VIA EMAIL

Thursday, January 13, 2022

Mr. Daniel J. Pasquarello, Acting Chairman
Wenham Planning Board
138 Main Street
Wenham, MA 01984

RE: 60 Arbor Street, Wenham;
Wenham Assessor Map 13, Parcels 84 and 84A

Dear Chairman Pasquarello and members of the Board:

On behalf of Susan M. Hamilton and Jeffrey R. Hamilton, Decoulos & Company, LLC replies to the peer review conducted by Susan E. Carter of Places Associates, Inc. Attached herewith are a revised set of plans entitled "Definitive Subdivision at 60 Arbor Street; Property of Susan M. Hamilton and Jeffrey R. Hamilton, Wenham, Massachusetts; dated January 13, 2022; prepared by Decoulos & Company, LLC" (the "Subdivision Plans").

Sheets C1, C3, C5 and C6 of the Subdivision Plans have been revised to address comments from Ms. Carter. The specific changes on each sheet are as follows:

Sheet C1 Added highest known high water mark of last 100 years;

Sheet C3 Increased width of construction entrance to 18 feet, provided opening for silt sock and fence at construction entrance, provided notes for construction entrance and provided protection notes for stormwater infiltration field;

Sheet C5 Added drainage system layer to demonstrate no conflicts with utilities and highest known high water mark of last 100 years; and

Sheet C6 Added grade elevations at all stations, provided gradients of proposed way in percent and added vertical curves.

In response to Ms. Carter's review of the drainage calculations from the Stormwater Management Report dated January 10, 2022, we offer the following responses to item 6:

a) The Proposed Watershed Plan incorrectly showed 3 subcatchments. A revised plan dated January 13, 2022 is attached as Exhibit A;
b) We used the required time of concentration specified in the Rules and Regulations Governing the Subdivision of Land dated 1984 (the "Planning Board Rules") at 3.3.3.18.1, which is ten minutes;
c) The rainfall intensity was automatically determined from the Intensity-Duration-Frequency (IDF) curves downloaded from NOAA and imported into the software program HydroCAD;
d) The one hour storm duration was conservatively estimated. We have run critical duration reports inside HydroCAD this morning and found that the highest peak for WS-1 occurs at 40 minutes and the highest peak for WS-2 occurs at 10 minutes. See attached Exhibit B. Using the highest value from that analysis (40 minutes), the required storage capacity is 3816 cubic feet and the peak elevation is 73.17. The January 10th report estimated a required storage capacity of 4291 cubic feet with a peak elevation of 74.17. This determination demonstrates that our prior models were overly conservative and that there is sufficient capacity for stormwater storage and infiltration;
e) The Proposed Watershed Plan estimates the tributary area for Lot 6. As we have stated before, the driveway, house and front yard of Lot 6 are not final. The purpose of the subdivision application is to divide existing parcels of land and create one additional lot;
f) The 3,000 square foot estimate of grass is our best estimate given that the final use and layout of a house on Lot 6 is not final; and
g) The driveway, house and front yard of Lot 6 are not final. The purpose of the subdivision application is to divide existing parcels of land and create one additional lot.

Our two requests for waivers from the Planning Board Rules are listed on the Title Sheet of the Subdivision Rules. We continue to maintain that the radii of the proposed way fully complies with Section 4.1.3.5 of the Planning Board Rules for all the reasons detailed in my letter of November 18, 2021. If the Planning Board continues to disagree with that interpretation, we respectfully request a waiver from Section 4.1.3.5 without prejudice to our position that no waiver is needed and fully reserve our rights to contest this issue in the Land Court.

If the Planning Board maintains a consistent and predictable pattern continuing its past actions, the radius issue should not be an impediment to approval. Attached as Exhibits C through H are examples of subdivision applications that were approved by the Planning Board with either no radius or substandard radii.

We look forward to addressing these remaining issues at this evening's hearing. Please feel free to contact us if you have any other concerns. Thank you.

Very truly yours,

James J. Decoulos, PE, LSP
jamesj@decoulos.com

cc: Susan E. Carter, PE, Places Associates, Inc.
Donald R. Pinto, Jr., Esq., Pierce Atwood LLP
Susan M. Hamilton and Jeffrey R. Hamilton

LIST OF EXHIBITS

A. Revised Proposed Watershed Plan dated January 13, 2022

B. Critical Rainfall Duration Reports

C. 65 Arbor Street, across the street from the proposed application. No radii and cul-de-sac located within an existing tennis court (that remains);

D. 32 Monument Street, approved for former Town Counsel Paul Weaver. No radii and has three driveways emptying to Monument Street that are within 65 feet of each other, center to center (also includes photo showing proximity of driveways);

E. 41 Grapevine Road. No radii.

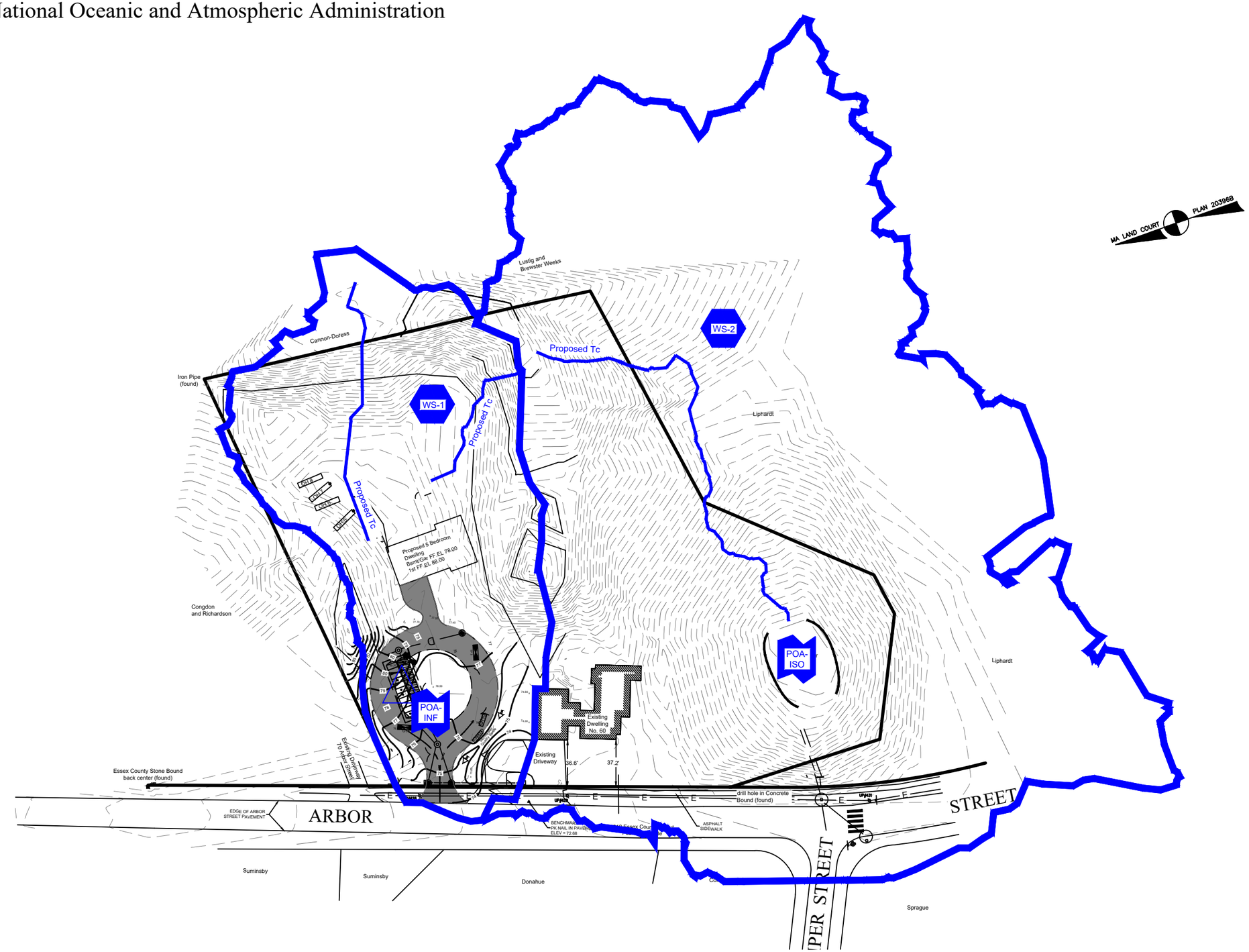
F. 338 Grapevine Road. 40 foot radius on one side, no radius on other;

G. Woodside Lane to create D'Ambrosio Way. 25 foot radius on one side, no radius on other; and

H. 28 Burley Street. 40 foot radius on one site, no radius on other.

EXHIBIT A

Elevation Data Source: U.S. Geological Survey 2011 Lidar data
from the National Oceanic and Atmospheric Administration



DECOULOS & COMPANY LLC
185 ALEWIFE BROOK PARKWAY
CAMBRIDGE, MA 02138
DECOULOS.COM
617.489.7795

PROPOSED WATERSHED PLAN
60 ARBOR STREET
WENHAM, MASSACHUSETTS

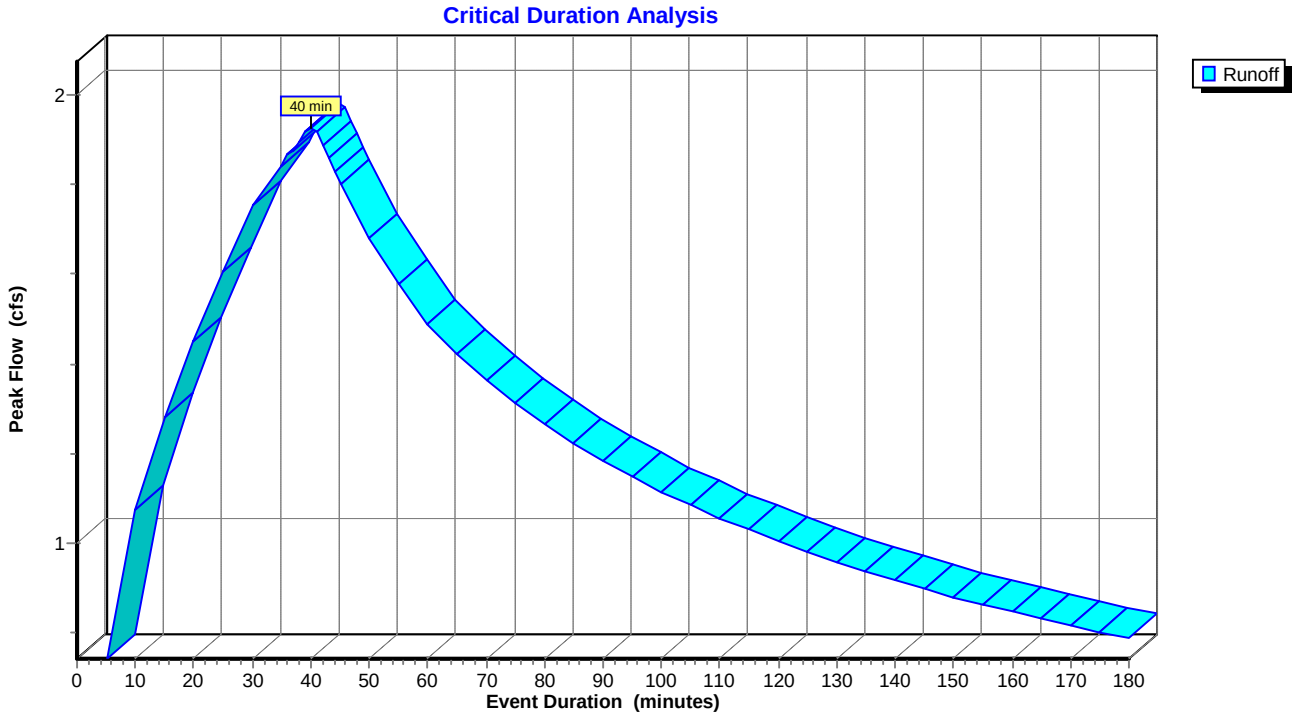
DATE
01-13-22
SCALE
1"=80'

DRWN TCG
DES TCG
CHKD JDD
APRVD JDD

FIGURE
PR-WS

EXHIBIT B

Subcatchment WS-1: WS-1



Subcatchment WS-2: WS-2

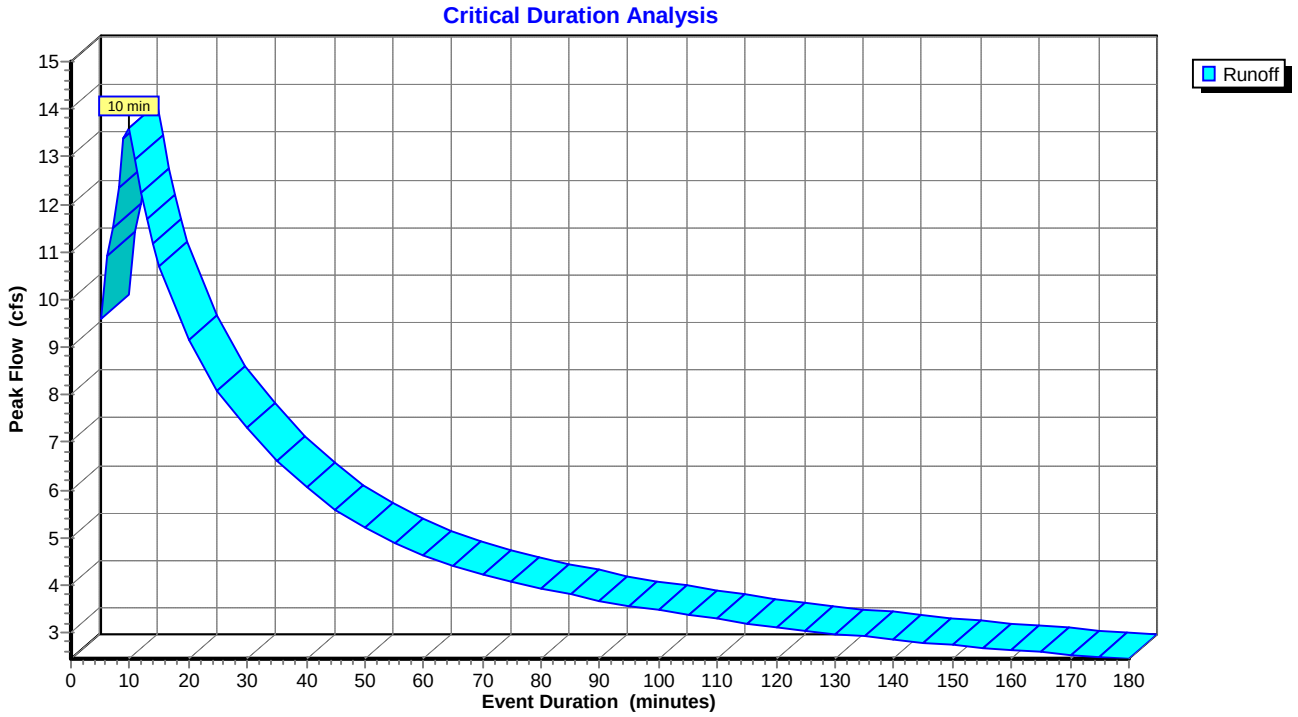


EXHIBIT C

65 Arbor Street

Wenham, MA

1 inch = 138 Feet

January 10, 2022

0 138 276 414

www.cai-tech.com

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

65 Arbor 4/2008

PLANNING BOARD
TOWN OF WENHAM, MASSACHUSETTS
April 10, 2008
CERTIFICATE OF APPROVAL OF
A DEFINITIVE SUBDIVISION PLAN

The Planning Board of the Town of Wenham hereby certifies that at a duly called and properly posted meeting held on May 10, 2007 and continued to April 10, 2008 the Board voted to approve the definitive subdivision plan referred to below submitted to the Board by the Applicant described below, subject to the terms and conditions of the Covenant referred to below, given under the provisions of 81-U, Chapter 41 of the General Laws, and subject to further terms and conditions enumerated below.

DEFINITIVE SUBDIVISION PLAN

The approved definitive subdivision plan (the "Plan") consists of three sheets entitled, "Definitive Subdivision Plan of Land in Wenham, Massachusetts", site at 65 Arbor Street, prepared by Kane Land Surveys, May 14, 2007 and amended Jan 18, 2008.

APPLICANT AND OWNERS

The applicant is J. David Suminsby; the owners are John and Doris Suminsby, 65 Arbor Street, Wenham, Massachusetts, 01984.

WAIVERS

The plan shows area and frontage for two lots off a proposed street. The applicant's original plan requested that the proposed road as shown per subdivision regulations would not be constructed but that access be achieved by two separate driveways off Arbor Street. The final plan shows a single shared driveway at the entrance, branching into two separate driveways. The Applicant requests waivers of all requirements related to the building of the street since the street will not be built.

The Planning Board has voted to grant the following waivers requested by the Applicant:

3.3.2.2	*Registered surveyor only prepared the plan (no engineering required other than that which will be required for future septic design.)*
3.3.2.5	*Sheet size is 18x24 (the size is adequate for this two lot subdivision)*
3.3.2.7:	*Title Sheet and Key Map*
3.3.2.9	*No separate notice with submission of application Form C.*
3.3.3.4	*No "shading" of subdivision provided (one additional lot proposed & driveway)*
3.3.3.5	*Location and ownership of abutting property within 500 feet of the subdivision not shown on the plan. Separate abutter's list submitted only.*
3.3.3.7	*No street name (street not to be built)*
3.3.3.14	*No specific area provided for Board of Health signatures*
3.3.3.15.1	*No road profile (driveway only being proposed)*
3.3.3.16.1	*No contour line 4' above high water mark (no base flood elevation on FEMA map)*
3.3.3.17.2	*No borings or test pits performed other than for proposed septic system*
3.3.3.17.3	*No drainage design prepared (driveway only being proposed)*
3.3.3.18	*No drainage calculations (driveway only being proposed)*
3.3.3.19	*No tree plan (driveway only being proposed)*
3.3.3.20	*No cross-sections (driveway only being proposed)*
3.3.3.21	*No environmental assessment*
3.3.3.22	*No "open space"*
3.3.4	*No staking of roadway (street not to be built)*
3.3.5	*No soil survey and percolation tests (except for proposed septic system)*
3.3.5.3	*No roadway borings*
3.3.7.2	*No bond or surety proposed. See also section 3 (i) of Form C*
3.3.13	*No utilities or easements to be conveyed to the Town*
3.3.14	*No bond surety or performance guarantee proposed (street not to be built)*
3.3.15	*No As-Built plans for street to be generated (street not to be built)*
4.1.4.1	*16' minimum pavement width (driveway proposed at 10' wide)*
4.1.4.3	*No sidewalks (driveway only being proposed)*
5.0	*Construction requirements related to streets not applicable (driveway only being proposed)*

TERMS AND CONDITIONS-

The Plan shall comply with the Subdivision Control Law and the Subdivision Rules and Regulations of the Town of Wenham, as affected by the waivers set forth above and is subject to the following terms and conditions:

1. The lots 1 & 2 hereby created shall not hereafter be further subdivided and shall each be restricted to one single family dwelling and permitted accessory structures and uses.

2. The approval of the Plan shall lapse if the Plan is not submitted to the Planning Board for endorsement within six months of the date hereof.

3. The road shown on the Plan shall not be accepted as a public way by the Town of Wenham.

4. Access to both lots shall be by a common (shared) driveway with a single curb cut onto Arbor Street as shown on sheet #3 of the drawings as revised Jan 18, 2008. In addition, a temporary/emergency access area to Lot #2 shall be allowed as depicted on sheet #3.

5. Deeds of Easements together with a Maintenance Covenant covering the shared portion of the common driveway are to be recorded herewith.

6. Private trash removal will not be required for either residence providing that pick up is curb-side on Arbor Street.

7. A portion of the proposed driveway which enters from Arbor Street, and serves Lot #2 exclusively, shall be constructed with pervious materials, the extent of which is as indicated on sheet #3 of drawings as revised Jan 18, 2008

8. The existing level of natural screening along Arbor Street shall be generally maintained accept in the area of the proposed driveway and the temporary construction access area. Disturbance of soils. walls, and natural screening in the area of the temporary construction access will be kept to a minimum.

9. Each of the residences shall have an address on Arbor Street with such numbering as shall be designated by the Board of Assessors.

REASONS FOR WAIVERS GRANTED AND CONDITIONS IMPOSED

The Planning Board has granted the waivers listed above and approved the Plan with terms and conditions based upon the fact that the subdivision includes only two lots in a relatively rural area where a road constructed to standard Planning Board rules and regulations would be out of place and unnecessary to provide adequate access to the lots.

WENHAM PLANNING BOARD

_____

_____

_____

Virginia Rogers

_____

THE COMMONWEALTH OF MASSACHUSETTS

Essex,ss

April , 2008

Then personally appeared the above named _____, a member of the Wenham Planning Board and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the Wenham Planning Board, before me

_____

My commission expires:

TOWN OF WENHAM

MASSACHUSETTS

OFFICE OF THE TOWN CLERK

I hereby certify that a copy of the decision of the PLANNING BOARD of the Town of Wenham, related to the application of J. DAVID SUMINSBY for a DEFINITIVE SUBDIVISION PLAN 65 ARBOR STREET was filed in this office on APRIL 10, 2008 and that no notice of appeal was filed during the twenty (20) days next after that date.

Frances Harte Lenz

Town Clerk

JULY 17, 2008

Date

Suminsby 65 Arbor St

PLAN BOOK 415 PLAN 13

Received July 22, 2008
with Cert. John E. Suminsby, et al
Rec. B. 27939 p. 62

Attest: J. J. Bobinski
Register of Deeds

(3pls.)

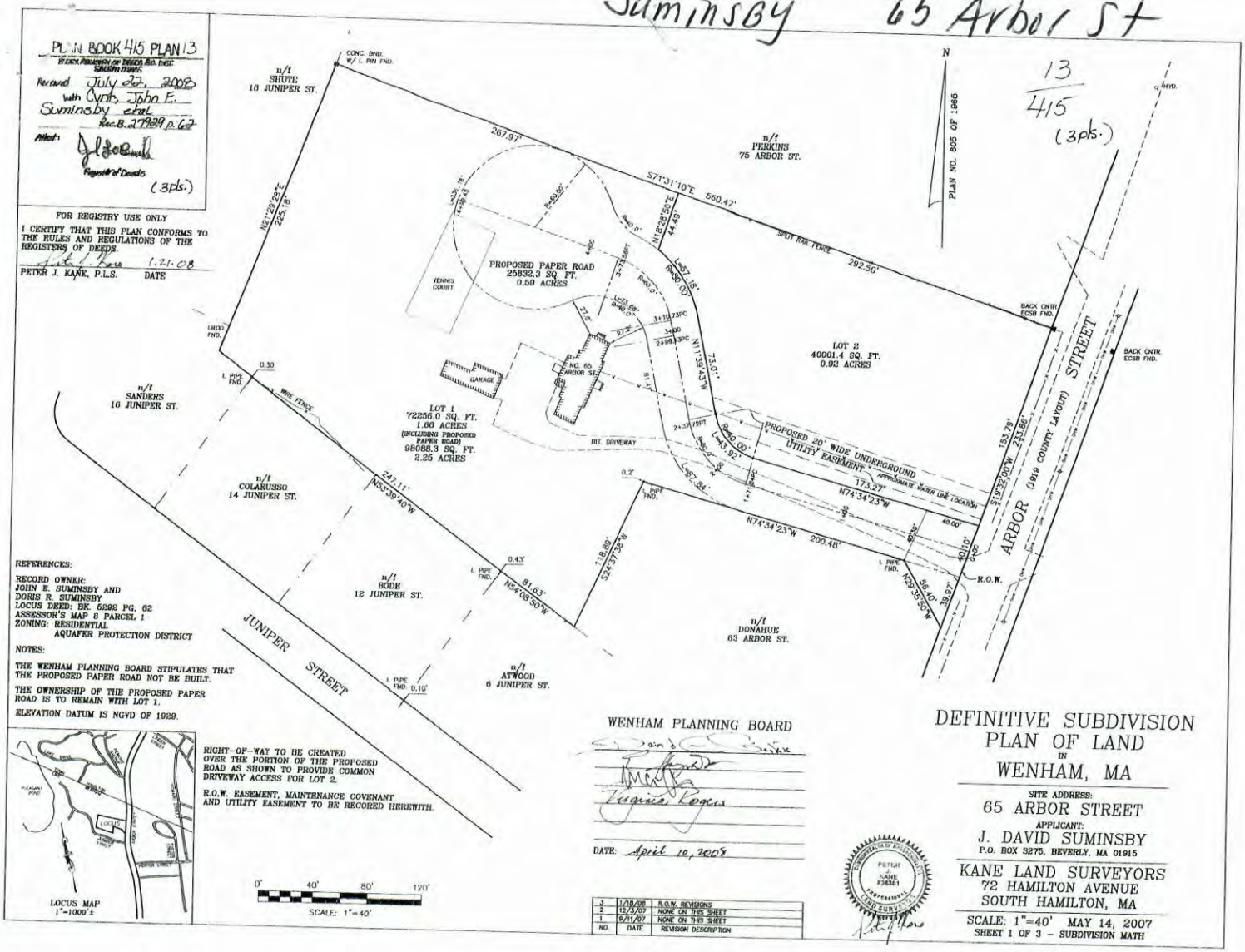
13
415
(3pls.)

