GROVE STREET RESIDENCES

121 GROVE STREET - FRANKLIN, MA

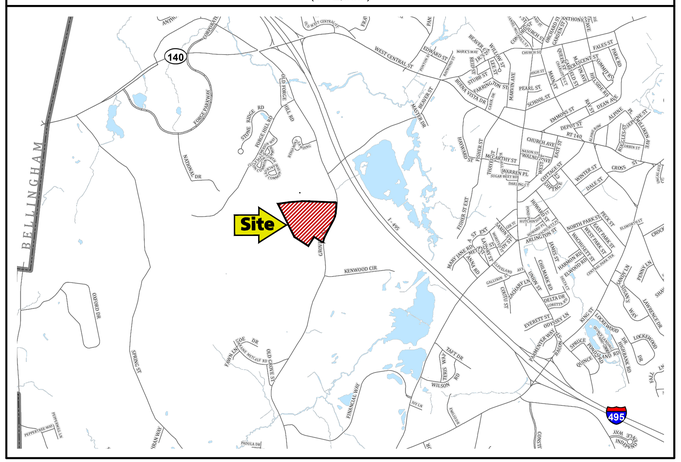
DRAWING INDEX

DRAWING DATE	LAST REVISION	DRAWING	DRAWING DESCRIPTION
10/30/2023	07/01/2025	C-0	COVER SHEET
05/25/2022	11/09/2023	1 OF 1	EXISTING CONDITIONS SITE PLAN (PREPARED BY GUERRIERE & HALNON, INC.)
10/30/2023	07/01/2025	OS-1	OVERALL SITE PLAN
03/25/2025	07/01/2025	KEY MAP	KEY MAP
10/30/2023	07/01/2025	C-1A - C-1B	DEMOLITION AND EROSION CONTROL PHASE I PLAN (40 SCALE)
03/25/2025	07/01/2025	C-1B-1 - C-1B-7	DEMOLITION AND EROSION CONTROL PHASE I PLAN (20 SCALE)
10/30/2023	07/01/2025	C-1C - C1D	SEDIMENT AND EROSION CONTROL PHASE II PLAN (40 SCALE)
03/25/2025	07/01/2025	C-1D-1- C-1D-7	SEDIMENT AND EROSION CONTROL PHASE II PLAN (20 SCALE)
03/28/2024	07/01/2025	C-1E	CONSTRUCTION PHASING PLAN
10/30/2023	07/01/2025	C-2A - 2B	GRADING AND DRAINAGE PLAN (40 SCALE)
03/25/2025	07/01/2025	C-2B-1 - C-2B-7	GRADING AND DRAINAGE PLAN (20 SCALE)
12/18/2023	07/01/2025	C-2C	WETLAND REPLICATION PLAN
03/28/2024	07/01/2025	C-2D	RESOURCE AREA IMPACT PLAN
03/28/2024	07/01/2025	C-2E	RESOURCE AREA IMPACT PLAN
10/30/2023	07/01/2025	C-3A - 3B	UTILITY PLAN (40 SCALE)
03/25/2025	07/01/2025	C-3B-1 - C-3B-7	UTILITY PLAN (20 SCALE)
10/30/2023	07/01/2025	C-4A - 4B	PARKING AND TRAFFIC CONTROL PLAN (40 SCALE)
03/25/2025	07/01/2025	C-4B-1 - C-4B-7	PARKING AND TRAFFIC CONTROL PLAN (20 SCALE)
10/30/2023	07/01/2025	C-5	SITE DETAILS - I
10/30/2023	07/01/2025	C-6	SITE DETAILS - II
10/30/2023	07/01/2025	C-7	SITE DETAILS - III
10/30/2023	07/01/2025	C-8	SITE DETAILS - IV
10/30/2023	07/01/2025	C-9	SITE DETAILS - V
10/30/2023	07/01/2025	C-10	SITE DETAILS - VI
10/30/2023	07/01/2025	C-11	SITE DETAILS - VII
10/30/2023	07/01/2025	C-12	SITE DETAILS - VIII
02/02/2024	07/01/2025	C-13	SITE DETAILS - IX
02/02/2024	07/01/2025	C-14	RETAINING WALL CROSS SECTIONS
02/02/2024	07/01/2025	C-15	RETAINING WALL CROSS SECTIONS
03/28/2024	07/01/2025	C-16	SEDIMENT & EROSION CONTROL AT CLOSEST WETLAND POINT PLAN
10/30/2023	07/01/2025	FT-1	FIRE TRUCK TURNING PLAN
02/05/2024	07/01/2025	TT-1	MOVING TRUCK TURNING PLAN
02/05/2024	07/01/2025	TT-2	GARBAGE/RECYCLE TRUCK TURNING PLAN
03/25/2025	07/01/2025	E1-02	SITE PHOTOMETRICS
03/25/2025	07/01/2025	E1-03	SITE PHOTOMETRICS

PERMITS/APPROVALS

1. COMPREHENSIVE PERMIT
   DATE: 04/16/2024
   FRANKLIN ZONING BOARD OF APPEALS
2. ORDER OF CONDITIONS DEP FILE #159-1286
   DATE: 06/18/2024
   FRANKLIN CONSERVATION COMMISSION
3. SOIL EROSION AND SEDIMENT CONTROL PLAN
   DATE: 04/25/2025
   FRANKLIN DEPARTMENT OF PUBLIC WORKS

LOCUS MAP
(1"=2,000')



DESIGN TEAM

CIVIL ENGINEERING:
RJ O'CONNELL & ASSOCIATES, INC.
80 MONTVALE AVENUE
SUITE 201
STONEHAM, MA 02180
ATTN: BRIAN DUNDON, P.E.
PHONE: (781) 279-0180

SURVEY:
GUERRIERE & HALNON, INC.
55 WEST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: DONALD R. NIELSON, B.S.E.T.,
OFFICE MANAGER
PHONE: (508) 528-3221

LEGAL:
CORNETTA, FICCO & SIMMLER, P.C.
4 WEST STREET
FRANKLIN, MA 02038
ATTN: RICHARD CORNETTA, JR.
PHONE: (508) 528-5300

WETLANDS:
LUCAS ENVIRONMENTAL, LLC
500A WASHINGTON STREET
QUINCY, MA 02169
ATTN: CHRISTOPHER M. LUCAS,
PRINCIPAL, PWS, CWS, RPSS
CERTIFIED WETLAND SCIENTIST/
PROFESSIONAL SOIL SCIENTIST
PHONE: (617) 405-4140

GEOTECHNICAL:
NORTHEAST GEOTECHNICAL, INC.
166 RAYMOND HALL DRIVE
NORTH ATTLEBOROUGH, MA 02760
ATTN: GLENN A. OLSON, P.E.
PRINCIPAL ENGINEER
PHONE: (508) 598-3510

90% CD SET
07/01/2025

ORDER OF CONDITIONS DEP FILE #159-1286 (DEED 39702, BOOK 310): THE SITE IS SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE TOWN OF FRANKLIN CONSERVATION COMMISSION ON 06/18/2024.

RJOC

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PREPARED FOR:
FAIRFIELD RESIDENTIAL COMPANY LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

OWNER:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184
PARCEL ID 295-001 AND 294-007

GOVERNMENT/UTILITY CONTACTS

BUILDING AND INSPECTIONS DEPARTMENT:
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: LLOYD BROWN,
BUILDING COMMISSIONER
PHONE: (508) 520-4926

ENGINEERING DEPARTMENT:
DPW ADMINISTRATION BUILDING
257 FISHER STREET
FRANKLIN, MA 02038
ATTN: MIKE MAGLIO, TOWN ENGINEER
PHONE: (508) 520-4910

HEALTH DEPARTMENT:
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: CATHLEEN LIBERTY, MPH
HEALTH DIRECTOR
PHONE: (508) 520-4905

POLICE DEPARTMENT:
911 PANTHER WAY
FRANKLIN, MA 02038
ATTN: THOMAS J. LYNCH,
CHIEF OF POLICE
PHONE: (508) 528-1212

WATER AND SEWER DIVISION:
DPW ADMINISTRATION BUILDING
357 FISHER STREET
FRANKLIN, MA 02038
ATTN: DOUG MARTIN, P.E.
SUPERINTENDENT
PHONE: (508) 520-4910

CONSERVATION COMMISSION:
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: BREEKA LI GOODLANDER, CWS
CONSERVATION AGENT
PHONE: (508) 520-4847

FIRE DEPARTMENT:
40 WEST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: JAMES McLAUGHLIN, FIRE CHIEF
PHONE: (508) 528-2323

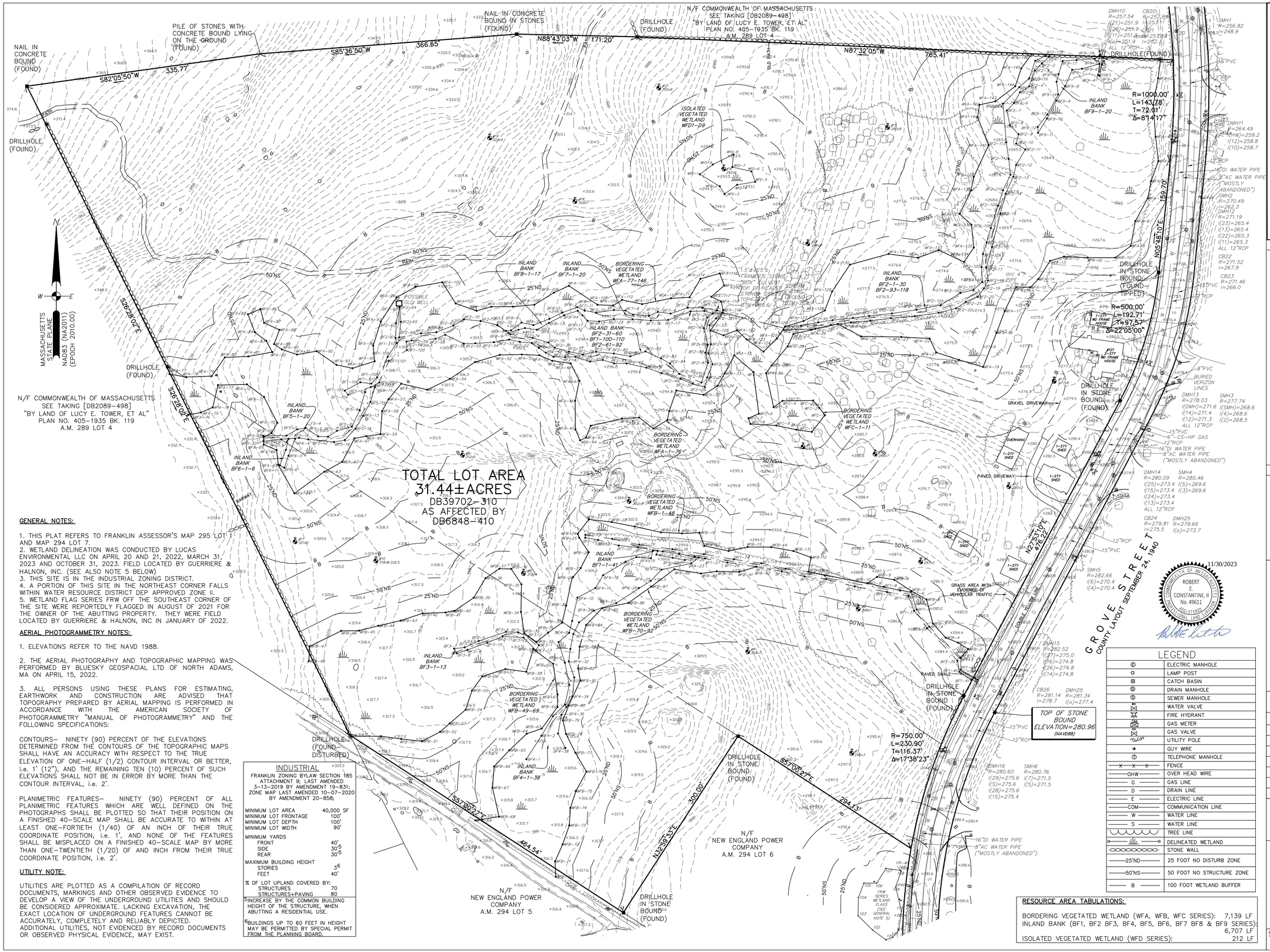
PLANNING AND COMMUNITY DEPARTMENT:
MUNICIPAL BUILDING
355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ATTN: AMY LOVE, TOWN PLANNER
PHONE: (508) 520-4907

PUBLIC WORKS:
DPW ADMINISTRATION BUILDING
257 FISHER STREET
FRANKLIN, MA 02038
ATTN: ROBERT A. CANTOREGGI,
DIRECTOR
PHONE: (508) 520-4910

DRAWING NUMBER: **C-0**

PROJECT NUMBER: 22016

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-0 Cover Sheet.dwg
Oct 06, 2025 - 17:29pm
1:1



VICINITY MAP

1"=1500'

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

BRYN SMITH
106 MENDON STREET
BELLINGHAM, MA 02019
A.M. 295 LOT 1
A.M. 294 LOT 7

DEED BK. 3972 PG 310

EXISTING CONDITIONS SITE PLAN 121 GROVE STREET FRANKLIN MASSACHUSETTS

MAY 20, 2022

DATE	REVISION DESCRIPTION
05.25.2022	REVISED EXISTING WATER AND SEWER.
11.16.2022	ADDED LABELS TO RESOURCE AREAS.
01.19.2023	PER PEER REVIEW COMMENTS.
04.03.2023	SERIES D ADDED.
04.20.2023	PER WETLAND SCIENTIST COMMENTS.
07.12.2023	ADDED FRW WETLAND SERIES.
11.09.2023	ADDED BF4-BF9 SERIES.

GRAPHIC SCALE: 1"=60'

0 50 75 100 150 200 FEET
0 5 10 15 20 30 40 50 60 METERS

LEGEND

E	ELECTRIC MANHOLE
	LAMP POST
	CATCH BASIN
D	DRAIN MANHOLE
S	SEWER MANHOLE
	WATER VALVE
	FIRE HYDRANT
	GAS METER
	GAS VALVE
UP	UTILITY POLE
	GUY WIRE
T	TELEPHONE MANHOLE
X X X	FENCE
OHW	OVER HEAD WIRE
G	GAS LINE
D	DRAIN LINE
E	ELECTRIC LINE
COM	COMMUNICATION LINE
W	WATER LINE
S	WATER LINE
	TREE LINE
	DELINEATED WETLAND
	STONE WALL
25'ND	25 FOOT NO DISTURB ZONE
50'NS	50 FOOT NO STRUCTURE ZONE
B	100 FOOT WETLAND BUFFER

INDUSTRIAL

FRANKLIN ZONING BYLAW SECTION 185 ATTACHMENT 9; LAST AMENDED 3-13-2019 BY AMENDMENT 19-831; ZONE MAP LAST AMENDED 10-07-2020 BY AMENDMENT 20-858;

MINIMUM LOT AREA	40,000 SF
MINIMUM LOT FRONTAGE	100'
MINIMUM LOT DEPTH	100'
MINIMUM LOT WIDTH	90'
MINIMUM YARDS	
FRONT	40'
SIDE	30'[5]
REAR	30'[5]
MAXIMUM BUILDING HEIGHT	
STORIES	3[6]
FEET	40'
% OF LOT UPLAND COVERED BY:	
STRUCTURES	70
STRUCTURES+PAVING	80

[5] INCREASE BY THE COMMON BUILDING HEIGHT OF THE STRUCTURE, WHEN ABUTTING A RESIDENTIAL USE.

[6] BUILDINGS UP TO 60 FEET IN HEIGHT MAY BE PERMITTED BY SPECIAL PERMIT FROM THE PLANNING BOARD.

RESOURCE AREA TABULATIONS:

BORDERING VEGETATED WETLAND (WFA, WFB, WFC SERIES):	7,139 LF
INLAND BANK (BF1, BF2 BF3, BF4, BF5, BF6, BF7 BF8 & BF9 SERIES):	6,707 LF
ISOLATED VEGETATED WETLAND (WFD SERIES):	212 LF

GENERAL NOTES:

1. THIS PLAT REFERS TO FRANKLIN ASSESSOR'S MAP 295 LOT 1 AND MAP 294 LOT 7.
2. WETLAND DELINEATION WAS CONDUCTED BY LUCAS ENVIRONMENTAL LLC ON APRIL 20 AND 21, 2022, MARCH 31, 2023 AND OCTOBER 31, 2023. FIELD LOCATED BY GUERRIERE & HALNON, INC. (SEE ALSO NOTE 5 BELOW)
3. THIS SITE IS IN THE INDUSTRIAL ZONING DISTRICT.
4. A PORTION OF THIS SITE IN THE NORTHEAST CORNER FALLS WITHIN WATER RESOURCE DISTRICT DEP APPROVED ZONE II.
5. WETLAND FLAG SERIES FRW OFF THE SOUTHEAST CORNER OF THE SITE WERE REPORTEDLY FLAGGED IN AUGUST OF 2021 FOR THE OWNER OF THE ABUTTING PROPERTY. THEY WERE FIELD LOCATED BY GUERRIERE & HALNON, INC IN JANUARY OF 2022.

AERIAL PHOTOGRAMMETRY NOTES:

1. ELEVATIONS REFER TO THE NAVD 1988.

2. THE AERIAL PHOTOGRAPHY AND TOPOGRAPHIC MAPPING WAS PERFORMED BY BLUESKY GEOSPACIAL LTD OF NORTH ADAMS, MA ON APRIL 15, 2022.

3. ALL PERSONS USING THESE PLANS FOR ESTIMATING, EARTHWORK AND CONSTRUCTION ARE ADVISED THAT TOPOGRAPHY PREPARED BY AERIAL MAPPING IS PERFORMED IN ACCORDANCE WITH THE AMERICAN SOCIETY OF PHOTOGRAMMETRY "MANUAL OF PHOTOGRAMMETRY" AND THE FOLLOWING SPECIFICATIONS:

CONTOURS- NINETY (90) PERCENT OF THE ELEVATIONS DETERMINED FROM THE CONTOURS OF THE TOPOGRAPHIC MAPS SHALL HAVE AN ACCURACY WITH RESPECT TO THE TRUE ELEVATION OF ONE-HALF (1/2) CONTOUR INTERVAL OR BETTER, i.e. 1' (12"), AND THE REMAINING TEN (10) PERCENT OF SUCH ELEVATIONS SHALL NOT BE IN ERROR BY MORE THAN THE CONTOUR INTERVAL, i.e. 2'.

PLANIMETRIC FEATURES- NINETY (90) PERCENT OF ALL PLANIMETRIC FEATURES WHICH ARE WELL DEFINED ON THE PHOTOGRAPHS SHALL BE PLOTTED SO THAT THEIR POSITION ON A FINISHED 40-SCALE MAP SHALL BE ACCURATE TO WITHIN AT LEAST ONE-FORTIETH (1/40) OF AN INCH OF THEIR TRUE COORDINATE POSITION, i.e. 1', AND NONE OF THE FEATURES SHALL BE MISPLACED ON A FINISHED 40-SCALE MAP BY MORE THAN ONE-TWENTIETH (1/20) OF AND INCH FROM THEIR TRUE COORDINATE POSITION, i.e. 2'.

UTILITY NOTE:

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST.

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

SHEET 1 OF 1

JOB NO. F4545

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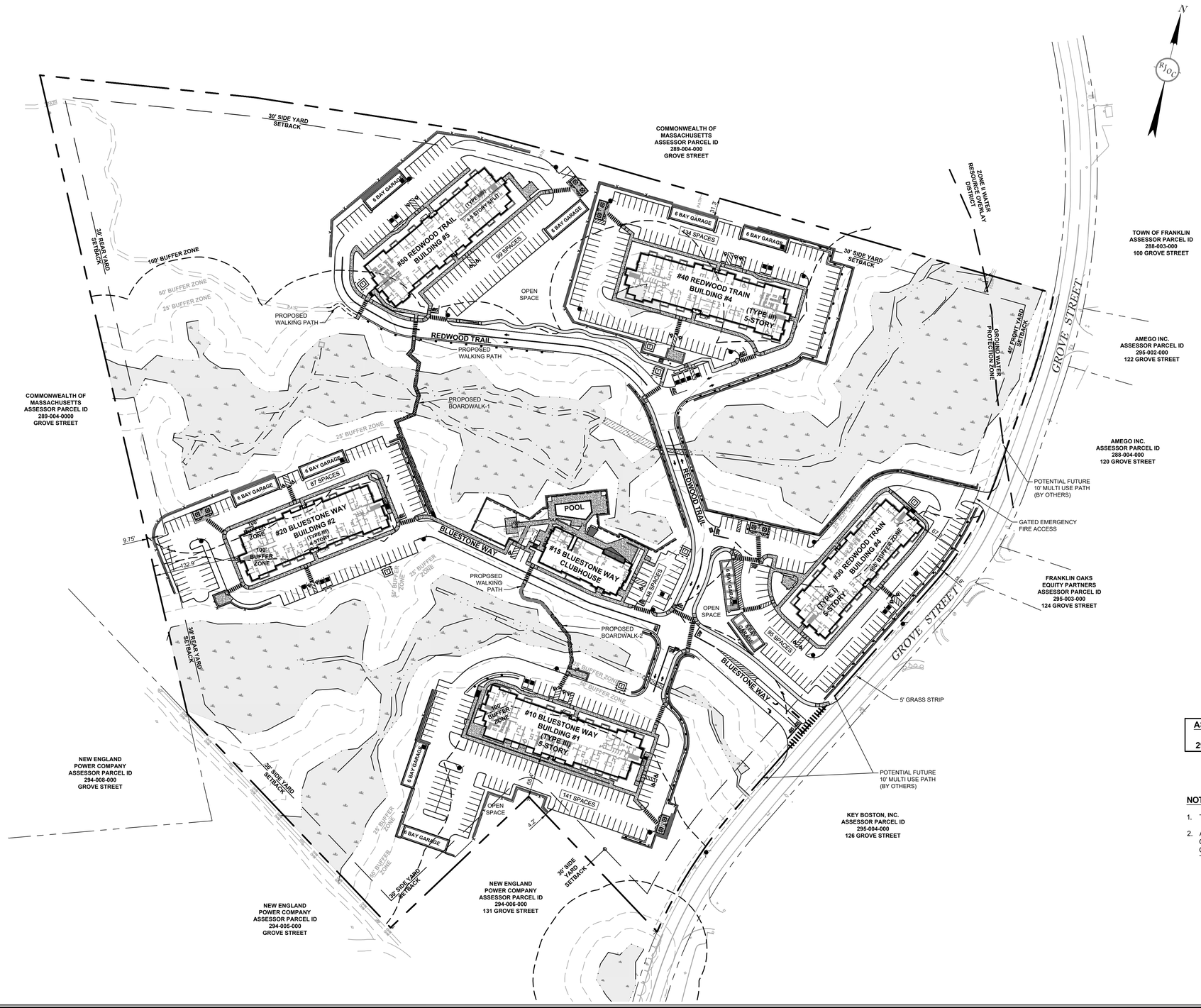

ASSESSORS PARCEL ID FOR SITE
294-007-000 - GROVE STREET
295-001-000 - 121 GROVE STREET

NOTES:

1. TOTAL PARKING PROVIDED = 574 SPACES
2. AS SHOWN ON THE PLAN, THE PROPERTY CAPTURES A SMALL PORTION OF THE GROUNDWATER PROTECTION ZONE IN THE NORTHEAST CORNER OF THE PROPERTY. NO WORK IS PROPOSED IN THIS AREA AS PART OF THE RESIDENTIAL COMMUNITY.

RJOC

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NO.	REVISION	DATE
8.	90% CD SET	07/01/2025
7.	ISSUED TO NATIONAL GRID	05/08/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41555
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

OS-1

DATE: 10/30/2023 PROJECT NO.: 22016

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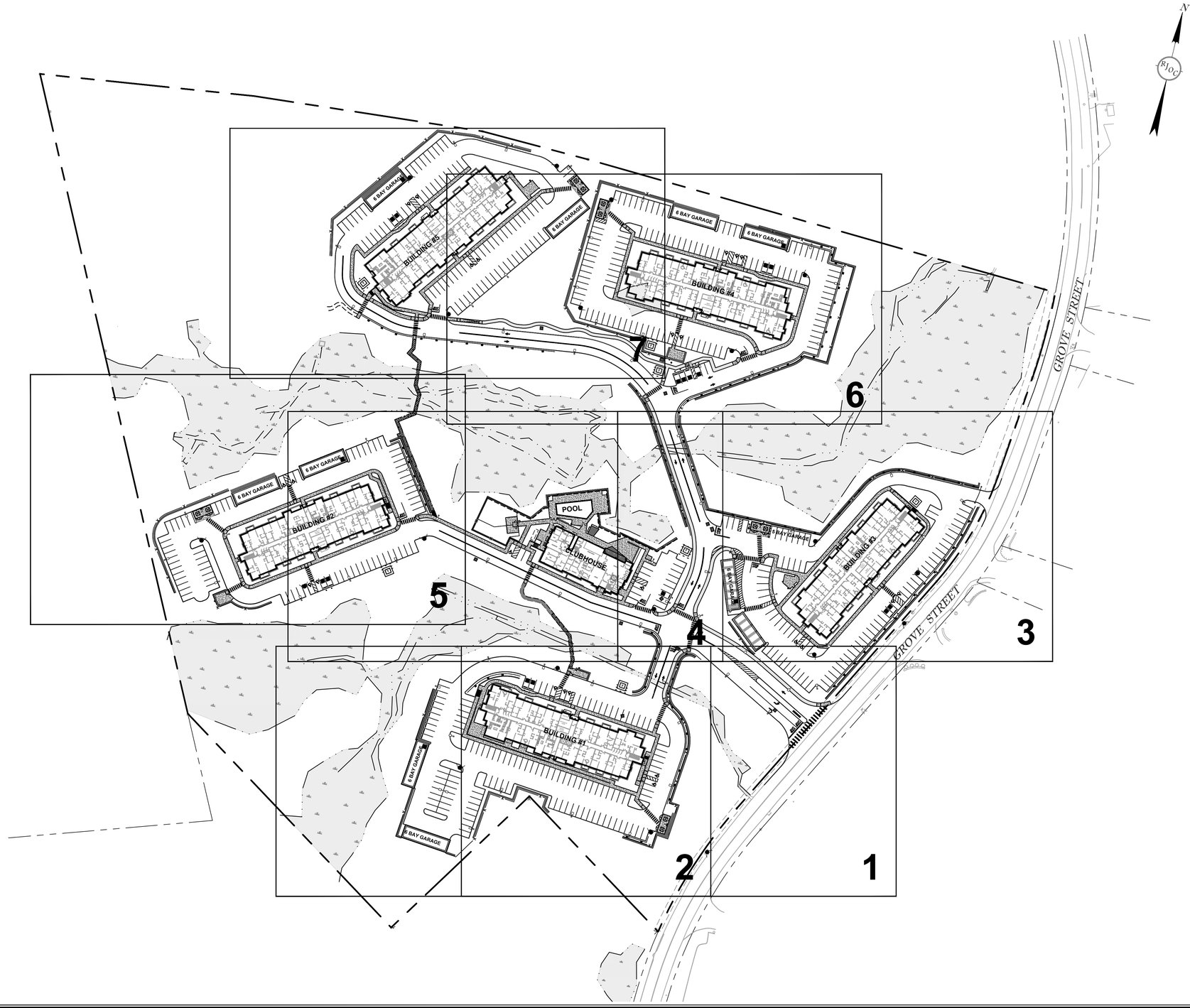

RJOC

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NO.	REVISION	DATE
2.	90% CD SET	07/01/2025
1.	100% DD SET	03/25/2025

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

KEY MAP

DATE: 03/25/2025 PROJECT NO.: 22016

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Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_Key Map.dwg
Jul 31, 2025 - 11:39am

NOT FOR CONSTRUCTION

80 0 40 80 160

GRAPHIC SCALE IN FEET

RJOC

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NO.	REVISION	DATE
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

EROSION AND SEDIMENT CONTROL PHASE II PLAN

DRAWING NUMBER:

C-1

DATE: 10/30/2023 PROJECT NO.: 22016

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Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\220316_C-1 Erosion and Sedimentation Control Phase II Plan.dwg
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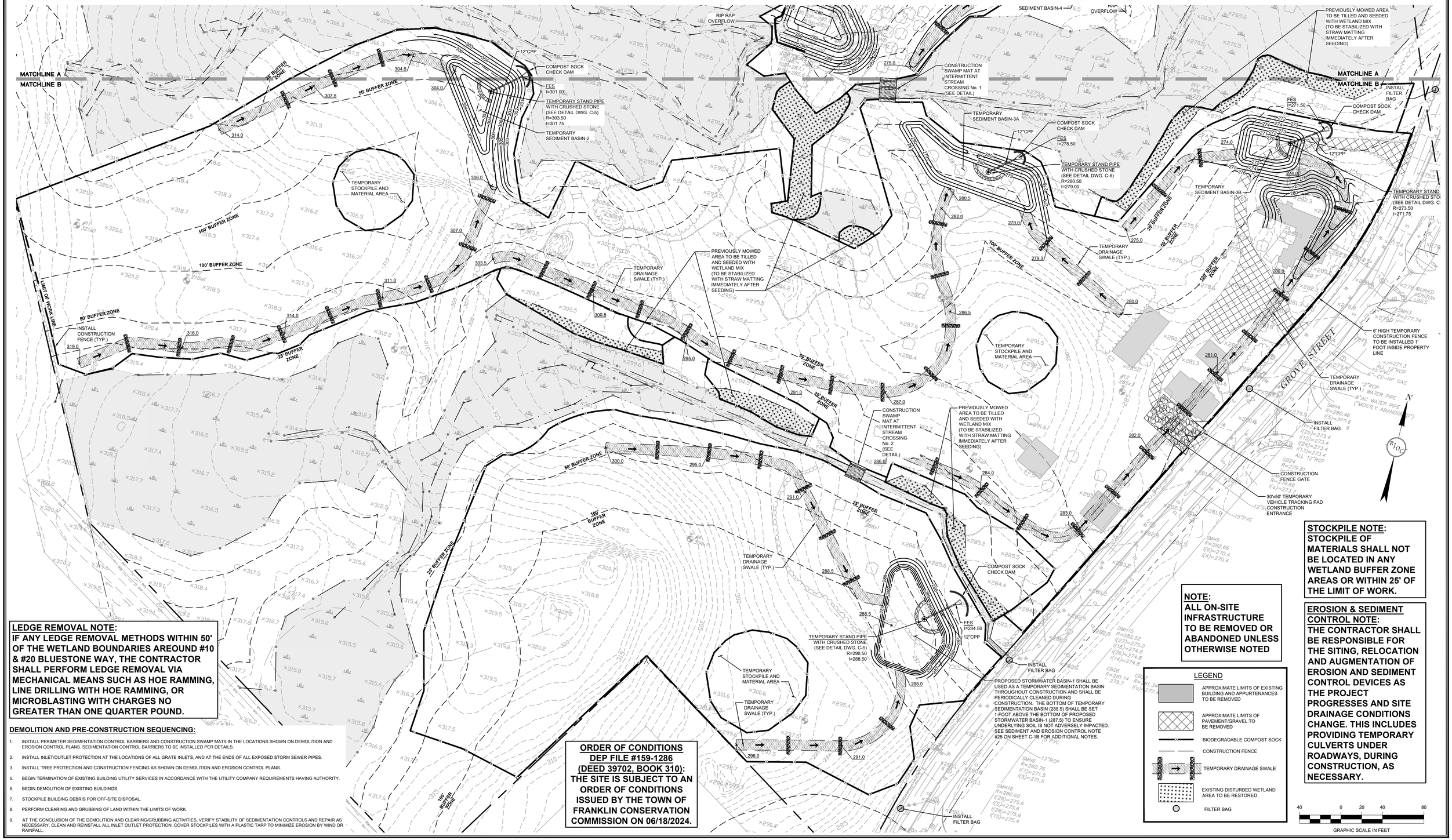

LEDGE REMOVAL NOTE:
IF ANY LEDGE REMOVAL METHODS WITHIN 50' OF THE WETLAND BOUNDARIES AREOUND #10 & #20 BLUESTONE WAY, THE CONTRACTOR SHALL PERFORM LEDGE REMOVAL VIA MECHANICAL MEANS SUCH AS HOE RAMMING, LINE DRILLING WITH HOE RAMMING, OR MICROBLASTING WITH CHARGES NO GREATER THAN ONE QUARTER POUND.

