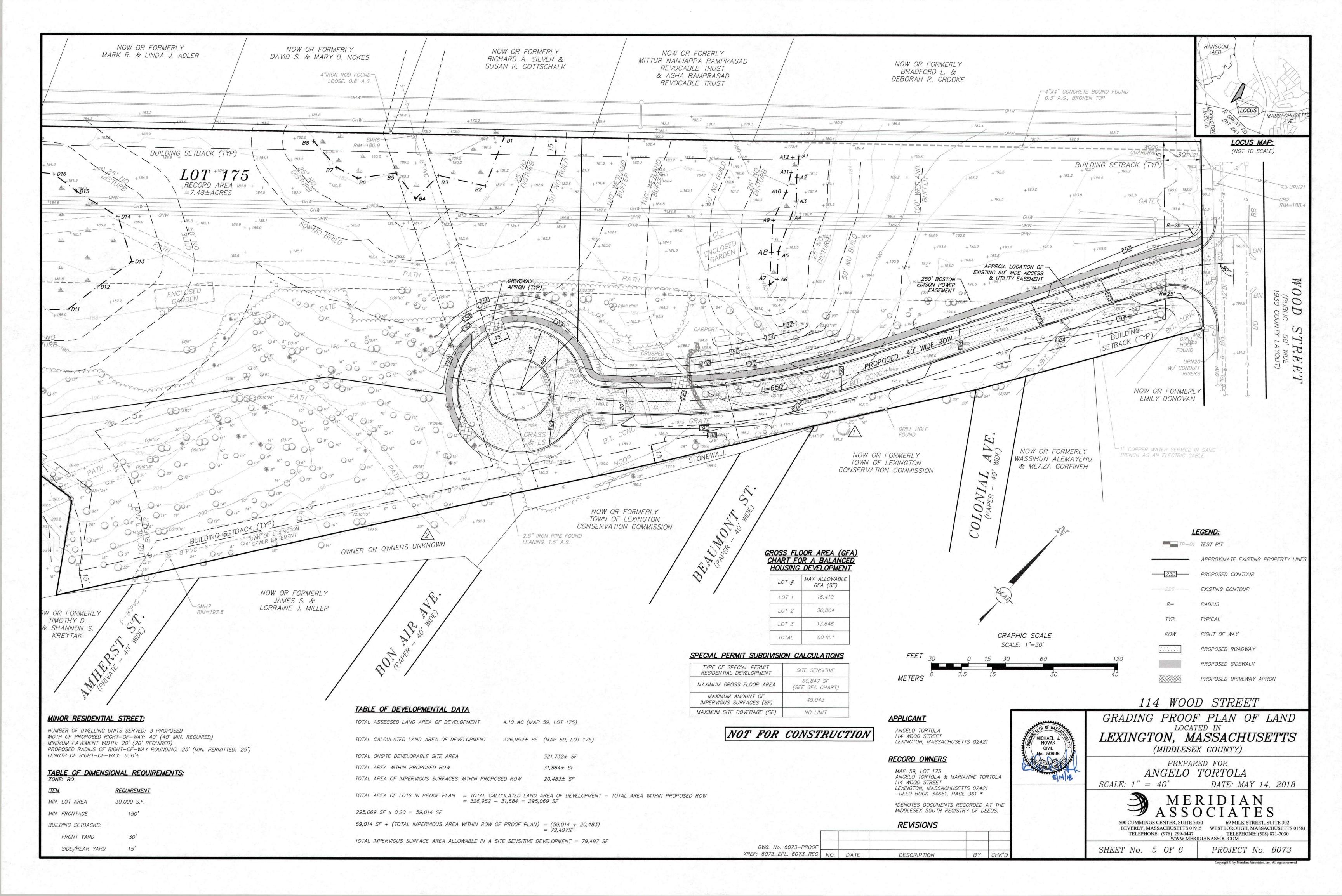
ESHGW

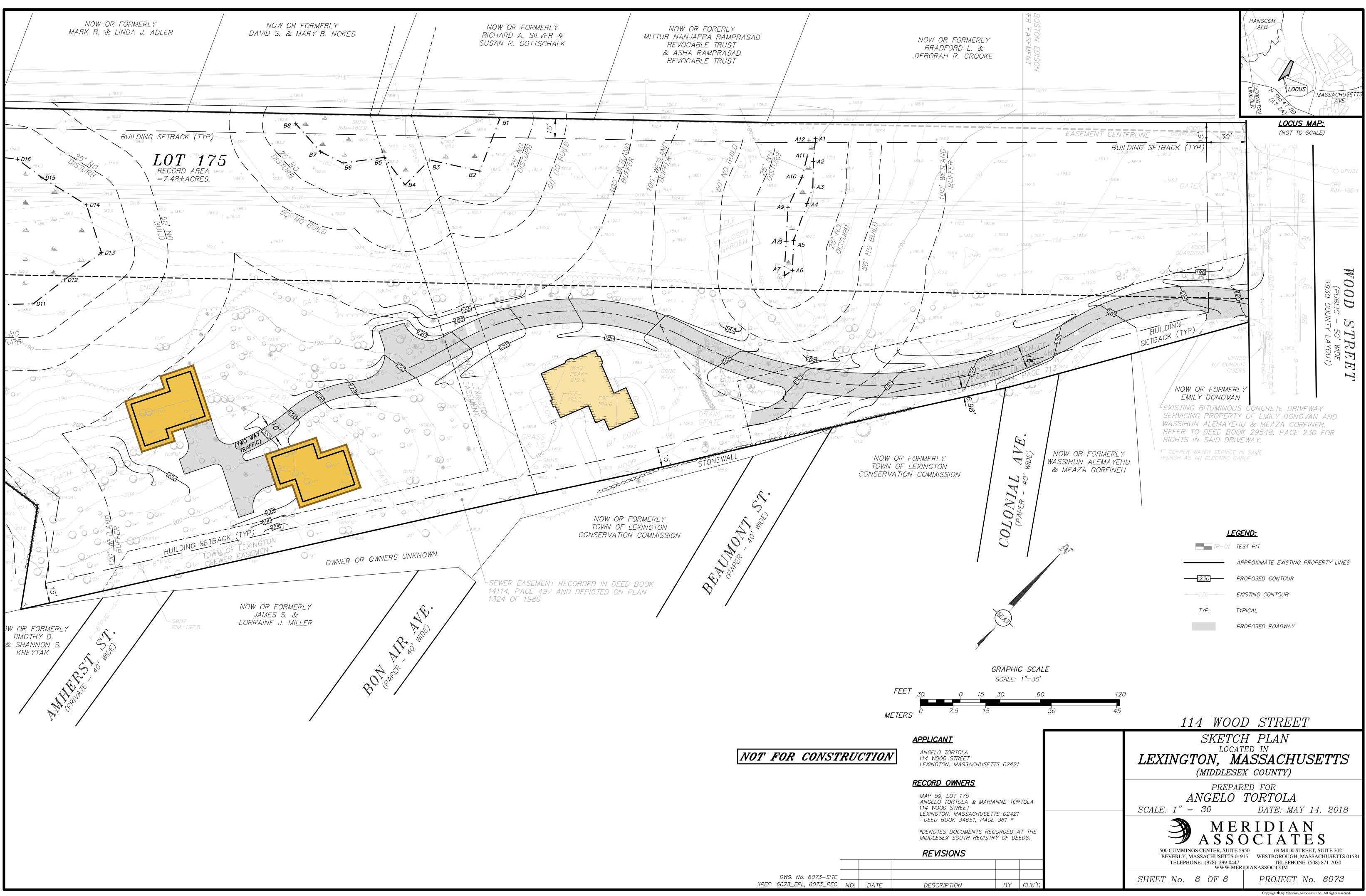
ESTIMATED SEASONAL

HIGH GROUND WATER

- 2. THE TOPOGRAPHY, SITE DETAIL & SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM AN INSTRUMENT SURVEY CONDUCTED ON THE GROUND BY MERIDIAN ASSOCIATES, INC. (MAI) BETWEEN DECEMBER 21, 2017 & FEBRUARY 23, 2018.
- 3. THE SUBJECT PROPERTY DEPICTED IS LOCATED WITHIN THE RO ZONING DISTRICT.
- 4. THE SUBJECT PROPERTY IS DEPICTED AS LOT 175 ON THE TOWN OF LEXINGTON ASSESSOR'S MAP 59.
- 5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST.
- 6. THE WETLAND FLAGS DEPICTED WERE DEMARCATED BY MERIDIAN ASSOCIATES, INC. ON NOVEMBER 21, 2017 AND VERIFIED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON APRIL 23, 2018.









