# INITIAL OSRD
# for
# 20, 30 & 40 WEBSTER AVENUE

## MAP 49 LOT 13, 13A & 13B

## Beverly, MA
## JULY 2017


OWNER & APPLICANT: BENCO LLC
PO BOX 2281
HAMILTON, MA 01982

ENGINEER: GRIFFIN ENGINEERING GROUP, LLC
495 CABOT STREET, 2ND FLOOR
BEVERLY, MA 01915

SURVEYOR: AMERICAN LAND
SURVEY ASSOCIATES
KIRK BENSON, PLS
42 CHERRY STREET
GLOUCESTER, MA 01930

LANDSCAPE ARCHITECT: LAURA RUTLEDGE
38 WOODBURY STREET
BEVERLY, MA 01923

LOCUS PLAN SCALE: 1" = 1,000'

## List of Drawings:


C-1: SITE CONTEXT MAP

C-2: EXISTING CONDITIONS

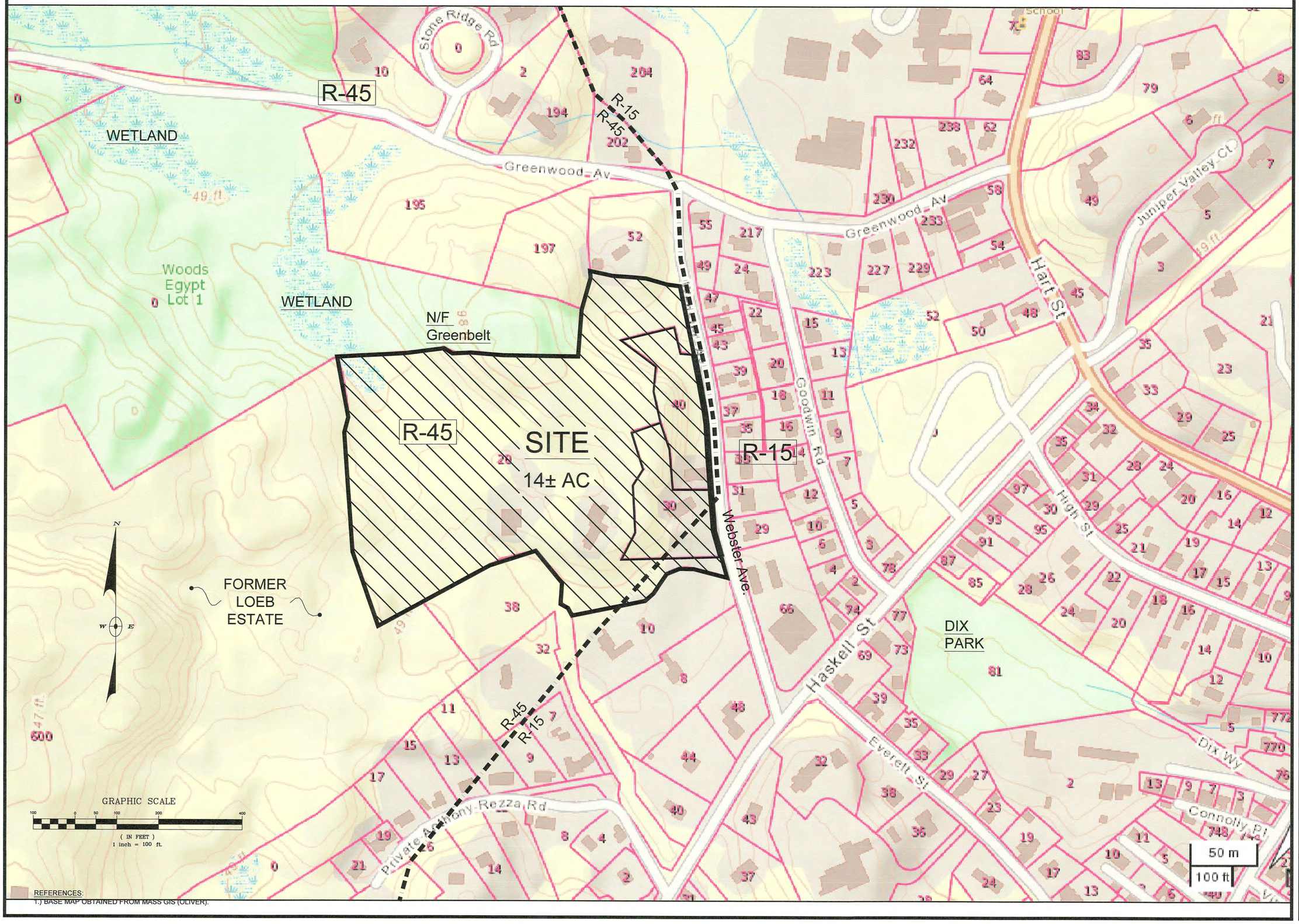
C-3: YIELD PLAN -
PRELIM. SUBDIVISION PLANS
SH. C-3A - PLAN OF LAND
SH. C-3B - SITE PLAN

C-4a: OSRD CONCEPT A

C-4b: OSRD CONCEPT B

C-4c: OSRD CONCEPT C

C-4d: OSRD CONCEPT D
(PREFERRED PLAN)




REFERENCES:
1.) BASE MAP OBTAINED FROM MASS GIS (OLIVER).

| No. | Date | Description |
|---|---|---|

Revisions

COMMONWEALTH OF MASSACHUSETTS
ROBERT H. GRIFFIN
CIVIL
#36686
PROFESSIONAL ENGINEER

7.17.17


Griffin Engineering Group, LLC

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Fax: 978-927-5103


BENCO LLC
#20, #30, & #40
WEBSTER AVENUE
BEVERLY, MA 01915

SITE CONTEXT MAP

Scale: 1"=50'
Job No.: 1665
File Name: p/p/b/c
Date: 7/17/17

C-1

PLAN NOTES:
1. EXISTING CONDITIONS HEREIN WERE DEVELOPED BY AMERICAN LAND SURVEY ASSOCIATES OF GLOUCESTER, MA.
2. ELEVATIONS ARE ON THE 1988 NAVD.
3. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER.