DEMOLITION AND PRE-CONSTRUCTION SEQUENCING:

1. INSTALL PERIMETER SEDIMENTATION CONTROL BARRIERS AND CONSTRUCTION SWAMP MATS IN THE LOCATIONS SHOWN ON DEMOLITION AND EROSION CONTROL PLANS. SEDIMENTATION CONTROL BARRIERS TO BE INSTALLED PER DETAILS.
2. INSTALL INLET/OUTLET PROTECTION AT THE LOCATIONS OF ALL GRATE INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
3. INSTALL TREE PROTECTION AND CONSTRUCTION FENCING AS SHOWN ON DEMOLITION AND EROSION CONTROL PLANS.
5. BEGIN TERMINATION OF EXISTING BUILDING UTILITY SERVICES IN ACCORDANCE WITH THE UTILITY COMPANY REQUIREMENTS HAVING AUTHORITY.
6. BEGIN DEMOLITION OF EXISTING BUILDINGS.
7. STOCKPILE BUILDING DEBRIS FOR OFF-SITE DISPOSAL.
8. PERFORM CLEARING AND GRUBBING OF LAND WITHIN THE LIMITS OF WORK.
9. AT THE CONCLUSION OF THE DEMOLITION AND CLEARING/GRUBBING ACTIVITIES, VERIFY STABILITY OF SEDIMENTATION CONTROLS AND REPAIR AS NECESSARY. CLEAN AND REINSTALL ALL INLET OUTLET PROTECTION. COVER STOCKPILES WITH A PLASTIC TARP TO MINIMIZE EROSION BY WIND OR RAINFALL.

ORDER OF CONDITIONS DEP FILE #159-1286 (DEED 39702, BOOK 310):
THE SITE IS SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE TOWN OF FRANKLIN CONSERVATION COMMISSION ON 06/18/2024.

NOTE:
ALL ON-SITE INFRASTRUCTURE TO BE REMOVED OR ABANDONED UNLESS OTHERWISE NOTED

STOCKPILE NOTE:
STOCKPILE OF MATERIALS SHALL NOT BE LOCATED IN ANY WETLAND BUFFER ZONE AREAS OR WITHIN 25' OF THE LIMIT OF WORK.

EROSION & SEDIMENT CONTROL NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION AND SEDIMENT CONTROL DEVICES AS THE PROJECT PROGRESSES AND SITE DRAINAGE CONDITIONS CHANGE. THIS INCLUDES PROVIDING TEMPORARY CULVERTS UNDER ROADWAYS, DURING CONSTRUCTION, AS NECESSARY.

LEGEND

- APPROXIMATE LIMITS OF EXISTING BUILDING AND APPURTENANCES TO BE REMOVED
- APPROXIMATE LIMITS OF PAVEMENT/GRAVEL TO BE REMOVED
- BIODEGRADABLE COMPOST SOCK
- CONSTRUCTION FENCE
- TEMPORARY DRAINAGE SWALE
- EXISTING DISTURBED WETLAND AREA TO BE RESTORED
- FILTER BAG

40 0 20 40 80
GRAPHIC SCALE IN FEET

NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY: MAC
DRAWN BY: MCR
REVIEWED BY: BJM
SCALE: 1" = 40'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
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SEAL:
COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:
C-1A

DATE: 10/30/2023 PROJECT NO.: 22016

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SEDIMENT AND EROSION CONTROL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" (1-800-344-7233) AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE BIODEGRADABLE AND CONSTRUCTED IN ACCORDANCE WITH MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES, FOR URBAN AND SUBURBAN AREAS MARCH 1997, THE U.S.D.A. S.C.S. EROSION AND SEDIMENT CONTROL IN SITE DEVELOPMENT, MASSACHUSETTS CONSERVATION GUIDE, SEPTEMBER 1983, LOCAL MUNICIPAL REGULATIONS AND THE PERMIT REQUIREMENTS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION RELATED ACTIVITIES AS OUTLINED IN THE MOST RECENT NPDES GENERAL PERMIT.
4. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED COMPOST WATTLES/SOCKS AND/OR SILTATION FENCE TO PREVENT AND/OR CONTROL SILTATION AND EROSION.
5. TOPS OF STOCKPILES SHALL BE COVERED IN SUCH A MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE. STOCKPILES DORMANT FOR MORE THAN THIRTY (30) DAYS SHALL BE MULCHED OR SEEDED WITH A SHORT-LIVED ANNUAL HERBACEOUS COVER CROP.
6. EARTHWORK ACTIVITY ON THE SITE SHALL BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO THE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON CIVIL EROSION CONTROL PLAN.
7. FILTER BAGS SHALL BE PLACED UNDERNEATH THE GRATES OF EXISTING AND PROPOSED CATCH BASINS AND MAINTAINED AS OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
8. ALL 3H:1V SLOPES OR STEEPER WILL BE STABILIZED WITH A CURLEX EROSION CONTROL MATTING BY AMERICAN EXCELSIOR COMPANY (OR ENGINEER APPROVED EQUAL) PRIOR TO HYDROSEEDING AND PROTECTED FROM EROSION.
9. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL 10% OF BIODEGRADABLE COMPOST WATTLES/SOCKS AND FILTER BAGS FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER TO MITIGATE ANY EMERGENCY CONDITION.
10. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK INCLUDING BUT NOT LIMITED TO DEMOLITION.
11. THE LIMIT OF WORK LINE SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA). PER CONDITION #38 OF THE ORDER OF CONDITIONS, THE LIMIT OF WORK SHALL BE MARKED IN THE FIELD.
12. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AS DETERMINED BY THE ENGINEER OR OWNER'S REPRESENTATIVE.
13. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
14. CATCH BASINS WITH TEMPORARY FILTER BAGS MUST BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT. SEDIMENT WILL BE REMOVED FROM FILTER BAG IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
15. UPON COMPLETION OF ALL SITE WORK CONSTRUCTION, SITE CONTRACTOR SHALL INSPECT ALL ON-SITE CATCH BASINS, SWALES, SEDIMENT FOREBAYS AND BASINS, AND REMOVE ALL SEDIMENT AND TRASH DEBRIS THAT HAS ACCUMULATED WITHIN EACH BMP STRUCTURE DURING THE COURSE OF CONSTRUCTION. ALL ON-SITE CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE VACUUMED CLEAN PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT.
16. ALL CONSTRUCTION SHALL MEET OR EXCEED THE TOWN OF FRANKLIN'S ENGINEERING AND DPW DEPARTMENT SPECIFICATIONS.
17. TO MINIMIZE THE MIGRATION OF DUST AND SILT FROM THE CONSTRUCTION SITE, THE FOLLOWING MEASURES SHALL BE IMPLEMENTED AS REQUIRED:
    - SPRAY DISTURBED AREAS WITH WATER DURING DRY AND WINDY DAYS.
    - WASH WHEELS OF VEHICLES BEFORE LEAVING THE SITE.
    - PERIODICALLY CLEAN SURROUNDING ROADWAYS NEAR THE ENTRANCE TO THE SITE.
    - ALL VEHICLES HAULING MATERIAL TO AND FROM THE SITE SHALL PLACE SECURE COVERS OVER THEIR LOADS.
18. THE CONTRACTOR SHALL BE AWARE THAT THE ON-SITE SOILS AT THIS SITE MAKE IT PARTICULARLY SUSCEPTIBLE TO SOIL EROSION AND SENSITIVE TO IT'S CONSEQUENCES. IT SHOULD BE NOTED THAT THE EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS DEPICT THE MINIMUM REQUIRED AND ARE REPRESENTATIVE OF A SINGLE STAGE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL DEVICES AS THE PROJECT PROGRESSES AND AS SITE DRAINAGE CONDITIONS CHANGE.
19. THE CONTRACTOR SHALL ANTICIPATE AND MODIFY EROSION CONTROL MEASURES BASED ON PAST AND CURRENT WEATHER CONDITIONS AND ANTICIPATED CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL. EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.
21. THE CONTRACTOR SHALL NOTIFY THE TOWN OF FRANKLIN PLANNING AND CONSERVATION DEPARTMENT AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY SITEWORK AND BEFORE EACH OF THE FOLLOWING:
    - INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES.
    - START OF CONSTRUCTION.
    - COMPLETION OF SITE CLEARING.
    - COMPLETION OF ROUGH GRADING.
    - INSTALLATION OF STORMWATER CONTROLS.
    - CLOSE OF THE CONSTRUCTION SEASON.
    - COMPLETION OF FINAL LANDSCAPING.
22. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL ENGAGE AN INDIVIDUAL WITH SPECIFIC PROFESSIONAL TRAINING AND EXPERTISE IN EROSION AND SEDIMENT CONTROL. THE EROSION CONTROL MONITOR SHALL PREPARE A WEEKLY REPORT WHICH SHALL BE KEPT ON SITE AT ALL TIMES AND SHALL BE SHOWN TO LOCAL, STATE AND FEDERAL AGENTS UPON REQUEST. THIS REPORT SHALL INDICATE THE STATUS OF THE EROSION CONTROLS AND ANY MAINTENANCE REQUIRED AND PERFORMED. THIS REPORT SHALL CONFORM TO THE REQUIREMENTS OF THE EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGE FROM CONSTRUCTION ACTIVITIES.
23. THE LOCATION OF COMPOST WATTLES/SOCKS AND FILTER BAGS SHALL BE FIELD VERIFIED DURING SITE PREPARATION OPERATIONS BY THE ENGINEER AT RECORD.
24. ANY DEWATERING ACTIVITIES PERFORMED IN CONJUNCTION WITH CONSTRUCTING THE SITE SHALL MAKE USE OF A SETTLING POND OR SIMILAR DEVICE TO REMOVE SEDIMENT BEFORE WATER IS RELEASED. THERE SHALL BE NO DIRECT DISCHARGE OF WATER TO CATCH BASINS AND/OR THE MUNICIPAL DRAINAGE SYSTEM.
25. AFTER CONSTRUCTION STABILIZATION HAS OCCURRED, THE CONTRACTOR SHALL CLEAN AND REMOVE A MINIMUM OF 18" INCHES FROM THE BOTTOM OF THE TEMPORARY SEDIMENTATION BASIN WHERE PROPOSED STORMWATER BASIN-1 IS TO BE CONSTRUCTED. AS NOTED ON C-1A, THE BOTTOM OF THE TEMPORARY SEDIMENTATION BASIN AT THIS LOCATION SHALL BE SET 1-FOOT ABOVE THE BOTTOM OF PROPOSED STORMWATER BASIN-1 TO ENSURE THE UNDERLYING SOIL IS NOT ADVERSELY IMPACTED. THE EXCAVATION TO REMOVE THE BOTTOM ONE FOOT OF SOIL, AFTER STABILIZATION, SHALL BE PERFORMED USING LIGHT EARTH-MOVING EQUIPMENT. ADDITIONALLY, THE PROPOSED CRUSHED STONE PROPOSED AT THE BOTTOM OF STORMWATER BASIN-1 SHALL NOT BE INSTALLED UNTIL AFTER SITE STABILIZATION AND THE CLEANING/DREDGING OF THE TEMPORARY SEDIMENT BASIN.
26. NO ROCK SALT USE ALLOWED ON THE SITE.
27. NO REFUELING OF EQUIPMENT AND CONSTRUCTION VEHICLES SHALL OCCUR WITHIN 100 FEET OF ANY WETLAND RESOURCE AREAS.
28. THE CONSERVATION COMMISSION MUST RECEIVE A WRITTEN REPORT WITH RESPECT TO A PROJECT'S CONFORMANCE TO ORDER OF CONDITIONS EVERY APRIL AND OCTOBER FROM THE PROJECT ENGINEER UNTIL A CERTIFICATE OF COMPLIANCE IS ISSUED.
29. WINTER CONSTRUCTION AND STABILIZATION
    THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15

SEDIMENT BARRIERS: DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF COMPOST WATTLES/SOCKS OR SILT FENCES.

MULCHING: ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1000 SF OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A 1-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH WORKDAY DURING FINAL GRADING ACTIVITIES.

SOIL STOCKPILING: STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

SEEDING: BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1000 SF. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE RE-VEGETATED IN THE SPRING.

WINTER STABILIZATION OF DITCHES AND CHANNELS: ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH:
INSTALL A SOD LINING IN THE DITCH: A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD ONTO AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS.
INSTALL A STONE LINING IN THE DITCH: A DITCH MUST BE LINED WITH STONE RIP RAP BY NOVEMBER 15. CONTACT REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH.

WINTER STABILIZATION OF DISTURBED SLOPES: ALL STONE-COVERED SLOPES GREATER THAN 15% MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. AND ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE:
TEMPORARY VEGETATION AND EROSION CONTROL MATS: BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1000 SF AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST 3 INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
SOD: THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
EROSION CONTROL MIX: EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
STONE RIP RAP: PLACE A LAYER OF STONE RIP RAP ON THE SLOPE BY NOVEMBER 15. CONTACT THE PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

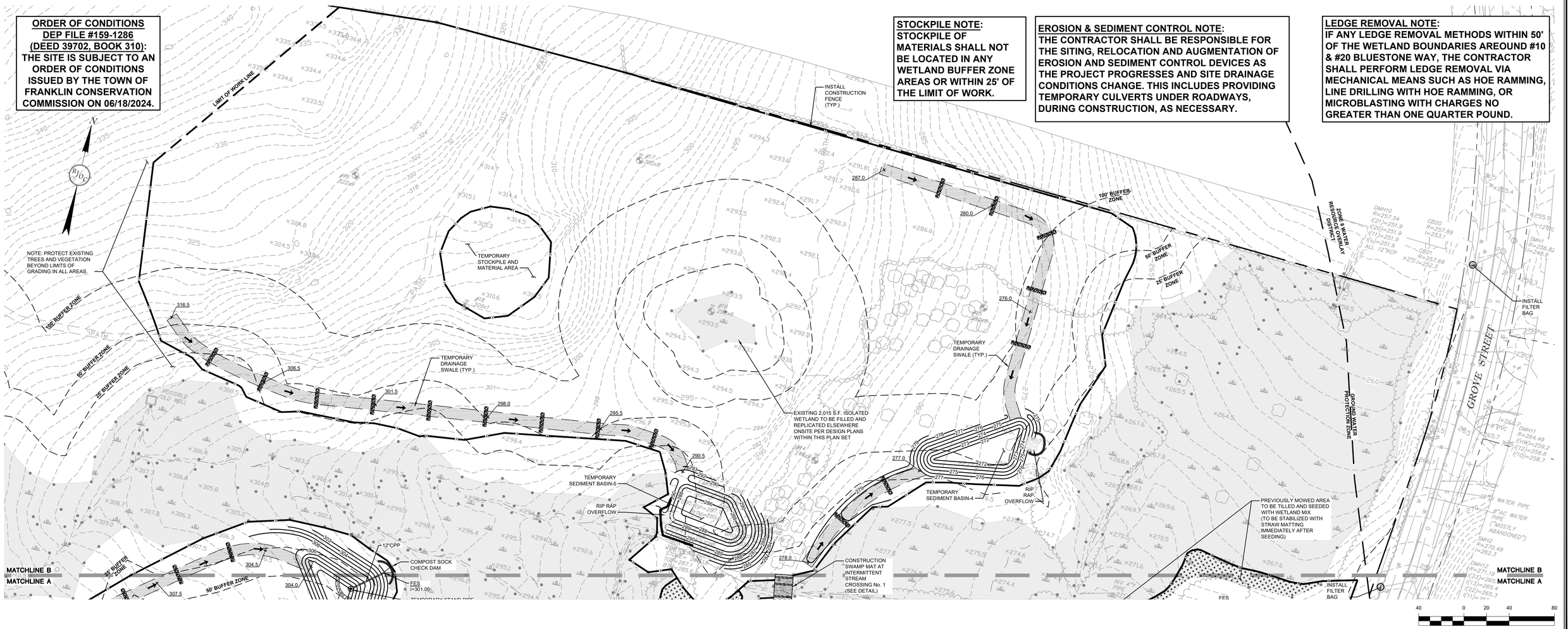
WINTER STABILIZATION OF DISTURBED SOILS: BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN
TEMPORARY VEGETATION: BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1000 SF, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SF, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST 3 INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR WINTER PROTECTION AS DESCRIBED BELOW.
SOD: STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
MULCH: BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1000 SF ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

ORDER OF CONDITIONS DEP FILE #159-1286 (DEED 39702, BOOK 310): THE SITE IS SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE TOWN OF FRANKLIN CONSERVATION COMMISSION ON 06/18/2024.

STOCKPILE NOTE: STOCKPILE OF MATERIALS SHALL NOT BE LOCATED IN ANY WETLAND BUFFER ZONE AREAS OR WITHIN 25' OF THE LIMIT OF WORK.

EROSION & SEDIMENT CONTROL NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION AND SEDIMENT CONTROL DEVICES AS THE PROJECT PROGRESSES AND SITE DRAINAGE CONDITIONS CHANGE. THIS INCLUDES PROVIDING TEMPORARY CULVERTS UNDER ROADWAYS, DURING CONSTRUCTION, AS NECESSARY.

LEDGE REMOVAL NOTE: IF ANY LEDGE REMOVAL METHODS WITHIN 50' OF THE WETLAND BOUNDARIES AREOUND #10 & #20 BLUESTONE WAY, THE CONTRACTOR SHALL PERFORM LEDGE REMOVAL VIA MECHANICAL MEANS SUCH AS HOE RAMMING, LINE DRILLING WITH HOE RAMMING, OR MICROBLASTING WITH CHARGES NO GREATER THAN ONE QUARTER POUND.



NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
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DESIGNED BY: MAC
DRAWN BY: MCR
REVIEWED BY: BJM
SCALE: 1" = 40'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
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SEAL: COMMONWEALTH OF MASSACHUSETTS — BRIAN P. DUNDON — CIVIL — No.41505 — REGISTERED PROFESSIONAL ENGINEER — 7-1-2025

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:
C-1B

DATE: 10/30/2023 PROJECT NO.: 22016

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PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
3-1-2025

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50' BUFFER ZONE

25' BUFFER ZONE

100' BUFFER ZONE

10' BUFFER ZONE

300.0

295.0

291.0

286.0

296.0

288.5

288.0

CONSTRUCTION SWAMP MAT AT INTERMITTENT STREAM CROSSING No. 2 (SEE DETAIL)

TEMPORARY DRAINAGE SWALE (TYP.)

PREVIOUSLY MOWED AREA TO BE TILLED AND SEEDED WITH WETLAND MIX (TO BE STABILIZED WITH STRAW MATTING IMMEDIATELY AFTER SEEDING)

TEMPORARY STAND PIPE WITH CRUSHED STONE (SEE DETAIL DWG. C-5) R=290.50 I=288.50

TEMPORARY STOCKPILE AND MATERIAL AREA

TEMPORARY DRAINAGE SWALE (TYP.)

TP #1 304x7

TP #2 288x3

N

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KEY MAP

20 0 10 20 40

GRAPHIC SCALE IN FEET

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No. 41005
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7-1-2025

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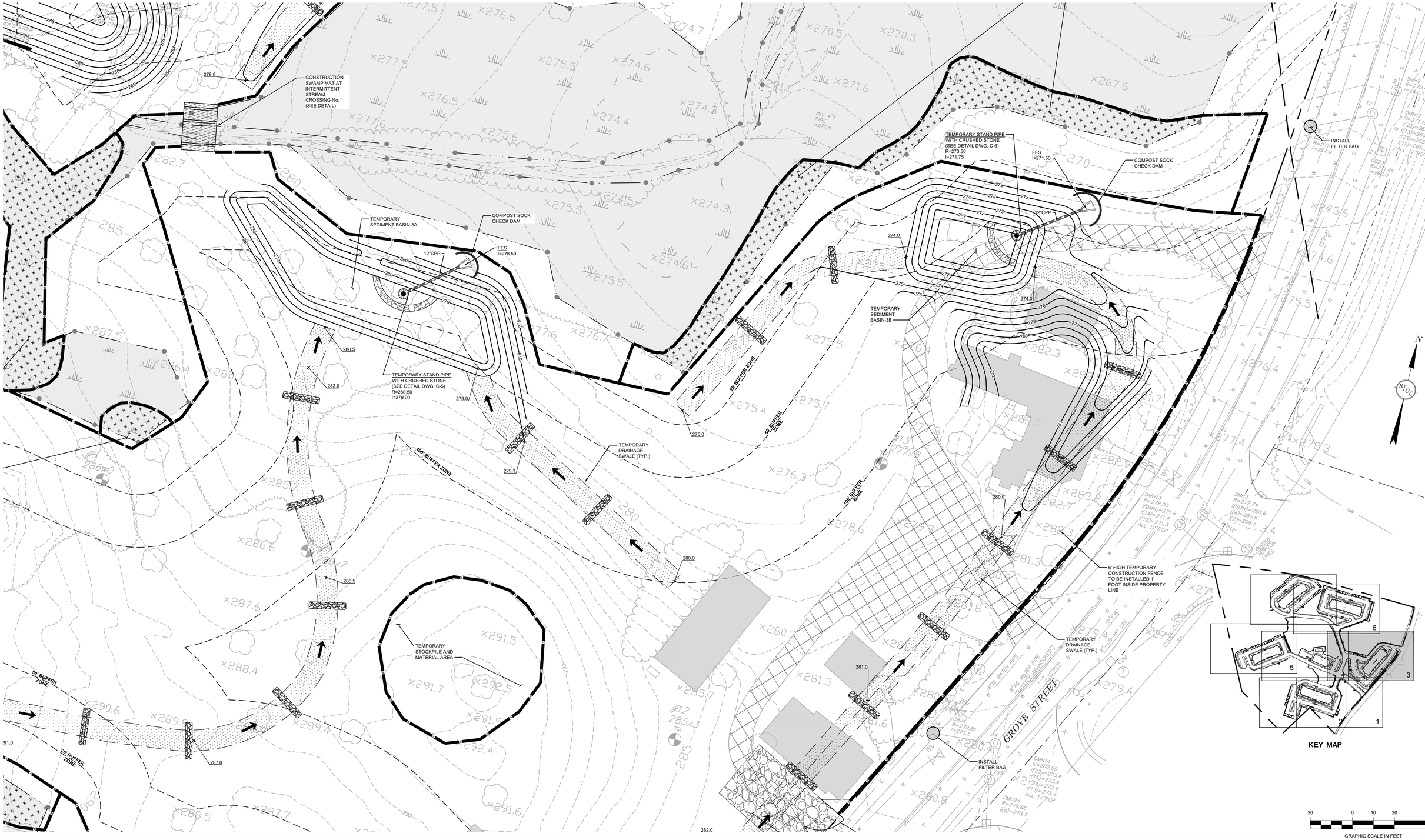

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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 20'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:

C-1B-3

DATE: 03/25/2025 PROJECT NO.: 22016

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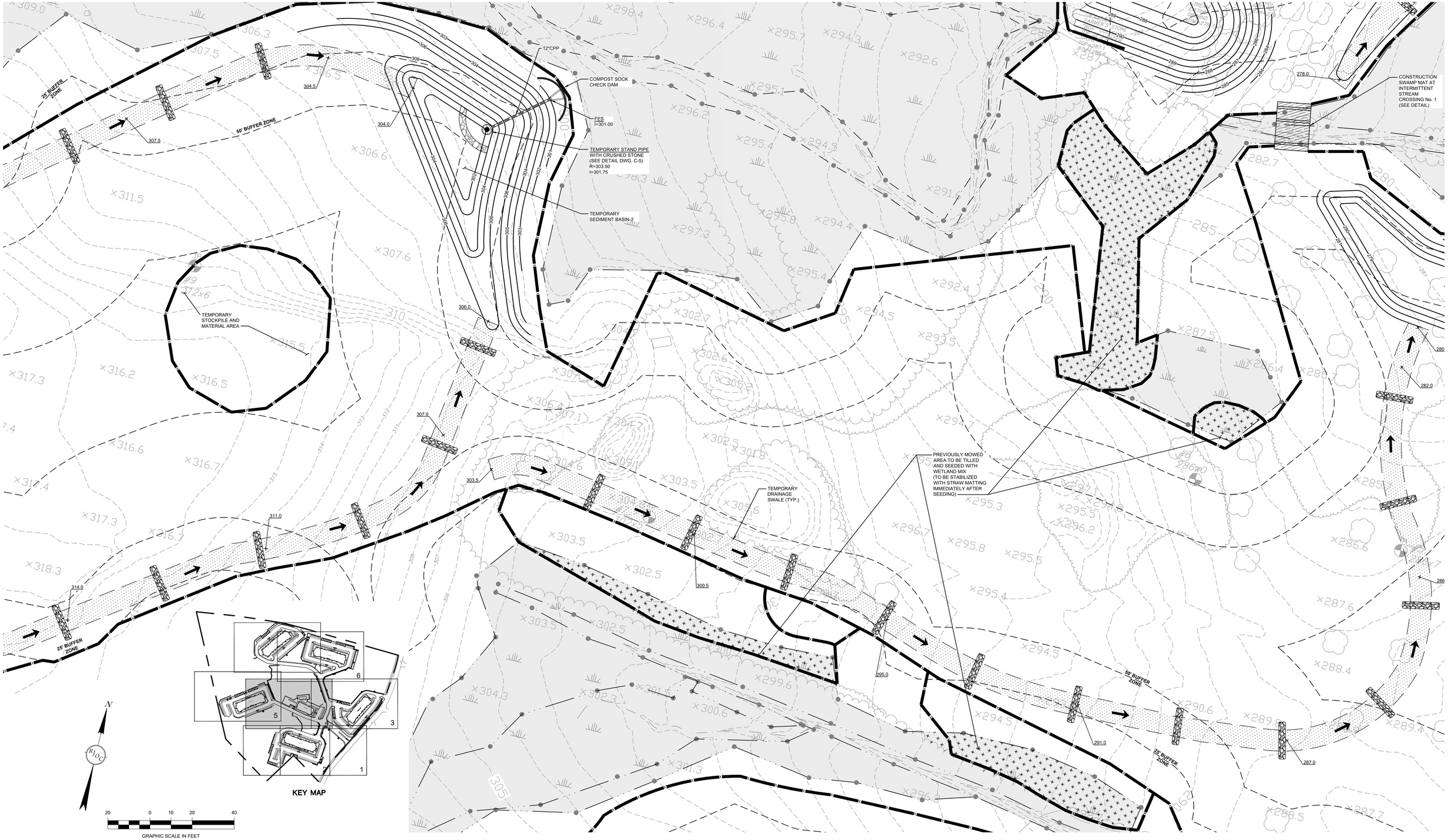

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:

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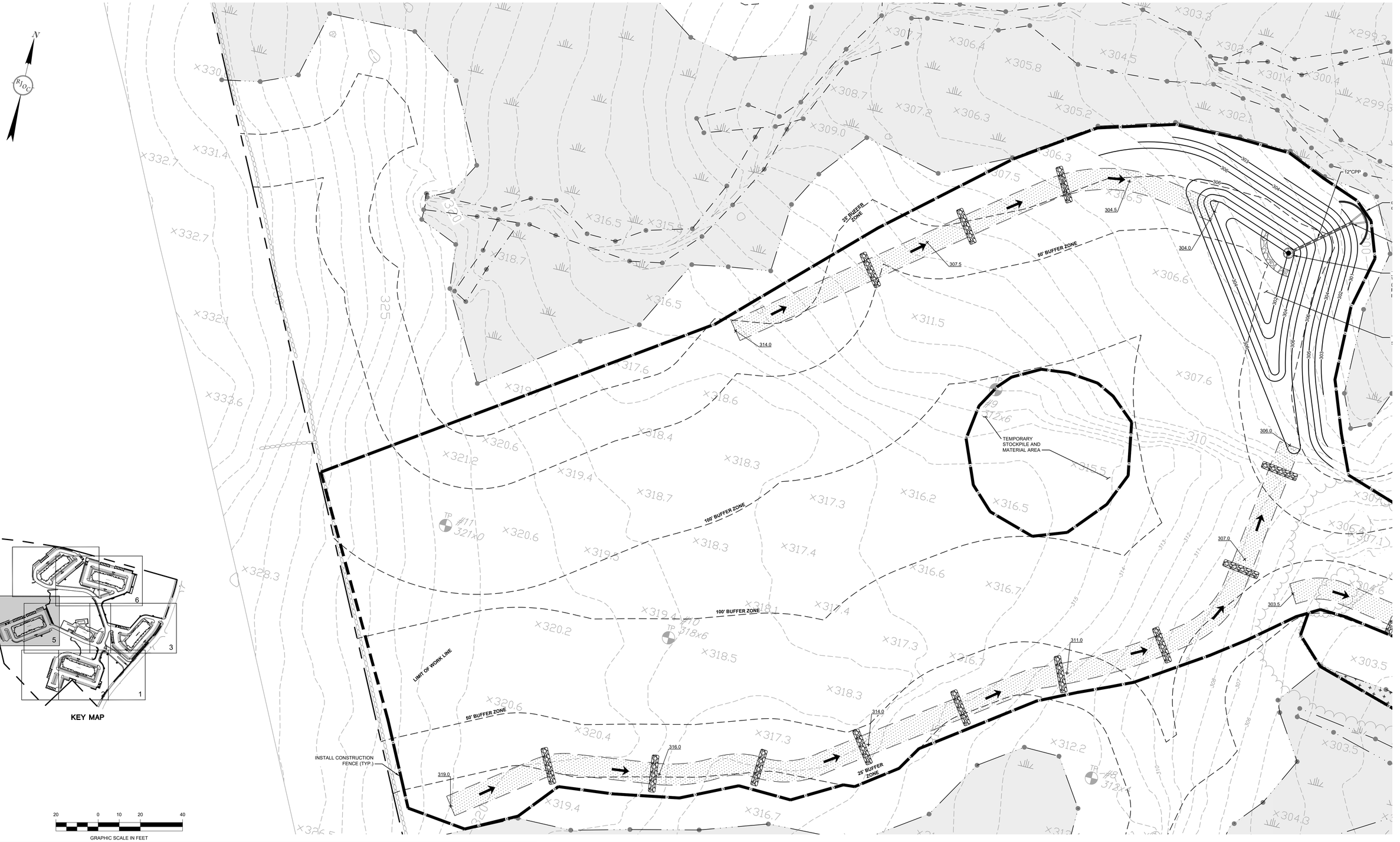
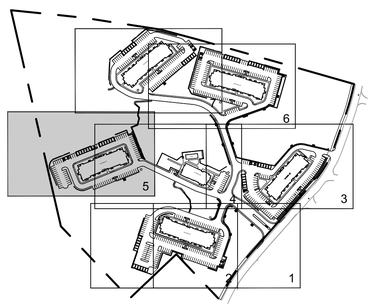


KEY MAP



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BRAINTREE, MA 02184

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BRIAN P. DUNDON
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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:

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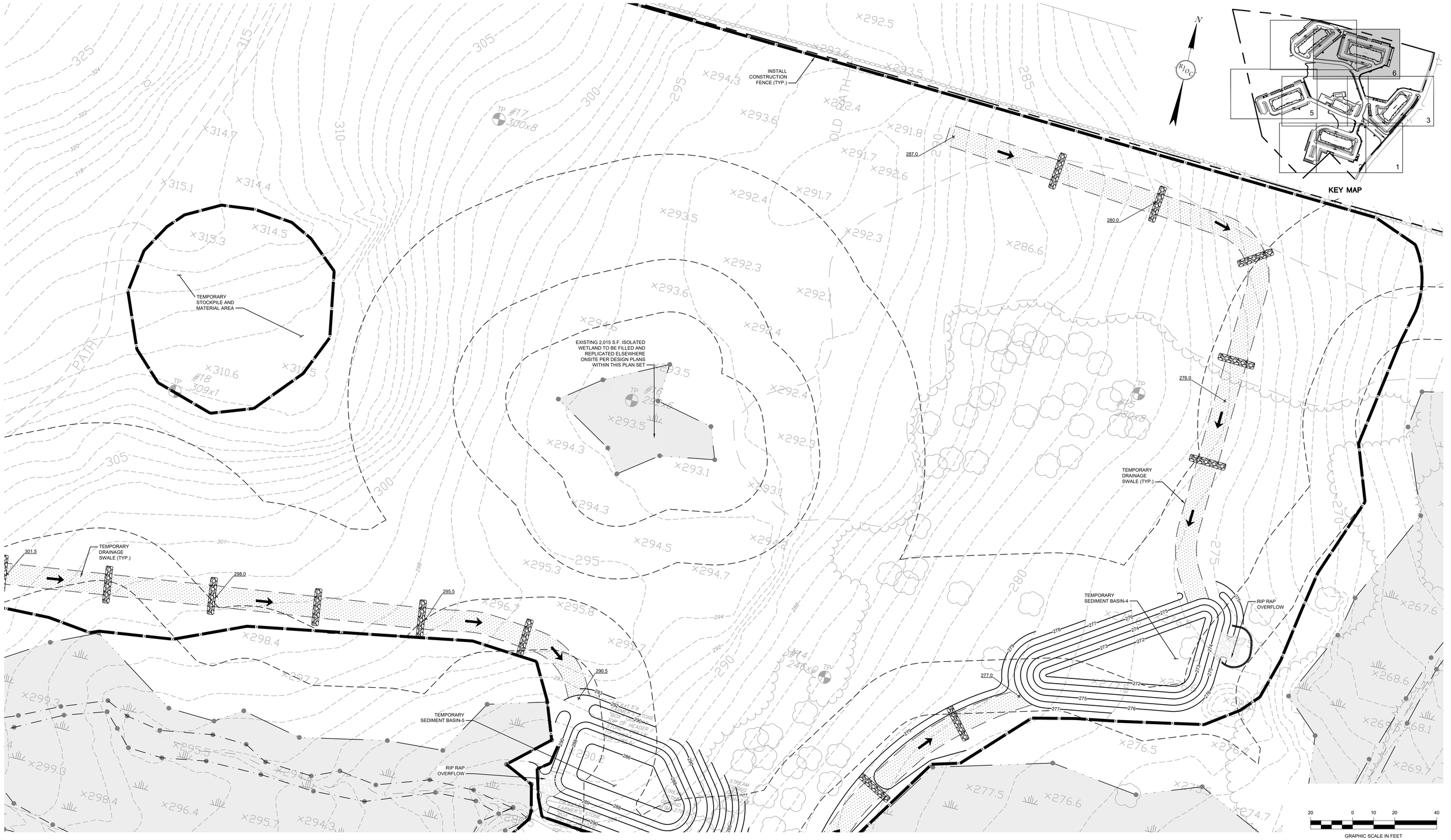

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:
C-1B-6

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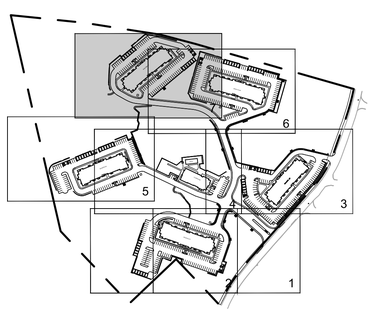

KEY MAP

LIMIT OF WORK LINE

NOTE: PROTECT EXISTING TREES AND VEGETATION BEYOND LIMITS OF GRADING IN ALL AREAS.