### Lexington Planning Office Staff Report

То:	Planning Board
From:	David Fields, Planner
Date:	June 15, 2018
Subject:	Site Sensitive Development Sketch Plan for 114 Wood Street

### **GENERAL INFORMATION**

Owner / Applicant:	Angelo Tortola
Designers:	Gary Larson, RLA; Meridian Associates, Inc.
Submission Materials:	Sketch plan of a special permit residential development subdivision.
Type of Plans:	<ol> <li>Cover sheet &amp; locus context map;</li> <li>Site analysis maps;</li> <li>Proof plan;</li> <li>Proof plan including grading;</li> <li>Site Sensitive Development plan.</li> </ol>
Location:	114 Wood Street, Assessor's Map and Lot 59-175.
Assessed Area:	$7.48 \pm acres$
Zoning:	RO, One Family (30,000 S.F. lot, 150 ft. frontage)
Current Land Use:	One single family house
Surrounding Land Use:	To the northwest of the site is the Wood Park Circe neighborhood, to the south and west are single-family homes in the RO district on Bonair and Hayward Avenues and the Minuteman National Park.
Topography/Land Cover:	The site is fairly level with a few hillocks throughout. Much of the change in topography is at the rear of the site, near or in wetland areas and is not proposed to be modified.
	The site has been previously developed and currently has an existing home on it, however, there is a large power line easement running roughly north to south across the entire site, possibly limiting development potential.
	Soils on the site consist of Charlton-Hollis-Rock outcrop complex, Windsor sandy loam, Deerfield loamy sand, Canton fine sandy loam, and Merrimac-Urban land complex.

Site Sensitive Development Sketch Plan for 114 Wood Street Friday, June 15, 2018 Page 2 of 5

Wetlands/Flood Zone:	The applicant's submission, as well as data from the Massachusetts Department of Environmental Protection, shows that the site does have wetland resources on or adjacent to the site. The property is not located in a FEMA Flood Zone or Floodway.
Historic Status:	N/A
Other Board, Commission & Department Status:	This plan has not been reviewed by other offices.

#### PROCEDURAL SUMMARY

This is the first time this property has been filed for review by the Board.

#### **DEVELOPMENT DATA**

Area in Wetlands:	Not given at this time.
Developable Site Area:	Approximately 321,732 square feet
Existing Frontage:	Approximately 150 feet on Wood Street

Table 1

Development Data	Conventional	Proposed SSD
Dwelling Units (DU) Proposed	3	3
Density	0.4 DU/AC	0.4 DU/AC
Common Open Space Required (OS)	N/A	N/A
Common Open Space Proposed (OS)	N/A	N/A
Maximum Total GFA	60,860 SF for total site	60,860 SF for total site
Total Proposed GFA	N/A	N/A
Impervious Surface Allowed	No Maximum	79,497 SF

#### SUMMARY OF THE PLAN

The sketch plan for the lots off of Wood Street has been submitted under §135-6.9 *Special Permit Residential Developments* of Lexington's Zoning Bylaw, specifically the provision defined in §135-6.9.3(1) Site Sensitive Development (SSD). The proof plan shows a single minor road terminating in a cul-de-sac with frontage for three (3) lots. As shown, all three lots on the proof plan comply with conventional dimensional requirements.

The site currently has one home on a single lot; this plan proposes a net increase of two units. The proposed SSD layout shows two (2) new units on the southwest portion of the site. The plan depicts the existing house on site to remain, potentially with modifications.

#### COMMENTS

With regard to the density shown on the proposed plan staff has included the average density for neighborhoods throughout Lexington in Table 2, as measured solely in dwelling units per acre, including the proposed development and the neighborhood surrounding it.

#### Table 2

Follen Hill	3.1 DU/Acre
Meriam Hill	2.7 DU/Acre
East Lexington	6.7 DU/Acre
Surrounding Neighborhood ¹	1.15 DU/Acre
Proposed SSD	0.4 DU/Acre

As with many developments that occur within existing neighborhoods in Lexington the proposed project is actually less dense than the area surrounding it, in this case significantly so, as measured in dwelling units per acre due to the large lot sizes required under Lexington's zoning.

Staff suggests that the applicant contact NStar, or other utility provider responsible for the easement across the property in question, to determine the likelihood that the utility would allow development activity on the land within the easement, particularly if any utilities for the proposed development are to run under powerlines. There is also a sewer easement on the property that, if this plan proceeds to the definitive stage, would need to be reviewed by the engineering office to gauge their comfort level on crossing this easement with a paved way and/or other utilities.

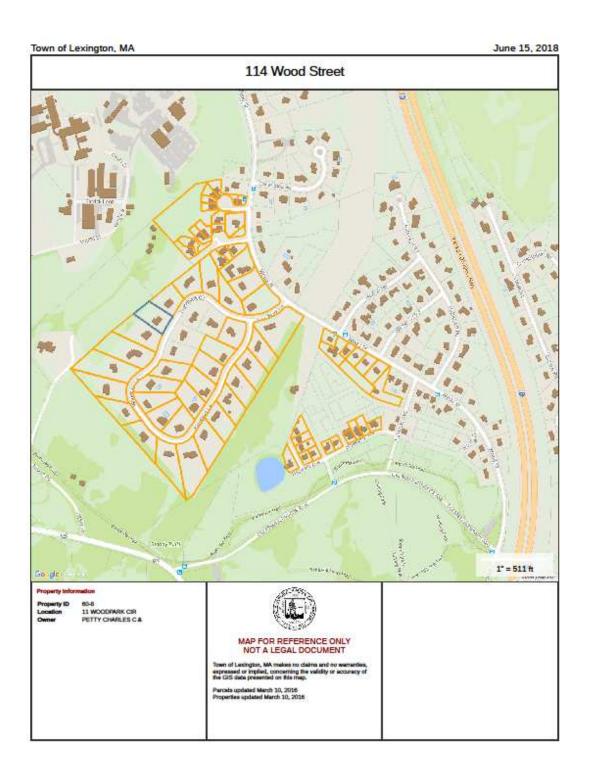
Additionally, the applicant should review the common driveway with the fire department as the plan calls for 10 foot wide, two way access to the two additional homes proposed. The planning office would need confirmation from the fire department that this is acceptable for the maneuverability of their vehicles and that the hammerhead configuration in front of the two proposed homes is an acceptable turnaround for their vehicles.

¹ See Figure 1 on separate sheet.

G:\Development Administration\Subdivisions\Wood Street\114 Wood Street\114 Wood_SSD_Staff Summary_2018-06-15.docx

Site Sensitive Development Sketch Plan for 114 Wood Street Friday, June 15, 2018 Page 4 of 5

Figure 1



### AGENDA ITEM SUMMARY

### LEXINGTON PLANNING BOARD

### **AGENDA ITEM TITLE:**

287 Waltham Street: Sketch Site Sensitive Development

#### **PRESENTER:**

<u>ITEM</u> <u>NUMBER:</u>

### **SUMMARY:**

The applicant, Iqbal Quadir, has submitted an application for review of a Sketch Site Sensitive Devlopment in accordance with Chapter 135-6.9 of the Code of Lexington, for land at **287 Waltham Street (Map 41, Lots 8, 9, 10D, and 10E)**. The proposed plan (see link below) depicts 11 units on a  $\pm$ 5.75-acre site. Staffs report can be viewed by clicking the link below.