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

1.21.08

PETER J. KANE, P.L.S. DATE



REFERENCES:

RECORD OWNER:
JOHN E. SUMINSBY AND
DORIS R. SUMINSBY
LOCUS DEED: BK. 5292 PG. 62
ASSESSOR'S MAP 8 PARCEL 1
ZONING: RESIDENTIAL
AQUAFER PROTECTION DISTRICT

NOTES:

THE WENHAM PLANNING BOARD STIPULATES THAT THE PROPOSED PAPER ROAD NOT BE BUILT.

THE OWNERSHIP OF THE PROPOSED PAPER ROAD IS TO REMAIN WITH LOT 1.

ELEVATION DATUM IS NGVD OF 1929.

LOCUS MAP
1"=1000'±

RIGHT-OF-WAY TO BE CREATED OVER THE PORTION OF THE PROPOSED ROAD AS SHOWN TO PROVIDE COMMON DRIVEWAY ACCESS FOR LOT 2.

R.O.W. EASEMENT, MAINTENANCE COVENANT AND UTILITY EASEMENT TO BE RECORED HEREWITH.

0' 40' 80' 120'
SCALE: 1"=40'

WENHAM PLANNING BOARD

DATE: April 10, 2008

NO.	DATE	REVISION DESCRIPTION
4	1/08/08	R.O.W. REVISIONS
2	12/3/07	NONE ON THIS SHEET
1	8/11/07	NONE ON THIS SHEET

COMMONWEALTH OF MASSACHUSETTS PETER J. KANE 34381 PROFESSIONAL LAND SURVEYOR

DEFINITIVE SUBDIVISION PLAN OF LAND IN WENHAM, MA

SITE ADDRESS:
65 ARBOR STREET

APPLICANT:
J. DAVID SUMINSBY
P.O. BOX 3275, BEVERLY, MA 01915

KANE LAND SURVEYORS
72 HAMILTON AVENUE
SOUTH HAMILTON, MA

SCALE: 1"=40' MAY 14, 2007
SHEET 1 OF 3 - SUBDIVISION MATH

4/2008

EXHIBIT D

30-38 Monument Street

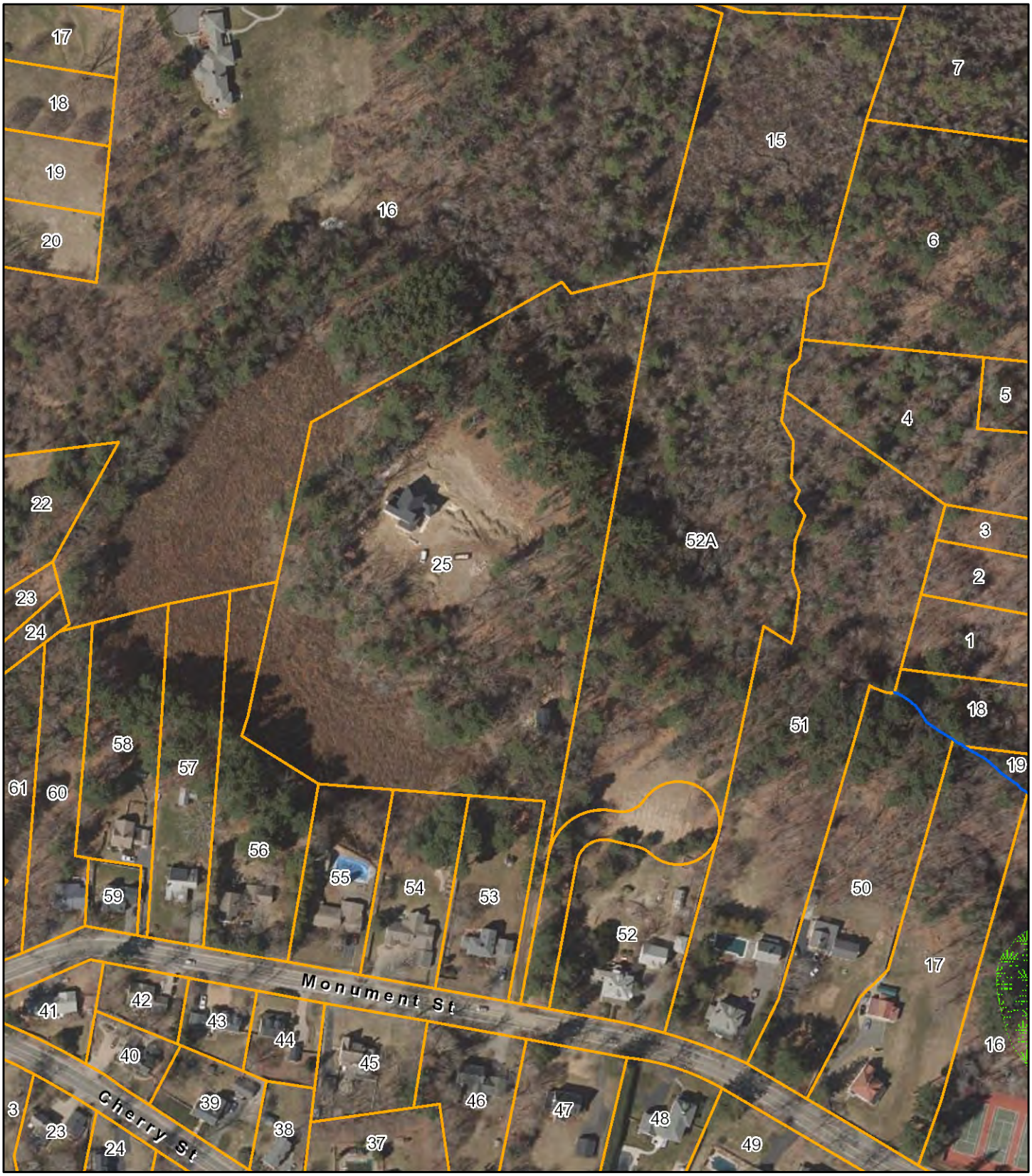
Wenham, MA

1 inch = 200 Feet

January 9, 2022

0 200 400 600

www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

PLAN BOOK 397 PLAN 70

ESSEX REGISTRY OF DEEDS SO. DIST.
SALEM, MASS.

Received April 25, 2006
with Cert. Apvl.
Wenham Town Planning
Rec. B. 259 pp. 335

Attest:

Register of Deeds

(3 pls.)

FOR REGISTRY USE

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

2.9.06
DATE

PROFESSIONAL LAND SURVEYOR

ASSESSORS: MAP 18, LOT 52

ZONING: RESIDENTIAL
FLOOD PLAIN OVERLAY DISTRICT
AQUIFER PROTECTION OVERLAY DISTRICT

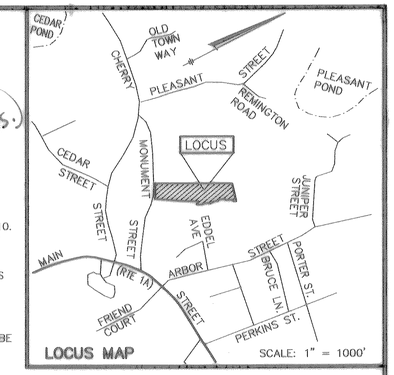
REFERENCES: DEED BOOK 18798, PAGE 552

RECORD OWNER:
PAUL & CAROL LYNNE WEAVER

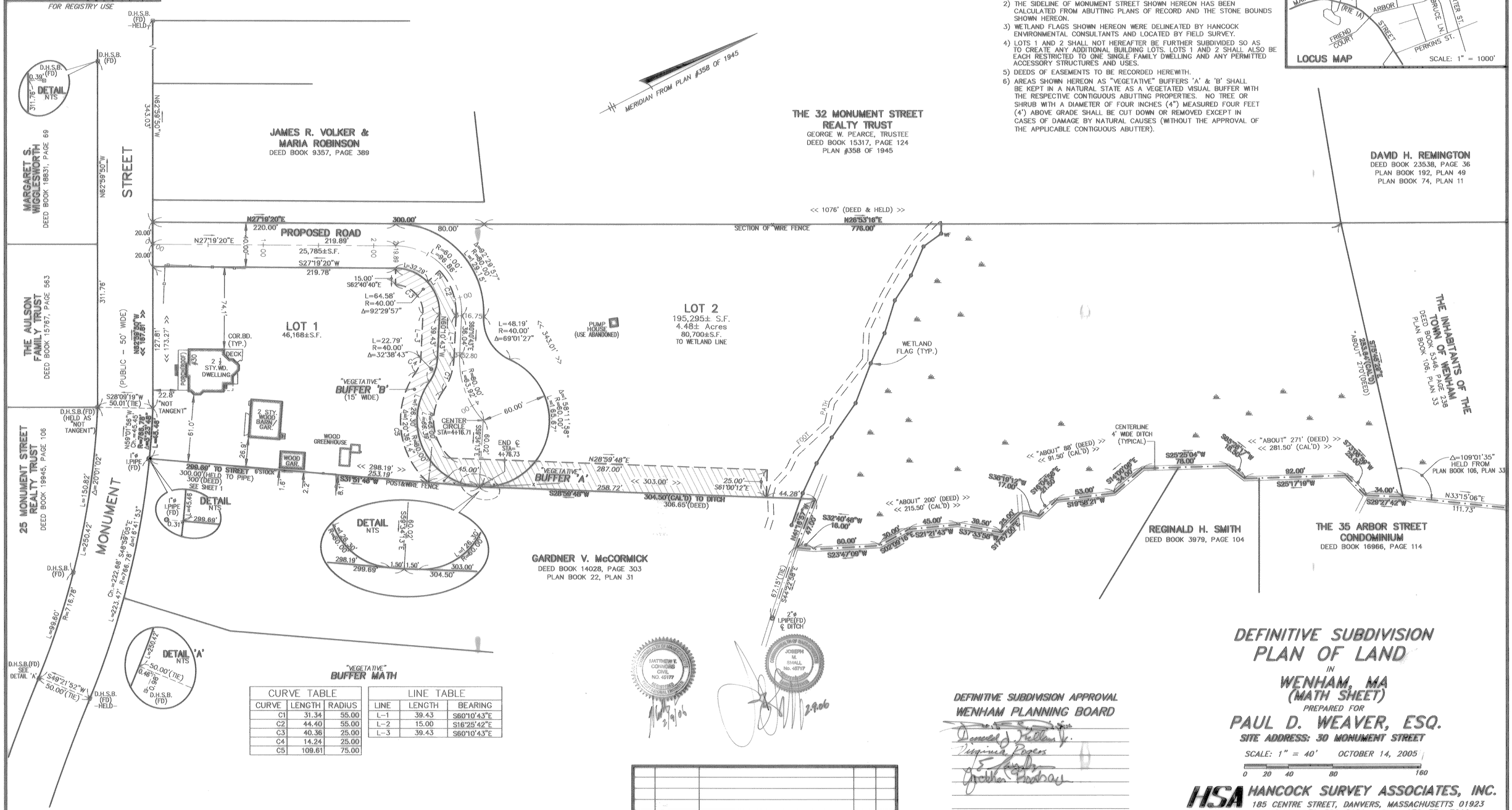
NOTES:

1) MONUMENT STREET WAS LAID OUT AS A PUBLIC STREET ON JUNE 20, 1910. THE ASSOCIATED LAYOUT PLAN COULD NOT BE FOUND AT WENHAM TOWN OFFICES OR AT THE REGISTRY OF DEEDS.
2) THE SIDELINE OF MONUMENT STREET SHOWN HEREON HAS BEEN CALCULATED FROM ABUTTING PLANS OF RECORD AND THE STONE BOUNDS SHOWN HEREON.
3) WETLAND FLAGS SHOWN HEREON WERE DELINEATED BY HANCOCK ENVIRONMENTAL CONSULTANTS AND LOCATED BY FIELD SURVEY.
4) LOTS 1 AND 2 SHALL NOT HEREAFTER BE FURTHER SUBDIVIDED SO AS TO CREATE ANY ADDITIONAL BUILDING LOTS. LOTS 1 AND 2 SHALL ALSO BE EACH RESTRICTED TO ONE SINGLE FAMILY DWELLING AND ANY PERMITTED ACCESSORY STRUCTURES AND USES.
5) DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
6) AREAS SHOWN HEREON AS "VEGETATIVE" BUFFERS 'A' & 'B' SHALL BE KEPT IN A NATURAL STATE AS A VEGETATED VISUAL BUFFER WITH THE RESPECTIVE CONTIGUOUS ABUTTING PROPERTIES. NO TREE OR SHRUB WITH A DIAMETER OF FOUR INCHES (4") MEASURED FOUR FEET (4') ABOVE GRADE SHALL BE CUT DOWN OR REMOVED EXCEPT IN CASES OF DAMAGE BY NATURAL CAUSES (WITHOUT THE APPROVAL OF THE APPLICABLE CONTIGUOUS ABUTTER).

70/397 (3 pls.)



LOCUS MAP SCALE: 1" = 1000'



"VEGETATIVE" BUFFER MATH

CURVE TABLE		
CURVE	LENGTH	RADIUS
C1	31.34	55.00
C2	44.40	55.00
C3	40.36	25.00
C4	14.24	25.00
C5	109.61	75.00

LINE TABLE		
LINE	LENGTH	BEARING
L-1	39.43	S60°10'43"E
L-2	15.00	S16°25'42"E
L-3	39.43	S60°10'43"E

NO.	DATE	REVISION DESCRIPTION	BY	APP.
2.	2/3/06	NOTES AND EASEMENTS	JMS	DID
1.	11/16/05	EASEMENTS/NOTES ADDED	JMS	DID

DEFINITIVE SUBDIVISION APPROVAL
WENHAM PLANNING BOARD

DATE: 2-7-06

DEFINITIVE SUBDIVISION PLAN OF LAND
IN
WENHAM, MA
(MATH SHEET)
PREPARED FOR
PAUL D. WEAVER, ESQ.
SITE ADDRESS: 30 MONUMENT STREET

SCALE: 1" = 40' OCTOBER 14, 2005

0 20 40 80 160

HSA HANCOCK SURVEY ASSOCIATES, INC.
185 CENTRE STREET, DANVERS, MASSACHUSETTS 01923
VOICE 978-777-3050 FAX 978-774-7816
www.hancockassociates.com

CHECKED BY: DLB

SHEET 1 OF 3

9987

F:\Land Projects 02\9987\dwg\, 9987ms3.dwg Feb 08, 2006 - 3:06 pm

PLAN BOOK 397 PLAN 70

COMMONWEALTH OF MASSACHUSETTS
ESSEX, SS.
Received April 25, 2006
with Cert. Appl.
Wenham Town Planning
Rec.B. 25576 p. 235
Attest: [signature]
Register of Deeds
(3 pls.)

FOR REGISTRY USE

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

2.6.06
DATE — PROFESSIONAL LAND SURVEYOR

LEGEND

- 234 — SURFACE CONTOUR
- CHAIN LINK/ WIRE FENCE
- WOOD FENCE
- 12"RCP — DRAINLINE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION, CATCHBASIN, MANHOLE & ROUND CATCHBASIN
- WV W 6"CI — WATER MANHOLE, WATER MAIN WITH SIZE, TEE, GATE VALVE & FIRE HYDRANT
- GV C 10"DI — GAS MAIN WITH SIZE & GATE VALVE
- #181 OHW — EXISTING UTILITY POLE WITH DESIGNATION OVERHEAD WIRES AND GUY POLE
- E — ELECTRIC MANHOLE & UNDERGROUND ELECTRIC LINES
- T — TELEPHONE MANHOLE & UNDERGROUND TELEPHONE LINES
- RETAINING WALL
- STONE RETAINING WALL
- 208.8 WFA2 — LIMIT OF BORDERING VEGETATED WETLAND WITH FLAG NUMBER AND ELEVATION
- LIMIT OF 100-FOOT WETLAND BUFFER ZONE
- SCALED LIMIT OF FEMA ZONE A

× 232.6 — SPOT ELEVATION
26.8 12"M — PROMINENT DECIDUOUS TREE WITH ELEVATION, SIZE AND SPECIES
26.8 18"P — PROMINENT CONIFEROUS TREE WITH ELEVATION, SIZE AND SPECIES
MW — MONITORING WELL
35.2 — TEST PIT WITH ELEVATION
2-L — TWO LEADER
M-L — MULTI LEADER
C.U. — CONNECTION UNKNOWN
N.P.O. — NO PIPES OBSERVED

TREE ABBREVIATIONS

M	MAPLE
O	OAK
P	PINE
AS	ASH
BE	BEECH
S	SPRUCE

ASSESSORS:
MAP 18, LOT 52

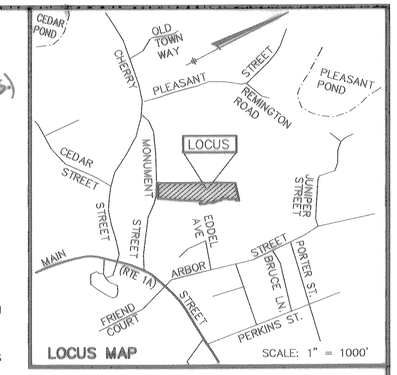
ZONING:
RESIDENTIAL
FLOOD PLAIN OVERLAY DISTRICT
AQUIFER PROTECTION OVERLAY DISTRICT

70/397 (3pls.)

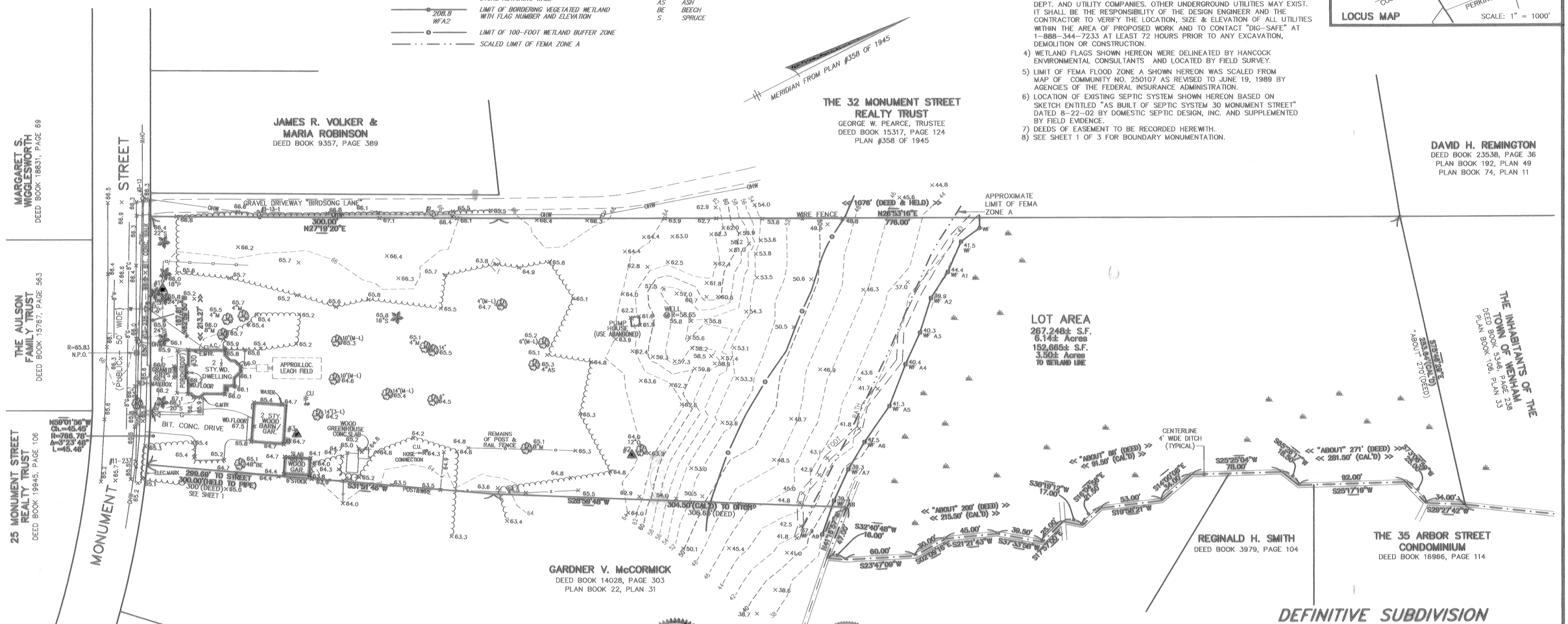
REFERENCES:
DEED BOOK 18798, PAGE 552

RECORD OWNER:
PAUL & CAROL LYNNE WEAVER

NOTES:
1) ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (MEAN SEA LEVEL OF 1929).
2) PROJECT SOURCE BENCHMARK IS MASS. HIGHWAY DEPARTMENT BENCHMARK 68B-9, A MONEL METAL RIVET IN A CONCRETE DOOR SILL OF THE PUMPING STATION OFF CHERRY STREET AT THE CANAL TO THE IPSWICH RIVER. ELEV.=40.74 (N.G.V.D.).
3) UNDERGROUND UTILITIES SHOWN HEREON ARE COMPILED FROM FIELD LOCATIONS OF STRUCTURES AND FROM AVAILABLE RECORD INFORMATION ON FILE AT THE TOWN ENGINEERING OFFICES, TOWN D.P.W., MASS HIGHWAY DEPT. AND UTILITY COMPANIES. OTHER UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER AND THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.
4) WETLAND FLAGS SHOWN HEREON WERE DELINEATED BY HANCOCK ENVIRONMENTAL CONSULTANTS AND LOCATED BY FIELD SURVEY.
5) LIMIT OF FEMA FLOOD ZONE A SHOWN HEREON WAS SCALED FROM MAP OF COMMUNITY NO. 250107 AS REVISED TO JUNE 19, 1989 BY AGENCIES OF THE FEDERAL INSURANCE ADMINISTRATION.
6) LOCATION OF EXISTING SEPTIC SYSTEM SHOWN HEREON BASED ON SKETCH ENTITLED "AS BUILT OF SEPTIC SYSTEM 30 MONUMENT STREET" DATED 8-22-02 BY DOMESTIC SEPTIC DESIGN, INC. AND SUPPLEMENTED BY FIELD EVIDENCE.
7) DEEDS OF EASEMENT TO BE RECORDED HEREWITH.
8) SEE SHEET 1 OF 3 FOR BOUNDARY MONUMENTATION.