100' BUFFER ZONE

50' BUFFER ZONE

25' BUFFER ZONE

TEMPORARY STOCKPILE AND MATERIAL AREA

TEMPORARY DRAINAGE SWALE (TYP.)

EXISTING 2,015 S.F. ISOLATED WETLAND TO BE FILLED AND REPLICATED ELSEWHERE ONSITE PER DESIGN PLANS WITHIN THIS PLAN SET

POSSIBLE OLD WELL

PATH

TP #19 322x9

TP #17 300x8

TP #18 309x1

TP #16 293x6

316.5

306.5

301.5

298.0

295.5

290.5

20 0 10 20 40

GRAPHIC SCALE IN FEET

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BRAINTREE, MA 02184

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7-1-2025

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

DEMOLITION AND EROSION CONTROL PHASE I PLAN

DRAWING NUMBER:

C-1B-7

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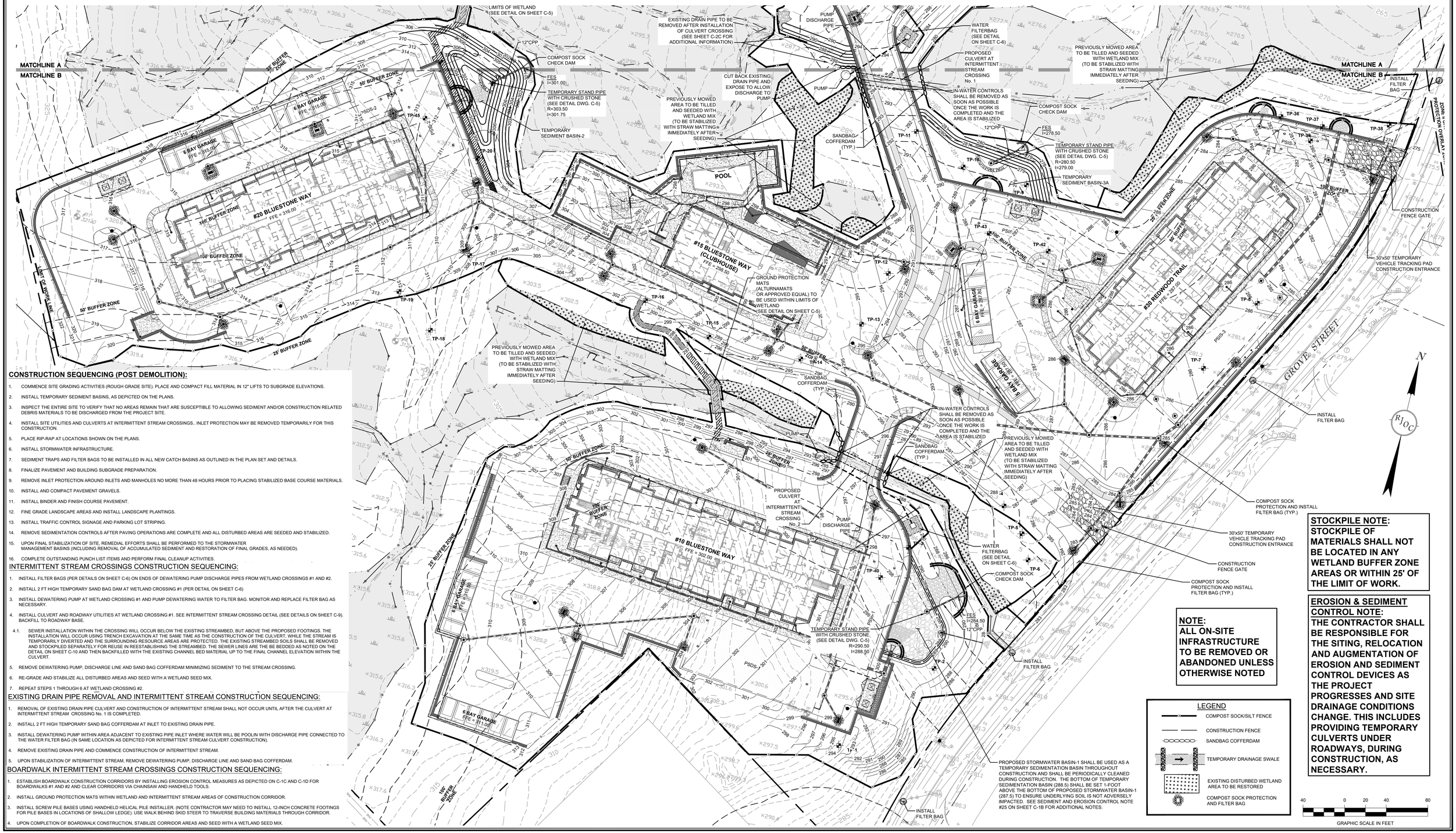

CONSTRUCTION SEQUENCING (POST DEMOLITION):

1. COMMENCE SITE GRADING ACTIVITIES (ROUGH GRADE SITE). PLACE AND COMPACT FILL MATERIAL IN 12" LIFTS TO SUBGRADE ELEVATIONS.
2. INSTALL TEMPORARY SEDIMENT BASINS, AS DEPICTED ON THE PLANS.
3. INSPECT THE ENTIRE SITE TO VERIFY THAT NO AREAS REMAIN THAT ARE SUSCEPTIBLE TO ALLOWING SEDIMENT AND/OR CONSTRUCTION RELATED DEBRIS MATERIALS TO BE DISCHARGED FROM THE PROJECT SITE.
4. INSTALL SITE UTILITIES AND CULVERTS AT INTERMITTENT STREAM CROSSINGS.. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION.
5. PLACE RIP-RAP AT LOCATIONS SHOWN ON THE PLANS.
6. INSTALL STORMWATER INFRASTRUCTURE.
7. SEDIMENT TRAPS AND FILTER BAGS TO BE INSTALLED IN ALL NEW CATCH BASINS AS OUTLINED IN THE PLAN SET AND DETAILS.
8. FINALIZE PAVEMENT AND BUILDING SUBGRADE PREPARATION.
9. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE MATERIALS.
10. INSTALL AND COMPACT PAVEMENT GRAVELS.
11. INSTALL BINDER AND FINISH COURSE PAVEMENT.
12. FINE GRADE LANDSCAPE AREAS AND INSTALL LANDSCAPE PLANTINGS.
13. INSTALL TRAFFIC CONTROL SIGNAGE AND PARKING LOT STRIPING.
14. REMOVE SEDIMENTATION CONTROLS AFTER PAVING OPERATIONS ARE COMPLETE AND ALL DISTURBED AREAS ARE SEEDED AND STABILIZED.
15. UPON FINAL STABILIZATION OF SITE, REMEDIAL EFFORTS SHALL BE PERFORMED TO THE STORMWATER MANAGEMENT BASINS (INCLUDING REMOVAL OF ACCUMULATED SEDIMENT AND RESTORATION OF FINAL GRADES, AS NEEDED).
16. COMPLETE OUTSTANDING PUNCH LIST ITEMS AND PERFORM FINAL CLEANUP ACTIVITIES.

INTERMITTENT STREAM CROSSINGS CONSTRUCTION SEQUENCING:

1. INSTALL FILTER BAGS (PER DETAILS ON SHEET C-6) ON ENDS OF DEWATERING PUMP DISCHARGE PIPES FROM WETLAND CROSSINGS #1 AND #2.
2. INSTALL 2 FT HIGH TEMPORARY SAND BAG DAM AT WETLAND CROSSING #1 (PER DETAIL ON SHEET C-6)
3. INSTALL DEWATERING PUMP AT WETLAND CROSSING #1 AND PUMP DEWATERING WATER TO FILTER BAG. MONITOR AND REPLACE FILTER BAG AS NECESSARY.
4. INSTALL CULVERT AND ROADWAY UTILITIES AT WETLAND CROSSING #1. SEE INTERMITTENT STREAM CROSSING DETAIL (SEE DETAILS ON SHEET C-9). BACKFILL TO ROADWAY BASE.
   - 4.1. SEWER INSTALLATION WITHIN THE CROSSING WILL OCCUR BELOW THE EXISTING STREAMBED, BUT ABOVE THE PROPOSED FOOTINGS. THE INSTALLATION WILL OCCUR USING TRENCH EXCAVATION AT THE SAME TIME AS THE CONSTRUCTION OF THE CULVERT. WHILE THE STREAM IS TEMPORARILY DIVERTED AND THE SURROUNDING RESOURCE AREAS ARE PROTECTED. THE EXISTING STREAMBED SOILS SHALL BE REMOVED AND STOCKPILED SEPARATELY FOR REUSE IN REESTABLISHING THE STREAMBED. THE SEWER LINES ARE THE BE BEDDED AS NOTED ON THE DETAIL ON SHEET C-10 AND THEN BACKFILLED WITH THE EXISTING CHANNEL BED MATERIAL UP TO THE FINAL CHANNEL ELEVATION WITHIN THE CULVERT.
5. REMOVE DEWATERING PUMP, DISCHARGE LINE AND SAND BAG COFFERDAM MINIMIZING SEDIMENT TO THE STREAM CROSSING.
6. RE-GRADE AND STABILIZE ALL DISTURBED AREAS AND SEED WITH A WETLAND SEED MIX.
7. REPEAT STEPS 1 THROUGH 6 AT WETLAND CROSSING #2.

EXISTING DRAIN PIPE REMOVAL AND INTERMITTENT STREAM CONSTRUCTION SEQUENCING:

1. REMOVAL OF EXISTING DRAIN PIPE CULVERT AND CONSTRUCTION OF INTERMITTENT STREAM SHALL NOT OCCUR UNTIL AFTER THE CULVERT AT INTERMITTENT STREAM CROSSING No. 1 IS COMPLETED.
2. INSTALL 2 FT HIGH TEMPORARY SAND BAG COFFERDAM AT INLET TO EXISTING DRAIN PIPE.
3. INSTALL DEWATERING PUMP WITHIN AREA ADJACENT TO EXISTING PIPE INLET WHERE WATER WILL BE POOLIN WITH DISCHARGE PIPE CONNECTED TO THE WATER FILTER BAG (IN SAME LOCATION AS DEPICTED FOR INTERMITTENT STREAM CULVERT CONSTRUCTION).
4. REMOVE EXISTING DRAIN PIPE AND COMMENCE CONSTRUCTION OF INTERMITTENT STREAM.
5. UPON STABILIZATION OF INTERMITTENT STREAM, REMOVE DEWATERING PUMP, DISCHARGE LINE AND SAND BAG COFFERDAM.

BOARDWALK INTERMITTENT STREAM CROSSINGS CONSTRUCTION SEQUENCING:

1. ESTABLISH BOARDWALK CONSTRUCTION CORRIDORS BY INSTALLING EROSION CONTROL MEASURES AS DEPICTED ON C-1C AND C-1D FOR BOARDWALKS #1 AND #2 AND CLEAR CORRIDORS VIA CHAINSAW AND HANDHELD TOOLS.
2. INSTALL GROUND PROTECTION MATS WITHIN WETLAND AND INTERMITTENT STREAM AREAS OF CONSTRUCTION CORRIDOR.
3. INSTALL SCREW PILE BASES USING HANDHELD HELICAL PILE INSTALLER. (NOTE CONTRACTOR MAY NEED TO INSTALL 12-INCH CONCRETE FOOTINGS FOR PILE BASES IN LOCATIONS OF SHALLOW LEDGE). USE WALK BEHIND SKID STEER TO TRAVERSE BUILDING MATERIALS THROUGH CORRIDOR.
4. UPON COMPLETION OF BOARDWALK CONSTRUCTION, STABILIZE CORRIDOR AREAS AND SEED WITH A WETLAND SEED MIX.

STOCKPILE NOTE:
STOCKPILE OF MATERIALS SHALL NOT BE LOCATED IN ANY WETLAND BUFFER ZONE AREAS OR WITHIN 25' OF THE LIMIT OF WORK.

EROSION & SEDIMENT CONTROL NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION AND SEDIMENT CONTROL DEVICES AS THE PROJECT PROGRESSES AND SITE DRAINAGE CONDITIONS CHANGE. THIS INCLUDES PROVIDING TEMPORARY CULVERTS UNDER ROADWAYS, DURING CONSTRUCTION, AS NECESSARY.

NOTE:
ALL ON-SITE INFRASTRUCTURE TO BE REMOVED OR ABANDONED UNLESS OTHERWISE NOTED

LEGEND
- COMPOST SOCK/SILT FENCE
- CONSTRUCTION FENCE
- SANDBAG COFFERDAM
- TEMPORARY DRAINAGE SWALE
- EXISTING DISTURBED WETLAND AREA TO BE RESTORED
- COMPOST SOCK PROTECTION AND FILTER BAG

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GRAPHIC SCALE IN FEET

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4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:
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SUITE 105
BRAINTREE, MA 02184

SEAL:
COMMONWEALTH OF MASSACHUSETTS
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7-1-2025

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
EROSION AND SEDIMENT CONTROL PHASE II PLAN

DRAWING NUMBER:
C-1C

DATE: 02/13/2024 PROJECT NO.: 22016

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SEDIMENT AND EROSION CONTROL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" (1-800-344-7233) AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES, FOR URBAN AND SUBURBAN AREAS MARCH 1997, THE U.S.D.A. S.C.S. EROSION AND SEDIMENT CONTROL IN SITE DEVELOPMENT, MASSACHUSETTS CONSERVATION GUIDE, SEPTEMBER 1983, LOCAL MUNICIPAL REGULATIONS AND THE PERMIT REQUIREMENTS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION RELATED ACTIVITIES AS OUTLINED IN THE MOST RECENT NPDES GENERAL PERMIT.
4. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED COMPOST WATTLES/SOCKS TO PREVENT AND/OR CONTROL SILTATION AND EROSION.
5. TOPS OF STOCKPILES SHALL BE COVERED IN SUCH A MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.
6. EARTHWORK ACTIVITY ON THE SITE SHALL BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO THE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON CIVIL EROSION CONTROL PLAN.
7. FILTER BAGS SHALL BE PLACED UNDERNEATH THE GRATES OF EXISTING AND PROPOSED CATCH BASINS AND MAINTAINED AS OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
8. ALL 3H:1V SLOPES OR STEEPER WILL BE STABILIZED WITH A CURLEX EROSION CONTROL MATTING BY AMERICAN EXCELSIOR COMPANY (OR ENGINEER APPROVED EQUAL) PRIOR TO HYDROSEEDING AND PROTECTED FROM EROSION.
9. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL COMPOST WATTLES/SOCKS AND FILTER BAGS FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER TO MITIGATE ANY EMERGENCY CONDITION.
10. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK INCLUDING BUT NOT LIMITED TO DEMOLITION.
11. THE LIMIT OF WORK LINE SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).
12. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AS DETERMINED BY THE ENGINEER OR OWNER'S REPRESENTATIVE.
13. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
14. CATCH BASINS WITH TEMPORARY FILTER BAGS MUST BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT. SEDIMENT WILL BE REMOVED FROM FILTER BAG IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
15. UPON COMPLETION OF ALL SITE WORK CONSTRUCTION, SITE CONTRACTOR SHALL INSPECT ALL ON-SITE CATCH BASINS, SWALES, SEDIMENT FOREBAYS AND BASINS, AND REMOVE ALL SEDIMENT AND TRASH DEBRIS THAT HAS ACCUMULATED WITHIN EACH BMP STRUCTURE DURING THE COURSE OF CONSTRUCTION. ALL ON-SITE CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE VACUUMED CLEAN PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT.
16. ALL CONSTRUCTION SHALL MEET OR EXCEED THE TOWN OF FRANKLIN'S ENGINEERING AND DPW DEPARTMENT SPECIFICATIONS.
17. TO MINIMIZE THE MIGRATION OF DUST AND SILT FROM THE CONSTRUCTION SITE, THE FOLLOWING MEASURES SHALL BE IMPLEMENTED AS REQUIRED:
    - SPRAY DISTURBED AREAS WITH WATER DURING DRY AND WINDY DAYS.
    - WASH WHEELS OF VEHICLES BEFORE LEAVING THE SITE.
    - PERIODICALLY CLEAN SURROUNDING ROADWAYS NEAR THE ENTRANCE TO THE SITE.
    - ALL VEHICLES HAULING MATERIAL TO AND FROM THE SITE SHALL PLACE SECURE COVERS OVER THEIR LOADS.
18. THE CONTRACTOR SHALL BE AWARE THAT THE ON-SITE SOILS AT THIS SITE MAKE IT PARTICULARLY SUSCEPTIBLE TO SOIL EROSION AND SENSITIVE TO IT'S CONSEQUENCES. IT SHOULD BE NOTED THAT THE EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS DEPICT THE MINIMUM REQUIRED AND ARE REPRESENTATIVE OF A SINGLE STAGE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL DEVICES AS THE PROJECT PROGRESSES AND AS SITE DRAINAGE CONDITIONS CHANGE.
19. THE CONTRACTOR SHALL ANTICIPATE AND MODIFY EROSION CONTROL MEASURES BASED ON PAST AND CURRENT WEATHER CONDITIONS AND ANTICIPATED CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL. EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.
21. THE CONTRACTOR SHALL NOTIFY THE TOWN OF FRANKLIN PLANNING AND CONSERVATION DEPARTMENT AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY SITEWORK AND BEFORE EACH OF THE FOLLOWING:
    - INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES.
    - START OF CONSTRUCTION.
    - COMPLETION OF SITE CLEARING.
    - COMPLETION OF ROUGH GRADING.
    - INSTALLATION OF STORMWATER CONTROLS.
    - CLOSE OF THE CONSTRUCTION SEASON.
    - COMPLETION OF FINAL LANDSCAPING.
22. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL ENGAGE AN INDIVIDUAL WITH SPECIFIC PROFESSIONAL TRAINING AND EXPERTISE IN EROSION AND SEDIMENT CONTROL. THE EROSION CONTROL MONITOR SHALL PREPARE A WEEKLY REPORT WHICH SHALL BE KEPT ON SITE AT ALL TIMES AND SHALL BE SHOWN TO LOCAL, STATE AND FEDERAL AGENTS UPON REQUEST. THIS REPORT SHALL INDICATE THE STATUS OF THE EROSION CONTROLS AND ANY MAINTENANCE REQUIRED AND PERFORMED. THIS REPORT SHALL CONFORM TO THE REQUIREMENTS OF THE EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGE FROM CONSTRUCTION ACTIVITIES.
23. THE LOCATION OF COMPOST WATTLES/SOCKS AND FILTER BAGS SHALL BE FIELD VERIFIED DURING SITE PREPARATION OPERATIONS BY THE ENGINEER AT RECORD.
24. ANY DEWATERING ACTIVITIES PERFORMED IN CONJUNCTION WITH CONSTRUCTING THE SITE SHALL MAKE USE OF A SETTLING POND OR SIMILAR DEVICE TO REMOVE SEDIMENT BEFORE WATER IS RELEASED. THERE SHALL BE NO DIRECT DISCHARGE OF WATER TO CATCH BASINS AND/OR THE MUNICIPAL DRAINAGE SYSTEM.
25. AFTER CONSTRUCTION STABILIZATION HAS OCCURRED, THE CONTRACTOR SHALL CLEAN AND REMOVE A MINIMUM OF 18" INCHES FROM THE BOTTOM OF THE TEMPORARY SEDIMENTATION BASIN WHERE PROPOSED STORMWATER BASIN-1 IS TO BE CONSTRUCTED, AS NOTED ON C-1A, THE BOTTOM OF THE TEMPORARY SEDIMENTATION BASIN AT THIS LOCATION SHALL BE SET 1-FOOT ABOVE THE BOTTOM OF PROPOSED STORMWATER BASIN-1 TO ENSURE THE UNDERLYING SOIL IS NOT ADVERSELY IMPACTED. ADDITIONALLY, THE PROPOSED CRUSHED STONE PROPOSED AT THE BOTTOM OF STORMWATER BASIN-1 SHALL NOT BE INSTALLED UNTIL AFTER SITE STABILIZATION AND THE CLEANING/DREDGING OF THE TEMPORARY SEDIMENT BASIN.
26. THE CONSERVATION COMMISSION MUST RECEIVE A WRITTEN REPORT WITH RESPECT TO A PROJECT'S CONFORMANCE TO ORDER OF CONDITIONS EVERY APRIL AND OCTOBER FROM THE PROJECT ENGINEER UNTIL A CERTIFICATE OF COMPLIANCE IS ISSUED.
27. WINTER CONSTRUCTION AND STABILIZATION
    THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15

SEDIMENT BARRIERS: DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF COMPOST WATTLES/SOCKS OR SILT FENCES.

MULCHING: ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1000 SF OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A 1-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH WORKDAY DURING FINAL GRADING ACTIVITIES.

SOIL STOCKPILING: STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

SEEDING: BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1000 SF. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE RE-VEGETATED IN THE SPRING.

WINTER STABILIZATION OF DITCHES AND CHANNELS: ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH:
INSTALL A SOD LINING IN THE DITCH: A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD ONTO AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS.
INSTALL A STONE LINING IN THE DITCH: A DITCH MUST BE LINED WITH STONE RIP RAP BY NOVEMBER 15. CONTACT REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH.

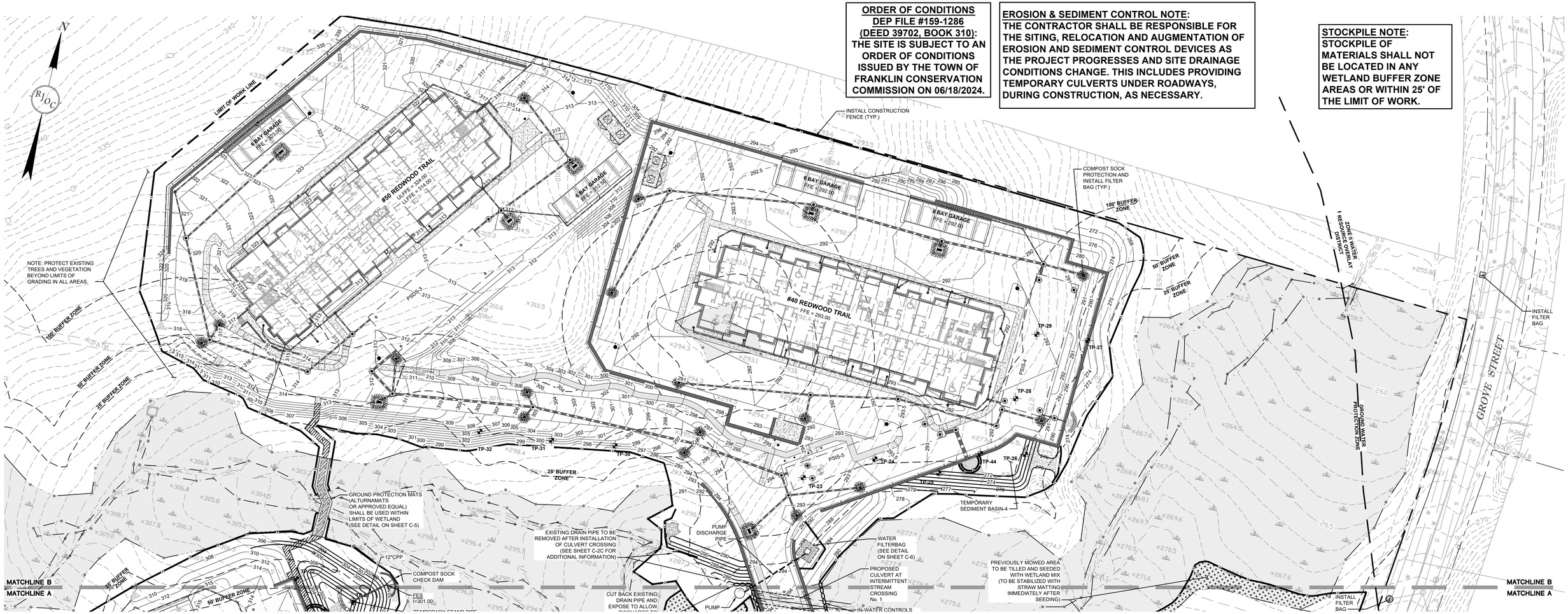
WINTER STABILIZATION OF DISTURBED SLOPES: ALL STONE-COVERED SLOPES GREATER THAN 15% MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15, AND ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE.
TEMPORARY VEGETATION AND EROSION CONTROL MATS: BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1000 SF AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST 3 INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
SOD: THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
EROSION CONTROL MIX: EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
STONE RIP RAP: PLACE A LAYER OF STONE RIP RAP ON THE SLOPE BY NOVEMBER 15. CONTACT THE PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

WINTER STABILIZATION OF DISTURBED SOILS: BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN:
TEMPORARY VEGETATION: BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1000 SF, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SF, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST 3 INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR WINTER PROTECTION AS DESCRIBED BELOW.
SOD: STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
MULCH: BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1000 SF ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING

ORDER OF CONDITIONS
DEP FILE #159-1286
(DEED 39702, BOOK 310):
THE SITE IS SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE TOWN OF FRANKLIN CONSERVATION COMMISSION ON 06/18/2024.

EROSION & SEDIMENT CONTROL NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION AND SEDIMENT CONTROL DEVICES AS THE PROJECT PROGRESSES AND SITE DRAINAGE CONDITIONS CHANGE. THIS INCLUDES PROVIDING TEMPORARY CULVERTS UNDER ROADWAYS, DURING CONSTRUCTION, AS NECESSARY.

STOCKPILE NOTE:
STOCKPILE OF MATERIALS SHALL NOT BE LOCATED IN ANY WETLAND BUFFER ZONE AREAS OR WITHIN 25' OF THE LIMIT OF WORK.



GRAPHIC SCALE IN FEET (40 0 20 40 80)

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6.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY: MAC
DRAWN BY: MCR
REVIEWED BY: BJM
SCALE: 1" = 40'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL: COMMONWEALTH OF MASSACHUSETTS — BRIAN P. DUNDON — CIVIL — No.41505 — REGISTERED PROFESSIONAL ENGINEER — 7-1-2025

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
EROSION AND SEDIMENT CONTROL PHASE II PLAN

DRAWING NUMBER:
C-1D

DATE: 02/13/2024 PROJECT NO.: 22016

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SANDBAG COFFERDAM (TYP.)

IN-WATER CONTROLS SHALL BE REMOVED AS SOON AS POSSIBLE ONCE THE WORK IS COMPLETED AND THE AREA IS STABILIZED

PROPOSED CULVERT AT INTERMITTENT STREAM CROSSING No. 2

SANDBAG COFFERDAM (TYP.)

PREVIOUSLY MOWED AREA TO BE TILLED AND SEEDED WITH WETLAND MIX (TO BE STABILIZED WITH STRAW MATTING IMMEDIATELY AFTER SEEDING)

COMPOST SOCK PROTECTION AND INSTALL FILTER BAG (TYP.)

50' BUFFER ZONE

100' BUFFER ZONE

25' BUFFER ZONE

PUMP

PUMP DISCHARGE PIPE

#10 BLUESTONE WAY
FFE = 302.00

TEMPORARY STAND PIPE WITH CRUSHED STONE (SEE DETAIL DWG. C-5)
R=290.50
I=288.50

TP-1

TP-2

TP-40

TP-41

TP-4

TP-5

TP-6

WATER FILTERBAG (SEE DETAIL ON SHEET C-6)

CONSTRUCTION FENCE GATE

30'x50' TEMPORARY VEHICLE TRACKING PAD CONSTRUCTION ENTRANCE

COMPOST SOCK PROTECTION AND INSTALL FILTER BAG (TYP.)

COMPOST SOCK CHECK DAM

FES
I=284.50

12"CPP

INSTALL FILTER BAG

INSTALL FILTER BAG

PSDS-1

PSDS-1

PROPOSED STORMWATER BASIN-1 SHALL BE USED AS A TEMPORARY SEDIMENTATION BASIN THROUGHOUT CONSTRUCTION AND SHALL BE PERIODICALLY CLEANED DURING CONSTRUCTION. THE BOTTOM OF TEMPORARY SEDIMENTATION BASIN (288.5) SHALL BE SET 1-FOOT ABOVE THE BOTTOM OF PROPOSED STORMWATER BASIN-1 (287.5) TO ENSURE UNDERLYING SOIL IS NOT ADVERSELY IMPACTED. SEE SEDIMENT AND EROSION CONTROL NOTE #25 ON SHEET C-1B FOR ADDITIONAL NOTES.