WETLAND RESOURCE AREA NOTES:
1) ORDER OF RESOURCE AREA DELINEATION (DEP FILE NO. 5-1213) WAS OBTAINED FOR THE RESOURCE AREAS SHOWN HEREON. O.R.A.D. DATE APRIL 21, 2017. WETLAND DELINEATION (DECEMBER 2016) BY B. MANUELL OF WETLANDS & LAND MANAGEMENT, INC. OF DANVERS, MA.
2) THERE ARE NO FEMA FLOOD ZONES ON THE SUBJECT PROPERTY. PROPERTY IS IN A ZONE X.
3) THERE IS NO RIVERFRONT AREA ON THE PROPERTY.
4) THERE ARE NO CERTIFIED VERNAL POOLS ON THE PROPERTY.

REFERENCES & NOTES:
1) ASSESSORS MAP 49 LOT 13, 13A, & 13B
2) ZONING DISTRICT: R-45 & R-15
3) LOCUS DEED: BK. 35767 PG. 31
4) LOCUS PLAN: PL. BK. 381, PL. 33

ADDITIONAL REFERENCES:
1) PL. BK. 35 PL. 28B
2) BK. 2360 PG. 80
3) BK. 2204 PG.558
4) PL. BK. 390 PL. 87
5) BEVERLY GIS

ZONING DISTRICT: R-45
MINIMUM LOT AREA: 45,000 SF
MINIMUM FRONTAGE: 175'
SETBACKS:
FRONT: 30'
SIDE: 20'
REAR: 25'

LEGEND
PROPERTY LINE
153 EXIST. CONTOUR
EXIST. BUILDING
EXIST. EDGE OF PAVEMENT
D EXIST. DRAIN
W EXIST. WATER
S EXIST. SEWER
G EXIST. GAS
WETLAND LINE
>20% SLOPE

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EXISTING CONDITIONS PLAN

Scale: 1"=50'
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C-2

REFERENCES & NOTES:
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3) LOCUS DEED: BK. 35767 PG. 31
4) LOCUS PLAN: PL. BK. 381, PL. 33

ADDITIONAL REFERENCES:
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5) BEVERLY GIS

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MINIMUM FRONTAGE: 175'
SETBACKS:
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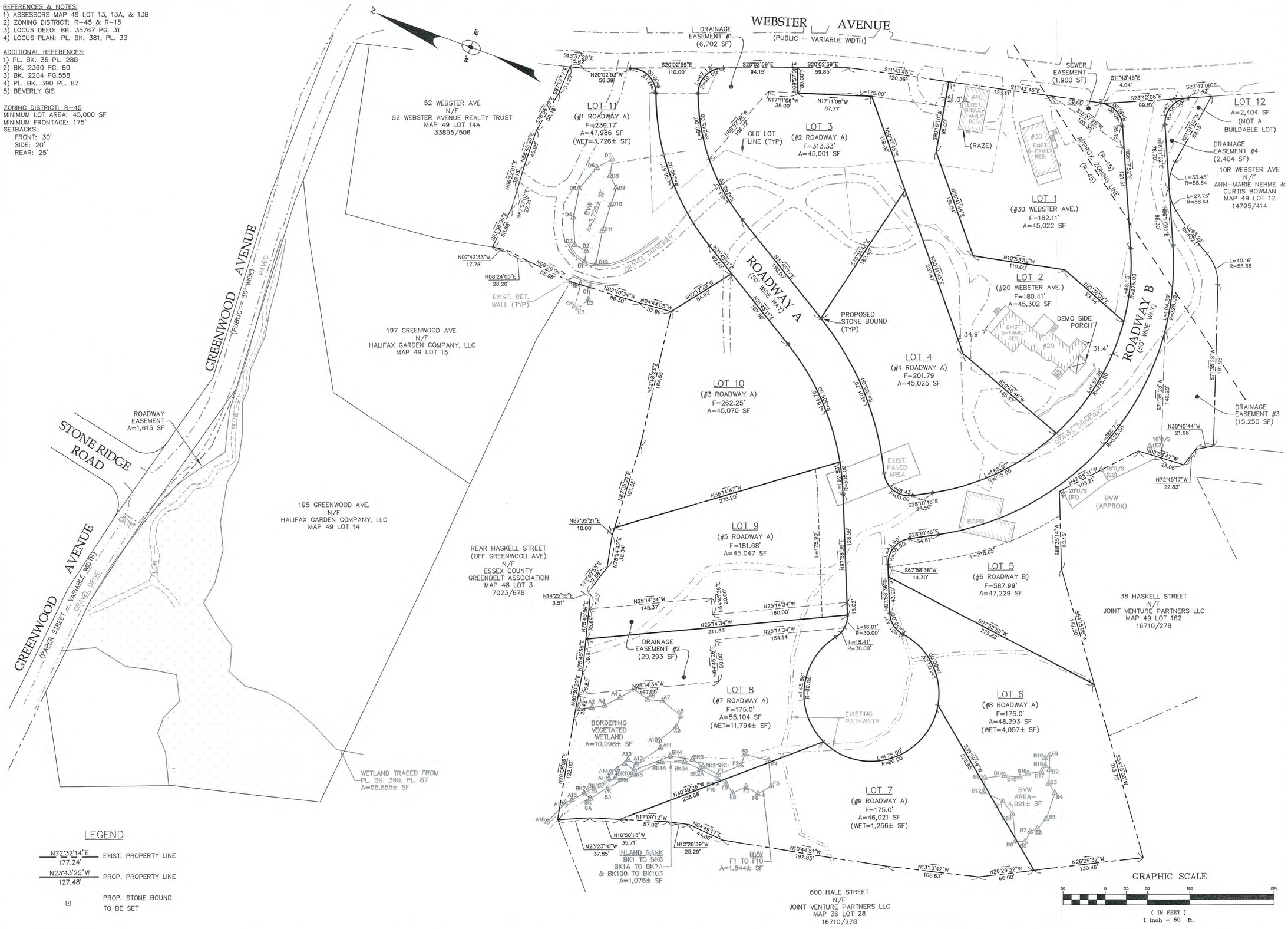
SIDE: 20'
REAR: 25'