LOCUS MAP — SCALE: 1" = 1000'



ELEVATION BENCH MARKS DATUM: N.G.V.D. OF 1929		
NO.	DESCRIPTION	ELEV.
1.	30" PINE - SPIKE (SET)	68.45
2.	12" OAK - SPIKE (SET)	65.14
3.	CONC. BULKHEAD BASE - TOP NW'ly COR.	65.43

NO.	DATE	REVISION DESCRIPTION	BY	APP.
2.	2/03/06	NOTES AND EASEMENTS	JMS	DID
1.	11/16/05	EASEMENTS/NOTES ADDED	JMS	DID

MATTHEW T. CONNORS CIVIL NO. 45177 — COMMONWEALTH OF MASSACHUSETTS — REGISTERED PROFESSIONAL ENGINEER
JOSEPH M. SMALL No. 45717 — COMMONWEALTH OF MASSACHUSETTS — REGISTERED PROFESSIONAL LAND SURVEYOR
2.6.06

DEFINITIVE SUBDIVISION APPROVAL
WENHAM PLANNING BOARD
Donald J. Williams Jr.
Virginia Rogers
Gordon D. Rarbach
DATE: 2-7-06

DEFINITIVE SUBDIVISION PLAN OF LAND
IN
WENHAM, MA
(EXISTING CONDITIONS)
PREPARED FOR
PAUL D. WEAVER, ESQ.
SITE ADDRESS: 30 MONUMENT STREET

SCALE: 1" = 40' OCTOBER 14, 2005
0 20 40 80 160

HSA HANCOCK SURVEY ASSOCIATES, INC.
185 CENTRE STREET, DANVERS, MASSACHUSETTS 01923
VOICE 978-777-3050 FAX 978-774-7816
www.hancocksassociates.com

CHECKED BY: DAA
SHEET 2 OF 3
9987

Z:\Land Projects 02\09987\dwg\ 9987ex3.dwg Feb 06, 2006 - 1:11 pm

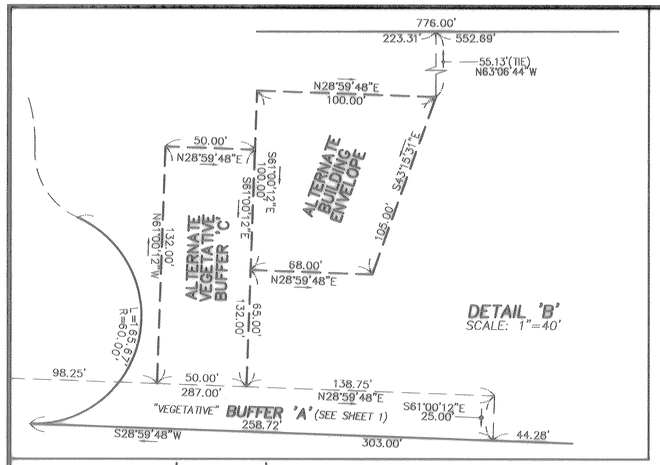


TABLE OF ZONING REQUIREMENTS
RESIDENTIAL DISTRICT

FRONT YARD:	20 FEET
SIDE YARD:	15 FEET
REAR YARD:	15 FEET
LOT AREA:	40,000 SQ.FT.
FRONTAGE:	170 FEET

ASSESSORS: MAP 18, LOT 52

ZONING: RESIDENTIAL
FLOOD PLAIN OVERLAY DISTRICT
AQUIFER PROTECTION OVERLAY DISTRICT

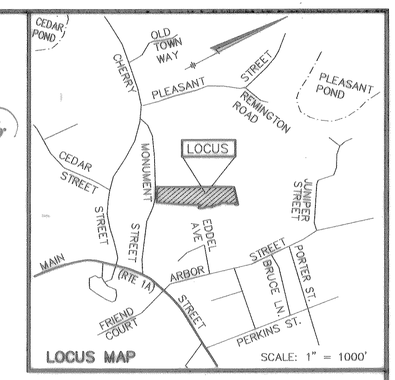
REFERENCES:
DEED BOOK 18798, PAGE 552

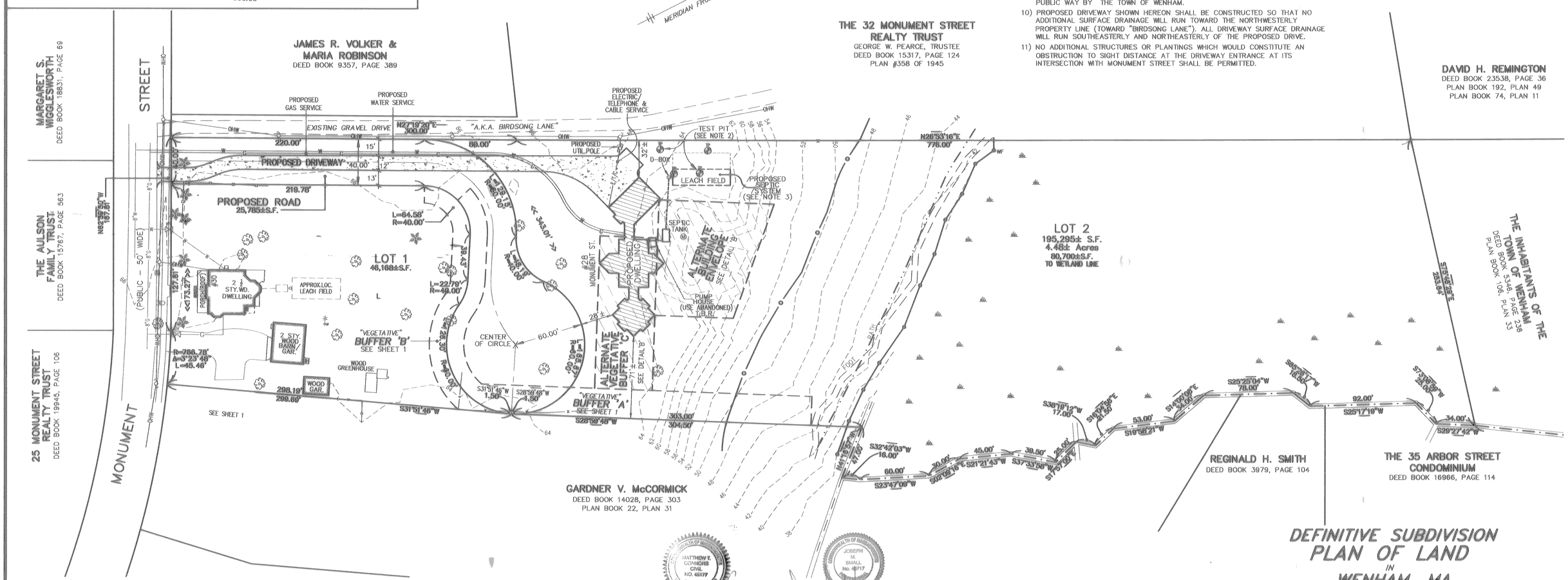
RECORD OWNER:
PAUL & CAROL LYNNE WEAVER

70/397 (3pg)

NOTES:

1) ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (MEAN SEA LEVEL OF 1929).
2) LOCATION OF TEST PITS SHOWN HEREON FROM PLAN ENTITLED: "SUBSURFACE SEWAGE DISPOSAL SYSTEM 30 REAR MONUMENT STREET, WENHAM" DATED 10/17/05 BY DOMESTIC SEPTIC DESIGN, INC.
3) PROPOSED SEPTIC SYSTEM IS A BASED ON SEPTIC DESIGN PLAN REFERENCED IN NOTE 2 ABOVE AND IS SHOWN HEREON FOR GRAPHICAL PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
4) SEE SHEET 1 OF 3 FOR ADDITIONAL NOTES AND LEGEND.
5) PROPOSED BUILDING ENVELOPE SHOWN HEREON IS FOR EXHIBIT PURPOSES ONLY.
7) NO ALTERATION OF WETLAND OR WORK WITHIN THE 100' BUFFER ZONE IS PROPOSED.
8) DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
9) ACCESS TO LOT 2 SHALL BE BY A PRIVATE DRIVEWAY TO BE BUILT SUBSTANTIALLY AS SHOWN HEREON. THE "PROPOSED ROAD" SHALL NOT BE CONSTRUCTED NOR SHALL THE PROPOSED ROAD BE SUBMITTED TO THE TOWN OF WENHAM FOR ACCEPTANCE AS A PUBLIC WAY OR ACCEPTED AS A PUBLIC WAY BY THE TOWN OF WENHAM.
10) PROPOSED DRIVEWAY SHOWN HEREON SHALL BE CONSTRUCTED SO THAT NO ADDITIONAL SURFACE DRAINAGE WILL RUN TOWARD THE NORTHWESTERLY PROPERTY LINE (TOWARD "BIRDSONG LANE"). ALL DRIVEWAY SURFACE DRAINAGE WILL RUN SOUTHEASTERLY AND NORTHEASTERLY OF THE PROPOSED DRIVE.
11) NO ADDITIONAL STRUCTURES OR PLANTINGS WHICH WOULD CONSTITUTE AN OBSTRUCTION TO SIGHT DISTANCE AT THE DRIVEWAY ENTRANCE AT ITS INTERSECTION WITH MONUMENT STREET SHALL BE PERMITTED.





FOR REGISTRY USE

PLAN BOOK 397 PLAN 70
Received April 25, 2006
with Cert. Appvl.
Wenham Town Planning
Rec. B. 25596 p. 535
Attest:
Register of Deeds

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

2-9-06
DATE PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION DESCRIPTION	BY	APP.
2.	2/3/06	NOTES AND EASEMENTS	JMS	DID
1.	11/16/05	EASEMENTS/NOTES ADDED	JMS	DID

DEFINITIVE SUBDIVISION APPROVAL
WENHAM PLANNING BOARD
Donald A. Mellen Jr.
Virginia Rogers
Gretchen L. Raubach
DATE: 2-9-06

DEFINITIVE SUBDIVISION PLAN OF LAND
IN
WENHAM, MA
(PROPOSED CONDITIONS/UTILITIES)
PREPARED FOR
PAUL D. WEAVER, ESQ.
SITE ADDRESS: 30 MONUMENT STREET

SCALE: 1" = 40' OCTOBER 14, 2005
0 20 40 80 160

HSA HANCOCK SURVEY ASSOCIATES, INC.
185 CENTRE STREET, DANVERS, MASSACHUSETTS 01923
VOICE 978-777-3050 FAX 978-774-7816
www.hancocksassociates.com

CHECKED BY: DAH
SHEET 3 OF 3
9987

EXHIBIT E

41 Grapevine Road

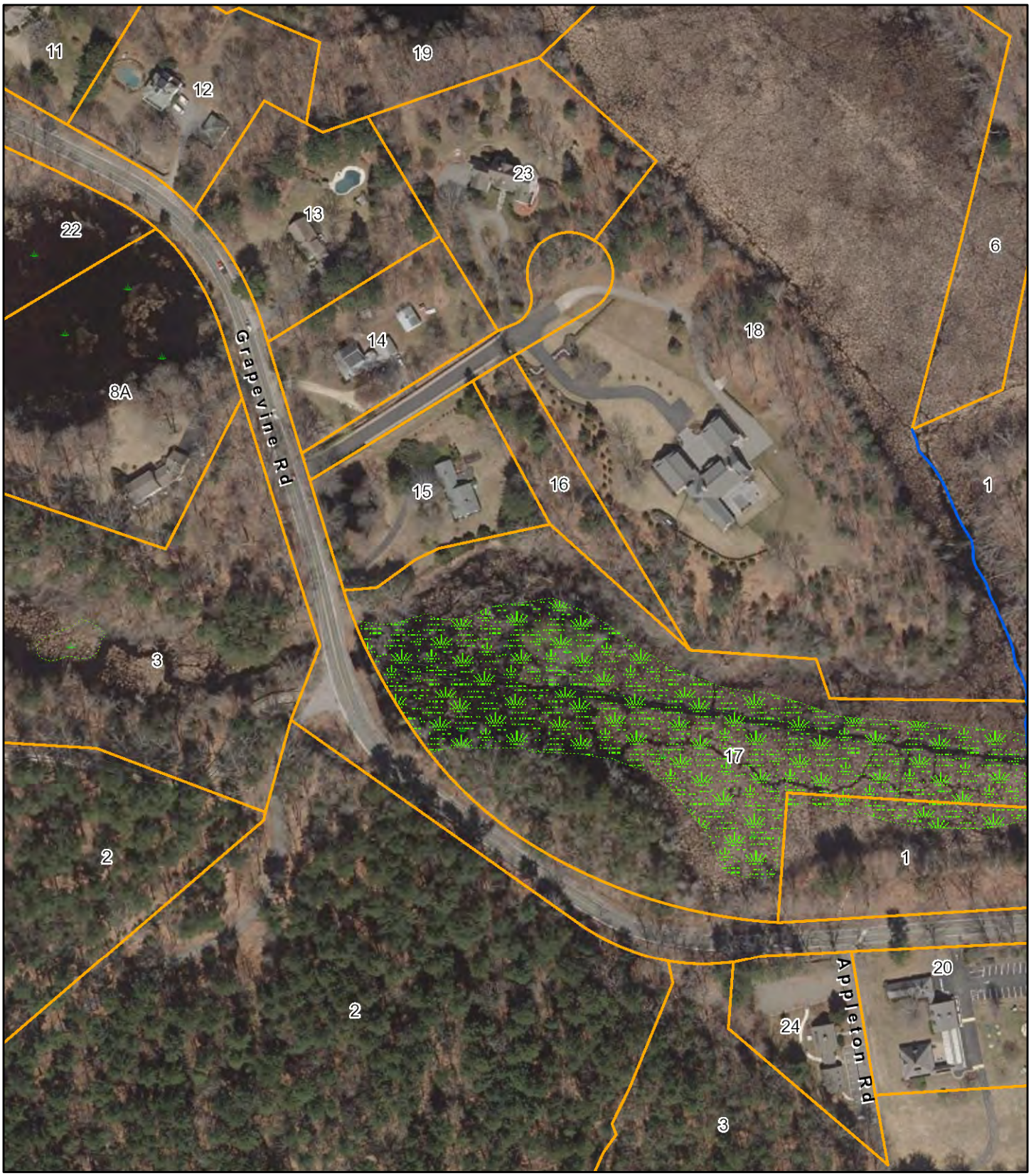
Wenham, MA

1 inch = 200 Feet

January 9, 2022

0 200 400 600

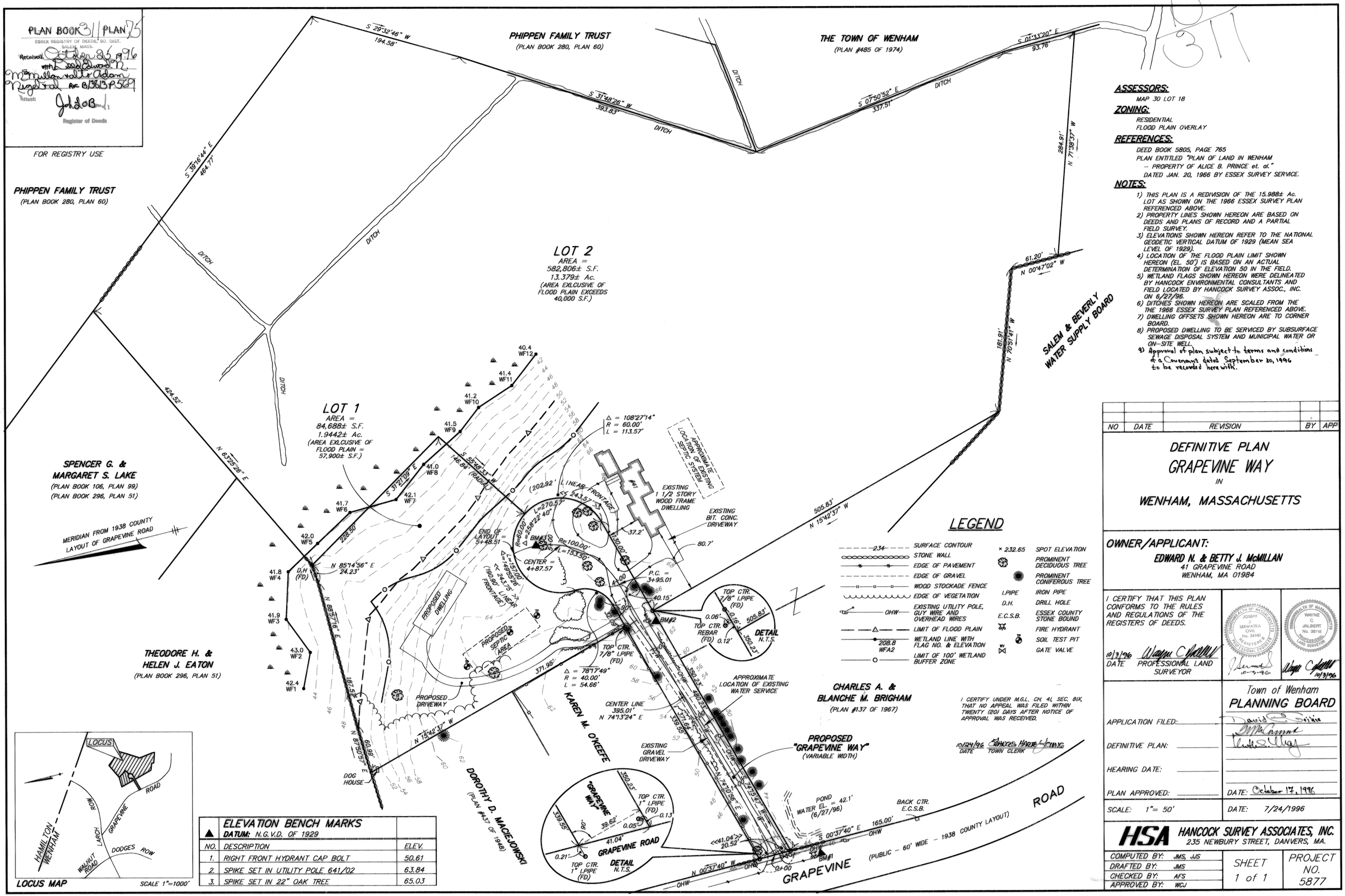
www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

PLAN BOOK 311 PLAN 75
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received: October 25 1996
with: Edward N. McMillan & Betty Adam
Recorded: Book 13613 Page 569
Attest: John B. [illegible]
Register of Deeds

FOR REGISTRY USE



ELEVATION BENCH MARKS

DATUM: N.G.V.D. OF 1929

NO.	DESCRIPTION	ELEV.
1.	RIGHT FRONT HYDRANT CAP BOLT	50.61
2.	SPIKE SET IN UTILITY POLE 641/02	63.84
3.	SPIKE SET IN 22" OAK TREE	65.03

LEGEND

234	SURFACE CONTOUR
	STONE WALL
	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	WOOD STOCKADE FENCE
	EDGE OF VEGETATION
OHW	EXISTING UTILITY POLE, GUY WIRE AND OVERHEAD WIRES
	LIMIT OF FLOOD PLAIN
208.8 WFA2	WETLAND LINE WITH FLAG NO. & ELEVATION
	LIMIT OF 100' WETLAND BUFFER ZONE
× 232.65	SPOT ELEVATION
	PROMINENT DECIDUOUS TREE
	PROMINENT CONIFEROUS TREE
I.PIPE	IRON PIPE
D.H.	DRILL HOLE
E.C.S.B.	ESSEX COUNTY STONE BOUND
	FIRE HYDRANT
	SOIL TEST PIT
WV	GATE VALVE

I CERTIFY UNDER M.G.L. CH. 41, SEC. 81X, THAT NO APPEAL WAS FILED WITHIN TWENTY (20) DAYS AFTER NOTICE OF APPROVAL WAS RECEIVED.

10/24/96 DATE — CHARLES HADE TOWN CLERK

ASSESSORS:
MAP 30 LOT 18

ZONING:
RESIDENTIAL
FLOOD PLAIN OVERLAY

REFERENCES:
DEED BOOK 5805, PAGE 765
PLAN ENTITLED "PLAN OF LAND IN WENHAM — PROPERTY OF ALICE B. PRINCE et. al." DATED JAN. 20, 1966 BY ESSEX SURVEY SERVICE.

NOTES:
1) THIS PLAN IS A REDIVISION OF THE 15.988± Ac. LOT AS SHOWN ON THE 1966 ESSEX SURVEY PLAN REFERENCED ABOVE.
2) PROPERTY LINES SHOWN HEREON ARE BASED ON DEEDS AND PLANS OF RECORD AND A PARTIAL FIELD SURVEY.
3) ELEVATIONS SHOWN HEREON REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (MEAN SEA LEVEL OF 1929).
4) LOCATION OF THE FLOOD PLAIN LIMIT SHOWN HEREON (EL. 50') IS BASED ON AN ACTUAL DETERMINATION OF ELEVATION 50 IN THE FIELD.
5) WETLAND FLAGS SHOWN HEREON WERE DELINEATED BY HANCOCK ENVIRONMENTAL CONSULTANTS AND FIELD LOCATED BY HANCOCK SURVEY ASSOC., INC. ON 6/27/96.
6) DITCHES SHOWN HEREON ARE SCALED FROM THE THE 1966 ESSEX SURVEY PLAN REFERENCED ABOVE.
7) DWELLING OFFSETS SHOWN HEREON ARE TO CORNER BOARD.
8) PROPOSED DWELLING TO BE SERVICED BY SUBSURFACE SEWAGE DISPOSAL SYSTEM AND MUNICIPAL WATER OR ON-SITE WELL.
9) Approval of plan subject to terms and conditions of a Covenant dated September 30, 1996 to be recorded herewith.

NO	DATE	REVISION	BY	APP

DEFINITIVE PLAN
GRAPEVINE WAY
IN
WENHAM, MASSACHUSETTS

OWNER/APPLICANT:
EDWARD N. & BETTY J. McMILLAN
41 GRAPEVINE ROAD
WENHAM, MA 01984

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

10/3/96 DATE — PROFESSIONAL LAND SURVEYOR

COMMONWEALTH OF MASSACHUSETTS — JOSEPH SERWATKA CIVIL No. 36981 — REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS — WAYNE C. JALBERT No. 36118 — PROFESSIONAL LAND SURVEYOR — 10/3/96

Town of Wenham
PLANNING BOARD

APPLICATION FILED:
DEFINITIVE PLAN:
HEARING DATE:
PLAN APPROVED: — DATE: October 17, 1996

SCALE: 1"= 50' — DATE: 7/24/1996

HSA HANCOCK SURVEY ASSOCIATES, INC.
235 NEWBURY STREET, DANVERS, MA.

COMPUTED BY: JMS, JJS	SHEET 1 of 1	PROJECT NO. 5877
DRAFTED BY: JMS		
CHECKED BY: AFS		
APPROVED BY: WCJ		

EXHIBIT F

Toppan Lane

Wenham, MA

1 inch = 200 Feet

January 9, 2022

0 200 400 600

www.cai-tech.com

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

330 (6 Pls)

PLAN BOOK 330 PLAN 1
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 5 '98
with Cert. Approval Sally C. Realty Trust et al
Rec. B.15221 P 196
Attest: John D. Bonfiglio
Register of Deeds (6 Pls)

RESERVED FOR REGISTRY USE

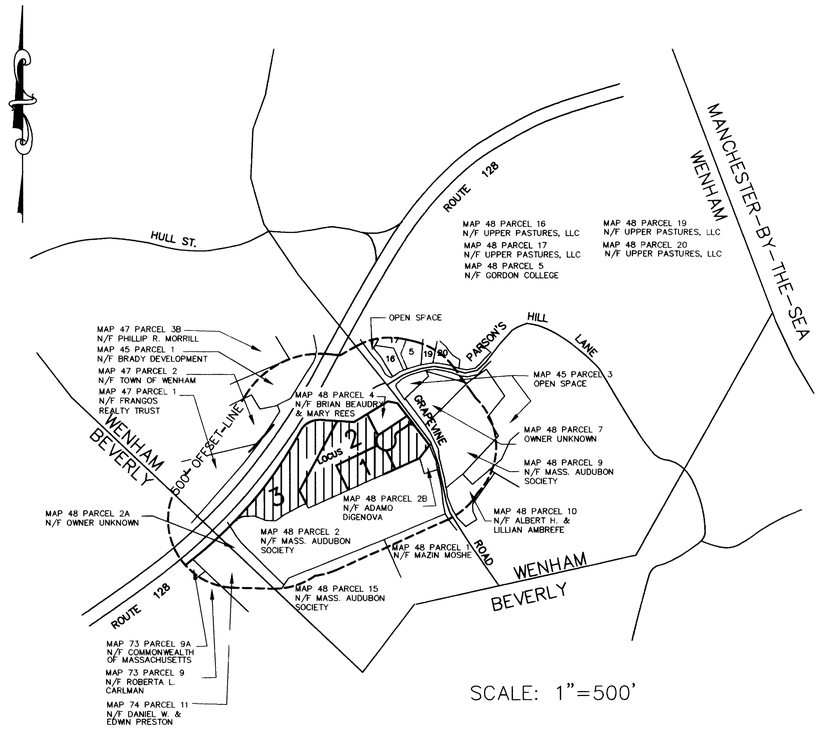
PLAN INDEX

SHEET 1 – INDEX SHEET
SHEET 2 – PLAN OF LOTS
SHEET 3 – TOPOGRAPHICS
SHEET 4 – PROFILES
SHEET 5 – DETAILS
SHEET 6 – BEST MANAGEMENT PRACTICES

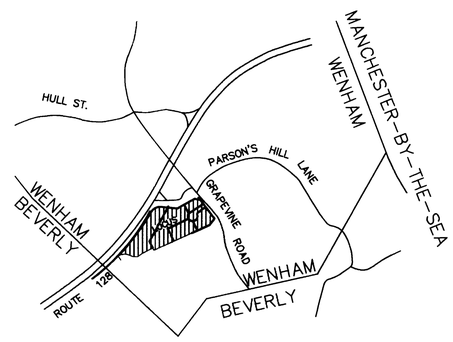
DEFINITIVE SUBDIVISION AT 338 GRAPEVINE ROAD WENHAM, MASSACHUSETTS

NOTES

1. THIS SUBDIVISION AS PROPOSED CONSISTS OF 2 SINGLE FAMILY HOUSE LOTS, AND 1 OPEN SPACE LOT.
2. LOTS 1 & 2 WILL HAVE AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS. THE EXISTING HOUSE (#338) IS SERVICED BY AN EXIST. SEPTIC SYSTEM
3. TOWN WATER WILL BE INSTALLED IN THE STREETS AS INDICATED.
4. ELEVATIONS SHOWN ARE ON N.G.V.D. DATUM.
5. ALL INSTALLATIONS, CONSTRUCTION AND CONSTRUCTION MATERIALS SHALL, IN ALL RESPECTS, CONFORM TO THE GOVERNING RULES AND REGULATIONS OF THE WENHAM PLANNING BOARD.
6. ALL EXISTING UNDERGROUND UTILITIES WERE DETERMINED FROM AVAILABLE RECORDS AND SHOULD BE CONSIDERED APPROXIMATE.
7. THE CONTRACTOR SHALL CALL DIG-SAFE AT 1-800-322-4844 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION.
8. GAS, TELEPHONE, CABLE AND ELECTRIC UTILITIES SHALL BE INSTALLED AS SPECIFIED BY THE RESPECTIVE UTILITY COMPANY.
9. THE WETLANDS WERE DELINEATED BY ENVIRONMENTAL RESEARCH CORP. IN OCTOBER OF 1996.