### **SUGGESTED MOTION:**

### **FOLLOW-UP:**

### DATE AND APPROXIMATE TIME ON AGENDA:

6/21/2018

### **ATTACHMENTS:**

#### Description

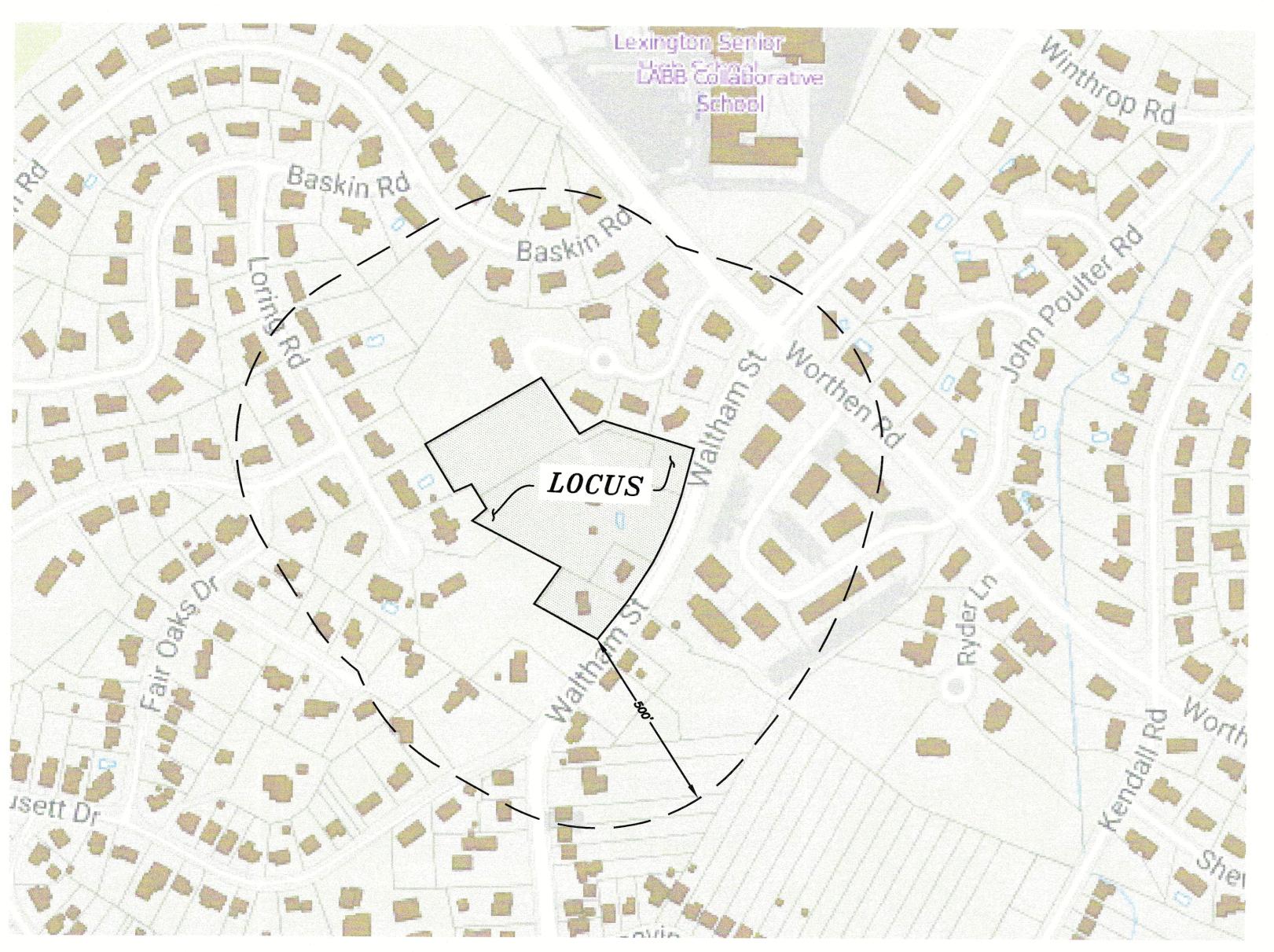
287 Waltham St - Sketch	Site Sensitive Plans
-------------------------	----------------------

287 Waltham St - Staff Report

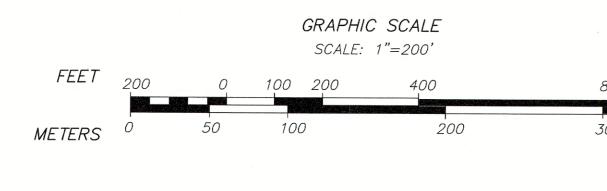
Type Backup Material Backup Material

### NOTES:

- 1. THE INFORMATION DEPICTED ON THIS PLAN HAS BEEN COMPILED FROM THE TOWN OF LEXINGTON GEOGRAPHIC INFORMATION SYSTEM.
- 2. NO ZONING DISTRICT CHANGES DOES OCCUR WITHIN 500 FEET OF THE SUBJECT PROPERTY.
- LAND USE WIITHIN 500 FEET OF THE SUBJECT PROPERTY IS PRIMARILY SINGLE FAMILY DWELLINGS. THE EXCEPTIONS ARE AN APARTMENT COMPLEX IMMEDIATELY TO THE EAST OF THE SUBJECT PROPERTY, AND LEXINGTON SENIOR HIGH SCHOOL AND LABB COLLABORATIVE SCHOOL TO THE NORTH.



## LOCUS CONTEXT MAP:



0 & 9 BUSHNELL DRIVE, 287 & 295 WALTHAM STREET (ASSESSOR'S MAP 41 -LOTS 8, 9, 10D & 10E) SKETCH SUBDIVISION PLAN SET

IN ACCORDANCE WITH SECTION 135-6.9.3 OF THE LEXINGTON ZONING BY LAW



<u>9 BUSHNELL DRIVE</u> IQBAL & SAMINA QUADIR 9 BUSHNELL DRIVE

<u>O BUSHNELL DRIVE</u> EDMUND L. RESOR & CHARLES M. LACY -DEED BOOK 46174, PAGE 470 *



SHEET 1 SHEET 2 SHEET 3 SHEET 4 SHEET 5

LOCATED IN LEXINGTON, MASSACHUSETTS

DATE: MAY 24, 2018

## <u>APPLICANT:</u>

IQBAL QUADIR 9 BUSHNELL DRIVE LEXINGTON, MASSACHUSETTS 02420

RECORD OWNERS:

LEXINGTON, MASSACHUSETTS 02420 *–DEED BOOK 46174, PAGE 320 ** 

287 WALTHAM STREET IQBAL QUADIR 9 BUSHNELL DRIVE LEXINGTON, MASSACHUSETTS 02420 -DEED BOOK 67134, PAGE 305 *

295 WALTHAM STREET RONALD T. LYMAN 295 WALTHAM STREET LEXINGTON, MASSACHUSETTS 02420 -DEED BOOK 1333, PAGE 6 *

<u>PREPARED BY:</u>

MERIDIAN 500 CUMMINGS CENTER SUITE 595069 MILK STREET, SUITE 302BEVERLY, MASSACHUSETTS 01915WESTBOROUGH, MASSACHUSETTS 01581TELEPHONE: (978) 299-0447TELEPHONE: (508) 871-7030WWW.MERIDIANASSOC.COM

LANDSCAPE ARCHITECT

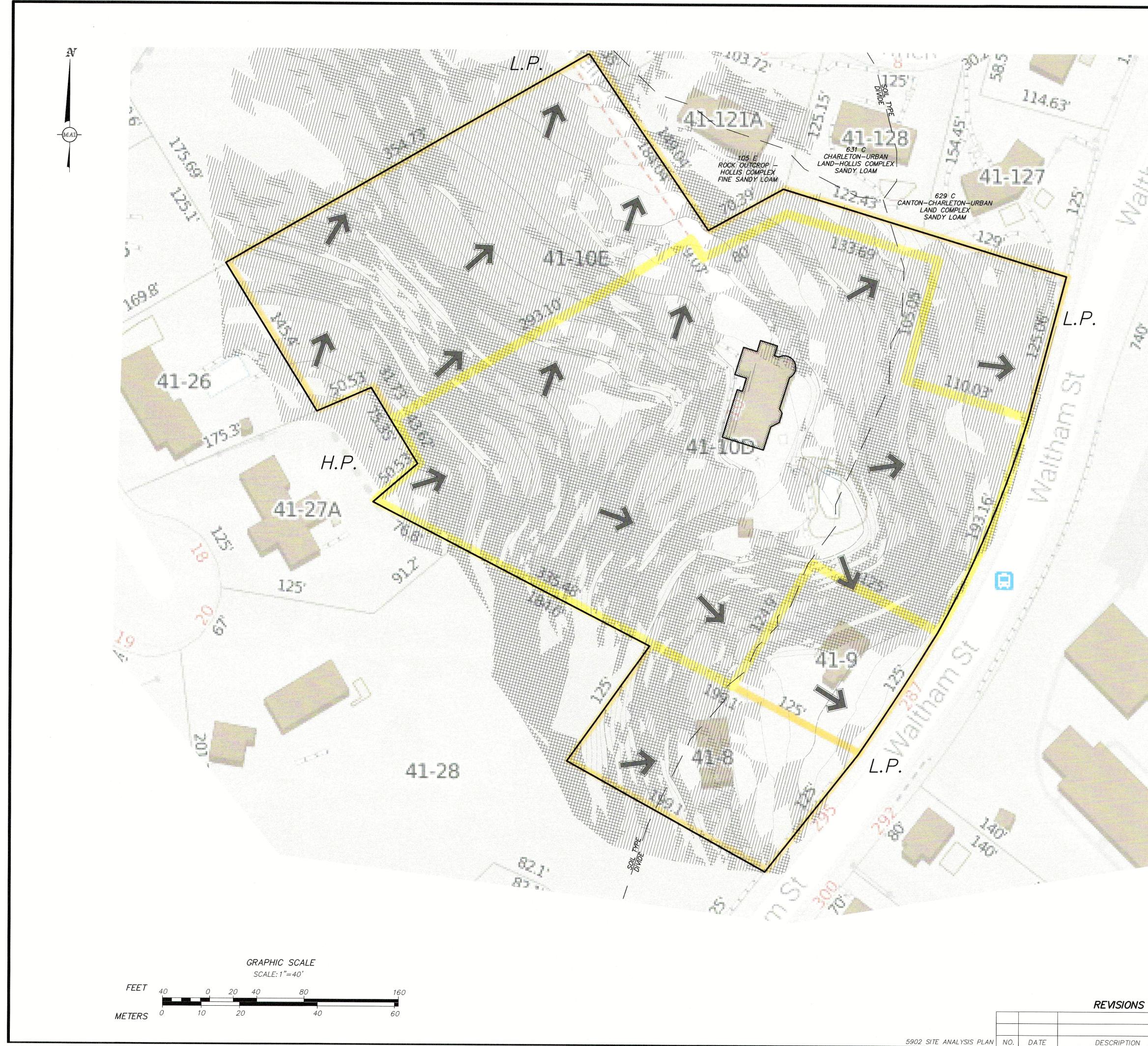
GARY LARSON RLA 6 WADMAN CRICLE LEXIGNTON MA 02420

