

GRATUITY BROOK FARM ESTATES

DEFINITIVE SUBDIVISION

63 GRATUITY ROAD
GROTON, MA

RESERVED FOR REGISTRY USE

PLAN NOTES:

- BOUNDARY AND PLANOMETRIC INFORMATION SHOWN HEREON IS COMPILED FROM AN INSTRUMENT SURVEY BY DAVIS E. ROSS ASSOCIATES, INC.
- FLAGGED WETLAND AND BANK LOCATIONS SHOWN ON THIS MAP WERE PROVIDED BY A FIELD STUDY CONDUCTED BY CREATIVE LAND & WATER ENGINEERING, LLC. IN DECEMBER 2018 AND FEBRUARY 2019.. WETLAND FLAG WERE LOCATED USING SURVEY GRADE GPS EQUIPMENT CAPABLE OF SUB-METER ACCURACY, APPROVED BY THE PEPPERELL CONSERVATION COMMISSION ON OCTOBER 18, 2022, MASSDEP FILE NO. 259-0822.
- THE SUBJECT PARCEL IS NOT LOCATED WITHIN THE 100 YEAR FLOOD PLAIN AS DEFINED ON THE FEMA FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL No 25017CO202E, EFFECTIVE DATE JUNE 4, 2010.
- SITE IS NOT LOCATED WITHIN A NATURAL HERITAGE ENDANGERED SPECIES PROGRAM (NHESP) PRIORITY HABITAT OF RARE SPECIES AS SHOWN ON THE MASSGIS ONLINE MAPPING PROGRAM (OLIVER).
- THE SITE IS LOCATED WITHIN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN.
- THIS PARCEL IS LOCATED IN RESIDENTIAL AGRICULTURAL (RA) ZONING DISTRICT.

ZONING DISTRICT:	RESIDENTIAL AGRICULTURAL
MINIMUM LOT AREA:	80,000 S.F.
MINIMUM LOT FRONTAGE:	225 FEET
MINIMUM BUILDING SETBACKS:	
FRONT	50'
SIDE	15'
REAR	15'

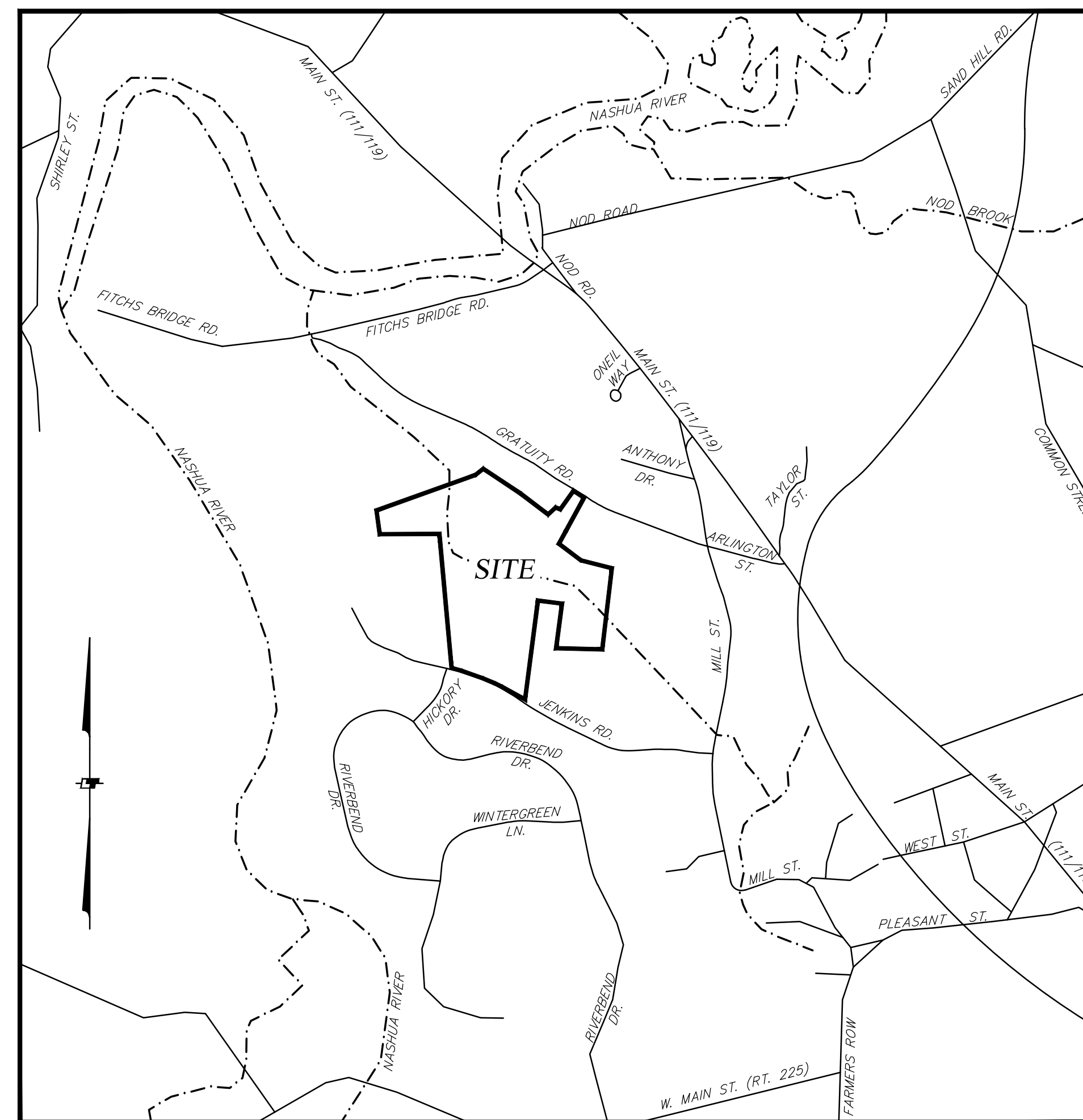
PERMITS

THE FOLLOWING PERMITS ARE REQUESTED WITH SUBMISSION OF THERE MATERIALS:

- DEFINITIVE SUBDIVISION APPROVAL UNDER SECTION 381-8 OF THE SUBDIVISION RULES AND REGULATIONS, CHAPTER 381 FROM THE CODE OF THE TOWN OF GROTON.
- SPECIAL PERMIT FOR A MAJOR RESIDENTIAL DEVELOPMENT IN ACCORDANCE WITH SECTION 218-9.2 OF THE TOWN OF GROTON ZONING BYLAW.
- SPECIAL PERMIT FOR A MAJOR SITE PLAN REVIEW IN ACCORDANCE WITH SECTION 218-2.5C(2) OF THE TOWN OF GROTON ZONING BYLAW.
- STORMWATER MANAGEMENT PERMIT PER CHAPTER 198 FROM THE CODE OF THE TOWN OF GROTON

WAIVERS

- SECTION 381-10 (D)(5) - STREETS - GRADES**
TO REDUCE THE REQUIREMENT THAT PROPOSED GRADES SHALL NOT BE MORE THAN SEVEN (7) FEET ABOVE OR BELOW THE EXISTING GRADE. DESIGN INCLUDES A PROPOSED GRADE THAT IS EIGHT (8) FEET ABOVE THE EXISTING GRADE, STA 2+00 TO STA 3+25+/- AND STA 8+15 TO STA 8+60 +/-, THERESE LANE.
- SECTION 381-11 (C)(1) - STORMWATER MANAGEMENT - STORM SEWERS**
TO REDUCE THE REQUIREMENT FOR THREE (3) FEET OF COVER OVER DRAIN-PIPES TO TWO (2) FEET AT EACH CATCH BASIN (TOTAL OF 8)



LOCUS MAP

SCALE: 1"=1,000'



ISSUE DATE: AUGUST 12, 2024
REVISED: DECEMBER 10, 2024
JANUARY 13, 2025



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JOB No. 22-243 DRAWING No. 11142

PLAN INDEX

SHEET NAME	SHEET NUMBER
1. TITLE SHEET	C-0
2. EXISTING CONDITIONS PLAN 1	EX-1
3. EXISTING CONDITIONS PLAN 2	EX-2
4. EXISTING CONDITIONS PLAN 3	EX-3
5. EXISTING CONDITIONS PLAN 4	EX-4
6. OVERALL PLAN OF LAND	C-1
7. PLAN OF LAND 1	C-2
8. PLAN OF LAND 2	C-3
9. PLAN OF LAND 3	C-4
10. PROPERTY RIGHTS PLAN 1	C-5
11. PROPERTY RIGHTS PLAN 2	C-6
12. PROPERTY RIGHTS PLAN 3	C-7
13. OVERALL OPEN SPACE PLAN	C-8
14. OPEN SPACE PLAN 1	C-9
15. OPEN SPACE PLAN 2	C-10
16. OPEN SPACE PLAN 3	C-11
17. OVERALL SITE PLAN	C-12
18. SITE PLAN 1	C-13
19. SITE PLAN 2	C-14
20. EROSION CONTROL PLAN	C-15
21. GRADING, DRAINAGE, & UTILITIES 1	C-16
22. GRADING, DRAINAGE, & UTILITIES 2	C-17
23. PLAN & PROFILE 1	C-18
24. PLAN & PROFILE 2	C-19
25. LANDSCAPING PLAN 1	C-20
26. LANDSCAPING PLAN 2	C-21
27. LIGHTING PLAN	C-22
28. DETAILS & SECTIONS 1	D-1
29. DETAILS & SECTIONS 2	D-2
30. DETAILS & SECTIONS 3	D-3
31. DETAILS & SECTIONS 4	D-4

CONSULTANTS:

CIVIL ENGINEER
LANDTECH CONSULTANTS
515 GROTON ROAD
WESTFORD, MA 01886
978.692.6100

ASSESSOR'S REFERENCES

TAX MAP 216, PARCEL 47

DEED REFERENCES

M.S.D.R.D. DEED BOOK 71686, PAGE 81

RECORD OWNER

ROUTHIER & ROPER
GRATUITY ROAD, LLC
256 AYER ROAD
LITTLETON, MA 01460

PLAN REFERENCES

PLAN 896 OF 1948	PLAN 848 OF 1998
PLAN 15480F 1972	PLAN 1303 OF 1998
PLAN 478 OF 1974	PLAN 1239 OF 1999
PLAN 978 OF 1975	PLAN 91 OF 2002
PLAN 56A OF 1966	PLAN 684 OF 2009
PLAN 1335 OF 1976	PLAN 383 OF 2015
PLAN 1205 OF 1981	

TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____
DATE

ENDORSED: _____
DATE

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

TOWN CLERK

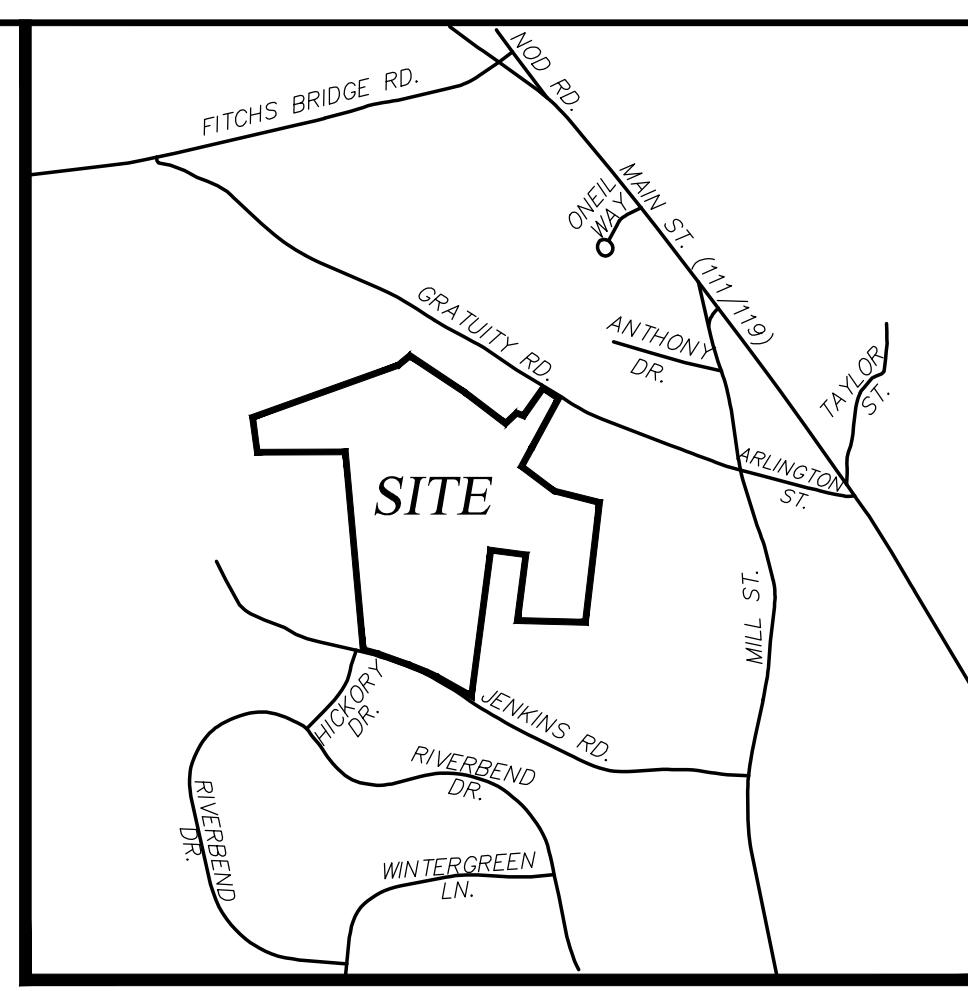
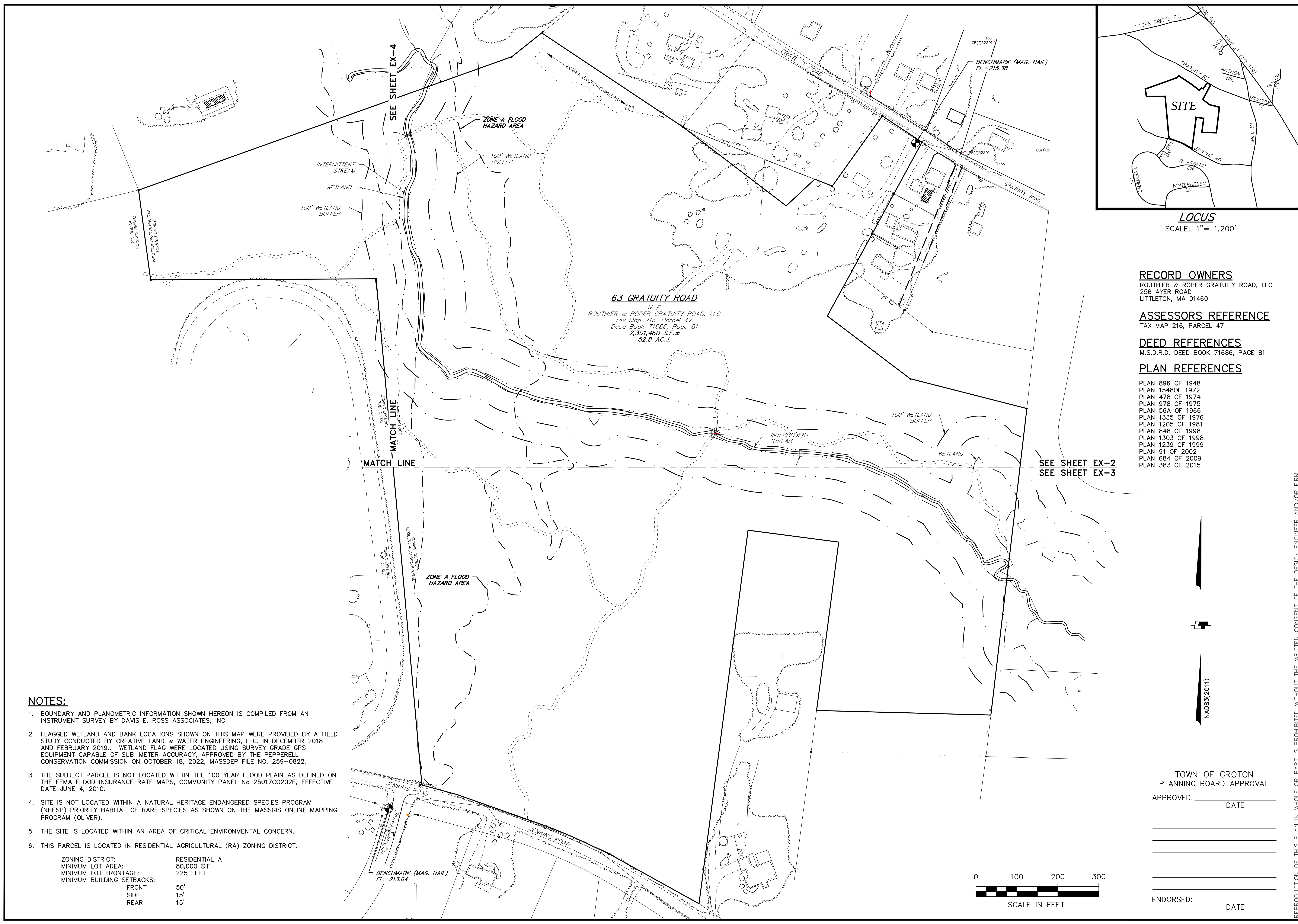
DATE

CERTIFICATION

THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS. HOWEVER IT IS NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN, OR AS TO THE EXISTENCE OF UNRECORDED EASEMENTS.

Matthew A. Waterman
MATTHEW A. WATERMAN
REGISTERED PROFESSIONAL ENGINEER
REGISTRATION No. 45666
(FOR LANDTECH CONSULTANTS, INC.)

8/12/24
DATE



LOCUS
SCALE: 1" = 1,200'

RECORD OWNERS
ROUTHIER & ROPER GRATUITY ROAD, LLC
256 AYER ROAD
LITTLETON, MA 01460

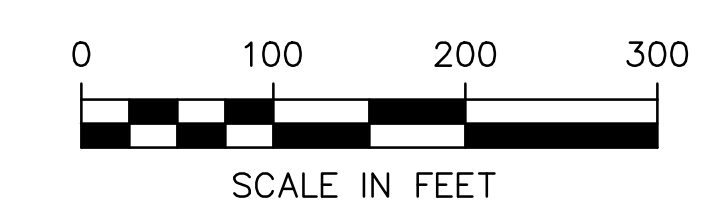
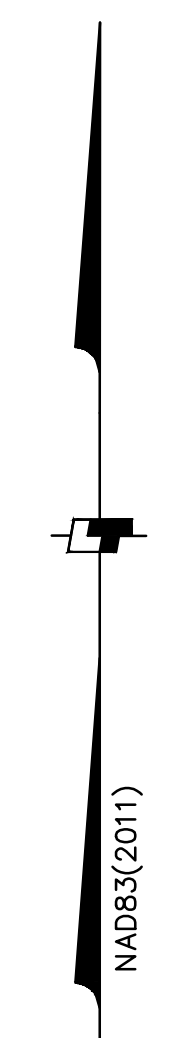
ASSESSORS REFERENCE
TAX MAP 216, PARCEL 47

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- PLAN 1239 OF 1999
- PLAN 91 OF 2002
- PLAN 684 OF 2009
- PLAN 383 OF 2015

SEE SHEET EX-2
SEE SHEET EX-3



- NOTES:**
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ZONING DISTRICT:	RESIDENTIAL A
MINIMUM LOT AREA:	80,000 S.F.
MINIMUM LOT FRONTAGE:	225 FEET
MINIMUM BUILDING SETBACKS:	
FRONT	50'
SIDE	15'
REAR	15'

REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.

GRATUITY BROOK FARM ESTATES
EXISTING CONDITIONS PLAN

63 GRATUITY ROAD
GROTON, MA

SCALE: 1" = 100'

AUGUST 12, 2024

DESIGN	MJS	DRAFT	MJS	CHECK	MAW
PREPARED FOR:	ROUTHIER & ROPER GRATUITY ROAD, LLC 256 AYER ROAD, LITTLETON, MA 01460				

DATE: 1/13/25
BY: MJS
UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS

TOWN OF GROTON
PLANNING BOARD APPROVAL

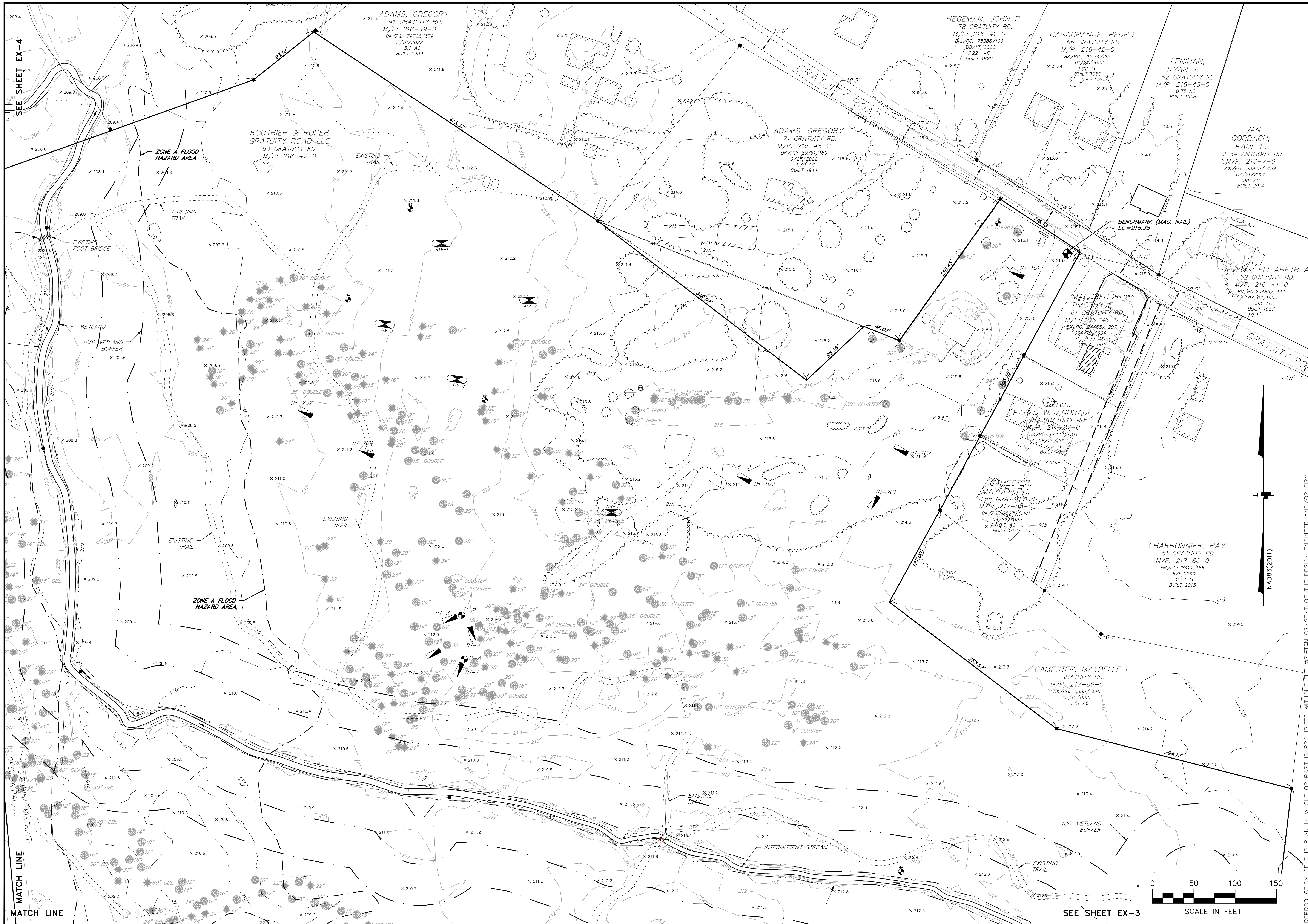
APPROVED: _____
DATE: _____

ENDORSED: _____
DATE: _____

Landtech
Consultants

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JOB NO.	22-243
DWG. NO.	11142
SHEET	EX-1



SEE SHEET EX-4

MATCH LINE

SEE SHEET EX-3



REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.	
GRATUITY BROOK FARM ESTATES EXISTING CONDITIONS PLAN	AUGUST 12, 2024
PREPARED FOR: ROUTHIER & ROPER GRATUITY ROAD, LLC 256 ATER ROAD LITTLETON, MA 01460	CHECK MAW
DESIGN MUS	DRAFT MUS
SCALE: 1" = 50'	DATE 1/13/25
63 GRATUITY ROAD GROTON, MA	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS
JOB NO. 22-243	DWG. NO. 11142
SHEET EX-2	M/J BY





BY	MJS
DATE	1/19/25
REVISION	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS

PREPARED FOR:
 ROUTHIER & ROPER
 GRATUITY ROAD, LLC
 236 ATER ROAD,
 LITTLETON, MA 01460

**GRATUITY BROOK FARM ESTATES
 EXISTING CONDITIONS PLAN**

63 GRATUITY ROAD
 GROTON, MA

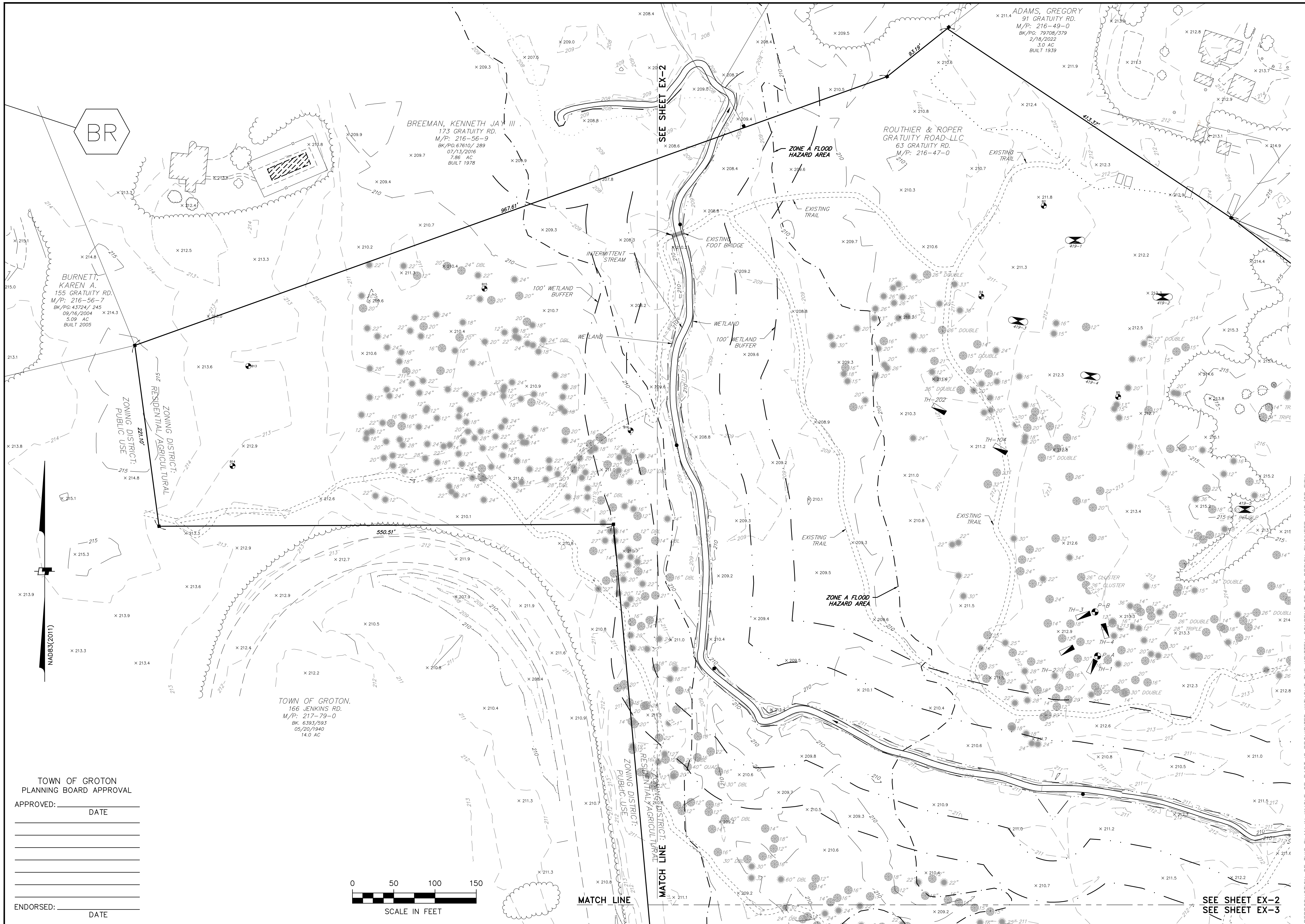
SCALE: 1" = 50'

AUGUST 12, 2024

Landtech
 Consultants

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JOB NO.	22-243
DWG. NO.	11142
SHEET	EX-3



BR

SEE SHEET EX-2

MATCH LINE

TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____



SEE SHEET EX-2
SEE SHEET EX-3

REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.

**GRATUITY BROOK FARM ESTATES
EXISTING CONDITIONS PLAN**

63 GRATUITY ROAD
GROTON, MA

SCALE: 1" = 50'

PREPARED FOR:
ROUTHIER & ROPER
GRATUITY ROAD, LLC
256 ATER ROAD,
LITTLETON, MA 01460

DESIGN: MUS
CHECK: MAW
DRAFT: MUS
DATE: 1/19/25
UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS: MJS

JOB NO. 22-243
DWG. NO. 11142
SHEET EX-4
BY

August 12, 2024

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TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____

ZONING:

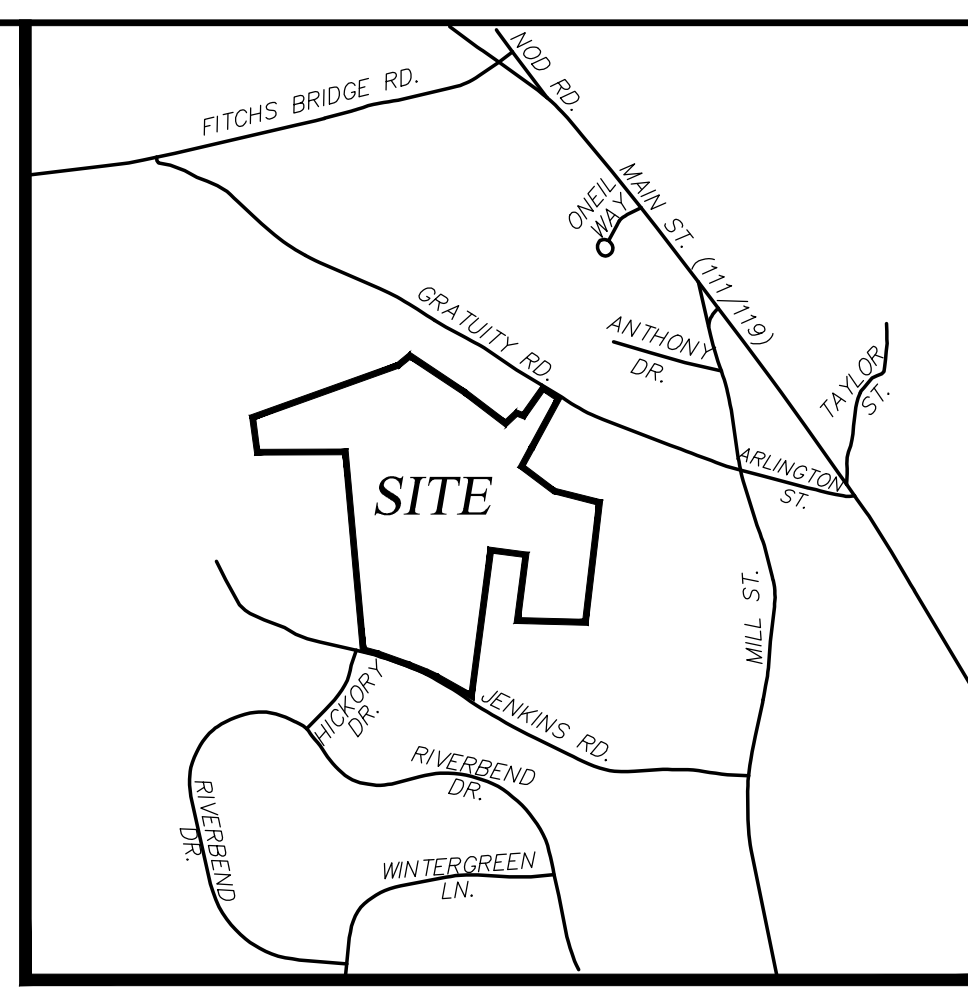
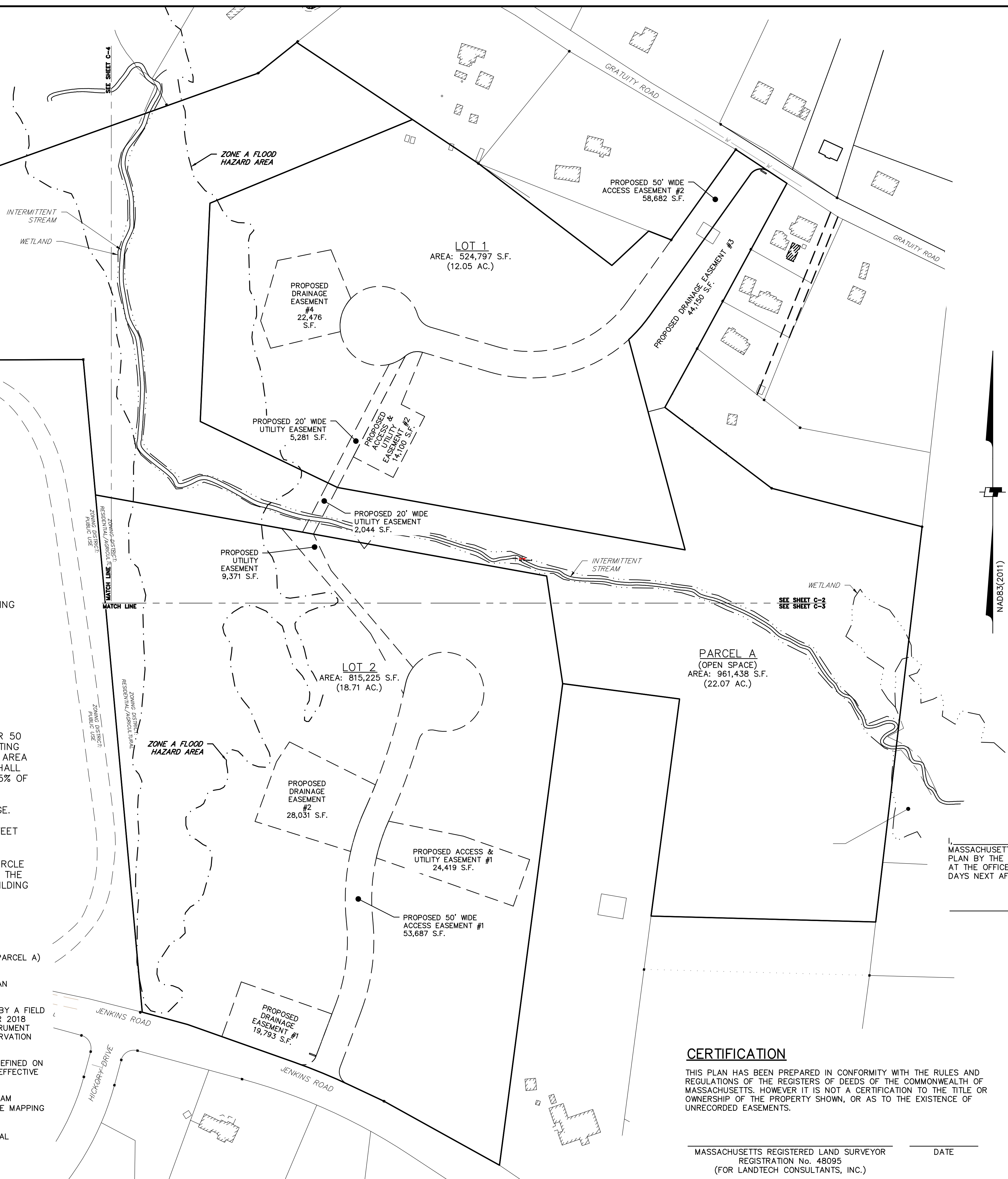
- THIS PARCEL IS LOCATED IN RESIDENTIAL AGRICULTURAL (RA) ZONING DISTRICT.

ZONING DISTRICT:	RESIDENTIAL A
MINIMUM LOT AREA:	80,000 S.F.
MINIMUM LOT FRONTAGE:	225 FEET
MINIMUM BUILDING SETBACKS:	
FRONT:	50'
SIDE:	15'
REAR:	15'

- ALL LOTS MEET GROTON ZONING FRONTAGE REQUIREMENTS.
 - THE FRONTAGE REQUIREMENT (225') SHALL BE MAINTAINED FOR 50 FEET MEASURED PERPENDICULAR TO A STRAIGHT LINE CONNECTING THE TWO FRONT LOT CORNERS, AND AT NO POINT WITHIN THE AREA FROM THE FRONT YARD DEPTH TO THE PRINCIPAL DWELLING SHALL THE DISTANCE BETWEEN THE SIDE LOT LINES BE LESS THAN 75% OF THE MINIMUM REQUIRED FRONTAGE.
- ALL LOTS HAVE PRACTICAL ACCESS THROUGH THEIR OWN FRONTAGE.
- LOT AREA CALCULATIONS: MINIMUM 80,000 CONTIGUOUS SQUARE FEET EXCLUSIVE OF WETLANDS AND FLOOD HAZARD AREAS.
- EACH LOT SHALL BE CAPABLE OF CONTAINING A 150' DIAMETER CIRCLE WITHIN WHICH THERE IS NO AREA SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT AND WITHIN WHICH ANY PRINCIPAL BUILDING SHALL BE LOCATED.

NOTES:

- THE PURPOSE OF THIS PLAN IS TO CREATE THREE (3) LOTS (LOTS 1 & 2 AND PARCEL A) AND ASSOCIATED ACCESS, DRAINAGE, AND UTILITY EASEMENTS.
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- THE SUBJECT PARCEL IS NOT LOCATED WITHIN THE 100 YEAR FLOOD PLAIN AS DEFINED ON THE FEMA FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL No 25017C0202E, EFFECTIVE DATE JUNE 4, 2010.
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- THE SITE IS LOCATED WITHIN THE "PETAPAWAG" AREA OF CRITICAL ENVIRONMENTAL CONCERN.