LEGEND

| | |
|---|---|
| N72°32'14"E 177.24' | EXIST. PROPERTY LINE |
| N23°43'25"W 127.48' | PROP. PROPERTY LINE |
| ⊡ | PROP. STONE BOUND TO BE SET |

| No. | Date | Description |
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Revisions

ROBERT H. GRIFFIN CIVIL #36686 COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL ENGINEER
6/1/17


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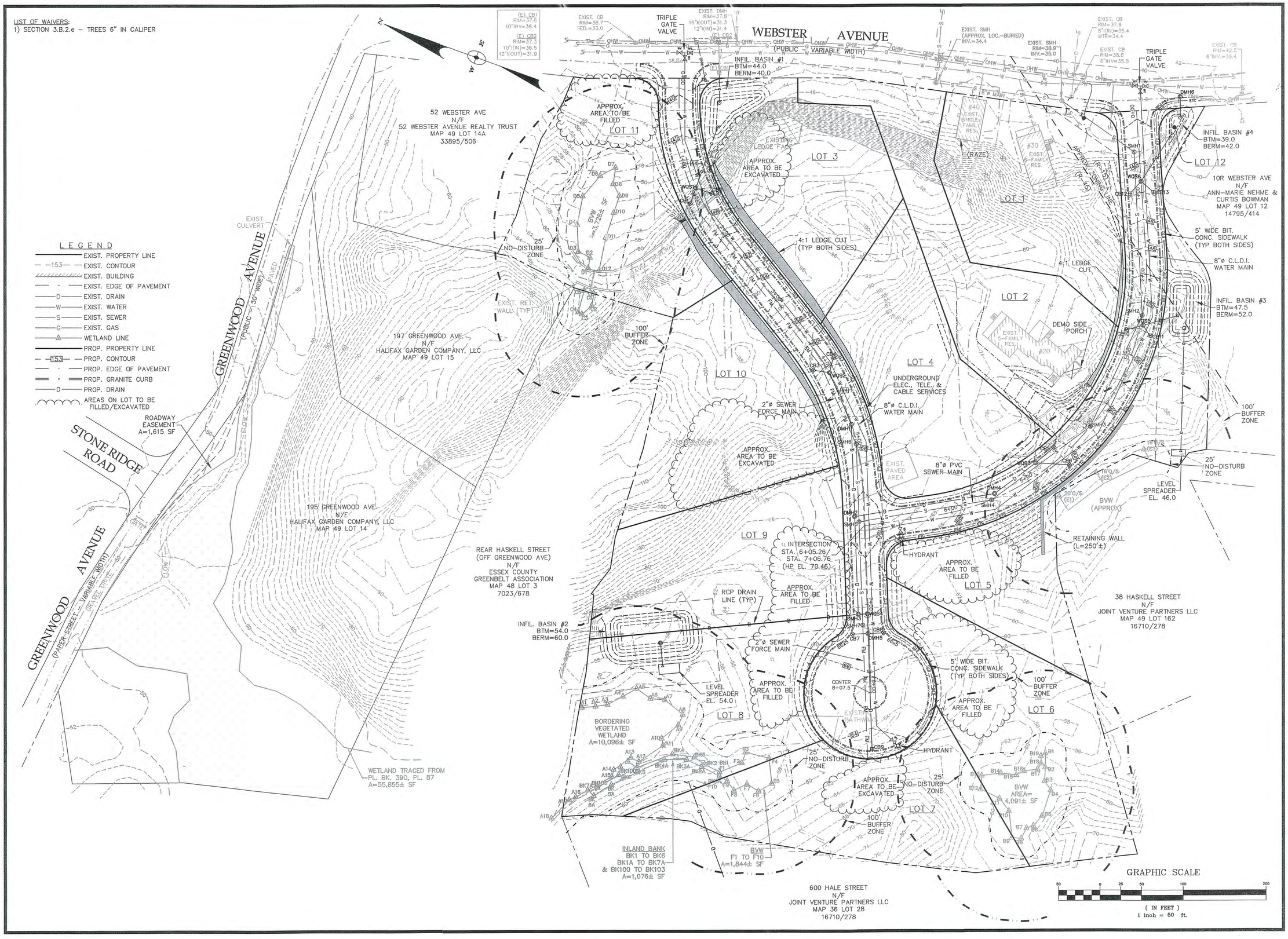
PRELIMINARY SUBDIVISION PLAN