<u>DRAWING INDEX:</u>

COVER SHEET & LOCUS CONTEXT MAP SITE ANALYSIS MAP GEOMETRIC PROOF PLAN GRADING PROOF PLAN SITE SENSITIVE DEVELOPMENT PLAN



DWG. No. 5902-WALTHAM STREET COVER (IMAGE: GIS LEX CVR



	LEG	<u>END:</u>
RECORD OWNERS	H.P.	HIGH POINT
<u>RECORD_OWNERS</u> BUSHNELL_TRUST 0_BUSHNELL_DRIVE	L.P.	LOW POINT
LEXINGTON, MASSACHUSETTS 02420 —DEED BOOK 46174, PAGE 470 *		DIRECTION OF OVERLAND FLOW
IQBAL QUADIR 9 BUSHNELL DRIVE LEXINGTON, MASSACHUSETTS 02420 —DEED BOOK 46174, PAGE 320 *		15–25% SLOPES
IQBAL QUADIR 287 WALTHAM STREET LEXINGTON, MASSACHUSETTS 02420 —DEED BOOK 67134, PAGE 305 *		25–40% SLOPES
RONALD T. LYMAN 295 WALTHAM STREET LEXINGTON, MASSACHUSETTS 02420 —DEED BOOK 1333, PAGE 6 *		>40% SLOPES
*DENOTES DOCUMENTS RECORDED AT THE MIDDLESEX SOUTH	ESHGW	ESTIMATED SEASONAL HIGH GROUND WATER
REGISTRY OF DEEDS.		SOIL TYPE DIVIDE

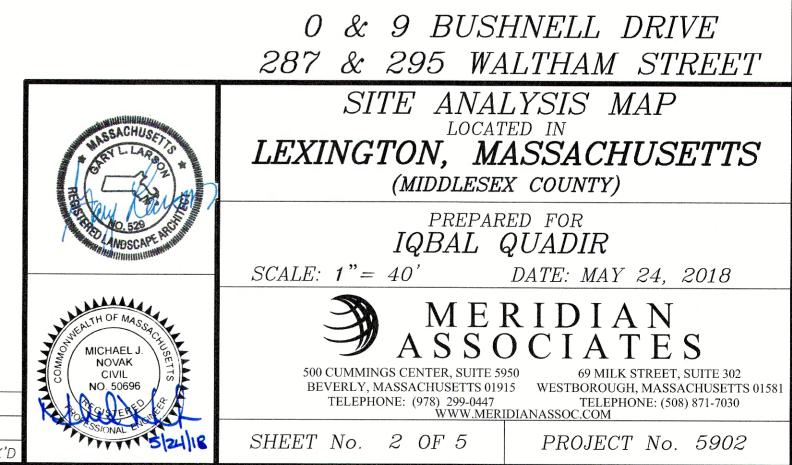
### NOTES:

- 1. THE SOLE PURPOSE OF THIS PLAN SET IS TO COMPLY WITH SECTION 135-6.9.3 OF THE TOWN OF LEXINGTON ZONING BY LAW.
- 2. THE TOPOGRAPHY, SITE DETAIL & SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM THE TOWN OF LEXINGTON ONLINE GIS MAPPING.
- 3. THE SUBJECT PROPERTY DEPICTED IS LOCATED WITHIN THE RS ZONING DISTRICT.
- 4. THE SUBJECT PROPERTY IS DEPICTED AS LOT 8, 9, 10D & 10E ON THE TOWN OF LEXINGTON ASSESSOR'S MAP 41.
- 5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST.
- 6. THE LOCUS PROPERTY IS LOCATED IN FLOOD ZONE X (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FEMA FLOOD INSURANCE RATE MAP NUMBER 25017C043E DATED JUNE 4, 2010.

### SOILS INFORMATION:

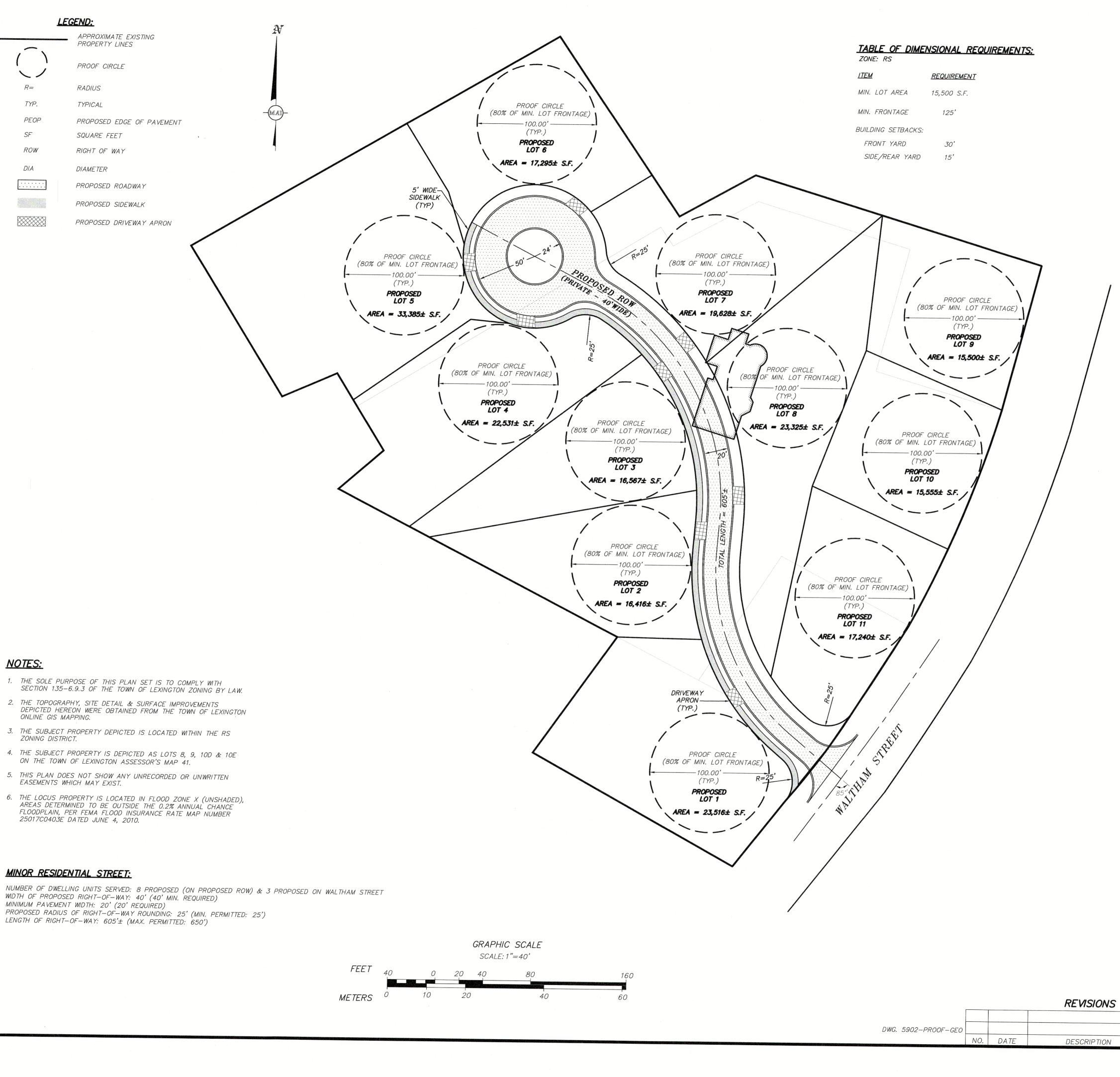
SOILS INFORMATION DERIVED FROM THE USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY OF MIDDLESEX COUNTY, MASSACHUSETTS, URL:http://websoilsurvey.nrcs.usda.gov.