MATCHLINE A

MATCHLINE B

N

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KEY MAP

20 0 10 20 40

GRAPHIC SCALE IN FEET

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REVIEWED BY:	BJM
SCALE:	1" = 20'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

EROSION AND SEDIMENT CONTROL PHASE II PLAN

DRAWING NUMBER:

C-1D-1

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#10 BLUESTONE WAY
FFE = 302.00

6 BAY GARAGE
FFE = 310.50

6 BAY GARAGE
FFE = 311.00

TW:317.5
BW:311.0

TOP OF GARAGE RETAINING WALL: 317.50

25' BUFFER ZONE

50' BUFFER ZONE

100' BUFFER ZONE

100' BUFFER ZONE

25' BUFFER ZONE

SANDBAG COFFERDAM (TYP.)

IN-WATER CONTROLS SHALL BE REMOVED AS SOON AS POSSIBLE ONCE THE WORK IS COMPLETED AND THE AREA IS STABILIZED

PROPOSED CULVERT AT INTERMITTENT STREAM CROSSING No. 2

SANDBAG COFFERDAM (TYP.)

PUMP

PUMP DISCHARGE PIPE

TEMPORARY STAND PIPE WITH CRUSHED STONE (SEE DETAIL DWG. C-5)
R=290.50
I=288.50

INSTALL FILTER BAG

TP-1

TP-2

TP-40

TP-41

PSDS-1

KEY MAP

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PUMP DISCHARGE PIPE

PUMP

SANDBAG COFFERDAM (TYP.)

WATER FILTERBAG (SEE DETAIL ON SHEET C-6)

PROPOSED CULVERT AT INTERMITTENT STREAM CROSSING No. 1

IN-WATER CONTROLS SHALL BE REMOVED AS SOON AS POSSIBLE ONCE THE WORK IS COMPLETED AND THE AREA IS STABILIZED

PREVIOUSLY MOWED AREA TO BE TILLED AND SEEDED WITH WETLAND MIX (TO BE STABILIZED WITH STRAW MATTING IMMEDIATELY AFTER SEEDING)

COMPOST SOCK CHECK DAM

12"CPP

FES
I=278.50

TEMPORARY STAND PIPE WITH CRUSHED STONE (SEE DETAIL DWG. C-5)
R=280.50
I=279.00

TEMPORARY SEDIMENT BASIN-3A

INSTALL FILTER BAG

CONSTRUCTION FENCE GATE

30'x50' TEMPORARY VEHICLE TRACKING PAD CONSTRUCTION ENTRANCE

ZONE II GROUND WATER PROTECTION OVERLAY ZONE

25' BUFFER ZONE

100' BUFFER ZONE

80' BUFFER ZONE

#30 REDWOOD TRAIL
FFE = 287.00

6 BAY GARAGE
FFE = 287.80

6 BAY GARAGE
FFE = 287.50

ELECT. ROOM

TELE. STORAGE

WATER

PSIS-1

PSIS-2

PSIS-3

PSIS-4

PSIS-5

PSIS-6

PSIS-7

TP-7 TP-8 TP-9 TP-10 TP-11 TP-12 TP-13 TP-14 TP-36 TP-37 TP-38 TP-39 TP-42 TP-43

GROVE STREET

N

KEY MAP

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BRIAN P. DUNDON
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REGISTERED PROFESSIONAL ENGINEER
7-1-2025

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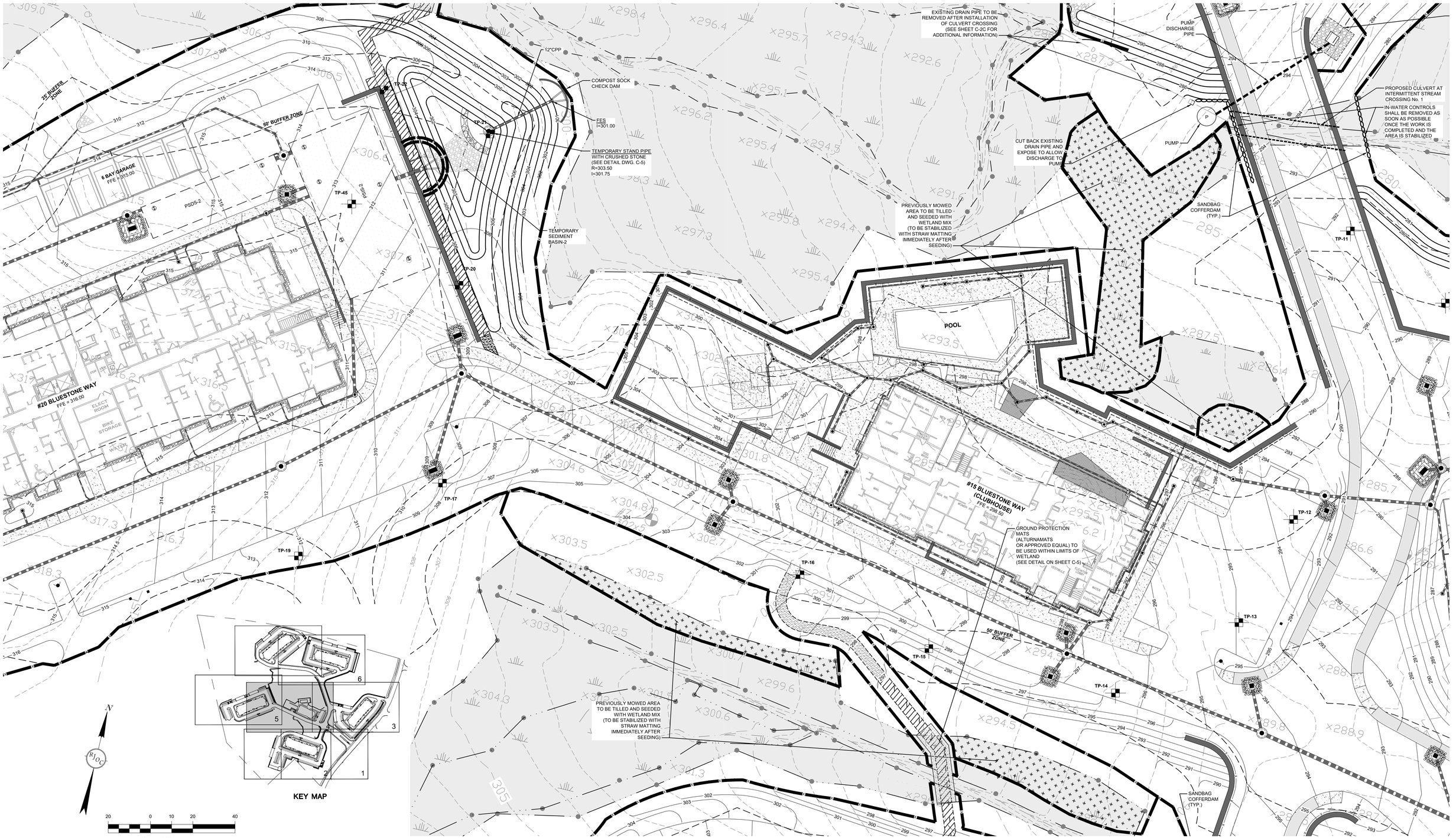

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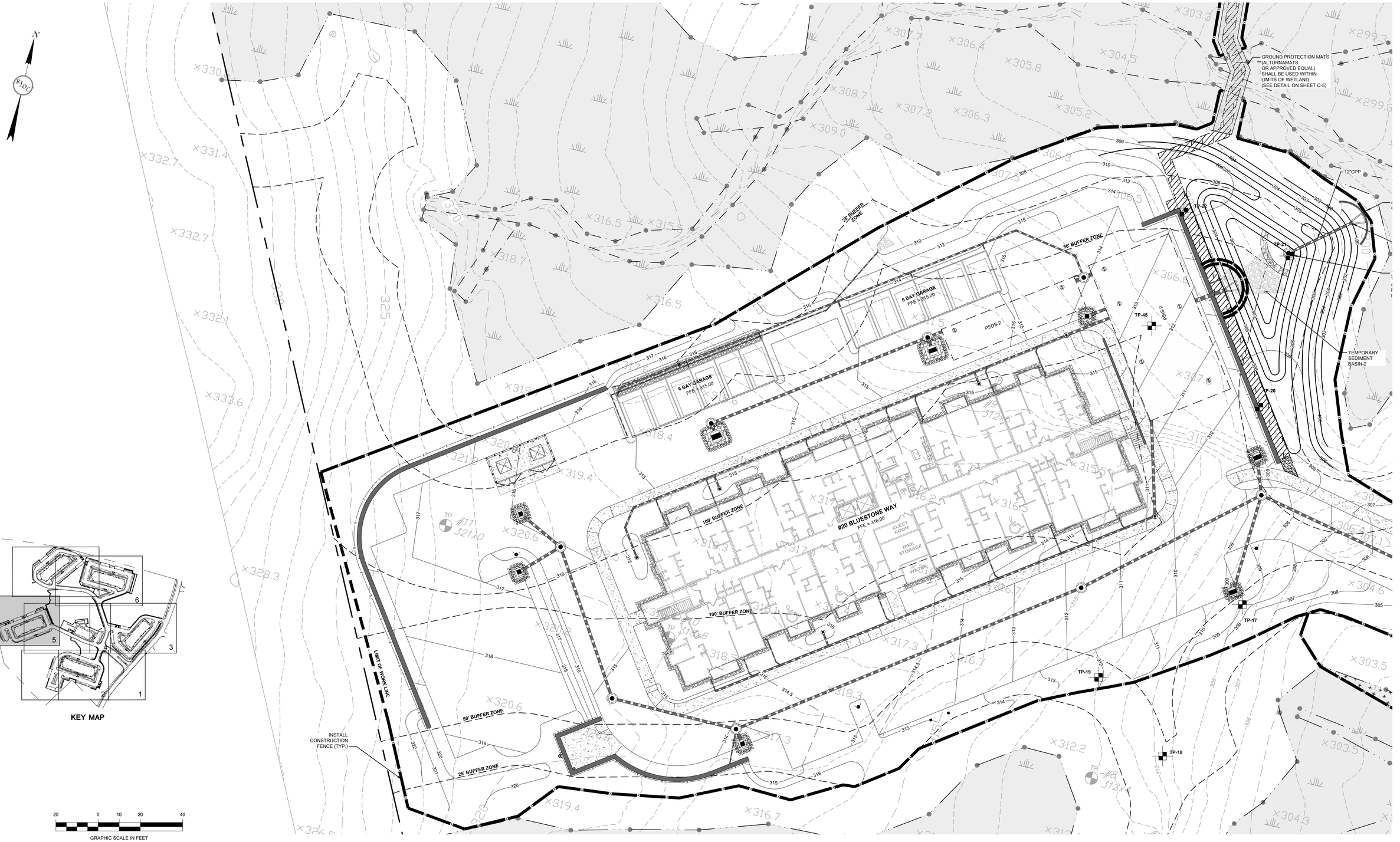

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PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

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7-1-2025

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GROVE STREET RESIDENCES
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DRAWING NAME:

EROSION AND SEDIMENT CONTROL PHASE II PLAN

DRAWING NUMBER:

C-1D-6

DATE: 03/25/2025 PROJECT NO.: 22016

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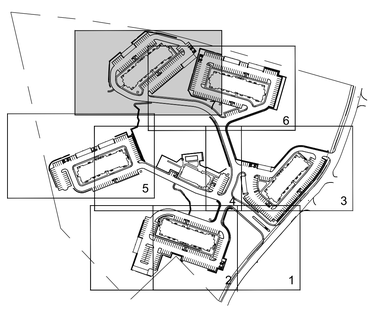

KEY MAP

LIMIT OF WORK LINE

NOTE: PROTECT EXISTING TREES AND VEGETATION BEYOND LIMITS OF GRADING IN ALL AREAS.

100' BUFFER ZONE

50' BUFFER ZONE

25' BUFFER ZONE

6 BAY GARAGE
FFE = 323.00

#50 REDWOOD TRAIL
LHFE = 314.00
LLFE = 314.00

6 BAY GARAGE
FFE = 312.50

PSNS-3

TP-32

TP-31

TP-30

N

20 0 10 20 40

GRAPHIC SCALE IN FEET

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-1 Erosion and Sedimentation Control Phase II Plan.dwg
Jul 01, 2025 - 11:57am

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NO.	REVISION	DATE
2.	90% CD SET	07/01/2025
1.	100% DD SET	03/25/2025

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 20'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

EROSION AND SEDIMENT CONTROL PHASE II PLAN

DRAWING NUMBER:

C-1D-7

DATE: 03/25/2025 PROJECT NO.: 22016

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CONSTRUCTION PHASING DISTURBANCE AREA CHART		
CONSTRUCTION ZONES	HATCH COLORING	DISTURBANCE AREA
ZONE 1		5.5 ACRES±
ZONE 2		3.0 ACRES±
ZONE 3		6.0 ACRES±
ZONE 4		2.0 ACRES±

CONSTRUCTION PHASING SEQUENCE:

CLEAR AND GRUBBING PHASE:

1. INSTALL PERIMETER SEDIMENTATION CONTROL BARRIERS AND CONSTRUCTION SWAMP MATS IN THE LOCATIONS SHOWN ON DEMOLITION AND EROSION CONTROL PLANS. SEDIMENTATION CONTROL BARRIERS TO BE INSTALLED PER DETAILS.
2. INSTALL INLET/OUTLET PROTECTION AT THE LOCATIONS OF ALL GRATE INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
3. INSTALL TREE PROTECTION AND CONSTRUCTION FENCING AS SHOWN ON DEMOLITION AND EROSION CONTROL PLANS.
5. BEGIN TERMINATION OF EXISTING BUILDING UTILITY SERVICES IN ACCORDANCE WITH THE UTILITY COMPANY REQUIREMENTS HAVING AUTHORITY.
6. BEGIN DEMOLITION OF EXISTING BUILDINGS.
7. STOCKPILE BUILDING DEBRIS FOR OFF-SITE DISPOSAL.
8. PERFORM TREE CUTTING AND CLEARING OF LAND WITHIN THE OVERALL LIMITS OF WORK.
9. PERFORM GRUBBING WITHIN THE DESIGNATED CONSTRUCTION ZONE WHERE WORK TO COMMENCE.

ROUGH GRADE PHASE:

1. COMMENCE SITE GRADING ACTIVITIES (ROUGH GRADE SITE). PLACE AND COMPACT FILL MATERIAL IN 12" LIFTS TO SUBGRADE ELEVATIONS.
2. INSTALL TEMPORARY SEDIMENT BASINS, AS DEPICTED ON THE DEMOLITION AND EROSION CONTROL PLANS.
3. INSPECT THE ENTIRE SITE TO VERIFY THAT NO AREAS REMAIN THAT ARE SUSCEPTIBLE TO ALLOWING SEDIMENT AND/OR CONSTRUCTION RELATED DEBRIS MATERIALS TO BE DISCHARGED FROM THE PROJECT SITE.
4. INSTALL TEMPORARY STREAM DIVERSION CONSTRUCTION ACTIVITIES.
5. INSTALL SITE UTILITIES AND CULVERT AT STREAM CROSSINGS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. REMOVE TEMPORARY STREAM DIVERSION ACTIVITIES AFTER CULVERT AND UTILITIES ARE INSTALLED AT CROSSINGS.
6. INSTALL BOARDWALKS.
7. PLACE RIP-RAP AT LOCATIONS SHOWN ON THE PLANS.
8. INSTALL STORMWATER INFRASTRUCTURE.
9. INSTALL SEDIMENT TRAPS AND FILTER BAGS IN ALL NEW CATCH BASINS AS OUTLINED IN THE EROSION AND SEDIMENT CONTROL PLANS.

FINAL GRADE PHASE:

1. FINALIZE PAVEMENT AND BUILDING SUBGRADE PREPARATION.
2. COMMENCE VERTICAL CONSTRUCTION OF BUILDINGS.
3. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE MATERIALS.
4. INSTALL AND COMPACT PAVEMENT GRAVELS.
5. INSTALL BINDER AND FINISH COURSE PAVEMENT.

SITE CONSTRUCTION COMPLETION PHASE:

1. FINE GRADE LANDSCAPE AREAS AND INSTALL LANDSCAPE PLANTINGS.
2. INSTALL TRAFFIC CONTROL SIGNAGE AND PARKING LOT STRIPING.
3. REMOVE SEDIMENTATION CONTROLS AFTER PAVING OPERATIONS ARE COMPLETE AND ALL DISTURBED AREAS ARE SEEDED AND STABILIZED.
4. UPON FINAL STABILIZATION OF SITE, REMEDIAL EFFORTS SHALL BE PERFORMED TO THE STORMWATER MANAGEMENT BASINS (INCLUDING REMOVAL OF ACCUMULATED SEDIMENT AND RESTORATION OF FINAL GRADES, AS NEEDED).

CONSTRUCTION PHASING NOTES:

1. CONSTRUCTION PHASING SEQUENCE TO OCCUR IN EACH DESIGNATED CONSTRUCTION ZONE (1-4) IN ASCENDING ORDER WHEN POSSIBLE. HOWEVER WORK MAY OCCUR IN MULTIPLE CONSTRUCTION ZONES CONCURRENTLY TO ALLOW FOR CUT AND FILL NEEDS THROUGHOUT THE SITE TO ACHIEVE FINAL GRADES.
2. GRUBBING WITHIN EACH DESIGNATED CONSTRUCTION ZONE SHALL NOT OCCUR UNTIL WORK IS PLANNED TO COMMENCE WITHIN THE ZONE.

80 0 40 80 160
GRAPHIC SCALE IN FEET

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1.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 80'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
CONSTRUCTION PHASING PLAN

DRAWING NUMBER:
C-1E

DATE: 03/28/2024 PROJECT NO.: 22016

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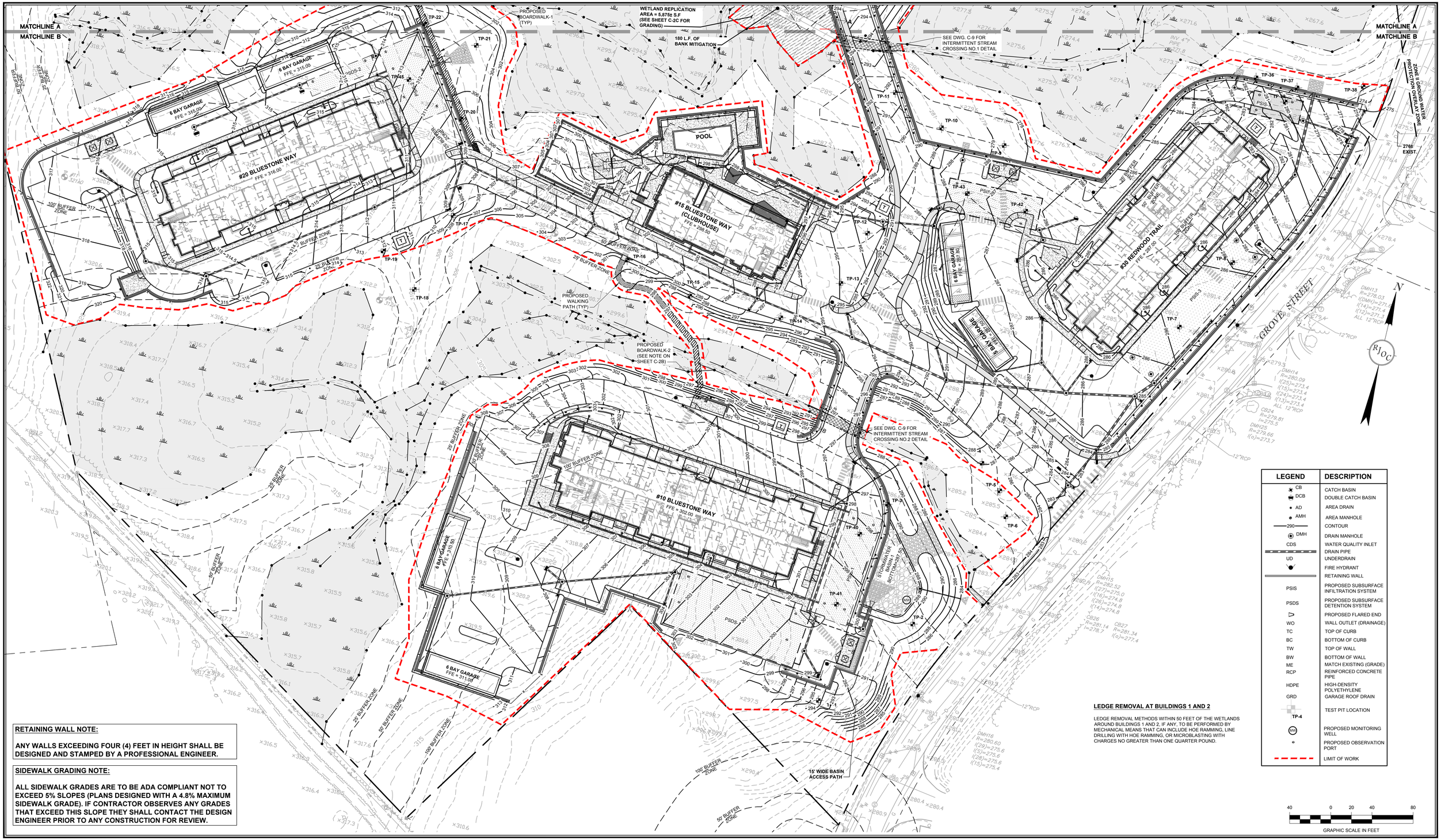

RETAINING WALL NOTE:

ANY WALLS EXCEEDING FOUR (4) FEET IN HEIGHT SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER.

SIDEWALK GRADING NOTE:

ALL SIDEWALK GRADES ARE TO BE ADA COMPLIANT NOT TO EXCEED 5% SLOPES (PLANS DESIGNED WITH A 4.8% MAXIMUM SIDEWALK GRADE). IF CONTRACTOR OBSERVES ANY GRADES THAT EXCEED THIS SLOPE THEY SHALL CONTACT THE DESIGN ENGINEER PRIOR TO ANY CONSTRUCTION FOR REVIEW.

LEDGE REMOVAL AT BUILDINGS 1 AND 2

LEDGE REMOVAL METHODS WITHIN 50 FEET OF THE WETLANDS AROUND BUILDINGS 1 AND 2, IF ANY, TO BE PERFORMED BY MECHANICAL MEANS THAT CAN INCLUDE HOE RAMMING, LINE DRILLING WITH HOE RAMMING, OR MICROBLASTING WITH CHARGES NO GREATER THAN ONE QUARTER POUND.

LEGEND	DESCRIPTION
CB	CATCH BASIN
DCB	DOUBLE CATCH BASIN
AD	AREA DRAIN
AMH	AREA MANHOLE
290	CONTOUR
DMH	DRAIN MANHOLE
CDS	WATER QUALITY INLET
	DRAIN PIPE
UD	UNDERDRAIN
	FIRE HYDRANT
	RETAINING WALL
PSIS	PROPOSED SUBSURFACE INFILTRATION SYSTEM
PSDS	PROPOSED SUBSURFACE DETENTION SYSTEM
	PROPOSED FLARED END
WO	WALL OUTLET (DRAINAGE)
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
ME	MATCH EXISTING (GRADE)
RCP	REINFORCED CONCRETE PIPE
HDPE	HIGH-DENSITY POLYETHYLENE
GRD	GARAGE ROOF DRAIN
TP-4	TEST PIT LOCATION
MW	PROPOSED MONITORING WELL
	PROPOSED OBSERVATION PORT
	LIMIT OF WORK

40 0 20 40 80
GRAPHIC SCALE IN FEET

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4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

C-2A

DATE: 10/30/2023 PROJECT NO.: 22016

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SIDEWALK GRADING NOTE:

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GRD	GARAGE ROOF DRAIN
TP-4	TEST PIT LOCATION
MW	PROPOSED MONITORING WELL
	PROPOSED OBSERVATION PORT
	LIMIT OF WORK

GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. EXISTING SITE FEATURES AND TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A SURVEY PLAN TITLED "EXISTING CONDITIONS SITE PLAN 121 GROVE STREET, FRANKLIN, MA" BY GUERRIERE & HANLON, INC. DATED 05/20/2022, REVISED THROUGH 11/09/2023.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL HORIZONTAL CONTROL POINTS AND ELEVATION BENCH MARKS NECESSARY FOR THE WORK.
4. ALL STORM DRAINAGE PIPING SHALL BE REINFORCED CONCRETE PIPE, UNLESS NOTED OTHERWISE IN STORMWATER INFILTRATION/DETENTION BASINS. REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III IN ACCORDANCE WITH ASTM C-76. GASKETS SHALL BE O-RING TYPE IN ACCORDANCE WITH ASTM C-443. CLASS V RCP SHALL BE USED IN AREAS WITH LESS THAN 42" VERTICAL COVER FROM TOP OF PIPE TO FINISHED GRADE.
5. HIGH-DENSITY POLYETHYLENE PIPE (HPDE) SHALL CONFORM WITH AASHTO DESIGNATIONS M294 AND M252, AND SHALL BE ADS N-12 PIPE OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
6. THE EXISTING UTILITIES SHOWN HEREON SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION PRIOR TO EXCAVATION AND CONSTRUCTION.
7. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES.
8. ALL NEW CATCH BASINS ON-SITE SHALL BE EQUIPPED WITH GAS/OIL HOODS AND 4 FOOT SUMPS.
9. RIP-RAP SPLASH APRONS SHALL BE PROVIDED AT ALL OUTFALLS AS SHOWN ON THE DRAWINGS.
10. FOR ALL ROOF AND CONDENSATE DRAIN CONNECTIONS TO BUILDING SEE PLUMBING PLANS.
11. ALL DRAINAGE STRUCTURES SHALL BE PRECAST CONCRETE PER ASTM C-478.
12. ALL DRAINAGE STRUCTURES AND PIPING SHALL BE DESIGNED FOR HEAVY DUTY TRAFFIC LOADING (H20).
13. PROPOSED SUBSURFACE DRAINAGE SYSTEMS (PSIS-1 THROUGH PSIS-7 & PSDS-1 THROUGH PSDS-3) ARE DESIGNED TO BE CONSTRUCTED OF EITHER PLASTIC CHAMBERS OR PERFORATED CMP EMBEDDED IN CRUSHED STONE (SEE ON SHEETS C-8 & C-9 FOR DESIGN DETAILS FOR EACH SUBSURFACE DRAINAGE SYSTEM).
14. BUILDING UNDERDRAINS/SUBDRAINS SHALL NOT BE CONNECTED TO ANY STORMWATER INFILTRATION BMP.

PROPOSED BOARDWALKS NOTES

1. THE PROPOSED BOARDWALKS SHALL BE CONSTRUCTED SO THAT THE SLOPE IN THE DIRECTION OF TRAVEL WILL NOT EXCEED 5% AND THE CROSS SLOPE WILL NOT EXCEED 2%. (SEE SHEET L-301 FOR DETAILS).

LEDGE REMOVAL AT BUILDINGS 1 AND 2

LEDGE REMOVAL METHODS WITHIN 50 FEET OF THE WETLANDS AROUND BUILDINGS 1 AND 2, IF ANY, TO BE PERFORMED BY MECHANICAL MEANS THAT CAN INCLUDE HOE RAMMING, LINE DRILLING WITH HOE RAMMING, OR MICROBLASTING WITH CHARGES NO GREATER THAN ONE QUARTER POUND.