LOCUS
SCALE: 1" = 1,200'

RECORD OWNERS
ROUTHIER & ROPER GRATUITY ROAD, LLC
256 AYER ROAD
LITTLETON, MA 01460

ASSESSORS REFERENCE
TAX MAP 216, PARCEL 47

DEED REFERENCES
M.S.D.R.D. DEED BOOK 71686, PAGE 81

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- PLAN 383 OF 2015

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

TOWN CLERK

DATE

LEGEND

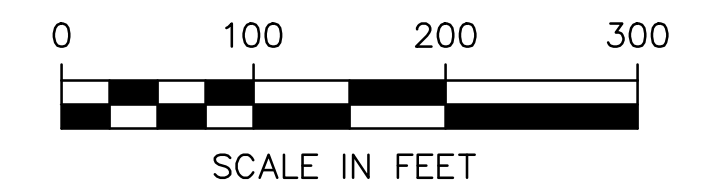
- LOT LINE
- BUILDING LOCATION BOUNDARY
- - - EASEMENT
- EDGE OF WETLAND
- I.P. (Fnd.) ○ EXISTING IRON PIPE
- S.B. (Fnd.) □ EXISTING GRANITE BOUND
- D.H. (Fnd.) ⊙ EXISTING DRILL HOLE
- S.B.D.H. ■ PROPOSED GRANITE BOUND WITH DRILL HOLE
- I.P. ○ PROPOSED IRON PIPE

CERTIFICATION

THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS. HOWEVER IT IS NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN, OR AS TO THE EXISTENCE OF UNRECORDED EASEMENTS.

MASSACHUSETTS REGISTERED LAND SURVEYOR
REGISTRATION No. 48095
(FOR LANDTECH CONSULTANTS, INC.)

DATE



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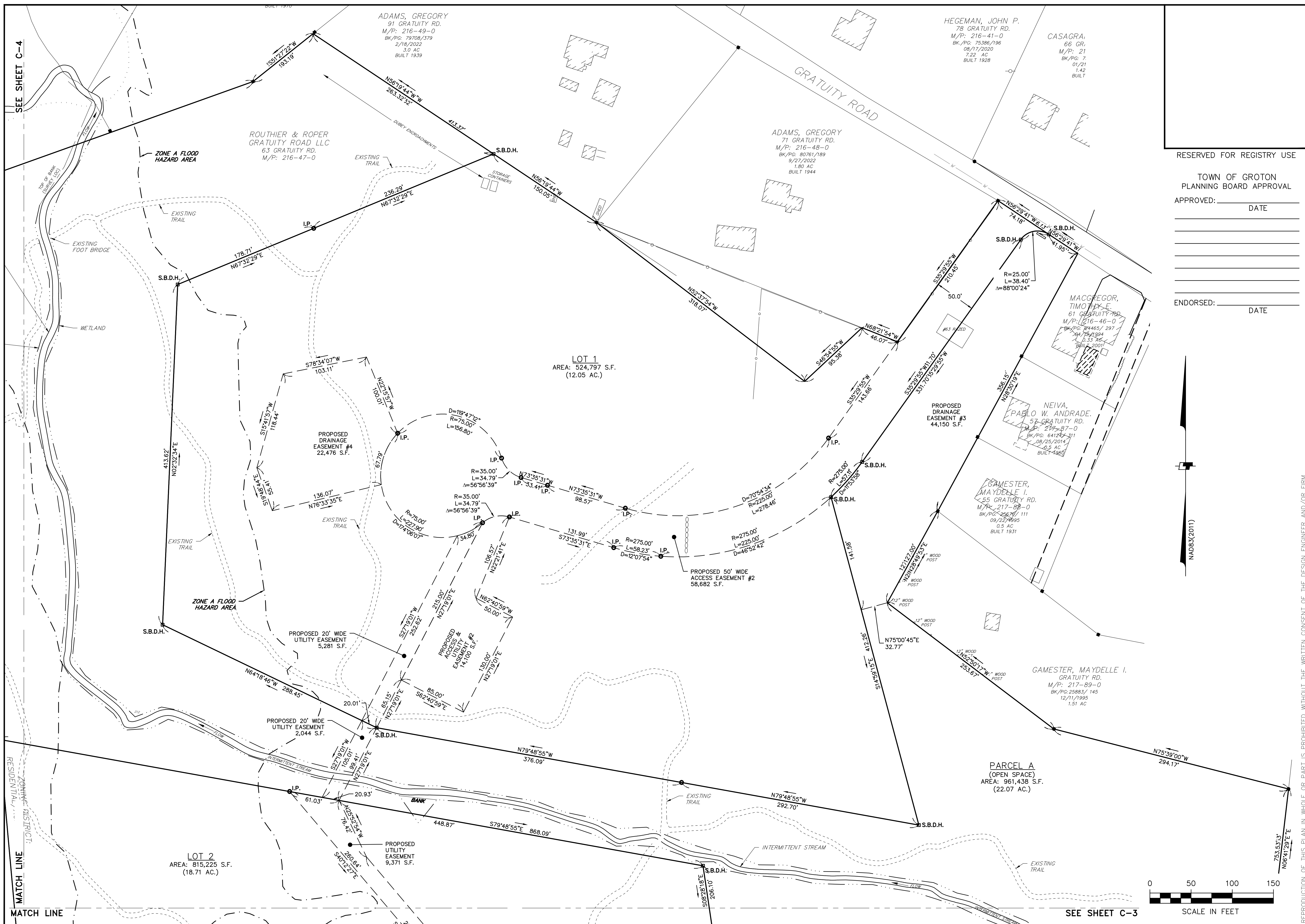
**GRATUITY BROOK FARM ESTATES
PLAN OF LAND
63 GRATUITY ROAD
GROTON, MA**

SCALE: 1" = 100'

PREPARED FOR:	ROUTHER & ROPER GRATUITY ROAD, LLC 256 AYER ROAD, LITTLETON, MA 01460
DESIGN:	MJS
DRAFT:	MJS
CHECK:	MAW
DATE:	AUGUST 12, 2024
BY:	MJS
REVISION:	
COMMENTS:	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS
DATE:	12/10/24
BY:	MJS
REVISION:	
COMMENTS:	PEER REVIEW COMMENTS
DATE:	1/13/25
BY:	MJS
REVISION:	
COMMENTS:	
DATE:	
BY:	

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JOB NO. 22-243
DWG. NO. 11142
SHEET C-1



SEE SHEET C-4

MATCH LINE

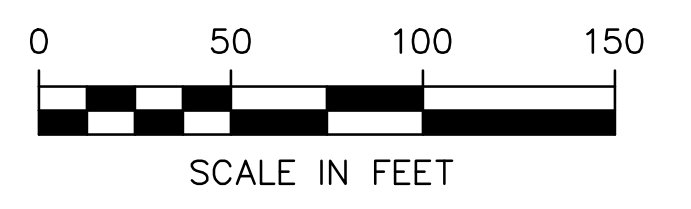
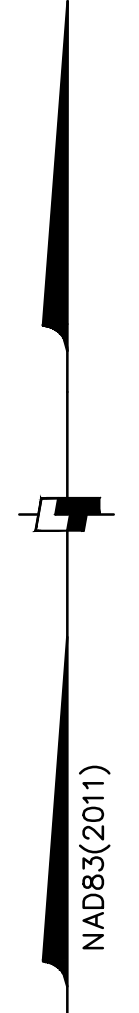
SEE SHEET C-3

RESERVED FOR REGISTRY USE

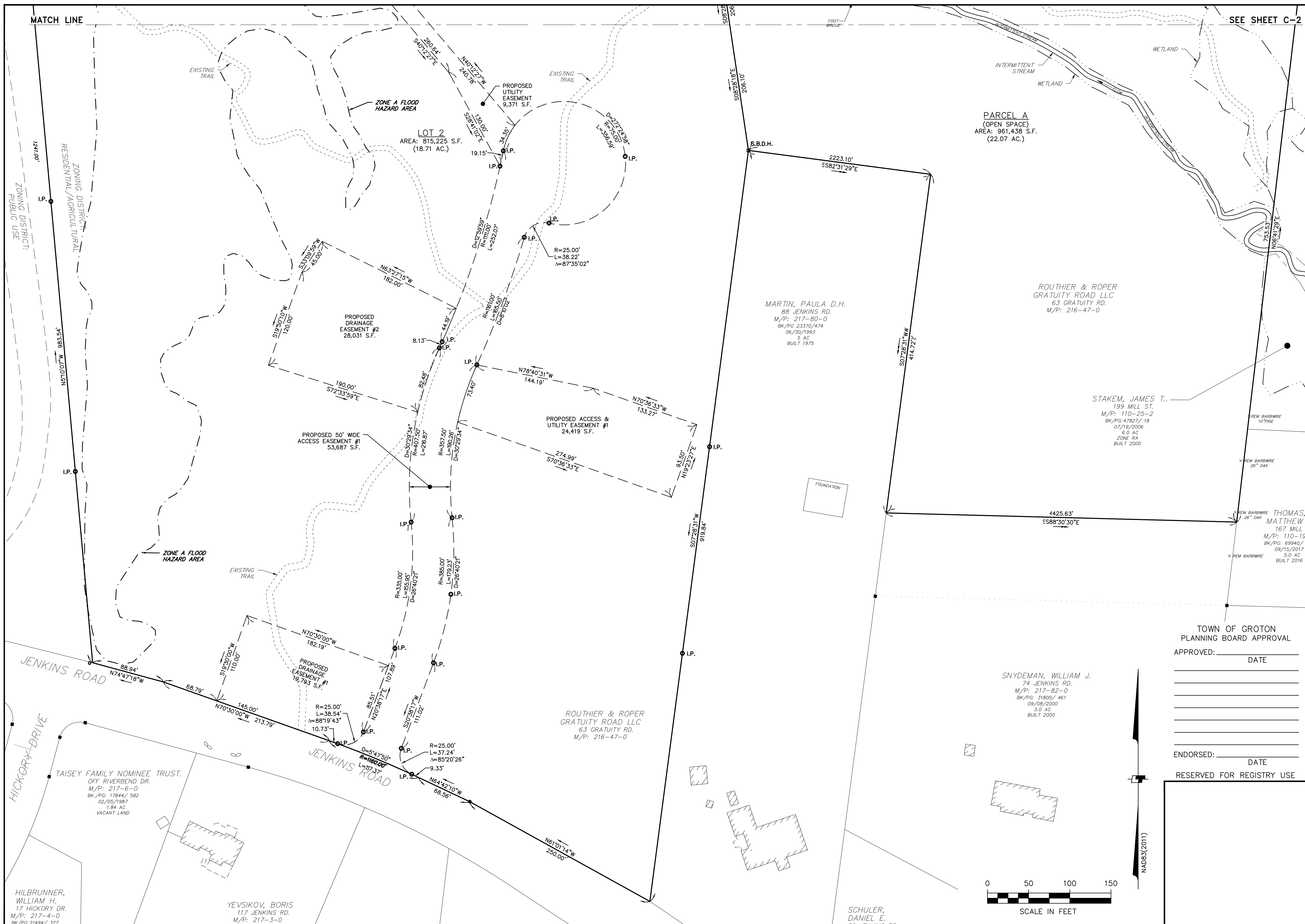
TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____



PREPARED FOR: ROUTHIER & ROPER GRATUITY ROAD, LLC 256 ATER ROAD, LITTLETON, MA 01460		CHECK MAW
DESIGN MUS	DRAFT MUS	AUGUST 12, 2024
GRATUITY BROOK FARM ESTATES PLAN OF LAND 63 GRATUITY ROAD GROTON, MA		
JOB NO. 22-243	DWG. NO. 11142	SHEET C-2
REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.		
Landatech Consultants 515 Groton Road • Westford, MA 01886 • (978) 892-6100 • www.landatech.com Copyright © 2023		
M/S 1/13/25 UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	M/S 12/10/24 PEER REVIEW COMMENTS	BY



DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS

PREPARED FOR:
**ROUTHIER & ROPER
 GRATUITY ROAD, LLC**
 256 ATER ROAD,
 LITTLETON, MA 01460

DESIGN: MJS
 DRAFT: MJS
 CHECK: MAW

**GRATUITY BROOK FARM ESTATES
 PLAN OF LAND**
 63 GRATUITY ROAD
 GROTON, MA

AUGUST 12, 2024

SCALE: 1" = 50'

TOWN OF GROTON
 PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____

RESERVED FOR REGISTRY USE

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JOB NO. 22-243	DWG. NO. 11142	SHEET C-3
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SEE SHEET C-2

**PARCEL A
 (OPEN SPACE)**
 AREA: 961,438 S.F.
 (22.07 AC.)

MARTIN, PAULA D.H.
 88 JENKINS RD.
 M/P: 217-80-0
 BK/P: 23350/474
 06/30/1993
 5 AC
 BUILT 1975

STAKEM, JAMES T..
 199 MILL ST.
 M/P: 110-25-2
 BK/P: 47827/18
 07/19/2006
 6.0 AC
 ZONE RA
 BUILT 2000

THOMAS, MATTHEW
 167 MILL
 M/P: 110-19
 BK/P: 89940/1
 09/15/2017
 5.0 AC
 BUILT 2016

SNYDEMAN, WILLIAM J.
 74 JENKINS RD.
 M/P: 217-82-0
 BK/P: 31800/461
 09/08/2000
 5.0 AC
 BUILT 2000

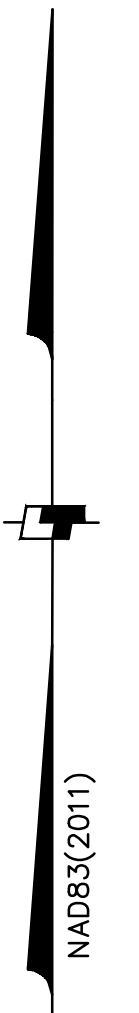
ROUTHIER & ROPER
 GRATUITY ROAD LLC
 63 GRATUITY RD.
 M/P: 216-47-0

TAISEY FAMILY NOMINEE TRUST,
 OFF RIVERBEND DR.
 M/P: 217-6-0
 BK/P: 17844/582
 02/05/1987
 1.84 AC
 VACANT LAND

HILBRUNNER,
 WILLIAM H.
 17 HICKORY DR.
 M/P: 217-4-0
 BK/P: 21494/377

YEVSIKOV, BORIS
 117 JENKINS RD.
 M/P: 217-3-0

SCHULER,
 DANIEL E.



MATCH LINE

ZONING DISTRICT:
 PUBLIC USE

ZONING DISTRICT:
 RESIDENTIAL/AGRICULTURAL

LOT 2
 AREA: 815,225 S.F.
 (18.71 AC.)

ZONE A FLOOD
 HAZARD AREA

ZONE A FLOOD
 HAZARD AREA

PROPOSED DRAINAGE
 EASEMENT #2
 28,031 S.F.

PROPOSED 50' WIDE
 ACCESS EASEMENT #1
 53,687 S.F.

PROPOSED ACCESS &
 UTILITY EASEMENT #1
 24,419 S.F.

PROPOSED DRAINAGE
 EASEMENT #1
 19,793 S.F.

EXISTING TRAIL

EXISTING TRAIL

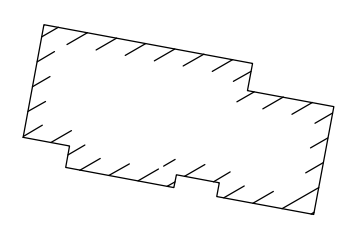
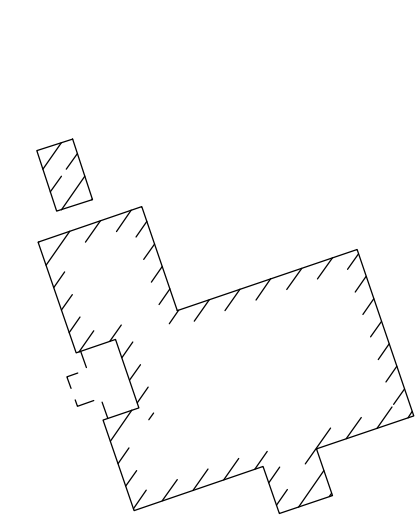
EXISTING TRAIL

JENKINS ROAD

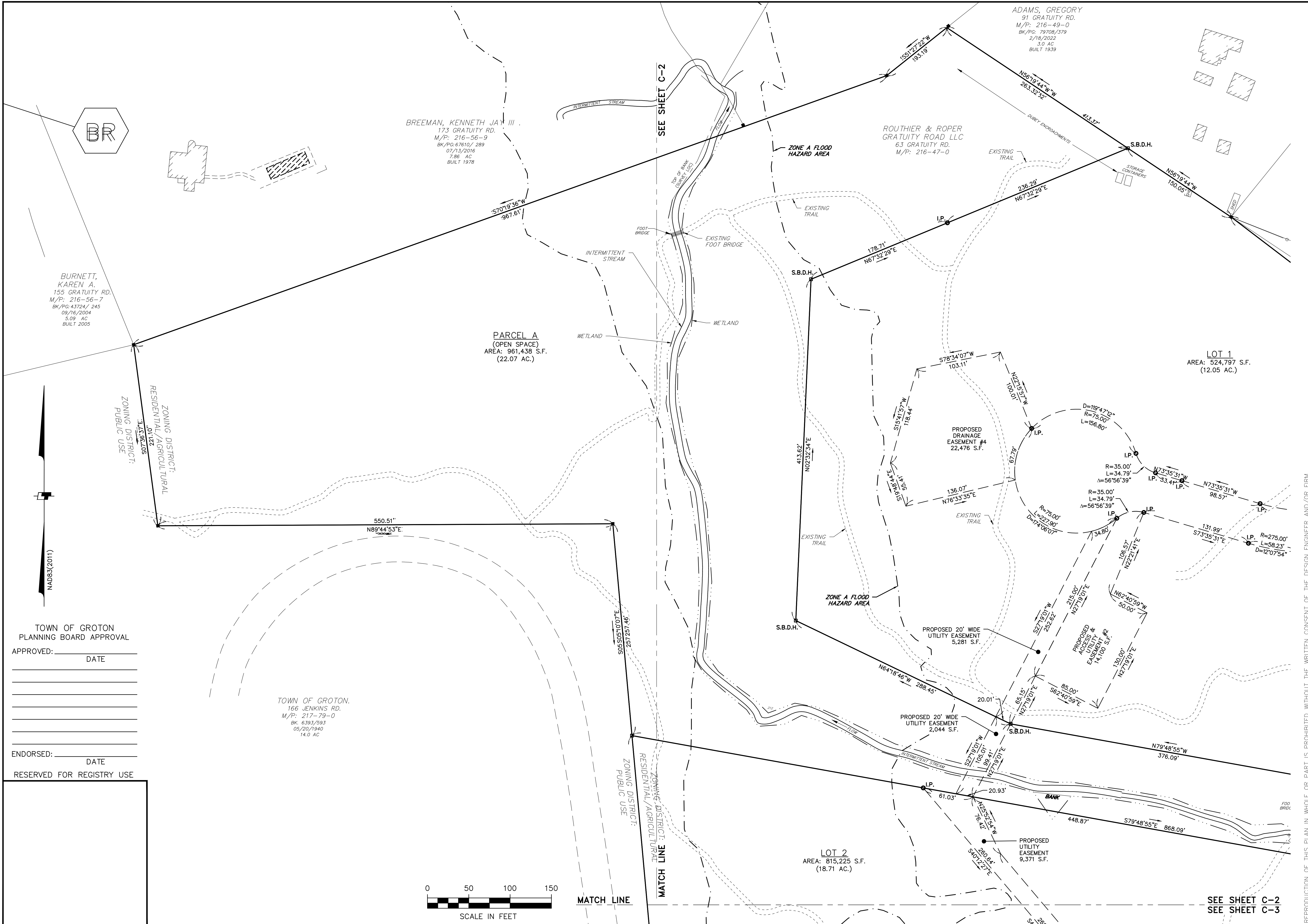
JENKINS ROAD

HICKORY DRIVE

FOUNDATION



SCHULER,
 DANIEL E.



BR

BURNETT, KAREN A.
155 GRATUITY RD.
M/P: 216-56-7
BK/PG: 43724 / 245
09/16/2004
5.09 AC
BUILT 2005

BREEMAN, KENNETH JAY III
173 GRATUITY RD.
M/P: 216-56-9
BK/PG: 67610 / 289
07/13/2016
7.86 AC
BUILT 1978

ROUTHIER & ROPER
GRATUITY ROAD LLC
63 GRATUITY RD.
M/P: 216-47-0

ADAMS, GREGORY
91 GRATUITY RD.
M/P: 216-49-0
BK/PG: 79708 / 379
2/18/2022
3.0 AC
BUILT 1939

PARCEL A
(OPEN SPACE)
AREA: 961,438 S.F.
(22.07 AC.)

LOT 1
AREA: 524,797 S.F.
(12.05 AC.)

LOT 2
AREA: 815,225 S.F.
(18.71 AC.)

ZONING DISTRICT:
PUBLIC USE

ZONING DISTRICT:
RESIDENTIAL / AGRICULTURAL

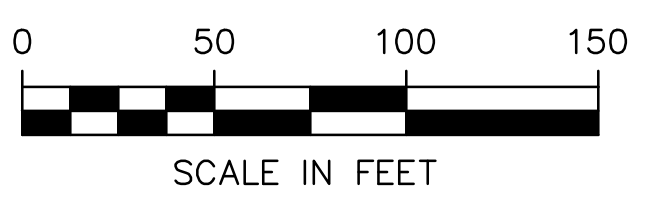
ZONING DISTRICT:
PUBLIC USE

ZONING DISTRICT:
RESIDENTIAL / AGRICULTURAL

TOWN OF GROTON.
166 JENKINS RD.
M/P: 217-79-0
BK: 6393/593
05/20/1940
14.0 AC

TOWN OF GROTON
PLANNING BOARD APPROVAL
APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____
RESERVED FOR REGISTRY USE



MATCH LINE

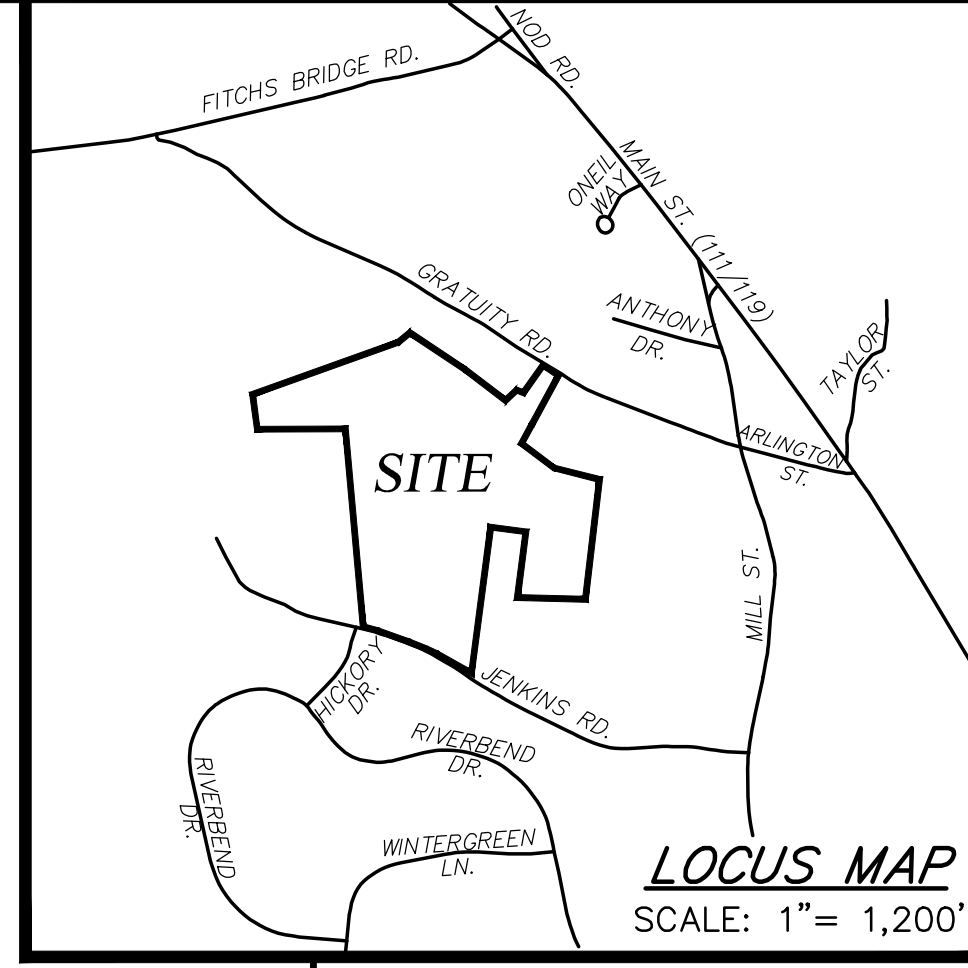
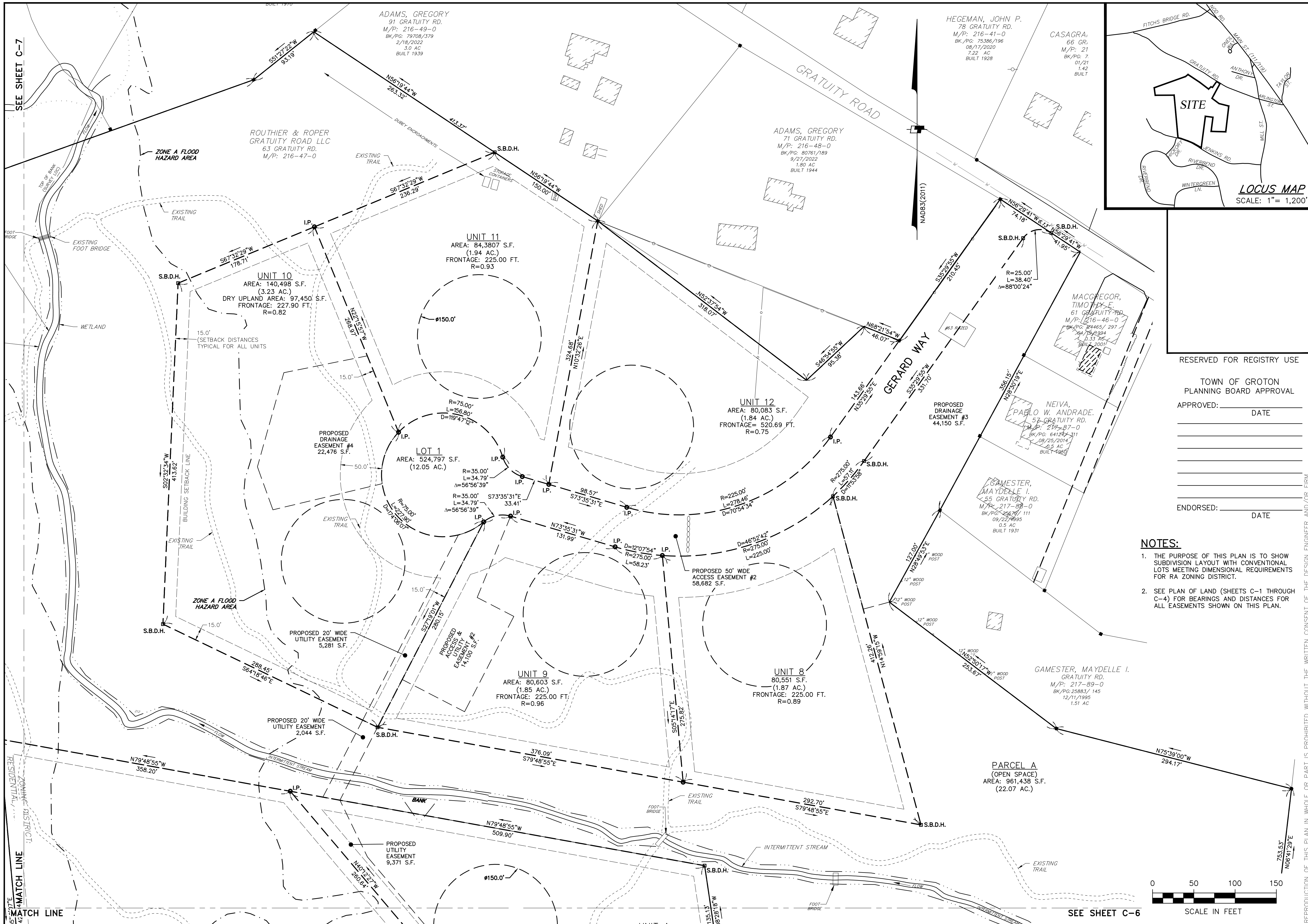
SEE SHEET C-2
SEE SHEET C-3

REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.	
JOB NO. 22-243	DWG. NO. 11142
SHEET C-4	DATE AUGUST 12, 2024
PREPARED FOR: ROUTHIER & ROPER GRATUITY ROAD, LLC 256 ATER ROAD, LITTLETON, MA 01460	CHECK MAW
DESIGN MJS	DRAFT MJS
UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS 1/13/25	PEER REVIEW COMMENTS 12/10/24
MJS	BY
MJS	REVISION

GRATUITY BROOK FARM ESTATES
PLAN OF LAND
63 GRATUITY ROAD
GROTON, MA



SCALE: 1" = 50'



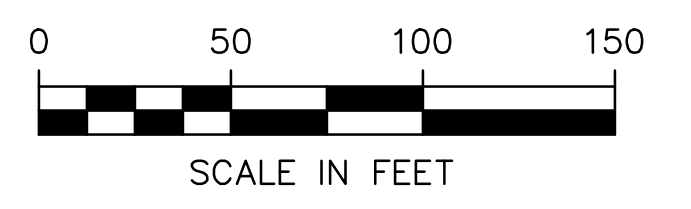
RESERVED FOR REGISTRY USE

TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____

- NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO SHOW SUBDIVISION LAYOUT WITH CONVENTIONAL LOTS MEETING DIMENSIONAL REQUIREMENTS FOR RA ZONING DISTRICT.
 2. SEE PLAN OF LAND (SHEETS C-1 THROUGH C-4) FOR BEARINGS AND DISTANCES FOR ALL EASEMENTS SHOWN ON THIS PLAN.



DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS

DESIGN	DRAFT	CHECK
MJS	MJS	MAW

PREPARED FOR:
ROUTHIER & ROPER
GRATUITY ROAD, LLC
256 ATER ROAD,
LITTLETON, MA 01460

GRATUITY BROOK FARM ESTATES
PROPERTY RIGHTS PLAN
63 GRATUITY ROAD
GROTON, MA

SCALE: 1" = 50'

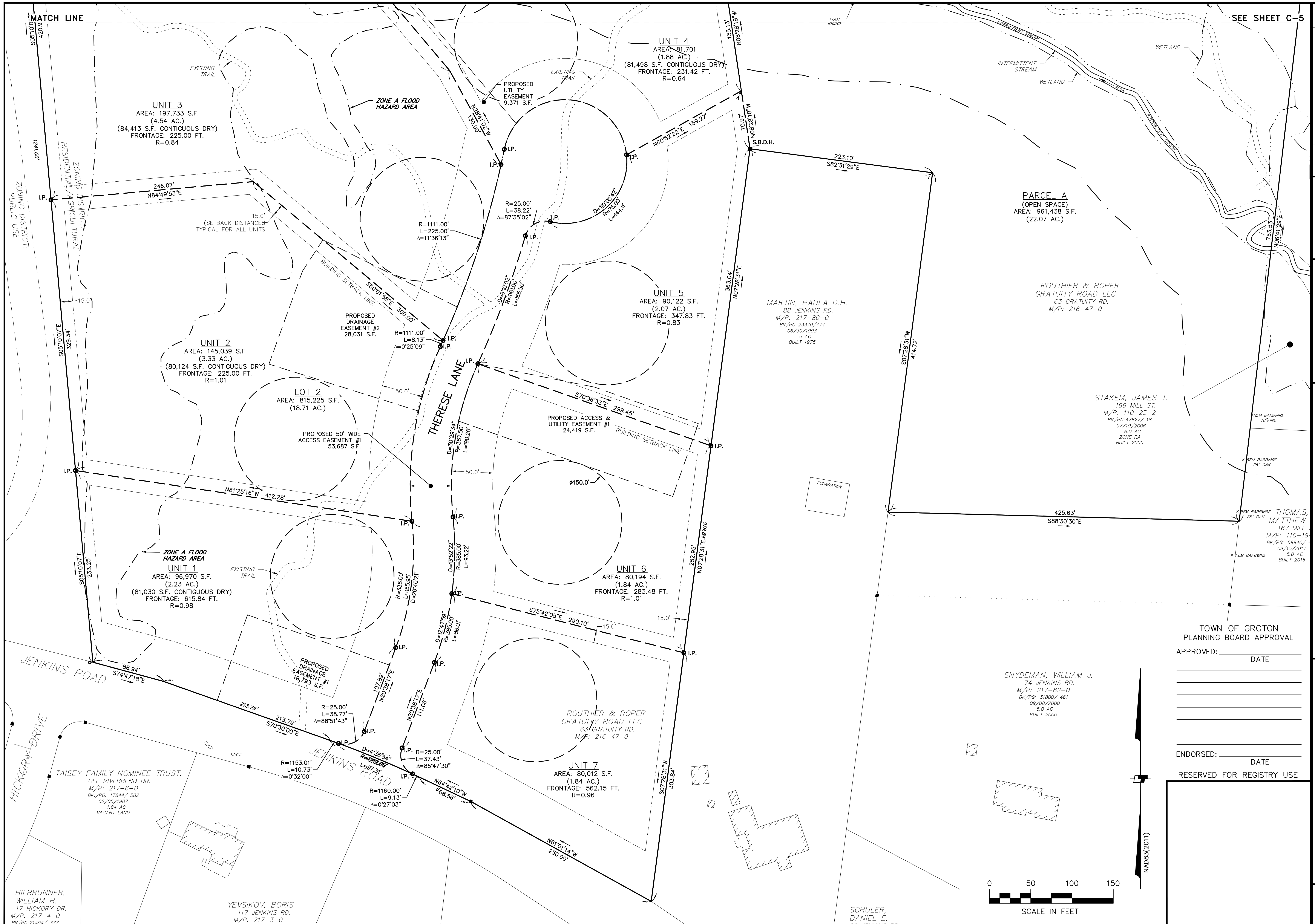
AUGUST 12, 2024

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Landtech
Consultants

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JOB NO. 22-243	DWG. NO. 11142	SHEET C-5
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SEE SHEET C-5

DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS

DESIGN	DRAFT	CHECK
MJS	MJS	MAW

PREPARED FOR:
 ROUTHIER & ROPER
 GRATUITY ROAD, LLC
 256 ATER ROAD,
 LITTLETON, MA 01460

DESIGN: MJS
 DRAFT: MJS
 CHECK: MAW

GRATUITY BROOK FARM ESTATES
 PROPERTY RIGHTS PLAN

63 GRATUITY ROAD
 GROTON, MA

AUGUST 12, 2024

SCALE: 1" = 50'

TOWN OF GROTON
 PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____

RESERVED FOR REGISTRY USE



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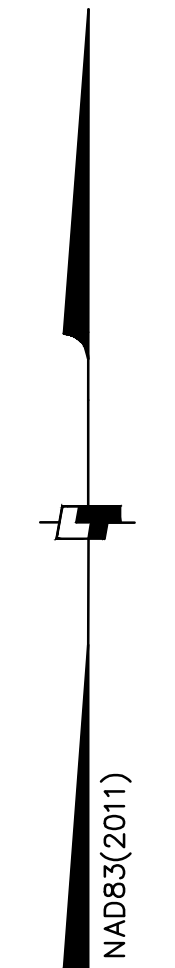
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JOB NO.	22-243
DWG. NO.	11142
SHEET	C-6

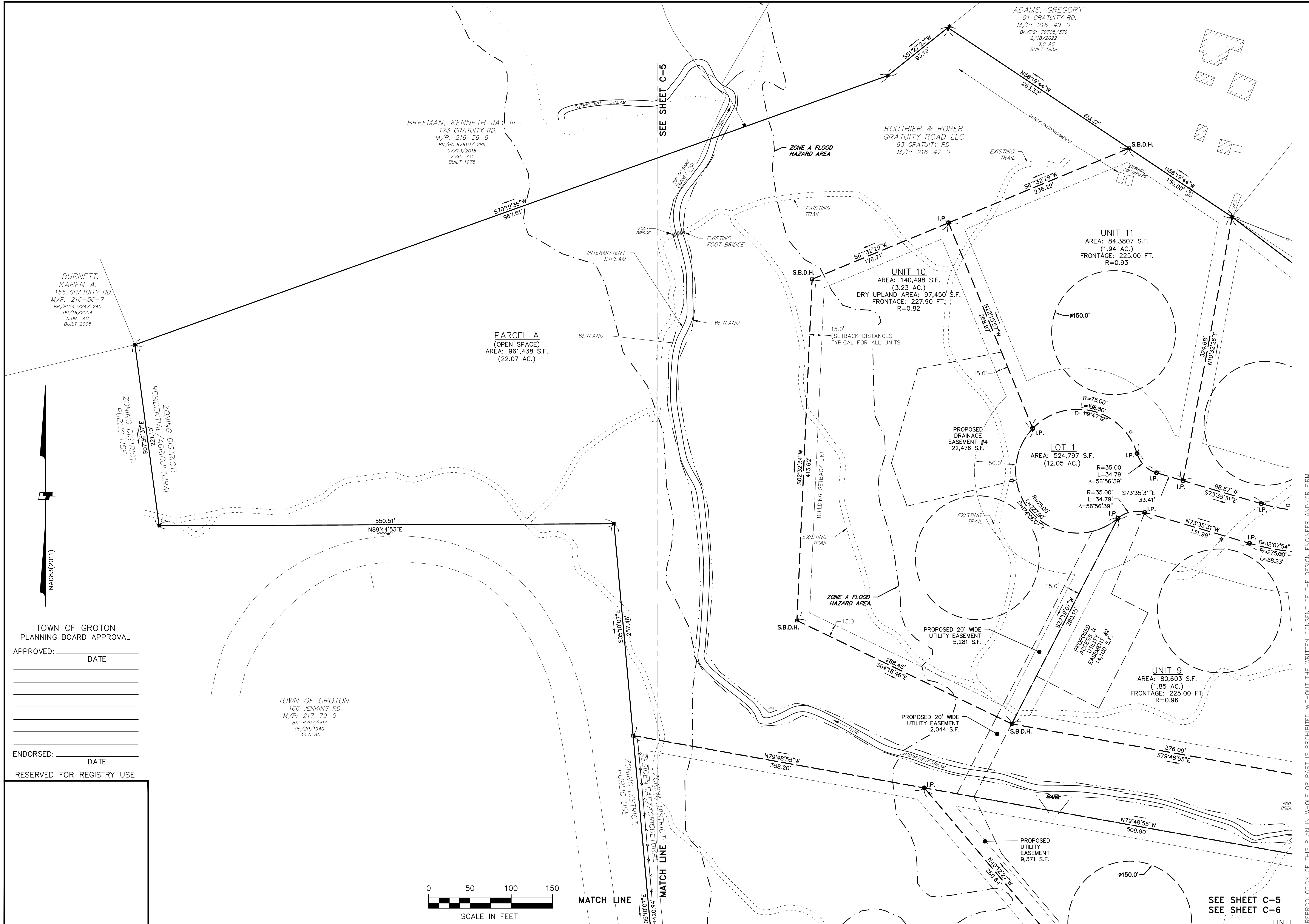
HILBRUNNER, WILLIAM H.
 17 HICKORY DR.
 M/P: 217-4-0
 BK/PG: 21494 / 377

YEYSIKOV, BORIS
 117 JENKINS RD.
 M/P: 217-3-0

SNYDEMAN, WILLIAM J.
 74 JENKINS RD.
 M/P: 217-82-0
 BK/PG: 31800 / 461
 09/08/2000
 5.0 AC
 BUILT 2000



0 50 100 150
 SCALE IN FEET



BURNETT, KAREN A.
155 GRATUITY RD.
M/P: 216-56-7
BK/PG: 43724 / 245
09/16/2004
5.09 AC
BUILT 2005

BREEMAN, KENNETH JAY III
173 GRATUITY RD.
M/P: 216-56-9
BK/PG: 67610 / 289
07/13/2016
7.86 AC
BUILT 1978

ADAMS, GREGORY
91 GRATUITY RD.
M/P: 216-49-0
BK/PG: 79708 / 379
2/18/2022
3.0 AC
BUILT 1939

ROUTHIER & ROPER
GRATUITY ROAD LLC
63 GRATUITY RD.
M/P: 216-47-0

PARCEL A
(OPEN SPACE)
AREA: 961,438 S.F.
(22.07 AC.)