PLAN OF LAND

Scale: 1"=50'
Job No.: 1665
File Name: p/p/b/c
Date: 6/1/17

~~C-2~~
C-3a

LIST OF WAIVERS:
1) SECTION 3.B.2.e – TREES 6" IN CALIPER

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ROBERT H. GRIFFIN CIVIL #36666 COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL ENGINEER

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PRELIMINARY
SUBDIVISION PLAN

SITE PLAN

Scale: 1"=50'

Job No.: 1665

File Name: p/p/b/c

Date: 6/1/17

~~C-3~~

C-3b

OSRD CALCULATIONS:
TOTAL TRACT AREA = 513,292 + 50,845 + 45,232 = 609,369 SF (13.99 AC.)
PRIMARY CONSERVATION AREA (WETLANDS) = 20,833± SF (0.48 ACRES)
25' NO-DISTURB ZONE = 38,724 SF (0.89 ACRES)
AREAS >20% SLOPE (OUTSIDE 25' NDZ) = 163,244 SF (3.75 ACRES)

BUILDABLE AREA (BY DEFINITION IS TOTAL AREA LESS WETLANDS, 25' NO-DISTURB ZONE & AREAS HAVING MORE THAN 20% SLOPE)
= 609,369 – 20,833 – 38,724 – 163,244 = 386,568 SF (8.87 ACRES)

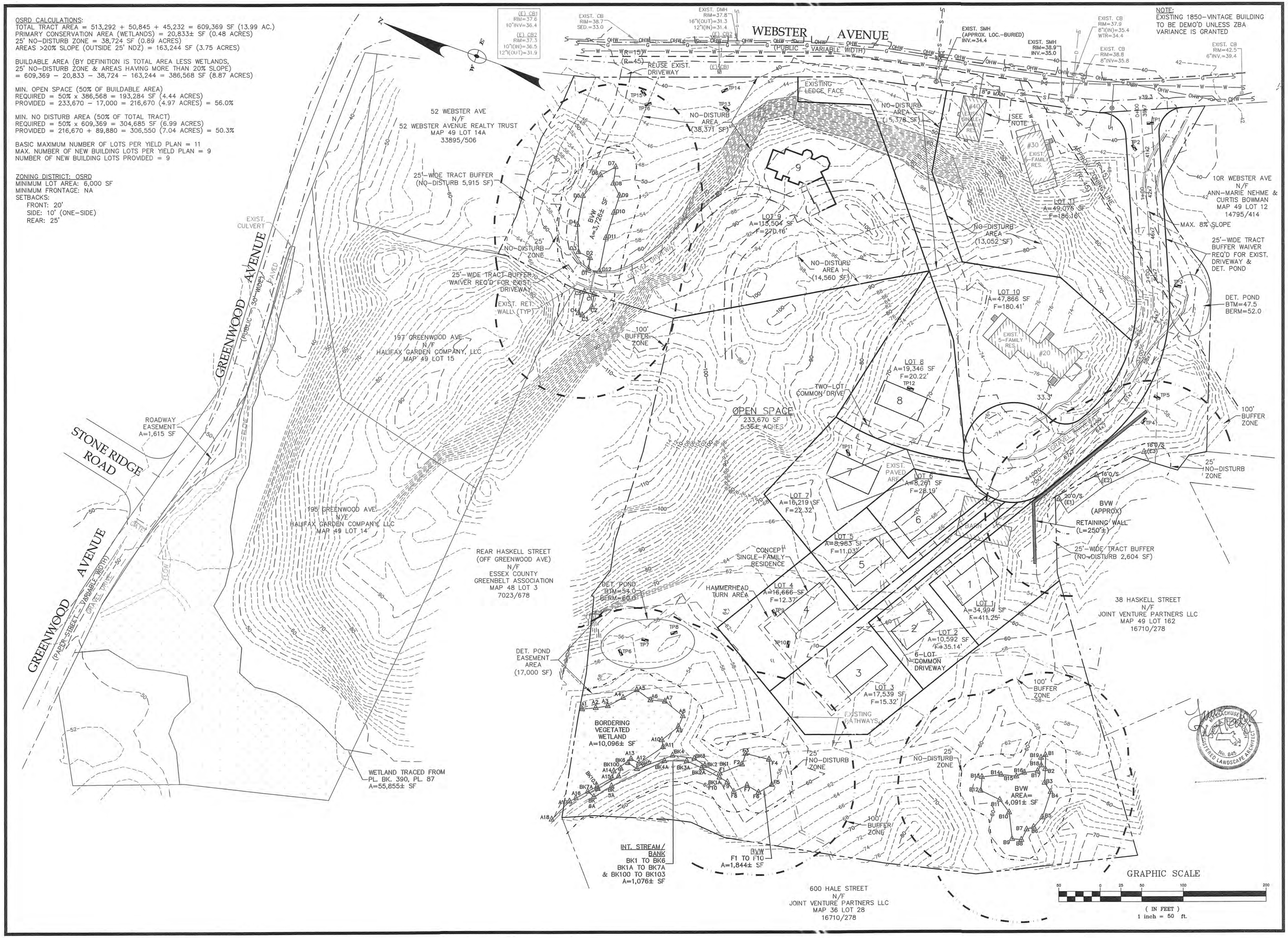
MIN. OPEN SPACE (50% OF BUILDABLE AREA)
REQUIRED = 50% x 386,568 = 193,284 SF (4.44 ACRES)
PROVIDED = 233,670 – 17,000 = 216,670 (4.97 ACRES) = 56.0%