6 BAY GARAGE FFE = 325.00
#50 REDWOOD TRAIL ULFFE = 324.00 LLFFE = 314.00
6 BAY GARAGE FFE = 312.00
6 BAY GARAGE FFE = 292.00
#40 REDWOOD TRAIL FFE = 293.00
6 BAY GARAGE FFE = 315.00
6 BAY GARAGE FFE = 315.00
100' BUFFER ZONE
50' BUFFER ZONE
25' BUFFER ZONE
PROPOSED WALKING PATH (TYP)
4.5% SLOPE DOWN
PROPOSED BOARDWALK-1 (SEE NOTE ON SHEET C-2B)
PROPOSED BOARDWALK-1 (TYP)
WETLAND REPLICATION AREA = 5,875± S.F (SEE SHEET C-2C FOR GRADING)
180 L.F. OF BANK MITIGATION
SEE DWG. C-9 FOR INTERMITTENT STREAM CROSSING NO.1 DETAIL
ZONE II WELLHEAD PROTECTION DISTRICT
GROUND WATER PROTECTION ZONE
ZONE II GROUND WATER PROTECTION OVERLAY ZONE
GROVE STREET
MATCHLINE A
MATCHLINE B
GRAPHIC SCALE IN FEET

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DESIGNED BY:	MAC
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REVIEWED BY:	BJM
SCALE:	1" = 40'

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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

C-2B

DATE: 10/30/2023 PROJECT NO.: 22016

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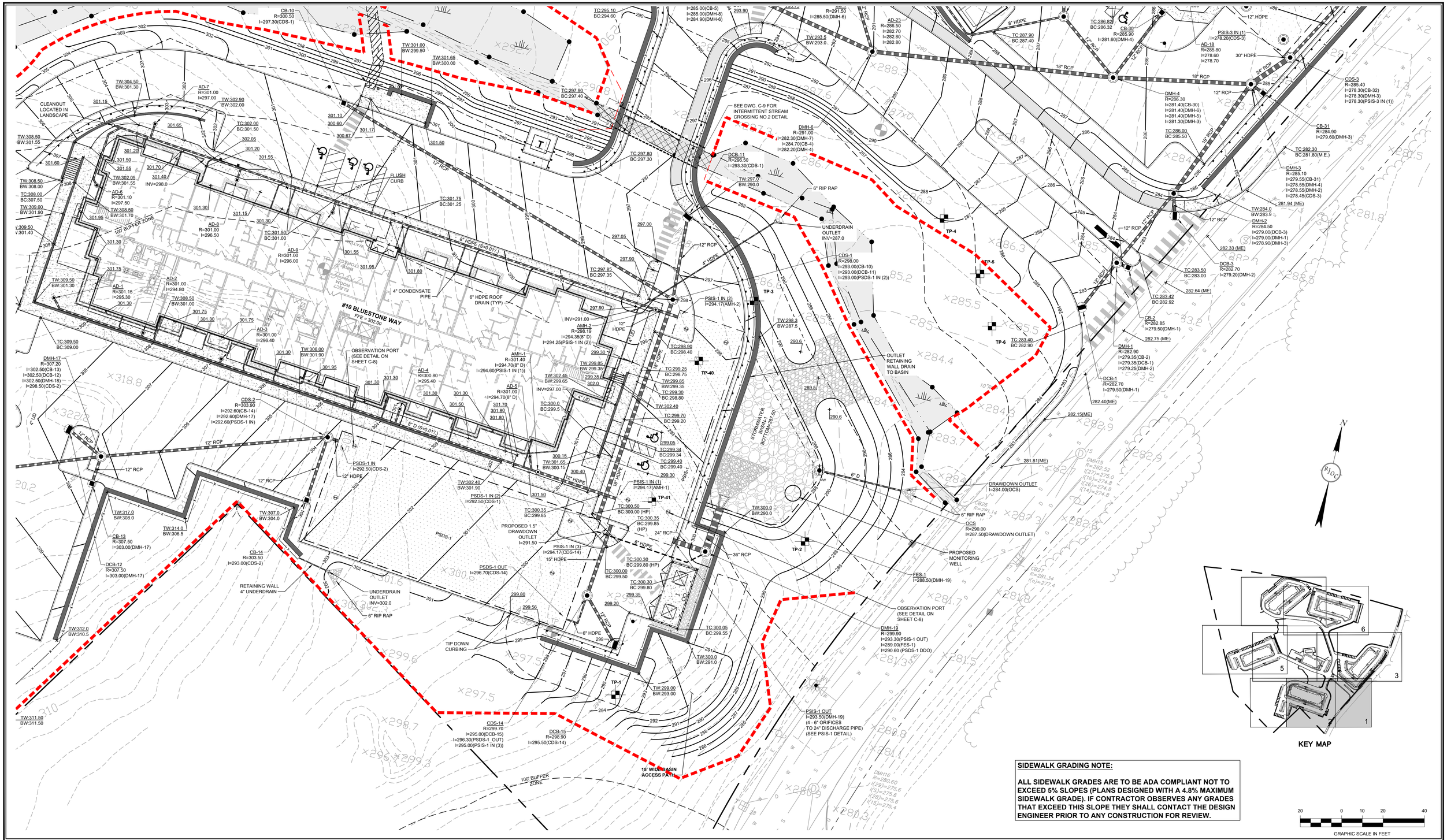

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DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

C-2B-1

DATE: 03/25/2025 PROJECT NO.: 22016

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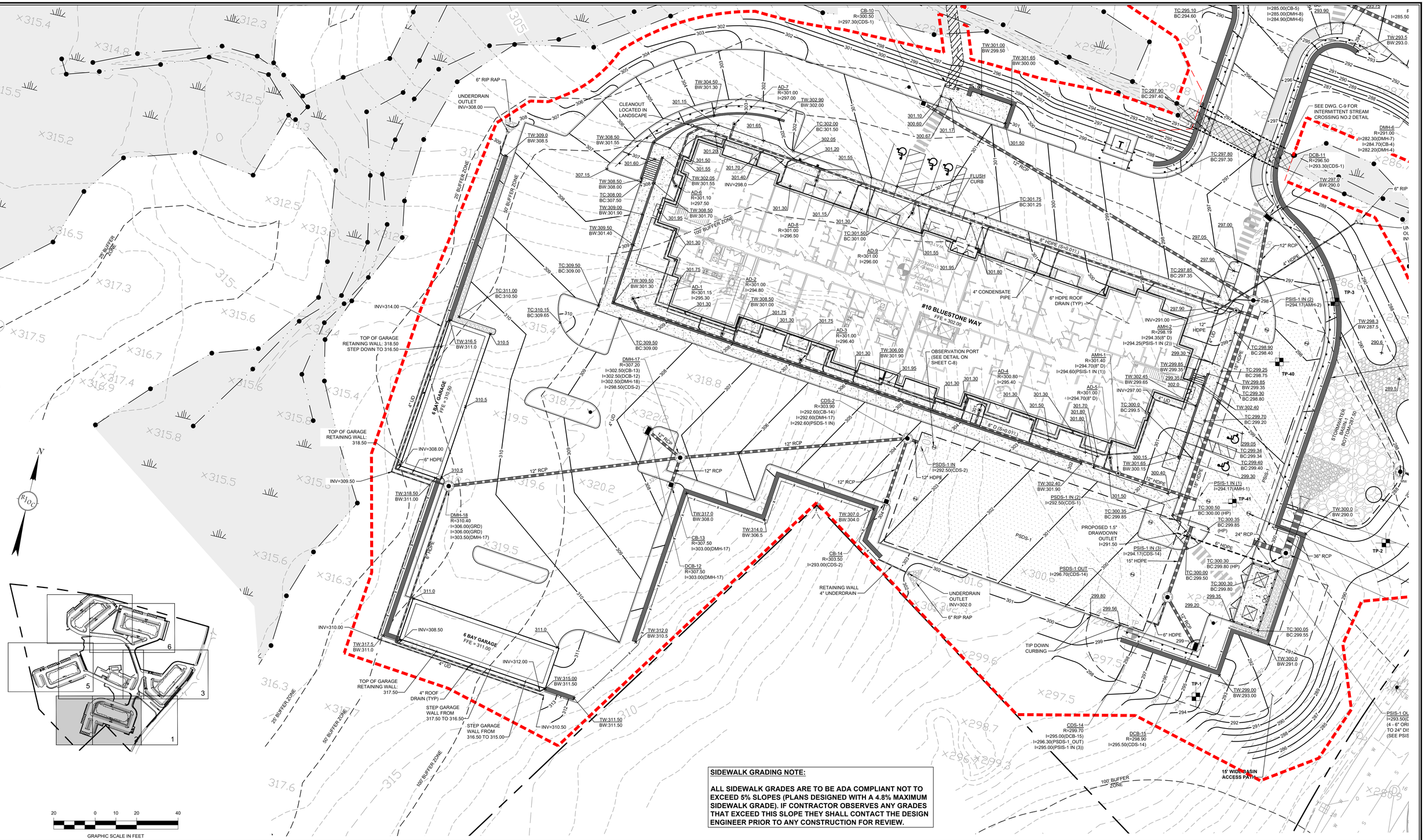

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GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

C-2B-2

DATE: 03/25/2025 PROJECT NO.: 22016

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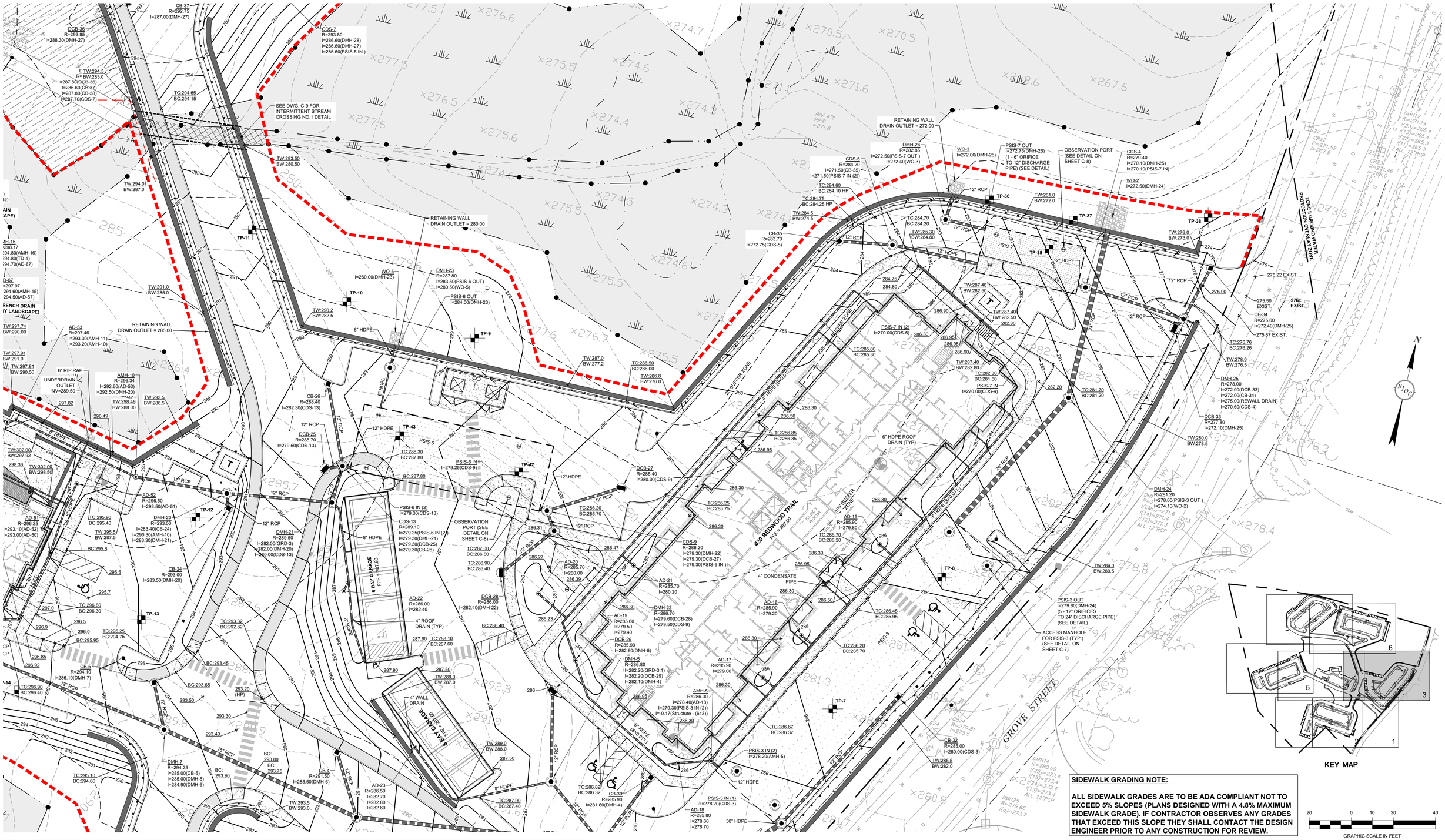

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DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

C-2B-3

DATE: 03/25/2025 PROJECT NO.: 22016

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SIDEWALK GRADING NOTE:

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KEY MAP

GRAPHIC SCALE IN FEET

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DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 20'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

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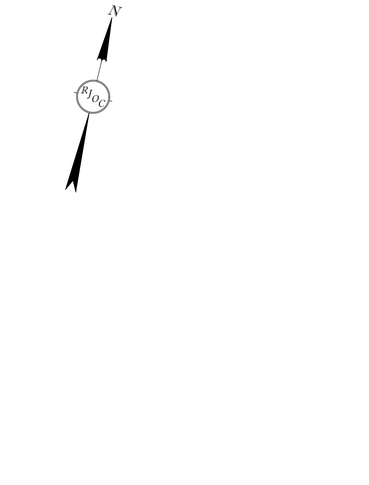

KEY MAP

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BRIAN P. DUNDON
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DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

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KEY MAP

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GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
GRADING AND DRAINAGE PLAN

DRAWING NUMBER:
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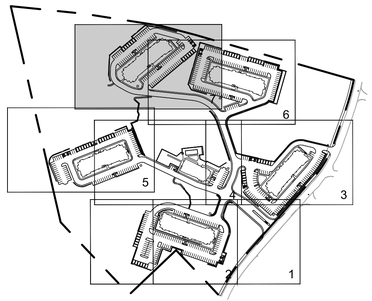

KEY MAP

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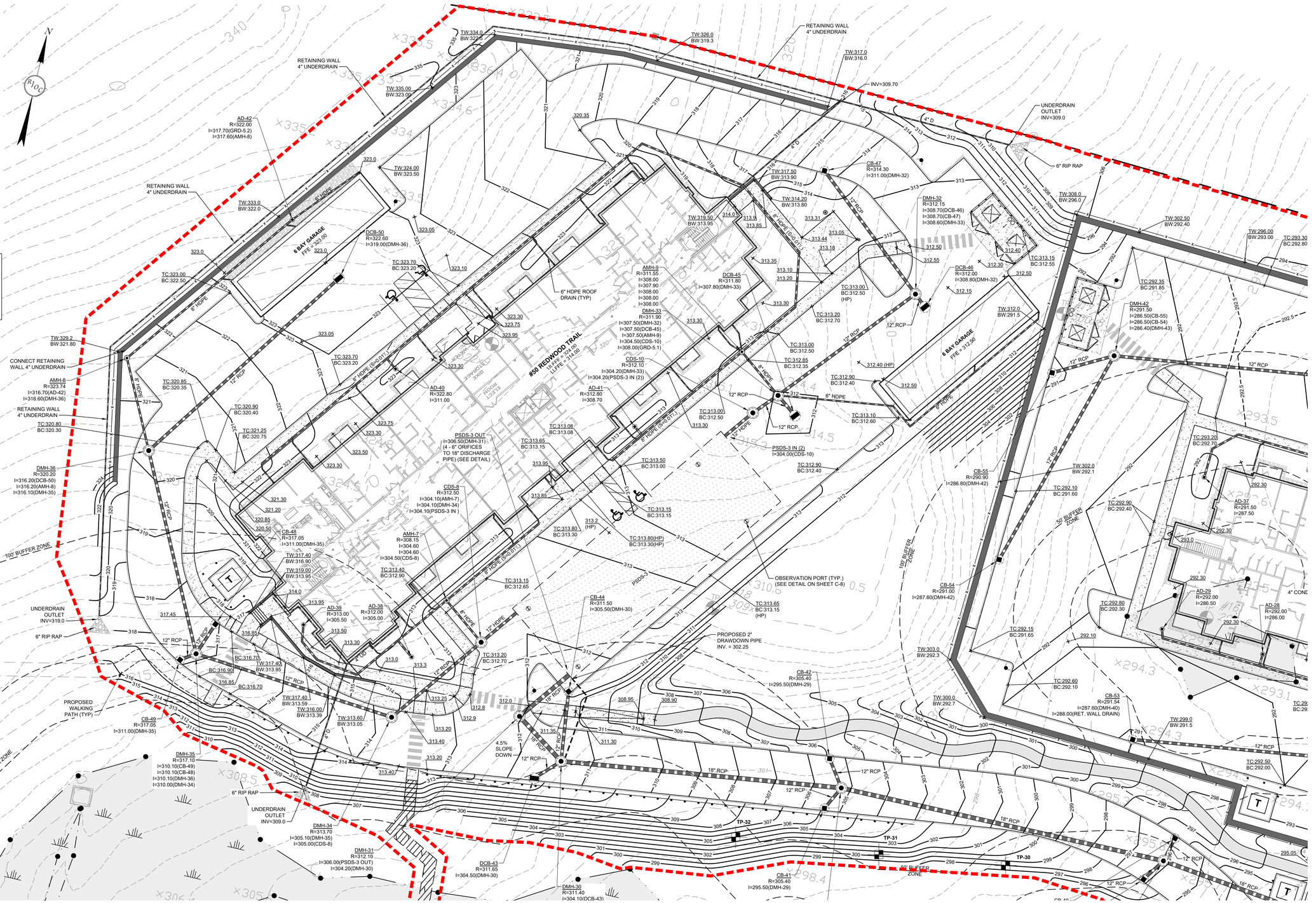

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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
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GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:

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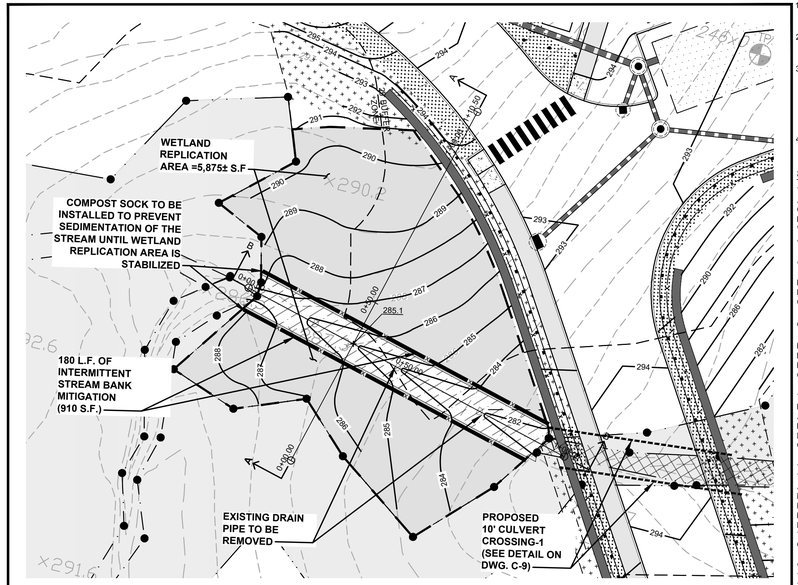


PLAN VIEW
1" = 20'

GENERAL WETLAND & STREAM DAYLIGHTING REPLICATION NOTES:

1. THE WETLAND SCIENTIST SHALL REVIEW THE PROPOSED WETLAND REPLICATION AREA FOR EXISTING, NATIVE WOODY PLANTS TO RETAIN (TO THE EXTENT FEASIBLE) AND MARK THEM IN THE FIELD FOR PRESERVATION.
2. THE WETLAND SCIENTIST SHALL CONTACT THE TOWN OF FRANKLIN CONSERVATION DEPARTMENT FOR REVIEW AND APPROVAL OF FINAL GRADES AND PROPOSED PLANTING STOCK PRIOR TO PLANTING.
3. PRIOR TO CONSTRUCTION OF THE WETLAND REPLICATION AREA THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER TO PERFORM SOIL TESTING WITHIN THE FOOTPRINT OF THE WETLAND REPLICATION AREA TO VERIFY THE ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (ESHGW). THE RESULTS SHALL BE PROVIDED TO THE CONSERVATION COMMISSION OR ITS AGENT TO DEPICT SUFFICIENT HYDROLOGY IS PRESENT (ESHGW WITHIN 12 INCHES OF FINAL SURFACE ELEVATION). IF ANY MODIFICATIONS ARE REQUIRED BASED ON SOIL TESTING RESULTS, THE DESIGN ENGINEER SHALL SUBMIT A REVISED DESIGN FOR REVIEW AND APPROVAL BY THE COMMISSION OR ITS AGENT.
4. WETLAND REPLICATION AND STREAM DAYLIGHTING EFFORTS SHALL BE COMPLETED PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY. AN AS-BUILT PLAN AND LETTER FROM THE WETLAND SCIENTIST CERTIFYING COMPLETION OF THESE EFFORTS, PER THE APPROVED PLANS, SHALL BE SUBMITTED TO THE CONSERVATION COMMISSION AND ITS AGENT FOR REVIEW.

8.1 REPLICATION AREA CONSTRUCTION SEQUENCE

THIS SECTION DESCRIBES THE SEQUENCE OF CONSTRUCTION ACTIVITIES AND PROVIDES INFORMATION REGARDING GRADING, PLANTING, AND SEEDING. IT ALSO CONTAINS EROSION AND SEDIMENTATION CONTROL MEASURES THAT WILL BE UTILIZED THROUGHOUT CONSTRUCTION ACTIVITIES. THE CONSERVATION COMMISSION WILL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF WORK, TO SCHEDULE INSPECTION OF THE WORK, TO DISCUSS DEPTH OF SOIL REMOVAL, AND RE-GRADING OF EXCESS SOIL WITHIN UPLAND AREAS. THE PWS WILL DOCUMENT CONDITIONS RELATIVE TO VEGETATION COMPOSITION AND STRUCTURE, TOPOGRAPHY, AND SOILS BOTH BEFORE AND AFTER RESTORATION.

EROSION AND SEDIMENT CONTROLS

PRIOR TO THE COMMENCEMENT OF THE REPLICATION AREA CONSTRUCTION, EROSION AND SEDIMENTATION CONTROLS (I.E., COMPOST FILTER SOCK/SILT FENCE) WILL BE INSTALLED AS SHOWN ON THE SITE PLANS. THE EROSION CONTROLS WILL BE INSPECTED DURING CONSTRUCTION TO MAINTAIN THEIR EFFECTIVENESS IN RETAINING SEDIMENTS.

CLEARING, GRADING, AND SOILS

IN ORDER FOR THE WETLAND MITIGATION AREA TO BECOME SUCCESSFUL THE FINAL GRADES NEED TO BE SET APPROXIMATELY 6 TO 12 INCHES ABOVE GROUNDWATER ELEVATIONS. MINOR ADJUSTMENTS IN FINAL GRADE MAY BE MADE IN THE FIELD BY THE SUPERVISING PWS. IF SUBSTANTIAL CHANGES IN THE REPLICATION AREA PLAN ARE NECESSARY, THE APPLICANT WILL SEEK APPROVAL FROM THE CONSERVATION COMMISSION PRIOR TO IMPLEMENTING ANY REVISIONS.

THE REPLICATION AREA WILL BE CLEARED AND GRUBBED, AND WILL BE EXCAVATED TO A DEPTH OF 18 INCHES BELOW THE FINAL DESIGN ELEVATIONS. SOILS EXCAVATED FROM THE WETLAND IMPACT AREAS ARE OFTEN STOCKPILED AND REUSED IN A PROPOSED REPLICATION AREA IF FEASIBLE AND LACKING IN INVASIVE SPECIES, OTHERWISE A PREPARED TOPSOIL WILL BE REQUIRED. THE SUPERVISING PWS WILL INSPECT THE SUB-GRADE OF THE REPLICATION AREA TO ENSURE THAT THE PROPER HYDROLOGY HAS BEEN ESTABLISHED. MINOR MODIFICATIONS TO THIS GRADING PLAN MAY BE MADE IN THE FIELD BY THE QUALIFIED PWS IN RESPONSE TO SUBSURFACE HYDROLOGIC CONDITIONS.

THE GOAL FOR SOILS AT THE WETLAND REPLICATION AREA IS TO CREATE SOIL PROFILES THAT APPROXIMATE AS CLOSELY AS POSSIBLE THE SOIL PROFILES AT THE NEAREST UNDISTURBED EXISTING WETLAND. THIS MEANS THAT A SURFACE HORIZON IS CREATED THAT APPROXIMATES THE A OR O-HORIZON AT THE UNDISTURBED WETLAND SITE AND THAT AT A MINIMUM, CONTAINS 6-12 INCHES OF A OR O MATERIAL. BENEATH THE A OR O THERE SHOULD BE A B-HORIZON (SUBSOIL) THAT APPROXIMATES THE DEPTH AND TEXTURE OF THE B-HORIZON AT THE UNDISTURBED WETLAND (OR A SUITABLE COMPOSITION OF THE C-HORIZON). THE ON-SITE PWS WILL EXAMINE THE DEPTH OF THE B-HORIZON TO ENSURE IT IS ADEQUATE. IF INADEQUATE, SUITABLE B-HORIZON SOIL MATERIAL WILL BE ADDED TO OBTAIN A MINIMUM DEPTH OF SIX (6) INCHES PRIOR TO PLACING THE TOPSOIL. THE REPLICATION AREA WILL THEN BE BACKFILLED WITH A PREPARED TOPSOIL TO A MINIMUM DEPTH OF TWELVE (12) INCHES. THE PREPARED TOPSOIL IS TO CONSIST OF A 1:1 MIXTURE (OR EQUAL VOLUMES) OF ORGANIC AND MINERAL MATERIALS, THAT CONTAINS AT LEAST 12-PERCENT ORGANIC CARBON CONTENT BY WEIGHT.

WHERE ABUTTING AN EXISTING WETLAND, THE REPLICATION AREA WILL BE GRADED TO THE SAME ELEVATION AS THE ADJACENT WETLAND TO MAINTAIN A HYDROLOGIC CONNECTION. AFTER SOILS HAVE BEEN PLACED AND TILLED, THE REPLICATION AREA WILL BE PLANTED WITH THE NATIVE SHRUBS AND TREES LISTED IN THE FOLLOWING SECTION AND THE SEED MIX WILL BE APPLIED. ANY FINE GRADING WILL BE CONDUCTED, AND EROSION CONTROLS WILL BE LEFT IN PLACE UNTIL VEGETATION IS ESTABLISHED.

SHRUB AND TREE PLANTING

THE SHRUBS AND TREES USED FOR RE-VEGETATION OF THE REPLICATION SITE WILL BE OBTAINED FROM A REPUTABLE WETLAND PLANT NURSERY. SHRUBS WILL MEASURE APPROXIMATELY AT LEAST 24 INCHES IN HEIGHT (ONE-GALLON CONTAINERS), AND TREE SAPLINGS WILL HAVE A MINIMUM CALIPER SIZE OF ONE-INCH WITH ROOT BALLS SECURED WITH BURLAP. ROOTSTOCK WILL BE GROUPED WITHIN THE REPLICATION SITE TO APPROXIMATE NATURAL COMMUNITIES AND PROVIDE FOOD AND/OR COVER FOR WILDLIFE.

PLANTINGS SHOULD BE PLACED BY HAND UNDER THE SUPERVISION OF A QUALIFIED PWS. THE PLANTINGS SHALL BE RELOCATED TO LOCATIONS WITH SUITABLE HYDROLOGY AND SOILS AND WHERE APPROPRIATE STRUCTURAL CONTEXT WITH OTHER PLANTINGS CAN BE MAINTAINED. TABLE 8_1 REPRESENTS THE COMPOSITION AND ABUNDANCE OF PLANT SPECIES TO BE PLANTED WITHIN THE REPLICATION AREA.

TABLE 8-1
REPLICATION AREA PLANTING SCHEDULE

Common Name	Scientific Name	Status	Minimum Size	Quantity
Trees = 26				
Red Maple	*Acer rubrum*	FAC	1-2" caliper	7
Yellow Birch	*Betula alleghaniensis*	FAC	1-2" caliper	7
Gray Birch	*Betula populifolia*	FAC	1-2" caliper	6
Pussy Willow	*Salix discolor*	FACW	1-2" caliper	6
Shrubs = 40				
Speckled Alder	*Alnus rugosa*	FACW+	24" minimum	8
Northern Arrow-wood	*Viburnum recognitum*	FAC	24" minimum	8
Northern Spicebush	*Lindera benzoin*	FACW	24" minimum	8
Highbush Blueberry	*Vaccinium corymbosum*	FACW	24" minimum	8
Common Winterberry	*Ilex verticillata*	FACW	24" minimum	8
Ground Cover				
New England Wetland Seed Mix (or equivalent)		Varies	1 lb./2,500 s.f.	**3 lbs.**

Note: Trees and shrubs shall be spaced throughout replication area to simulate natural growth patterns.

SEEDING

A NEW ENGLAND WETLAND SEED MIX (OR EQUIVALENT) WILL BE USED FOR THE REPLICATION AREA. THE NEW ENGLAND WETLAND SEED MIX, CONTAINS A SELECTION OF NATIVE SEEDS WHICH ARE SUITABLE FOR MOST WETLAND REPLICATION SITES THAT ARE NOT PERMANENTLY INUNDATED. THESE SPECIES ARE BEST SUITED TO MOIST DISTURBED GROUND AS FOUND IN MOST WET MEADOWS, SCRUB SHRUB, OR FORESTED WETLAND REPLICATION AREAS. THE SEEDS WILL NOT GERMINATE UNDER INUNDATED CONDITIONS. IF PLANTED DURING THE FALL MONTHS, THE SEED MIX WILL GERMINATE THE FOLLOWING SPRING.

DURING THE FIRST SEASON OF GROWTH, SEVERAL SPECIES WILL PRODUCE SEEDS, WHILE OTHER SPECIES WILL PRODUCE SEEDS AFTER THE SECOND GROWING SEASON. NOT ALL SPECIES WILL GROW IN ALL WETLAND SITUATIONS. THIS MIX IS COMPOSED OF THE WETLAND SPECIES MOST LIKELY TO GROW IN CREATED/RESTORED WETLANDS AND SHOULD PRODUCE MORE THAN 75% GROUND COVER IN TWO FULL GROWING SEASONS. THE MIX SHOULD BE APPLIED ON CLEAN BARE SOIL VIA HYDRO-SEEDING, MECHANICAL SPREADER, OR SPREAD BY HAND (ON SMALLER SITES). THE AREAS WHERE THE MIX IS APPLIED SHOULD BE LIGHTLY RAKED OR ROLLED TO ENSURE PROPER SOIL-SEED CONTACT. THE BEST RESULTS ARE OBTAINED WHEN SEEDING IS APPLIED DURING THE SPRING, WHEREAS LATE SPRING AND SUMMER SEEDING WILL BENEFIT WITH A LIGHT MULCHING OF CLEAN WEED-FREE STRAW TO CONSERVE MOISTURE.

IF CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. LATE FALL AND WINTER DORMANT SEEDING REQUIRE AN INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT RECOMMENDED AND THE PREPARATION OF A CLEAN, WEED FREE SOIL SURFACE IS NECESSARY FOR OPTIMAL RESULTS.

TABLE 8-2 CONTAINS A LIST OF SPECIES IN THE NEW ENGLAND WETLAND SEED MIX PROPOSED TO BE USED (OR EQUIVALENT) IN THE REPLICATION AREA. APPROXIMATELY THREE POUNDS (DEPENDING ON TIME OF YEAR) OF THE NEW ENGLAND WETLAND SEED MIX WILL BE REQUIRED WITHIN THE REPLICATION AREA (ONE POUND PER 2,500 SQUARE FEET).

TABLE 8-2
NEW ENGLAND WETLAND SEED MIXTURE

Species	Latin Name	Indicator Status
Swamp Milkweed	*Asclepias incarnata*	OBL
Starved/Calico Aster	*Aster lateriflorus*	FACW
Beggar Ticks	*Bidens frondosa*	FACW
Fringed/Nodding Sedge	*Carex crinita*	OBL
Hop Sedge	*Carex lupulina*	OBL
Lurid/Shallow Sedge	*Carex lurida*	OBL
Blunt Broom Sedge	*Carex scoparia*	FACW
Fox Sedge	*Carex vulpinoidea*	OBL
Spotted Joe Pye Weed	*Eutrochium maculatum*	OBL
American Mannagrass	*Glyceria grandis*	OBL
Blue Flag	*Iris versicolor*	OBL
Fowl Bluegrass	*Poa palustris*	FACW
Soft Rush	*Juncus effusus*	FACW
Square Stemmed Monkey Flower	*Mimulus ringens*	OBL
Green Bulrush	*Scirpus atrovirens*	OBL
New York Ironweed	*Veronia noveboracensis*	FACW

PLANNED HYDROLOGY

THE PROPOSED LOCATION OF THE REPLICATION AREA IS ADJACENT TO WETLAND A. THE BVW BORDERS ON AN INTERMITTENT STREAM AND IS LOCATED ALONG A SLOPE. HYDROLOGY WITHIN THE BVW IS PROVIDED BY GROUNDWATER PRESENT IN THE SLOPE GROUNDWATER DRAINAGE. HYDROLOGY WITHIN THE REPLICATION AREA WILL BE DRIVEN BY THE SHALLOW DEPTH OF GROUNDWATER, AS WELL AS PRECIPITATION.

IRRIGATION

IF NECESSARY, THE REPLICATION AREA WILL BE IRRIGATED WITH AN APPROVED WATER SOURCE IF NATURAL HYDROLOGICAL CYCLES DO NOT PROVIDE SUFFICIENT WATER TO INITIALLY SUSTAIN THE NEWLY PLANTED VEGETATION. IRRIGATION PRACTICES WILL ONLY BE USED IN DROUGHT SITUATIONS OR IF OTHER INFORESEEN SITUATIONS WARRANT THE NEED FOR IRRIGATION PRACTICES. AFTER PLANTING AND SEEDING, THE REPLICATION AREA SHALL BE MULCHED WITH STRAW. THE MULCH SHALL PROVIDE SUFFICIENT COVER FOR MOISTURE RETENTION, SEED PROTECTION, AND SOIL STABILIZATION. THE MULCH WILL BE FREE OF WEEDS, REEDS, TWIGS, CHAFF, DEBRIS, AND EXCESSIVE AMOUNTS OF SEED AND GRAIN.

8.2 WETLAND RESTORATION

THERE ARE SEVERAL AREAS OF THE SITE WHERE THE EXISTING WETLANDS ARE BEING ACTIVELY AND LEGALLY MAINTAINED AS AGRICULTURAL AND MOWED FIELDS. THESE AREA ARE IDENTIFIED ON THE EXISTING WETLAND DISTURBANCE EXHIBIT (SHEET EX-DIST) INCLUDED IN SECTION III - FIGURES OF THE NOTICE OF INTENT APPLICATION. APPROXIMATELY 12,485 SQUARE FEET OF THESE WETLAND AREAS WILL BE RESTORED. RESTORATION WILL INCLUDE SEEDING PER THE SPECIFICATIONS IN THE PREVIOUS SECTION.