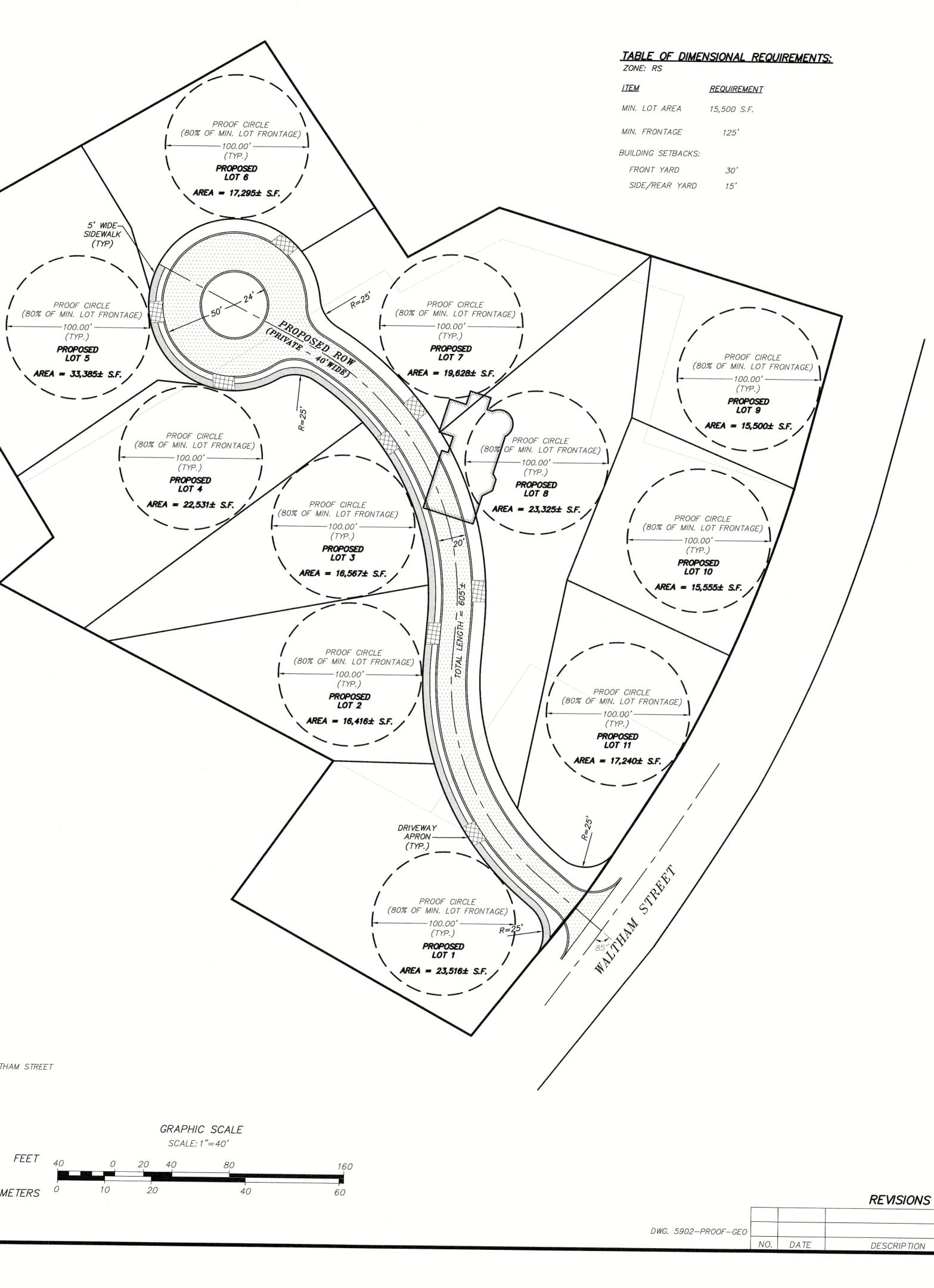
SOIL TYPE	HYDROLOGIC SOIL GROUP	TYPICAL DEPTH TO ESHGW
ROCK OUTCROP - HOLLIS COMPLEX	GROUP D	MORE THAN 80"
CANTON-CHARLETON- URBAN LAND COMPLEX	GROUP A	MORE THAN 80"
CHARLETON—URBAN LAND—HOLLIS COMPLEX	GROUP A	MORE THAN 80"



Copyright © by Meridian Associates, Inc. All rights reserved.

BY CHK'D





## TABLE OF DEVELOPMENTAL DATA

(SEE NOTE BELOW)

TOTAL ASSESSED LAND AREA OF DEVELOPMENT 5.75 AC. (MAP 41, LOTS 8, 9, 10D & 10E)

TOTAL CALCULATED LAND AREA OF DEVELOPMENT 250,275 $\pm$  SF (MAP 41, LOTS 8, 9, 10D & 10E)

TOTAL ONSITE DEVELOPABLE SITE AREA TOTAL AREA WITHIN PROPOSED ROW TOTAL AREA OF IMPERVIOUS SURFACES WITHIN PROPOSED ROW

250,275± SF 31.569± SF 20,139± SF

(TOTAL AREA OF LOTS IN PROOF PLAN = TOTAL CALCULATED LAND AREA OF DEVELOPMENT – TOTAL AREA WITHIN PROPOSED ROW = (250,275 - 31,569) = 219,529 SF

219,529 SF x 0.20 = 43,906 SF

43,906 SF + (TOTAL IMPERVIOUS AREA WITHIN ROW OF PROOF PLAN) = (43,906 + 20,139) = 64,045 SF TOTAL IMPERVIOUS SURFACE AREA ALLOWABLE IN A SITE SENSITIVE DEVELOPMENT = 64,045 SF.

THE CALCULATED AREAS DEPICTED ON THIS PLAN FOR THE EXISTING LOT ARE BASED OFF THE TOWN OF LEXINGTON ONLINE GIS MAPPING SYSTEM. THESE AREAS ARE SUBJECT TO MODIFICATION PRIOR TO A DEFINITIVE SUBDIVISION APPLICATION.