SCALE: 1"=500'



LOCATION MAP
SCALE: 1"=1000'

LEGEND

EXISTING CONTOUR	100
PROPOSED CONTOUR	100
EXISTING WATER LINE	EW
PROPOSED WATER LINE	PW
EXISTING HYDRANT	
PROPOSED HYDRANT	
PROPOSED GATE VALVE	8"X8"X8" OR 12"X12"X8"
EXISTING STONE WALL	
EXISTING EDGE OF PAVEMENT	
EXISTING SPOT ELEVATION	100x0
PROPOSED SPOT ELEVATION	100.0
PROPOSED BOUND	
EXISTING BOUND	
CENTERLINE / STATION	1+00 2+00
PROPOSED SILTATION BARRIER	
EXISTING WETLAND	BVW BVW BVW
100' BUFFER LINE	
TEST PIT	

SITE DATA

ASSESSOR'S MAP 48, PARCEL 3

DEED REF: BOOK 9602, PAGE 75

OWNER: MILTON E. & DOROTHY T. HAMILTON
338 GRAPEVINE ROAD, WENHAM, MA

ZONING DISTRICT – RESIDENTIAL
AREA = 40,000 S.F.
FRONTAGE = 170 F.T.
SETBACKS – FRONT = 20 F.T.
SIDE = 15 F.T.
REAR = 15 F.T.

BENCH MARK #1
DRILL HOLE IN MASS HIGHWAY BOUND AT INTERSECTION OF OFF-RAMP AND GRAPEVINE ROAD
EL=56.17' (N.G.V.D. DATUM)

BENCH MARK #2
STAKE AND NAIL NEAR STONEWALL
EL=71.54' (N.G.V.D. DATUM)

DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
COVENANTS TO BE RECORDED HEREWITH.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 10/8/98 WENHAM PLANNING BOARD

APPLICATION FILED: 5/14/98
HEARING DATE: 8/13/98
APPROVAL DATE: 10/8/98
DATE ENDORSED: 10/8/98

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Donna Marie Jones
TOWN CLERK
November 4, 1998
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.
PL. BK. 225 PL 95
PL. BK. 172 PL 78
PL. 53 OF 1968
PL. 205 OF 1967
C.L.O. 2109 C.L.O 2994
C.L.O. 2921 C.L.O 3169
PL. BK 82 PL 41
PL. BK. 82 PL 73

COMMONWEALTH OF MASSACHUSETTS MARTIN N. HALLERAN No. 33996 PROFESSIONAL ENGINEER
P.E. JULY 15, 1998
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR
P.L.S. JULY 15, 1998
Date

INDEX SHEET

DEFINITIVE SUBDIVISION
RESIDENTIAL OPEN SPACE COMMUNITY
AT
338 GRAPEVINE ROAD
IN
WENHAM, MASSACHUSETTS

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET – SUITE 5 – GEORGETOWN, MA 01833
PHONE: 978-352-7870 FAX: 978-352-9940

APPLICANT: SALLY C. REALTY TRUST
MILTON R. HAMILTON, III – TRUSTEE
338 GRAPEVINE ROAD
WENHAM, MA

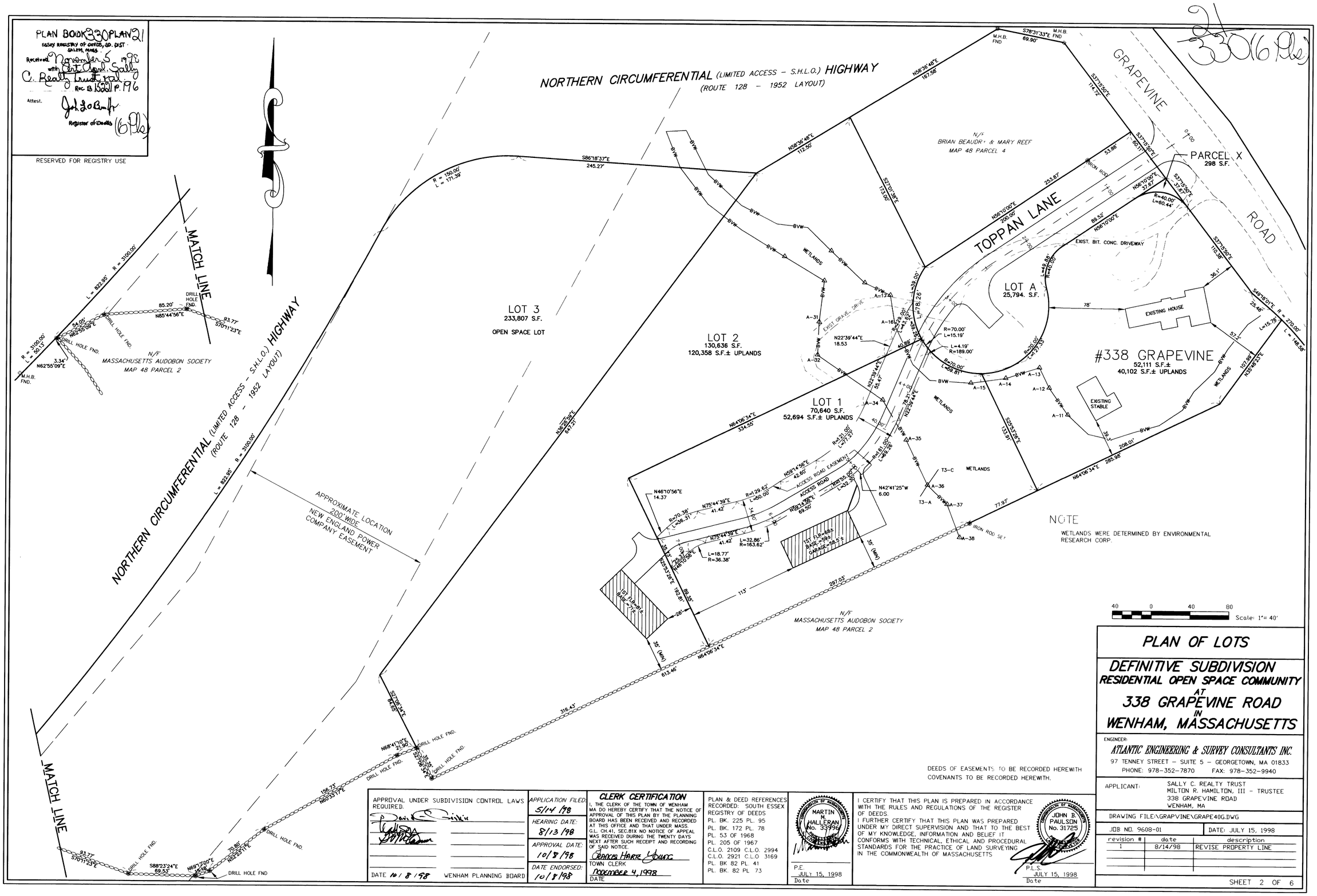
DRAWING FILE:\GRAPVINE\GRAPE40G.DWG

JOB NO. 9608-01 DATE: JULY 15, 1998

revision #	date	description

PLAN BOOK 330 PLAN 21
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 5, 1998
with Cert. Appr. Sally C. Realty Trust et al.
Rec. B. 15201 P. 196
Attest. J. L. Lo Buffo
Register of Deeds
(6 Pls)

RESERVED FOR REGISTRY USE



DEEDS OF EASEMENTS TO BE RECORDED HEREWITH
COVENANTS TO BE RECORDED HEREWITH.

PLAN OF LOTS

DEFINITIVE SUBDIVISION
RESIDENTIAL OPEN SPACE COMMUNITY
AT
338 GRAPEVINE ROAD
IN
WENHAM, MASSACHUSETTS

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET – SUITE 5 – GEORGETOWN, MA 01833
PHONE: 978-352-7870 FAX: 978-352-9940

APPLICANT: SALLY C. REALTY TRUST
MILTON R. HAMILTON, III - TRUSTEE
338 GRAPEVINE ROAD
WENHAM, MA

DRAWING FILE:\GRAPVINE\GRAPE40G.DWG

JOB NO. 9608-01 | DATE: JULY 15, 1998

revision #	date	description
1	8/14/98	REVISE PROPERTY LINE

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 10/8/98 WENHAM PLANNING BOARD

APPLICATION FILED: 5/14/98
HEARING DATE: 8/13/98
APPROVAL DATE: 10/8/98
DATE ENDORSED: 10/8/98

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Geraldine Harte Young
TOWN CLERK
November 4, 1998
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS
PL. BK. 225 PL. 95
PL. BK. 172 PL. 78
PL. 53 OF 1968
PL. 205 OF 1967
C.L.O. 2109 C.L.O. 2994
C.L.O. 2921 C.L.O 3169
PL. BK 82 PL. 41
PL. BK. 82 PL. 73

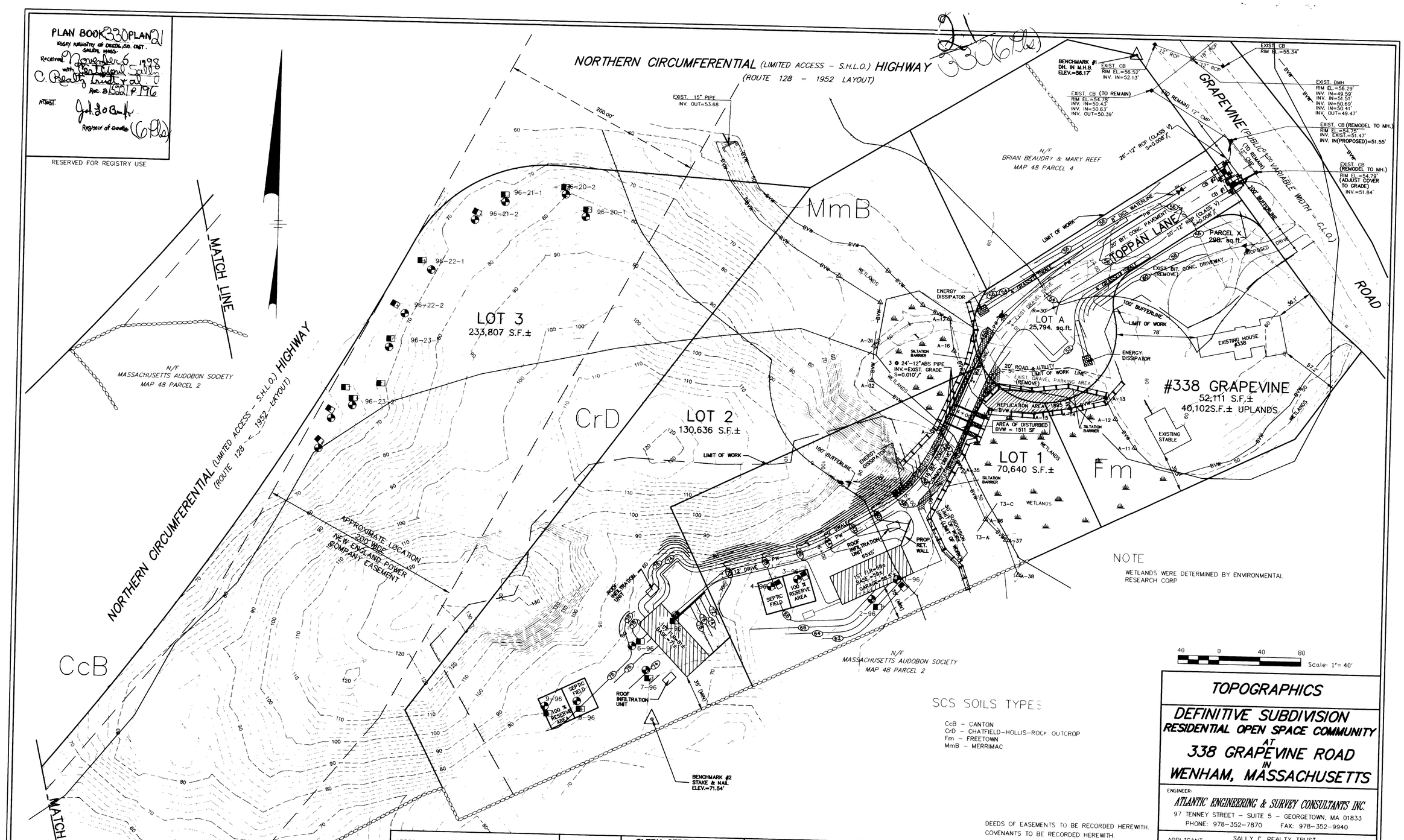
COMMONWEALTH OF MASSACHUSETTS
MARTIN M. HALLERAN
No. 33996
REGISTERED PROFESSIONAL ENGINEER
P.E.
JULY 15, 1998
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS
JOHN B. PAULSON
No. 31725
PROFESSIONAL LAND SURVEYOR
P.L.S.
JULY 15, 1998
Date

PLAN BOOK 330 PLAN 21
REGISTRY REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 6, 1998
with Certificate of Title
C. Beauty Trust et al
Rec. Bk. 5001 P. 196
ATTEST: John D. Bailey
Register of Deeds (6 Pls)

RESERVED FOR REGISTRY USE



DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
COVENANTS TO BE RECORDED HEREWITH.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 11/8/98 WENHAM PLANNING BOARD

APPLICATION FILED: 5/14/98
HEARING DATE: 8/13/98
APPROVAL DATE: 10/8/98
DATE ENDORSED: 10/8/98

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Charles Harte Young
TOWN CLERK
NOVEMBER 4, 1998
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.
PL. BK. 225 PL. 95
PL. BK. 172 PL. 78
PL. 53 OF 1968
PL. 205 OF 1967
C.L.O. 2109 C.L.O. 2994
C.L.O. 2921 C.L.O. 3169
PL. BK 82 PL. 41
PL. BK. 82 PL. 73

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER
P.E. JULY 15, 1998
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR
P.L.S. JULY 15, 1998
Date

TOPOGRAPHICS

DEFINITIVE SUBDIVISION
RESIDENTIAL OPEN SPACE COMMUNITY
AT
338 GRAPEVINE ROAD
IN
WENHAM, MASSACHUSETTS

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET - SUITE 5 - GEORGETOWN, MA 01833
PHONE: 978-352-7870 FAX: 978-352-9940

APPLICANT: SALLY C. REALTY TRUST
MILTON R. HAMILTON, III - TRUSTEE
338 GRAPEVINE ROAD
WENHAM, MA

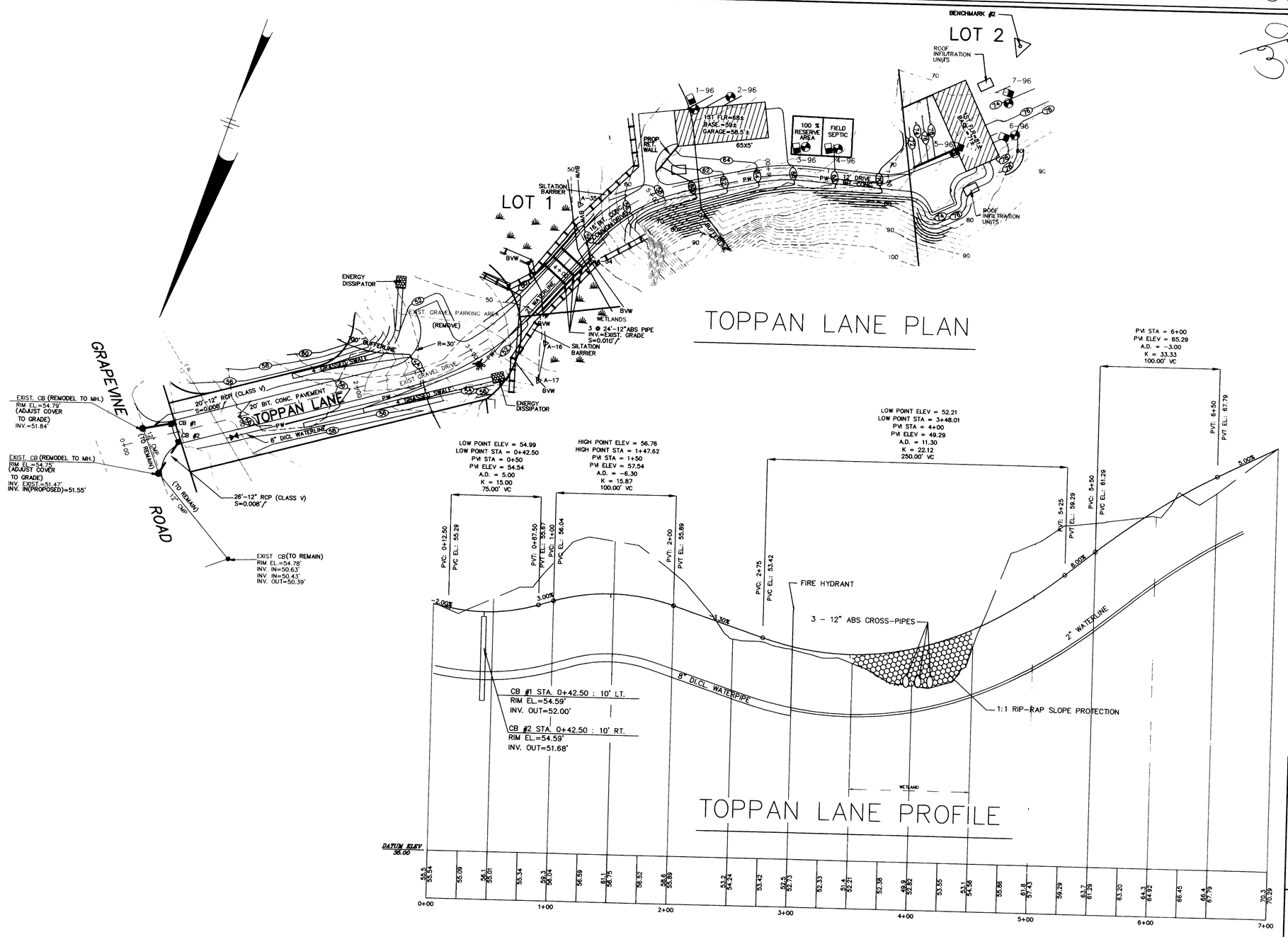
DRAWING FILE:\GRAPVINE\GRAPE40G.DWG
JOB NO. 9608-01
DATE: JULY 15, 1998

revision #	date	description
1	8/14/98	CHANGE PROPERTY LINE, WIDEN DRIVEWAY

PLAN BOOK 330 PLAN 21
ESSEX REGISTRY OF DEEDS, SOUTH SALEM, MASS
Received November 5 1998
with C. Realty Trust et al
Rec B. 13221 P. 196
ATTEST: John L. O'Brien Jr.
Register of Deeds (6 Pls)

330 (6 Pls)

RESERVED FOR REGISTRY USE



DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
COVENANTS TO BE RECORDED HEREWITH.

4 0 4 8 VERT.
40 0 40 80 HORZ.

PLAN & PROFILE

DEFINITIVE SUBDIVISION
RESIDENTIAL OPEN SPACE COMMUNITY
AT
338 GRAPEVINE ROAD
IN
WENHAM, MASSACHUSETTS

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET - SUITE 5 - GEORGETOWN, MA 01833
PHONE: 978-352-7870 FAX: 978-352-9940

APPLICANT: SALLY C. REALTY TRUST
MILTON R. HAMILTON, III - TRUSTEE
338 GRAPEVINE ROAD
WENHAM, MA

DRAWING FILE:\GRAPVINE\SHT3-4.DWG

JOB NO. 9608-01 | DATE: JULY 15, 1998

revision #	date	description
1	8/14/98	CHANGE PROPERTY LINE, WIDEN DRIVEWAY

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 10/8/98 WENHAM PLANNING BOARD

APPLICATION FILED: 5/14/98
HEARING DATE: 8/13/98
APPROVAL DATE: 10/8/98
DATE ENDORSED: 10/8/98

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Frances Harte Young
TOWN CLERK
DATE November 4, 1998

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.
PL. BK. 225 PL. 95
PL. BK. 172 PL. 78
PL. 53 OF 1968
PL. 205 OF 1967
C.L.O. 2109 C.L.O. 2994
C.L.O. 2921 C.L.O 3169
PL. BK 82 PL. 41
PL. BK 82 PL. 73

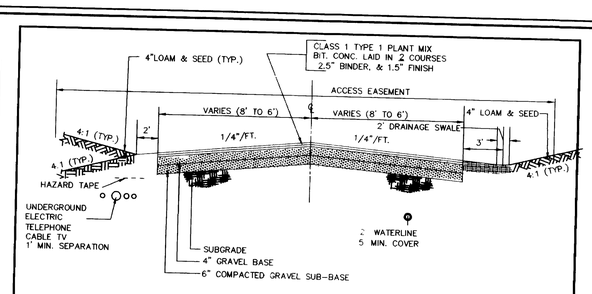
COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33986 REGISTERED PROFESSIONAL ENGINEER
P.E.
JULY 15, 1998
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31785 PROFESSIONAL LAND SURVEYOR
P.L.S.
JULY 15, 1998
Date

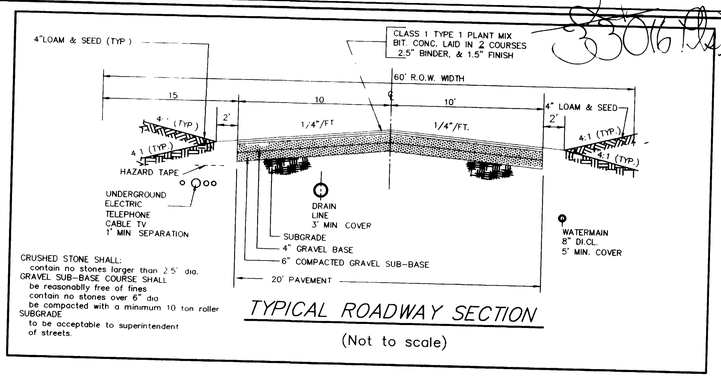
CONSTRUCTION NOTES: RECHARGER 300®

1. EXCAVATE AND LEVEL DESIGNATED AREA. BE SURE TO EXCAVATE BEYOND THE PLANNED PERIMETER OF THE BED TO ALLOW FOR PROPER FIT AND ADEQUATE COMPACTION.
2. IF IN LOOSE SANDY SOILS, FLOOD THE EXCAVATED AREA.
3. COMPACT THE BASE TO 95% OF MAXIMUM ATTAINABLE DENSITY.
4. PLACE GEOTEXTILE FABRIC (CULTEC 410 FILTER FABRIC) OR APPROVED EQUIVALENT AS SHOWN ON THE DETAILS.
5. LAY A STONE BASE TO A DEPTH OF 6" AS PER PLAN DETAIL.
   CRUSHED OR RECYCLED CONCRETE IS NOT PERMITTED. USE WILL VIOLATE WARRANTY
6. COMPACT THE STONE WITH VIBRATORY ROLLER OR PLATE COMPACTOR. TO ENSURE MAX. STONE COMPACTION, COMPACT TWICE, THE SECOND PASS BEING PERP. TO THE FIRST
7. CUT HOLE IN CLOSED END PLATE FOR APPROPRIATELY-SIZED DISTRIBUTION PIPE
8. PLACE CATCH BASIN AND OTHER SEDIMENTATION STRUCTURES AS REQUIRED.
   * RUN DISTRIBUTION PIPE TO ROWS OF CHAMBERS AS PER DESIGN REQUIREMENTS.
   * RUN DISTRIBUTION PIPE THROUGH INLET OPENING IN ENDPLATE.
   * PIPE DOES NOT RUN THE LENGTH OF THE SYSTEM.
   * **PROVISIONS MUST BE MADE TO AVOID SEDIMENTATION FLOW INTO SYSTEM.**
9. FILL AREA TO A MINIMUM OF 9" OVER TOP OF CHAMBERS WITH CLEAN FILL AS PER PLAN FOR A LARGE BED THAT CANNOT BE FILLED FROM THE SIDES, USE A LIGHT TRACKED VEHICLE SUCH AS A CATERPILLAR D-3. (TRACKED VEHICLE SIZE MUST NOT EXCEED D-5 GROUND PRESSURE OF TRACK NOT TO EXCEED 1,100 LBS. PER FT2). BE SURE TO MAINTAIN 6" MINIMUM OF COMPACTED COVER BENEATH TRACKS AT ALL TIMES.
10. COMPACT STONE WITH WALK-BEHIND PLATE COMPACTOR OR VIBRATORY ROLLER, NOT TO EXCEED DYNAMIC FORCE OF 10,000 POUNDS.
11. COVER ENTIRE INSTALLATION AREA WITH GEOTEXTILE FABRIC BY LAYING IT ONTO AREA, MAKING SURE THAT IT OVERLAPS ONTO ITSELF BY 2 FEET.
    12" OF AVOID ORGANIC MATTER SUCH AS ROOTS, STUMPS ETC IN THE BACKFILL MATERIAL TOTAL COVER IS A MINIMUM OF 18"
12. LEVEL ALL LIFTS, DO NOT ALLOW EQUIPMENT EXCEEDING 12,000 LBS. OVER IHD 330'S.
    * IF CONSTRUCTING IN LOOSE SANDY SOILS, LAY GEOGRID OVER FIRST 6" LIFT. USE TENSAR BX1100, MIRAFI MX1 OR EQUIVALENT GEOGRID.
13. INLET STRUCTURES SHOULD BE COVERED DURING CONSTRUCTION TO PREVENT SILT INTRUSION INTO THE SYSTEM.
18. **INLET STRUCTURES SHALL BE COVERED DURING CONSTRUCTION TO PREVENT SILT INTRUSION INTO SYSTEM.**



TYPICAL DRIVEWAY SECTION

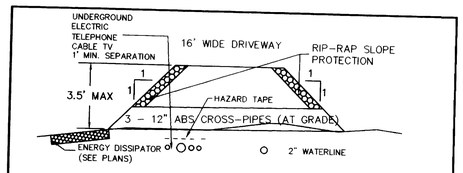
(Not to scale)



CRUSHED STONE SHALL: contain no stones larger than 2.5' dia.
GRAVEL SUB-BASE COURSE SHALL be reasonably free of fines contain no stones over 6" dia be compacted with a minimum 10 ton roller
SUBGRADE to be acceptable to superintendent of streets.