8.3 BUFFER ZONE RESTORATION

TEMPORARILY IMPACTED AREAS OF THE 25-FOOT BUFFER ZONE AND THE 100-FOOT BUFFER ZONE WILL BE RESTORED FOLLOWING COMPLETION OF CONSTRUCTION. THESE AREAS ARE IDENTIFIED ON THE WETLAND & BUFFER ZONE IMPACT EXHIBIT (SHEET BZ-EX) INCLUDED IN SECTION III - FIGURES FOR THE NOTICE OF INTENT APPLICATION. WORK GENERALLY INCLUDES GRADING AND CLEARING FOR CONSTRUCTION OF THE ROADWAYS, RETAINING WALLS, PARKING AREAS, AND OTHER INFRASTRUCTURE. APPROXIMATELY 41,575 SQUARE FEET OF THE 25-FOOT BUFFER ZONE WILL BE RESTORED UPON COMPLETION OF WORK. APPROXIMATELY 113,150 SQUARE FEET OF THE 100-FOOT BUFFER ZONE WILL BE RESTORED UPON COMPLETION OF WORK.

THE NEW ENGLAND SHOWY WILDFLOWER MIX PROVIDES A PERMANENT COVER OF GRASSES, WILDFLOWERS, AND LEGUMES FOR BOTH GOOD EROSION CONTROL AND WILDLIFE HABITAT VALUE. THE MIX IS DESIGNED TO BE A NO MAINTENANCE SEEDING, AND IS APPROPRIATE FOR CUT AND FILL SLOPES, DETENTION BASIN SIDE SLOPES, AND DISTURBED AREAS ADJACENT TO COMMERCIAL AND RESIDENTIAL PROJECTS.

THE MIX SHOULD BE APPLIED ON CLEAN BARE SOIL VIA HYDRO-SEEDING OR MECHANICAL SPREADER. THE AREAS WHERE THE MIX IS APPLIED SHOULD BE LIGHTLY RAKED OR ROLLED TO ENSURE PROPER SOIL-SEED CONTACT. THE BEST RESULTS ARE OBTAINED WHEN SEEDING IS APPLIED DURING THE SPRING, WHEREAS LATE SPRING AND SUMMER SEEDING WILL BENEFIT WITH A LIGHT MULCHING OF CLEAN WEED-FREE STRAW TO CONSERVE MOISTURE.

IF CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. LATE FALL AND WINTER DORMANT SEEDING REQUIRE AN INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT RECOMMENDED AND THE PREPARATION OF A CLEAN, WEED FREE SOIL SURFACE IS NECESSARY FOR OPTIMAL RESULTS.

TABLE 8-3 CONTAINS A LIST OF SPECIES IN THE NEW ENGLAND SHOWY WILDFLOWER SEED MIX SEED MIX PROPOSED TO BE USED (OR EQUIVALENT) IN THE RESTORATION AREA.

TABLE 8-3
SHOWY WILDFLOWER SEED MIX

Species	Latin Name	Indicator Status
Little Bluestem	*Schizachyrium scoparium*	FACU
Partridge Pea	*Chamaecrista fasciculata*	FACU
Indian Grass	*Sorghastrum nutans*	UPL
Creeping Red Fescue	*Festuca rubra*	FACU
Canada Wild Rye	Elymus canadensis	FACU+
Riverbank Wild Rye	*Elymus riparius*	FACW
Ox Eye Sunflower	*Heliopsis helianthoides*	UPL
Lance Leaved Coreopsis	*Coreopsis lanceolata*	FACU
Black Eyed Susan	*Rudbeckia hirta*	FACU-
Marsh Blazing Star	*Liatris spicata*	FAC+
Common Milkweed	*Asclepias syriaca*	FACU-
New York Ironweed	*Vernonia noveboracensis*	FACW+
New England Aster	*Aster novae-angliae*	FACW-
Purple Joe Pye Weed	*Eupatorium purpureum*	FAC
Butterfly Milkweed	*Asclepias tuberosa*	NI
Early Goldenrod	*Solidago juncea*	NI
Boneset	*Eupatorium perfoliatum*	FACW

8.4 STREAM RESTORATION

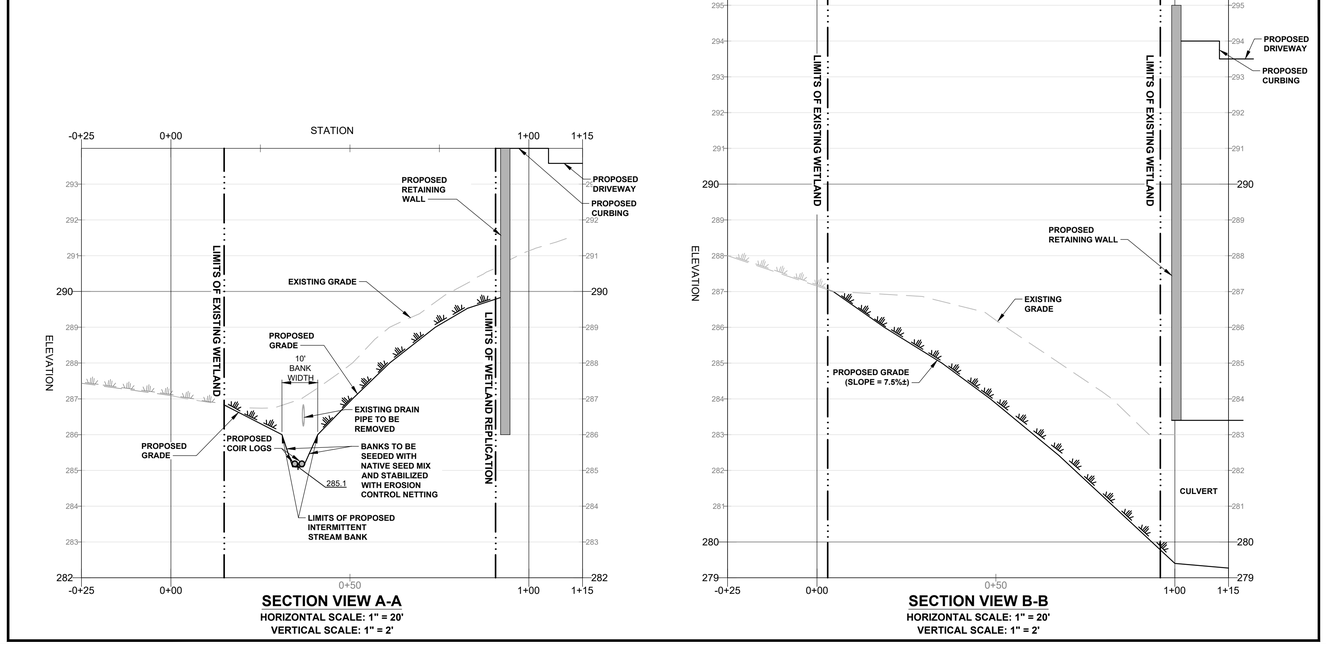
THE APPLICANT IS PROPOSING TO DAYLIGHT APPROXIMATELY 180 LINEAR FEET OF THE CULVERTED STREAM WEST OF THE PROPOSED NORTHERN STREAM CROSSING, ENCOMPASSING AN AREA OF APPROXIMATELY 910 SQUARE FEET WITHIN THE PROPOSED WETLAND REPLICATION AREA. THE SITE PLANS INCLUDE THE DETAILS FOR THE PROPOSED DAYLIGHTING OF THE STREAM.

UPON REMOVAL OF THE EXISTING PIPE, ANY NON-NATIVE FILL WILL BE REMOVED AND THE EXISTING SUBSTRATE WILL BE UTILIZED AS THE STREAMBED. SHOULD THE EXISTING, UNDERLYING MATERIAL/SUBSTRATE WITHIN THE EXISTING STREAMBED WHERE THE STREAM DAYLIGHTING IS PROPOSED NOT BE SUITABLE OR THE DEPTH OF FILL IS DEEPER THAN ANTICIPATED, THE APPLICANT SHALL NOTIFY THE CONSERVATION AGENT AND/OR THE COMMISSION AND PROVIDE A STREAM SUBSTRATE SPECIFICATION FOR REVIEW AND APPROVAL. CONSERVATION AGENT AND/OR CONSERVATION COMMISSION APPROVAL MUST BE GRANTED PRIOR TO THE CONTINUATION OF WORK.

8.5 MONITORING

MONITORING OF THE RESTORATION/REPLICATION AREAS WILL BE PERFORMED BY A QUALIFIED PWS TO ENSURE SUCCESSFUL PLANT ESTABLISHMENT FOR A MINIMUM TWO YEARS IN ACCORDANCE WITH ALL APPLICABLE PERMIT CONDITIONS. THE FIRST INSPECTION WILL TAKE PLACE AFTER THE FIRST GROWING SEASON OR 180 GROWING SEASON DAYS AFTER PLANTING. TWO INSPECTIONS WILL OCCUR EACH YEAR, ONE IN THE LATE SPRING AND ANOTHER IN THE EARLY FALL. A YEARLY MONITORING REPORT WILL BE PREPARED AND SUBMITTED TO THE APPROPRIATE REGULATORY AGENCIES AND WILL DESCRIBE THE WORK COMPLETED AND VEGETATION WITHIN THE RESTORED SITE AS WELL AS ANY ACTION TO BE TAKEN TO REPAIR, RESTORE, OR REPLANT THE AREA IF NEEDED.

AFTER THE INSPECTIONS, THE CONTRACTOR WILL REPLACE ALL PLANTS THAT HAVE NOT BECOME ESTABLISHED AND RE-SEED AREAS THAT HAVE NOT REACHED THE DESIRED 75% PERCENT COVER OF NATIVE VEGETATION. ONCE ALL AREAS HAVE BEEN STABILIZED WITH VEGETATION AND MONITORING IS COMPLETE, THE EROSION CONTROL AND SILTATION BARRIERS SHALL BE REMOVED. IF CONDITIONS DEVELOP THAT IMPEDE THE SUCCESS OF THE RESTORATION/REPLICATION EFFORTS, CORRECTIVE ACTION SHALL BE TAKEN. IF THE REQUIRED CORRECTIVE MEASURES ARE MINOR IN NATURE, INCLUDING ADDITIONAL EROSION CONTROLS, REMOVAL OF UNDESIRABLE INVASIVE PLANTS, OR MINOR RE GRADING/RE-SEEDING, THEN THE WORK SHALL BE PERFORMED AS REQUIRED.



SECTION VIEW A-A
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

SECTION VIEW B-B
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

NOTE:
SEE SHEETS C-1C & C-1D FOR EROSION AND SEDIMENT CONTROL MEASURES DURING THE REMOVAL OF THE EXISTING DRAIN PIPE CULVERT AND CONSTRUCTION OF THE INTERMITTENT STREAM

HORIZONTAL SCALE
20 0 10 20 40
VERTICAL SCALE
(IN FEET)
2 0 1 2 4

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NO.	REVISION	DATE
6.	90% CD SET	07/01/2025
5.	100% DD SET	03/25/2025
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
3.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
1.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024

DESIGNED BY: MAC
DRAWN BY: MCR
REVIEWED BY: BJM
SCALE: AS NOTED

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL: COMMONWEALTH OF MASSACHUSETTS · BRIAN P. DUNDON · CIVIL · No. 41505 · REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
WETLAND REPLICATION PLAN

DRAWING NUMBER:
C-2C

DATE: 12/18/2023 PROJECT NO.: 22016

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Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-2C Wetland Replication Plan.dwg
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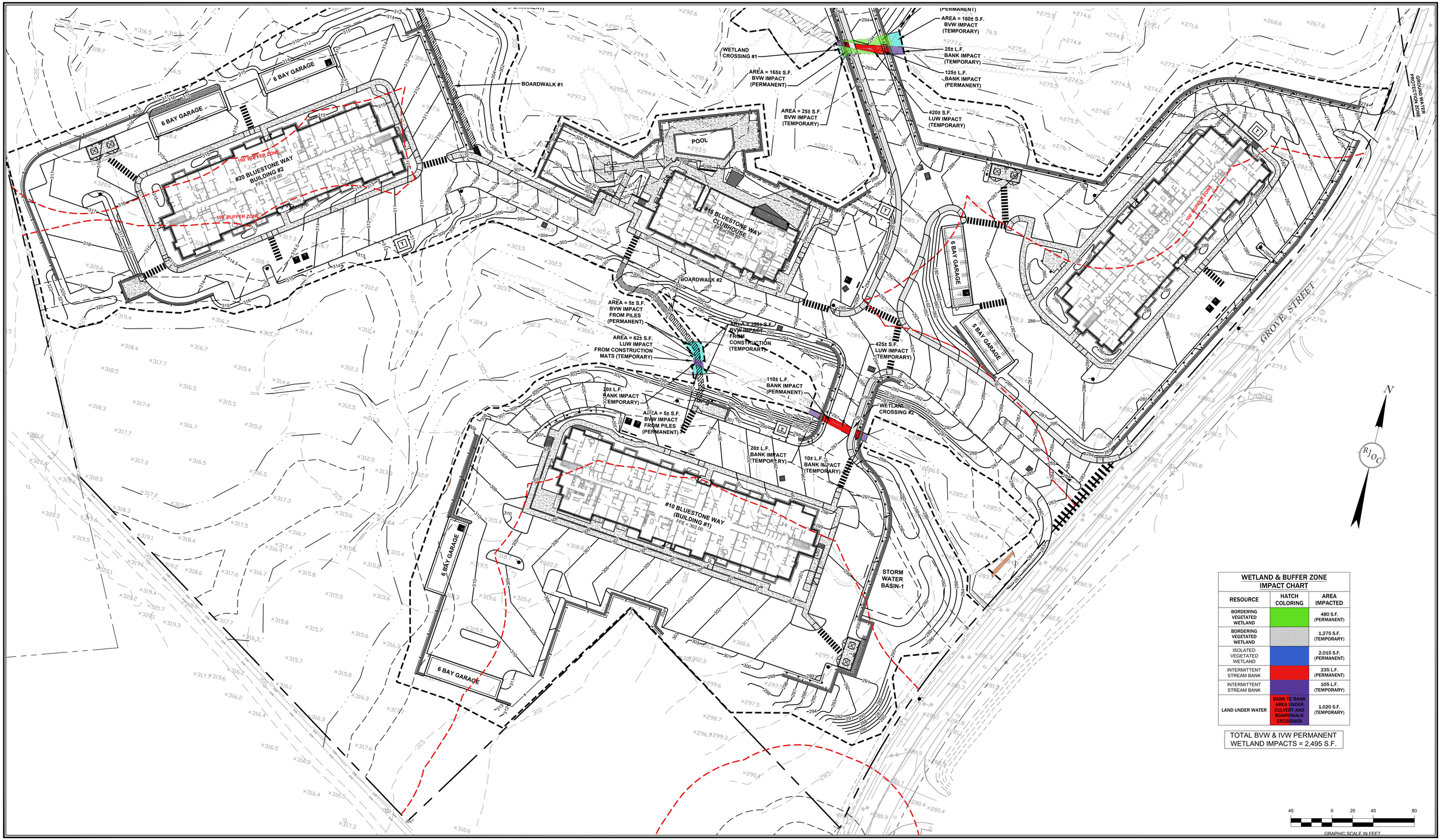

WETLAND & BUFFER ZONE IMPACT CHART		
RESOURCE	HATCH COLORING	AREA IMPACTED
BORDERING VEGETATED WETLAND		480 S.F. (PERMANENT)
BORDERING VEGETATED WETLAND		1,275 S.F. (TEMPORARY)
ISOLATED VEGETATED WETLAND		2,015 S.F. (PERMANENT)
INTERMITTENT STREAM BANK		235 L.F. (PERMANENT)
INTERMITTENT STREAM BANK		105 L.F. (TEMPORARY)
LAND UNDER WATER	BANK TO BANK AREA UNDER CULVERT AND BOARDWALK CROSSINGS	1,020 S.F. (TEMPORARY)

TOTAL BVW & IVW PERMANENT WETLAND IMPACTS = 2,495 S.F.

40 0 20 40 80

GRAPHIC SCALE IN FEET

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1.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
RESOURCE AREA IMPACT PLAN

DRAWING NUMBER:
C-2D

DATE: 03/28/2024 PROJECT NO.: 22016

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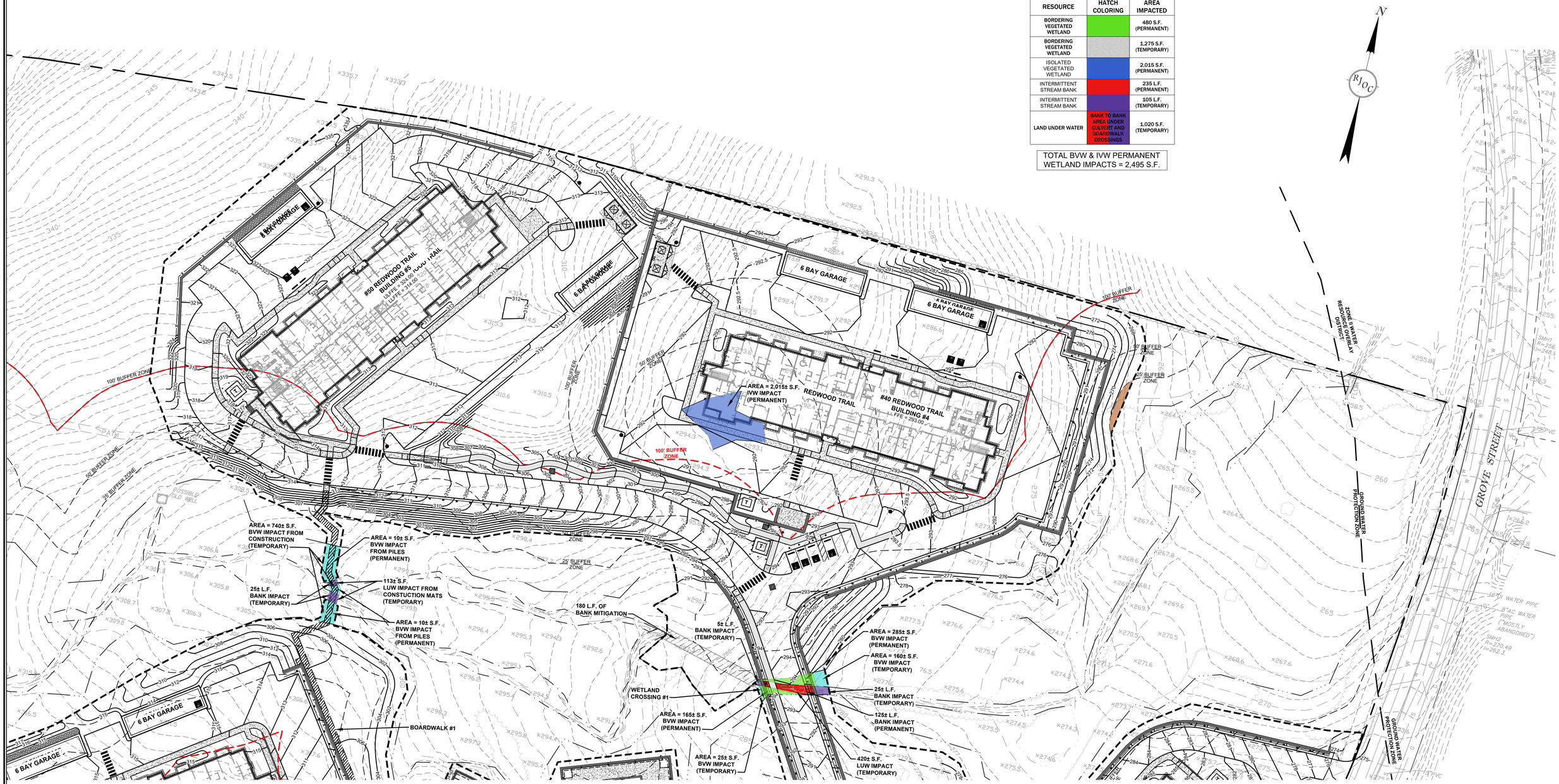
Jul 01, 2025 - 11:57am

WETLAND & BUFFER ZONE IMPACT CHART		
RESOURCE	HATCH COLORING	AREA IMPACTED
BORDERING VEGETATED WETLAND		480 S.F. (PERMANENT)
BORDERING VEGETATED WETLAND		1,275 S.F. (TEMPORARY)
ISOLATED VEGETATED WETLAND		2,015 S.F. (PERMANENT)
INTERMITTENT STREAM BANK		235 L.F. (PERMANENT)
INTERMITTENT STREAM BANK		105 L.F. (TEMPORARY)
LAND UNDER WATER	BANK TO BANK AREA UNDER CULVERT AND BOARDWALK CROSSINGS	1,020 S.F. (TEMPORARY)

TOTAL BVW & IVW PERMANENT WETLAND IMPACTS = 2,495 S.F.



40 0 20 40 80

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DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

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30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

RESOURCE AREA IMPACT PLAN

DRAWING NUMBER:

C-2E

DATE: 03/28/2024 PROJECT NO.: 22016

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MATCHLINE A
MATCHLINE B

MATCHLINE A
MATCHLINE B

#20 BLUESTONE WAY
BUILDING #2
FFE = 316.90

#15 BLUESTONE WAY
CLUBHOUSE
FFE = 296.90

#10 BLUESTONE WAY
(BUILDING #1)
FFE = 302.00

6 BAY GARAGE

5 BAY GARAGE

POOL

STORM WATER BASIN-1

GROVE STREET

ELEVATOR OIL/WATER SEPARATOR & SAMPLE WELL (BY MEP)

FIRE DEPARTMENT SIAMESE CONNECTION
I=309.00
(DSMH-15)

SUBSURFACE PROPANE TANK

ELEVATOR OIL/WATER SEPARATOR & SAMPLE WELL (BY MEP)

FIRE DEPARTMENT SIAMESE CONNECTION

ELEVATOR OIL/WATER SEPARATOR & SAMPLE WELL (BY MEP)

FIRE DEPARTMENT SIAMESE CONNECTION

ELEVATOR OIL/WATER SEPARATOR & SAMPLE WELL (BY MEP)

DSMH-15
R=310.90
I=308.30(BLDG-2)
I=304.30(DSMH-14)

DSMH-14
R=308.20
I=302.00(DSMH-15)
I=298.00(DSMH-13)

DSMH-13
R=302.60
I=296.50(DSMH-14)
I=292.50(SMH-12)

SMH-12
R=298.20
I=288.85(DSMH-13)
I=289.20(CLUBHOUSE)
I=288.75(DSMH-4)

DSMH-4
R=294.30
I=282.60(DSMH-11)
I=283.00(DSMH-12)
I=272.55(SMH-5)
I=272.55(SMH-3)

SMH-6
R=291.60
I=274.15(DSMH-7)
I=274.05(SMH-5)

SMH-5
R=289.10
I=273.40(SMH-6)
I=273.30(DSMH-4)

I=289.52
(SMH-12)

I=282.10
(DSMH-2)

SMH-3
R=290.50
I=272.00(DSMH-4)
I=271.90(DSMH-2)

DSMH-2
R=287.90
I=280.85(BLDG-3)
I=271.70(SMH-3)
I=271.60(SMH-1)

DSMH-11
R=297.40
I=293.90(BLDG-1)
I=283.90(DSMH-4)
I=295.00(DSMH-11)

SMH-1
R=283.20
I=270.90(DSMH-2)
I=270.65(EXIST.)

SMH3
R=277.74
I(SMH)=268.6
I(4)=268.6
I(2)=268.5

SMH4
R=280.46
I(5)=269.6
I(3)=269.6

SMH5
R=282.66
I(6)=270.4
I(4)=270.4

SMH6
R=280.76
I(7)=271.5
I(3)=271.5

SEE DWG. C-9 FOR INTERMITTENT STREAM CROSSING NO.1 DETAIL

SEE DWG. C-9 FOR INTERMITTENT STREAM CROSSING NO.2 DETAIL

16"x16"x8" TAPPING SLEEVE, 8" GATE VALVE AND ROAD BOX TO GRADE

EXISTING HYDRANT TO BE REPLACED

HYDRANT

HOSE BIB

TRANSFORMER

VACUUM

4" DS

6" FS

6" CLDI

8" PVC

8" DI WATER PIPE

16" DI WATER PIPE

8" AC WATER PIPE ("MOSTLY ABANDONED")

15" PVC

6" CS-HP GAS

BURIED AERIAL LINES

PSIS-1

PSIS-2

PSIS-3

PSIS-6

PSIS-7

PSDS-1

PSDS-2

100' BUFFER ZONE

50' BUFFER ZONE

25' BUFFER ZONE

ORDER OF CONDITIONS
DEP FILE #159-1286
(DEED 39702, BOOK 310):
THE SITE IS SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE TOWN OF FRANKLIN CONSERVATION COMMISSION ON 06/18/2024.

LEGEND	DESCRIPTION
	AREA DRAIN
	CATCH BASIN
	DRAIN MANHOLE
	DRAIN PIPE
	FIRE HYDRANT
	RETAINING WALL
S	SEWER LINE
S	SEWER MANHOLE
W	WATER LINE
DS	DOMESTIC WATER SERVICE
FS	FIRE WATER SERVICE
UE	UNDERGROUND ELECTRIC LINE
NWF	UNDERGROUND NATIONAL WIFI LINE
	LIGHT POLE
	ELECTRIC HANDHOLE
	TELECOM HANDHOLE

N

40 0 20 40 80
GRAPHIC SCALE IN FEET

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NO.	REVISION	DATE
9.	90% CD SET	07/01/2025
8.	ISSUED TO NATIONAL GRID	05/08/2025
7.	ADDED NATIONAL WIFI	05/08/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY: MAC
DRAWN BY: MCR
REVIEWED BY: BJM
SCALE: 1" = 40'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:
COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:
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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
UTILITY PLAN

DRAWING NUMBER:
C-3A

DATE: 10/30/2023 PROJECT NO.: 22016

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Jul 31, 2025 - 9:13am

LEGEND	DESCRIPTION
	AREA DRAIN
	CATCH BASIN
	DRAIN MANHOLE
	DRAIN PIPE
	FIRE HYDRANT
	RETAINING WALL
S	SEWER LINE
S	SEWER MANHOLE
W	WATER LINE
DS	DOMESTIC WATER SERVICE
FS	FIRE WATER SERVICE
UE	UNDERGROUND ELECTRIC LINE
UT	UNDERGROUND TELEPHONE LINE
	LIGHT POLE
	ELECTRIC HANDHOLE
	TELECOM HANDHOLE

ORDER OF CONDITIONS
DEP FILE #159-1286
(DEED 39702, BOOK 310):
THE SITE IS SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE TOWN OF FRANKLIN CONSERVATION COMMISSION ON 06/18/2024.

UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" (1-800-344-7233) AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN
2. EXISTING SITE FEATURES AND TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A SURVEY PLAN TITLED "EXISTING CONDITIONS SITE PLAN, 121 GROVE STREET, FRANKLIN, MA" BY GUERRIERE & HANLON, INC. DATED 05/20/2022, REVISED THROUGH 11/09/2023.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL HORIZONTAL CONTROL POINTS AND ELEVATION BENCH MARKS NECESSARY FOR THE WORK.

GAS NOTES

1. THE PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, BACKFILL AND COMPACTION OF THE GAS LINE IN ACCORDANCE WITH THE SITE WORK AND/OR GAS COMPANY SPECIFICATIONS (MORE STRINGENT SPECIFICATIONS WILL APPLY). THE CONTRACTOR IS ALSO RESPONSIBLE FOR FURNISHING AND INSTALLING PIPE BOLLARDS AS REQUIRED BY THE GAS COMPANY AND/OR LOCAL INSPECTOR IN ORDER TO PROTECT ABOVE GROUND GAS EQUIPMENT.

SEWER NOTES

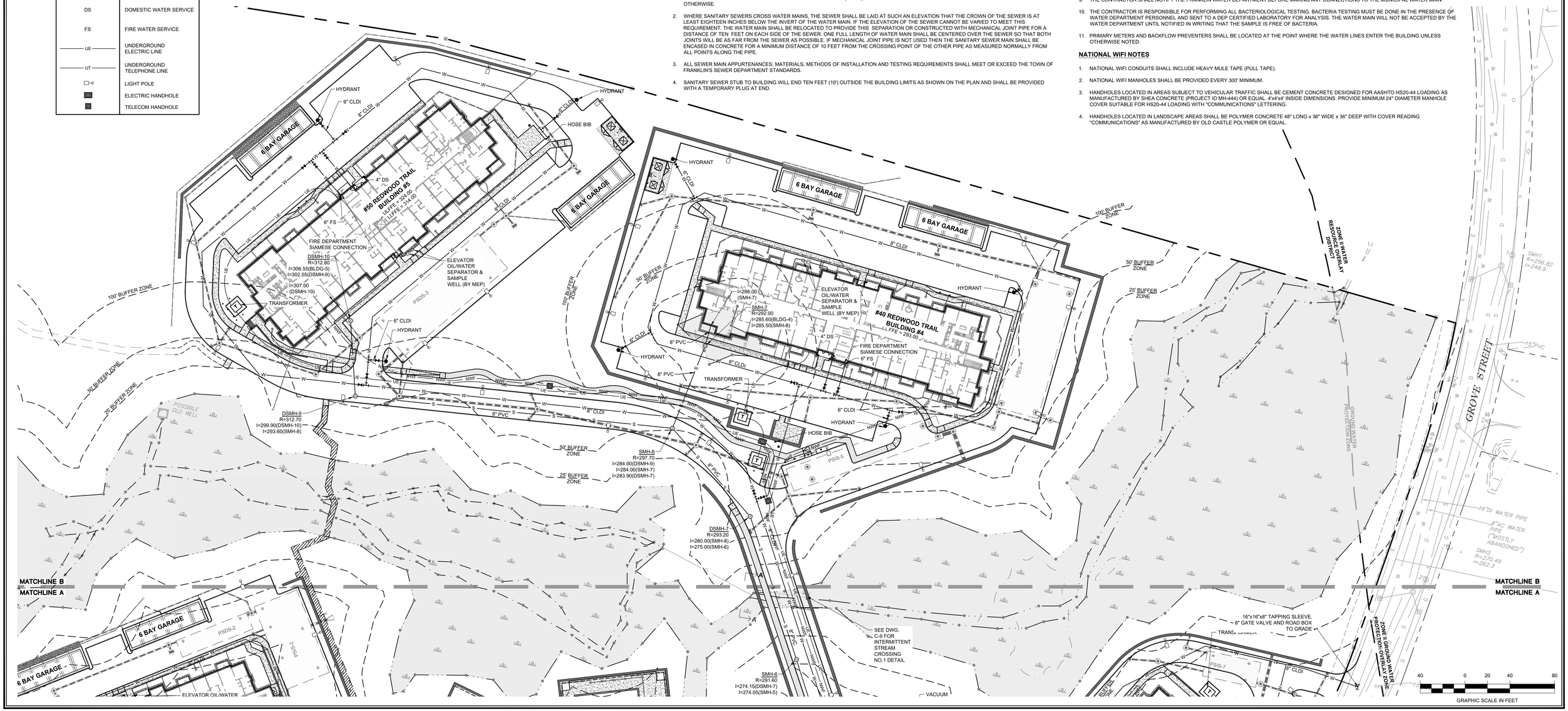
1. ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE PIPE (P.V.C.), S.D.R. 35 AND SHALL CONFORM WITH ASTM-D3034 UNLESS NOTED OTHERWISE.
2. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST EIGHTEEN INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IF MECHANICAL JOINT PIPE IS NOT USED THEN THE SANITARY SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
3. ALL SEWER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED THE TOWN OF FRANKLIN'S SEWER DEPARTMENT STANDARDS.
4. SANITARY SEWER STUB TO BUILDING WILL END TEN FEET (10') OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.