## SPECIAL PERMIT SUBDIVISION CALCULATIONS

TYPE OF SPECIAL PERMIT RESIDENTIAL DEVELOPMENT	MAXIMUM GROSS FLOOR AREA (SF)	NO. OF DWELLINGS	MAXIMUM AMOUNT OF IMPERVIOUS SURFACES (SF)	MAXIMUM SITE COVERAGE (SF)	MINIMUM COMMON OPEN SPACE REQUIRED (SF)
SITE SENSITIVE	85,398	11	64,045	32,929	NOT REQUIRED
PROPOSED	< 85,398	11	< 64,045	< 32,929	NOT REQUIRED

### GROSS FLOOR AREA (GFA) CHART FOR A SITE SENSITIVE DEVELOPMENT

LOT #	MAX. ALLOWABLE GFA (S.F.)
LOT 1	8,312
LOT 2	7,176
L03 3	7,200
LOT 4	8,154
LOT 5	9,891
LOT 6	7,317
LOT 7	7,690
LOT 8	8,282
LOT 9	7,030
LOT 10	7,038
LOT 11	7,308
TOTAL	85,398



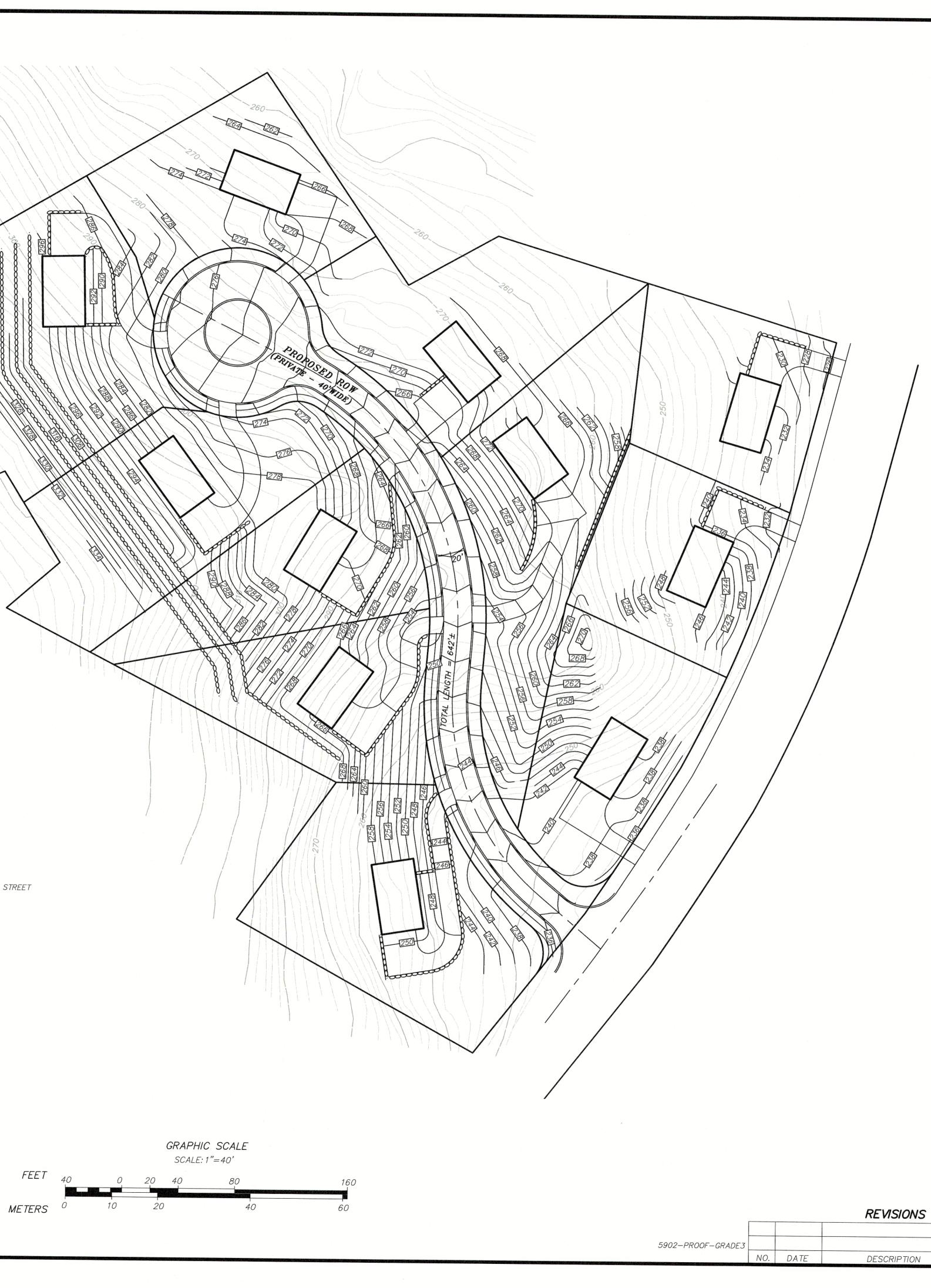
### NOTES:

- 1. THE TOPOGRAPHY, SITE DETAIL & SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM THE TOWN OF LEXINGTON ONLINE GIS MAPPING.
- 2. THE SUBJECT PROPERTY DEPICTED IS LOCATED WITHIN THE RS ZONING DISTRICT.
- 3. THE SUBJECT PROPERTY IS DEPICTED AS LOT 8, 9, 10D & 10E ON THE TOWN OF LEXINGTON ASSESSOR'S MAP 41.
- 4. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST.
- 5. THE LOCUS PROPERTY IS LOCATED IN FLOOD ZONE X (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FEMA FLOOD INSURANCE RATE MAP NUMBER 25017C0403E DATED JUNE 4, 2010.

### MINOR RESIDENTIAL STREET:

NUMBER OF DWELLING UNITS SERVED: 8 PROPOSED (ON PROPOSED ROW) & 3 PROPOSED ON WALTHAM STREET WIDTH OF PROPOSED RIGHT-OF-WAY: 40' (40' MIN. REQUIRED) MINIMUM PAVEMENT WIDTH: 20' (20' REQUIRED) PROPOSED RADIUS OF RIGHT-OF-WAY ROUNDING: 25' (MIN. PERMITTED: 25') LENGTH OF RIGHT-OF-WAY: 605'± (MAX. PERMITTED: 650')

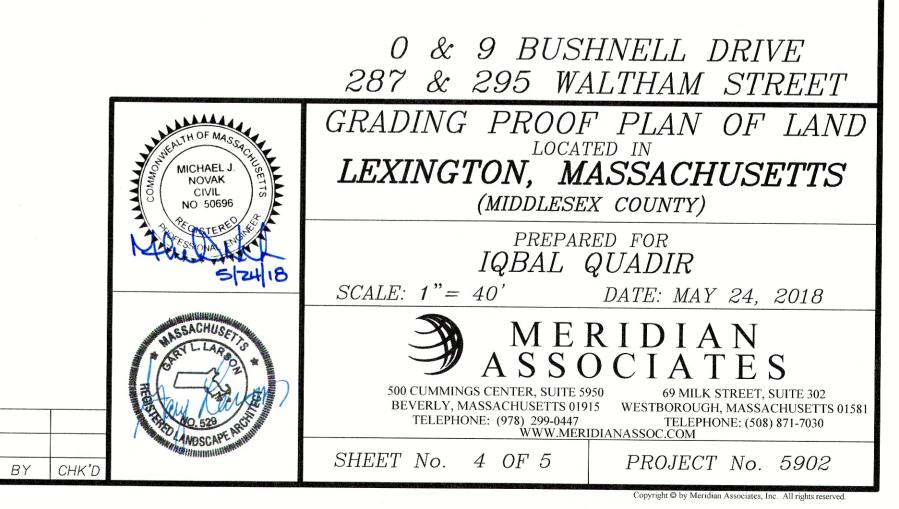
A



### LEGEND:

### TABLE OF DIMENSIONAL REQUIREMENTS:

ZONE: RS	
<u>ITEM</u>	<u>REQUIREMENT</u>
MIN. LOT AREA	15,500 S.F.
MIN. FRONTAGE	125'
BUILDING SETBACKS:	
FRONT YARD	30'
SIDE/REAR YARD	15'