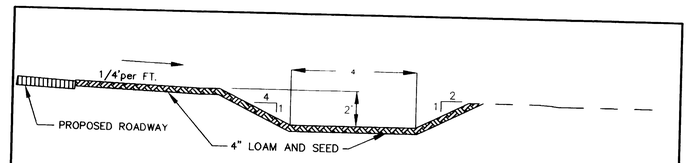
TYPICAL ROADWAY SECTION

(Not to scale)



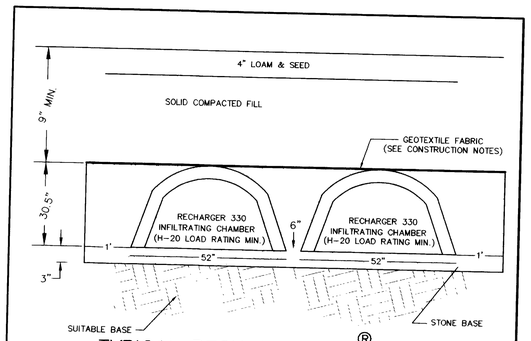
TYP. SECTION - CROSS DRAIN

(Not to scale)



TYP. SECTION - DRAINAGE SWALE

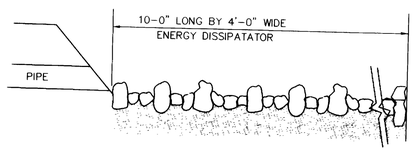
(Not to scale)



TYPICAL RECHARGER 330® SECTION

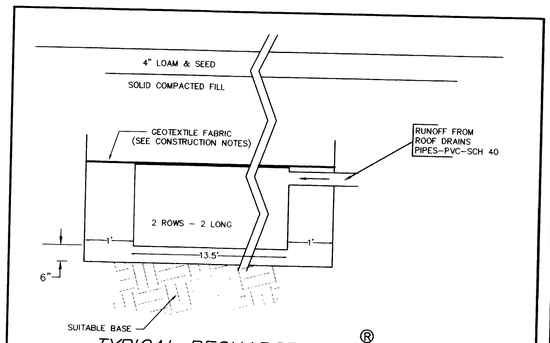
(Not to scale)

NOTE:
ALL STONE SHALL BE 8"-12" SQUARE BY 2'-0" DEEP W/ 6" TO 8" SPACING (20 LB. MIN.). ALL STONE SHALL BE SET IN 12" GRAVEL BEDDING.



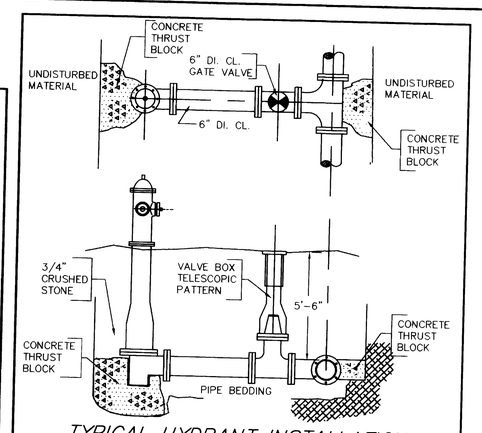
TYPICAL ENERGY DISSIPATER

(Not to scale)



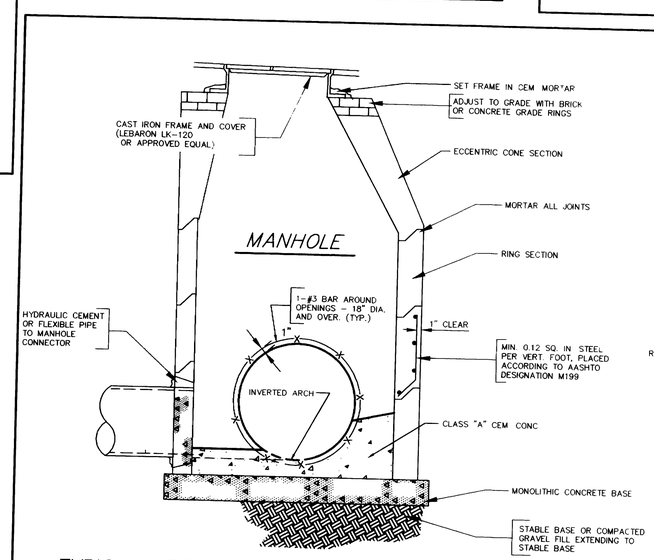
TYPICAL RECHARGER 330® SECTION

(Not to scale)



TYPICAL HYDRANT INSTALLATION

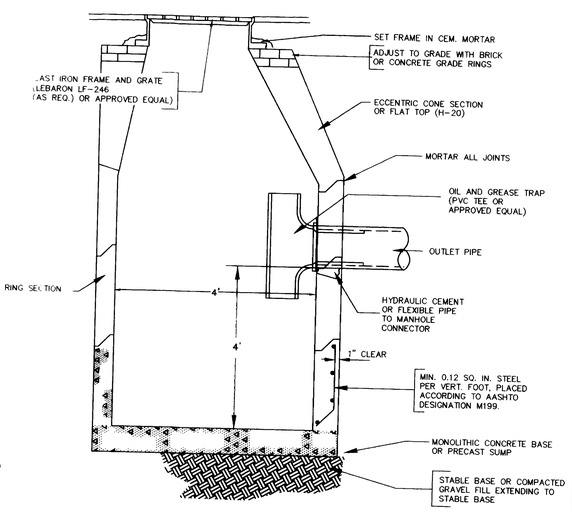
(Not to scale)



TYPICAL PROPOSED DRAINAGE STRUCTURES

(Not to scale)

MATERIALS:
CONCRETE STRENGTH 4000 PSI
REINFORCING STEEL SHALL CONFORM TO ASTM C 487-84



CATCH BASIN

DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
COVENANTS TO BE RECORDED HEREWITH.

RESERVED FOR REGISTRY USE

PLAN BOOK 393 PLAN 21
Essex Registry of Deeds Sd. Dist.
Salem, Mass.
Received November 5 1998
with Certificate Sally
C. Realty Trust Fee $
Rec. B. 15 Pl. P. 196
Register of Deeds

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 10/8/98 WENHAM PLANNING BOARD

APPLICATION FILED: 5/14/98	APPROVAL DATE: 10/8/98
HEARING DATE: 8/13/98	DATE ENDORSED: 10/8/98

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER

P.E. JULY 15, 1998
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR

R.L.S. JULY 15, 1998
Date

CLERK CERTIFICATION

I, THE CLERK OF THE TOWN OF WENHAM, MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

Frances Harte Young
TOWN CLERK
NOVEMBER 4, 1998
DATE

DETAILS

SHEET 5 of 6

AS NOTED — Scale 1"= AS NOTED

JOB NO. 9608-01 — DATE: JULY 15, 1998

revision #	date	description
1	8/14/98	WIDEN DRIVEWAY

DEFINITIVE SUBDIVISION
RESIDENTIAL OPEN SPACE COMMUNITY AT 338 GRAPEVINE ROAD IN WENHAM, MASSACHUSETTS

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET, SUITE 5 - GEORGETOWN, MA 01833
PHONE: 978-352-7870 FAX: 978-352-9940

APPLICANT: SALLY C. REALTY TRUST
MILTON R. HAMILTON, III - TRUSTEE
338 GRAPEVINE ROAD
WENHAM, MA

SITE MANAGEMENT NOTES

CONSTRUCTION SEQUENCE

GENERAL
This construction sequence provides the Contractor with an order of construction that will minimize erosion and the transport of sediments. The individual objectives of the construction process described herein shall be considered an integral component of the project design intent for each project phase. The construction sequence is not intended to prescribe definitive construction methods and shall not be interpreted as a construction specification document. The contractor shall use the construction sequence and techniques as a general guide and shall modify the suggested methods and procedures as required to best suit seasonal, atmospheric, and site specific physical constraints for the purpose of minimizing the environmental impact of construction. (See Wenham Conservation Commission Order of Conditions, dated July 13, 1998.)

SITE ACCESS
Construction site access will be confined to proposed roadway entrances at Grapevine Road.

INSTALLATION OF TEMPORARY EROSION CONTROL (TEC) DEVICES
Install TEC devices as shown on Sheet 3 and/or as otherwise required or deemed necessary by the Engineer and/or Municipal Inspector.(including Conservation Commission Agent). If necessary, selectively cut and clear an area fot the TEC devises.
In general, use of existing trees to back haybales and silt fence is encouraged.

CUTTING AND CLEARING
Clear and cut only trees that are within the limits of work for the project side slopes, drainage and paved areas. Logged timber shall be removed from the site. Tree bases and slash shall be ground and chipped and stockpiled on site for use as temporary erosion control as well as for mulch to stabilize slopes and other exposed areas.
All exposed surfaces that will not be under immediate construction shall be stabilized.

GRUBBING AND STRIPING
Inspect positioning and condition of TEC devices to assure integrity and purpose. Adjust and supplement TEC devices as necessary to assure prevention of sediment transport. Remove balance of slash and stumps from site. Consideration should be given to additional grinding and chipping for creation of mulch and chips for slope stabilization. Remove all brush, scrub and roots. Remove same from site. Remove and stockpile all topsoil upslope of TEC.
Provide a solid secure ring of haybales around the lower portion and sides of the stockpile leaving the upper side open to work from. Stabilize all exposed surfaces that will not be under immediate construction.

PROJECT ROUGH GRADING
Inspect positioning and condition of TEC devices to assure integrity and purpose. Adjust and supplement TEC devices as necessary to assure prevention of sediment transport. Perform cut and fill earthwork for project construction to rough subgrade. Remove all excess and unusable material from the site as soon as practicable. Stockpile excess material to be used in the course of construction upslope of the TEC. Stockpile imported material to be used in fill operations.
Provide a solid secure ring of haybales around the lower portion and sides of the stockpile leaving the upper side open to work from. Stabilize all exposed surfaces that will not be under immediate construction. Dress paved areas to finished level subgrade. Install stone subbase in compacted lifts. Apply water as necessary to achieve proper compaction and to control air suspension of dust.

UTILITY INSTALLATION
Inspect positioning and condition of TEC devices to assure integrity and purpose Adjust and supplement TEC devices as necessary to assure prevention of sediment transport. Install waterlines and other water appurtenances. Complete the installation of the of the drainage system. Install catch basin frames, and grates per plan
These catch basins should be set with a temporary grate setting at a grade that will allow them to receive ponded run-off. Install temporary erosion control and sediment receiving area around the catch basins. Install filter fabric between frames and grates until project completion.

PAVEMENT BASE COURSE CONSTRUCTION
Fine grade and compact stone subbase to design grades. Install pavement base course.
Upon completion of base course, restore haybale rings around catch basins receiving run-off. Maintain same.

FINISHED SLOPE CONSTRUCTION, FINISHED GRADING, SLOPE STABILIZATION, TOPSOIL AND SEEDING
Inspect positioning and condition of TEC devices to assure integrity and purpose. Adjust and supplement TEC devices as necessary to assure prevention of sediment transport. Complete all finished grading and slope construction including all grass and rip-rap slopes. Apply loam and seed and stabilize all exposed surface areas and slopes.

DRAINAGE SYSTEM
Install remainder of drainage system making final adjustments as necessary for all catch basin frames, and grates. Clean and remove any sediment from all catch basins and drainlines. Install all hoods and grease traps in catch basins.

UTILITY SYSTEM COMPLETION
Install all utility system appurtenances.

FINISHED PAVING
Inspect positioning and condition of TEC devices to assure integrity and purpose. Adjust and supplement TEC devices as necessary to assure prevention of sediment transport. Repair any damaged side slopes, curbs, other. Adjust all main and service appurtenance features to finished grade. Adjust any drainage structures as necessary to finished grade. Install finish surface course of paving.

FINAL CLEAN-UP
Clean Inverts of culverts and catch basins Remove sediment and debris from site.
Repair side slopes as necessary. Remove all construction debris from site. Remove all TEC devices in areas where permanent vegetation and erosion control has been established. Secure and supplement TEC devices in areas where permanent vegetation and erosion control has yet to be established. Install signs and pavement markings as applicable. Install plantings, supplement finished loam and seeding as required.

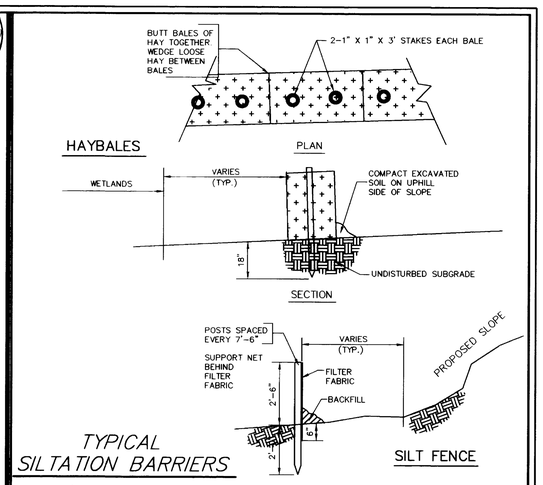
Operation\Maintenance Plan

DRAINAGE SYSTEM BMPs

OPERATION
The owner of the site is the party responsible for the operation and maintenance of the catchbasins, manholes, and drainage swales until acceptance by the town

CATCHBASIN
The Catchbasin grate should be inspected monthly and cleaned if neccessary
The Catchbasin sump should be inspected early Spring and late Summer, if less than three feet clear below invert sump should be cleaned.

DRAINAGE SWALES
The drainage swales should be inspected early Spring and late Summer. Check the bottom of the swale and check the energy dissipators.



BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION AND SEDIMENTATION CONTROL

GENERAL
The BMP's to be used during project construction are to prevent the generation of erosion products and their transport to environmentally and off-site sensitive areas. Environmentally and off-site sensitive areas include all designated resource areas, those areas of the site that do not need to be altered for development purposes, the designated perimeter buffer zones and all off-site abutting properties and roadways.

The primary BMP is to maintain an organized, smooth flowing and rapid Construction Sequence as outlined. Coupled with the continuous monitoring of TEC devices and their integrity, this rapid construction process should result in prompt stabilization of surfaces thereby reducing erosion potential. The Contractor is responsible to maintain the Construction Sequence subject to seasonal, atmospheric and site specific physical constraints.

A second important BMP is the prevention of concentrated water flow. Sheet flow does not demonstrate the erosive potential of concentrated channels. The Contractor is therefore encouraged to apply construction methods which will promote sheet flow with concentrated shallow channel flow paths only as necessary.

The Contractor shall be solely responsible for erosion and sedimentation control on site. The Contractor shall use a method of operation and construction and all necessary erosion and sedimentation control measures even if not specified herein or on the plans, to minimize erosion damage on and off site. The BMP's to follow should be used as a guide for erosion and sedimentation control and do not replace the practice of good judgement, common sense and thoughtful environmentally sensitive construction practices.

BMP'S DURING CONSTRUCTION

CUTTING AND CLEARING
Vehicles used in the wood clearing process shall not travel through running water
As the clearing process continues, the movement of vehicles shall be limited, as much as possible, to the area of development.
Trees shall be felled directly down or up slope to prevent the diversion and concentration of storm water runoff around the trunks.
Wheel ruts shall be filled in and graded to prevent concentration of storm water runoff.
Vehicle tracks leading downhill shall be blocked during period of intense precipitation by haybales, dikes or sill fences which shall be constructed to entrap the sediment.
All timber and cord wood shall be used for its value; consideration shall be given to chipping of brush and branches that generate wood chip mulch for the use in stabilization of disturbed surfaces. No spoil (e.g., tree stumps) shall be disposed of by burying.

GRUBBING, STRIPPING AND GRADING
Erosion control devices shall be in place as shown on the design plans before grading commences.
As much topsoil as possible shall be reclaimed for on-site use.
No topsoil shall leave the site without permission.
Striping shall be done in a manner which will not concentrate runoff. If precipitation is expected, earthen berms shall be constructed around the area being stripped, with a silt fence or haybale dikes located in an arc at the low point of the berm.
If intense precipitation is anticipated, haybales, dikes and/or silt fences shall be used as required to prevent erosion and sediment transport. The materials required shall be stored on site at all times.
If water is required for soils compaction, it shall be added in a uniform manner that does not allow excess water to flow off the area being compacted.
Dust should be held at a minimum by sprinkling exposed soil with an appropriate amount of water.

MAINTENANCE OF DISTURBED SURFACES
Runoff shall be diverted from disturbed side slopes in both cut and fill.
Mulching may be used for temporary stabilization.
Haybale dikes or silt fences shall be set where required to trap products of erosion and shall be maintained on a continuing basis during the construction process.

LOAMING
Loaming and seeding of slopes shall be an ongoing construction process and is not limited to any one phase of construction.
Loam shall not be placed unless it is to be seeded directly thereafter.
All disturbed areas shall have a minimum of 4" of loam placed before being seeded and mulched.
Consideration should be given to hydro-mulching, especially on slopes in excess of 3 to 1.
Loamed and seeded slopes shall be protected from washout by mulching or other acceptable slope protection until vegetation beings to grow.

STORM WATER COLLECTION SYSTEM INSTALLATION

The storm water drainage system shall be installed in a manner which will not allow run-off from disturbed areas to enter pipes.
Outlet rip-rap shall be placed immediately upon the installation of the associated pipe. Areas in the vicinity of outfalls shall be stabilized with vegetation.
Excavations for the drainage system shall not be left open when rainfall is expected overnight. If left open under other circumstances, pipe ends should be closed by a staked board or by an equivalent method. .
All catch basin openings shall be covered by filter fabric placed between the grate and the frame and protected from heavy sediment by staked haybales surrounding the catch basin grate.

COMPLETION OF PAVED AREAS
During the placement of subbase and pavement, the entrances to the storm water drainage system shall be sealed if rain is expected. When these entrances are closed, consideration must be given to the direction of runoff and measures shall be undertaken to minimize erosion and to provide for the collection of sediment.
In some situations it may be necessary to keep catch basins open. Appropriate arrangements shall be made downstream to remove all sediment deposition.

STABILIZATION OF SURFACES
Stabilization of surfaces shall be an ongoing process.
Stabilization of surfaces includes the placement of pavement, rip rap, wood bark mulch and the establishment of vegetated surfaces.
Upon the completion of construction. all surfaces shall be stabilized even though it is apparent that future construction efforts will cause their disturbance.
Vegetated cover shall be established during the proper growing season and should be enhanced by soils adjustment for proper pH, nutrients and moisture content.
Surfaces that are disturbed by erosion processes, vandalism or by construction shall be stabilized as soon as possible.
Hydro-mulching of grass surfaces is recommended, especially it seeding of the surfaces is required outside the normal growing season.
Hay mulch, if used, must be properly secured.

BMP'S POST-CONSTRUCTION

DRAINAGE SWALES
After construction is complete and all slopes are stabilized by the full establishment of vegetative cover, all swales are to be periodically inspected and any accumulation of sedimentation are to be removed.

SUGGESTED SEEDING MIXTURE AND APPLICATION RATE
The seed bed should be prepared by conducting a soils test and fertilizing as required When a soils test is not available, the following minimum amount should be applied:

Limestone, 2 tons per acre
Nitrogen, (N). 40 lb. per acre or 1 lb. per 1000 square feet.
Phosphate (P205) 80 lb. per acre or 2 lb. per 1000 square feet.
Pot Ash (K20) 80 lb. per acre or 2 lb. per 1000 square feet

The following seed mix (State Slope Mix) shall be applied at the rate of 200 lb per acre

50% Creeping Red Fescue	5% Red Top
30% Kentucky Tall Fescue	5% Lindino Clover
10% Annual Rye	

Alternate seed mix near wetland areas shall be as stipulated by the Conservation Commission in the "Order of Conditions" for the site.

Seed should be spread uniformly by the method most appropriate for the site Methods include broadcasting, drilling and hydro-seeding Hydro-seeding is the preferred method of seeding. The soil should be rolled or packed after seeding if possible. All legumes (Crown Vetch, Birdsfoot Trefoil and Clovers) must be inoculated.
Once seeded areas have been mulched, plantings may be placed from early Spring to late October
If seeded areas are not mulched, planting should be made from early Spring to June 20th or between August 1st and September 15th. Plantings made after mid-November must be mulched
If required, hay, straw or other mulch should be applied immediately after seeding. For hydro--seeding, a tackifier heavy mulch at the rate of 1500 lb. per acre shall be applied.
Planted areas should be protected from damage. Fertilization requirements during the establishment period may be determined by on-site inspections.

CONSTRUCTION SITE MANAGEMENT

GENERAL
In addition to the storm water management and erosion control methods discussed above, responsible construction site management is required to minimize the transport of sediment and non-sediment related pollutants from entering storm water runoff.

EQUIPMENT AND VEHICLE MANAGEMENT

MAINTENANCE

Specific areas shall be designated for equipment and vehicle maintenance and repair Maintenance areas shall include appropriate waste receptacles for spent gasoline, oil, grease, and solvents

WASHDOWN
Specific areas shall be designated for equipment and vehicle washdown. Washdown areas shall be located on sections of the site that drain to regularly maintained sediment and non-sediment pollution control devices designed to accommodate such discharges.