MIN. NO DISTURB AREA (50% OF TOTAL TRACT)
REQUIRED = 50% x 609,369 = 304,685 SF (6.99 ACRES)
PROVIDED = 216,670 + 89,880 = 306,550 (7.04 ACRES) = 50.3%

BASIC MAXIMUM NUMBER OF LOTS PER YIELD PLAN = 11
MAX. NUMBER OF NEW BUILDING LOTS PER YIELD PLAN = 9
NUMBER OF NEW BUILDING LOTS PROVIDED = 9

ZONING DISTRICT: OSRD
MINIMUM LOT AREA: 6,000 SF
MINIMUM FRONTAGE: NA
SETBACKS:
FRONT: 20'
SIDE: 10' (ONE-SIDE)
REAR: 25'

NOTE:
EXISTING 1850-VINTAGE BUILDING TO BE DEMO'D UNLESS ZBA VARIANCE IS GRANTED

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OSRD
CONCEPT A

Scale: 1"=50'
Job No.: 1665
File Name: p/p/b/c
Date: 7/17/17

C-4a

OSRD CALCULATIONS:
TOTAL TRACT AREA = 513,292 + 50,845 + 45,232 = 609,369 SF (13.99 AC.)
PRIMARY CONSERVATION AREA (WETLANDS) = 20,833± SF (0.48 ACRES)
25' NO-DISTURB ZONE = 38,724 SF (0.89 ACRES)
AREAS >20% SLOPE (OUTSIDE 25' NDZ) = 163,244 SF (3.75 ACRES)

BUILDABLE AREA (BY DEFINITION IS TOTAL AREA LESS WETLANDS, 25' NO-DISTURB ZONE & AREAS HAVING MORE THAN 20% SLOPE)
= 609,369 – 20,833 – 38,724 – 163,244 = 386,568 SF (8.87 ACRES)

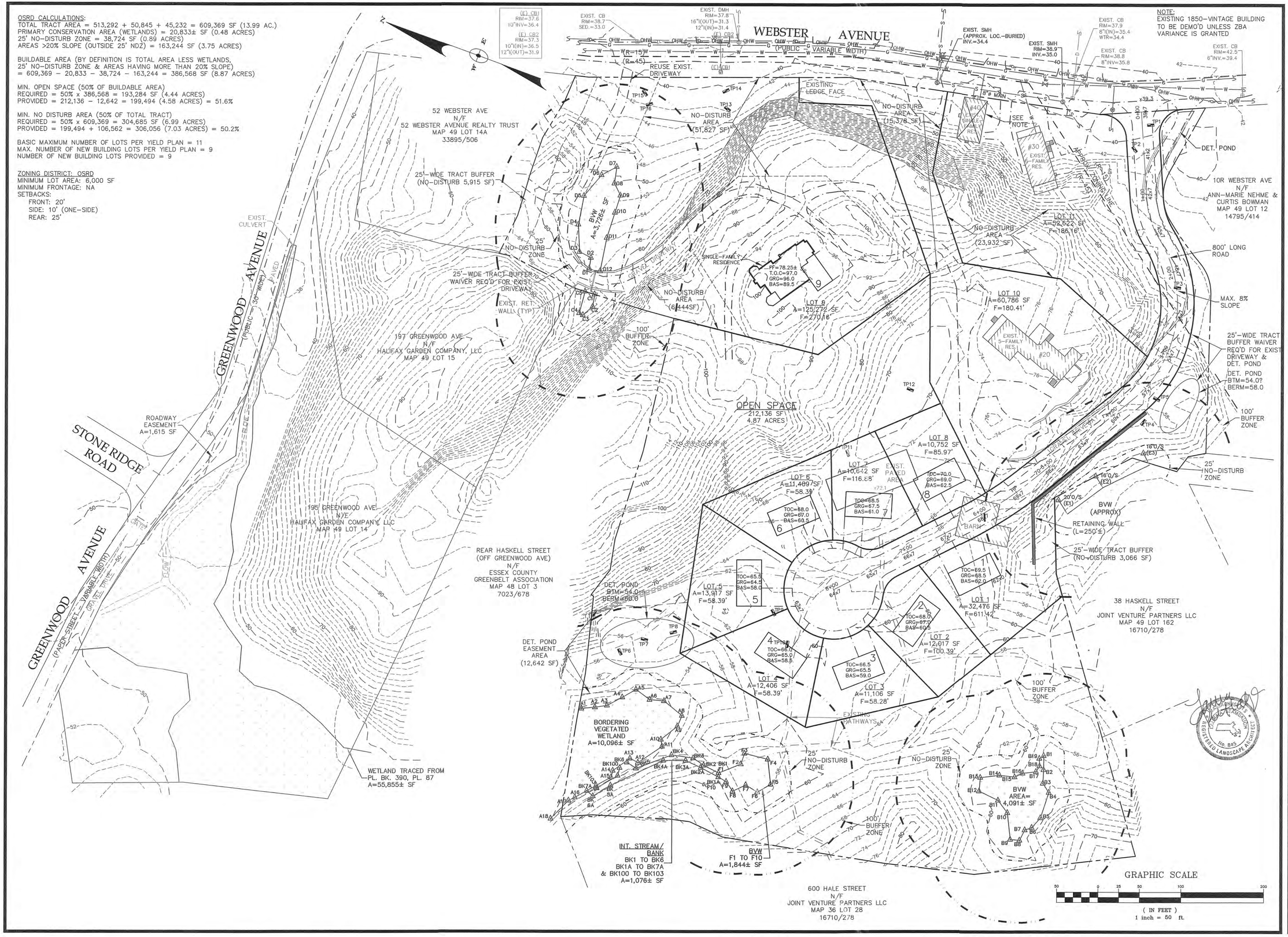
MIN. OPEN SPACE (50% OF BUILDABLE AREA)
REQUIRED = 50% x 386,568 = 193,284 SF (4.44 ACRES)
PROVIDED = 212,136 – 12,642 = 199,494 (4.58 ACRES) = 51.6%