UNIT 10
AREA: 140,498 S.F.
(3.23 AC.)
DRY UPLAND AREA: 97,450 S.F.
FRONTAGE: 227.90 FT.
R=0.82

UNIT 11
AREA: 84,380 S.F.
(1.94 AC.)
FRONTAGE: 225.00 FT.
R=0.93

LOT 1
AREA: 524,797 S.F.
(12.05 AC.)

UNIT 9
AREA: 80,603 S.F.
(1.85 AC.)
FRONTAGE: 225.00 FT.
R=0.96

TOWN OF GROTON
PLANNING BOARD APPROVAL
APPROVED: _____
DATE _____

TOWN OF GROTON.
166 JENKINS RD.
M/P: 217-79-0
BK: 6393/593
05/20/1940
14.0 AC

ENDORSED: _____
DATE _____
RESERVED FOR REGISTRY USE



MATCH LINE

SEE SHEET C-5
SEE SHEET C-6

DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS

DESIGN	MJS	CHECK	MAW
DRAFT	MJS		

PREPARED FOR:
ROUTHIER & ROPER
GRATUITY ROAD, LLC
256 ATER ROAD,
LITTLETON, MA 01460

**GRATUITY BROOK FARM ESTATES
PROPERTY RIGHTS PLAN**

63 GRATUITY ROAD
GROTON, MA

AUGUST 12, 2024

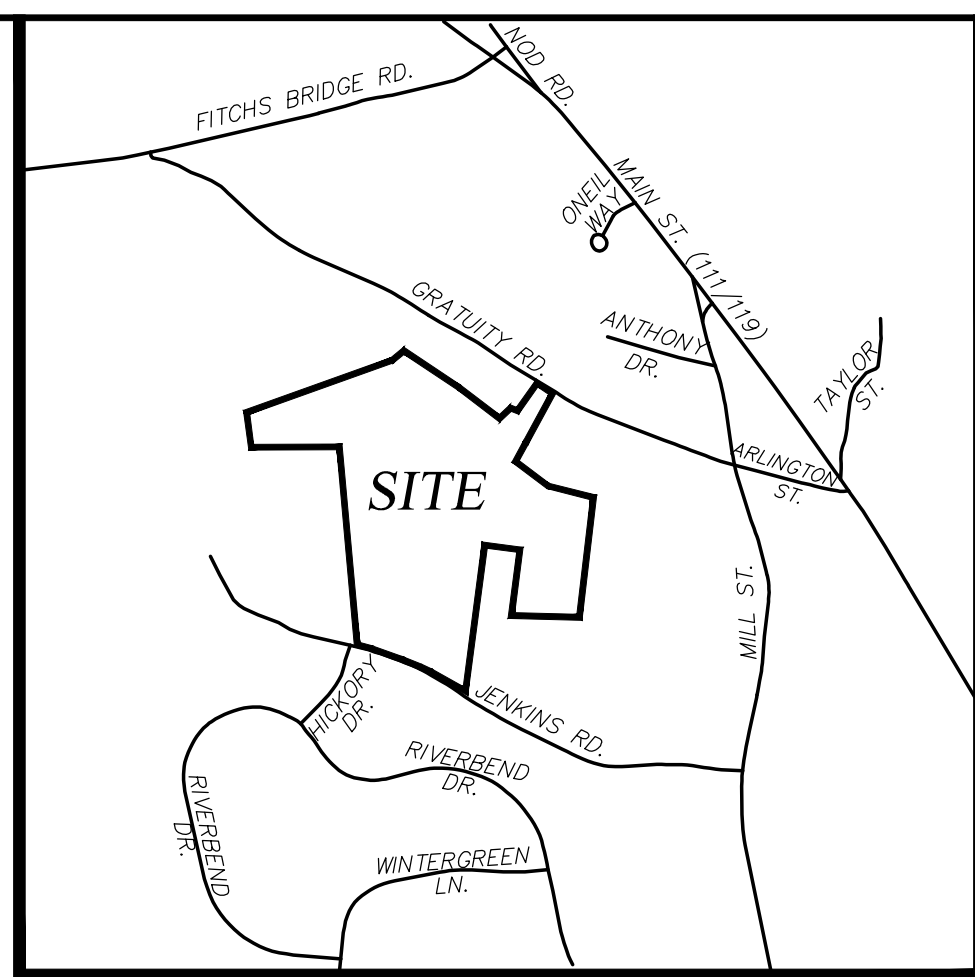
SCALE: 1" = 50'

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JOB NO.	22-243
DWG. NO.	11142
SHEET	C-7



LOCUS
SCALE: 1" = 1,200'

RECORD OWNERS

ROUTHER & ROPER GRATUITY ROAD, LLC
256 AYER ROAD
LITTLETON, MA 01460

ASSESSORS REFERENCE

TAX MAP 216, PARCEL 47

DEED REFERENCES

M.S.D.R.D. DEED BOOK 71686, PAGE 81

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW LAYOUT DESIGNED IN ACCORDANCE WITH RULES AND REGULATIONS ASSOCIATED WITH THE SPECIAL PERMIT APPLICATION FOR A MAJOR RESIDENTIAL DEVELOPMENT.
2. SEE PLAN OF LAND (SHEETS C-1 THROUGH C-4) AND PROPERTY RIGHTS PLAN (SHEETS C-5 THROUGH C-7) FOR BEARINGS AND DISTANCES FOR ALL UNITS AND EASEMENTS SHOWN ON THIS PLAN.

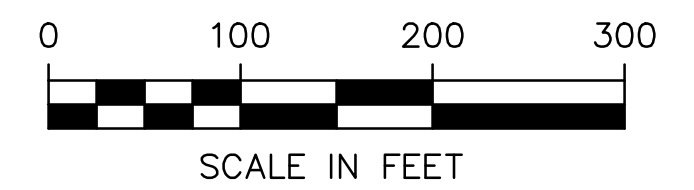
OPEN SPACE

TOTAL LOT AREA: 2,301,460 S.F.
 OPEN SPACE AREAS: 961,438 S.F. (PARCEL A)
 +797,964 S.F. (RESTRICTED USE AREAS)
 1,759,402 S.F. (76% OF TOTAL LOT AREA)
 LESS WETLAND AND DRAINAGE EASEMENT #3 AREAS:
 -50,618 S.F. (WETLAND)
 -44,150 S.F. (DRAINAGE EASEMENT #4)
 TOTAL OPEN SPACE AREA: 1,664,634 S.F. (72% OF LOT AREA)

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

TOWN CLERK

DATE



RESERVED FOR REGISTRY USE

NAD83(2011)

TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____
DATE _____

ENDORSED: _____
DATE _____

**GRATUITY BROOK FARM ESTATES
OVERALL OPEN SPACE PLAN**

63 GRATUITY ROAD
GROTON, MA

SCALE: 1" = 100'

AUGUST 12, 2024

PREPARED FOR:
ROUTHER & ROPER
GRATUITY ROAD, LLC
256 AYER ROAD,
LITTLETON, MA 01460

DESIGN: MJS
DRAFT: MJS
CHECK: MAW

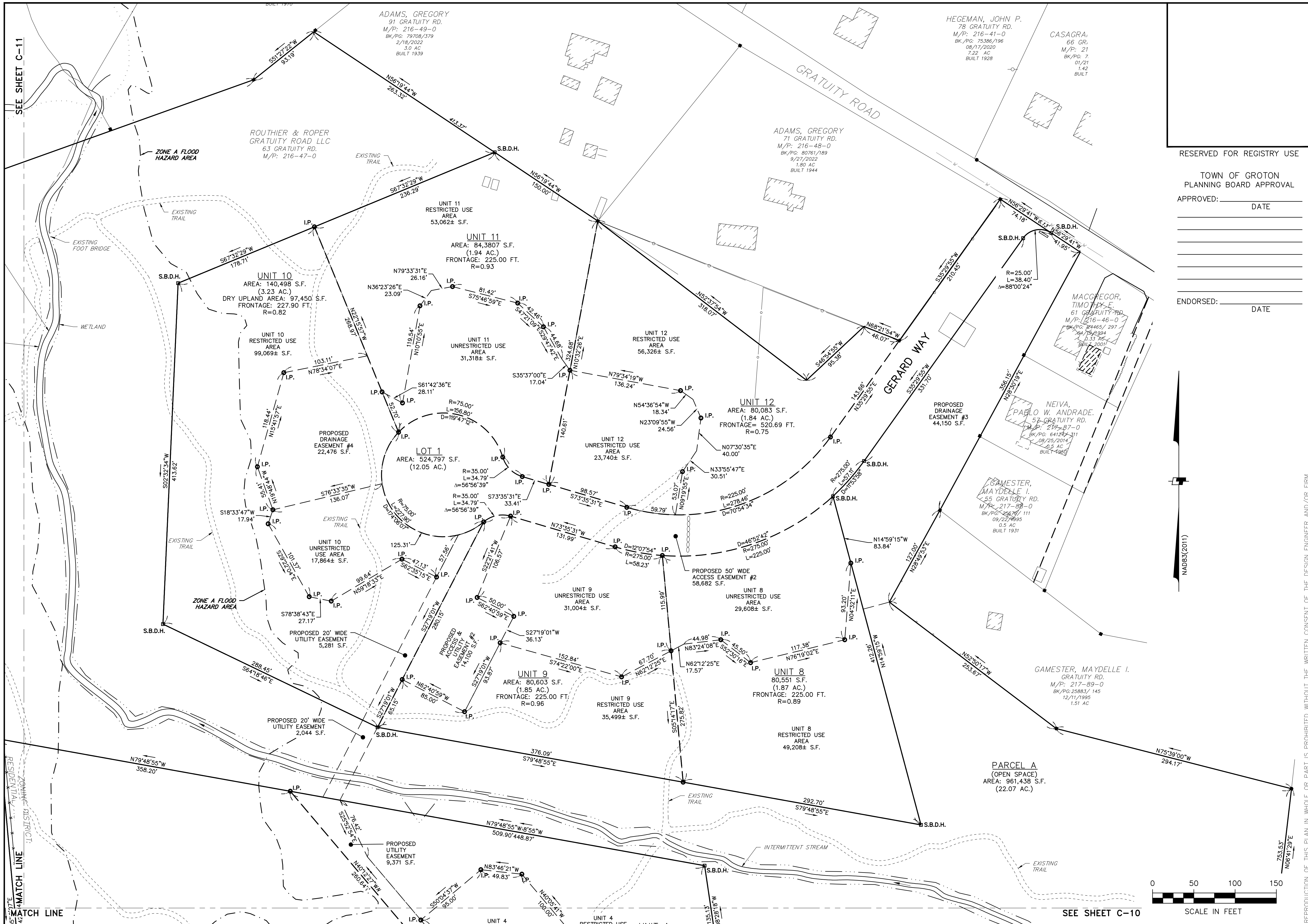
DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS



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JOB NO. 22-243	DWG. NO. 11142	SHEET C-8
-------------------	-------------------	--------------

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SEE SHEET C-11

SEE SHEET C-10

RESERVED FOR REGISTRY USE

TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____
DATE _____

ENDORSED: _____
DATE _____

DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS

DESIGN	DRAFT	CHECK
MJS	MJS	MAW

PREPARED FOR:
ROUTHIER & ROPER
GRATUITY ROAD, LLC
256 ATER ROAD,
LITTLETON, MA 01460

GRATUITY BROOK FARM ESTATES
OPEN SPACE PLAN
63 GRATUITY ROAD
GROTON, MA

AUGUST 12, 2024

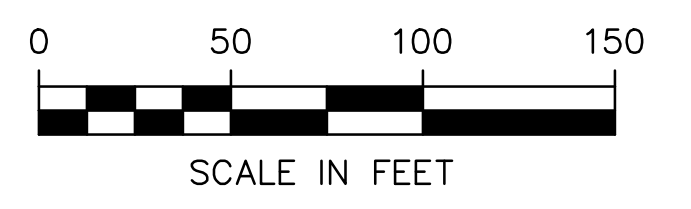
SCALE: 1" = 50'

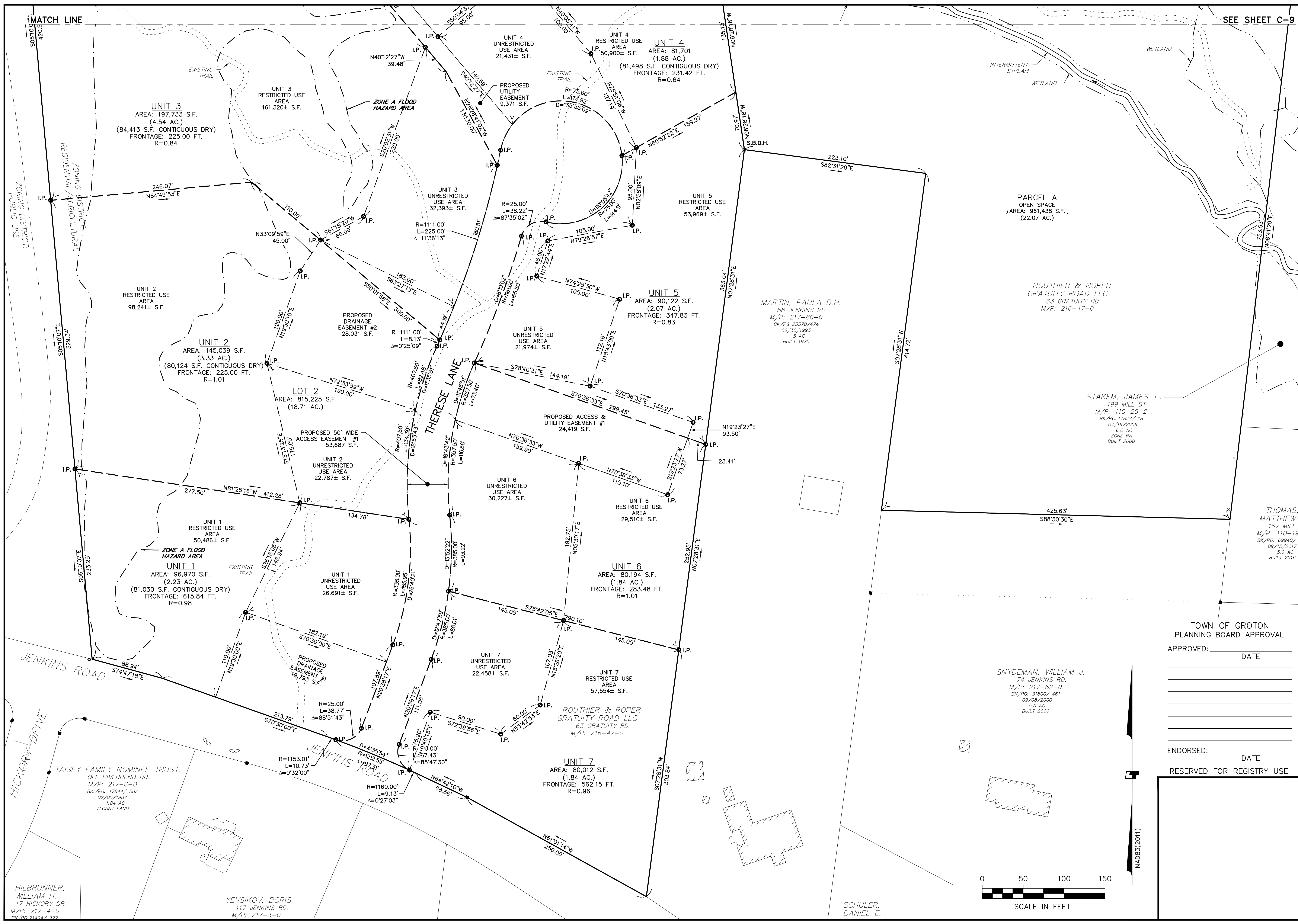
REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.

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JOB NO.	22-243
DWG. NO.	11142
SHEET	C-9





SEE SHEET C-9

DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS

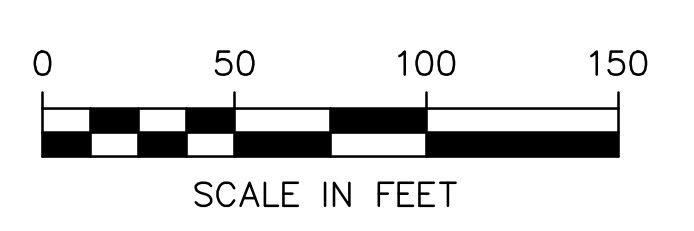
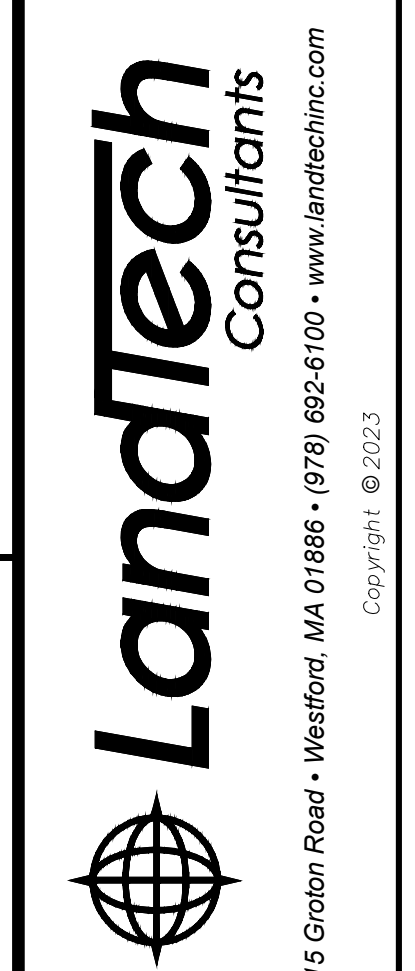
PREPARED FOR:
 ROUTHIER & ROPER
 GRATIIVITY ROAD, LLC
 256 ATER ROAD,
 LITTLETON, MA 01460

GRATIIVITY BROOK FARM ESTATES
 OPEN SPACE PLAN
 63 GRATIIVITY ROAD
 GROTON, MA

JOB NO.	DWG. NO.	SHEET
22-243	11142	C-10

SCALE: 1" = 50'

TOWN OF GROTON
 PLANNING BOARD APPROVAL
 APPROVED: _____ DATE _____
 _____ DATE _____
 ENDORSED: _____ DATE _____
 RESERVED FOR REGISTRY USE



SNYDEMAN, WILLIAM J.
 74 JENKINS RD.
 M/P: 217-82-0
 BK/P: 31800/461
 09/08/2000
 5.0 AC
 BUILT 2000

ROUTHIER & ROPER
 GRATIIVITY ROAD LLC
 63 GRATIIVITY RD.
 M/P: 216-47-0

STAKEM, JAMES T.
 199 MILL ST.
 M/P: 110-25-2
 BK/P: 47827/18
 07/19/2006
 6.0 AC
 ZONE RA
 BUILT 2000

THOMAS, MATTHEW
 167 MILL
 M/P: 110-19
 BK/P: 89940/1
 09/15/2017
 5.0 AC
 BUILT 2016

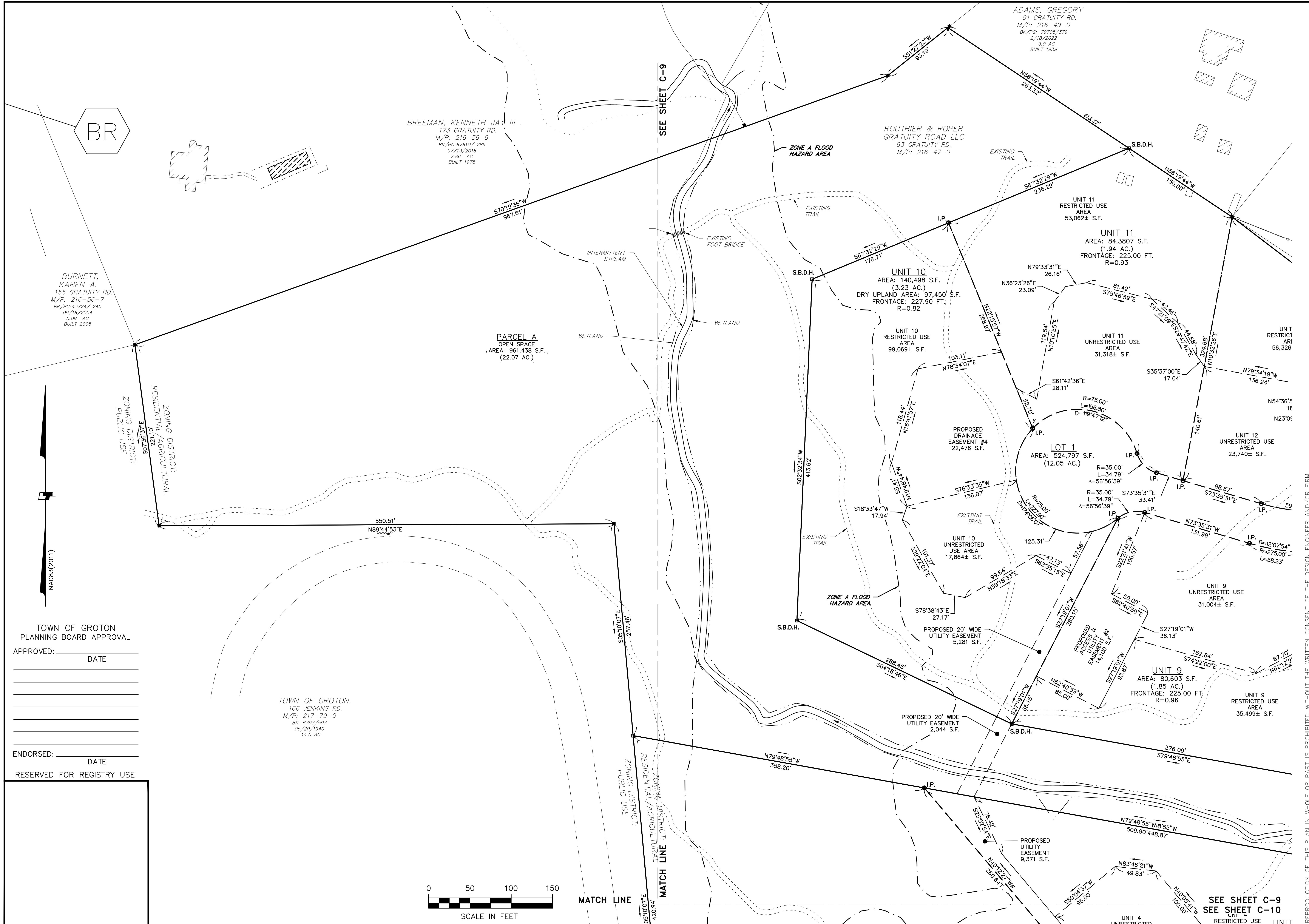
MARTIN, PAULA D.H.
 88 JENKINS RD.
 M/P: 217-80-0
 BK/P: 23370/474
 06/30/1993
 5 AC
 BUILT 1975

ROUTHIER & ROPER
 GRATIIVITY ROAD LLC
 63 GRATIIVITY RD.
 M/P: 216-47-0

HILBRUNNER, WILLIAM H.
 17 HICKORY DR.
 M/P: 217-4-0
 BK/P: 21494/377

YEYSIKOV, BORIS
 117 JENKINS RD.
 M/P: 217-3-0

SCHULER, DANIEL E.



BR

BURNETT, KAREN A.
155 GRATUITY RD.
M/P: 216-56-7
BK/PG: 43724/ 245
09/16/2004
5.09 AC
BUILT 2005

BREEMAN, KENNETH JAY III
173 GRATUITY RD.
M/P: 216-56-9
BK/PG: 67610/ 289
07/13/2016
7.86 AC
BUILT 1978

ROUTHIER & ROPER
GRATUITY ROAD LLC
63 GRATUITY RD.
M/P: 216-47-0

ADAMS, GREGORY
91 GRATUITY RD.
M/P: 216-49-0
BK/PG: 79708/379
2/18/2022
3.9 AC
BUILT 1939

PARCEL A
OPEN SPACE
AREA: 961,438 S.F.
(22.07 AC.)

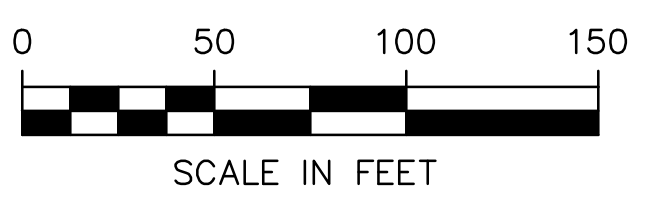
TOWN OF GROTON.
166 JENKINS RD.
M/P: 217-79-0
BK: 6393/593
05/20/1940
14.0 AC

ZONING DISTRICT:
PUBLIC USE

ZONING DISTRICT:
RESIDENTIAL/AGRICULTURAL

TOWN OF GROTON
PLANNING BOARD APPROVAL
APPROVED: _____
DATE _____

ENDORSED: _____
DATE _____
RESERVED FOR REGISTRY USE

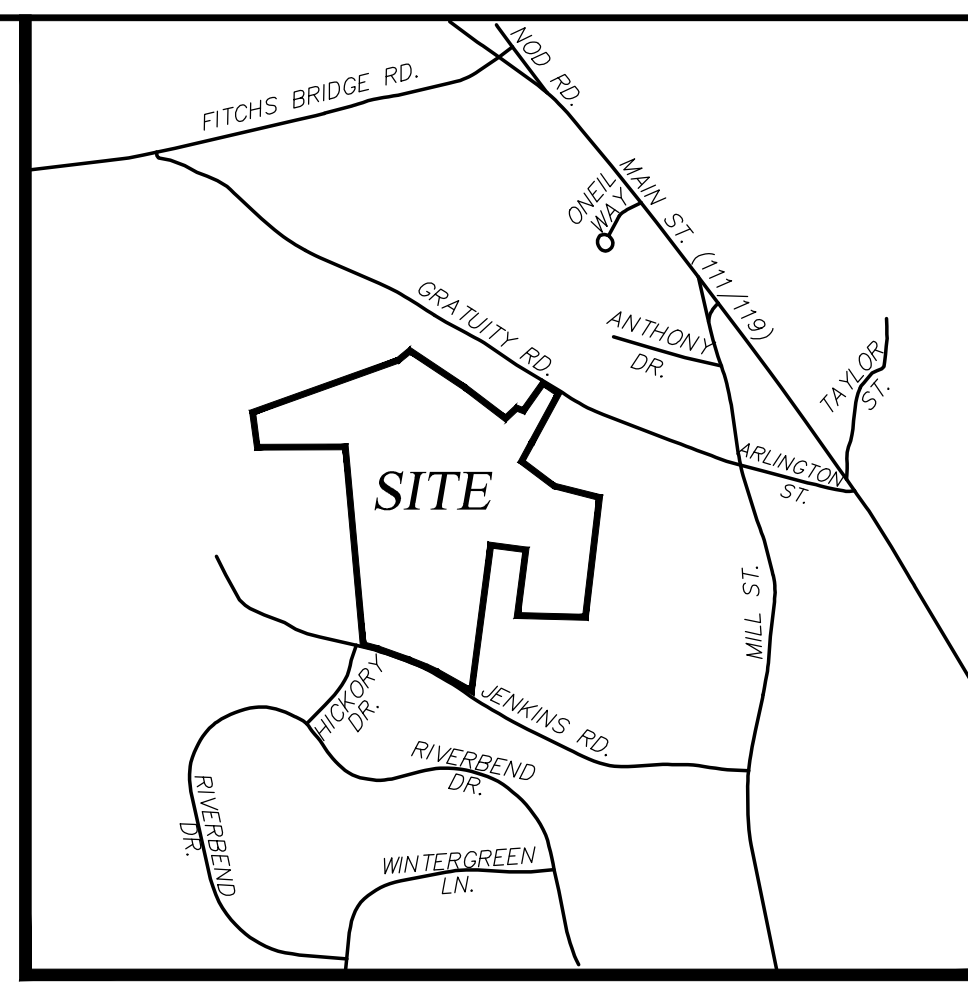


MATCH LINE

MATCH LINE

SEE SHEET C-9
SEE SHEET C-10

PREPARED FOR: ROUTHIER & ROPER GRATUITY ROAD, LLC 256 ATER ROAD, LITTLETON, MA 01460		CHECK MAW
DESIGN MJS	DRAFT MJS	
GRATUITY BROOK FARM ESTATES OPEN SPACE PLAN 63 GRATUITY ROAD GROTON, MA		AUGUST 12, 2024
SCALE: 1" = 50'		
JOB NO. 22-243	DWG. NO. 11142	SHEET C-11
REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.		
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UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS		MJS
DATE		REVISION
12/10/24		MJS
1/13/25		MJS
		BY



RESERVED FOR REGISTRY USE

TOWN OF GROTON
PLANNING BOARD APPROVAL

APPROVED: _____ DATE _____

ENDORSED: _____ DATE _____

NOTES

1. DRIVEWAY WIDTHS SHALL BE NO LESS THAN TWELVE (12) FEET AND NO GREATER THAN THIRTY-SIX (36) FEET AT THE CURB OPENING.
 2. ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 - NURSERY STOCK, LATEST EDITION (AMERICAN ASSOCIATION OF NURSERYMEN, INC.).
 3. NO TREES OR SHRUBS SHALL BE PLANTED AT THE STREET INTERSECTION WHERE THEY COULD BECOME A TRAFFIC HAZARD BY OBSTRUCTING VISION.
 4. ALL TREES SHALL BE GUARANTEED BY THE DEVELOPER FOR THEIR ERRECTNESS AND GOOD HEALTH FOR TWO (2) YEARS AFTER PLANTING.
 5. THE LANDSCAPING SHOWN ON THE FINAL APPROVED PLAN SHALL BE MAINTAINED IN PERPETUITY BY THE FUTURE HOME-OWNERS ASSOCIATION. ANY DEAD VEGETATION SHALL BE REMOVED IMMEDIATELY AND REPLACED IN ACCORDANCE WITH THE SPECIFICATION ON PLAN.
 6. ALL BOULDERS REMOVED FROM ANY EXISTING STONE WALLS ARE TO BE REUSED ON SITE AS LANDSCAPE FEATURES.
 7. LAWN SEED MIX SHALL INCLUDE A MIXTURE OF 30% PERENNIAL RYEGRASS, 30% TALL FESCUE AND 40% KENTUCKY BLUEGRASS APPLIED AT A RATE OF 1.0 LBS/500 SF
 8. SNOW STORAGE AREAS SHALL BE AS SHOWN ON THIS PLAN. ALL SNOW STORAGE SHALL REMAIN ADJACENT TO PAVED SURFACES. ALL DEBRIS WILL BE CLEARED FROM THE SNOW STORAGE AREAS AND PROPERLY DISPOSED OF AT THE END OF THE SNOW SEASON AND NO LATER THAN MAY 15.
 9. OWNER SHALL MAINTAIN LANDSCAPE PLANTINGS TO ENSURE THE AESTHETIC APPEARANCE AND OVERALL PLANT HEALTHINESS IS RETAINED. THIS INCLUDES INSPECTING AND REPLACING PLANTINGS AS NECESSARY, WEEKLY MOWING AND MULCHING.
 10. EXISTING TREE LINE TO BE RETAINED TO THE MAXIMUM EXTENT POSSIBLE.
 11. UNLESS OTHERWISE NOTED, ALL OPEN AREAS ARE ASSUMED TO BE SEEDED WITH GRASS.
 12. PROPOSED TREE TYPES AND SIZES ARE TO BE APPROVED BY THE GROTON PLANNING BOARD.
 13. NO INVASIVE SPECIES ARE TO BE PLACED ON SITE.
- THE LIMIT OF WORK SHOWN ON THIS PLAN INCLUDES AREAS UP TO THE LIMIT OF CLEARING (PROPOSED TREE LINES). THE LIMIT OF WORK SHOWN DOES NOT INCLUDE AREAS OF MINOR BRUSH CLEARING NECESSARY FOR THE INSTALLATION OF THE PROPOSED TRAIL CONNECTIONS.