WATER NOTES

1. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5 FEET OF COVER AND A MAXIMUM OF 6 FEET OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
2. GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. THE CONTRACTOR SHALL NOTE THAT NOT ALL FITTINGS REQUIRED UNDER THE CONTRACT ARE NOTED, SHOWN, OR INDICATED.
3. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER MAINS AND WATER MAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
4. DOMESTIC WATER SERVICE 3" OR SMALLER SHALL BE TYPE K COPPER TUBING AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED CORPORATION STOP WITH APPROVED SADDLE, CURB STOP, AND BOX. DOMESTIC WATER MAIN SHALL BE INSTALLED OVER SEWER MAIN WITH A MINIMUM VERTICAL SEPARATION OF EIGHTEEN INCHES (18") AT THEIR CROSSING.
5. ALL WATER MAINS 4" AND LARGER SHALL BE CEMENT LINED DUCTILE IRON CLASS 52 AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED FITTINGS AND GATE VALVES.
6. ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED THE TOWN OF FRANKLIN WATER STANDARDS.
7. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH THE TOWN OF FRANKLIN WATER DEPARTMENT STANDARDS AND REQUIREMENTS. IN THE ABSENCE OF STANDARDS, THEY SHALL CONFORM TO THE REQUIREMENTS OF THE SITE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE TOWN OF FRANKLIN'S WATER DEPARTMENT. COPIES OF TEST RESULTS WILL BE SUBMITTED TO THE FRANKLIN WATER DEPARTMENT FOR THEIR RECORDS.
8. ALL WATER LEADS TO THE BUILDING WILL TERMINATE TEN FEET (10') OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.
9. THE CONTRACTOR SHALL NOTIFY THE FRANKLIN WATER DEPARTMENT BEFORE MAKING ANY CONNECTIONS TO THE MUNICIPAL WATER MAIN.
10. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL BACTERIOLOGICAL TESTING. BACTERIA TESTING MUST BE DONE IN THE PRESENCE OF WATER DEPARTMENT PERSONNEL AND SENT TO A DEP CERTIFIED LABORATORY FOR ANALYSIS. THE WATER MAIN WILL NOT BE ACCEPTED BY THE WATER DEPARTMENT UNTIL NOTIFIED IN WRITING THAT THE SAMPLE IS FREE OF BACTERIA.
11. PRIMARY METERS AND BACKFLOW PREVENTERS SHALL BE LOCATED AT THE POINT WHERE THE WATER LINES ENTER THE BUILDING UNLESS OTHERWISE NOTED.

NATIONAL WIFI NOTES

1. NATIONAL WIFI CONDUITS SHALL INCLUDE HEAVY MULE TAPE (PULL TAPE).
2. NATIONAL WIFI MANHOLES SHALL BE PROVIDED EVERY 300' MINIMUM.
3. HANDHOLES LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC SHALL BE CEMENT CONCRETE DESIGNED FOR AASHTO HS20-44 LOADING AS MANUFACTURED BY SHEA CONCRETE (PROJECT ID MH-444) OR EQUAL. 4'x4'x4' INSIDE DIMENSIONS. PROVIDE MINIMUM 24" DIAMETER MANHOLE COVER SUITABLE FOR HS20-44 LOADING WITH "COMMUNICATIONS" LETTERING.
4. HANDHOLES LOCATED IN LANDSCAPE AREAS SHALL BE POLYMER CONCRETE 48" LONG x 36" WIDE x 36" DEEP WITH COVER READING "COMMUNICATIONS" AS MANUFACTURED BY OLD CASTLE POLYMER OR EQUAL.



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7.	ADDED NATIONAL WIFI NOTES	05/08/2025
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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

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SUITE 105
BRAINTREE, MA 02184

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7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B

DATE: 10/30/2023 PROJECT NO.: 22016

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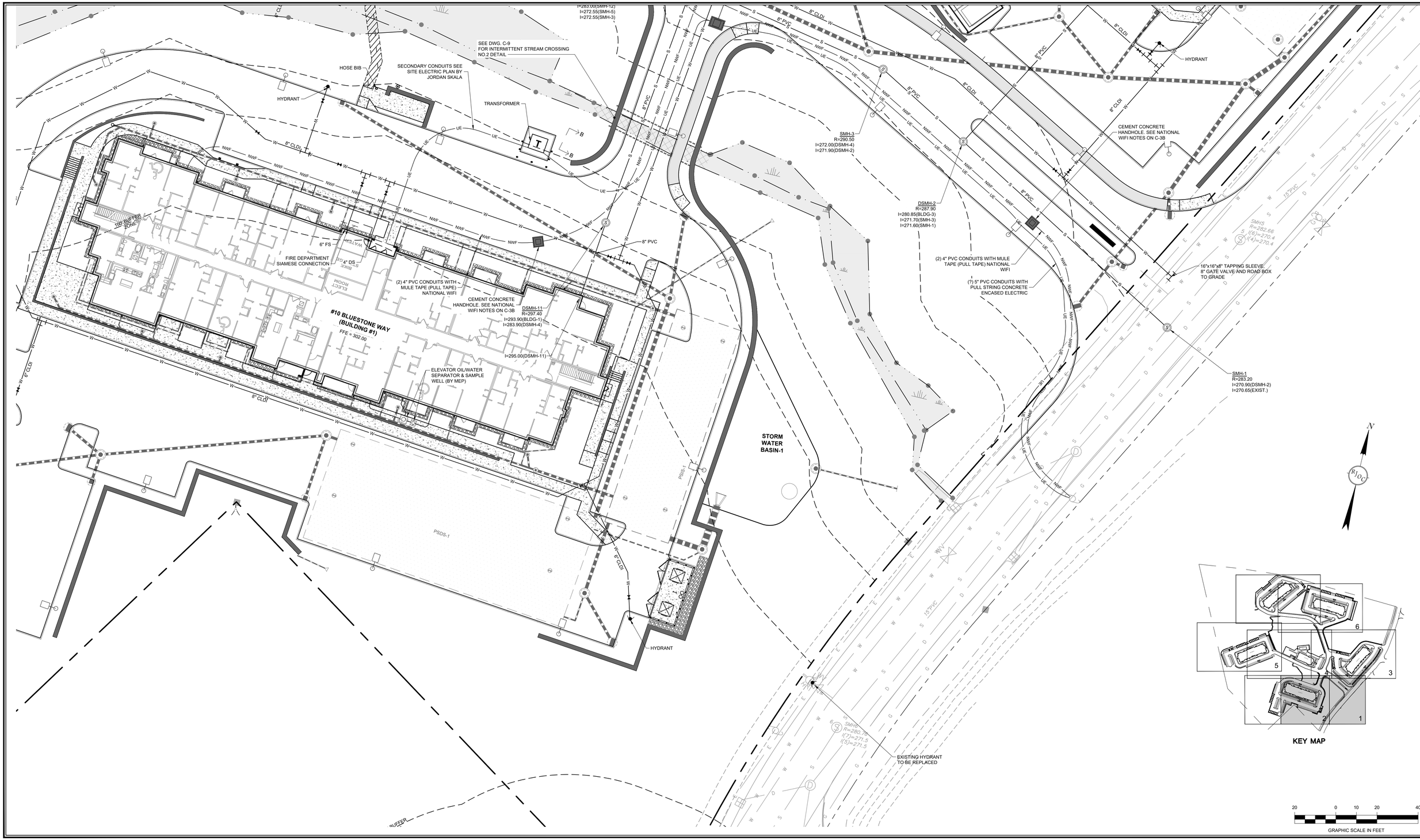

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NO.	REVISION	DATE
4.	90% CD SET	07/01/2025
3.	ISSUED TO NATIONAL GRID	05/08/2025
2.	ADDED NATIONAL WIFI	05/08/2025
1.	100% DD SET	03/25/2025

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 20'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

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FRANKLIN, MA

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DRAWING NUMBER:

C-3B-1

DATE: 03/25/2025 PROJECT NO.: 22016

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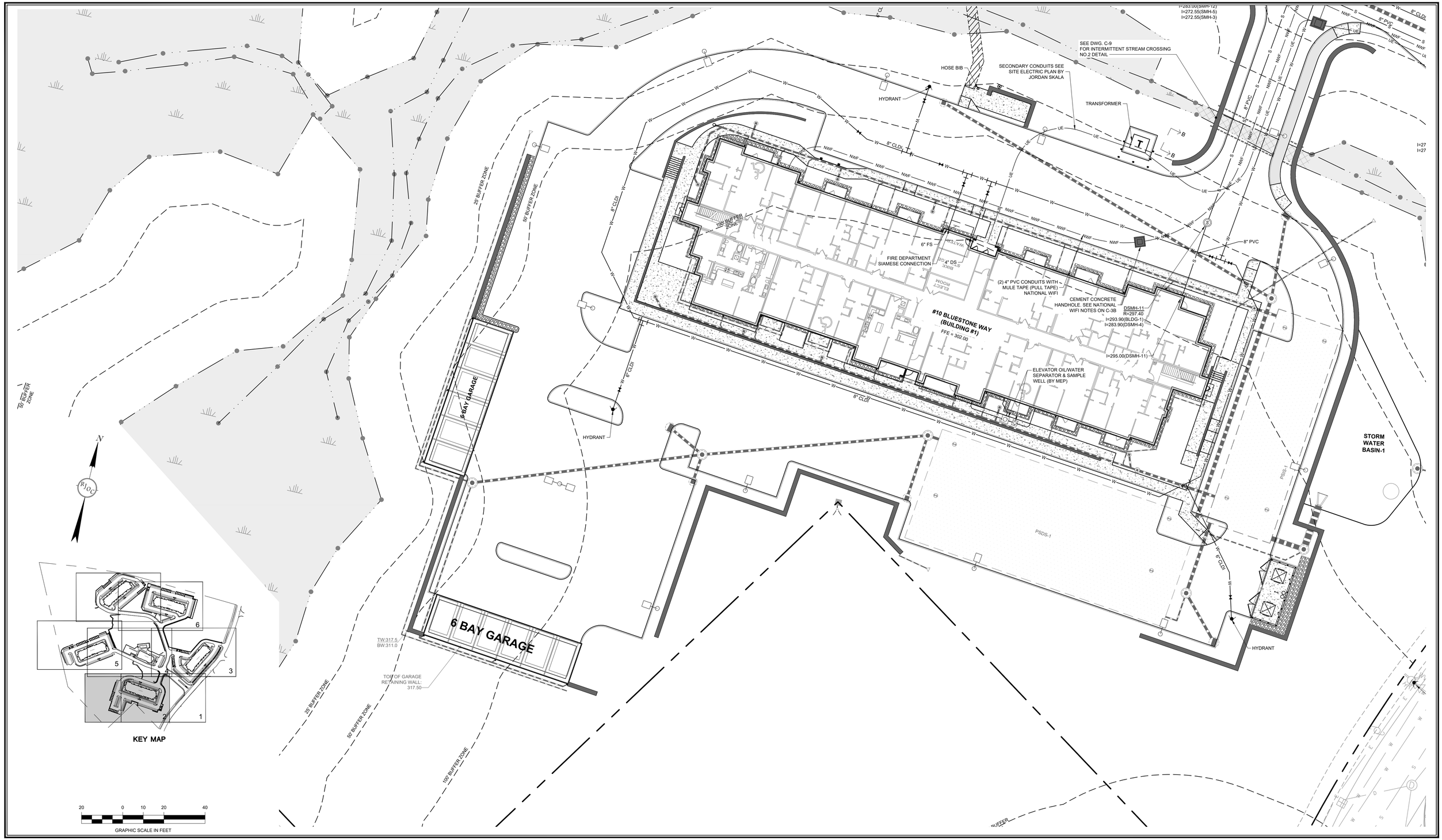

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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B-2

DATE: 03/25/2025 PROJECT NO.: 22016

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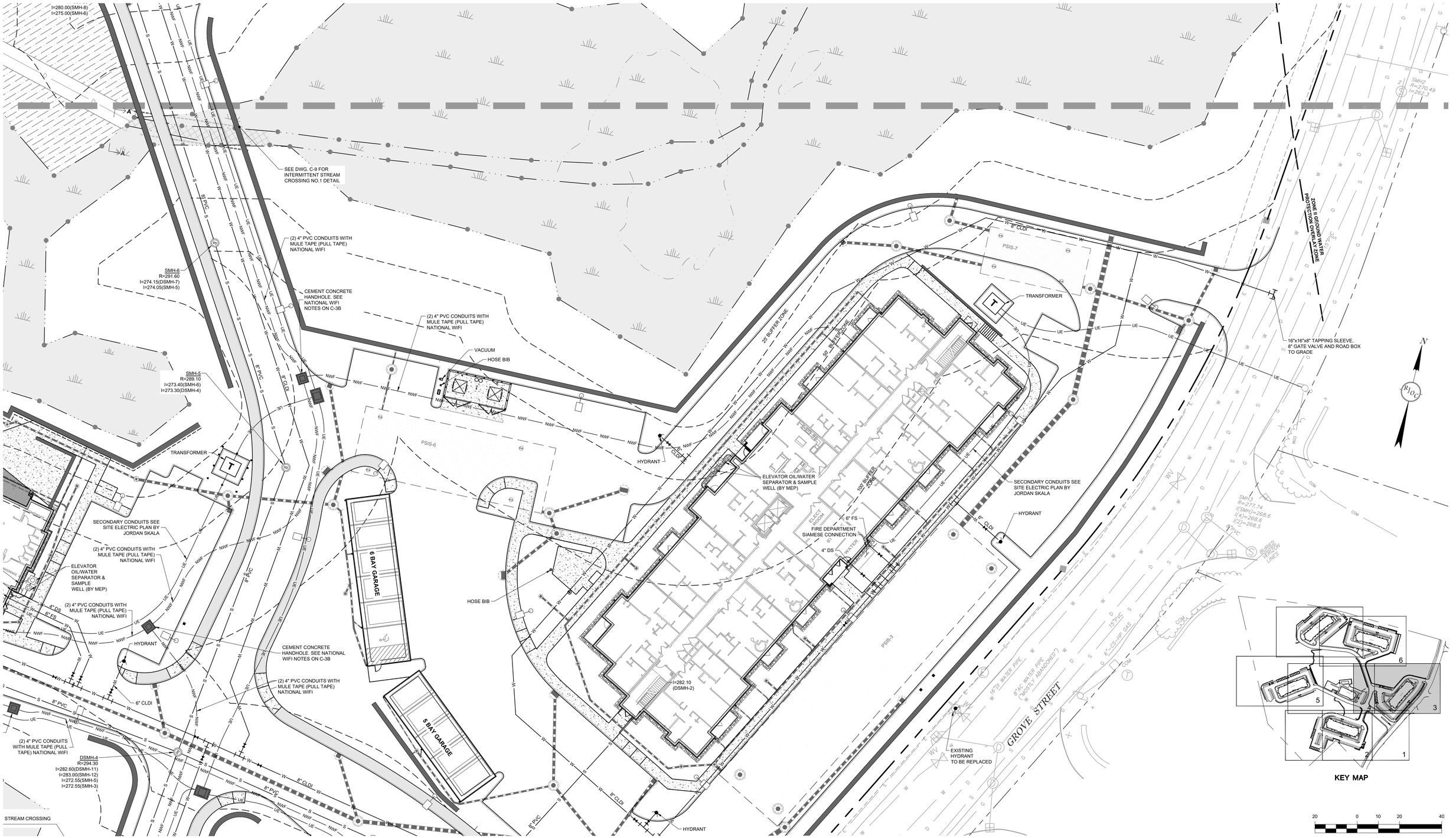

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30 BRAINTREE HILL OFFICE PARK
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BRAINTREE, MA 02184

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7-1-2025

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PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B-3

DATE: 03/25/2025 PROJECT NO.: 22016

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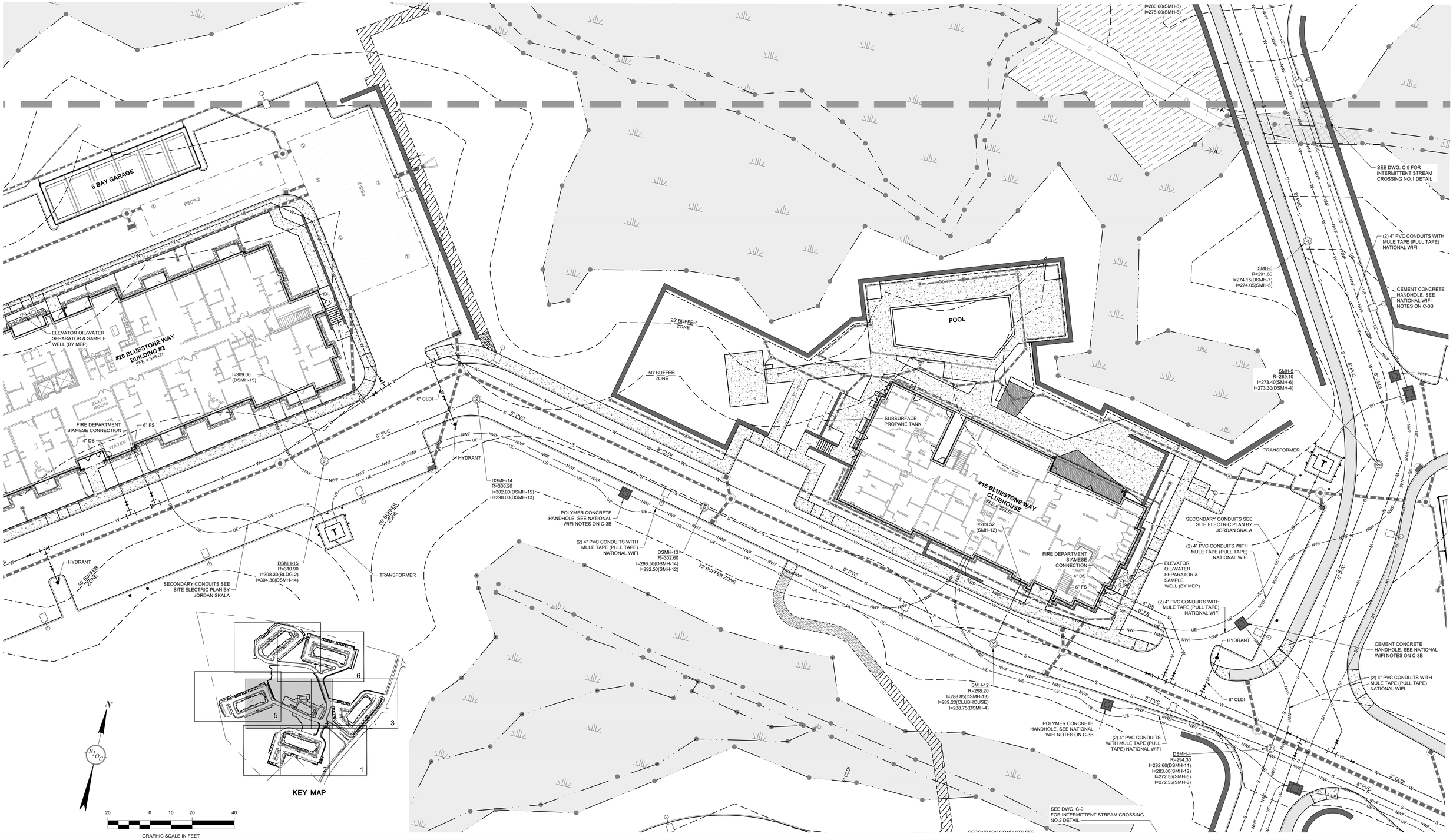

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BRIAN P. DUNDON
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3-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B-4

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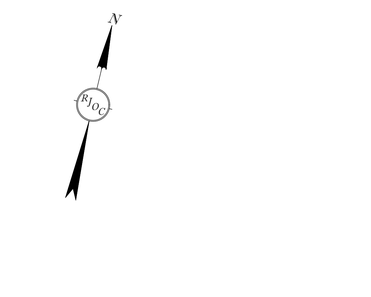
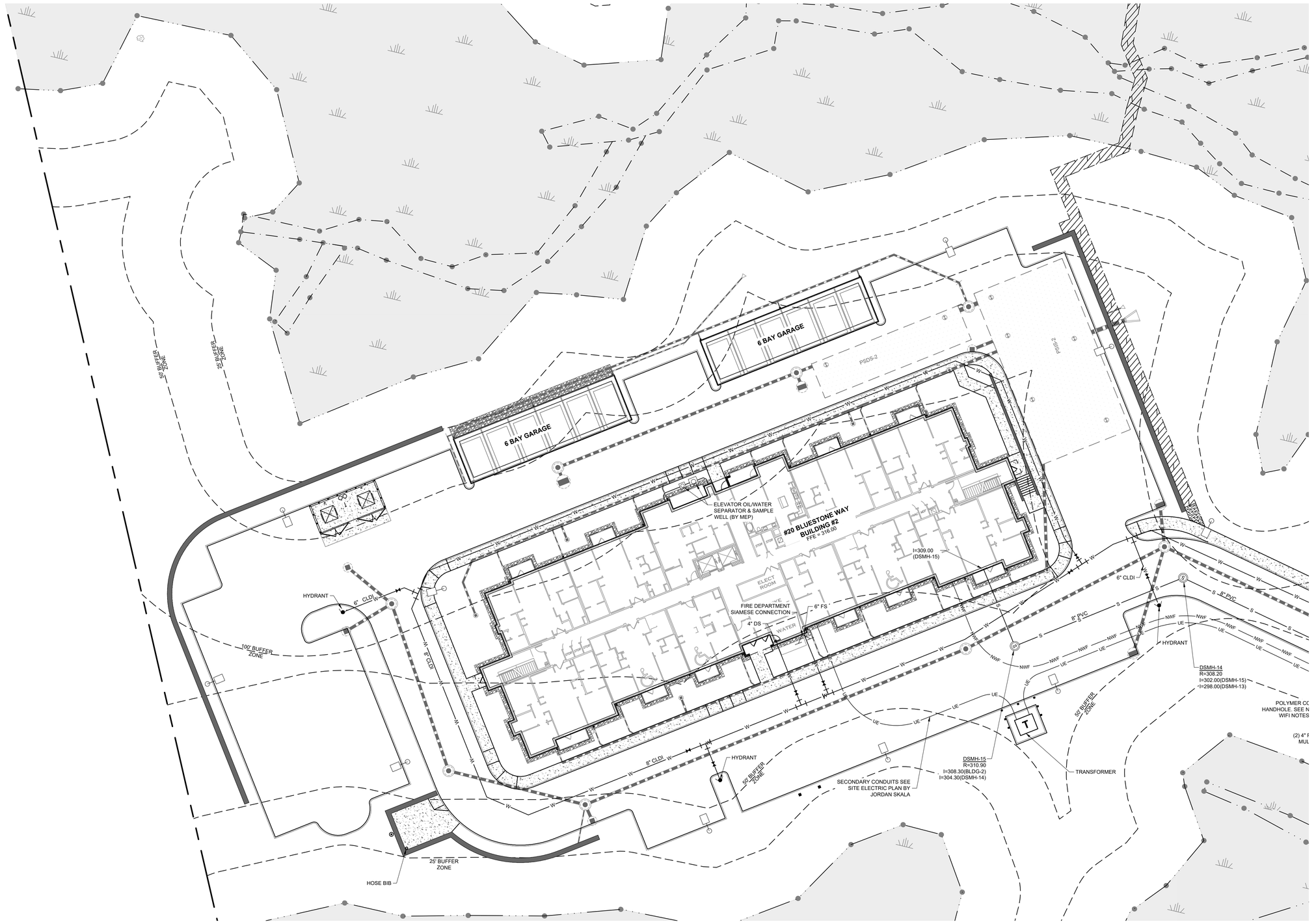


KEY MAP

GRAPHIC SCALE IN FEET



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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B-5

DATE: 03/25/2025 PROJECT NO.: 22016

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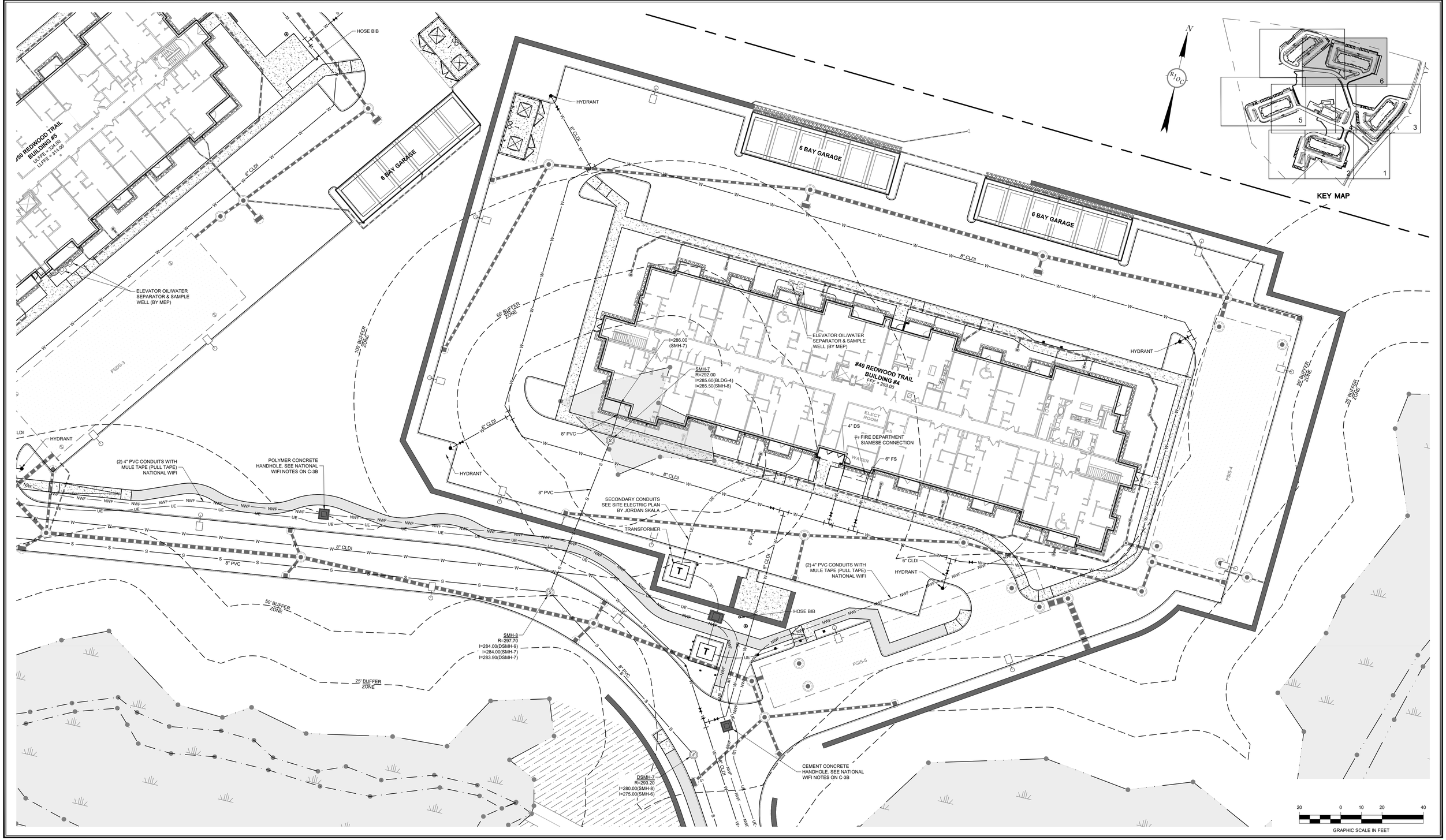

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1.	100% DD SET	03/25/2025

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PREPARED FOR:

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30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

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BRIAN P. DUNDON
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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C-3B-6

DATE: 03/25/2025 PROJECT NO.: 22016

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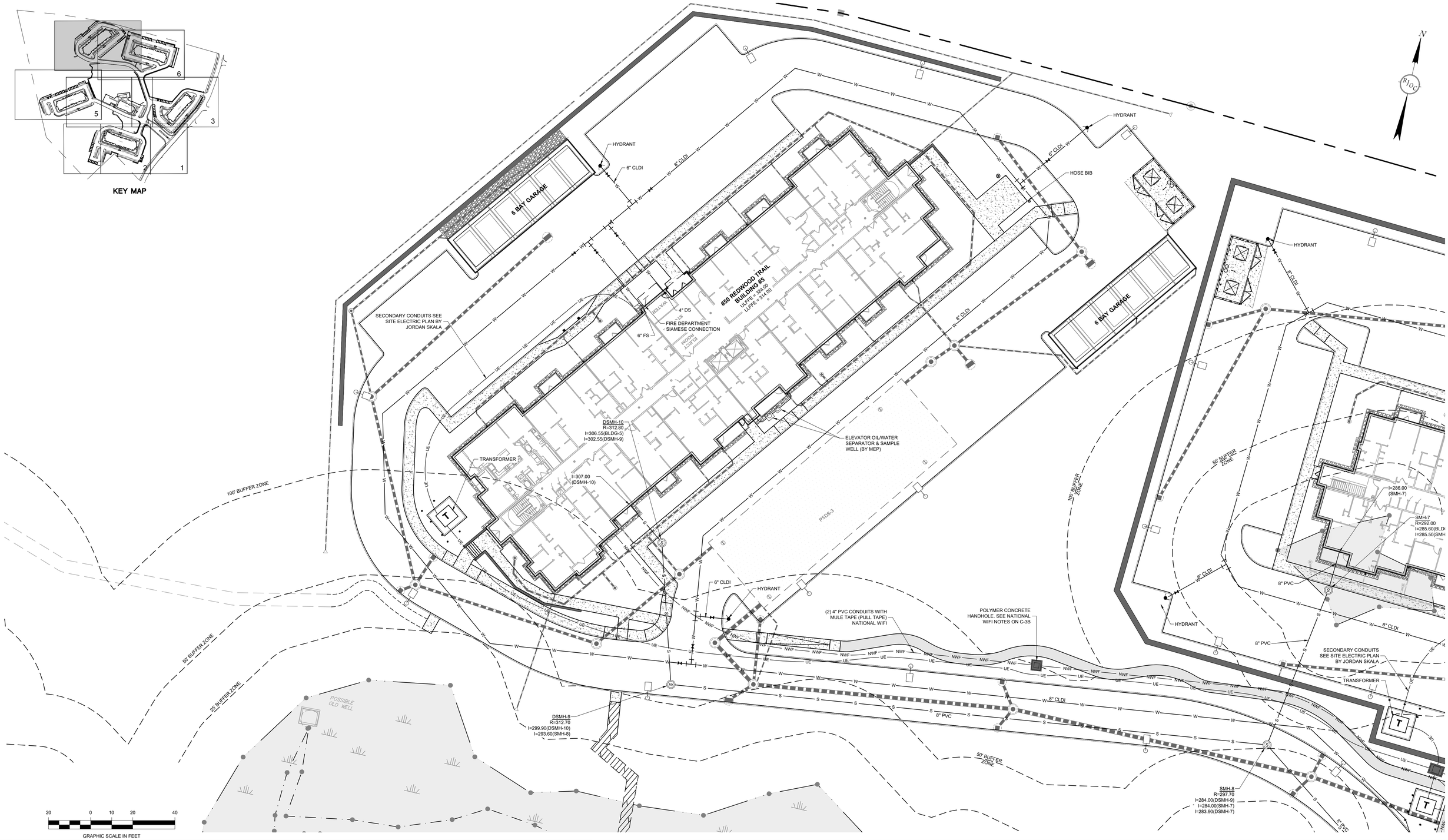
KEY MAP



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REVIEWED BY:	BJM
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FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

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BRIAN P. DUNDON
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No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
UTILITY PLAN