MIN. NO DISTURB AREA (50% OF TOTAL TRACT)
REQUIRED = 50% x 609,369 = 304,685 SF (6.99 ACRES)
PROVIDED = 199,494 + 106,562 = 306,056 (7.03 ACRES) = 50.2%

BASIC MAXIMUM NUMBER OF LOTS PER YIELD PLAN = 11
MAX. NUMBER OF NEW BUILDING LOTS PER YIELD PLAN = 9
NUMBER OF NEW BUILDING LOTS PROVIDED = 9

ZONING DISTRICT: OSRD
MINIMUM LOT AREA: 6,000 SF
MINIMUM FRONTAGE: NA
SETBACKS:
FRONT: 20'
SIDE: 10' (ONE-SIDE)
REAR: 25'

NOTE:
EXISTING 1850-VINTAGE BUILDING TO BE DEMO'D UNLESS ZBA VARIANCE IS GRANTED

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OSRD
CONCEPT B

Scale: 1"=50'
Job No.: 1665
File Name: p/p/b/c
Date: 7/17/17

C-4b

OSRD CALCULATIONS:
TOTAL TRACT AREA = 513,292 + 50,845 + 45,232 = 609,369 SF (13.99 AC.)
PRIMARY CONSERVATION AREA (WETLANDS) = 20,833± SF (0.48 ACRES)
25' NO-DISTURB ZONE = 38,724 SF (0.89 ACRES)
AREAS >20% SLOPE (OUTSIDE 25' NDZ) = 163,244 SF (3.75 ACRES)

BUILDABLE AREA (BY DEFINITION IS TOTAL AREA LESS WETLANDS, 25' NO-DISTURB ZONE & AREAS HAVING MORE THAN 20% SLOPE)
= 609,369 – 20,833 – 38,724 – 163,244 = 386,568 SF (8.87 ACRES)

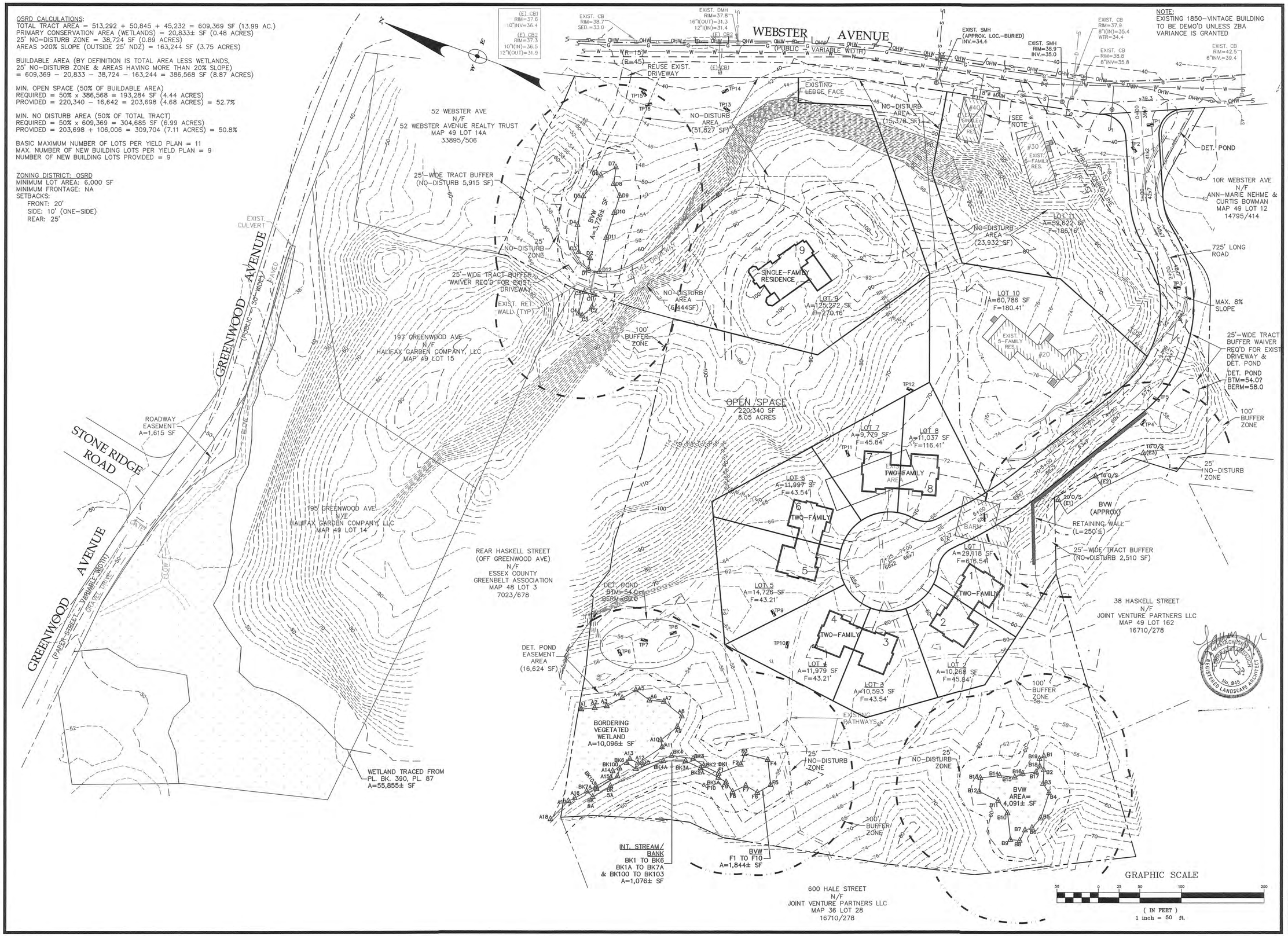
MIN. OPEN SPACE (50% OF BUILDABLE AREA)
REQUIRED = 50% x 386,568 = 193,284 SF (4.44 ACRES)
PROVIDED = 220,340 – 16,642 = 203,698 (4.68 ACRES) = 52.7%