DUST AND MUD CONTROL
The contractor shall provide positive controls to minimize raising dust from construction activities or this site.

MATERIAL STORAGE AND USE

PESTICIDES
Pesticides shall be stored in a dry area that is protected from precipitation. Pesticides shall be handled as infrequently as possible The manufacturers' recommendations as well as all applicable local, State, and federal regulations shall be strictly followed when pesticides are handled.

FERTILIZERS
Application of fertilizer shall be limited to minimum required area and amount. More frequent, lower applications are preferable to infrequent high application rates. After application, fertilizer shall be worked into the soil where feasible.

PETROLEUM PRODUCTS
Fueling vehicles and petroleum products including oil, gasoline, lubricants, and asphaltic materials shall be stored in covered areas where feasible. Routinely maintain on-site equipment and vehicles to prevent leakage of gas, oil or lubricants.

HAZARDOUS MATERIALS
Hazardous materials include but are not limited to paints, acids, solvents, soil stabilization chemicals, concrete admixtures and other materials that have been mixed with hazardous substances. All hazardous materials shall be stored in a dry area protected from precipitation. The manufactures' recommendations as well as all applicable local, State, and federal regulations shall be strictly followed when hazardous materials are handled, transported, applied, or disposed of.

RAW MATERIALS
Storage areas for raw materials used in construction that can be carried by storm water runoff shall be located only in areas which drain to retention-type sedimentation control devices.

WASTE DISPOSAL

CONSTRUCTION WASTE
Construction waste may include but is not limited to trees, stumps, shrubs, scrap or surplus building materials, demolition material, and packaging material.
Designated waste collection areas shall be established at locations convenient to site workers.
Receptacles shall be of adequate capacity to hold waste accumulated between collection times.
Receptacles shall be covered or otherwise protected from precipitation.

WASTE CONCRETE
Excess concrete and washwater from concrete trucks shall be disposed of in a manner that prevents contact between these materials and storm water that shall be used to contain waste concrete and washwater until it hardens and can be properly disposed of.

SANITARY FACILITIES
Temporary sanitary facilities shall be provided on-site in convenient locations to site workers.
Sanitary facilities shall be adequately maintained to prevent contact between associated wastes and storm water runoff

DEEDS OF EASEMENTS TO BE RECORDED HEREWITH.
COVENANTS TO BE RECORDED HEREWITH.

RESERVED FOR REGISTRY USE
PLAN BOOK 330 PLAN 21
ESSEX REGISTRY OF DEEDS, SO. DIST. SALEM, MASS.
Received November 5 1998
with Sally C. Realty Trust
Rec B 15521 P 196
Attest: Joh B Bentz
Register of Deeds

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.
DATE 10/8/98 WENHAM PLANNING BOARD

APPLICATION FILED: 5/14/98	APPROVAL DATE: 10/8/98
HEARING DATE: 8/13/98	DATE ENDORSED: 10/8/98

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER
P.E. JULY 15, 1998
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR
R.L.S. JULY 15, 1998
Date

CLERK CERTIFICATION

I, THE CLERK OF THE TOWN OF WENHAM, MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Frances Harte Young
TOWN CLERK
November 4, 1998
DATE

BEST MANAGEMENT PRACTICES

SHEET 6 of 6

JOB NO. 9608-01 | DATE: JULY 15, 1998

revision #	date	description

DEFINITIVE SUBDIVISION
RESIDENTIAL OPEN SPACE COMMUNITY
AT 338 GRAPEVINE ROAD IN WENHAM, MASSACHUSETTS

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET, SUITE 5 - GEORGETOWN, MA 01833
PHONE: 978-352-7870 FAX: 978-352-9940

APPLICANT: SALLY C. REALTY TRUST
MILTON R. HAMILTON, III - TRUSTEE
338 GRAPEVINE ROAD
WENHAM, MA

EXHIBIT G

D'Ambrosio Way

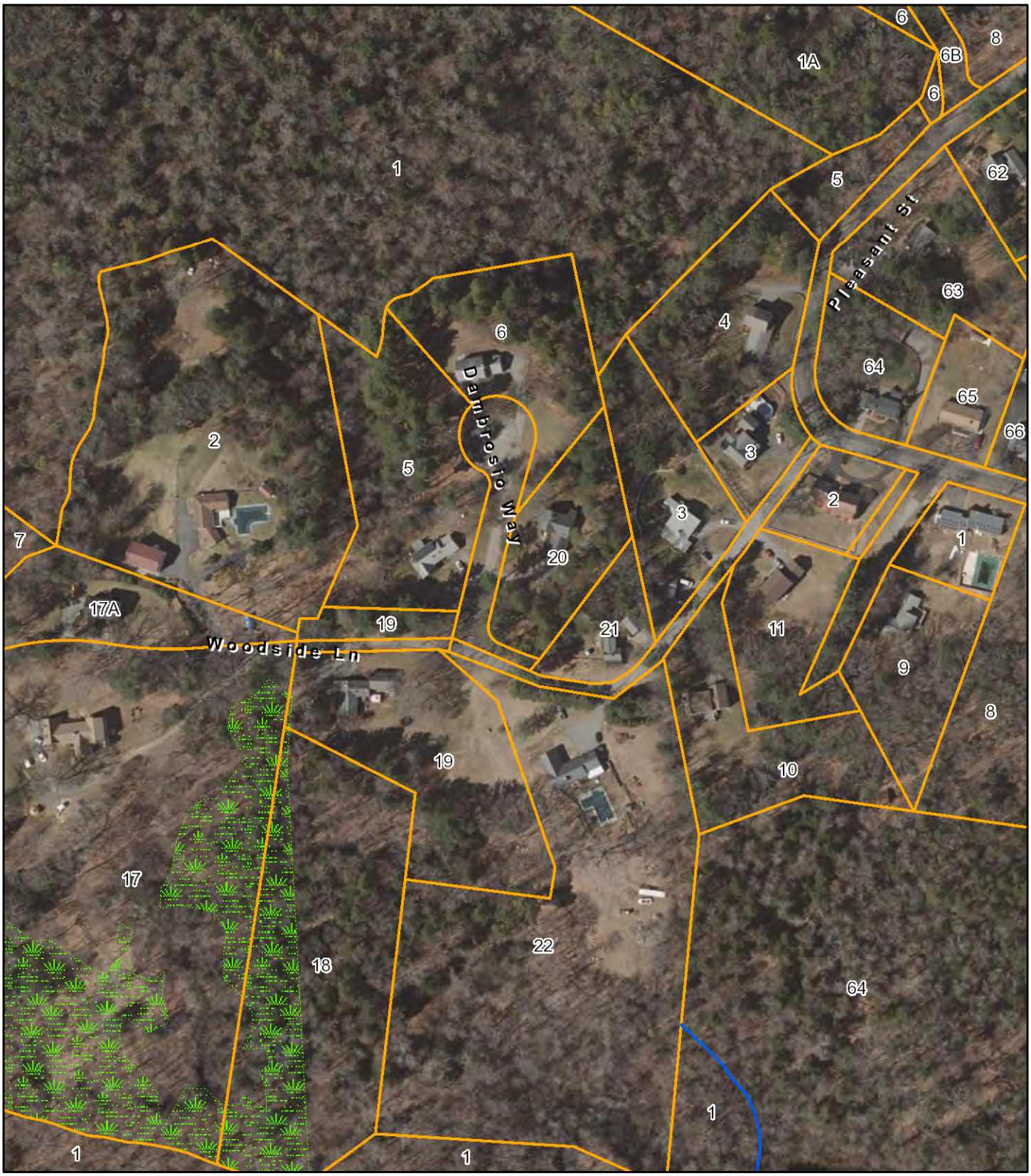
Wenham, MA

1 inch = 200 Feet

January 9, 2022

0 200 400 600

www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

52/222 3 P/S

WENHAM SWAMP

MASSACHUSETTS AUDUBON SOCIETY

MERIDIAN FROM PLAN 548 OF 1972

WENHAM SWAMP

MARION P. D'AMBROSIO
REMAINING AREA
= 3.96 ± AC.

LOT 3
TOTAL AREA = 57,338 ± S.F.
AREA ABOVE FLOOD PLAIN ZONE
= 40,150 ± S.F.
AREA ABOVE WETLAND ZONE
= 44,623 ± S.F.

LOT 2
TOTAL AREA = 76,535 ± S.F.
AREA ABOVE FLOOD PLAIN ZONE = 40,117 ± S.F.
AREA ABOVE WETLAND ZONE
= 45,128 ± S.F.

LOT 1
TOTAL AREA = 41,780 ± S.F.
AREA BELOW FLOOD PLAIN ZONE = 240 ± S.F.

ALBERT H. NASH

DUANE P. & PERSIS S. BLANCHARD

CHARLES S. & MARIE J. FOX (TRUSTEES)
WOODSIDE REALTY TRUST

ERNEST E. & LOIS H. YEO

MARGARET R. DUNN

DANIEL E. SNAVELY

DONALD & DEBORAH PIOTROWSKI

DAVID C. & PHYLLIS G. SULLIVAN

WOODSIDE WAY

D'AMBROSIO WAY

PRIVATE WAY (SEE PLAN REC. IN PL. BK. 106, PL. 2)

PRESENT PROPERTY LINE

37' WETLAND ZONE CONTOUR

40' FLOOD PLAIN ZONE CONTOUR

EDGE OF BORDERING VEGETATED WETLAND

DETAIL
NOT TO SCALE

S 85° 35' 13" E 215.15

N 26° 09' 29" W 191.1±

N 06° 08' 25" W 304.1±

S 51° 53' 23" E 300.00

S 04° 29' 47" E 193.00

S 57° 08' 52" W 201.21

N 71° 48' 40" W 205.00

N 53° 31' 16" W 130.65

N 53° 13' 20" W 65.69

N 33° 13' 20" W 136.32

N 65° 38' 20" W 109.33

N 31° 22' 00" E 170.00

S 31° 22' 00" W 184.96

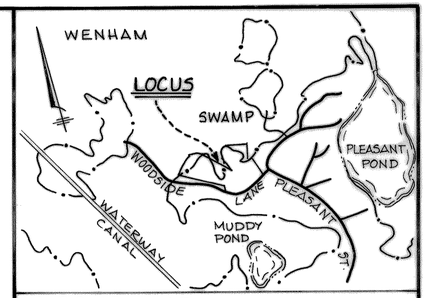
N 39° 10' 00" E 140.00

S 53° 41' 26" W 227.29

L = 142.54
L = 268.67
L = 116.13
R = 57.50
R = 25.00
R = 25.00
L = 35.70
L = 34.36
R = 25.00
L = 34.36

FOR REGISTRY USE
PLAN BOOK 222 PLAN 52
REGISTRY OF DEEDS, SO. DIST. SHELBY, MASS.
Received Feb 25 1987
with Cert Apr
Town of Wenham
Rec. B 8815 P 248
Attest:
Register of Deeds
3 P/S

I CERTIFY, UNDER MASS. G.L., CHAP. 41, SEC 81X, THAT NO APPEAL WAS FILED WITHIN TWENTY (20) DAYS AFTER NOTICE OF APPROVAL WAS RECEIVED.
DATE: Oct 11, 1986
WENHAM TOWN CLERK:



LOCUS MAP SCALE: 1" = 1000'

ASSESSORS: MAP 6, LOT 2; MAP 11, LOT 20

ZONING: RESIDENTIAL

NOTES:
1. LAND OWNED BY MARION D. D'AMBROSIO BY DEED RECORDED 5285/562.
2. LAND OWNED BY DAVID C. & PHYLLIS G. SULLIVAN BY DEED RECORDED 6549/608.
3. EASEMENT AGREEMENT DATED SEPT. 11, 1986, IS TO BE RECORDED HEREWITH.
4. PLANNING BOARD - TOWN OF WENHAM (FORM H), COVENANT DATED SEPT. 11, 1986, IS TO BE RECORDED HEREWITH.

WENHAM PLANNING B'D.
APPLICATION FILED 6/19/86
FINAL PLAN FILED 7/10/86
HEARING DATE 8/19/86
PLAN APPROVED 9/19/86

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS
July 19, 1986
FRANK C. HANCOCK No. 431

DEFINITIVE SUBDIVISION PLAN OF LAND IN
WENHAM, MA.
PREPARED FOR
MARION D. D'AMBROSIO

DATE: JULY 10, 1986 SCALE: 1" = 40'

0 10' 20' 40' 80' 160'

HANCOCK SURVEY ASSOCIATES INC.
69 HOLTEN ST. · DANVERS, MASSACHUSETTS 01923
SHEET 1 OF 3 JOB No. 2923

52/222 3P/S

WENHAM SWAMP

MASSACHUSETTS AUDUBON SOCIETY

PLAN SKD 1972

37' WETLAND ZONE CONTOUR

37' WETLAND ZONE CONTOUR

WENHAM SWAMP

MARION P. D'AMBROSIO

REMAINING AREA = 3.96 ± AC.

EDGE OF VEGETATED WETLANDS

LOT 3

ALBERT H. NASH

DUANE P. & PERSIS S. BLANCHARD

CHARLES S. & MARIE J. FOX, (TRUSTEES) WOODSIDE REALTY TRUST

40' FLOODPLAIN ZONE CONTOUR

LOT 2

LOT 1

PROPOSED R.C. PIPE END INV. 38.0

EXISTING EASEMENT

BENCHMARK HYDRANT EL. 45.55

RIGHT OF WAY

WOODSIDE WAY

D'AMBROSIO

ERNEST E. & LOIS H. YEO

400'± TO PLEASANT ST.

LANE

MARGARET R. DUNN

DANIEL E. SNAVELY

END WIDENING & PAVING OF ROAD HERE.

GRAVEL ROAD

DONALD & DEBORAH PIOTROWSKI

PROP. DMH R 41.5± I 38.2

PROP. C.B. R 45.0± I IN 40.2 I OUT 40.1

PROP. C.B. R 45.5± I 40.5

END OF PAVED ROAD

BEGIN WIDENING & PAVING OF ROAD HERE (SEE NOTE 7)

PAVED ROAD

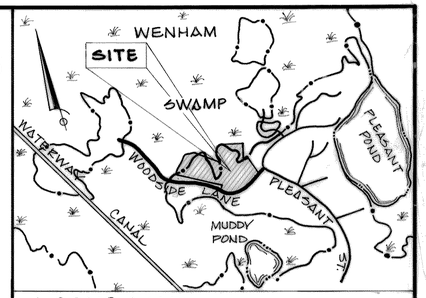
DRIVEWAY

DAVID C. & PHYLLIS G. SULLIVAN

BARBARA L. HENDERSON

LEGEND:

- EXISTING ELEVATION CONTOUR
- PROPOSED ELEVATION CONTOUR
- 53.2 EXISTING SPOT ELEVATION
- 45.2 PROPOSED SPOT ELEVATION
- PROPOSED CATCH BASIN, 12" R.C. STORM DRAIN, & DRAIN MANHOLE
- PROPOSED R.C. PIPE END & RIPRAP APRON
- EXISTING 8" WATER MAIN & FIRE HYDRANT
- PROPOSED 8" C.L.D.I. WATER MAIN, GATE VALVE, & FIRE HYDRANT
- FLAGGED EDGE OF BORDERING VEGETATED WETLAND
- 37' TOWN OF WENHAM WETLAND ZONE CONTOUR
- 40' TOWN OF WENHAM WETLAND ZONE CONTOUR
- T-2-2 DEEP SOIL OBSERVATION TEST



LOCUS MAP

SCALE: 1" = 1000'

NOTES:

1. ROADWAY AND UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SUBDIVISION RULES AND REGULATIONS OF THE TOWN OF WENHAM AND THE SUPERINTENDENT OF STREETS EXCEPT AS PROVIDED BY WAIVERS.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE MEAN SEA LEVEL (N.G.V.D. DATUM).
3. ALL UTILITIES, STRUCTURES AND FEATURES SHOWN ARE EXISTING UNLESS SPECIFIED.
4. ALL UNDERGROUND UTILITY LOCATIONS WERE USED BY USING AVAILABLE RECORDS AND SHOULD BE CONSIDERED APPROXIMATE ONLY.
5. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" AT 1-800-322-4844 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATING. EXTREME CARE MUST BE TAKEN IN AREAS NEAR EXISTING WATER MAIN.
6. ALL REINFORCED CONCRETE DRAIN PIPE SHALL BE 12" Ø CLASS III.
7. WOODSIDE LANE FROM THE BOUNDARY OF DANIEL SNAVELY TO D'AMBROSIO'S DRIVEWAY SHALL BE WIDENED TO 16 FEET AND PAVED WITH 4" OF BITUMINOUS CONCRETE (2½" BINDER COURSE & 1½" TOP COURSE).

WENHAM PLANNING BD.	APPLICATION FILED 5/19/86.
	FINAL PLAN FILED 7/10/86
	HEARING DATE 8/14/86
	PLAN APPROVED 9/12/86

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

July 10, 1986
DATE

F.C. Hancock

COMMONWEALTH OF MASSACHUSETTS FRANK C. HANCOCK No. 10831 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS FRANK C. HANCOCK No. 7006 REGISTERED LAND SURVEYOR

Frank C. Hancock

FOR REGISTRY USE

PLAN BOOK 222 PLAN 52

ESSEX No. DISTRICT OF DEEDS, SO. DIST.

Received Feb 25 1987

with certificate

Town of Wenham et al Rec. B 8815 P 248

Attest: John B. Crosby

Register of Deeds

3P/S

DEFINITIVE SUBDIVISION

PLAN OF LAND IN WENHAM, MA.

PREPARED FOR

MARION D. D'AMBROSIO

DATE: JULY 10, 1986 SCALE: 1" = 40'

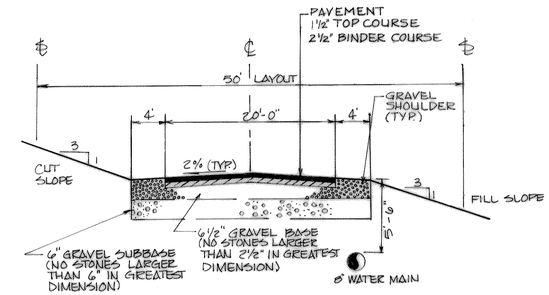
0 10 20 40 80 160

HANCOCK SURVEY ASSOCIATES, INC.

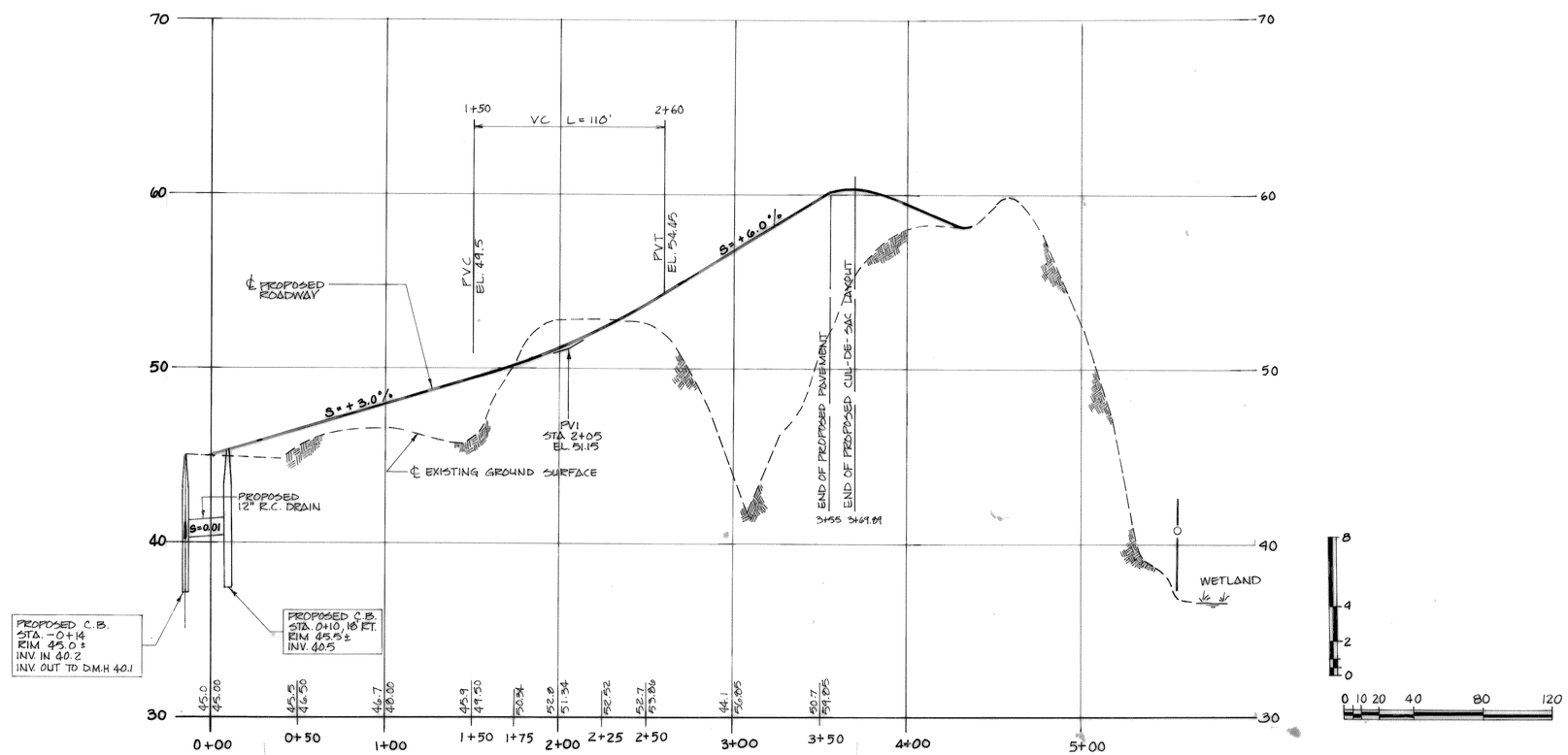
69 HOLTEN ST. · DANVERS, MASSACHUSETTS 01923

SHEET 2 OF 3 JOB No. 2923

52/222
3 P/S



LOCAL STREET (WITH WAIVERS)
TYPICAL CROSS SECTION
NOT TO SCALE



PROFILE ~ PROPOSED LOCAL STREET
HORIZ. SCALE: 1" = 40' ~ VERT. SCALE: 1" = 4'

D'AMBROSIO WAY

WENHAM PLANNING B'D.	APPLICATION FILED 6/19/86
	FINAL PLAN FILED 7/19/86
	HEARING DATE 8/14/86
	PLAN APPROVED 9/18/86
I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS. July 11, 1986 DATE F. C. Hancock	

FOR REGISTRY USE

PLAN BOOK 222 PLAN 52
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received Feb 26, 1987
with Cert apvl.
Town of Wenham sal
Rec B8815 P 248
Attest: J. J. O'Brien
Register of Deeds
3 P/S

DEFINITIVE SUBDIVISION
PLAN OF LAND IN
WENHAM, MA.
PREPARED FOR
MARION D. D'AMBROSIO

DATE: JULY 10, 1986 SCALE: 1" = 40'

COMMONWEALTH OF MASSACHUSETTS FRANK C. HANCOCK No. 10631 REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS FRANK C. HANCOCK No. 7606 REGISTERED PROFESSIONAL LAND SURVEYOR
F. C. Hancock