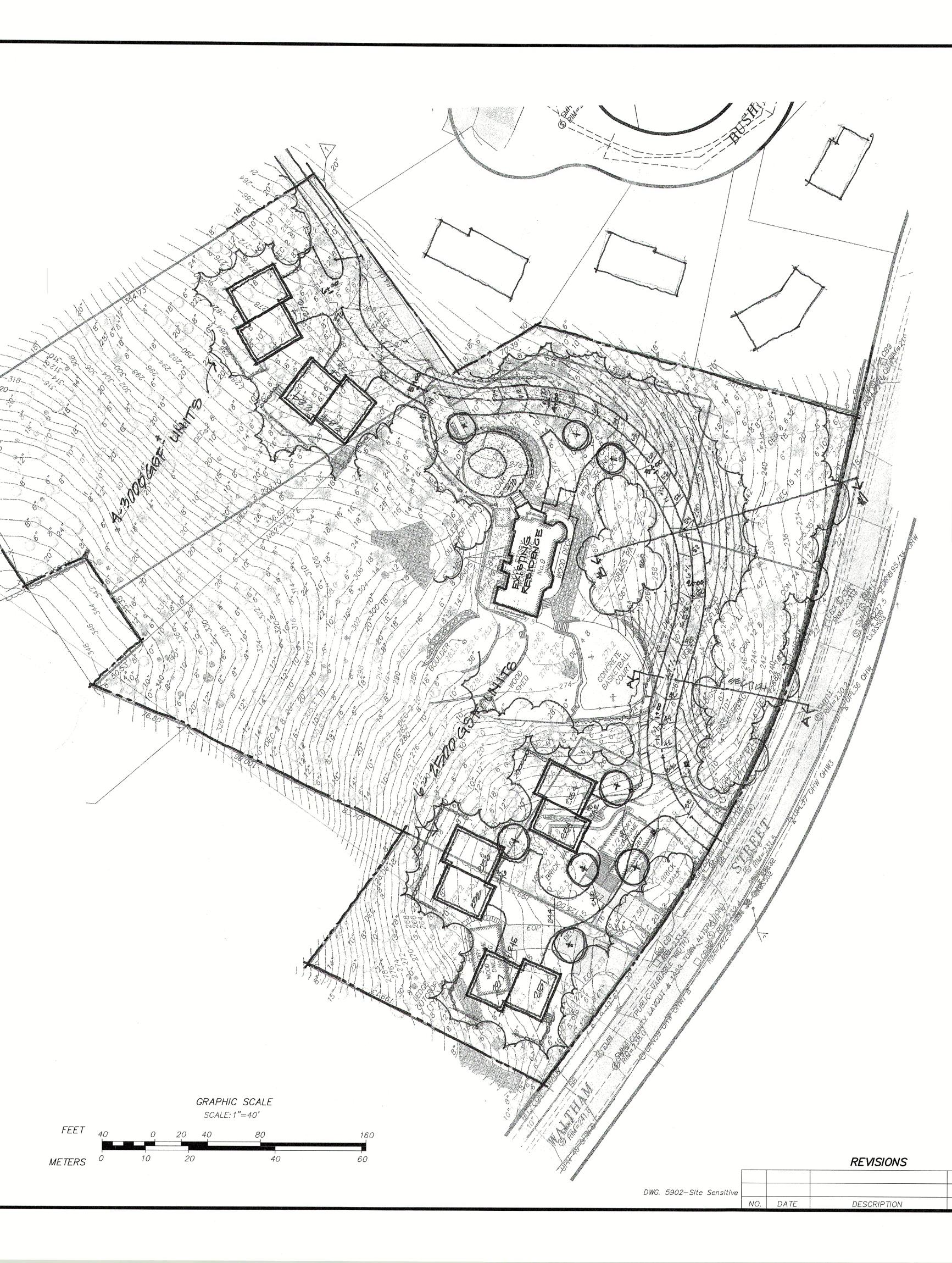


### NOTES:

- 1. THE SOLE PURPOSE OF THIS PLAN SET IS TO COMPLY WITH SECTION 135-6.9.3 OF THE TOWN OF LEXINGTON ZONING BY LAW.
- 2. THE TOPOGRAPHY, SITE DETAIL & SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM THE TOWN OF LEXINGTON ONLINE GIS MAPPING.
- 3. THE SUBJECT PROPERTY DEPICTED IS LOCATED WITHIN THE RS ZONING DISTRICT.
- 4. THE SUBJECT PROPERTY IS DEPICTED AS LOTS 8, 9, 10D & 10E ON THE TOWN OF LEXINGTON ASSESSOR'S MAP 41.
- 5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN

EASEMENTS WHICH MAY EXIST.

6. THE LOCUS PROPERTY IS LOCATED IN FLOOD ZONE X (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FEMA FLOOD INSURANCE RATE MAP NUMBER 25017C0403E DATED JUNE 4, 2010.



### TABLE OF DEVELOPMENTAL DATA

TOTAL ASSESSED LAND AREA OF DEVELOPMENT 5.75 AC. (MAP 41, LOTS 8, 9, 10D & 10E) (SEE NOTE BELOW)

TOTAL CALCULATED LAND AREA OF DEVELOPMENT 250,275 $\pm$  SF (MAP 41, LOTS 8, 9, 10D & 10E)

TOTAL ONSITE DEVELOPABLE SITE AREA TOTAL AREA WITHIN PROPOSED ROW TOTAL AREA OF IMPERVIOUS SURFACES WITHIN 20,139 $\pm$  SF PROPOSED ROW

250,275± SF 31,569± SF

(TOTAL AREA OF LOTS IN PROOF PLAN = TOTAL CALCULATED LAND AREA OF DEVELOPMENT -- TOTAL AREA WITHIN PROPOSED ROW = (250, 275 - 31, 569) = 219, 529 SF

219,529 SF x 0.20 = 43,906 SF

43,906 SF + (TOTAL IMPERVIOUS AREA WITHIN ROW OF PROOF PLAN) = (43,906 + 20,139) = 64,045 SF TOTAL IMPERVIOUS SURFACE AREA ALLOWABLE IN A SITE SENSITIVE DEVELOPMENT = 64,045 SF.

NOTE:

THE CALCULATED AREAS DEPICTED ON THIS PLAN FOR THE EXISTING LOT ARE BASED OFF THE TOWN OF LEXINGTON ONLINE GIS MAPPING SYSTEM. THESE AREAS ARE SUBJECT TO MODIFICATION PRIOR TO A DEFINITIVE SUBDIVISION APPLICATION.

### SPECIAL PERMIT SUBDIVISION CALCULATIONS

TYPE OF SPECIAL PERMIT RESIDENTIAL DEVELOPMENT	MAXIMUM GROSS FLOOR AREA (SF)	NO. OF DWELLINGS	MAXIMUM AMOUNT OF IMPERVIOUS SURFACES (SF)	MAXIMUM SITE COVERAGE (SF)	MINIMUM COMMON OPEN SPACE REQUIRED (SF)
SITE SENSITIVE	85,398	11	64,045	32,929	NOT REQUIRED
PROPOSED	< 85,398	11	< 64,045	< 32,929	NOT REQUIRED

### <u>GROSS FLOOR AREA (GFA) CHART</u> FOR A SITE SENSITIVE DEVELOPMENT

LOT #	MAX. ALLOWABLE GFA (S.F.)
LOT 1	8,312
LOT 2	7,176
L03 3	7,200
LOT 4	8,154
LOT 5	9,891
LOT 6	7,317
LOT 7	7,690
LOT 8	8,282
LOT 9	7,030
LOT 10	7,038
LOT 11	7,308
TOTAL	85,398





### Lexington Planning Office Staff Report

To:	Planning Board
From:	David Fields, Planner
Date:	June 15, 2018
Subject:	Site Sensitive Development Sketch Plan for 287 Waltham Street

### **GENERAL INFORMATION**

Owner / Applicant:	Iqbal Quadir
Designers:	Gary Larson, RLA; Meridian Associates, Inc.
Submission Materials:	Sketch plan of a special permit residential development subdivision.
Type of Plans:	<ol> <li>Cover sheet &amp; locus context map;</li> <li>Site analysis map;</li> <li>Proof plan;</li> <li>Proof plan including grading;</li> <li>Site Sensitive Development plan</li> </ol>
Location:	0 Bushnell Drive, Assessor's Map 41-10E; 9 Bushnell Drive, Assessor's Map 41- 10D; 287 Waltham Street, Assessor's Map 41-9; 295 Waltham Street, Assessor's Map 41-8.
Assessed Area:	$5.75 \pm acres$
Zoning:	RS, One Family (15,500 S.F. lot, 125 ft. frontage)
Current Land Use:	Three single family houses.
Surrounding Land Use:	To the east of the site is the Captain Parker Arms apartments, to the south are single-family homes in the RS district terminating with a small commercial area at the intersection with Marrett Road and Waltham Street, to the west are single-family homes in the RS zone, and to the North are single-family homes in the RS zone terminating with the Lexington High School and LABB Collaborative School.
Topography/Land Cover:	The site slopes down from west to east, from the rear of the lot closest to Loring Road to Waltham Street with a $\pm 18\%$ grade over the entire west to east span.