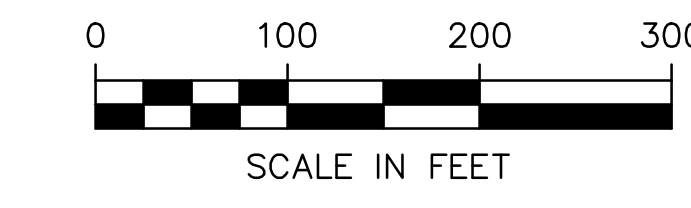
LEGEND

—	LOT LINE	▲	WETLAND FLAG
—	ABUTTER LINE	TH-XX	DEEP OBSERVATION HOLE
- - -	BUILDING LOCATION BOUNDARY		PROPOSED ACCESS AND UTILITY EASEMENT
- - - 2.32 - - -	CONTOUR	LP X	ROAD LOW POINT
—	EDGE OF PAVEMENT	HP X	ROAD HIGH POINT
— SGC —	SLOPED GRANITE CURB	○	UTILITY POLE
~~~~~	TREELINE	☆	LIGHTING POST
○○○○○○○○	STONE WALL	⊙	WELL
— OHW —	OVERHEAD WIRES	⊕	GAS VALVE
— W —	WATER LINE	⊕	HYDRANT
— G —	GAS LINE	⊕	WATER VALVE
— D —	STORM DRAIN	M.B.⊕	MAILBOX
—	EDGE OF WETLAND	⊕	RIPRAP
—	100 FT. WETLAND BUFFER	⊕	DRAIN MANHOLE
—	100 YEAR FEMA FLOODPLAIN	□	CATCH BASIN

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

_____ TOWN CLERK

_____ DATE



REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.

**GRATUITY BROOK FARM ESTATES  
OVERALL SITE PLAN**

63 GRATUITY ROAD  
GROTON, MA

SCALE: 1" = 100'

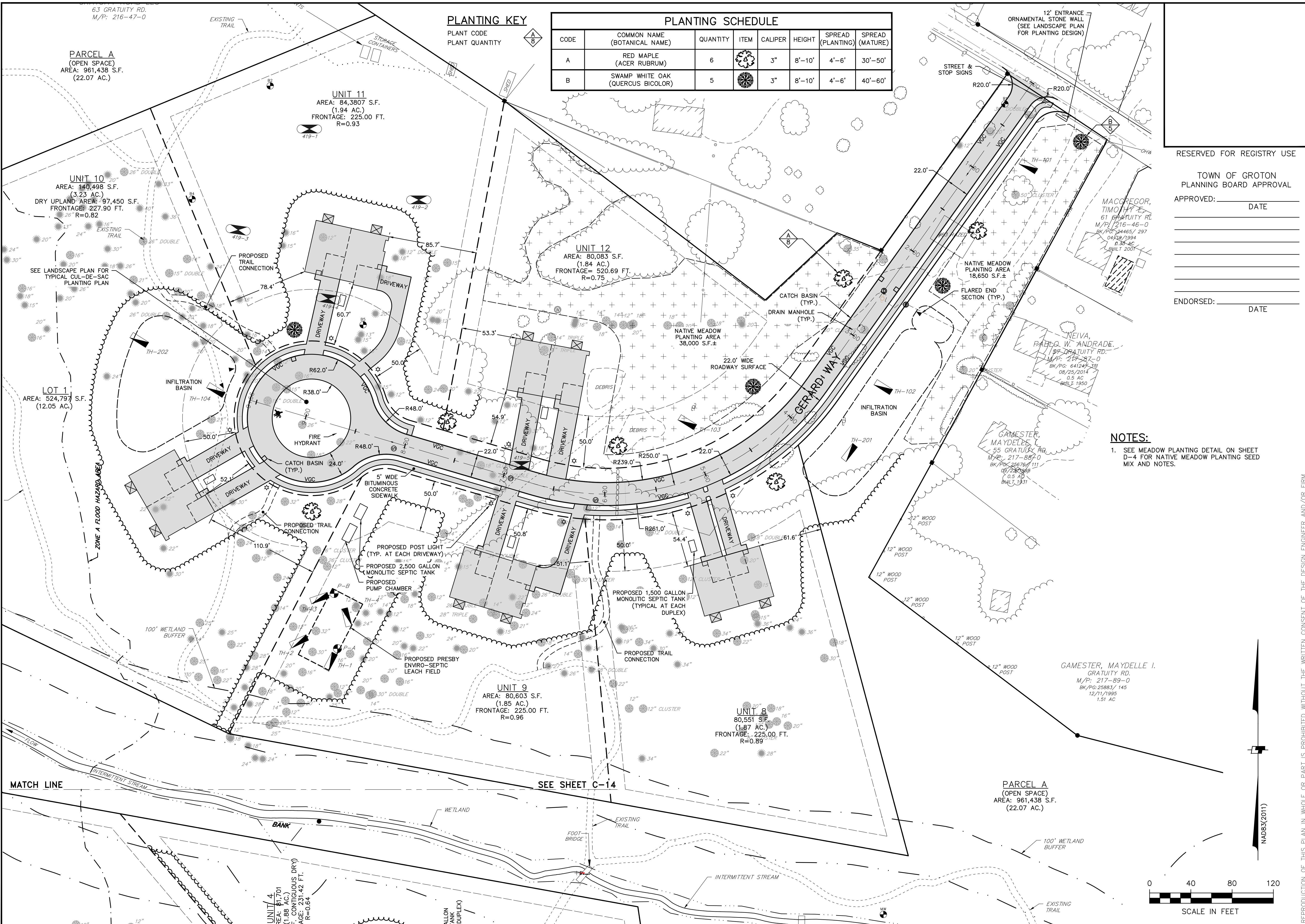
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ROUTHIER & ROPER  
GRATUITY ROAD, LLC  
236 ATER ROAD,  
LITTLETON, MA 01460

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DRAFT	MJS	DATE	REVISION

AUGUST 12, 2024

JOB NO. 22-243  
DWG. NO. 11142  
SHEET C-12

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**PLANTING KEY**

PLANT CODE  
PLANT QUANTITY

PLANTING SCHEDULE							
CODE	COMMON NAME (BOTANICAL NAME)	QUANTITY	ITEM	CALIPER	HEIGHT	SPREAD (PLANTING)	SPREAD (MATURE)
A	RED MAPLE (ACER RUBRUM)	6		3"	8'-10'	4'-6'	30'-50'
B	SWAMP WHITE OAK (QUERCUS BICOLOR)	5		3"	8'-10'	4'-6'	40'-60'

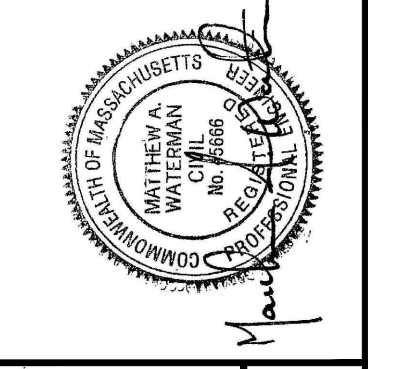
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ENDORSED: _____ DATE _____

DATE	REVISION	BY
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1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MUS



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LITTLETON, MA 01460

GRATUITY BROOK FARM ESTATES  
SITE PLAN  
63 GRATUITY ROAD  
GROTON, MA

SCALE: 1" = 40'

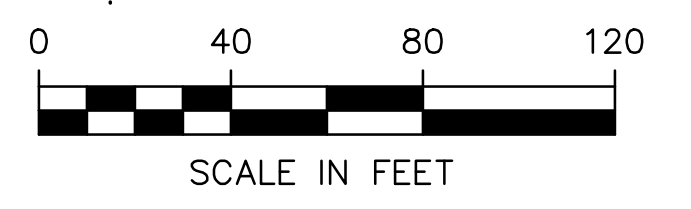
AUGUST 12, 2024



JOB NO. 22-243	DWG. NO. 11142	SHEET C-13
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**NOTES:**

- SEE MEADOW PLANTING DETAIL ON SHEET D-4 FOR NATIVE MEADOW PLANTING MIX AND NOTES.





**PLANTING SCHEDULE**

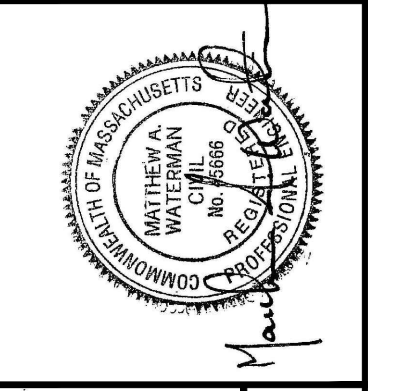
CODE	COMMON NAME (BOTANICAL NAME)	QUANTITY	ITEM	CALIPER	HEIGHT	SPREAD (PLANTING)	SPREAD (MATURE)
A	RED MAPLE (ACER RUBRUM)	5		3"	8'-10'	4'-6'	30'-50'
B	SWAMP WHITE OAK (QUERCUS BICOLOR)	4		3"	8'-10'	4'-6'	40'-60'

**PLANTING KEY**

PLANT CODE

PLANT QUANTITY

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MJS	MJS



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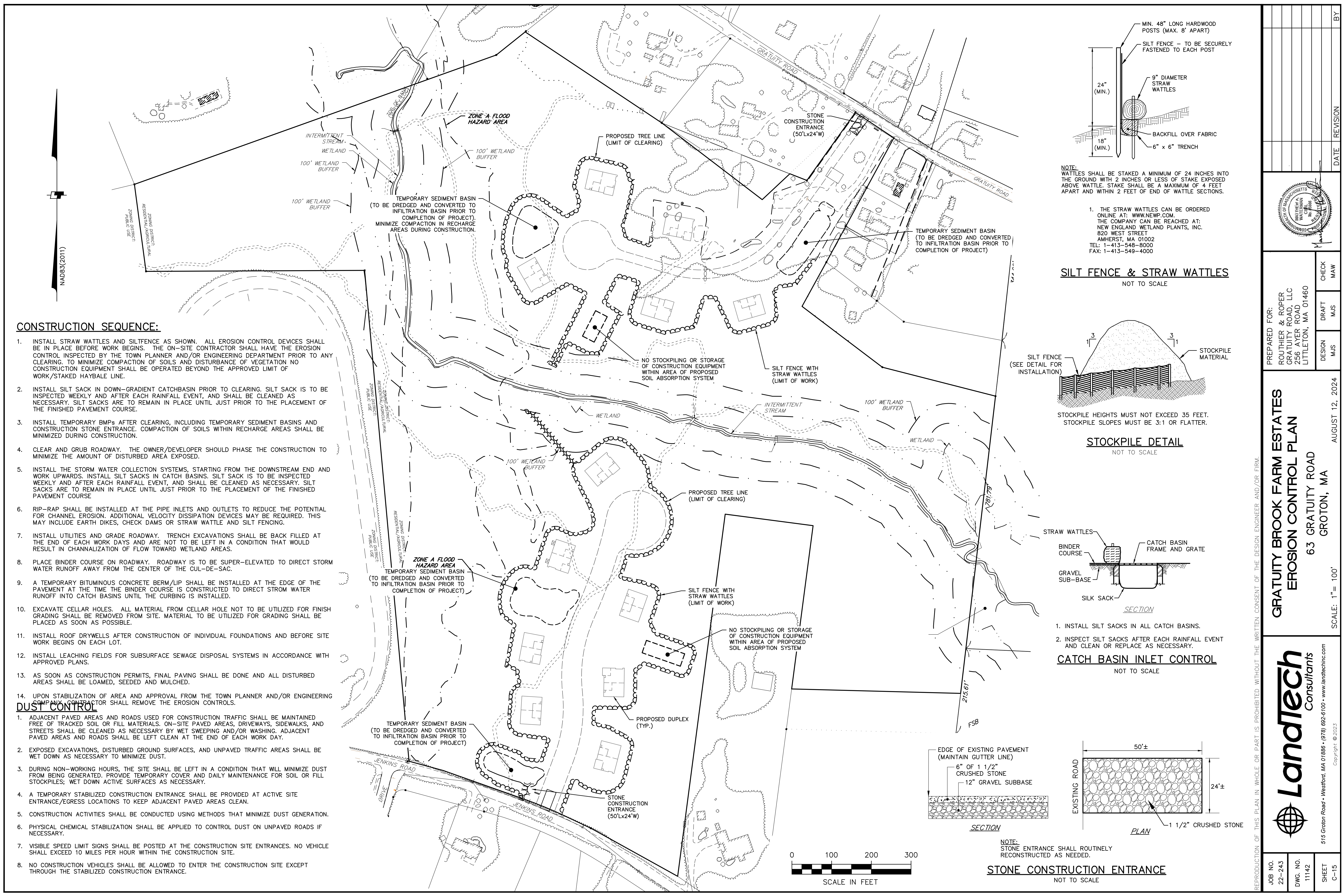
DESIGN MJS  
 DRAFT MJS  
 CHECK MAW

**GRATUITY BROOK FARM ESTATES**  
**SITE PLAN**  
 63 GRATUITY ROAD  
 GROTON, MA

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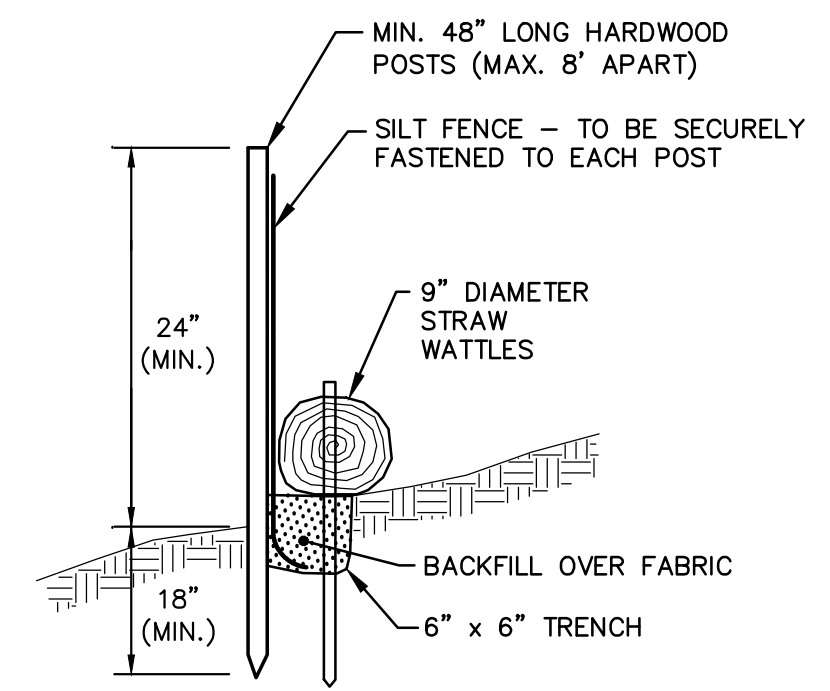


**CONSTRUCTION SEQUENCE:**

1. INSTALL STRAW WATTLES AND SILTFENCE AS SHOWN. ALL EROSION CONTROL DEVICES SHALL BE IN PLACE BEFORE WORK BEGINS. THE ON-SITE CONTRACTOR SHALL HAVE THE EROSION CONTROL INSPECTED BY THE TOWN PLANNER AND/OR ENGINEERING DEPARTMENT PRIOR TO ANY CLEARING. TO MINIMIZE COMPACTION OF SOILS AND DISTURBANCE OF VEGETATION NO CONSTRUCTION EQUIPMENT SHALL BE OPERATED BEYOND THE APPROVED LIMIT OF WORK/STAKED HAYBALE LINE.
2. INSTALL SILT SACK IN DOWN-GRADIENT CATCHBASIN PRIOR TO CLEARING. SILT SACK IS TO BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT, AND SHALL BE CLEANED AS NECESSARY. SILT SACKS ARE TO REMAIN IN PLACE UNTIL JUST PRIOR TO THE PLACEMENT OF THE FINISHED PAVEMENT COURSE.
3. INSTALL TEMPORARY BMPs AFTER CLEARING, INCLUDING TEMPORARY SEDIMENT BASINS AND CONSTRUCTION STONE ENTRANCE. COMPACTION OF SOILS WITHIN RECHARGE AREAS SHALL BE MINIMIZED DURING CONSTRUCTION.
4. CLEAR AND GRUB ROADWAY. THE OWNER/DEVELOPER SHOULD PHASE THE CONSTRUCTION TO MINIMIZE THE AMOUNT OF DISTURBED AREA EXPOSED.
5. INSTALL THE STORM WATER COLLECTION SYSTEMS, STARTING FROM THE DOWNSTREAM END AND WORK UPWARDS. INSTALL SILT SACKS IN CATCH BASINS. SILT SACK IS TO BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT, AND SHALL BE CLEANED AS NECESSARY. SILT SACKS ARE TO REMAIN IN PLACE UNTIL JUST PRIOR TO THE PLACEMENT OF THE FINISHED PAVEMENT COURSE
6. RIP-RAP SHALL BE INSTALLED AT THE PIPE INLETS AND OUTLETS TO REDUCE THE POTENTIAL FOR CHANNEL EROSION. ADDITIONAL VELOCITY DISSIPATION DEVICES MAY BE REQUIRED. THIS MAY INCLUDE EARTH DIKES, CHECK DAMS OR STRAW WATTLE AND SILT FENCING.
7. INSTALL UTILITIES AND GRADE ROADWAY. TRENCH EXCAVATIONS SHALL BE BACK FILLED AT THE END OF EACH WORK DAYS AND ARE NOT TO BE LEFT IN A CONDITION THAT WOULD RESULT IN CHANNALIZATION OF FLOW TOWARD WETLAND AREAS.
8. PLACE BINDER COURSE ON ROADWAY. ROADWAY IS TO BE SUPER-ELEVATED TO DIRECT STORM WATER RUNOFF AWAY FROM THE CENTER OF THE CUL-DE-SAC.
9. A TEMPORARY BITUMINOUS CONCRETE BERM/LIP SHALL BE INSTALLED AT THE EDGE OF THE PAVEMENT AT THE TIME THE BINDER COURSE IS CONSTRUCTED TO DIRECT STROM WATER RUNOFF INTO CATCH BASINS UNTIL THE CURBING IS INSTALLED.
10. EXCAVATE CELLAR HOLES. ALL MATERIAL FROM CELLAR HOLE NOT TO BE UTILIZED FOR FINISH GRADING SHALL BE REMOVED FROM SITE. MATERIAL TO BE UTILIZED FOR GRADING SHALL BE PLACED AS SOON AS POSSIBLE.
11. INSTALL ROOF DRYWELLS AFTER CONSTRUCTION OF INDIVIDUAL FOUNDATIONS AND BEFORE SITE WORK BEGINS ON EACH LOT.
12. INSTALL LEACHING FIELDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS IN ACCORDANCE WITH APPROVED PLANS.
13. AS SOON AS CONSTRUCTION PERMITS, FINAL PAVING SHALL BE DONE AND ALL DISTURBED AREAS SHALL BE LOAMED, SEEDED AND MULCHED.