HANCOCK SURVEY ASSOCIATES, INC.
69 HOLTEN ST. • DANVERS., MASSACHUSETTS, 01923
SHEET 3 OF 3 JOB No 2923

EXHIBIT H

Nathaniel Circle

Wenham, MA

1 inch = 200 Feet

January 9, 2022

0 200 400 600

www.cai-tech.com

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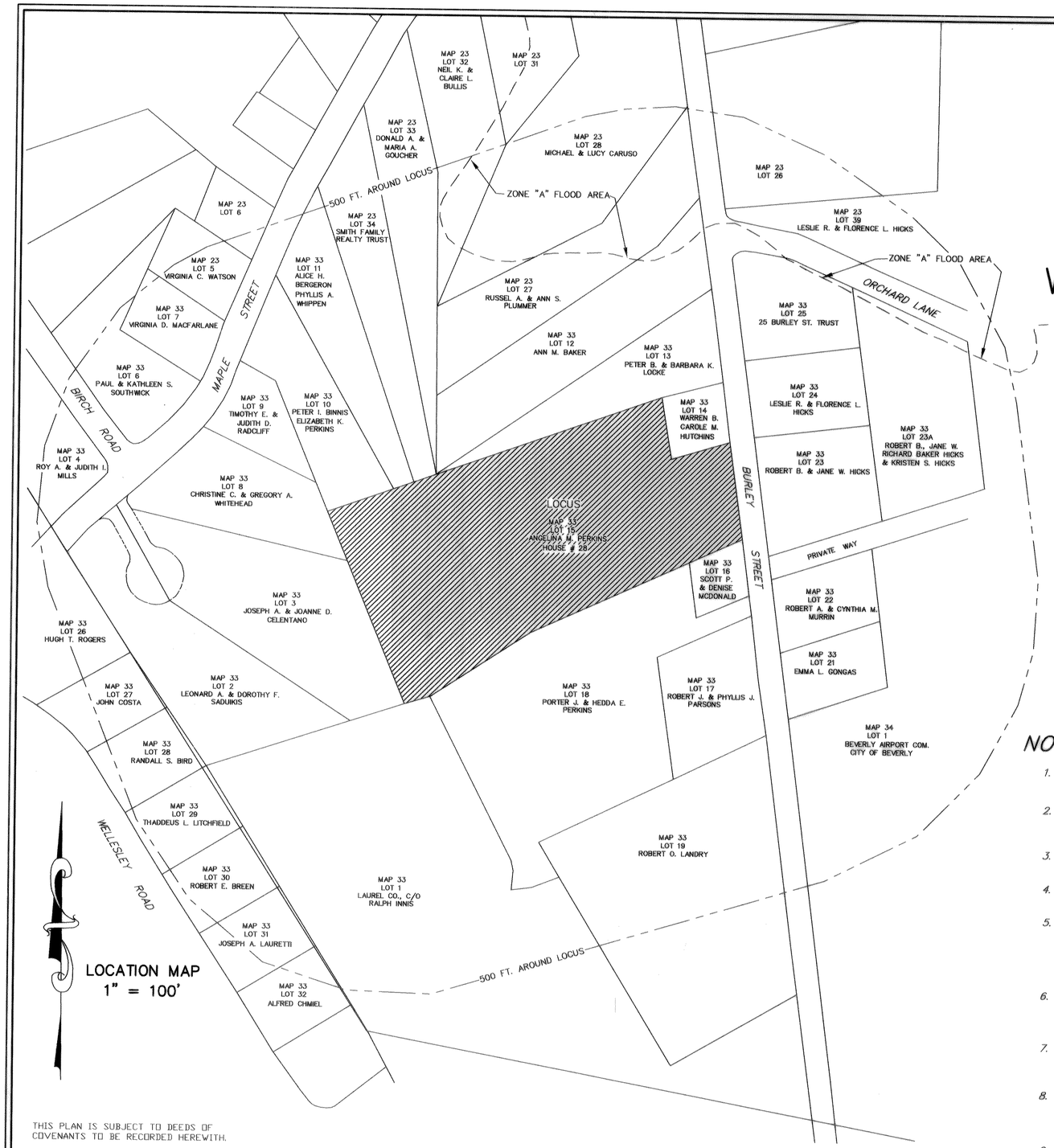
15
312 5 Pls

DEFINITIVE SUBDIVISION AT NATHANIEL CIRCLE WENHAM, MASSACHUSETTS

PLAN BOOK 312 PLAN 15
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 12 1996
with
Rec'd B P
Attest: John L. O'Brien Jr. 5 Pls
Register of Deeds

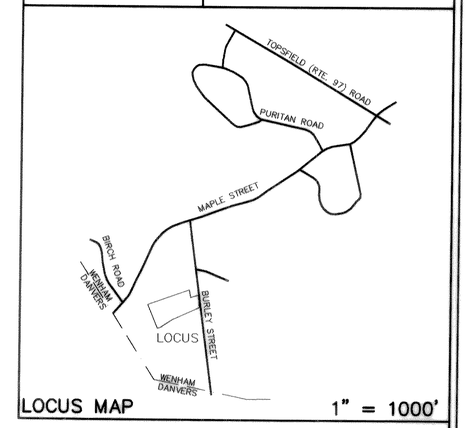


LOCATION MAP
1" = 100'

THIS PLAN IS SUBJECT TO DEEDS OF COVENANTS TO BE RECORDED HEREWITH.

PLAN INDEX

SHEET 1 – INDEX SHEET
SHEET 2 – PLAN OF LOTS
SHEET 3 – TOPOGRAPHICS & PROFILES
SHEET 4 – DETAILS
SHEET 5 – DETAILS



LOCUS MAP 1" = 1000'

SITE DATA

ASSESSOR'S MAP 33, LOT 15

DEED REF: BOOK 4,502, PAGE 517

OWNER: ANGELINA M. PERKINS
28 BURLEY STREET, WENHAM, MA.

ZONING DISTRICT – RESIDENTIAL
AREA = 40,000 S.F.
FRONTAGE = 170 FT.
LOT WIDTH = 100 FT. MIN.
SETBACKS – FRONT = 20 FT.
SIDE = 15 FT.
REAR = 15 FT.

LEGEND

EXISTING CONTOUR	100
PROPOSED CONTOUR	100
EXISTING WATER LINE	EW EW
PROPOSED WATER LINE	PW PW
EXISTING HYDRANT	
PROPOSED HYDRANT	
PROPOSED GATE VALVE	8"X8"X8" OR 12"X12"X8"
ENERGY DISSIPATOR	
PROPOSED DRAIN MANHOLE	DMH
PROPOSED FLARED END SECTION	FE
REINFORCED CONCRETE PIPE	RCP
PROPOSED BITMINOUS TYPE II BERM	
EXISTING STONE WALL	
EXISTING EDGE OF PAVEMENT	
EXISTING SPOT ELEVATION	100x0
PROPOSED SPOT ELEVATION	100.0
PROPOSED BOUND	
EXISTING BOUND	
CENTERLINE / STATION	1+00 2+00
PROPOSED SILTATION BARRIER	
EXISTING WETLAND	BVW BVW BVW
100' BUFFER LINE	
TEST PIT	

NOTES

1. THIS SUBDIVISION AS PROPOSED CONSISTS OF 3 SINGLE FAMILY HOUSE LOTS.
2. ALL LOTS WILL HAVE AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS. THE EXISTING HOUSE ON LOT 1 IS SERVICED BY AN EXISTING SYSTEM.
3. TOWN WATER WILL BE INSTALLED IN THE STREETS AS INDICATED.
4. ELEVATIONS SHOWN ARE ON N.G.V.D. DATUM.
5. ALL INSTALLATIONS, CONSTRUCTION AND CONSTRUCTION MATERIALS SHALL, IN ALL RESPECTS, CONFORM TO THE GOVERNING RULES AND REGULATIONS OF THE WENHAM PLANNING BOARD.
6. ALL EXISTING UNDERGROUND UTILITIES WERE DETERMINED FROM AVAILABLE RECORDS AND SHOULD BE CONSIDERED APPROXIMATE.
7. THE CONTRACTOR SHALL CALL DIG-SAFE AT 1-800-322-4844 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION.
8. GAS, TELEPHONE, CABLE AND ELECTRIC UTILITIES SHALL BE INSTALLED AS SPECIFIED BY THE RESPECTIVE UTILITY COMPANY.
9. PROPOSED GRADING IS SHOWN FOR ROADWAY ONLY.

BENCH MARK
WATERGATE IN FRONT OF HYDRANT 90'± SOUTH OF LOCUS ON THE EASTERLY SIDE OF BURLEY STREET.
EL=102.71' (N.G.V.D. DATUM)

THIS SITE IS NOT IN A FEMA FLOOD ZONE AS DETERMINED BY THE FLOOD INSURANCE RATE MAP NO. 250107 0001 C, DATED AUG. 19, 1991.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.
David C. Wade
Mary E. Wells
Hilary J. Bok
DATE 9/12/96 WENHAM PLANNING BOARD

APPLICATION FILED:
HEARING DATE:
APPROVAL DATE:
DATE ENDORSED:

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM, MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Frances Hulte Young
TOWN CLERK
October 12, 1996
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.
PL. BK. 88 PL. 58
PL. 713 OF 1955
PL. 66 OF 1957
PL. 65 OF 1957
PREVIOUS DEFINITIVE SUBDIVISION PLAN DATED OCT. 3, 1988 BY T&M ENGINEERING ASSOC., INC. APPROVED BY THE PLANNING BOARD ON NOV. 10, 1988 BUT NEVER SIGNED OR RECORDED.

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER
P.E.
MAY 15,1996
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR
P.L.S.
MAY 15, 1995
Date

INDEX SHEET

SHEET 1 of 5

AS NOTED
Scale: 1"= AS NOTED

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET – SUITE 5 – GEORGETOWN, MA 01833
TELEPHONE (508) – 352-7870

JOB NO. 9601-01 DATE: MAY 15, 1996

revision #	date	description

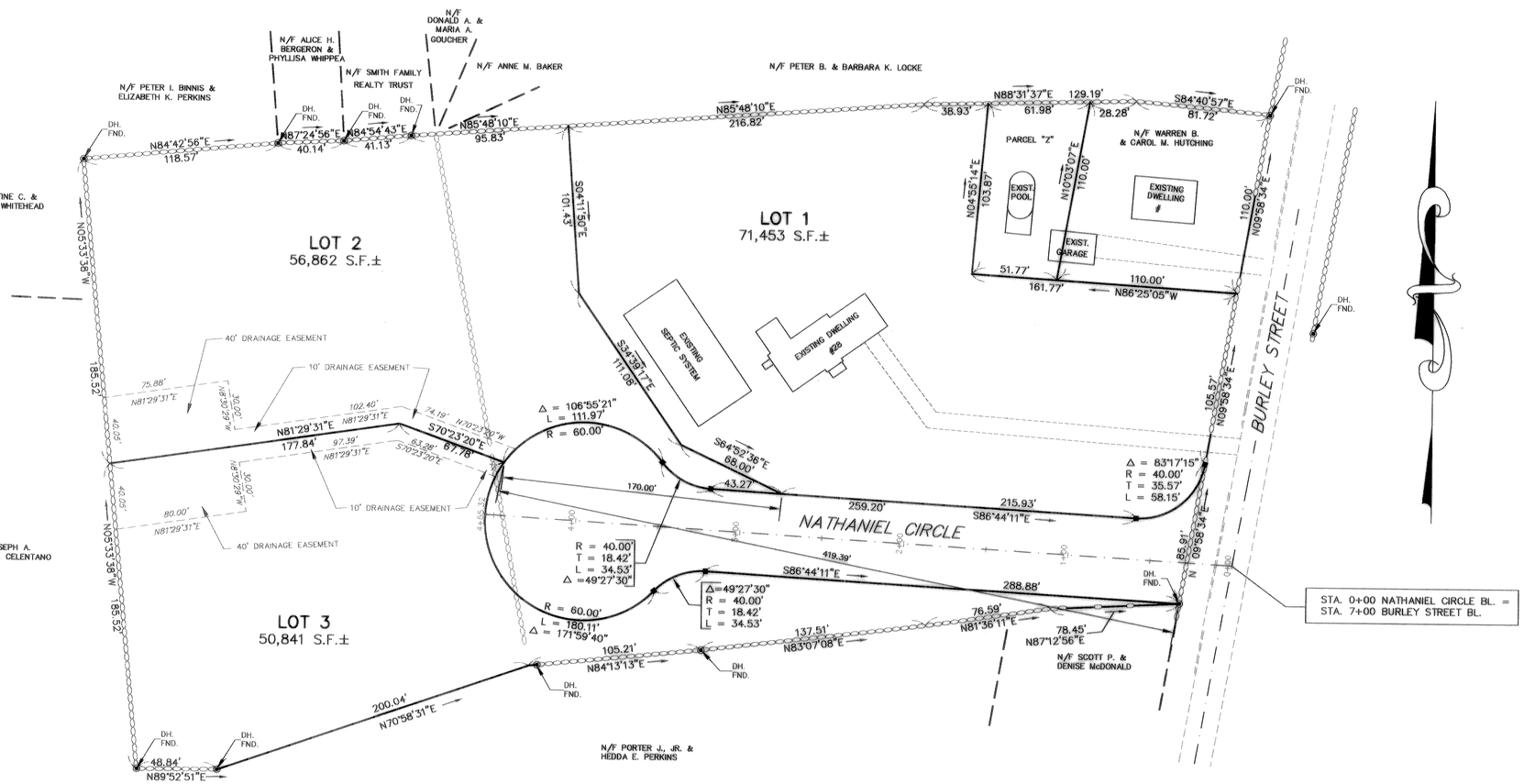
DEFINITIVE SUBDIVISION AT NATHANIEL CIRCLE IN WENHAM, MASSACHUSETTS

OWNER: ANGELINA M.PERKINS
28 BURLEY STREET
WENHAM, MASSACHUSETTS

15
312 5 Pls

PLAN BOOK 312 PLAN 15
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 12, 1996
with
Rec. B P
Attest:
Register of Deeds 5 Pls

NOTE:
PARCEL "Z" IS NOT TO BE CONSIDERED AS AN INDIVIDUAL BUILDING LOT. IT IS TO BE DEEDED TO WARREN B. AND CAROL M. HUTCHING TO FORM ONE LOT.



THIS PLAN IS SUBJECT TO DEEDS OF COVENANTS TO BE RECORDED HEREWITH.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 9/12/96 WENHAM PLANNING BOARD

APPLICATION FILED:
HEARING DATE:
APPROVAL DATE:
DATE ENDORSED:

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
TOWN CLERK
OCTOBER 18, 1996
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.
PL. BK. 88 PL. 58
PL. 713 OF 1955
PL. 66 OF 1957
PL. 65 OF 1957
PREVIOUS DEFINITIVE SUBDIVISION PLAN DATED OCT. 3, 1988 BY T&M ENGINEERING ASSOC., INC. APPROVED BY THE PLANNING BOARD ON NOV. 10, 1988 BUT NEVER SIGNED OR RECORDED.

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER
P.E.
MAY 15, 1996
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR
P.L.S.
MAY 15, 1996
Date

PLAN OF LOTS

SHEET 2 of 5

40 0 40 80
Scale: 1"= 40'

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET – SUITE 5 – GEORGETOWN, MA 01833
TELEPHONE (508) – 352-7870

JOB NO. 9601-01 DATE: MAY 15, 1996

revision #	date	description
1	7/31/96	DRAINAGE EASEMENT

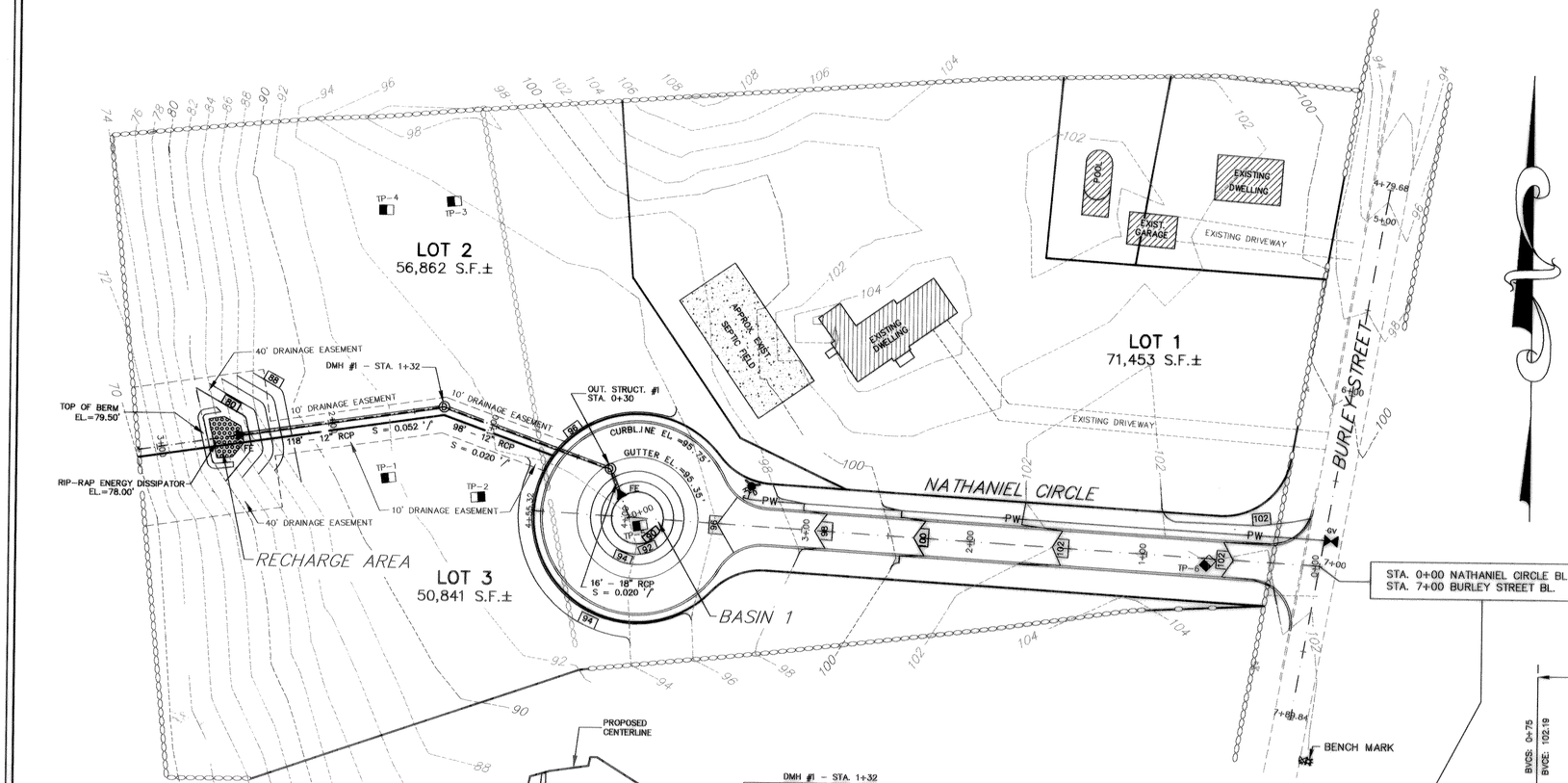
DEFINITIVE SUBDIVISION AT NATHANIEL CIRCLE IN WENHAM, MASSACHUSETTS

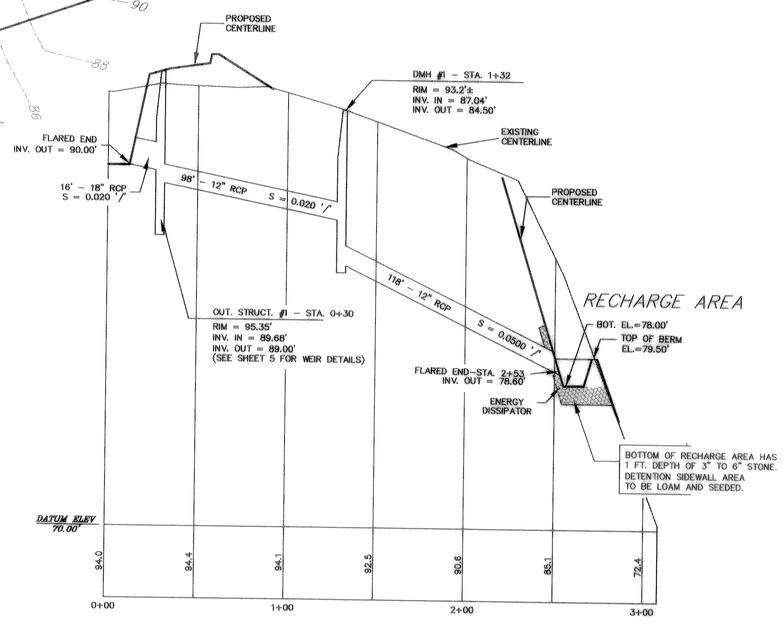
OWNER: ANGELINA M. PERKINS
28 BURLEY STREET
WENHAM, MASSACHUSETTS

15
3/12 5 Pls

PLAN BOOK 319 PLAN 15
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 12 1996
with
Rec. B
Attest: [signature]
Register of Deeds 5 Pls

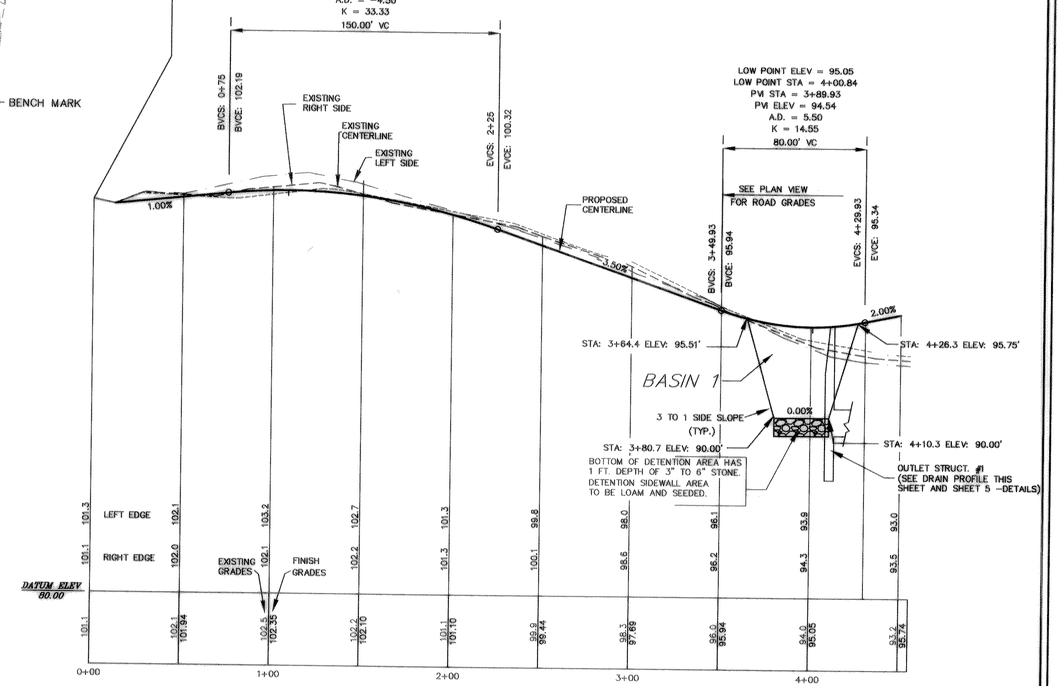
BENCH MARK
WATERGATE IN FRONT OF HYDRANT 90'± SOUTH OF LOCUS ON THE EASTERLY SIDE OF BURLEY STREET.
EL=102.71' (N.G.V.D. DATUM)





PROFILE – DRAIN BASELINE

SCALE: 1"=40' HORIZONTAL
1"=4' VERTICAL



PROFILE – NATHANIEL CIRCLE

SCALE: 1"=40' HORIZONTAL
1"=4' VERTICAL

THIS PLAN IS SUBJECT TO DEEDS OF COVENANTS TO BE RECORDED HEREWITH.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

[signatures]

DATE 9/12/96 WENHAM PLANNING BOARD

APPLICATION FILED:
HEARING DATE:
APPROVAL DATE:
DATE ENDORSED:

CLERK CERTIFICATION

I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

[signature]
TOWN CLERK
OCTOBER 18, 1996
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.

PL. BK. 88 PL. 58
PL. 713 OF 1955
PL. 66 OF 1957
PL. 65 OF 1957

PREVIOUS DEFINITIVE SUBDIVISION PLAN DATED OCT. 3, 1988 BY T&M ENGINEERING ASSOC., INC. APPROVED BY THE PLANNING BOARD ON NOV. 10, 1988 BUT NEVER SIGNED OR RECORDED.

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER

P.E.
MAY 15, 1996
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR

P.L.S.
MAY 15, 1996
Date

PROFILES & TOPOGRAPHICS

SHEET 3 of 5

40 0 40 80 HORIZONTAL
4 0 4 8 VERTICAL
Scale: 1"= 40' H. 4' V.

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET – SUITE 5 – GEORGETOWN, MA 01833
TELEPHONE (508) – 352-7870

JOB NO. 9601-01 DATE: MAY 15, 1996

revision #	date	description
1	7/31/96	ROAD WIDTH, PROFILE, DRAINAGE

DEFINITIVE SUBDIVISION AT NATHANIEL CIRCLE IN WENHAM, MASSACHUSETTS

OWNER: ANGELINA M. PERKINS
28 BURLEY STREET
WENHAM, MASSACHUSETTS

319-12 2872

BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION CONTROL

GENERAL
The BMP's to be used during project construction are to prevent the generation of erosion products and their transport to off-site areas. Off-site areas include all designated areas of the site that do not need to be altered for development purposes, and all off-site abutting properties.