MIN. NO DISTURB AREA (50% OF TOTAL TRACT)
REQUIRED = 50% x 609,369 = 304,685 SF (6.99 ACRES)
PROVIDED = 203,698 + 106,006 = 309,704 (7.11 ACRES) = 50.8%

BASIC MAXIMUM NUMBER OF LOTS PER YIELD PLAN = 11
MAX. NUMBER OF NEW BUILDING LOTS PER YIELD PLAN = 9
NUMBER OF NEW BUILDING LOTS PROVIDED = 9

ZONING DISTRICT: OSRD
MINIMUM LOT AREA: 6,000 SF
MINIMUM FRONTAGE: NA
SETBACKS:
FRONT: 20'
SIDE: 10' (ONE-SIDE)
REAR: 25'

NOTE:
EXISTING 1850-VINTAGE BUILDING TO BE DEMO'D UNLESS ZBA VARIANCE IS GRANTED

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OSRD
CONCEPT C

Scale: 1"=50'
Job No.: 1665
File Name: p/p/b/c
Date: 7/17/17

C-4c

OSRD CALCULATIONS:
TOTAL TRACT AREA = 513,292 + 50,845 + 45,232 = 609,369 SF (13.99 AC.)
PRIMARY CONSERVATION AREA (WETLANDS) = 20,833± SF (0.48 ACRES)
25' NO-DISTURB ZONE = 38,724 SF (0.89 ACRES)
AREAS >20% SLOPE (OUTSIDE 25' NDZ) = 163,244 SF (3.75 ACRES)

BUILDABLE AREA (BY DEFINITION IS TOTAL AREA LESS WETLANDS, 25' NO-DISTURB ZONE & AREAS HAVING MORE THAN 20% SLOPE)
= 609,369 – 20,833 – 38,724 – 163,244 = 386,568 SF (8.87 ACRES)

MIN. OPEN SPACE (50% OF BUILDABLE AREA)
REQUIRED = 50% x 386,568 = 193,284 SF (4.44 ACRES)
PROVIDED = 222,205 – 18,368 = 203,837 (4.68 ACRES) = 52.7%

MIN. NO DISTURB AREA (50% OF TOTAL TRACT)
REQUIRED = 50% x 609,369 = 304,685 SF (6.99 ACRES)
PROVIDED = 203,837 + 101,291 = 305,128 (7.00 ACRES) = 50.1%

BASIC MAXIMUM NUMBER OF LOTS PER YIELD PLAN = 11
MAX. NUMBER OF NEW BUILDING LOTS PER YIELD PLAN = 9
NUMBER OF NEW BUILDING LOTS PROVIDED = 9

ZONING DISTRICT: OSRD
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MINIMUM FRONTAGE: NA
SETBACKS:
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SIDE: 10' (ONE-SIDE)
REAR: 25'