14. UPON STABILIZATION OF AREA AND APPROVAL FROM THE TOWN PLANNER AND/OR ENGINEERING DEPARTMENT THE CONTRACTOR SHALL REMOVE THE EROSION CONTROLS.

**DUST CONTROL**

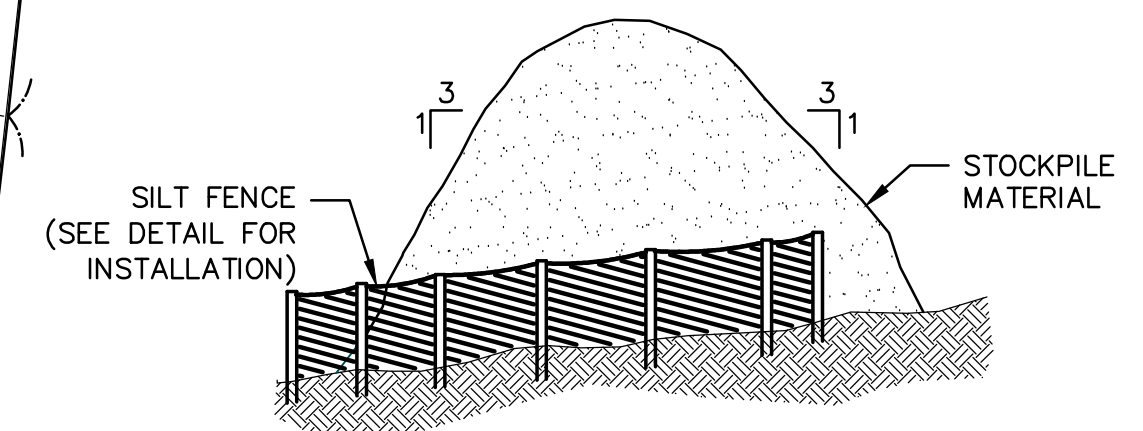
1. ADJACENT PAVED AREAS AND ROADS USED FOR CONSTRUCTION TRAFFIC SHALL BE MAINTAINED FREE OF TRACKED SOIL OR FILL MATERIALS. ON-SITE PAVED AREAS, DRIVEWAYS, SIDEWALKS, AND STREETS SHALL BE CLEANED AS NECESSARY BY WET SWEEPING AND/OR WASHING. ADJACENT PAVED AREAS AND ROADS SHALL BE LEFT CLEAN AT THE END OF EACH WORK DAY.
2. EXPOSED EXCAVATIONS, DISTURBED GROUND SURFACES, AND UNPAVED TRAFFIC AREAS SHALL BE WET DOWN AS NECESSARY TO MINIMIZE DUST.
3. DURING NON-WORKING HOURS, THE SITE SHALL BE LEFT IN A CONDITION THAT WILL MINIMIZE DUST FROM BEING GENERATED. PROVIDE TEMPORARY COVER AND DAILY MAINTENANCE FOR SOIL OR FILL STOCKPILES; WET DOWN ACTIVE SURFACES AS NECESSARY.
4. A TEMPORARY STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ACTIVE SITE ENTRANCE/EGRESS LOCATIONS TO KEEP ADJACENT PAVED AREAS CLEAN.
5. CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED USING METHODS THAT MINIMIZE DUST GENERATION.
6. PHYSICAL CHEMICAL STABILIZATION SHALL BE APPLIED TO CONTROL DUST ON UNPAVED ROADS IF NECESSARY.
7. VISIBLE SPEED LIMIT SIGNS SHALL BE POSTED AT THE CONSTRUCTION SITE ENTRANCES. NO VEHICLE SHALL EXCEED 10 MILES PER HOUR WITHIN THE CONSTRUCTION SITE.
8. NO CONSTRUCTION VEHICLES SHALL BE ALLOWED TO ENTER THE CONSTRUCTION SITE EXCEPT THROUGH THE STABILIZED CONSTRUCTION ENTRANCE.



NOTE: WATTLES SHALL BE STAKED A MINIMUM OF 24 INCHES INTO THE GROUND WITH 2 INCHES OR LESS OF STAKE EXPOSED ABOVE WATTLE. STAKE SHALL BE A MAXIMUM OF 4 FEET APART AND WITHIN 2 FEET OF END OF WATTLE SECTIONS.

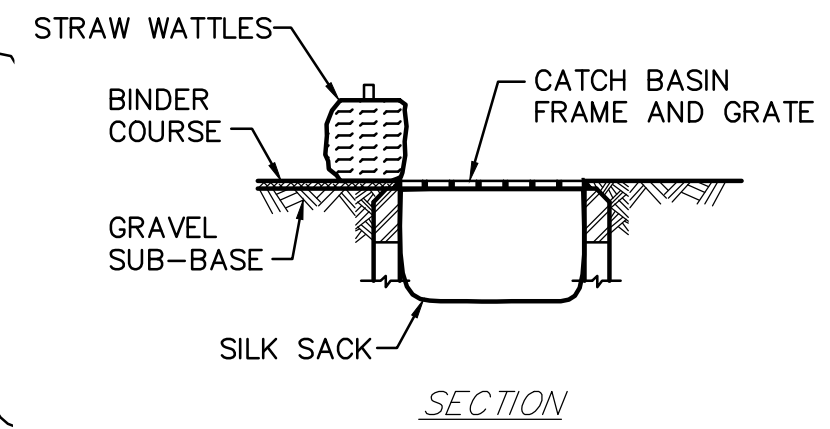
1. THE STRAW WATTLES CAN BE ORDERED ONLINE AT: WWW.NEWP.COM. THE COMPANY CAN BE REACHED AT: NEW ENGLAND WETLAND PLANTS, INC. 820 WEST STREET AMHERST, MA 01002 TEL: 1-413-548-8000 FAX: 1-413-549-4000

**SILT FENCE & STRAW WATTLES**  
NOT TO SCALE



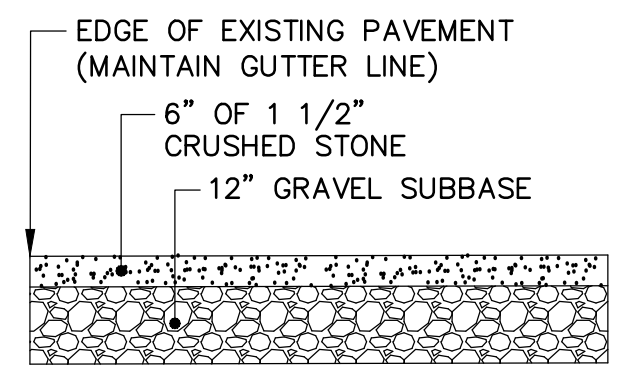
STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 3:1 OR FLATTER.

**STOCKPILE DETAIL**  
NOT TO SCALE



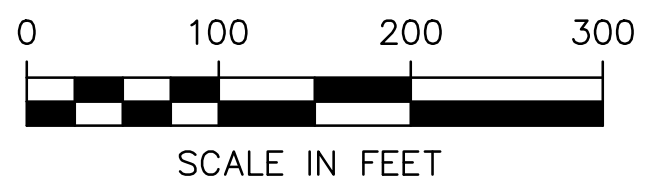
1. INSTALL SILT SACKS IN ALL CATCH BASINS.
2. INSPECT SILT SACKS AFTER EACH RAINFALL EVENT AND CLEAN OR REPLACE AS NECESSARY.

**CATCH BASIN INLET CONTROL**  
NOT TO SCALE

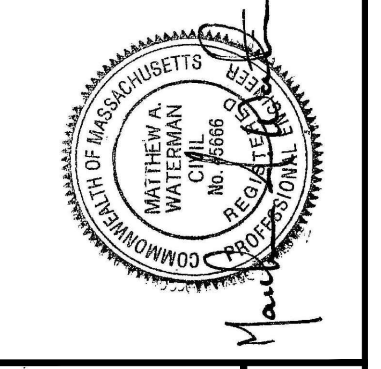


NOTE: STONE ENTRANCE SHALL ROUTINELY RECONSTRUCTED AS NEEDED.

**STONE CONSTRUCTION ENTRANCE**  
NOT TO SCALE



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 236 ATER ROAD,  
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SCALE: 1" = 100'

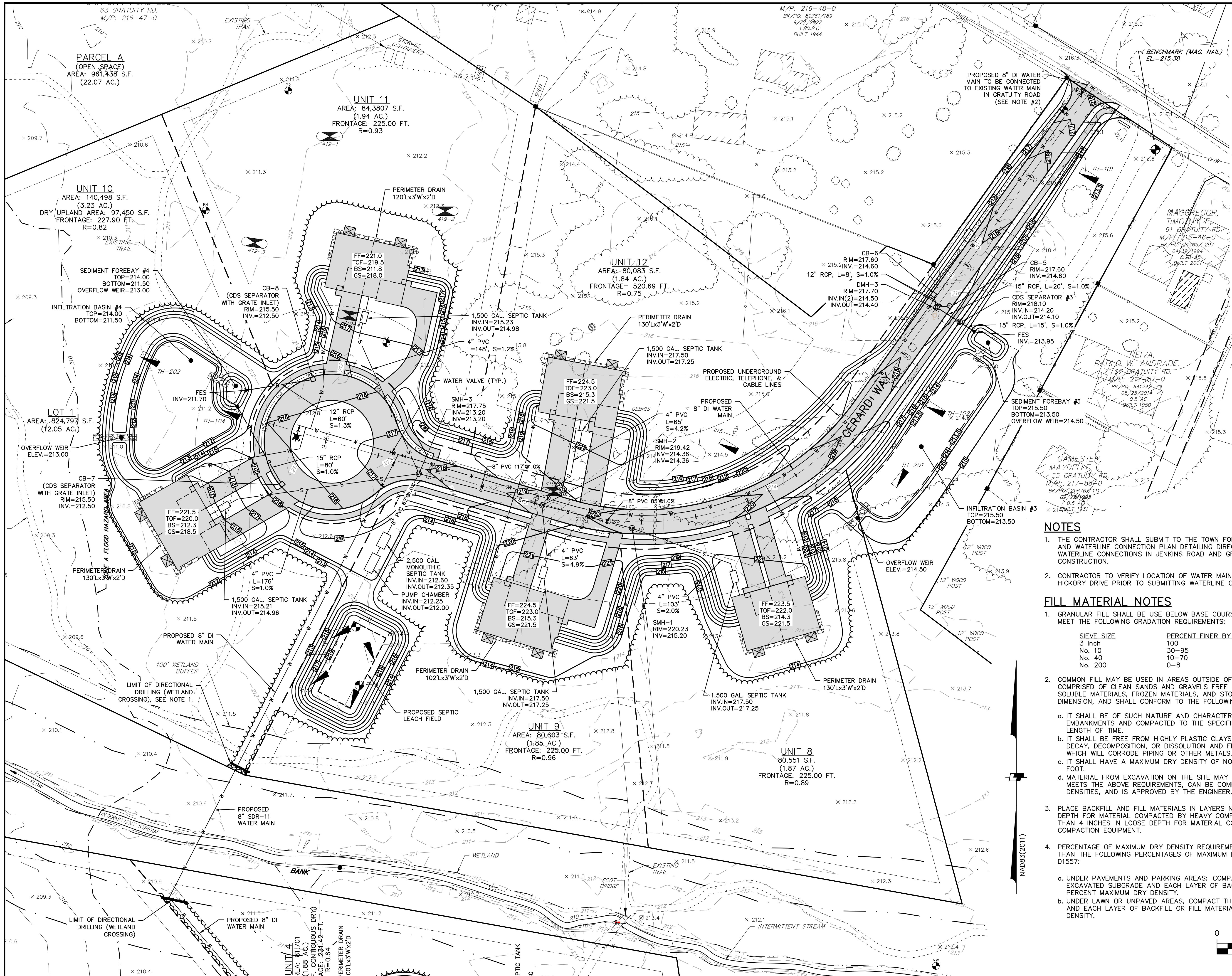
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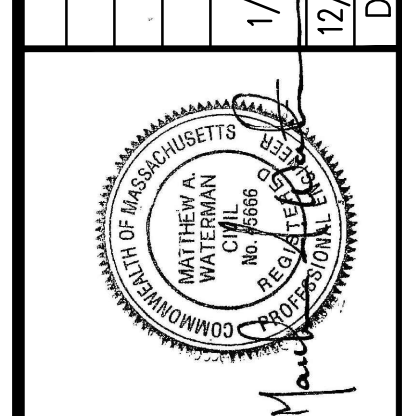
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GRATUITY BROOK FARM ESTATES  
GRADING AND DRAINAGE PLAN

63 GRATUITY ROAD  
GROTON, MA

AUGUST 12, 2024

SCALE: 1" = 40'

**NOTES**

1. THE CONTRACTOR SHALL SUBMIT TO THE TOWN FOR APPROVAL SHOP DRAWINGS AND WATERLINE CONNECTION PLAN DETAILING DIRECTIONAL DRILLING AND WATERLINE CONNECTIONS IN JENKINS ROAD AND GRATUITY ROAD PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO VERIFY LOCATION OF WATER MAINS IN GRATUITY ROAD AND HICKORY DRIVE PRIOR TO SUBMITTING WATERLINE CONNECTION PLANS.

**FILL MATERIAL NOTES**

1. GRANULAR FILL SHALL BE USE BELOW BASE COURSE UNDER PAVEMENT AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT FINER BY WEIGHT
3 Inch	100
No. 10	30-95
No. 40	10-70
No. 200	0-8

2. COMMON FILL MAY BE USED IN AREAS OUTSIDE OF ROADWAY AND SHALL BE COMPRISED OF CLEAN SANDS AND GRAVELS FREE OF SILT, CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS, FROZEN MATERIALS, AND STONES LARGER THAN 6 INCH MAXIMUM DIMENSION, AND SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

- a. IT SHALL BE OF SUCH NATURE AND CHARACTER THAT IT CAN BE PLACED IN EMBANKMENTS AND COMPACTED TO THE SPECIFIED DENSITY IN A REASONABLE LENGTH OF TIME.
- b. IT SHALL BE FREE FROM HIGHLY PLASTIC CLAYS, FROM ALL MATERIALS SUBJECT TO DECAY, DECOMPOSITION, OR DISSOLUTION AND FROM CINDERS OR OTHER MATERIALS WHICH WILL CORRODE PIPING OR OTHER METALS.
- c. IT SHALL HAVE A MAXIMUM DRY DENSITY OF NOT LESS THAN 100 LBS. PER CUBIC FOOT.
- d. MATERIAL FROM EXCAVATION ON THE SITE MAY BE USED AS COMMON FILL IF IT MEETS THE ABOVE REQUIREMENTS, CAN BE COMPACTED TO THE SPECIFIED DENSITIES, AND IS APPROVED BY THE ENGINEER.

3. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED COMPACTION EQUIPMENT.

4. PERCENTAGE OF MAXIMUM DRY DENSITY REQUIREMENTS: COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D1557:

- a. UNDER PAVEMENTS AND PARKING AREAS: COMPACT THE TOP 12 INCHES BELOW EXCAVATED SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO 95 PERCENT MAXIMUM DRY DENSITY.
- b. UNDER LAWN OR UNPAVED AREAS, COMPACT THE TOP 6 INCHES BELOW SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL AT 90 PERCENT MAXIMUM DRY DENSITY.

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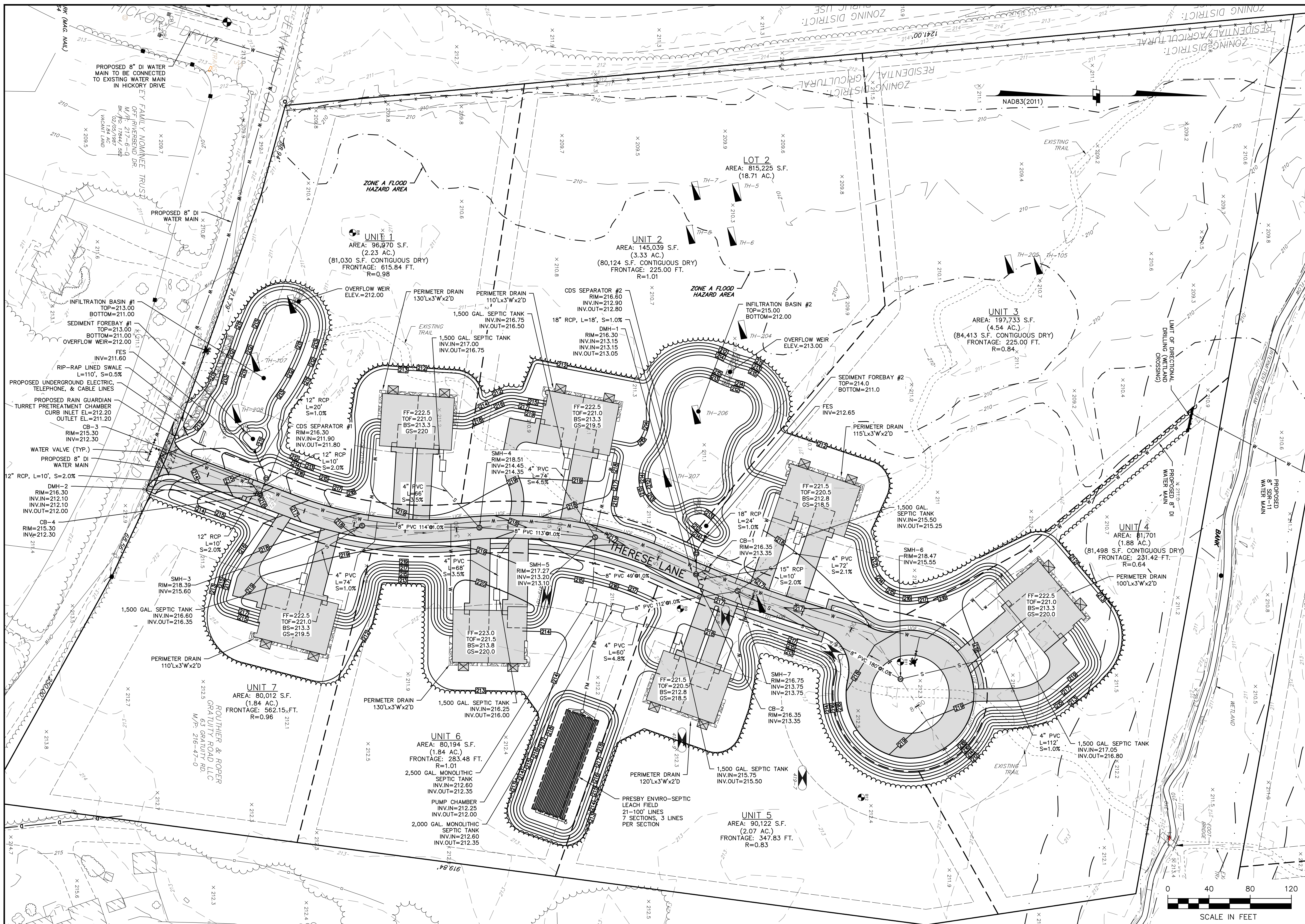
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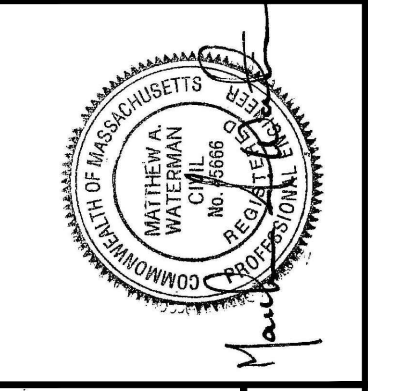
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63 GRATUITY ROAD  
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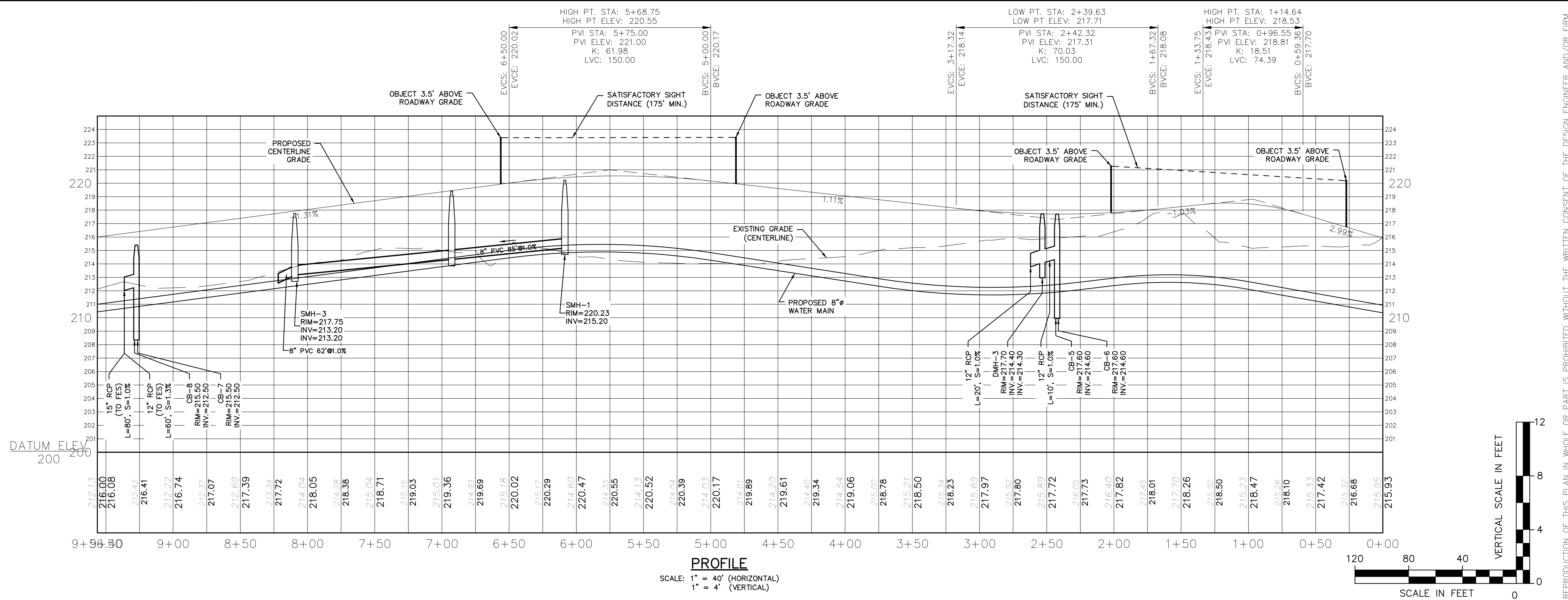
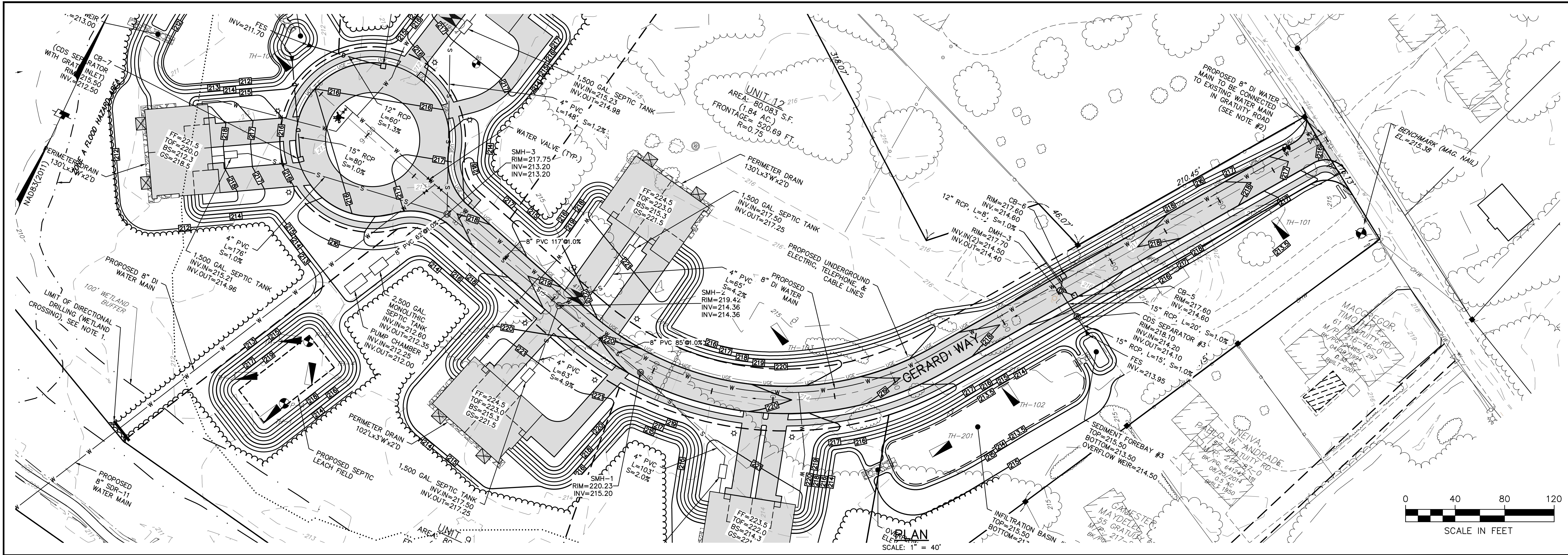
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**GRATUITY BROOK FARM ESTATES**  
**PLAN + PROFILE**  
63 GRATUITY ROAD  
GROTON, MA

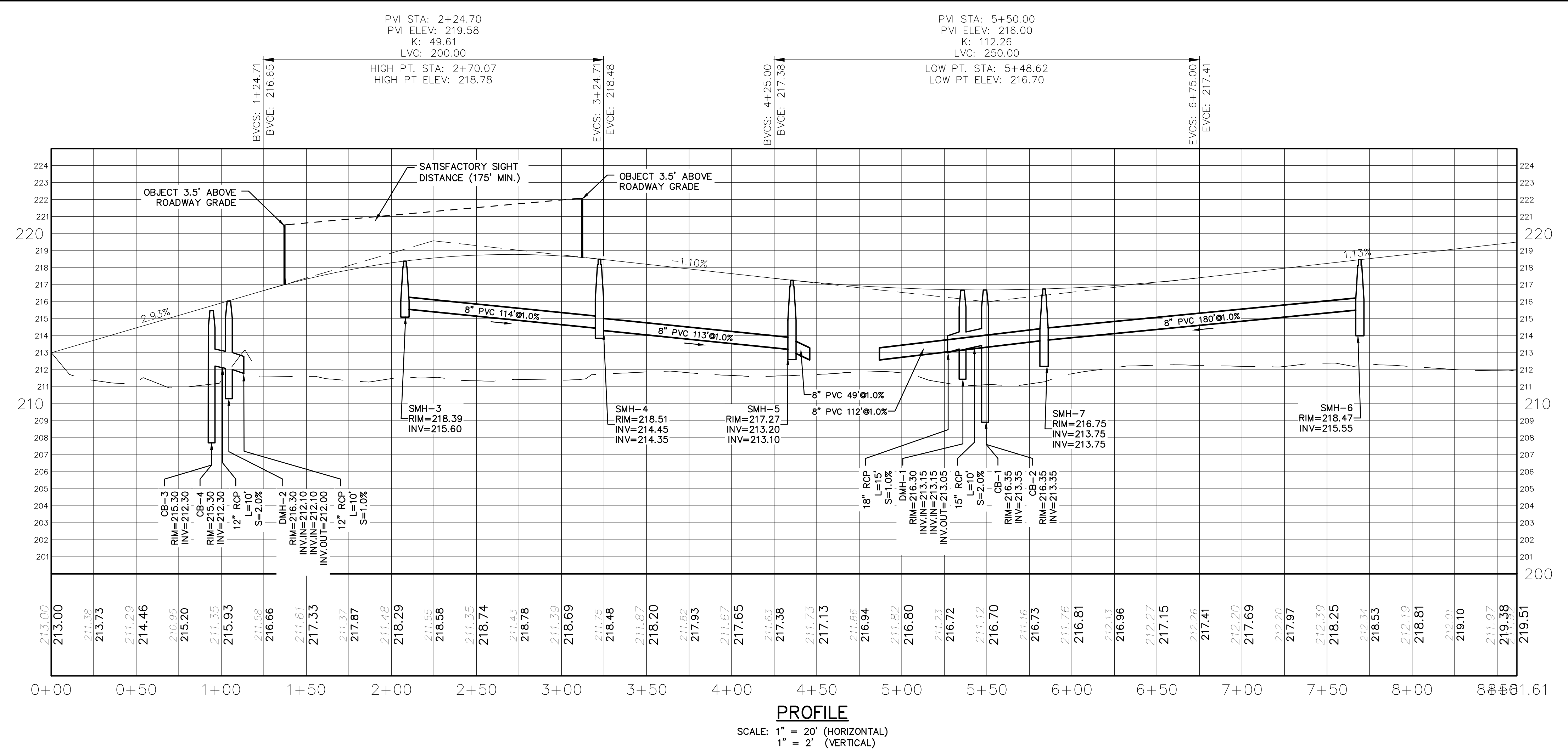
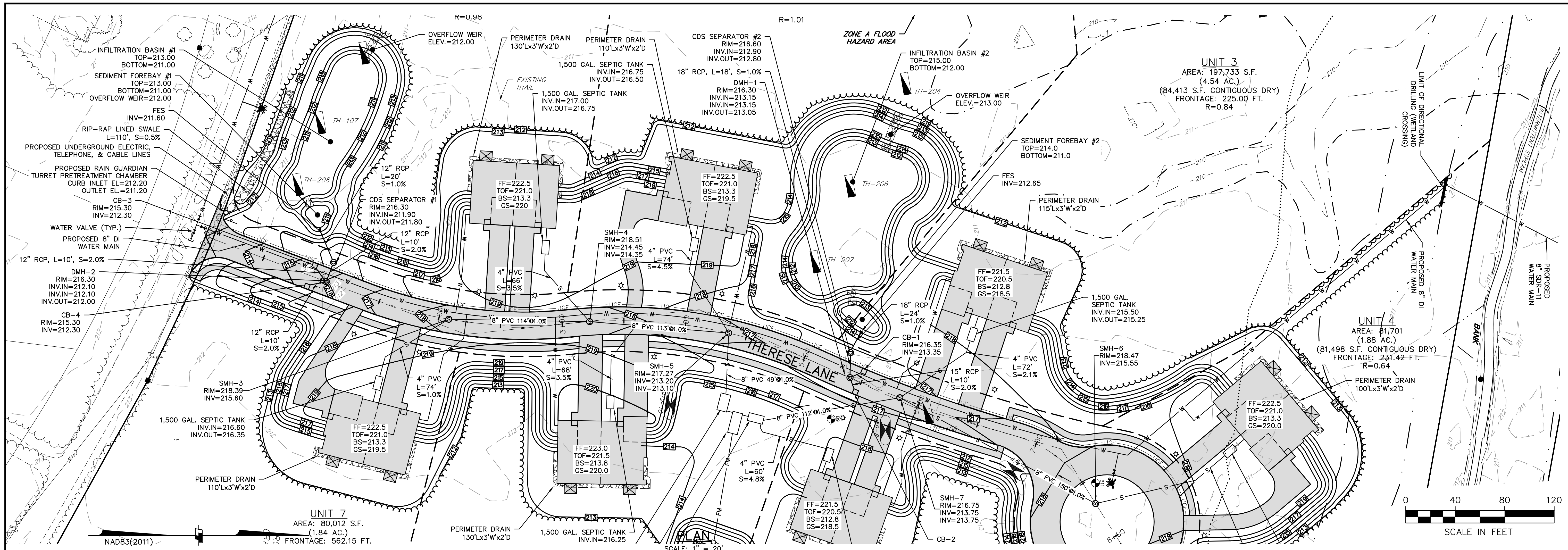
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CHECKED BY: MAW  