The primary BMP is to maintain an organized, smooth flowing and rapid Construction Sequence as outlined. The Contractor is responsible to maintain the Construction Sequence subject to seasonal, atmospheric and site specific physical constraints.

A second important BMP is the prevention of concentrated water flow. Sheet flow does not demonstrate the erosive potential of concentrated channels. The Contractor is therefore encouraged to apply construction methods which will promote sheet flow with concentrated shallow channel flow paths only as necessary.

The Contractor shall be solely responsible for erosion and sedimentation control on site. The Contractor shall use a method of operation and construction and all necessary erosion and sedimentation control measures even if not specified herein or on the plans, to minimize erosion damage on and off site. The BMP's to follow should be used as a guide for erosion and sedimentation control and do not replace the practice of good judgement, common sense and thoughtful environmentally sensitive construction practices.

CUTTING AND CLEARING

As the clearing process continues, the movement of vehicles shall be limited, as much as possible, to the area of development.
Wheel ruts shall be filled in and graded to prevent concentration of storm water runoff.
Vehicle tracks leading downhill shall be blocked during period of intense precipitation by haybales, dikes or sill fences which shall be constructed to entrap the sediment.
No spoil (e.g., tree stumps) shall be disposed of by burying.

GRUBBING, STRIPPING AND GRADING
Erosion control devices shall be in place as shown on the design plans before grading commences. As much topsoil as possible shall be reclaimed for on-site use. No topsoil shall leave the site.

Striping shall be done in a manner which will not concentrate runoff. If precipitation is expected, earthen berms shall be constructed around the area being stripped, with a silt fence or haybale dikes located in an arc at the low point of the berm.
If intense precipitation is anticipated, haybales, dikes and/or silt fences shall be used as required to prevent erosion and sediment transport. The materials required shall be stored on site at all times. If water is required for soils compaction, it shall be added in a uniform manner that does not allow excess water to flow off the area being compacted.
Dust should be held at a minimum by sprinkling exposed soil with an appropriate amount of water.

MAINTENANCE OF DISTURBED SURFACES
Runoff shall be diverted from disturbed side slopes in both cut and fill.
Mulching may be used for temporary stabilization.
Haybale dikes or silt fences shall be set where required to trap products of erosion and shall be maintained on a continuing basis during the construction process.

LOAMING
Loaming and seeding of slopes shall be an ongoing construction process and is not limited to any one phase of construction.
Loam shall not be placed unless it is to be seeded directly thereafter.
All disturbed areas shall have a minimum of 4" of loam placed before being seeded and mulched.
Consideration should be given to hydro-mulching. especially on slopes in excess of 3 to 1.
Loamed and seeded slopes shall be protected from washout by mulching or other acceptable slope protection until vegetation beings to grow.

COMPLETION OF PAVED AREAS
During the placement of subbase and pavement, the entrances to the storm water drainage system shall be sealed if rain is expected. When these entrances are closed, consideration must be given to the direction of runoff and measures shall be undertaken to minimize erosion and to provide for the collection of sediment.
In some situations it may be necessary to keep catch basins open. Appropriate arrangements shall be made downstream to remove all sediment deposition.

STABILIZATION OF SURFACES
Stabilization of surfaces shall be an ongoing process.
Stabilization of surfaces includes the placement of pavement, rip rap, wood bark mulch and the establishment of vegetated surfaces.
Upon the completion of construction. all surfaces shall be stabilized even though it is apparent that future construction efforts will cause their disturbance.
Vegetated cover shall be established during the proper growing season and should be enhanced by soils adjustment for proper pH, nutrients and moisture content.
Surfaces that are disturbed by erosion processes, vandalism or by construction shall be stabilized as soon as possible.
Hydro-mulching of grass surfaces is recommended, especially it seeding of the surfaces is required outside the normal growing season.
Hay mulch, if used, must be properly secured by branches, weighted snow fences or weighted chicken wire.

BMP'S POST-CONSTRUCTION

SUGGESTED SEEDING MIXTURE AND APPLICATION RATE
The seed bad should be prepared by conducting a soils test and fertilizing as required. When a soils test is not available, the following minimum amount should be applied:

Limestone, 2 tons per acre.
Nitrogen, (N). 40 lb. per acre or 1 lb. per 1000 square feet.
Phosphate (P205) 80 lb. per acre or 2 lb. per 1000 square feet.
Pot Ash (K20) 80 lb. per acre or 2 lb. per 1000 square feet.

The following seed mix (State Slope Mix) shall be applied at the rate of 200 lb. per acre:

50% Creeping Red Fescue
30% Kentucky Tall Fescue
10% Annual Rye
5% Red Top
5% Lindino Clover

Seed should be spread uniformly by the method most appropriate for the site. Methods include broadcasting, drilling and hydro-seeding. Hydro-seeding is the preferred method of seeding. The soil should be rolled or packed after seeding if possible. All legumes (Crown Vetch, Birdsfoot Trefoil and Clovers) must be inoculated.
Once seeded areas have been mulched ,plantings may be placed from early Spring to late October.
If seeded areas are not mulched. planting should be made from early Spring to June 20th or between August 1st and September 15th. Plantings made after mid-November must be muiched.
If required. hay, straw or other mulch should be applied immediately after seeding. For hydro--seeding, a tackifier heavy mulch at the rate of 1500 lb. per acre shall be applied.
Planted areas should be protected from damage. Fertilization requirements during the establishment period may be determined by on-site inspections.

CONSTRUCTION SITE MANAGEMENT

GENERAL
In addition to the storm water management and erosion control methods discussed above, responsible construction site management is required to minimize the transport of sediment and non-sediment related pollutants from entering storm water runoff.

MAINTENANCE

Specific areas shall be designated for equipment and vehicle maintenance and repair. Maintenance areas shall include appropriate waste receptacles for spent gasoline, oil, grease, and solvents.

WASHDOWN

Specific areas shall be designated for equipment and vehicle washdown. Washdown areas sahll be located on sections of the site that drain to regularly maintained sediment and non-sediment pollution control devices designed to accommodate such discharges.

DUST AND MUD CONTROL

The contractor shall provide positive controls to minimize raising dust from Construction activities on this site. All dust and mud control measures shall be approved by the Town of Wenham Planning Board.
Sweep excess mud from construction activities off of Burley St. once per day.

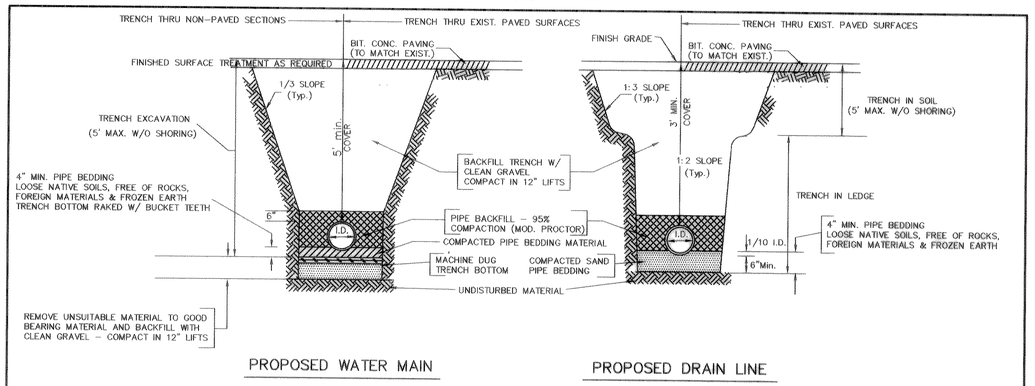
MATERIAL STORAGE AND USE

PESTICIDES
Pesticides shall be stored in a dry area that is protected from precipitation. Pesticides shall be handled as infrequently as possible. The manufacturers' recommendations as well as all applicable Local, State, and federal regulations shall be strictly followed when pesticides are handled.

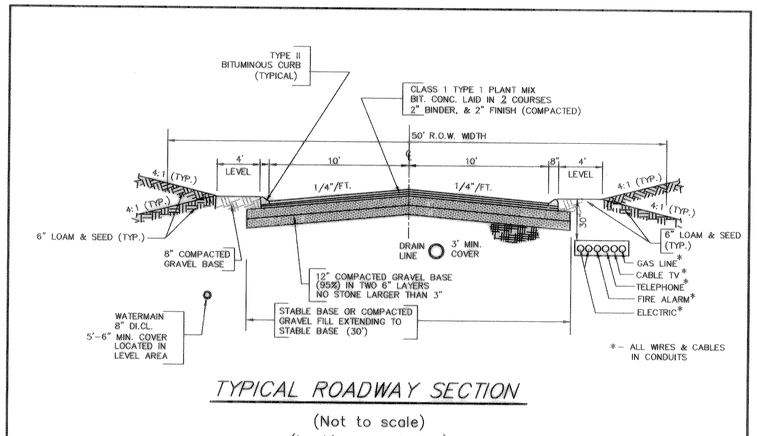
FERTILIZERS
Application of fertilizer shall be limited to minimum required area and amount. More frequent, lower applications are preferable to infrequent high application rates. After application, fertilizer shall be worked into the soil where feasible.

PETROLEUM PRODUCTS
Fueling vehicles and petroleum products including oil, gasoline, lubricants, and asphaltic materials shall be stored in covered areas where feasible. Routinely maintain on-site equipment and vehicles to prevent leakage of gas, oil or lubricants.

PLAN BOOK 312 PLAN 15
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 12 1996
Rec'd B P
Attest:
Register of Deeds



TYPICAL TRENCH DETAILS
(Not to scale)



TYPICAL ROADWAY SECTION
(Not to scale)
(Looking up station)

HAZARDOUS MATERIALS
Hazardous materials include but are not limited to paints, acids, solvents, soil stabilization chemicals, concrete admixtures and other materials that have been mixed with hazardous substances. All hazardous materials shall be stored in a dry area protected from precipitation. The manufactures' recommendations as well as all applicable Local, State, and federal regulations shall be strictly followed when hazardous materials are handled, transported, applied, or disposed of.

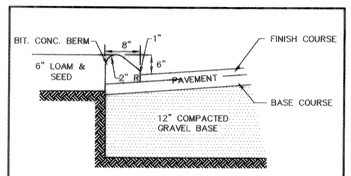
RAW MATERIALS
Storage areas for raw materials used in construction that can be carried by storm water runoff shall be located only in areas which drain to retention-type sedimentation control devices.

WASTE DISPOSAL

CONSTRUCTION WASTE
Construction waste may include but is not limited to trees, stumps, shrubs, scrap or surplus building materials, demolition material, and packaging material.
Designated waste collection areas shall be established at locations convenient to site workers.
Receptacles shall be of adequate capacity to hold waste accumulated between collection times.
Receptacles shall be covered or otherwise protected from precipitation.

WASTE CONCRETE
Excess concrete and washwater from concrete trucks shall be disposed of in a manner that prevents contact between these materials and storm water that shall be used to contain waste concrete and washwater until it hardens and can be properly disposed of.

SANITARY FACILITIES
Temporary sanitary facilities shall be provided on-site in convenient locations to site workers. Sanitary facilities shall be adequately maintained to prevent contact between associated wastes and storm water runoff.



TYPE II BITUMINOUS BERM
(Not to scale)

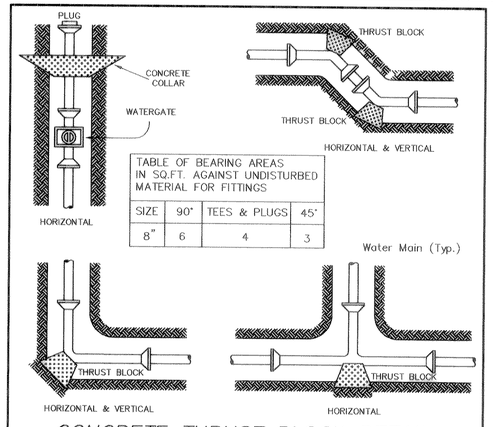
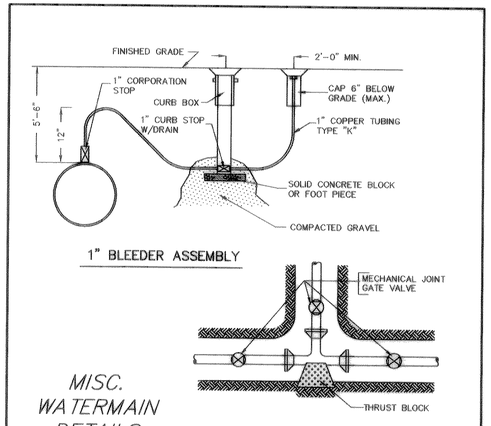
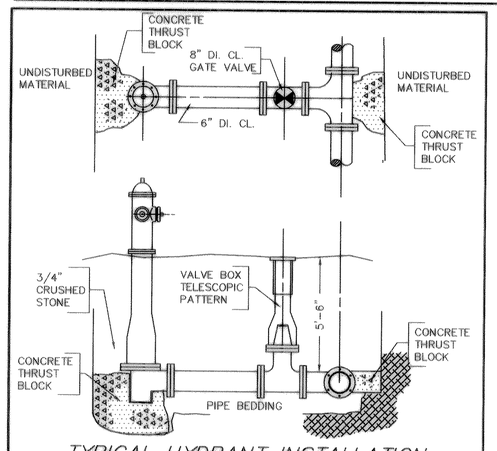


TABLE OF BEARING AREAS IN SQ.FT. AGAINST UNDISTURBED MATERIAL FOR FITTINGS			
SIZE	90°	TEES & PLUGS	45°
8"	6	4	3

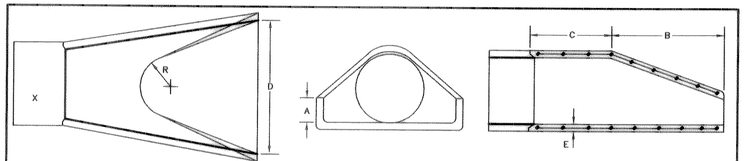
CONCRETE THRUST BLOCK DETAIL
(Not to scale)



MISC. WATERMAIN DETAILS
(Not to scale)



TYPICAL HYDRANT INSTALLATION
(Not to scale)



Dia.	A	B	C	D	E	R
12"	4"	2'-0"	4'-0 7/8"	2'-0"	2"	9"
15"	6"	2'-3"	3'-10"	2'-6"	2 1/4"	11"
18"	9"	2'-3"	3'-10"	3'-0"	2 1/2"	12"
24"	9 1/2"	3'-7 1/2"	2'-6"	4'-0"	3"	14"
36"	15"	5'-3"	2'-10 3/4"	6'-0"	4"	20"

REINFORCED CONCRETE PIPE FLARED END
(Not to scale)

THIS PLAN IS SUBJECT TO DEEDS OF COVENANTS TO BE RECORDED HEREWITH.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.
DATE 9/12/96 WENHAM PLANNING BOARD

APPLICATION FILED:
HEARING DATE:
APPROVAL DATE:
DATE ENDORSED:

CLERK CERTIFICATION
I, THE CLERK OF THE TOWN OF WENHAM MA DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT UNDER MASS. G.L. CH.41, SEC.81X NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.
Barbara Hirate Young
TOWN CLERK
October 18, 1996
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.

PL. BK. 88 PL. 58
PL. 713 OF 1955
PL. 66 OF 1957
PL. 65 OF 1957

PREVIOUS DEFINITIVE SUBDIVISION PLAN DATED OCT. 3, 1988 BY T&M ENGINEERING ASSOC., INC. APPROVED BY THE PLANNING BOARD ON NOV. 10, 1988 BUT NEVER SIGNED OR RECORDED.

COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER
P.E.
MAY 15, 1996
Date

I CERTIFY THAT THIS PLAN IS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.
I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IT CONFORMS WITH TECHNICAL, ETHICAL AND PROCEDURAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR
P.L.S.
MAY 15, 1996
Date

DETAILS

SHEET 4 of 5

AS NOTED
Scale: 1"= AS NOTED

ATLANTIC ENGINEERING & SURVEY CONSULTANTS' INC.
97 TENNEY STREET - SUITE 5 - GEORGETOWN, MA 01833
TELEPHONE (508) - 352-7870

JOB NO. 9601-01 DATE: MAY 15, 1996

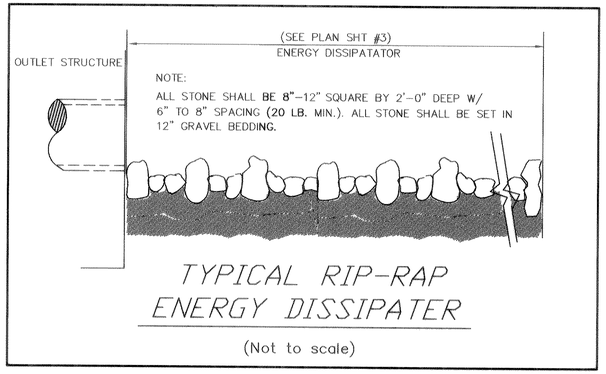
revision #	date	description
1	7/31/96	CHANGE TYPICAL SECTION

DEFINITIVE SUBDIVISION AT NATHANIEL CIRCLE IN WENHAM, MASSACHUSETTS

OWNER: ANGELINA M. PERKINS
28 BURLEY STREET
WENHAM, MASSACHUSETTS

15
312 5 Pls

PLAN BOOK 312 PLAN 15
ESSEX REGISTRY OF DEEDS, SO. DIST.
SALEM, MASS.
Received November 12, 1996
Rec. B P
Attest: John L. Bonfiglio
Register of Deeds 5 Pls

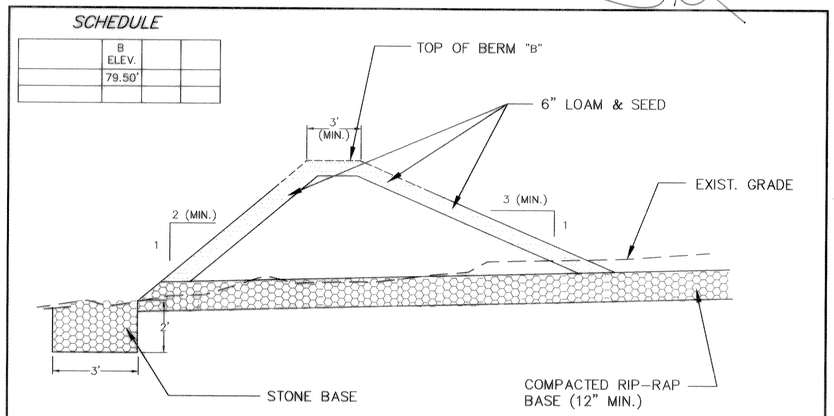


TYPICAL RIP-RAP ENERGY DISSIPATER

(Not to scale)

SCHEDULE

	B ELEV.		
	79.50'		

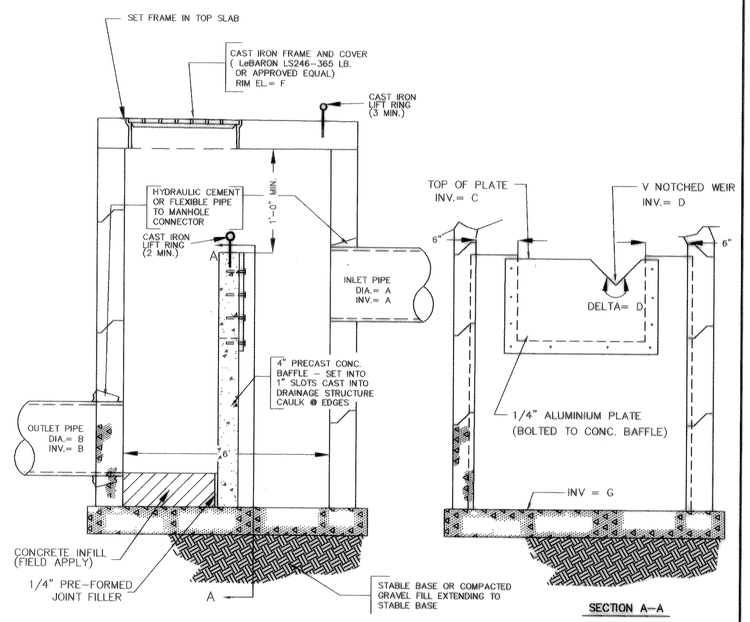


BERM AT RECHARGE AREA

(Not to scale)

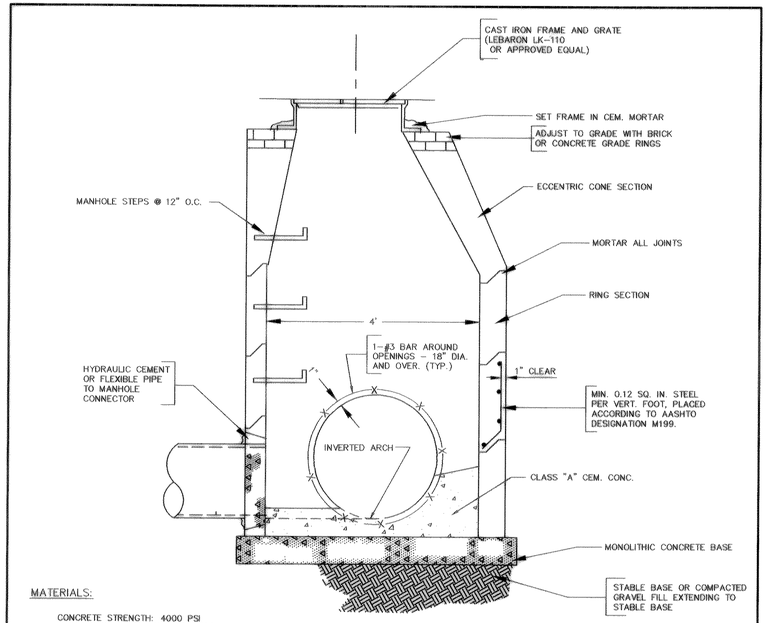
SCHEDULE – BASIN CONTROL STRUCTURES

STRUCTURE #	INLET PIPE (A) DIA. (A) INV.	OUTLET PIPE (B) DIA. (B) INV.	PLATE TOP (C) INV.	D DELTA INV.	E DIA. INV.	F ELEV.	G INV.	H INV. WIDTH
1	18" 89.68'	15" 89.00'	94.95'	60 DEG. 93.75	——	96.60'±	85.68'	——



CONTROL WEIR STRUCTURE – TYPICAL

(Not to scale)



MATERIALS:

CONCRETE STRENGTH: 4000 PSI
REINFORCING STEEL SHALL CONFORM TO ASTM C 487-84

TYPICAL PROPOSED MANHOLE

(Not to scale)

THIS PLAN IS SUBJECT TO DEEDS OF COVENANTS TO BE RECORDED HEREWITH.

APPROVAL UNDER SUBDIVISION CONTROL LAWS REQUIRED.

DATE 9/12/96 WENHAM PLANNING BOARD

APPLICATION FILED:

HEARING DATE:

APPROVAL DATE:

DATE ENDORSED:

CLERK CERTIFICATION

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Frances Hardy-Young
TOWN CLERK

OCTOBER 8, 1996
DATE

PLAN & DEED REFERENCES RECORDED: SOUTH ESSEX REGISTRY OF DEEDS.

PL. BK. 88 PL. 58
PL. 713 OF 1955
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COMMONWEALTH OF MASSACHUSETTS MARTIN M. HALLERAN No. 33996 PROFESSIONAL ENGINEER

P.E. MAY 15, 1996
Date

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COMMONWEALTH OF MASSACHUSETTS JOHN B. PAULSON No. 31725 PROFESSIONAL LAND SURVEYOR

P.L.S. MAY 15, 1996
Date

DETAILS

SHEET 5 of 5

AS NOTED

Scale: 1"= AS NOTED

ENGINEER:
ATLANTIC ENGINEERING & SURVEY CONSULTANTS INC.
97 TENNEY STREET – SUITE 5 – GEORGETOWN, MA 01833
TELEPHONE (508) – 352-7870

JOB NO. 9601-01 DATE: MAY 15, 1996

revision #	date	description
1	7/29/96	OUTLET STRUCT, RECHARGE BERM

DEFINITIVE SUBDIVISION AT NATHANIEL CIRCLE IN WENHAM, MASSACHUSETTS

OWNER: ANGELINA M. PERKINS
28 BURLEY STREET
WENHAM, MASSACHUSETTS