	The site has been previously developed and currently has existing homes on it, however, there are numerous mature trees and a fair amount of the site is forested, particularly on the northern and western portion of the site.
	Soils on the site consist of Hollis Complex, Canton-Charleton Urban Land Complex, and Charleton-Urban Land – Hollis Complex, with numerous rocky outcroppings.
Wetlands/Flood Zone:	The applicant's submission, as well as data from the Massachusetts Department of Environmental Protection, shows that the site is not located within 100 feet of a wetland. Under the proposed plan there is no proposed disturbance of land within the known 100-foot buffer zone. The property is not located in a FEMA Flood Zone or Floodway.
Historic Status:	The current house at 9 Bushnell Drive, which is to remain in the special permit scenario, is currently listed with the Massachusetts Historical Commission (see attached inventory sheet).
Other Board, Commission & Department Status:	This plan will be reviewed by the Development Review Team on 06/20/2018.
PROCEDURAL SUMMARY	
	The applicant previously applied for a Balanced Housing Development (sketch plan) in October, 2016, with a plan showing twenty four (24), roughly 2,000 square foot units and retention of the existing house accessed by a common driveway.

#### **DEVELOPMENT DATA**

Area in Wetlands:	N/A
Developable Site Area:	Approximately 250,275 square feet
Existing Frontage:	Approximately 568 feet on Waltham Street

Table 1

Development Data	Conventional	Previously Proposed BHD	Proposed SSD
Dwelling Units (DU) Proposed	11	25	11
Density	1.9 DU/AC	4.3 DU/AC	1.9 DU/AC
Common Open Space Required (OS)	N/A	82,591 SF Minimum	N/A
Common Open Space Proposed (OS)	N/A	>100,000±SF	N/A
Maximum Total GFA	85,398 SF for total site	N/A	85,398 SF for total site
Total Proposed GFA	85,398 SF for total site	< 79,200 SF for total site	Approx. 35,200
Impervious Surface Allowed	No Maximum	65,876 SF	64,045 SF
Impervious Surface Proposed	N/A	< 65,876 SF	< 64,045 SF

### SUMMARY OF THE PLAN

The sketch plan for the lots on Waltham Street has been submitted under §135-6.9 *Special Permit Residential Developments* of Lexington's Zoning Bylaw, specifically the provision defined in §135-6.9.3(1) Site Sensitive Development (SSD). The proof plan shows a single minor road terminating in a cul-de-sac with frontage for eight (8) lots. As shown, all eleven (11) lots on the proof plan comply with conventional dimensional requirements.

The site currently has three homes on four separate lots; this plan proposes a net increase of eight units. The proposed SSD layout shows four (4), roughly 3,000 square foot units on the upper, or northeastern portion of the site and six (6), roughly 2,500 square foot units on the lower, or southwestern portion of the site. The plan depicts the existing house on site to remain, potentially with modifications for a total of less than 36,000 gross square feet site-wide, though the size of the existing home would need to be confirmed. This would result in approximately 50,000 gross square feet less than the conventional development, with much of the disturbance clustered on the northeast side of the site.

### COMMENTS

With regard to the density shown on the proposed plan staff has included the average density for neighborhoods throughout Lexington in Table 2, as measured solely in dwelling units per acre, including the proposed development and its surrounding neighborhood.

Table 2

Follen Hill	3.1 DU/Acre
Meriam Hill	2.7 DU/Acre
East Lexington	6.7 DU/Acre
Surrounding Neighborhood ¹	3.4 DU/Acre
Previously Proposed BHD	4.3 DU/Acre
Proposed SSD	1.9 DU/Acre

As with many developments that occur within existing neighborhoods in Lexington the proposed project is actually less dense than the area surrounding it, in this case significantly so, as measured in dwelling units per acre due to the large lot sizes required under Lexington's zoning.

Potential SSD pros:

- An increase of smaller units to Lexington's housing stock;
- The preservation of open space on site;
- Significantly less site disturbance under the proposed SSD as opposed to conventional subdivision;
- The retention of the existing, historic home on site;
- Proximity of increased living options near Lexington Center and other retail areas.

The critiques of the proposed SSD site design are:

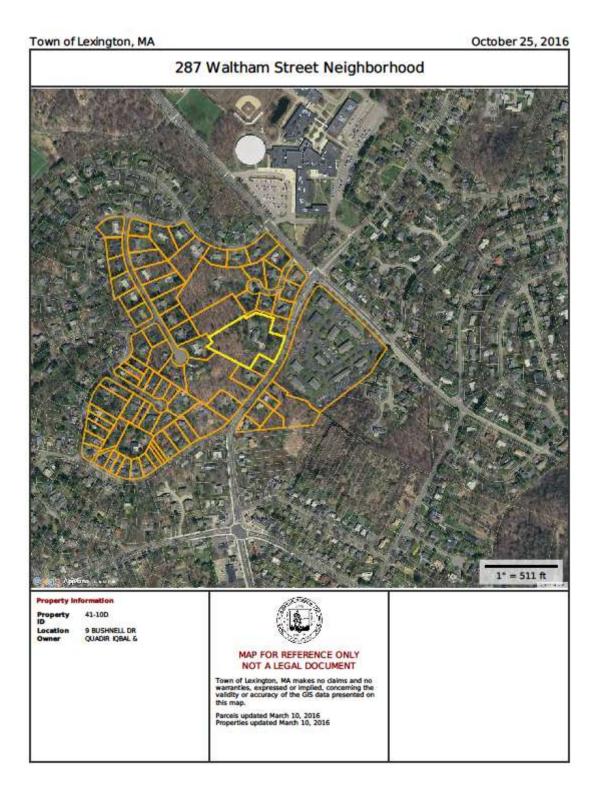
- Significant site disturbance under any scenario;
- Potential increase of traffic at the Waltham Street / Worthen Road intersection as well as the Waltham Street / Marrett Road intersection.

¹ See Figure 1 on separate sheet.

G:\Development Administration\Subdivisions\Waltham Street\287 Waltham Street\2018-06-21 Sketch\287 Waltham_SSD_Staff Summary_2018-06-14.docx

Site Sensitive Development Sketch Plan for 287 Waltham Street Friday, June 15, 2018 Page 4 of 5

Figure 1



 $G:\label{eq:static} G:\label{eq:static} Subdivisions \ Waltham \ Street \ 287 \ Waltham \ Street \ 2018-06-21 \ Sketch \ 287 \ Waltham \ SSD_Staff \ Summary \ 2018-06-14. \ docx$ 



Figure 2

### Lexington Planning Office Staff Report

### Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	LEX.461	and the second s
Historic Name:	Scott, Augustus Elwin House	
Common Name:	Loring Hall - Ryder, Charles House	and the second s
Address:	277 Waltham St 98 Bushnell Dr	הויחות
City/Town:	Lexington	
Village/Neighborhood:	Lexington Center	
Local No:		
Year Constructed:	1891	
Architect(s):	Hartwell and Richardson; Hunt, Henry H.	
Architectural Style(s):	Queen Anne; Shingle Style	
Use(s):	Secondary Dwelling House; Single Family Dwelling House	
Significance:	Architecture; Recreation	
Area(s):		
Designation(s):		
Building Materials(s):	Roof: Asphalt Shingle Wall: Wood; Wood Shingle Foundation: Stone, Uncut	

The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (http://mho-macris.net/macrisdisclaimer.htm)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site (<u>www.sec.state.ma.us/mhc</u>) under the subject heading "MHC Forms."

> Commonwealth of Massachusetts Massachusetts Historical Commission 220 Morrissey Boulevard, Boston, Massachusetts 02125 www.sec.state.ma.us/mhc

This file was accessed on: Tuesday, October 25, 2016 at 8:50: AM

### AGENDA ITEM SUMMARY

### LEXINGTON PLANNING BOARD

### **AGENDA ITEM TITLE:**

Comprehensive Plan Update

### **PRESENTER:**

Carol Kowalski

### <u>ITEM</u> NUMBER:

### **SUMMARY:**

This is a standing item to allow staff to update the Board on the status of the Comprehensive Plan and related initiatives. Upcoming meetings include the following:

• Comprehensive Plan Advisory Committee Meeting - June 26, 2018 (7PM) Location TBD

### **SUGGESTED MOTION:**

### **FOLLOW-UP:**

### DATE AND APPROXIMATE TIME ON AGENDA:

6/21/2018

### AGENDA ITEM SUMMARY

### LEXINGTON PLANNING BOARD

ITEM NUMBER:

### **AGENDA ITEM TITLE:**

Upcoming Meetings & Anticipated Schedule

### **PRESENTER:**

Carol Kowalski

### **SUMMARY:**

This recurring agenda item is to inform the Board and public of the proposed meeting schedule. The next Planning Board Meeting is scheduled for the following date:

• Thursday, July 19, 2018

### **SUGGESTED MOTION:**

### FOLLOW-UP:

### DATE AND APPROXIMATE TIME ON AGENDA:

6/21/2018