DESIGNED BY: MUS  
DATE: AUGUST 12, 2024

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**GRATUITY BROOK FARM ESTATES**  
**PLAN + PROFILE**  
 63 GRATUITY ROAD  
 GROTON, MA

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 GRATUITY ROAD, LLC  
 256 ATER ROAD,  
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 CHECK: MAW

DATE: 12/10/24  
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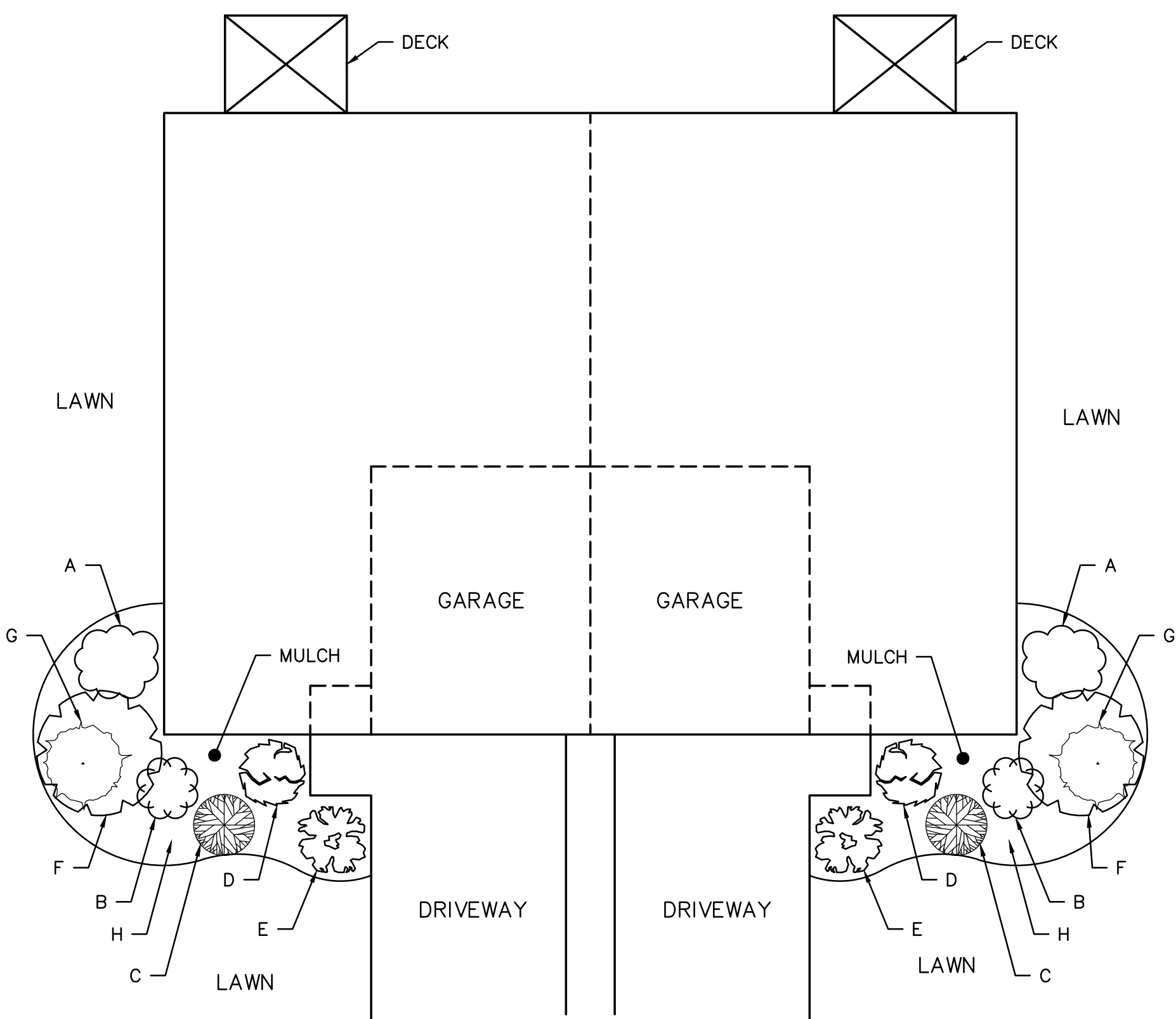
*BIRCH MODEL – RENDERING*



*HEMLOCK MODEL – RENDERING*

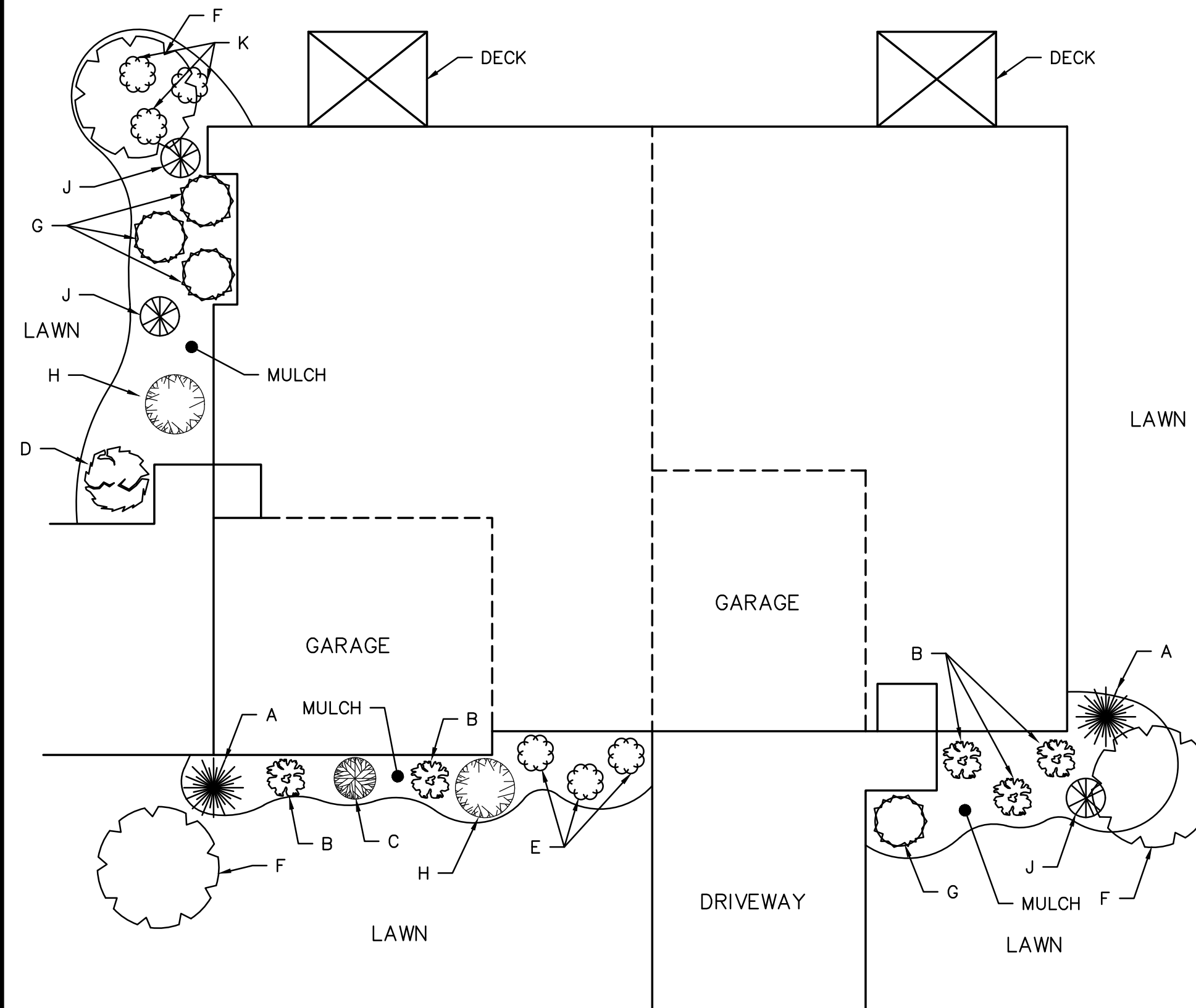


*HICKORY MODEL – RENDERING*



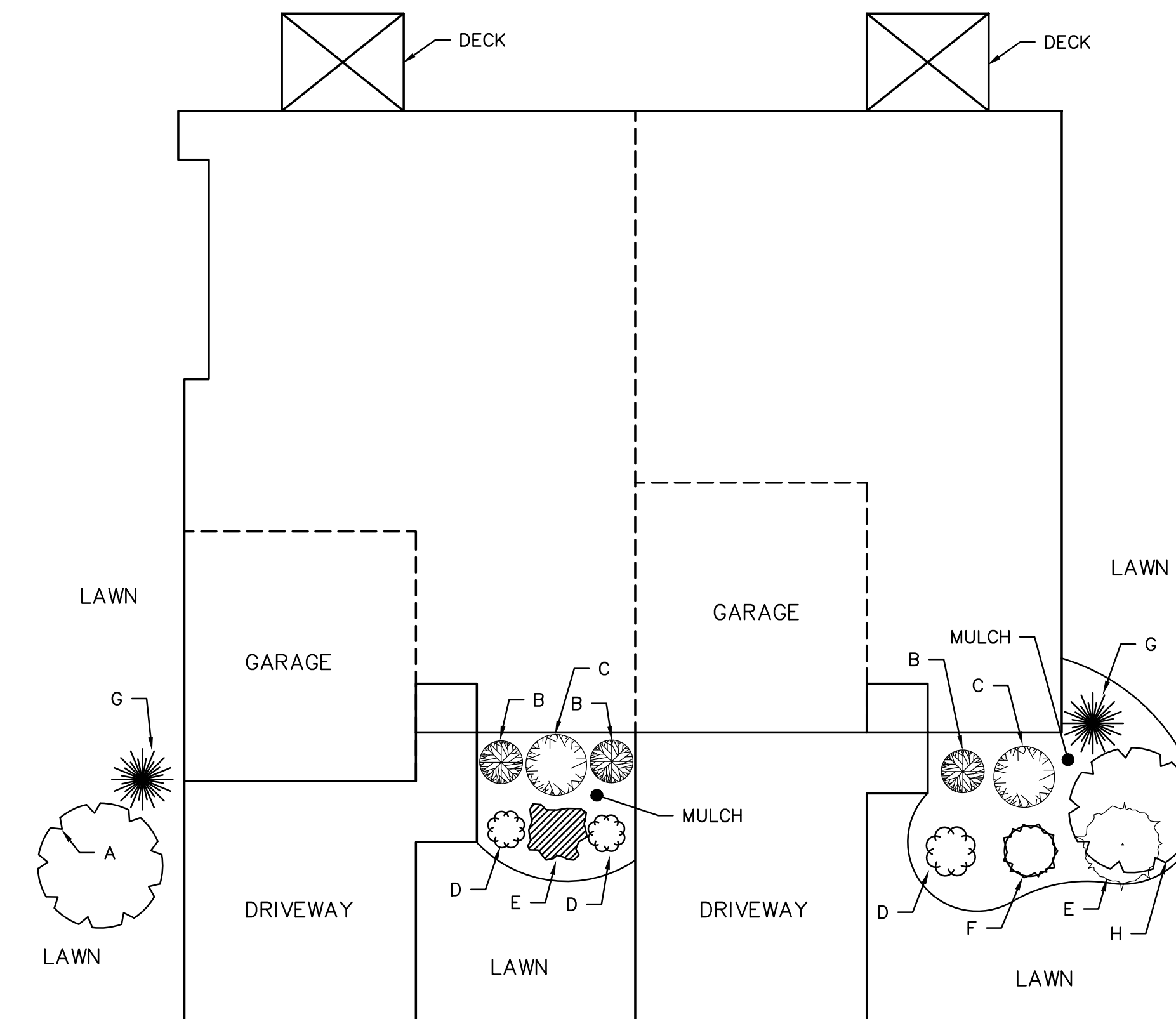
*BIRCH MODEL – TYPICAL PLANTING  
UNITS 1/5/8  
SCALE: 1" = 10'*

CODE	AMOUNT	PLANT MATERIAL
A	2	ALBERTA SPRUCE (PICEA GLAUCA)
B	2	PJM RHODODENDRON (RHODODENDRON ARBOREUM)
C	2	ENDLESS SUMMER HYDRANGEA (HYDRANGEA MACROPHYLLA)
D	2	BLUE PRINCESS HOLLY (ILEX X MESERVEAE)
E	2	DWF PINK SPIREA (SPIRAEA JAPONICA)
F	2	DWF FLOWERING CRABAPPLE (MALUS MICROMALUS)
G	6	EUORYMUS (EUONYMUS ALATUS)



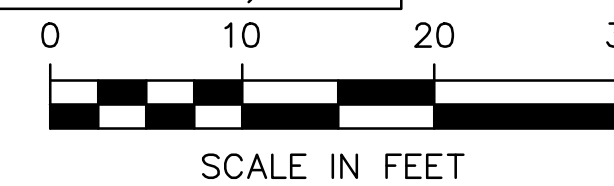
*HEMLOCK MODEL – TYPICAL PLANTING  
UNITS 2/4/9/11  
SCALE: 1" = 10'*

CODE	AMOUNT	PLANT MATERIAL
A	2	EM GREEN ARBORVITAE (THUJA OCCIDENTALIS)
B	5	ANDROMEDA (PIERIS JAPONICA)
C	1	FALL HYDRANGEA (HYDRANGEA PANICULATA)
D	1	AZALEA (RHODODENDRON AZALEA)
E	3	PJM RHODODENDRON (RHODODENDRON ARBOREUM)
F	3	ORNAMENTAL CRABAPPLE (MALUS MICROMALUS)
G	4	DWF RED SPIREA (SPIRAEA JAPONICA)
H	2	BLUE PRINCESS HOLLY (ILEX X MESERVEAE)
I	1	BWE HYDRANGEA (HYDRANGEA MACROPHYLLA)
J	3	GOLD MOP CYPRESS (CHAMAECYPARIS PISIFERA)
K	3	EUONYMUS GAITY (EUONYMUS FORTUNEI)



*HICKORY MODEL – TYPICAL PLANTING  
UNITS 3/6/10/12  
SCALE: 1" = 10'*

CODE	AMOUNT	PLANT MATERIAL
A	1	ORNAMENTAL CRABAPPLE (MALUS MICROMALUS)
B	3	BLUE PRINCESS HOLLY (ILEX X MESERVEAE)
C	2	HYDRANGEA (HYDRANGEA PANICULATA)
D	3	COMPACT AZALEA (RHODODENDRON 'GUMPO')
E	6	ANGELINA SEDUM (SEDUM RUPESTRE)
F	1	COMPACT JUNIPER (JUNIPERUS HORIZONTALIS)
G	2	EM GREEN ARBORVITAE (THUJA OCCIDENTALIS)
H	1	ORNAMENTAL CHERRY (PRUNUS SERRULATA)



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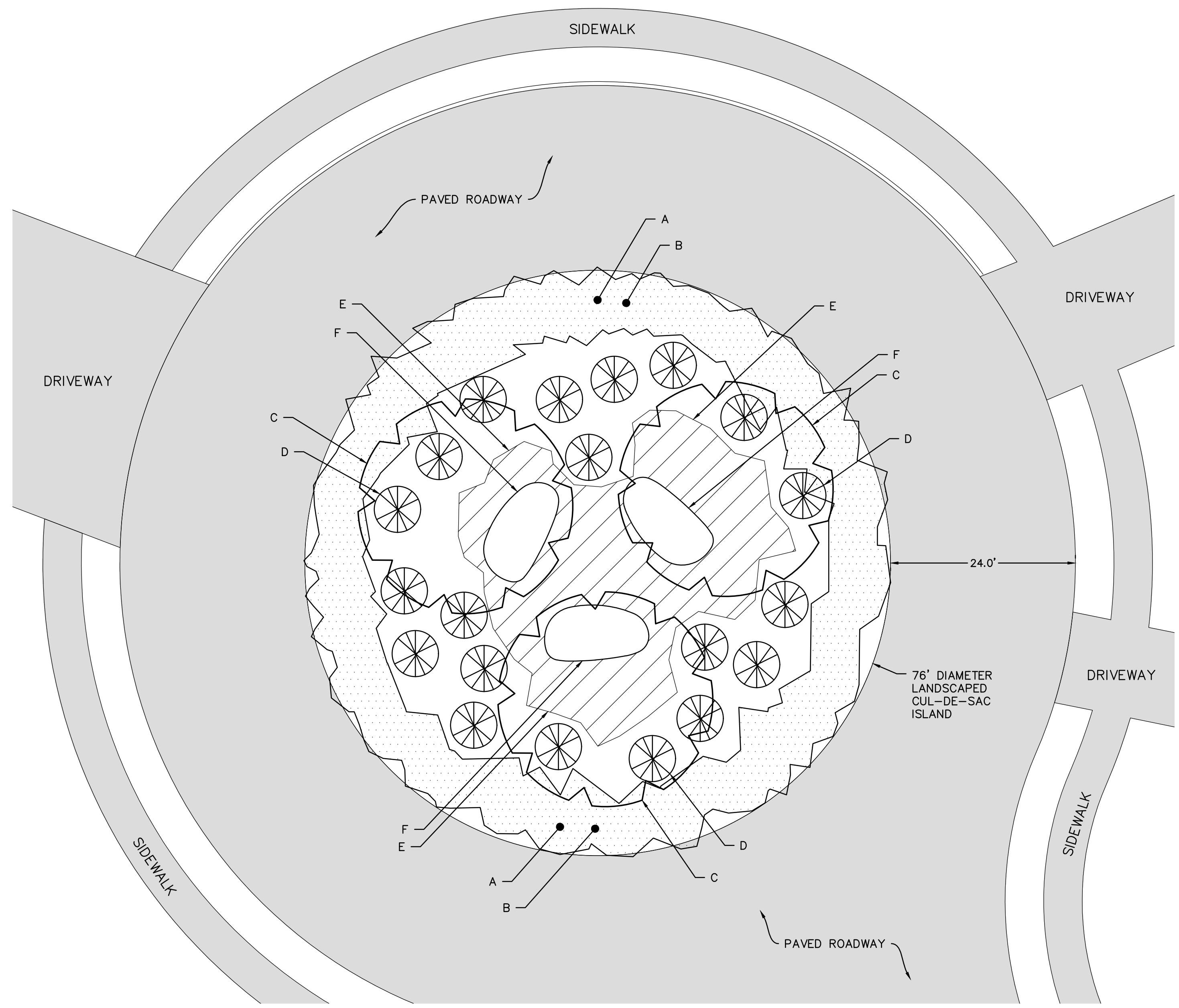
**GRATUITY BROOK FARM ESTATES**  
**TYPICAL UNIT LANDSCAPING PLAN**  
 63 GRATUITY ROAD  
 GROTON, MA  
 AUGUST 12, 2024  
 SCALE: 1" = 10'

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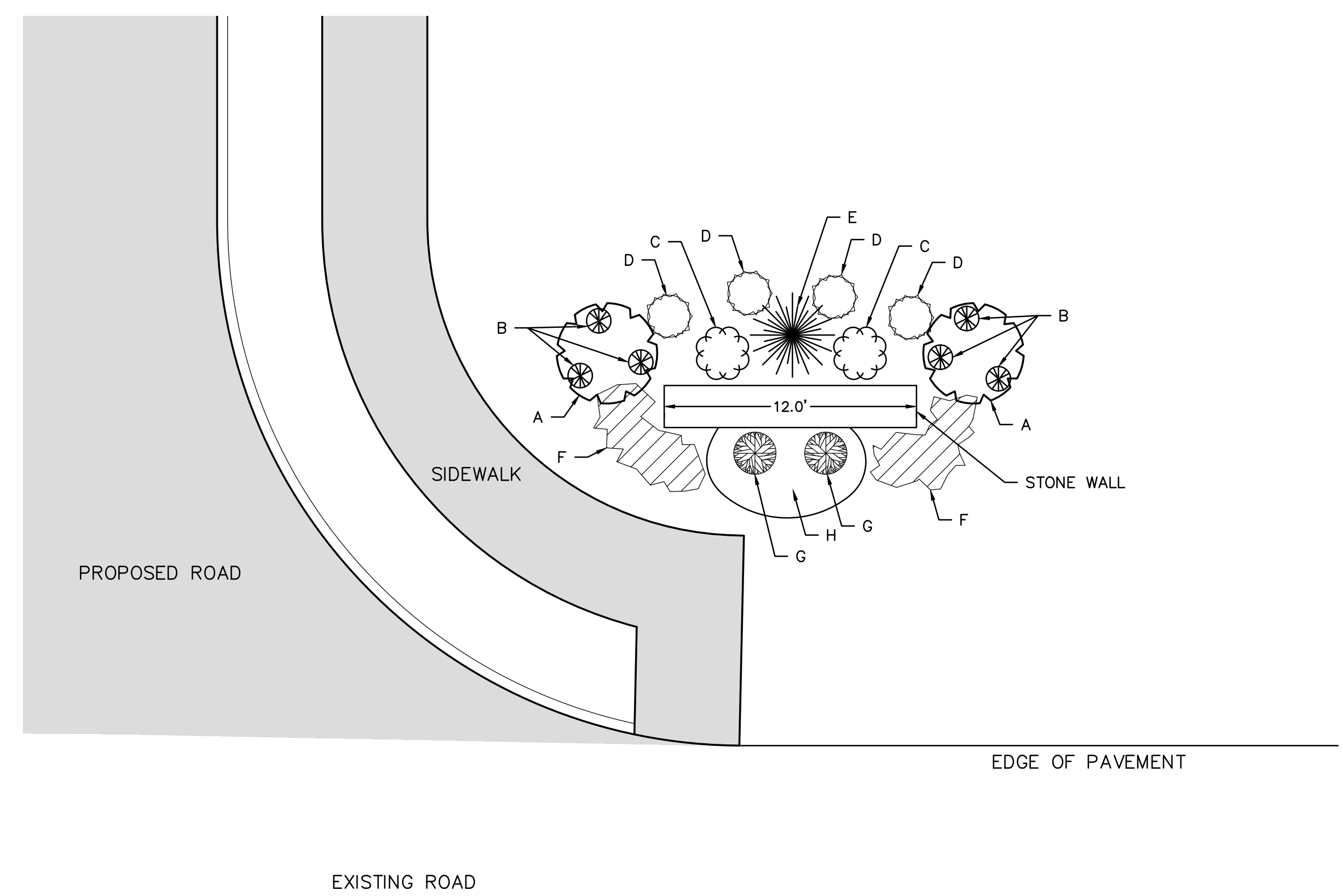
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 256 ATER ROAD,  
 LITTLETON, MA 01460

DATE	12/10/24	REVISION	BY
DATE	1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS
DATE	12/10/24	PEER REVIEW COMMENTS	MJS



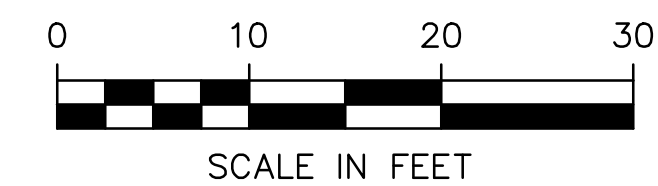
**TYPICAL CUL-DE-SAC PLANTING**  
SCALE: 1" = 10'

CODE	AMOUNT	PLANT MATERIAL
A	-	DWF FOUNTAIN GRASS (PENNISETUM ALOPECUROIDES)
B	-	AUTUMN SEDUM (SEDUM X ADOLPHI)
C	3	RIVER BIRCH CLUMP (BETULA NIGRA)
D	20	LOW SPREADING JUNIPER (JUNIPERUS HORIZONTALIS)
E	-	DAY LILY (HEMEROCALLIS FULVA)
F	3	ORNAMENTAL BOULDER



**TYPICAL 12' STONEWALL ENTRANCE PLANTING**  
SCALE: 1" = 5'

CODE	AMOUNT	PLANT MATERIAL
A	2	BIRCH CLUMP (BETULA NIGRA)
B	6	LOW SPREADING JUNIPER (JUNIPERUS HORIZONTALIS)
C	2	PINK RHODODENDRON (RHODODENDRON 'ROSEUM ELEGANS')
D	4	PJM RHODODENDRON (RHODODENDRON ARBOREUM)
E	1	EVERGREEN - SPRUCE (PICEA ABIES) OR HEMLOCK (TSUGA CANADENSIS)
F	16	DAY LILY (HEMEROCALLIS FULVA)
G	3	WINTERBERRY (ILEX VERTICILLATA)
H	-	SEASONAL ANNUALS



REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND/OR FIRM.

**GRATUITY BROOK FARM ESTATES**  
**LANDSCAPING PLAN**  
63 GRATUITY ROAD  
GROTON, MA

SCALE: 1" = 100'

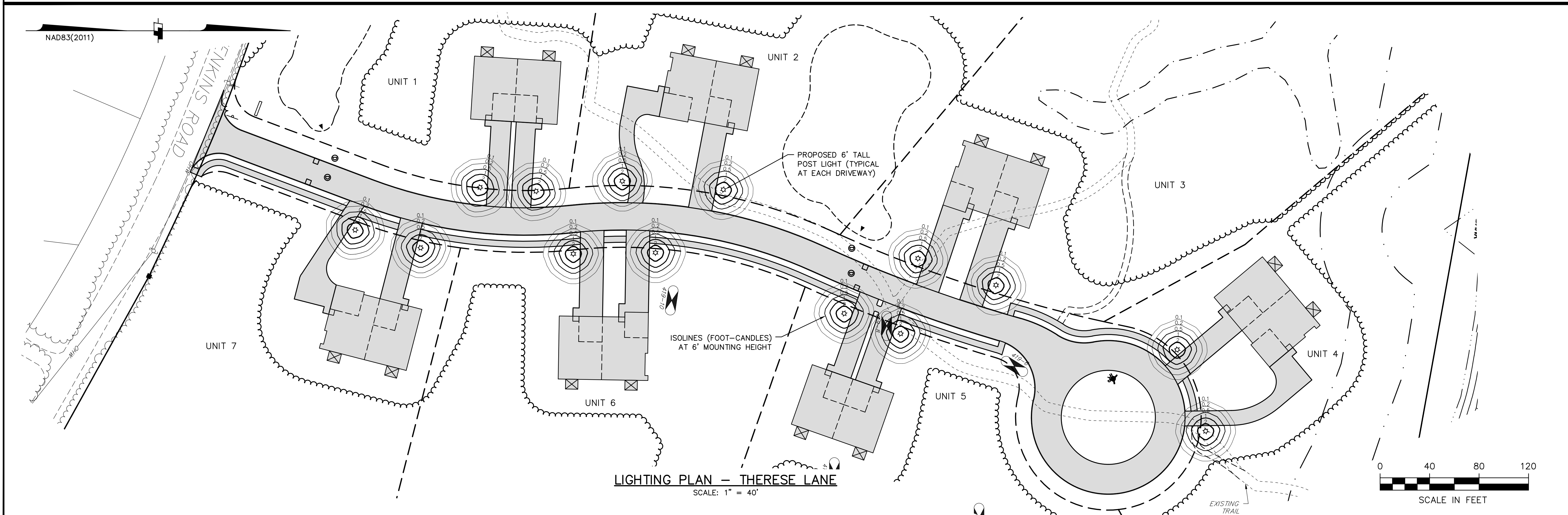
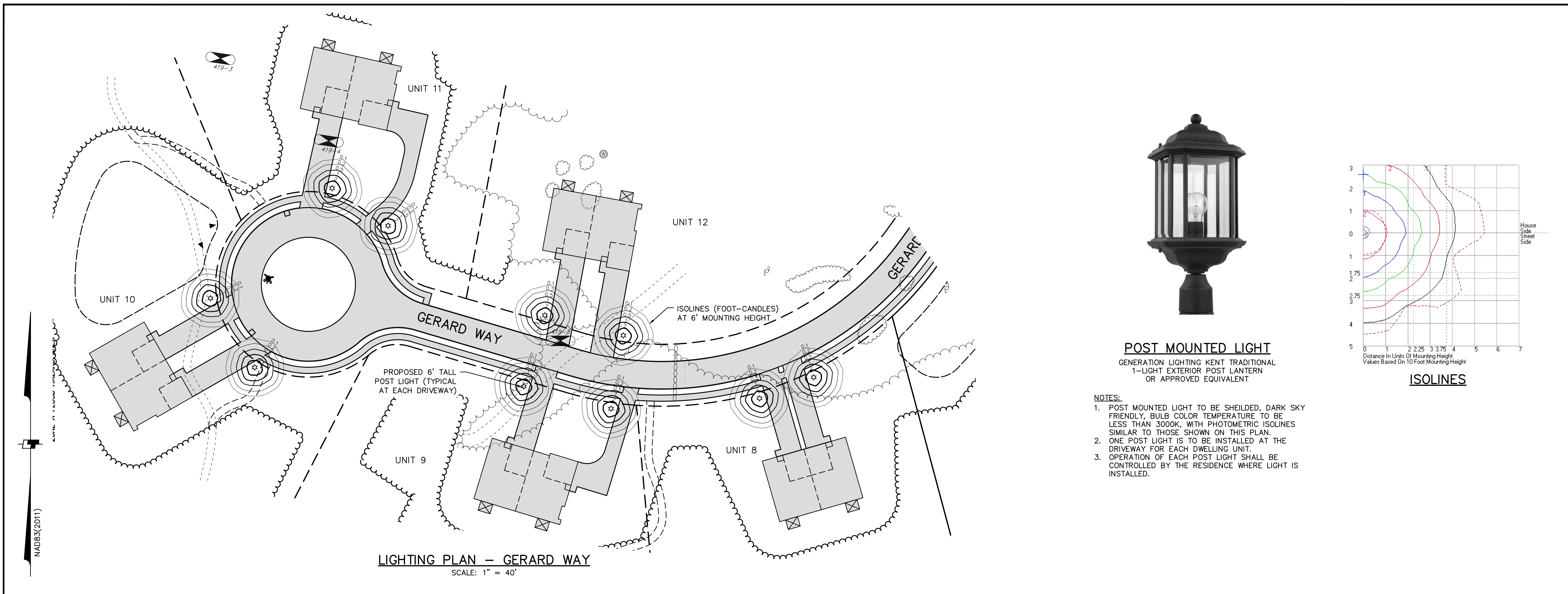
<b>JOB NO.</b> 22-243	<b>DWG. NO.</b> 11142	<b>SHEET</b> C-21	
			<b>DATE</b>   <b>REVISION</b>
			1/13/25   UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS
			12/10/24   PEER REVIEW COMMENTS
			MJS   MJS
			BY

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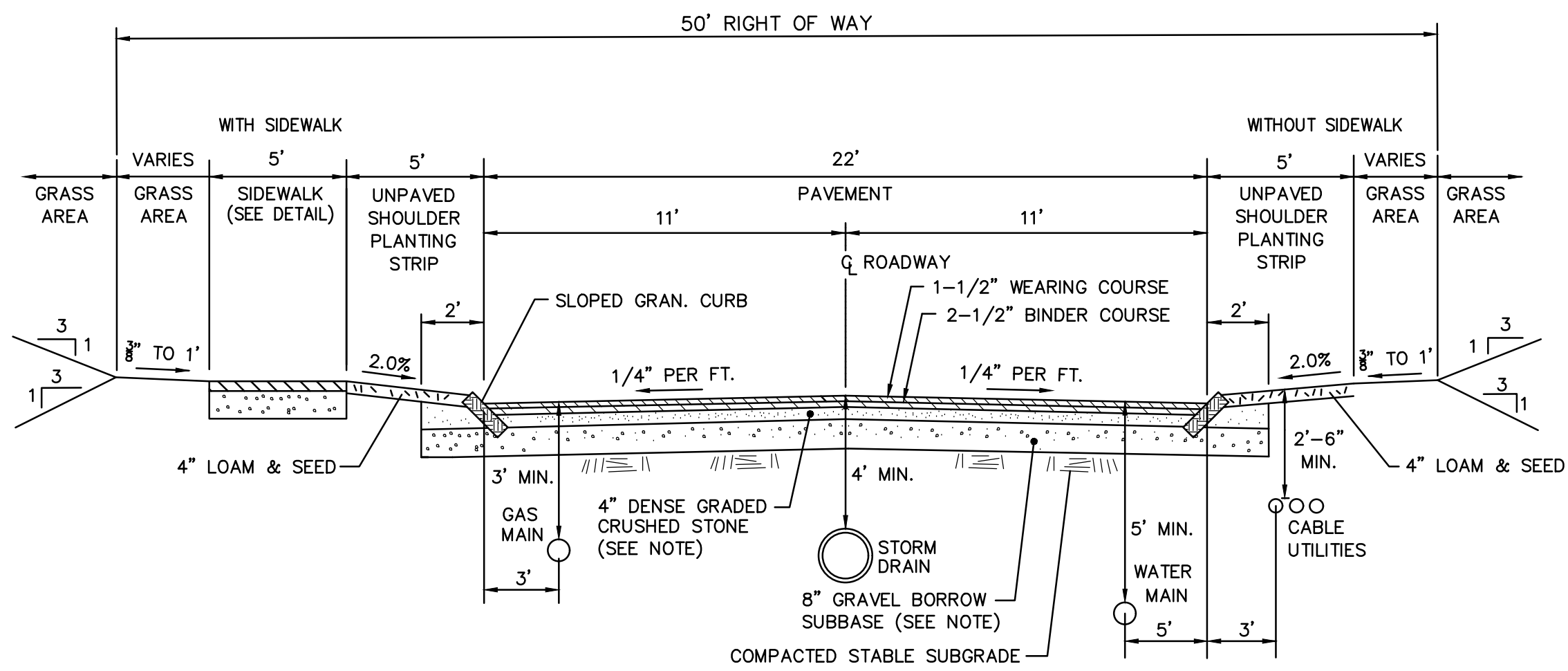
DESIGN | MJS  
DRAFT | MJS  
CHECK | MAW

AUGUST 12, 2024

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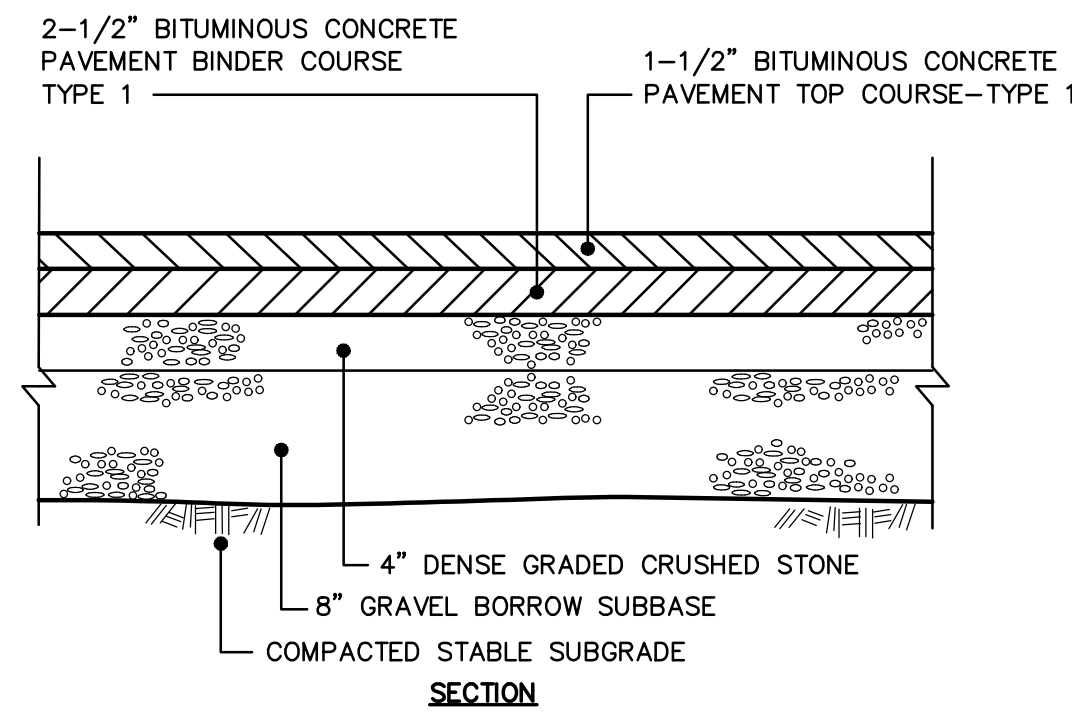
JOB NO. 22-243	DWG. NO. 11142	SHEET C-22	PREPARED FOR: ROUTHIER & ROPER GRATUITY ROAD, LLC 256 AYER ROAD, LITTLETON, MA 01460	DESIGN MJS	DRAFT MJS	CHECK MAW	DATE 12/10/24	REVISION DATE	BY MJS
<p><b>GRATUITY BROOK FARM ESTATES</b> <b>LIGHTING PLAN</b> 63 GRATUITY ROAD GROTON, MA</p>							<p>UPDATE FLOODPLAIN &amp; PB/PEER REVIEW COMMENTS 1/13/25</p>	<p>PEER REVIEW COMMENTS 12/10/24</p>	<p>BY MJS</p>
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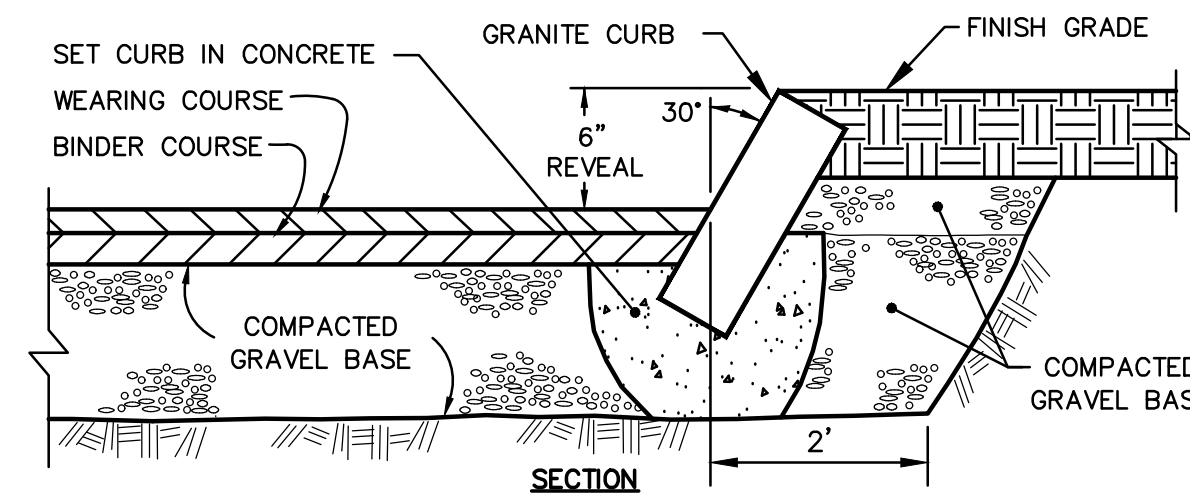
**TYPICAL ROADWAY CROSS SECTION**  
NOT TO SCALE

**ROADWAY NOTES:**

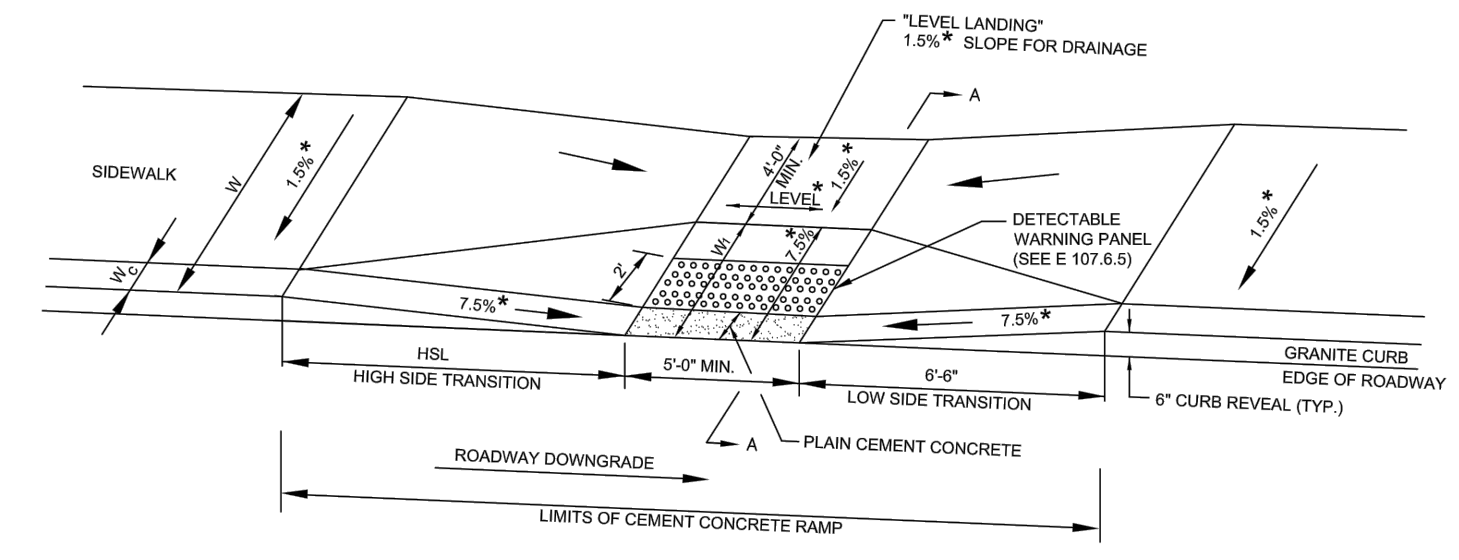
- GRAVEL BORROW SUBBASE SHALL CONFORM TO SECTION M1.03.0 TYPE B, THREE INCHES LARGEST DIMENSION OF THE THE ALTEST EDITION OF THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES (STANDARD SPECIFICATIONS).
- DENSE GRADED CRUSHED STONE SHALL CONFORM TO SECTION M1.03.0 OF THE THE ALTEST EDITION OF THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES (STANDARD SPECIFICATIONS).
- GRAVEL BORROW SUBBASE SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY OF THE MATERIAL AS DETERMINED BY THE STANDARD AASHTO TEST DESIGNATION 799 COMPACTION TEST METHOD C AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE ENGINEER.
- "TAC COAT" AS SPECIFIED IN SECTION 218-16 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED BY "TAC TRUCK" BETWEEN ASPHALT LAYERS OR AS DIRECTED BY THE ENGINEER.
- SOILS TESTING INCLUDING SIEVE ANALYSIS, PROCTOR TESTING AND COMPACTION TESTING SHALL BE PERFORMED ONCE EVERY 100 FEET OF PAVED ROADWAY ALONG THE CENTERLINE OF THE ROADWAY OR AS DIRECTED BY ENGINEER.