NOTE:
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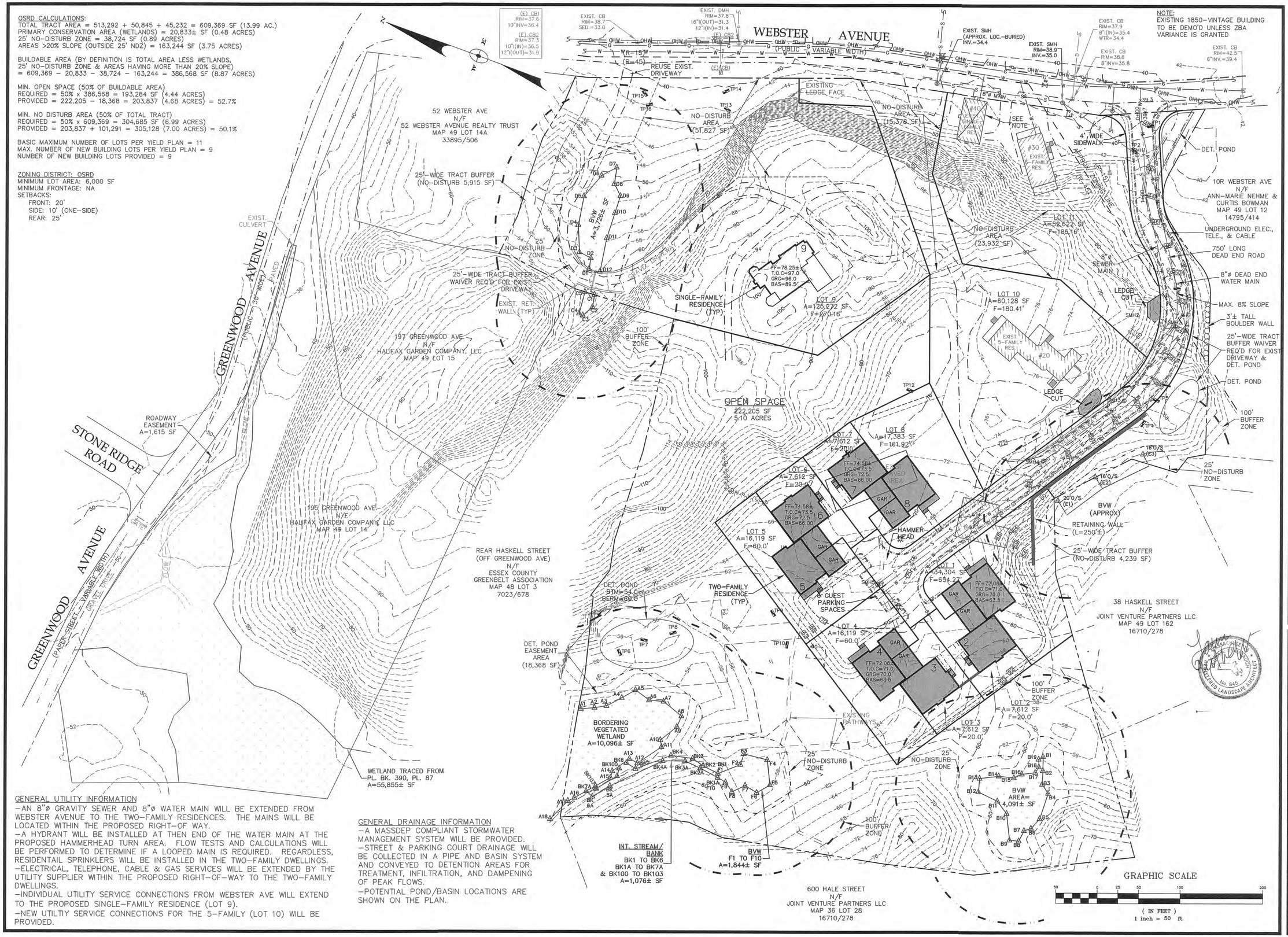


GENERAL UTILITY INFORMATION
–AN 8"ø GRAVITY SEWER AND 8"ø WATER MAIN WILL BE EXTENDED FROM WEBSTER AVENUE TO THE TWO-FAMILY RESIDENCES. THE MAINS WILL BE LOCATED WITHIN THE PROPOSED RIGHT-OF WAY.
–A HYDRANT WILL BE INSTALLED AT THEN END OF THE WATER MAIN AT THE PROPOSED HAMMERHEAD TURN AREA. FLOW TESTS AND CALCULATIONS WILL BE PERFORMED TO DETERMINE IF A LOOPED MAIN IS REQUIRED. REGARDLESS, RESIDENTAIL SPRINKLERS WILL BE INSTALLED IN THE TWO-FAMILY DWELLINGS.
–ELECTRICAL, TELEPHONE, CABLE & GAS SERVICES WILL BE EXTENDED BY THE UTILITY SUPPLIER WITHIN THE PROPOSED RIGHT-OF-WAY TO THE TWO-FAMILY DWELLINGS.
–INDIVIDUAL UTILITY SERVICE CONNECTIONS FROM WEBSTER AVE WILL EXTEND TO THE PROPOSED SINGLE-FAMILY RESIDENCE (LOT 9).
–NEW UTILTIY SERVICE CONNECTIONS FOR THE 5-FAMILY (LOT 10) WILL BE PROVIDED.

GENERAL DRAINAGE INFORMATION
–A MASSDEP COMPLIANT STORMWATER MANAGEMENT SYSTEM WILL BE PROVIDED.
–STREET & PARKING COURT DRAINAGE WILL BE COLLECTED IN A PIPE AND BASIN SYSTEM AND CONVEYED TO DETENTION AREAS FOR TREATMENT, INFILTRATION, AND DAMPENING OF PEAK FLOWS.
–POTENTIAL POND/BASIN LOCATIONS ARE SHOWN ON THE PLAN.

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OSRD
CONCEPT D
(PREFERRED PLAN)

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C-4d