- SIDEWALK RAMPS MUST MEET CURRENT ADA/AAB STANDARDS.



**TYPICAL PAVEMENT DETAIL**  
NOT TO SCALE

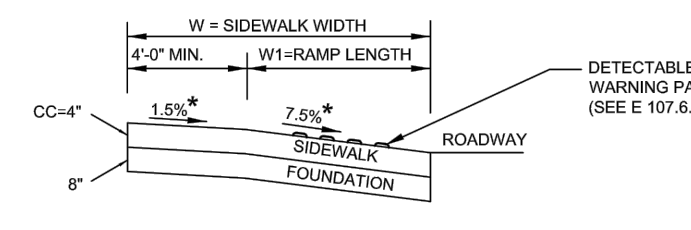


**SLOPED GRANITE CURB**  
NOT TO SCALE

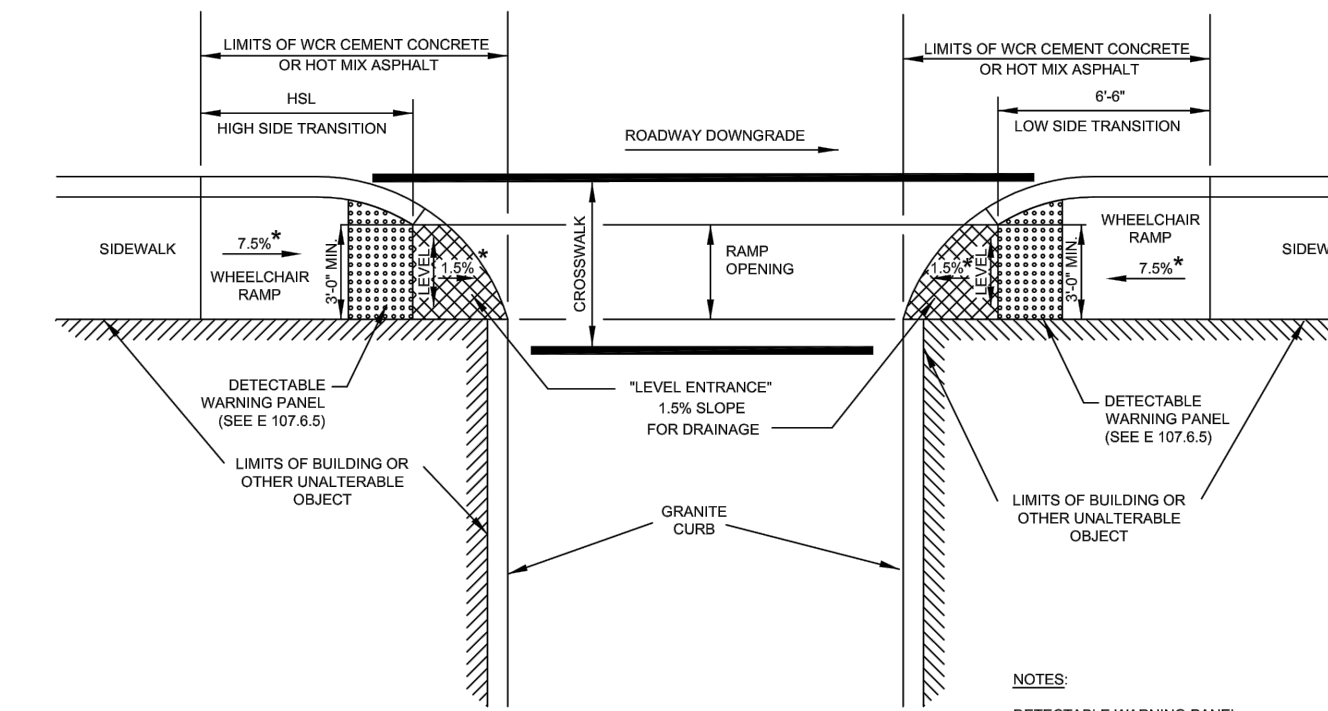


**LEGEND**

- HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
- W = SIDEWALK WIDTH
- W_c = CURB WIDTH
- W₁ = PERPENDICULAR RAMP LENGTH
- CC = CEMENT CONCRETE
- = TOLERANCE FOR CONSTRUCTION ±0.5%
- USABLE SIDEWALK WIDTH PER AAB = W-W_c
- RAMP LENGTH W₁ = W-4'-0" MIN



MassDOT CONSTRUCTION STANDARD DETAIL DWG. NO. 107.2.0

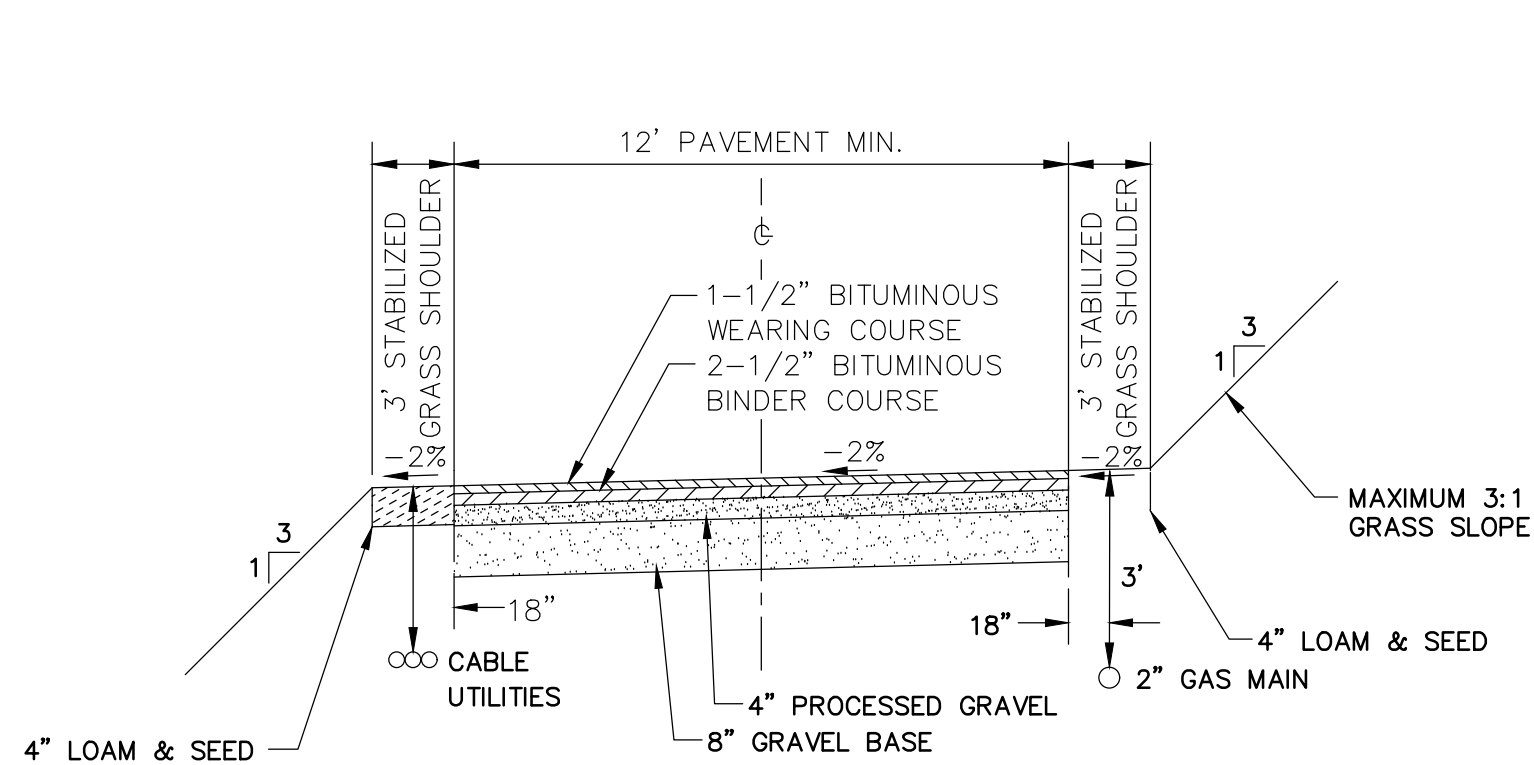


- LEGEND**
- HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
  - = TOLERANCE FOR CONSTRUCTION ±0.5%

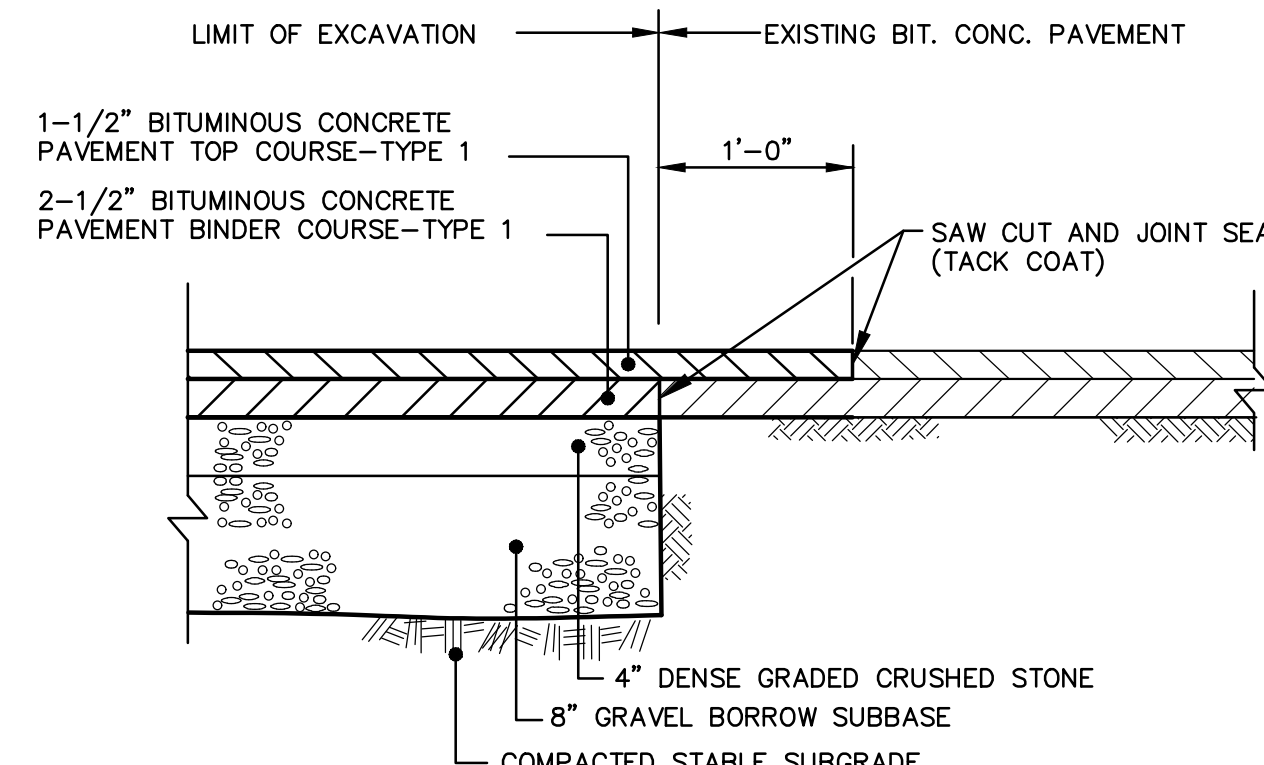
- NOTES**
- DETECTABLE WARNING PANEL LOCATED NOT LESS THAN 6\"/>

MassDOT CONSTRUCTION STANDARD DETAIL DWG. NO. 107.6.0

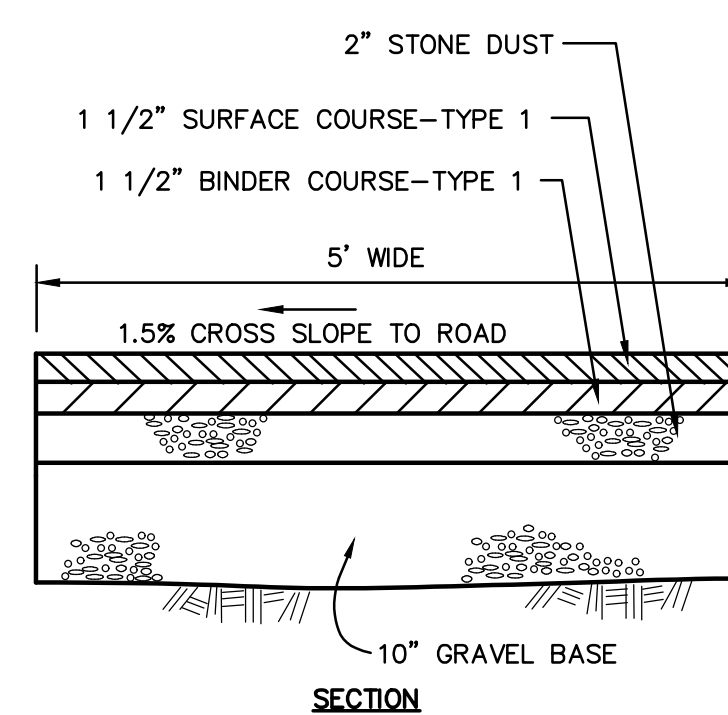
**WHEELCHAIR RAMP**  
NOT TO SCALE



**DRIVEWAY CROSS SECTION**  
N.T.S.



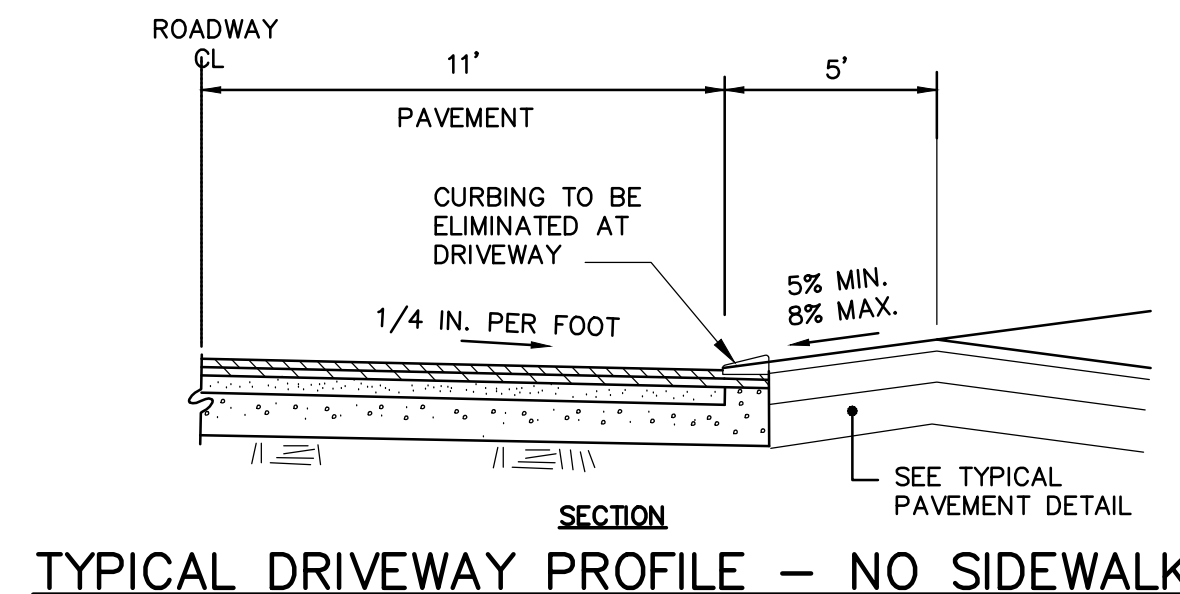
**PAVEMENT MATCHING DETAIL**  
NOT TO SCALE



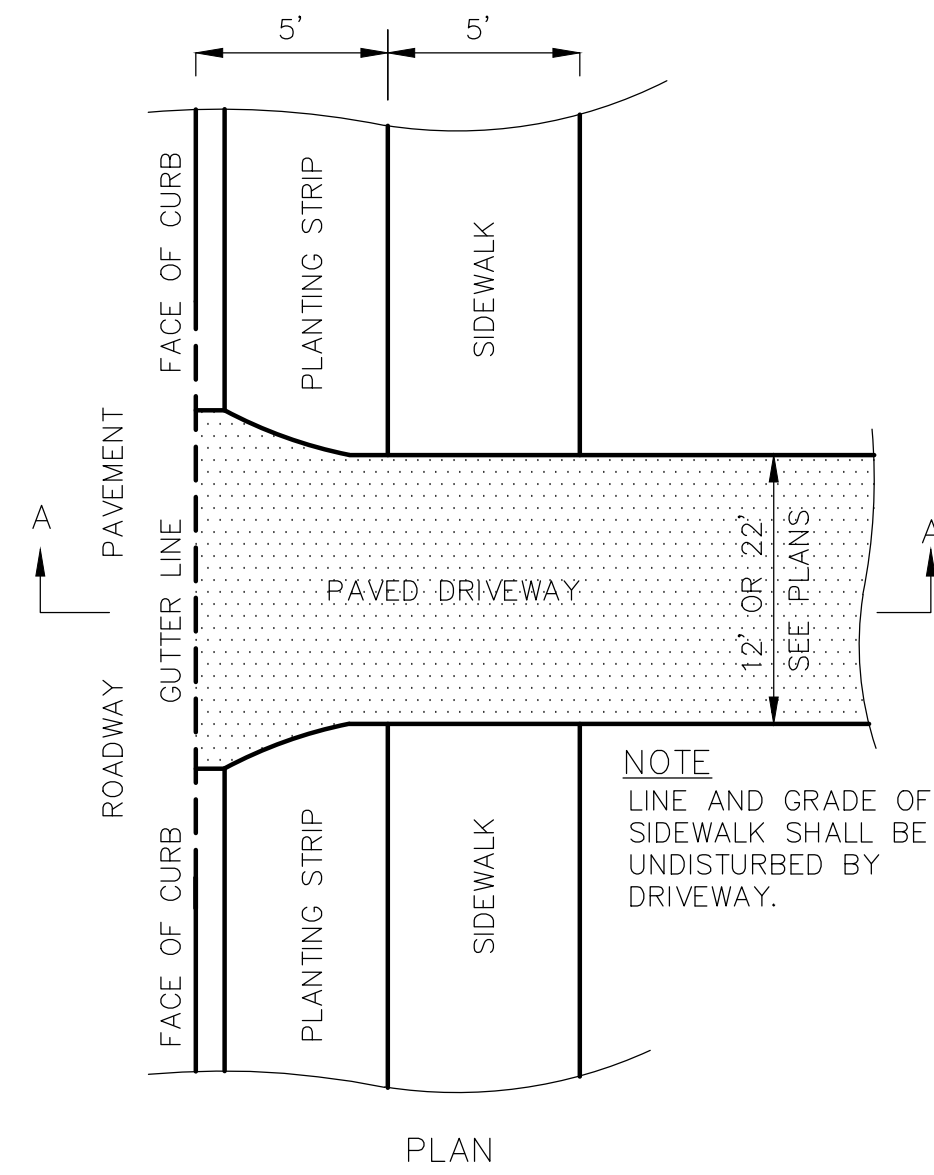
**BITUMINOUS SIDEWALK**  
NOT TO SCALE



**TYPICAL DRIVEWAY PROFILE AT SIDEWALK**  
NOT TO SCALE

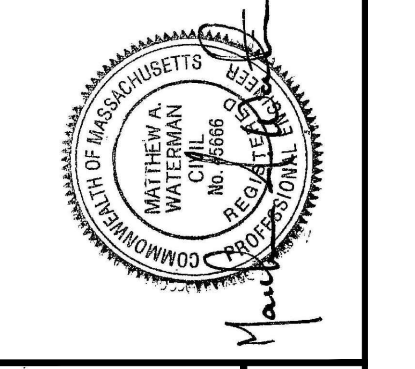


**TYPICAL DRIVEWAY PROFILE - NO SIDEWALK**



**TYPICAL DRIVEWAY**  
NOT TO SCALE

DATE	REVISION	BY
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1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS



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GRATUITY BROOK FARM ESTATES  
DETAILS AND SECTIONS  
63 GRATUITY ROAD  
GROTON, MA

DESIGN MJS  
DRAFT MJS  
CHECK MAW

AUGUST 12, 2024

SCALE: 1" = 100'

**Landtech**  
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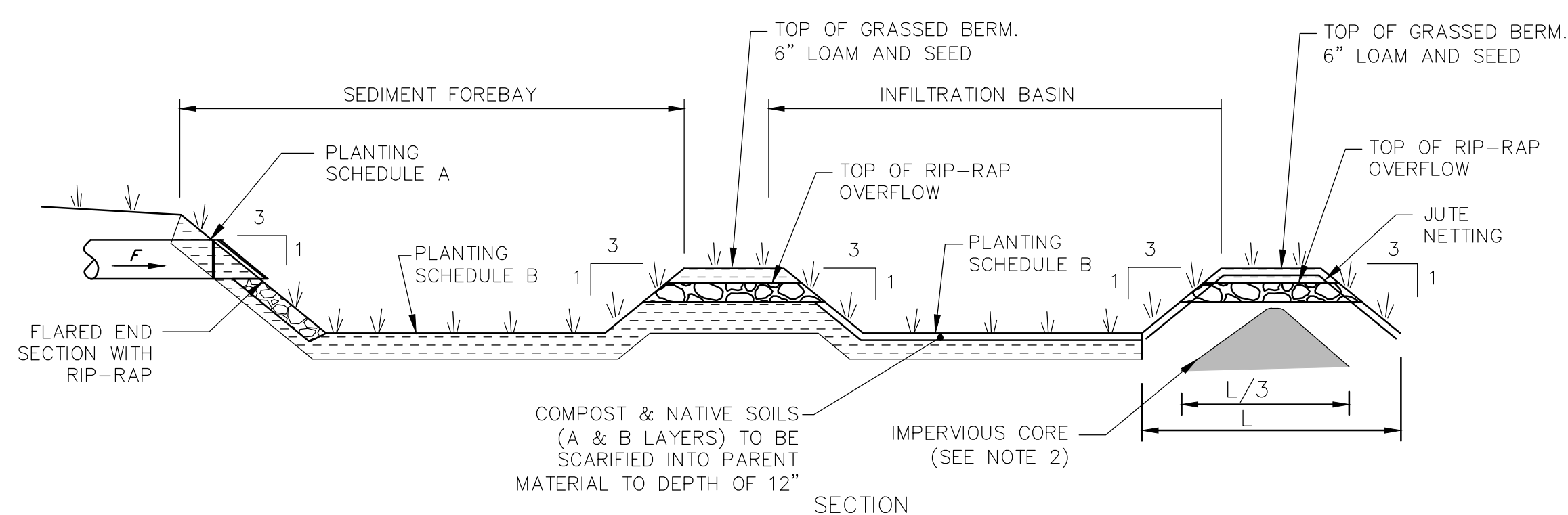
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JOB NO.	22-243
DWG. NO.	11142
SHEET	D-1

**PLANTING SCHEDULES**

PLANTING SCHEDULE A:  
 REED CANARY GRASS  
 PERENNIAL RYE GRASS  
 CROWN VETCH

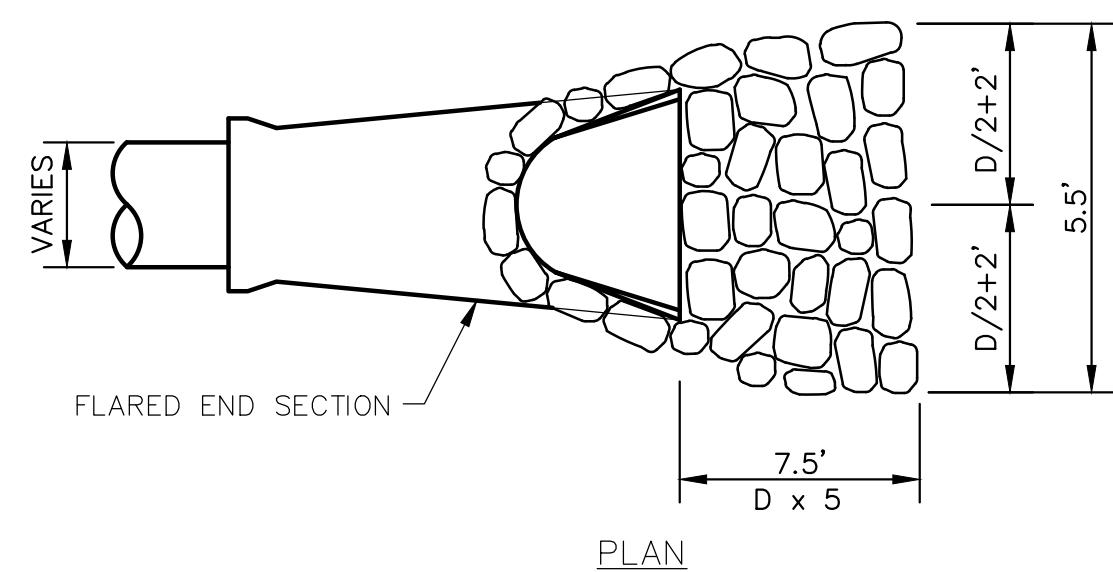
PLANTING SCHEDULE B:  
 RIVERBANK WILD RYE  
 CREEPING RED FESCUE



- NOTES
1. SEE PLANS FOR ADDITIONAL DETAILS.
  2. IMPERVIOUS CORE SHALL BE MADE OF SILT LOAM WITH A PERCOLATION RATE OF >120 MINUTES/ INCH

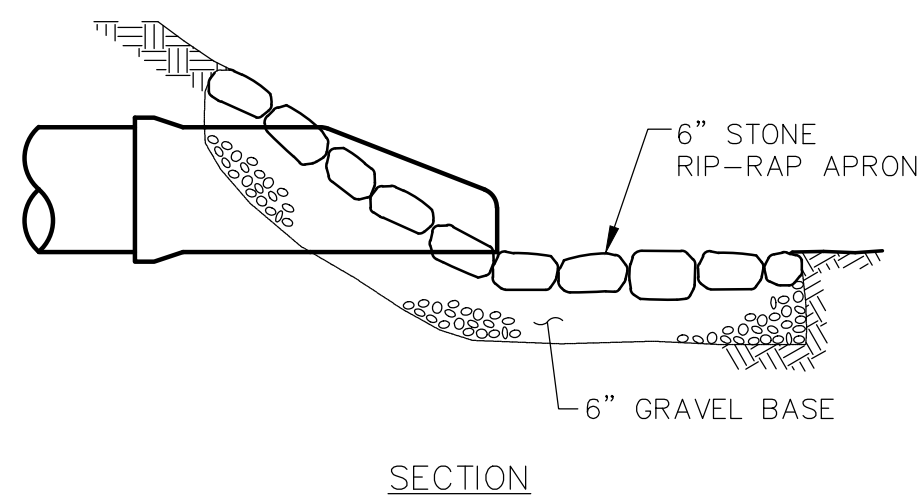
**SEDIMENT FOREBAY & INFILTRATION BASIN**

NOT TO SCALE



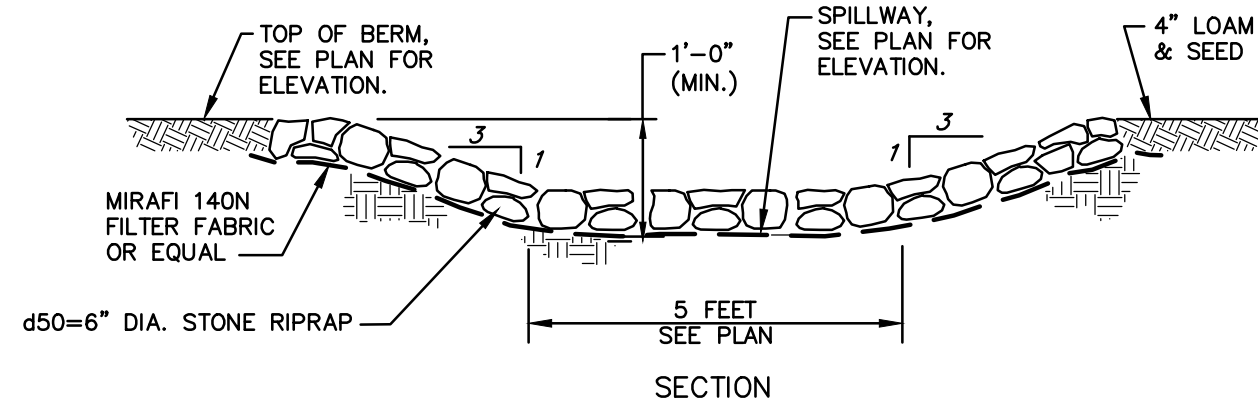
**FLARED END SECTION RIP-RAP**

NOT TO SCALE



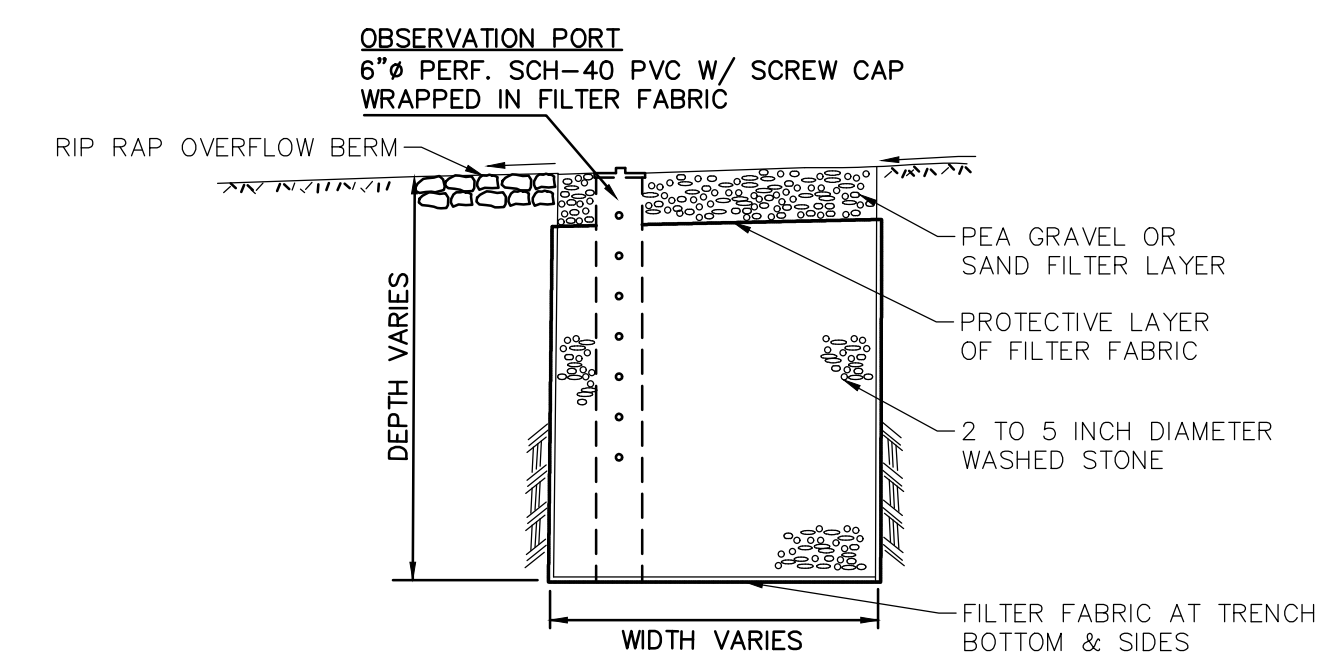
**SPILLWAY**

NOT TO SCALE



**RIP-RAP OVERFLOW PLACEMENT**

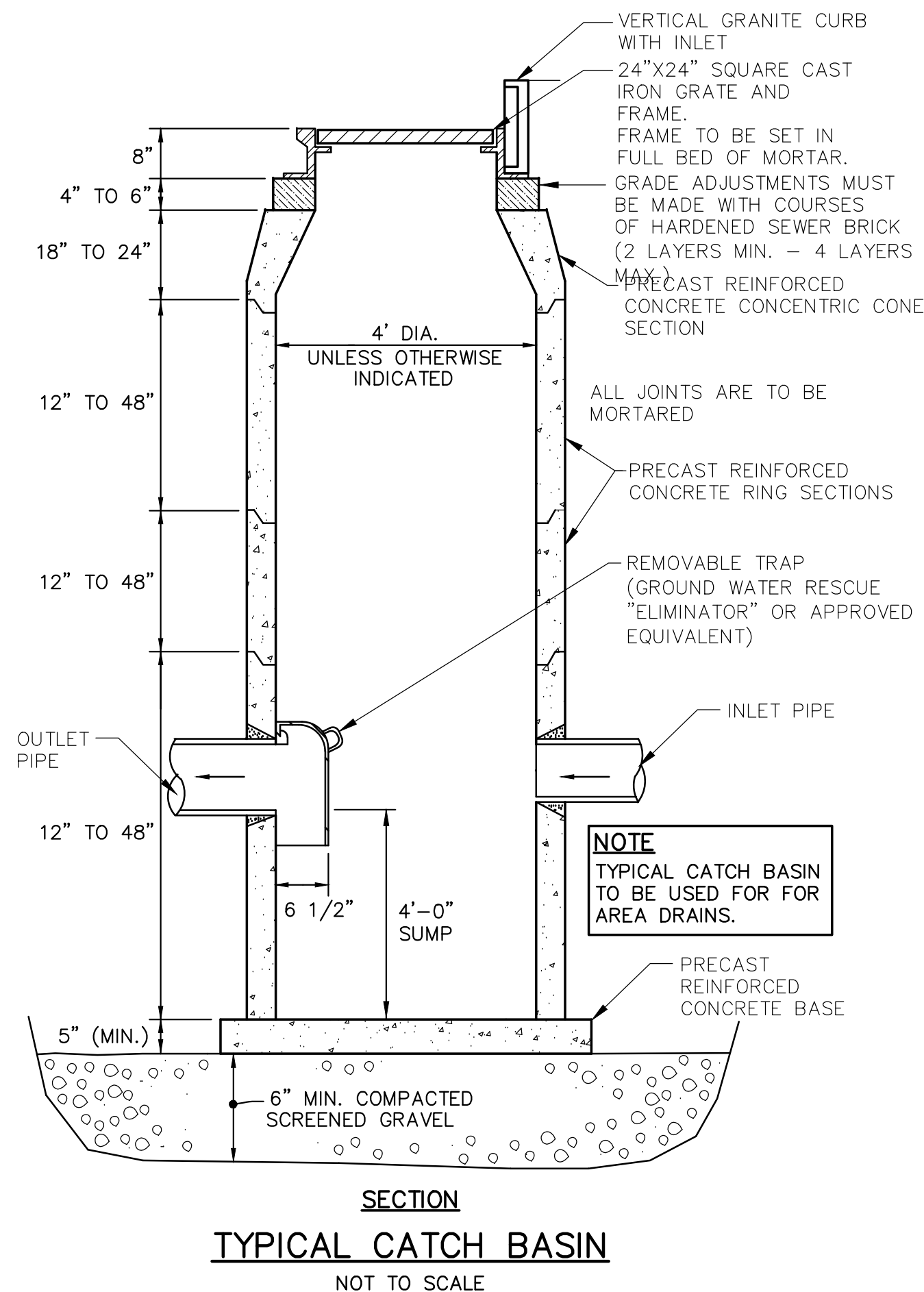
NOT TO SCALE



**INFILTRATION TRENCH/PERIMETER DRAIN**

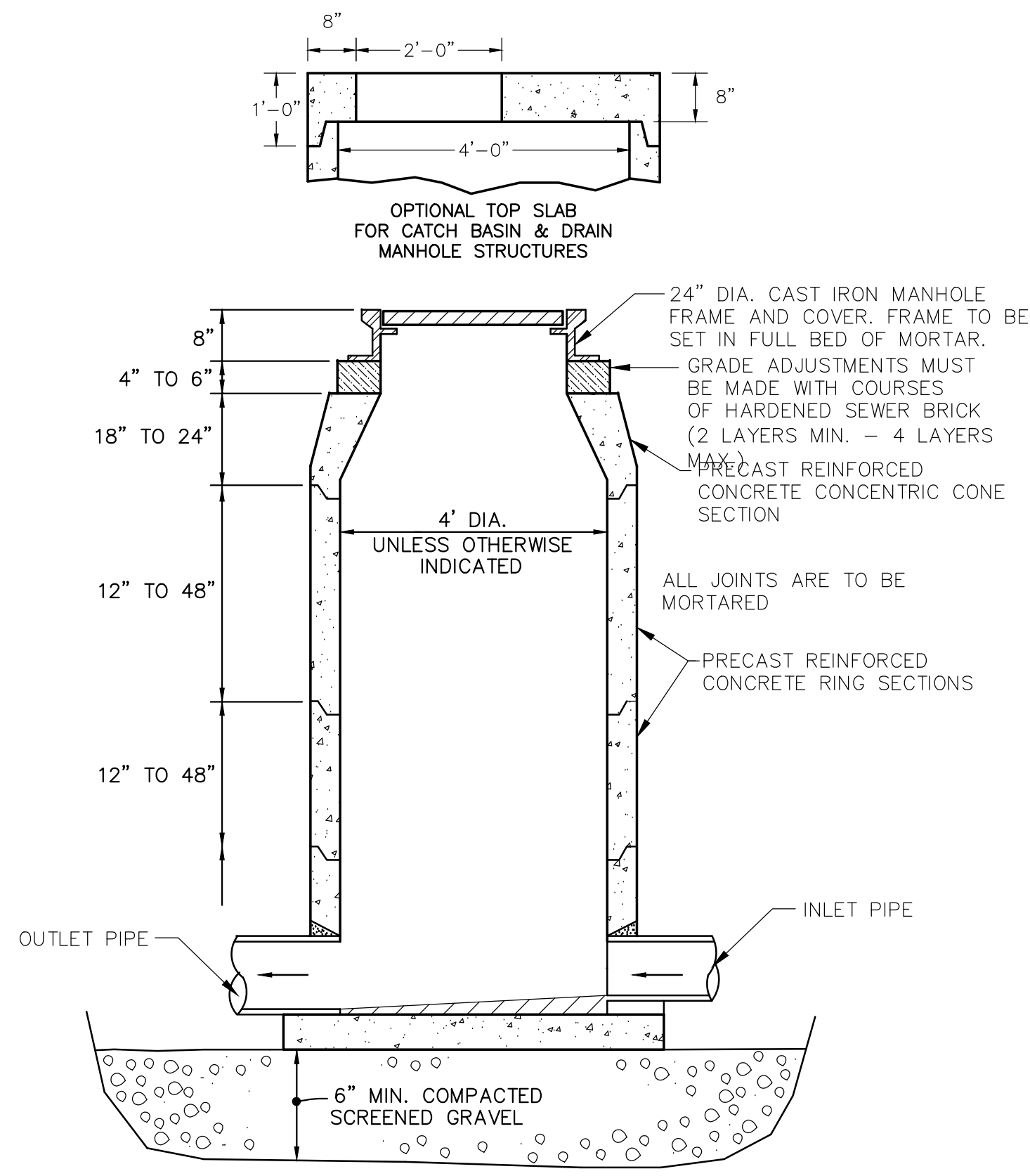
NOT TO SCALE

- NOTE
- SEE PLAN VIEW FOR LOCATIONS, SIZING AND INVERT INFORMATION.



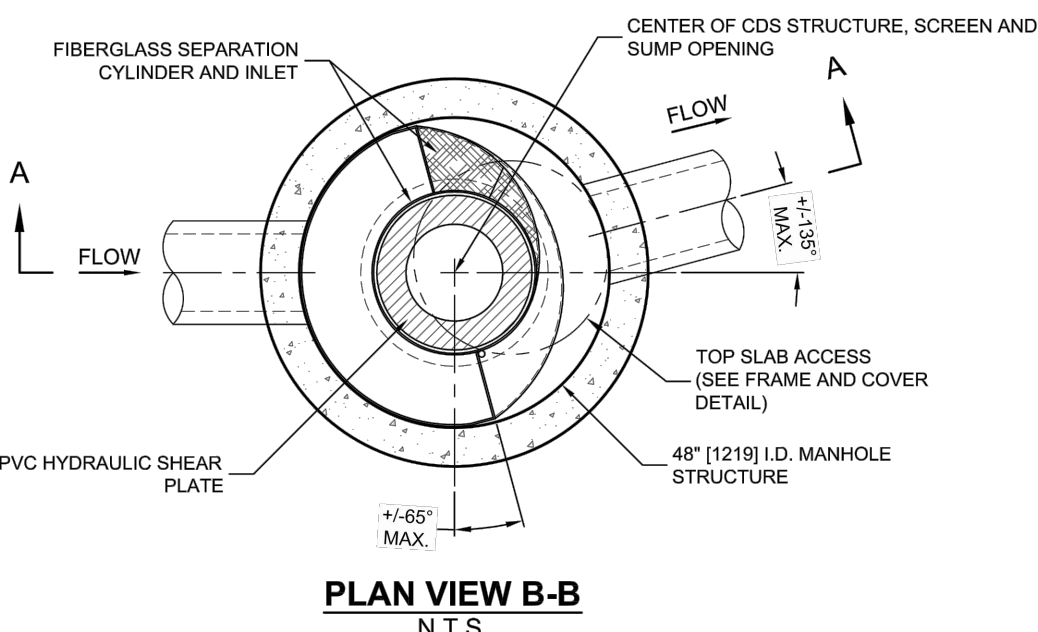
**TYPICAL CATCH BASIN**

NOT TO SCALE



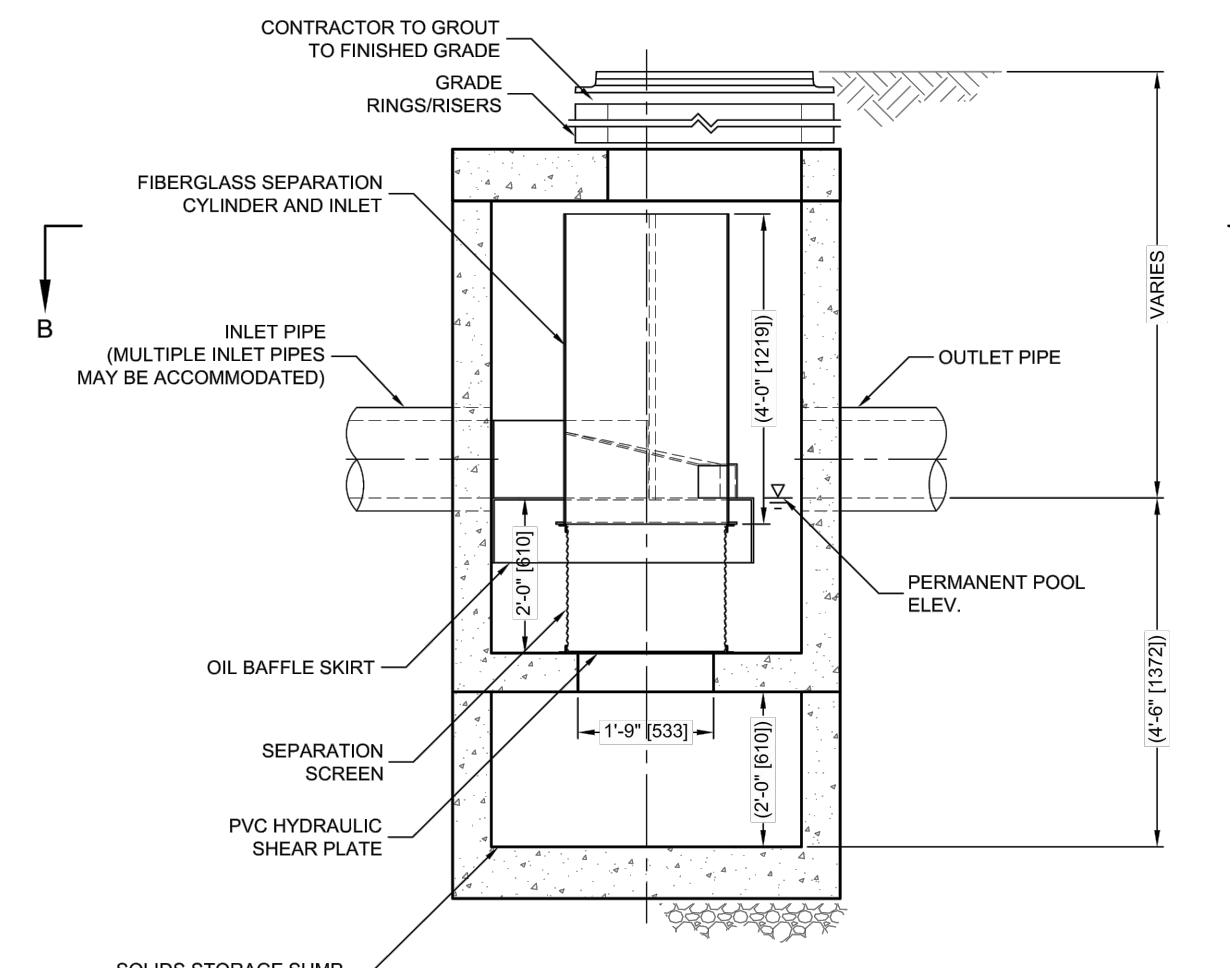
**TYPICAL DRAIN MANHOLE**

NOT TO SCALE



**PLAN VIEW B-B**

N.T.S.



**ELEVATION A-A**

N.T.S.

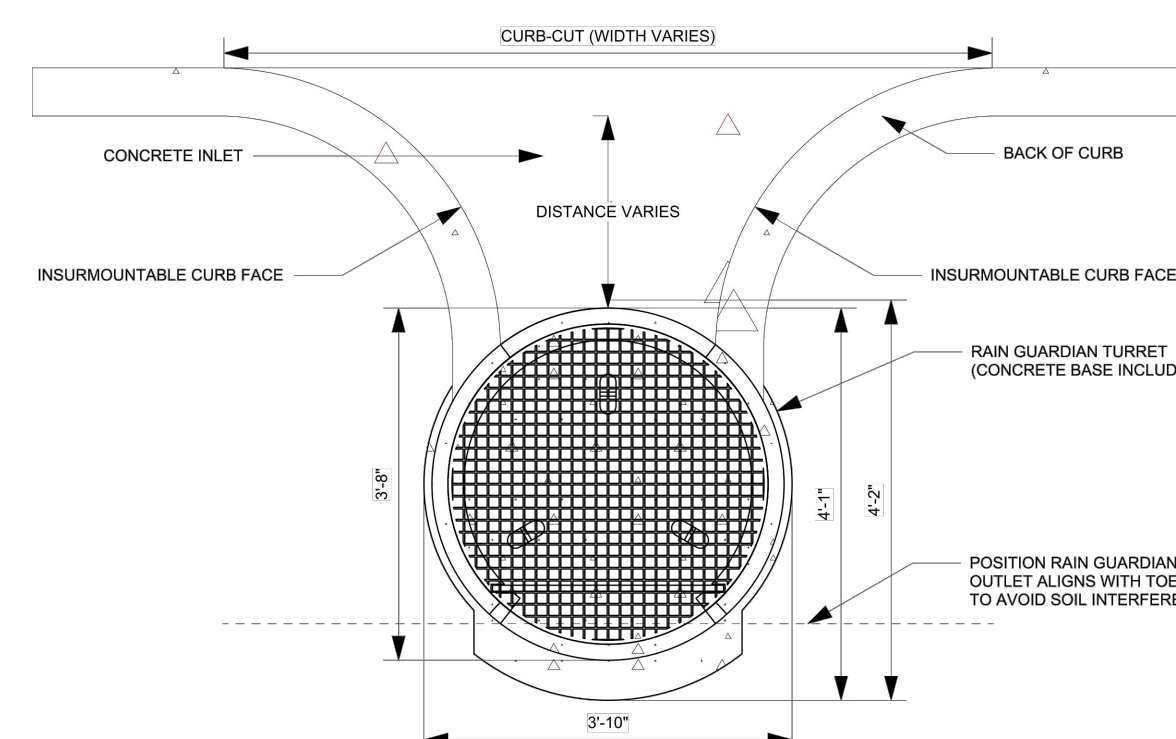
- GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
  3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.conteches.com](http://www.conteches.com)
  4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
  5. STRUCTURE SHALL MEET AASHTO H20-44 AND CASTINGS SHALL MEET AASHTO M 308 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
  6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

- INSTALLATION NOTES
- A. ANY SUB-BASE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
  - C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
  - D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
  - E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**CONTECH CDS HYDRODYNAMIC SEPARATOR (MODEL 2025-4C)**

NOT TO SCALE

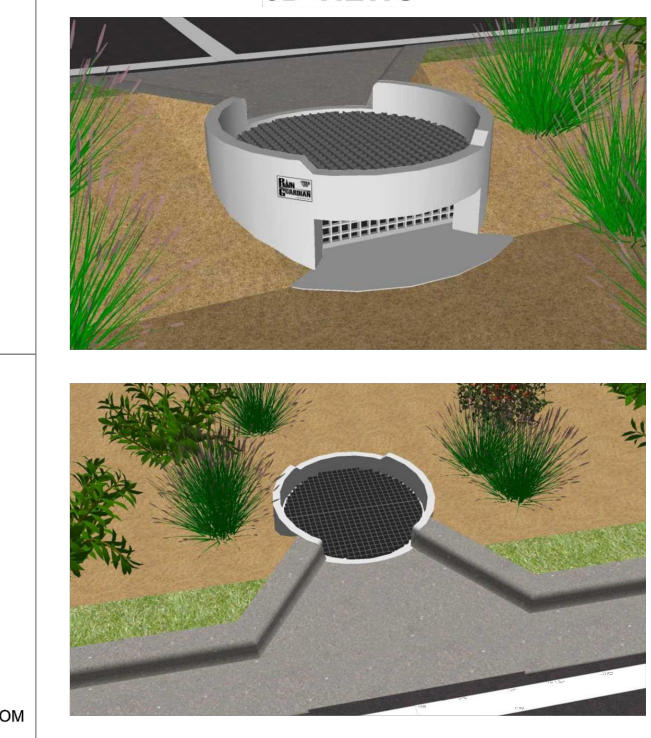
**PLAN VIEW**



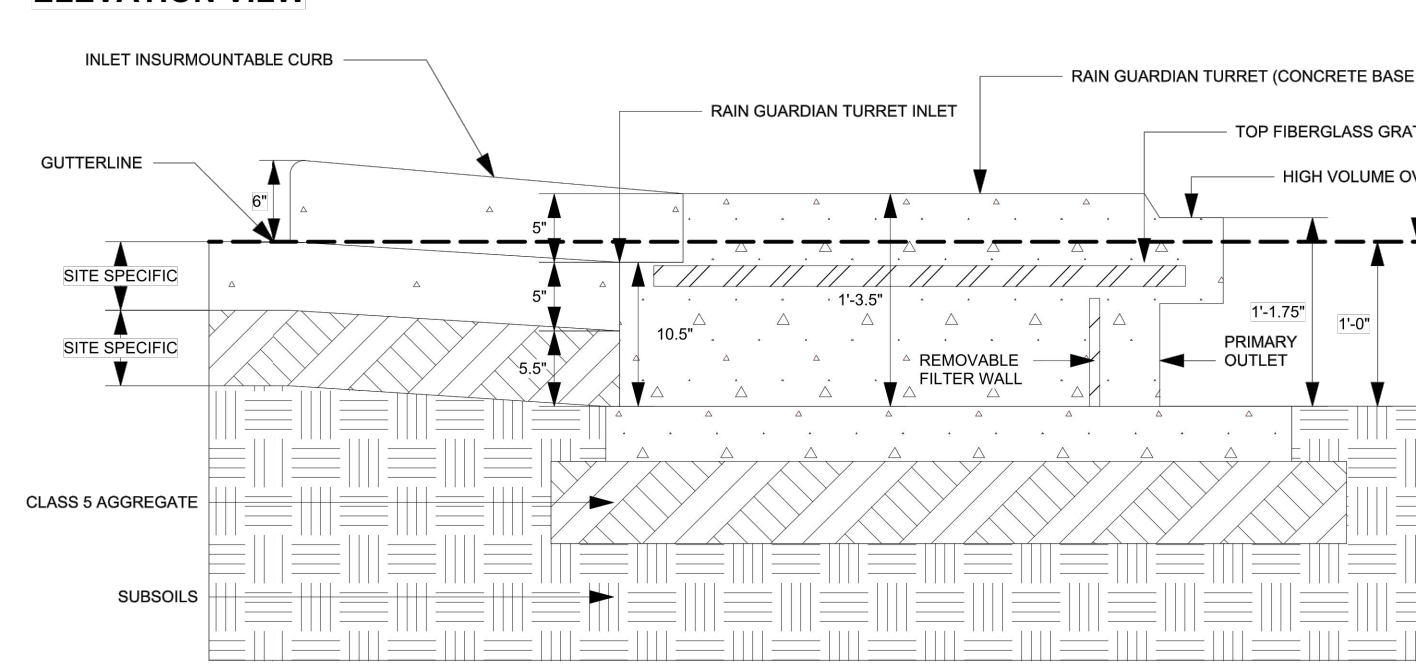
**PLAN VIEW NOTES**

1. INLET WIDTH AND DISTANCE BETWEEN BACK OF CURB AND RAIN GUARDIAN TURRET MAY VARY WITH SITE CONDITIONS.
2. CONCRETE BASE EXTENDS BEYOND THE FILTER WALL OF THE RAIN GUARDIAN TURRET TO SERVE AS A SPLASH DISSIPATOR.

**3D VIEWS**



**ELEVATION VIEW**



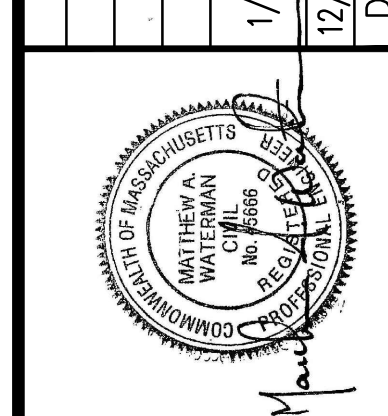
**ELEVATION VIEW NOTES**

1. THE TOP OF THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR) IS PRECISELY 1' 4\"/>

**RAIN GUARDIAN TURRET PRETREATMENT CHAMBER**

NOT TO SCALE

DATE	REVISION
12/10/24	PEER REVIEW COMMENTS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS
MJS	BY
MJS	



CHECK	MAW
DRAFT	MJS
DESIGN	MJS

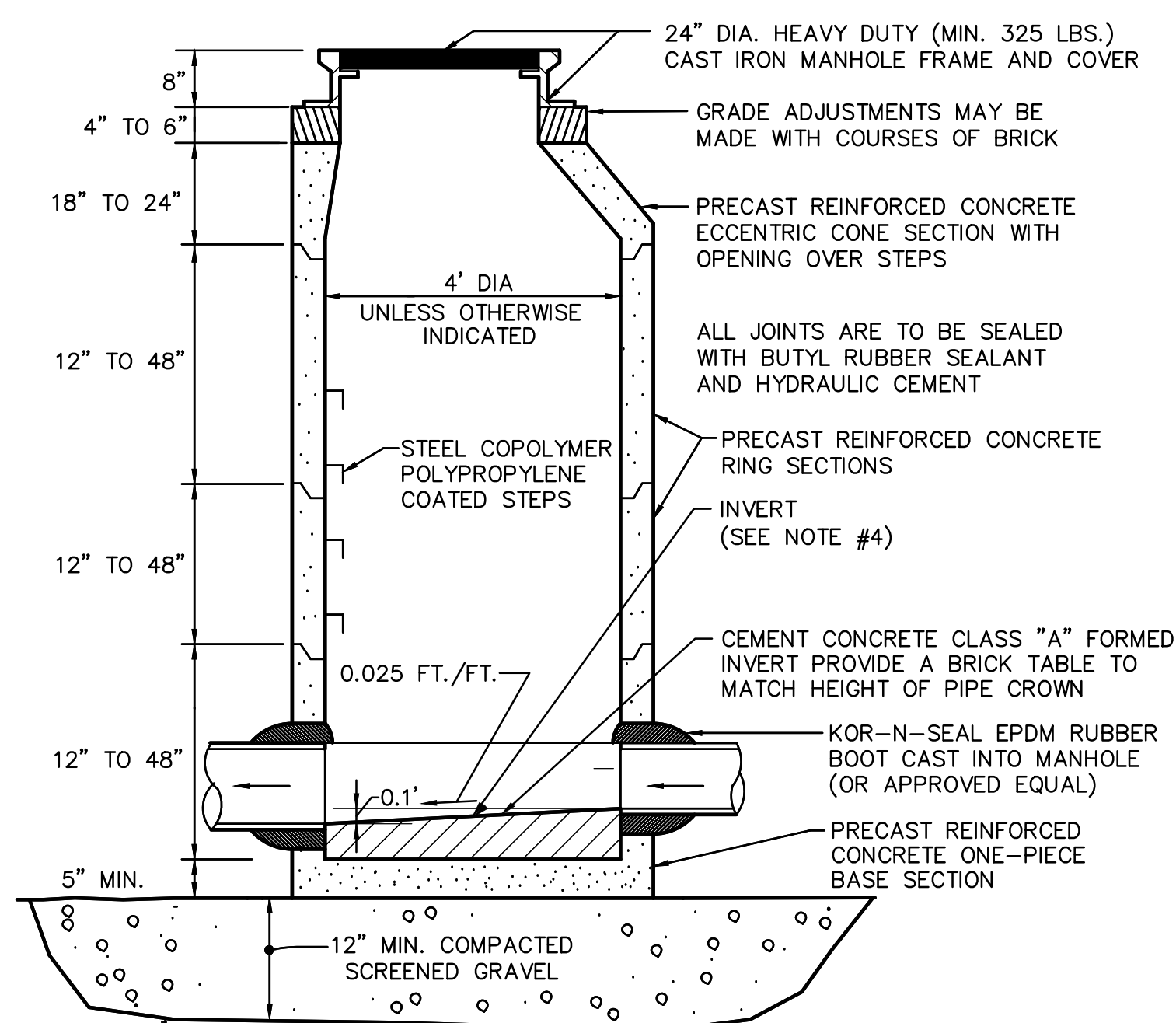
PREPARED FOR:  
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 GRATUITY ROAD, LLC  
 236 ATER ROAD  
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**GRATUITY BROOK FARM ESTATES**  
**DETAILS AND SECTIONS**  
 63 GRATUITY ROAD  
 GROTON, MA

SCALE: 1" = 100'  
 AUGUST 12, 2024

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JOB NO.	22-243
DWG. NO.	11142
SHEET	D-2

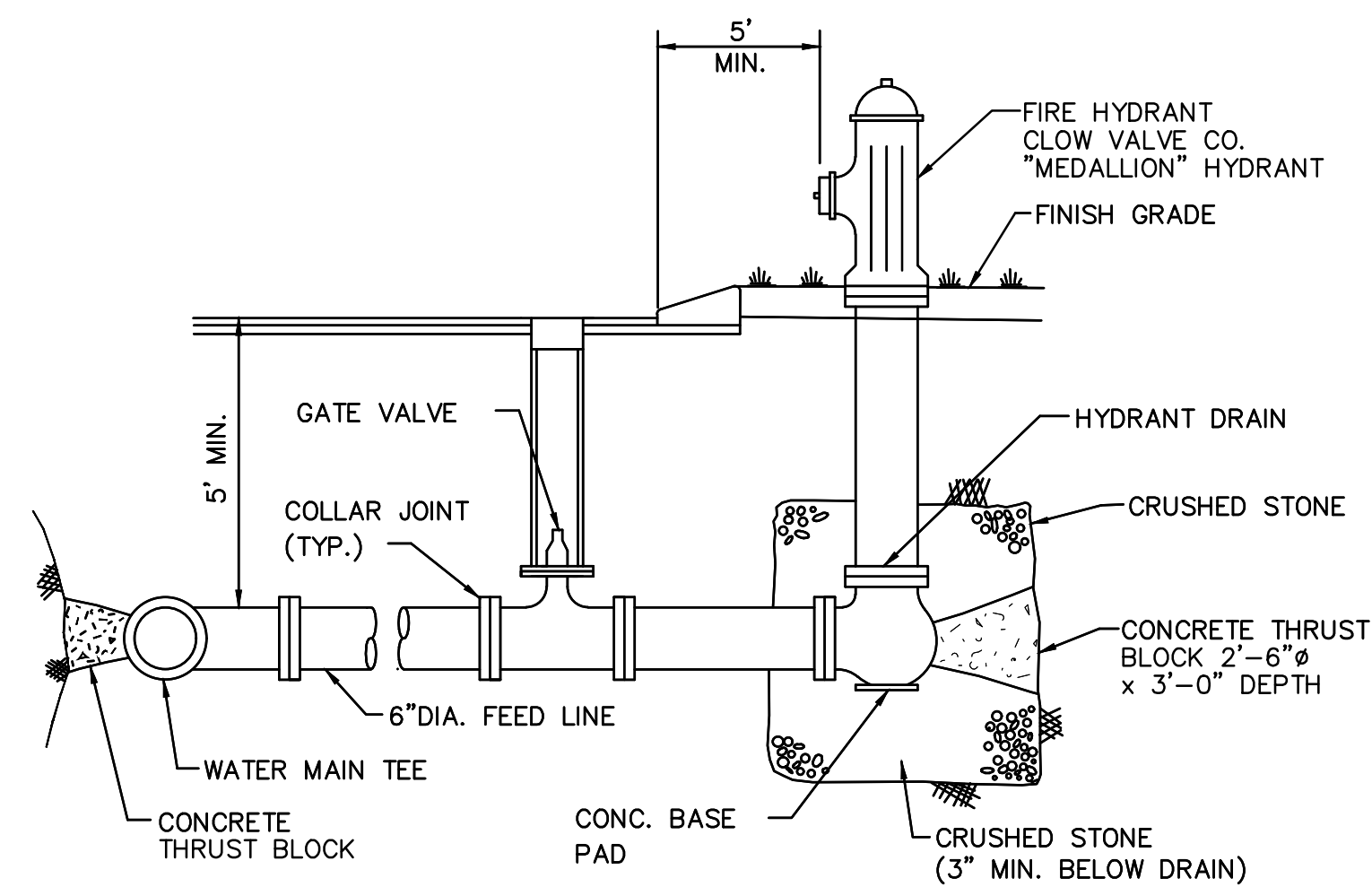


**NOTES:**

1. CAST IRON COVER SHALL BE LABELED SEWER.
2. SEAL ALL PINHOLES WITH HYDRAULIC CEMENT AND APPLY 2 COATS OF BITUMASTIC.
3. FORCEMAIN INLETS SHALL BE FITTED WITH SCH-40 PVC TEES TO DIRECT EFFLUENT TO DOWN TO TROUGH.
4. ALL SEWER SLOPES CALCULATED BY REFERENCING THE CENTERLINE INVERT ELEVATION AT THE CENTER OF EACH MANHOLE. ALL CALCULATED INVERTS ENTERING OR LEAVING REFERENCE THE MANHOLE CENTER. MANHOLES SHALL BE MANUFACTURED WITH A MINIMUM OF 0.1 FT. BETWEEN THE INVERT IN AND THE INVERT OUT.

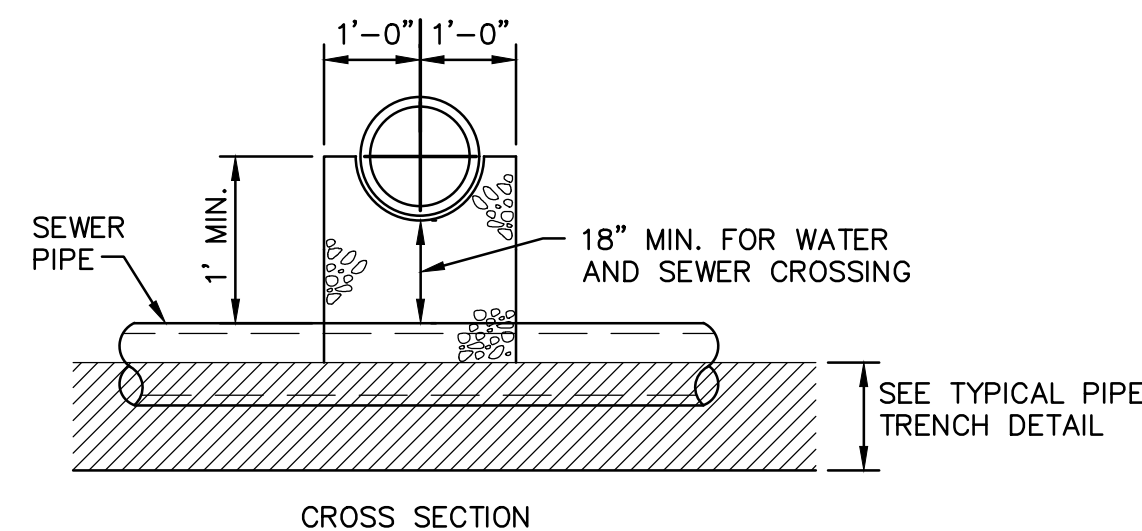
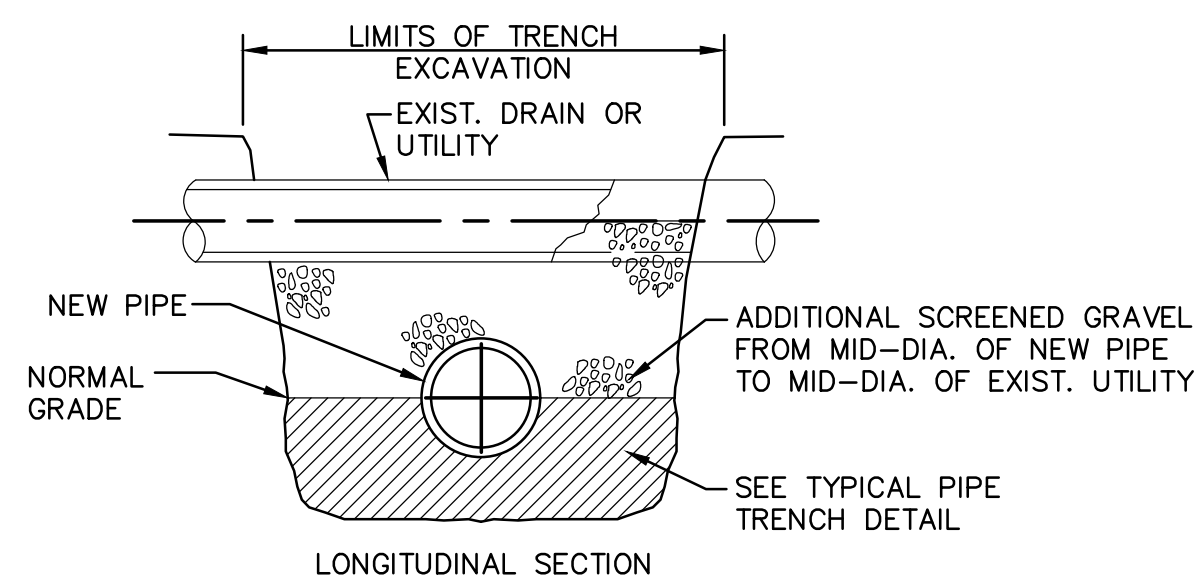
**TYPICAL SEWER MANHOLE**

NOT TO SCALE



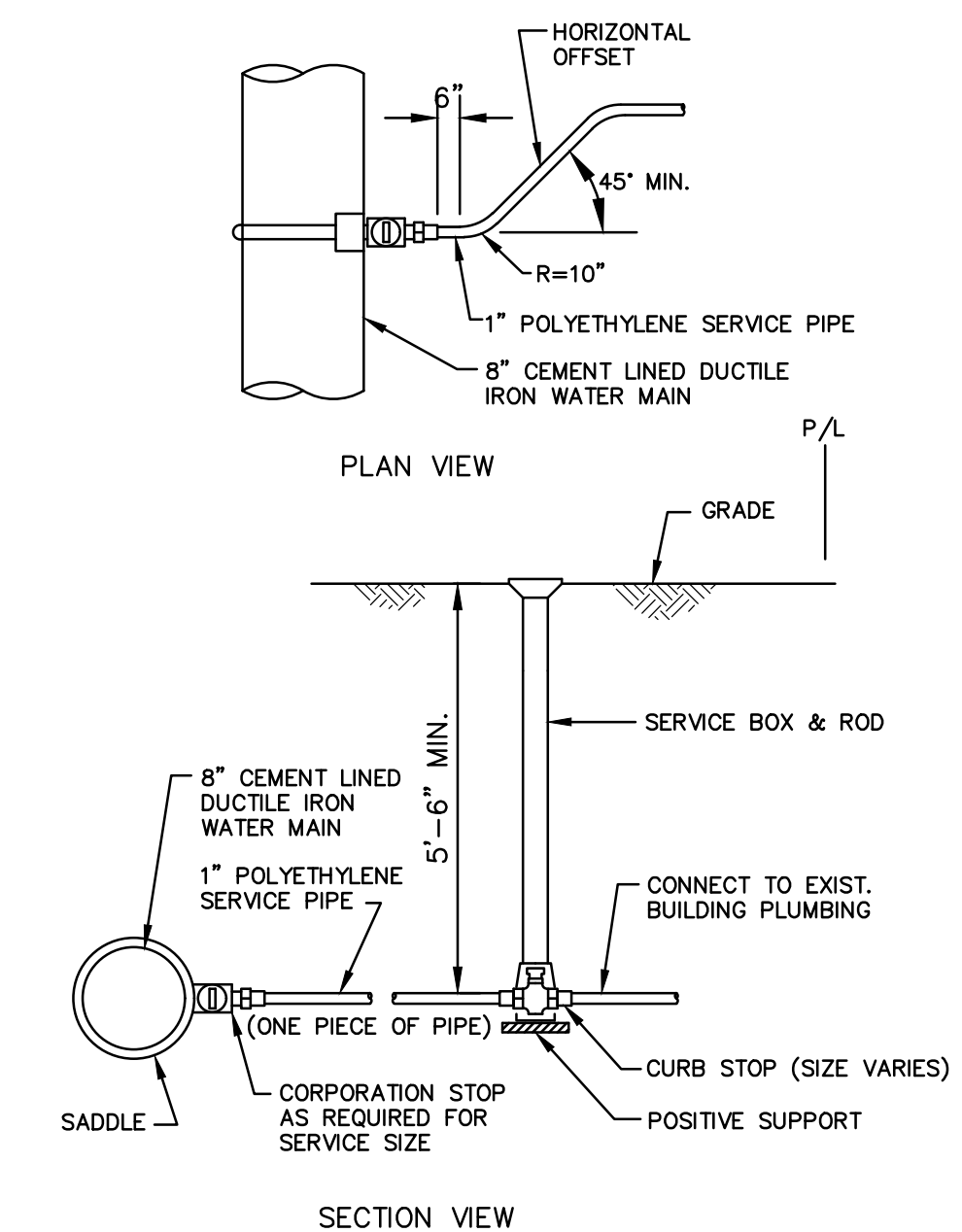
**FIRE HYDRANT DETAIL**

NOT TO SCALE



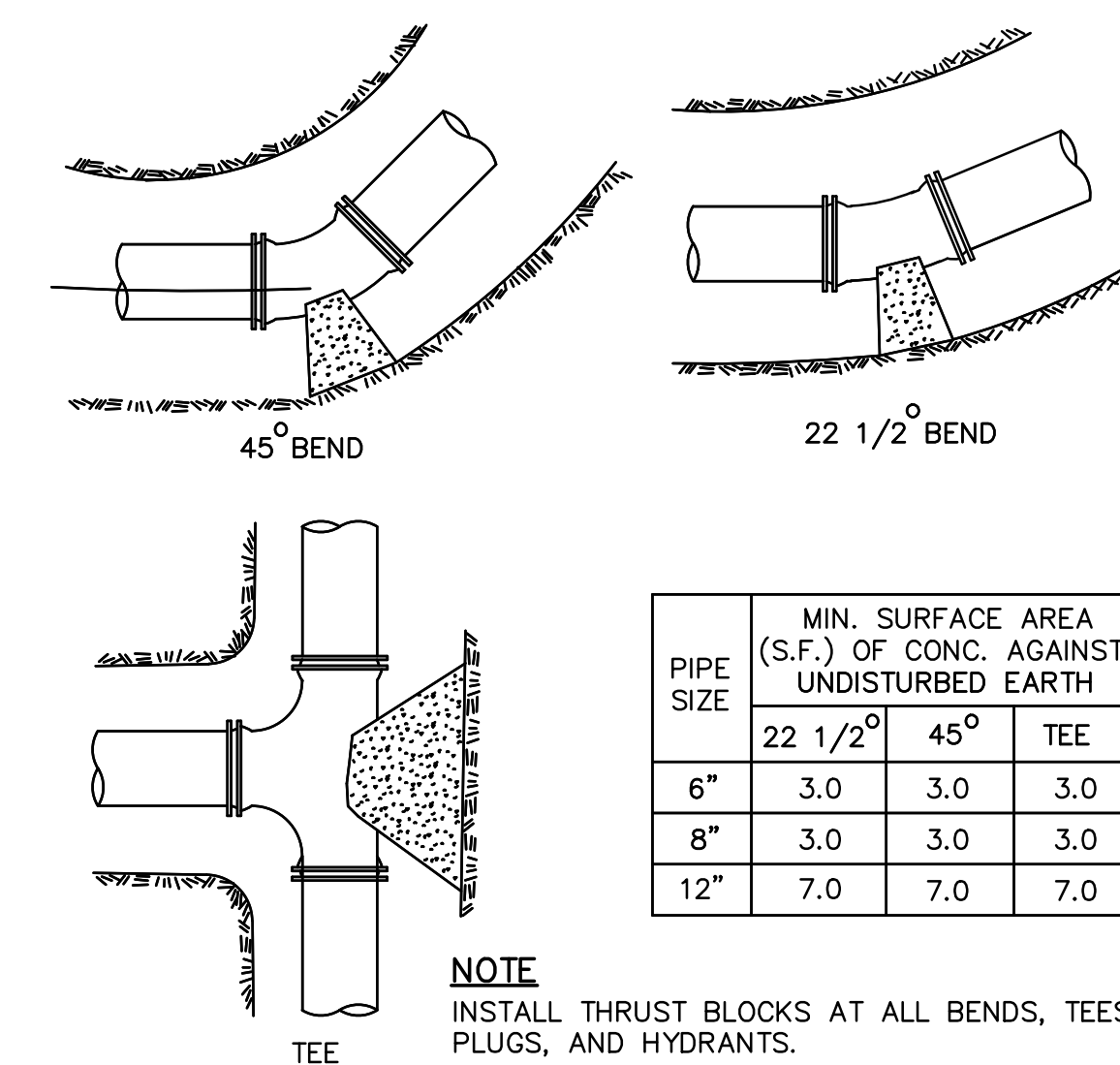
**TYPICAL PIPE CROSSING**

NOT TO SCALE



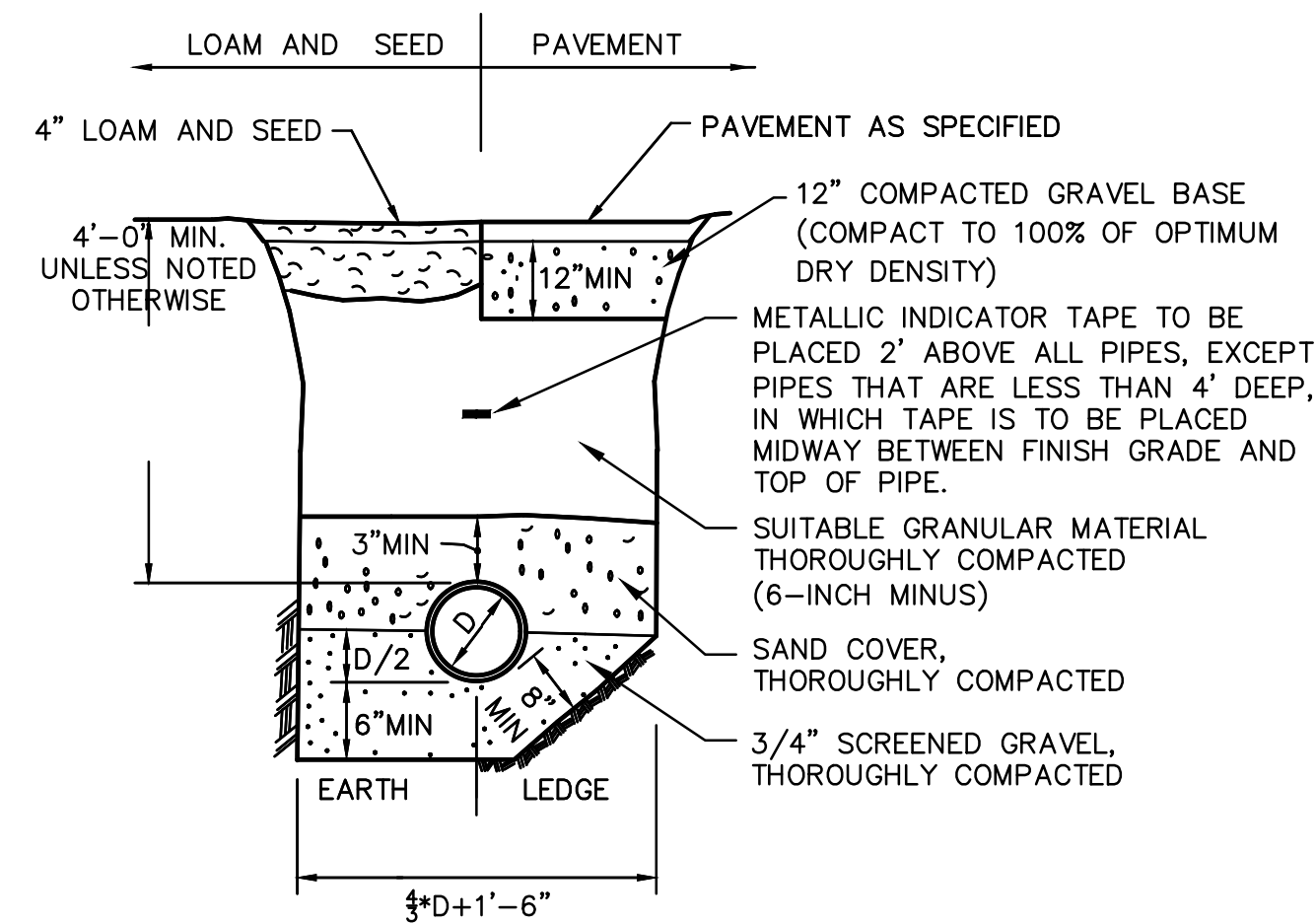
**STANDARD WATER SERVICE DETAIL**

NOT TO SCALE



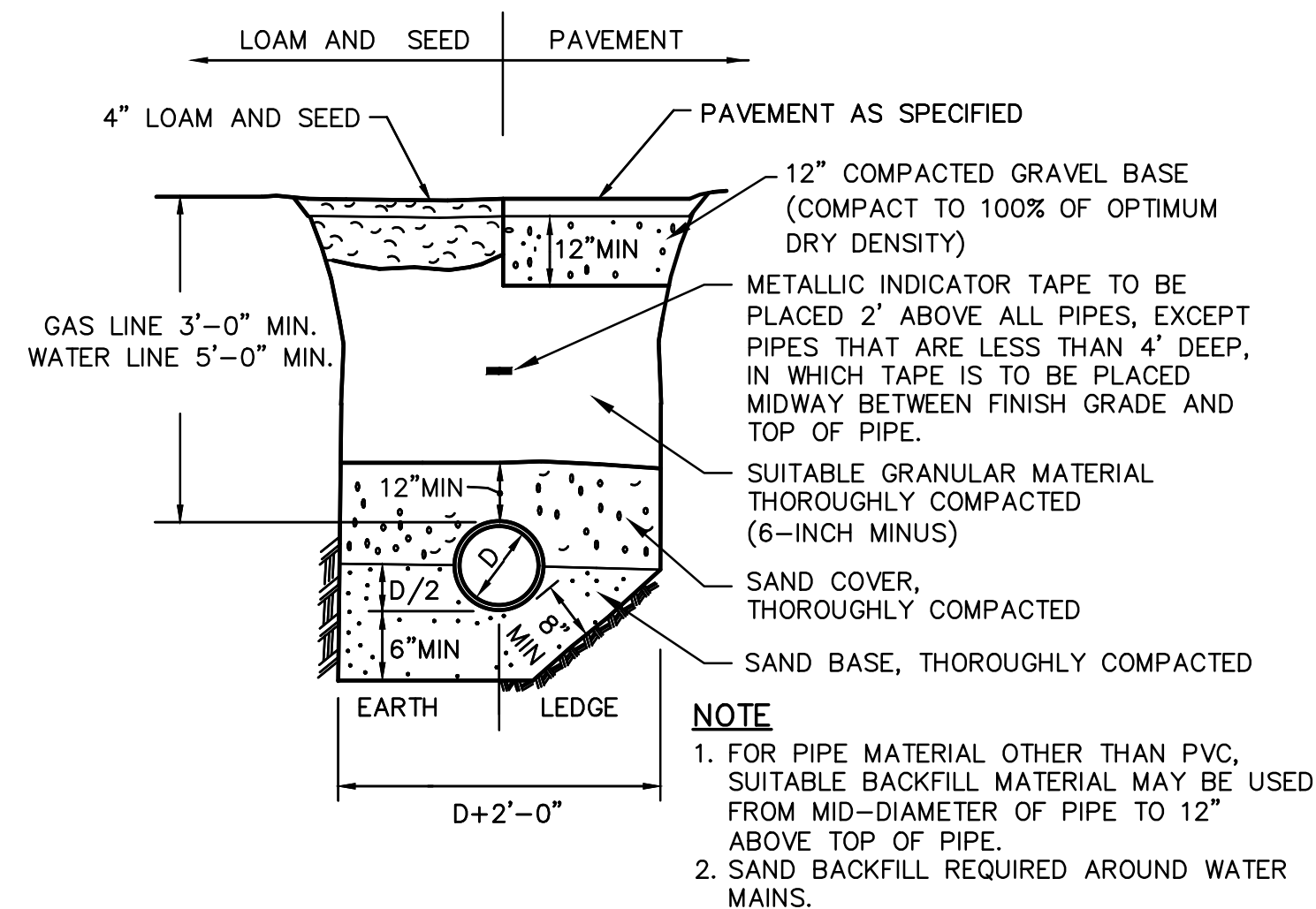
**WATER MAIN THRUST BLOCK DETAILS**

NOT TO SCALE



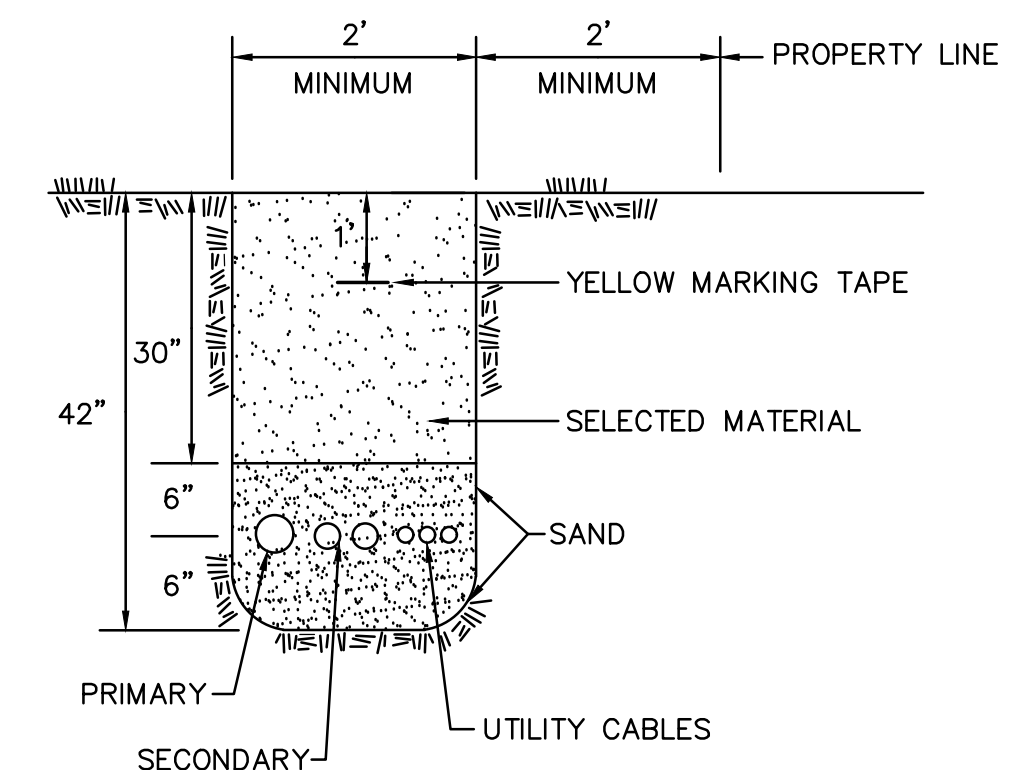
**TYPICAL DRAIN TRENCH DETAIL**

NOT TO SCALE



**TYPICAL TRENCH DETAIL**

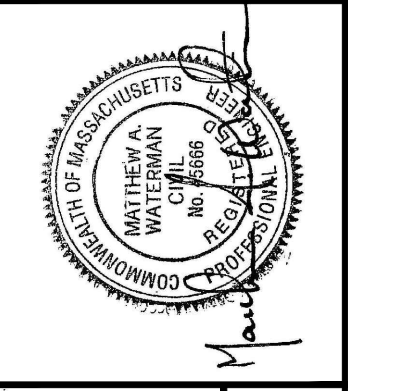
NOT TO SCALE



**UNDERGROUND ELECTRICAL TRENCH**

NOT TO SCALE

DATE	REVISION	BY
12/10/24	PEER REVIEW COMMENTS	MJS
1/13/25	UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS	MJS



DESIGN	MJS
DRAFT	MJS
CHECK	MAW

PREPARED FOR:  
 ROUTHIER & ROPER  
 GRATUITY ROAD, LLC  
 236 ATER ROAD,  
 LITTLETON, MA 01460

**GRATUITY BROOK FARM ESTATES  
 DETAILS AND SECTIONS**

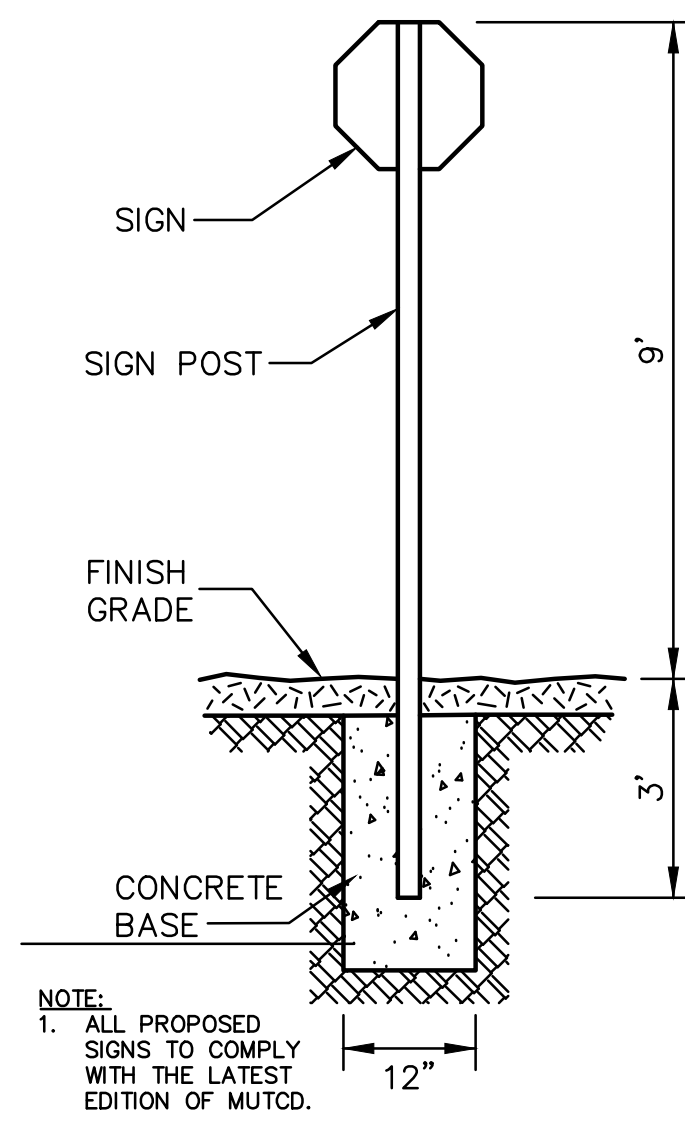
63 GRATUITY ROAD  
 GROTON, MA

AUGUST 12, 2024

SCALE: 1" = 100'

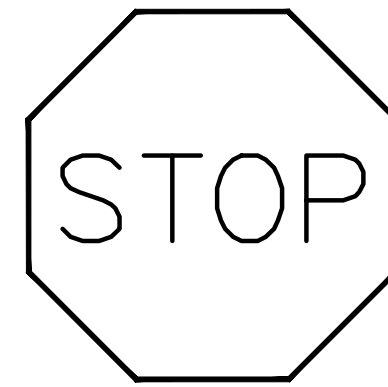


JOB NO.	22-243
DWG. NO.	11142
SHEET	D-3

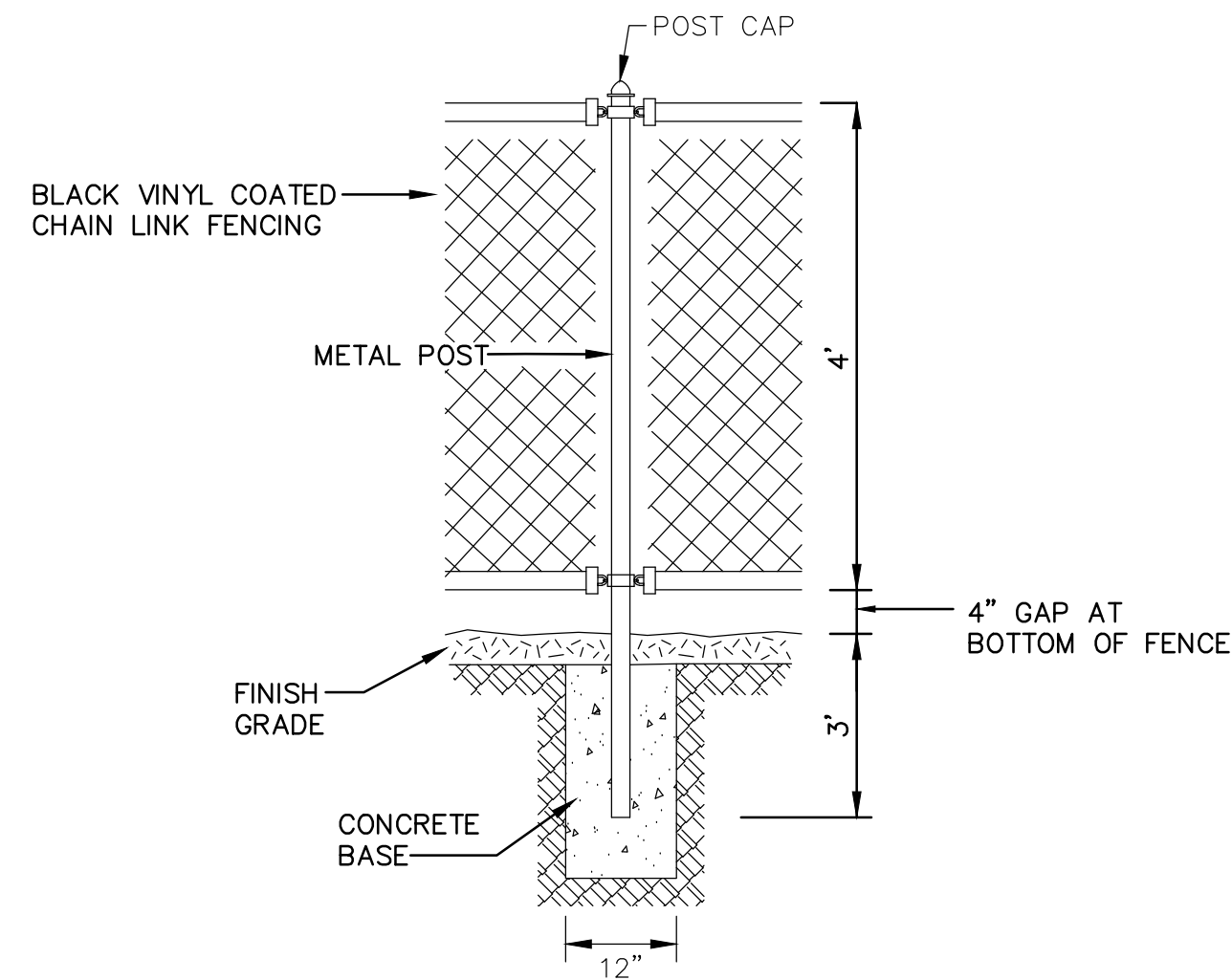


**SIGN DETAIL**  
NOT TO SCALE

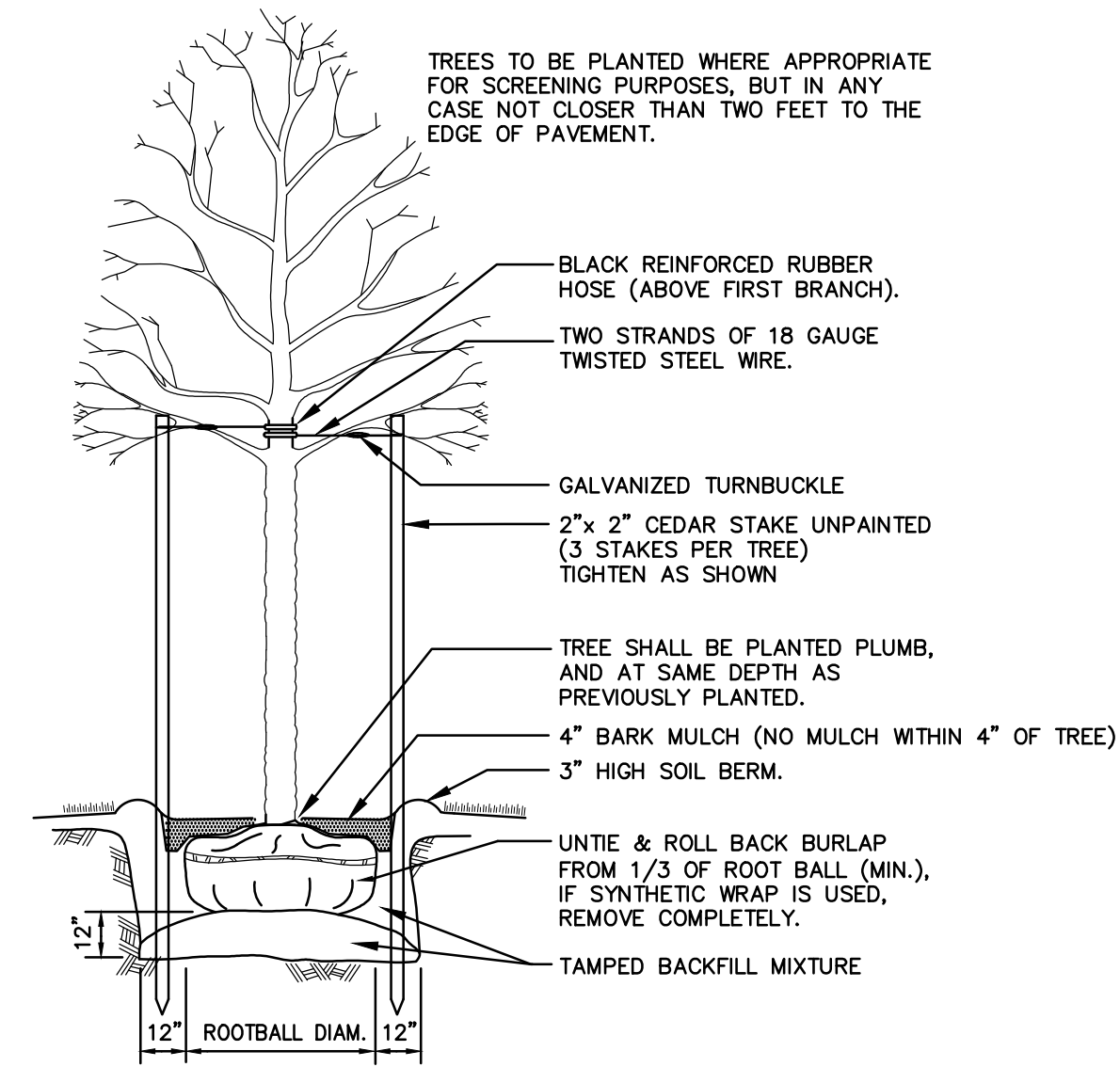
**STREET SIGN**  
NOT TO SCALE  
(WHITE LETTERING ON GREEN BACKGROUND)



**STOP SIGN**  
NOT TO SCALE  
(WHITE LETTERING ON RED BACKGROUND)

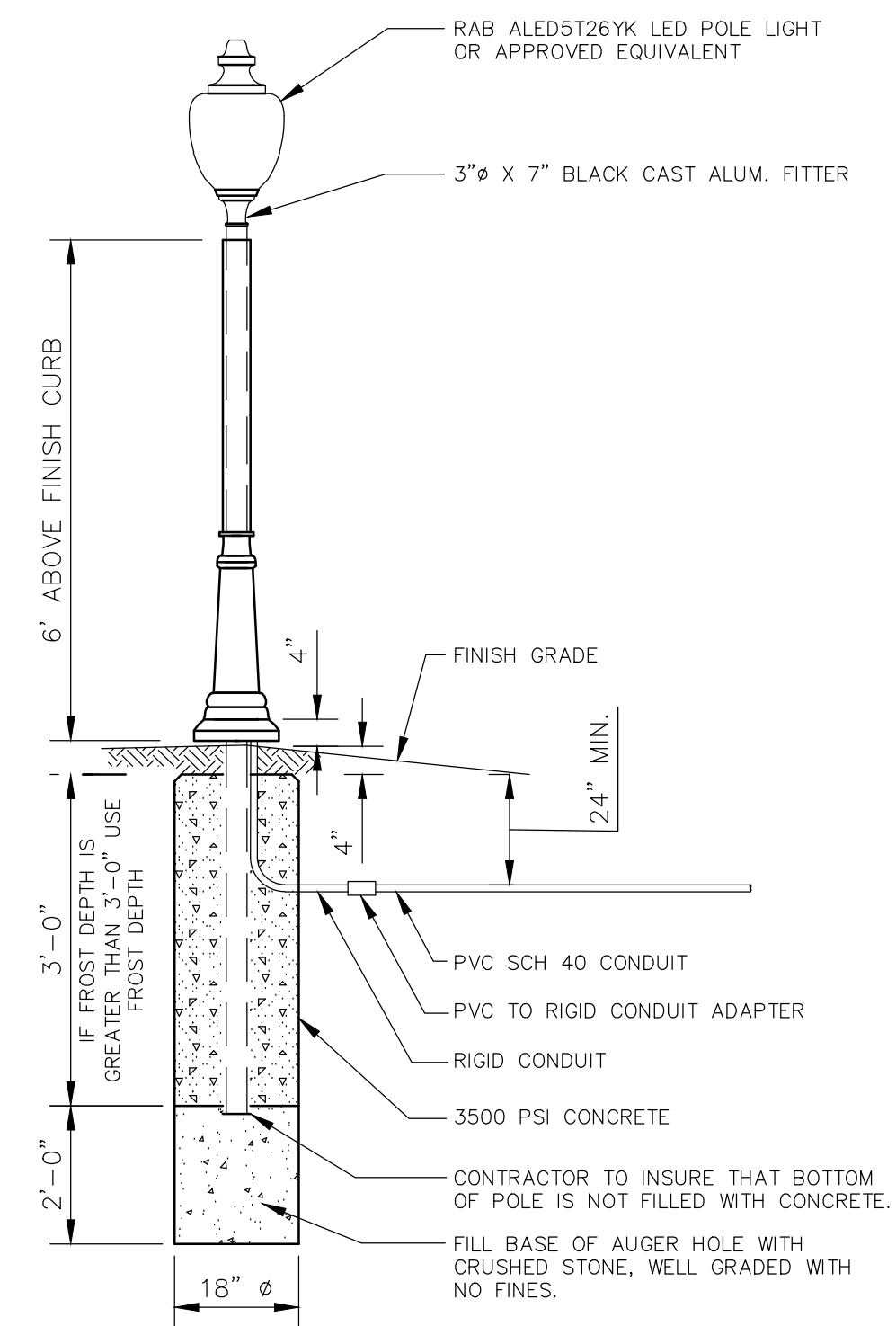


**CHAIN LINK FENCE DETAIL**  
NOT TO SCALE  
(SEE PLAN FOR LOCATION)



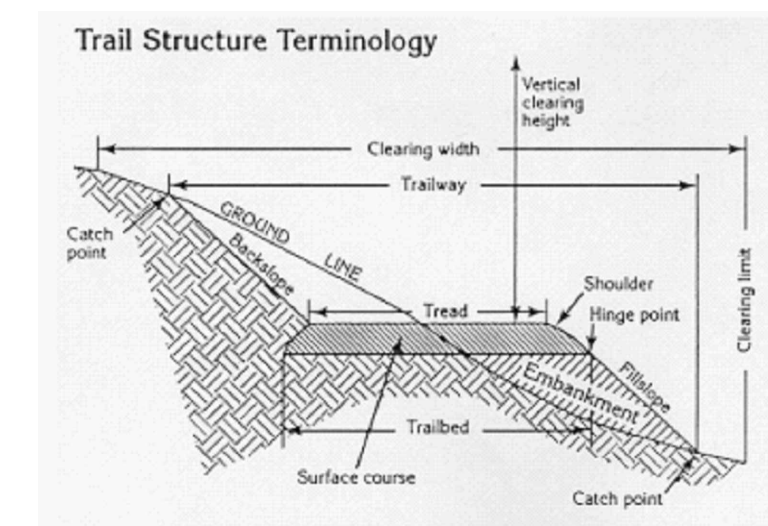
**TREE PLANTING**  
NOT TO SCALE

NOTE: SEE SITE PLAN FOR TREE LOCATIONS AND TYPES



**LIGHT POLE & LANTERN DETAIL**  
NOT TO SCALE

NOTE: SEE SITE PLAN FOR POST LOCATIONS.



**Figure 4-1:**  
**Trail Structure Terminology**  
[Trail Construction & Maintenance Notebook, USFS, p 17]

**TYPICAL TRAIL DETAIL**  
NOT TO SCALE

- NOTES:**
- PRIOR TO CONSTRUCTION, THE LOCATION OF THE TRAIL SHALL BE FLAGGED BY SITE CONTRACTOR.
  - TRAIL SHALL BE LAID OUT AS TO AVOID THE REMOVAL OF LARGE VEGETATION OR EXTENSIVE EARTH WORK.
  - TRAIL CONSTRUCTION SHALL CONSIST OF CLEARING BRANCHES AND SMALL TREES.
  - TREAD SHALL BE 5' WIDE
  - TRAILWAY SHALL BE 8' WIDE
  - CLEARING WIDTH 10' WIDE
  - VERTICAL CLEARANCE SHALL BE 9' HEIGHT
  - TREAD SHALL BE RAKED OUT REMOVING FALLEN LOGS AND ROCK TO EXPOSE THE NATURAL SURFACE.
  - TREAD SHALL PROVIDE POSITIVE DRAINAGE (CROSS SLOPE SHALL BE A MINIMUM OF 1% AND A MAXIMUM OF 2%).

Common Name	Scientific Name	Percentage of Mix	Seed Geographic Origin	MA Status	Approx. Bloom Period	Soil Requirements	Specialist Bee Host?	Rare Lepidoptera Host?
yanrow	Achillea millefolium	2.09	Midwest	fairly widespread	July-Oct	medium, moist	N/A	N/A
upland bent grass	Agrostis perennans	2.09	New York	widespread	N/A	medium, moist, dry	N/A	Yes****
broomsedge bluestem	Andropogon virginicus	2.04	Wisconsin	fairly widespread	N/A	dry, medium	N/A	Yes
pussytoes	Antennaria plantaginifolia	4.10	Minnesota	widespread	April-June	dry, medium	N/A	N/A
butterfly weed	Asclepias tuberosa	2.04	Upper Midwest	fairly widespread	June-Aug	dry	N/A	N/A
yellow wild indigo	Baptisia tinctoria	2.00	West Virginia	widespread	June-Aug	dry	N/A	Yes
plains oval sedge	Carex brevior	2.02	Minnesota	widespread	N/A	dry, medium, moist	N/A	N/A
partridge sensitive-pea	Chamaecrista fasciculata	2.00	Minnesota/Iowa	fairly widespread	June-Aug	dry, medium	N/A	Yes*****
prairie cinquefoil	Drymocalis (Potentilla) arguta	2.01	Iowa	fairly widespread	June-Sept	medium, dry	Yes*	N/A
poverty oat grass	Danthonia spicata	2.63	Minnesota	widespread	N/A	medium, dry	N/A	Yes*****
purple lovegrass	Eragrostis spectabilis	2.02	Illinois	widespread	N/A	dry	N/A	N/A
spotted St. John's-wort	Hypericum punctatum	7.62	Illinois	widespread	July-Aug	medium, dry	N/A	N/A
slender bush-clover	Lespedeza virginica	3.15	Illinois	fairly widespread	Aug	dry	N/A	Yes*****
bladder-pod lobelia	Lobelia inflata	4.36	Wisconsin	widespread	July-Oct	medium	N/A	N/A
foxglove beardtongue	Penstemon digitalis	6.50	Wisconsin	widespread	April-June	medium, dry	N/A	N/A
slender mountain mint	Pycnanthemum tenuifolium	5.98	Illinois	fairly widespread	July-Sept	dry	N/A	N/A
Virginia mountain mint	Pycnanthemum virginianum	5.50	Illinois	fairly widespread	July-Aug	medium, dry	N/A	N/A
black-eyed Susan	Rudbeckia hirta	8.73	Iowa	widespread	June-Sept	medium, dry	N/A	N/A
little bluestem	Schizachyrium scoparium	12.62	Wisconsin	widespread	N/A	dry	N/A	Yes
early goldenrod	Solidago juncea	1.00	Wisconsin	widespread	July-Sept	medium	Yes**	N/A
gray goldenrod	Solidago nemoralis	6.31	Iowa	widespread	Aug-Oct	medium	Yes**	N/A
sweet goldenrod	Solidago odora	1.04	Wisconsin	widespread	Aug-Oct	medium	Yes**	N/A
health American-aster	Symphoricaricium ericoides	2.12	Wisconsin	widespread	Sept-Oct	dry	Yes***	N/A
calico American-aster	Symphoricaricium lateriflorum	4.49	Minnesota	widespread	Aug-Sept	medium, dry	Yes***	N/A
Ohio spiderwort	Tradescantia ohioensis	2.09	Illinois	fairly widespread	July-Sept	medium, dry	N/A	N/A
golden Alexanders	Zizia aurea	3.47	Illinois	widespread	May-July	dry, medium	Yes	N/A
		100						

**NATIVE MEADOW SEED MIX TABLE**  
NOT TO SCALE

SEED MIX NAME: POLLINATOR SUN MIX  
LOCATION: DESIGNATED NATIVE MEADOW AREA (SEE SHEET C-13)  
SEEDING AREA: 52,750 S.F. (1.2 ACRES)  
SEEDING RATE: 110 PLS/SF

PREPARED FOR:  
ROUTHIER & ROPER  
GRATUITY ROAD, LLC  
256 ATER ROAD,  
LITTLETON, MA 01460

DESIGN: MJS  
DRAFT: MJS  
CHECK: MAW

SCALE: 1" = 100'

AUGUST 12, 2024

63 GRATUITY ROAD  
GROTON, MA

DATE: 12/10/24  
REVISION: 1  
COMMENTS: UPDATE FLOODPLAIN & PB/PEER REVIEW COMMENTS

JOB NO. 22-243  
DWG. NO. 11142  
SHEET D-4

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