DRAWING NUMBER:
C-3B-7

DATE: 03/25/2025 PROJECT NO.: 22016

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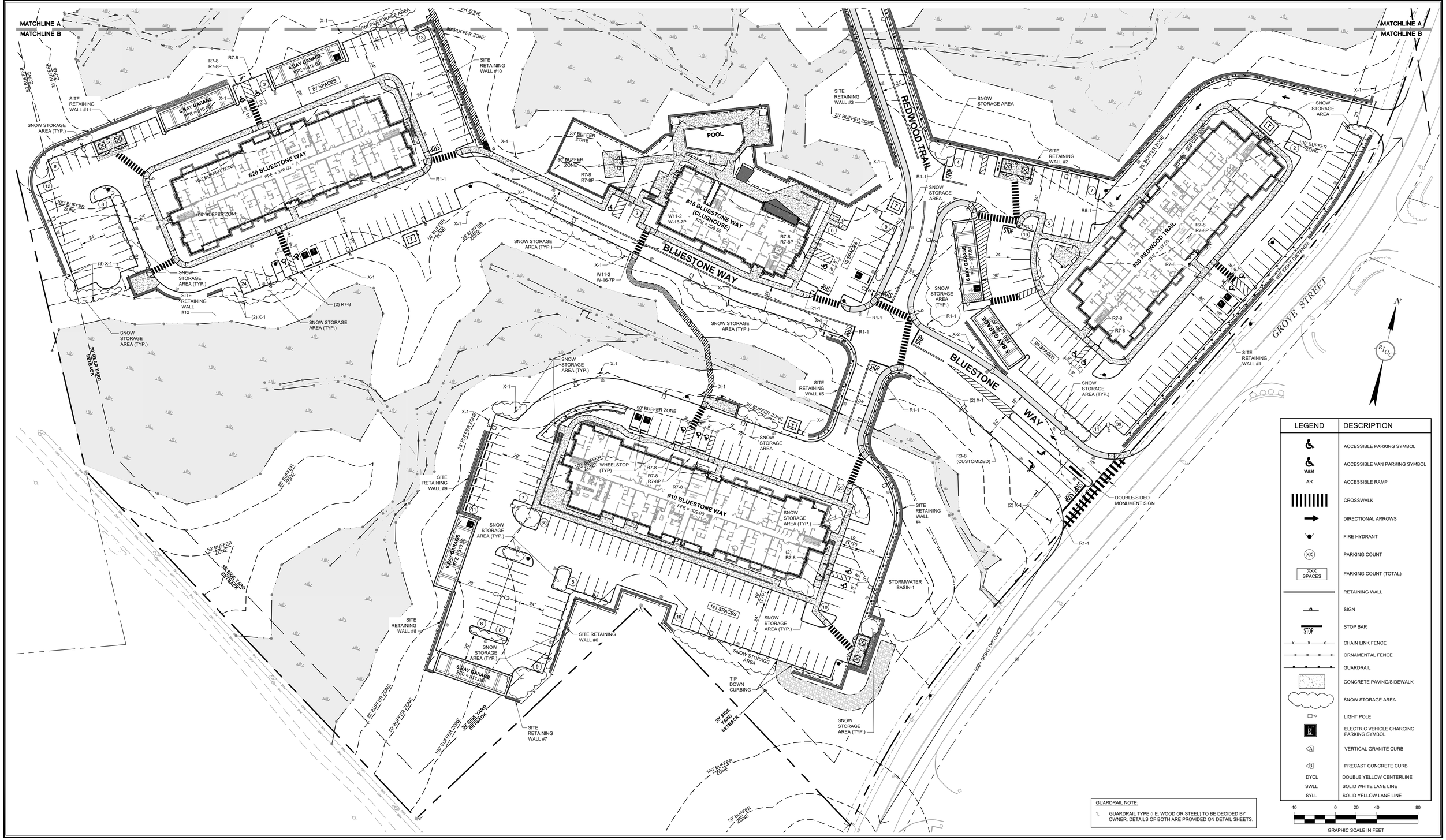

LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL
VAN	ACCESSIBLE VAN PARKING SYMBOL
AR	ACCESSIBLE RAMP
	CROSSWALK
	DIRECTIONAL ARROWS
	FIRE HYDRANT
XX	PARKING COUNT
XXX SPACES	PARKING COUNT (TOTAL)
	RETAINING WALL
	SIGN
STOP	STOP BAR
	CHAIN LINK FENCE
	ORNAMENTAL FENCE
	GUARDRAIL
	CONCRETE PAVING/SIDEWALK
	SNOW STORAGE AREA
	LIGHT POLE
	ELECTRIC VEHICLE CHARGING PARKING SYMBOL
A	VERTICAL GRANITE CURB
B	PRECAST CONCRETE CURB
DYCL	DOUBLE YELLOW CENTERLINE
SWLL	SOLID WHITE LANE LINE
SYLL	SOLID YELLOW LANE LINE

GUARDRAIL NOTE:

1. GUARDRAIL TYPE (I.E. WOOD OR STEEL) TO BE DECIDED BY OWNER. DETAILS OF BOTH ARE PROVIDED ON DETAIL SHEETS.

40 0 20 40 80

GRAPHIC SCALE IN FEET

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6.	REVISED TO ADD "NO MOWING" SIGN LOCATIONS	05/30/2024
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 40'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4A

DATE: 10/30/2023 PROJECT NO.: 22016

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Jul 01, 2025 - 11:39am

TRAFFIC CONTROL SCHEDULE

SIGN NUMBER	SIGN	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	DESCRIPTION	MOUNT TYPE	MOUNT HEIGHT	REMARKS
R1-1	STOP	30"	30"	WHITE ON RED	3" POST	7'-0"	REFLECTORIZED SIGN
R7-8	RESERVED PARKING	12"	18"	BLUE & GREEN ON WHITE	3" POST	7'-0"	REFLECTORIZED SIGN
R7-8P	VAN ACCESSIBLE	12"	6"	WHITE ON BLUE	3" POST	6'-6"	REFLECTORIZED SIGN
W11-2		30"	30"	YELLOW ON BLACK	3" POST	8'-6"	REFLECTORIZED SIGN
W16-7P		24"	12"	YELLOW ON BLACK	3" POST	6'-0"	REFLECTORIZED SIGN
R3-8 (CUSTOMIZED)		30"	30"	BLACK ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN
R5-1	DO NOT ENTER	30"	30"	RED & WHITE ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN
X-1	NO MOWING WITHIN THIS POINT	10"	12"	GREEN & BLACK ON WHITE	2" POST	4'-0"	REFLECTORIZED SIGN TO BE LOCATED AT EDGE OF LAWN
X-2	NO SALT ZONE	18"	24"	BLACK ON WHITE	3" POST	7'-0"	REFLECTORIZED SIGN

LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL
VAM	ACCESSIBLE VAN PARKING SYMBOL
AR	ACCESSIBLE RAMP
	CROSSWALK
	DIRECTIONAL ARROWS
	FIRE HYDRANT
XX	PARKING COUNT
XXX SPACES	PARKING COUNT (TOTAL)
	RETAINING WALL
	SIGN
STOP	STOP BAR
	CHAIN LINK FENCE
	ORNAMENTAL FENCE
	GUARDRAIL
	CEMENT CONCRETE PAVING/SIDEWALK
	BITUMINOUS CONCRETE SIDEWALK
	SNOW STORAGE AREA
	LIGHT POLE
	ELECTRIC VEHICLE CHARGING PARKING SYMBOL
A	VERTICAL GRANITE CURB
B	PRECAST CONCRETE CURB
DYCL	DOUBLE YELLOW CENTERLINE
SWLL	SOLID WHITE LANE LINE
SYLL	SOLID YELLOW LANE LINE

ACCESSIBLE CURB RAMPS

1. ALL ACCESSIBLE RAMPS SHALL BE CEMENT CONCRETE

PARKING AND TRAFFIC CONTROL NOTES

1. HANDICAP ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.) OF 1990, REVISED SEPT. 15, 2010 AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD OF REGULATIONS, 521 CMR UNLESS OTHERWISE NOTED.
2. ALL PARKING LOT CURBING SHALL BE PRECAST CONCRETE, UNLESS NOTED OR DETAILED OTHERWISE.
3. ALL LIMITS OF PAVEMENT SHALL BE CURBED UNLESS NOTED OR DETAILED OTHERWISE.
4. ALL PARKING SPACES SHALL BE 9' X 19' UNLESS OTHERWISE NOTED. ALL PARKING SPACES AND ACCESSIBLE SPACES SHALL BE PAINTED WITH 4" WIDE LINES AND 2 COATS OF WHITE PAINT.
5. ALL PAVEMENT STRIPING SHALL BE PAINTED WITH 2 COATS OF PAINT.
6. CONTRACTOR SHALL REFER TO ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS, DETAILS AND DIMENSIONS OF CONCRETE SIDEWALKS, EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS, CONCRETE PADS AND EXACT UTILITY ENTRANCE LOCATIONS.
7. PARKING AND TRAFFIC CONTROL PLANS ARE SCHEMATIC AND FOR LOCATION OF MARKINGS ONLY. SPECIFIC DETAILS FOR INSTALLATION OF PAVEMENT MARKINGS ARE PROVIDED AS PART OF THIS PLAN SET.
8. FOR PARKING LOT PAVEMENT SECTION SEE DETAILS.

PROPOSED BOARDWALKS NOTES

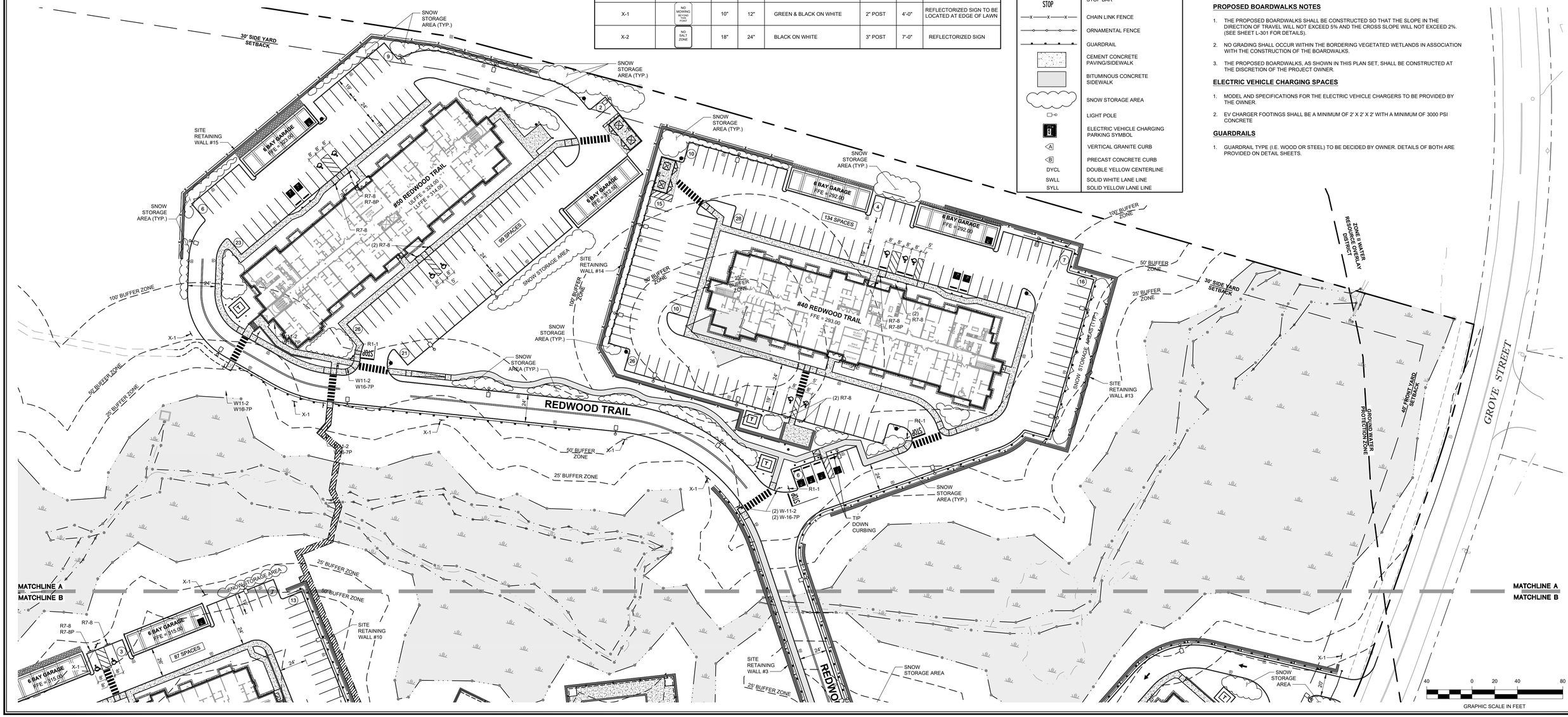
1. THE PROPOSED BOARDWALKS SHALL BE CONSTRUCTED SO THAT THE SLOPE IN THE DIRECTION OF TRAVEL WILL NOT EXCEED 5% AND THE CROSS SLOPE WILL NOT EXCEED 2%. (SEE SHEET L-301 FOR DETAILS).
2. NO GRADING SHALL OCCUR WITHIN THE BORDERING VEGETATED WETLANDS IN ASSOCIATION WITH THE CONSTRUCTION OF THE BOARDWALKS.
3. THE PROPOSED BOARDWALKS, AS SHOWN IN THIS PLAN SET, SHALL BE CONSTRUCTED AT THE DISCRETION OF THE PROJECT OWNER.

ELECTRIC VEHICLE CHARGING SPACES

1. MODEL AND SPECIFICATIONS FOR THE ELECTRIC VEHICLE CHARGERS TO BE PROVIDED BY THE OWNER.
2. EV CHARGER FOOTINGS SHALL BE A MINIMUM OF 2' X 2' X 2' WITH A MINIMUM OF 3000 PSI CONCRETE

GUARDRAILS

1. GUARDRAIL TYPE (I.E. WOOD OR STEEL) TO BE DECIDED BY OWNER. DETAILS OF BOTH ARE PROVIDED ON DETAIL SHEETS.



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DESIGNED BY: MAC
DRAWN BY: MCR
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SCALE: 1" = 40'

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL: COMMONWEALTH OF MASSACHUSETTS — BRIAN P. DUNDON — CIVIL — No. 41505 — REGISTERED PROFESSIONAL ENGINEER — 7-1-2025

PREPARED BY:
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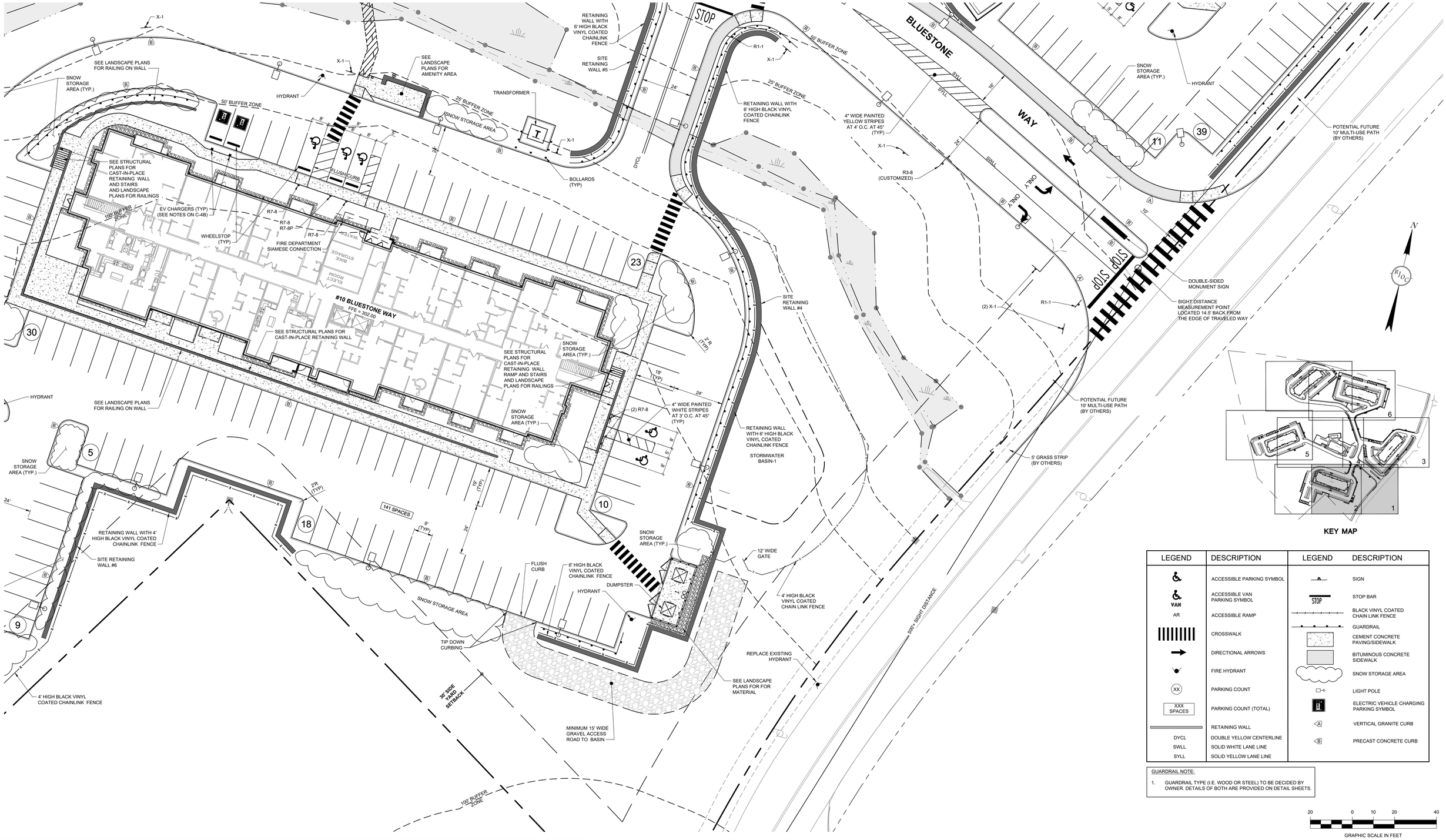

LEGEND	DESCRIPTION	LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL		SIGN
VAN	ACCESSIBLE VAN PARKING SYMBOL	STOP	STOP BAR
AR	ACCESSIBLE RAMP		BLACK VINYL COATED CHAIN LINK FENCE
	CROSSWALK		GUARDRAIL
	DIRECTIONAL ARROWS		CEMENT CONCRETE PAVING/SIDEWALK
	FIRE HYDRANT		BITUMINOUS CONCRETE SIDEWALK
XX	PARKING COUNT		SNOW STORAGE AREA
XXX SPACES	PARKING COUNT (TOTAL)		LIGHT POLE
	RETAINING WALL		ELECTRIC VEHICLE CHARGING PARKING SYMBOL
DYCL	DOUBLE YELLOW CENTERLINE	A	VERTICAL GRANITE CURB
SWLL	SOLID WHITE LANE LINE	B	PRECAST CONCRETE CURB
SYLL	SOLID YELLOW LANE LINE		

GUARDRAIL NOTE:

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20 0 10 20 40

GRAPHIC SCALE IN FEET

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NO.	REVISION	DATE
3.	90% CD SET	07/01/2025
2.	ISSUED TO NATIONAL GRID	05/08/2025
1.	100% DD SET	03/25/2025

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	1" = 20'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-1

DATE: 03/25/2025 PROJECT NO.: 22016

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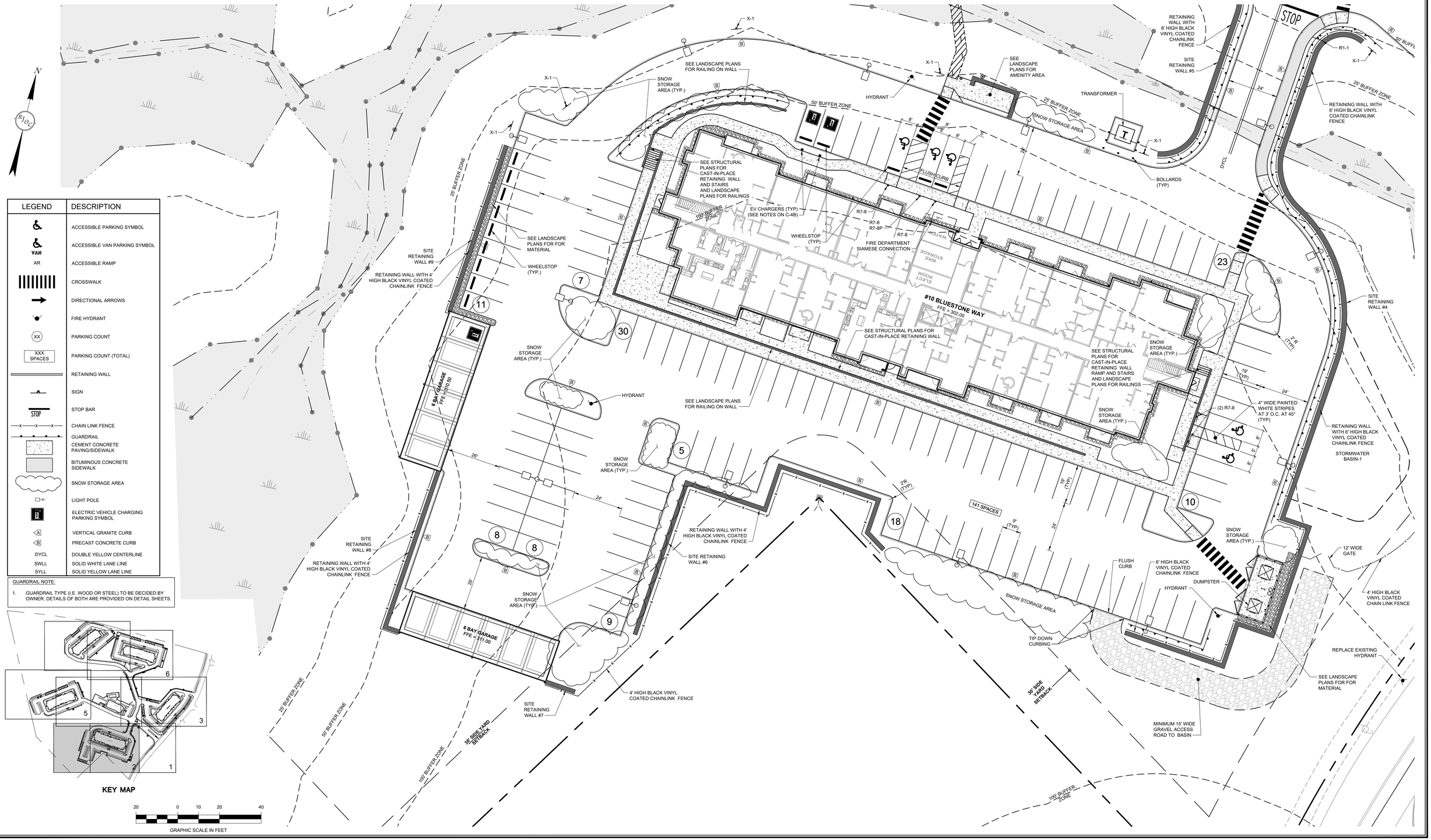

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-2

DATE: 03/25/2025 PROJECT NO.: 22016

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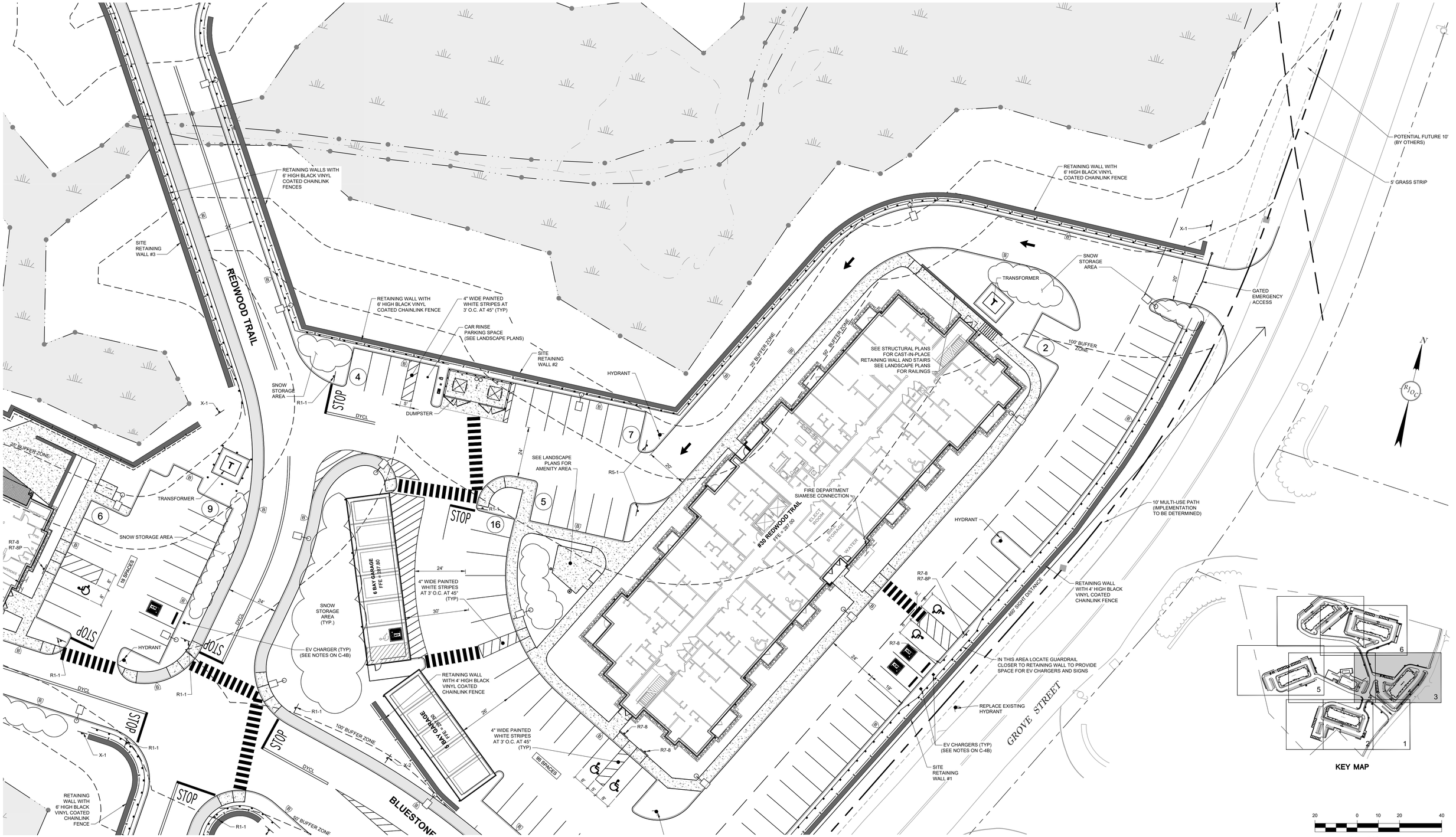

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BRAINTREE, MA 02184

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BRIAN P. DUNDON
CIVIL
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7-1-2025

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-3

DATE: 03/25/2025 PROJECT NO.: 22016

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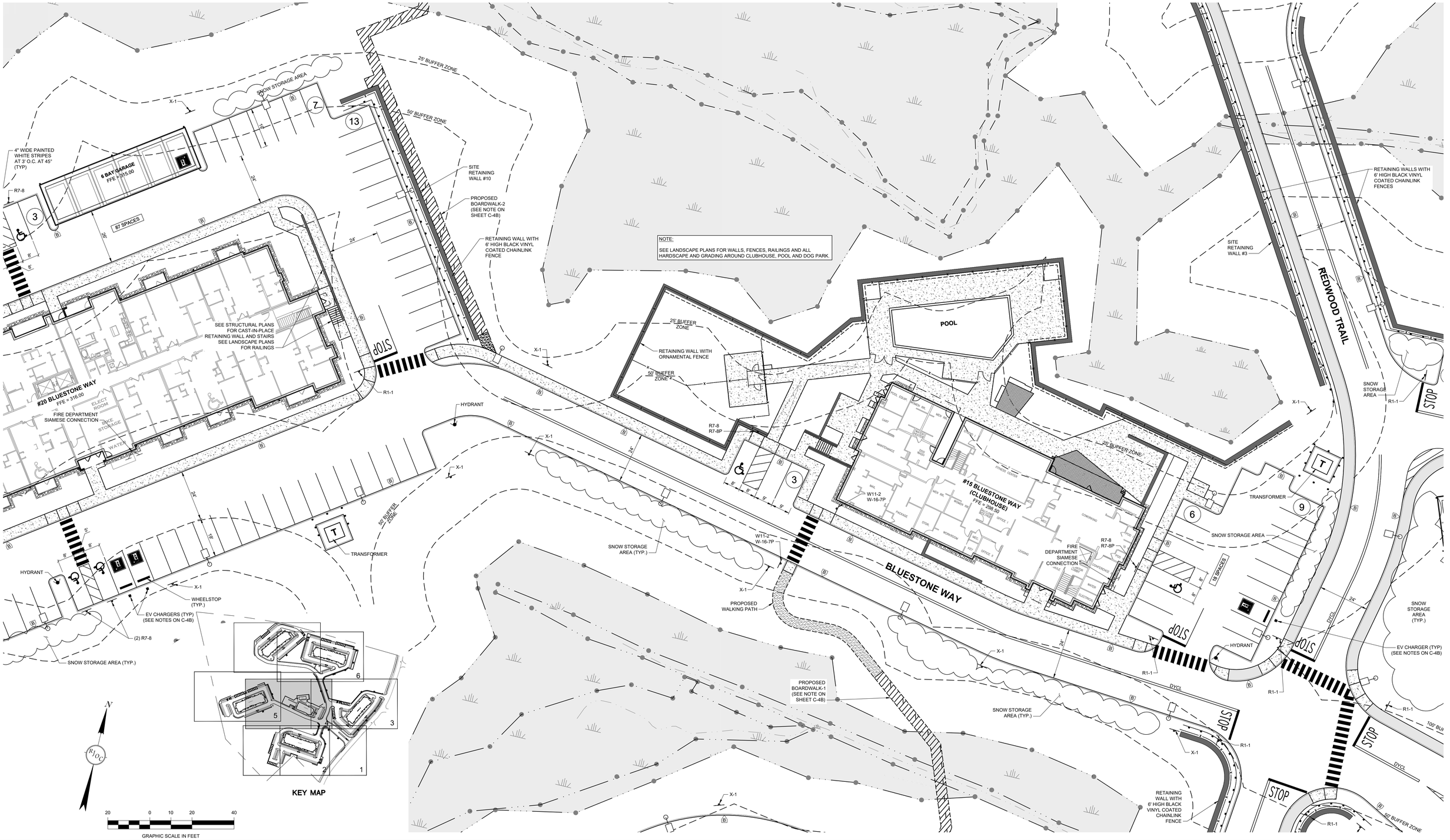

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7-1-2025

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PHONE: 781.279.0180 RJOCONNELL.COM

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FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-4

DATE: 03/25/2025 PROJECT NO.: 22016

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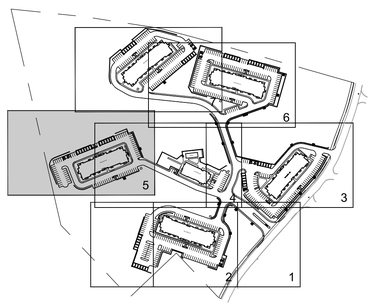
LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL
VAN	ACCESSIBLE VAN PARKING SYMBOL
AR	ACCESSIBLE RAMP
	CROSSWALK
	DIRECTIONAL ARROWS
	FIRE HYDRANT
XX	PARKING COUNT
XXX SPACES	PARKING COUNT (TOTAL)
	RETAINING WALL
	SIGN
STOP	STOP BAR
x x x	CHAIN LINK FENCE
	GUARDRAIL
	CEMENT CONCRETE PAVING/SIDEWALK
	BITUMINOUS CONCRETE SIDEWALK
	SNOW STORAGE AREA
	LIGHT POLE
EV	ELECTRIC VEHICLE CHARGING PARKING SYMBOL
A	VERTICAL GRANITE CURB
B	PRECAST CONCRETE CURB
DYCL	DOUBLE YELLOW CENTERLINE
SWLL	SOLID WHITE LANE LINE
SYLL	SOLID YELLOW LANE LINE

GUARDRAIL NOTE:

1. GUARDRAIL TYPE (I.E. WOOD OR STEEL) TO BE DECIDED BY OWNER. DETAILS OF BOTH ARE PROVIDED ON DETAIL SHEETS.



KEY MAP

20 0 10 20 40

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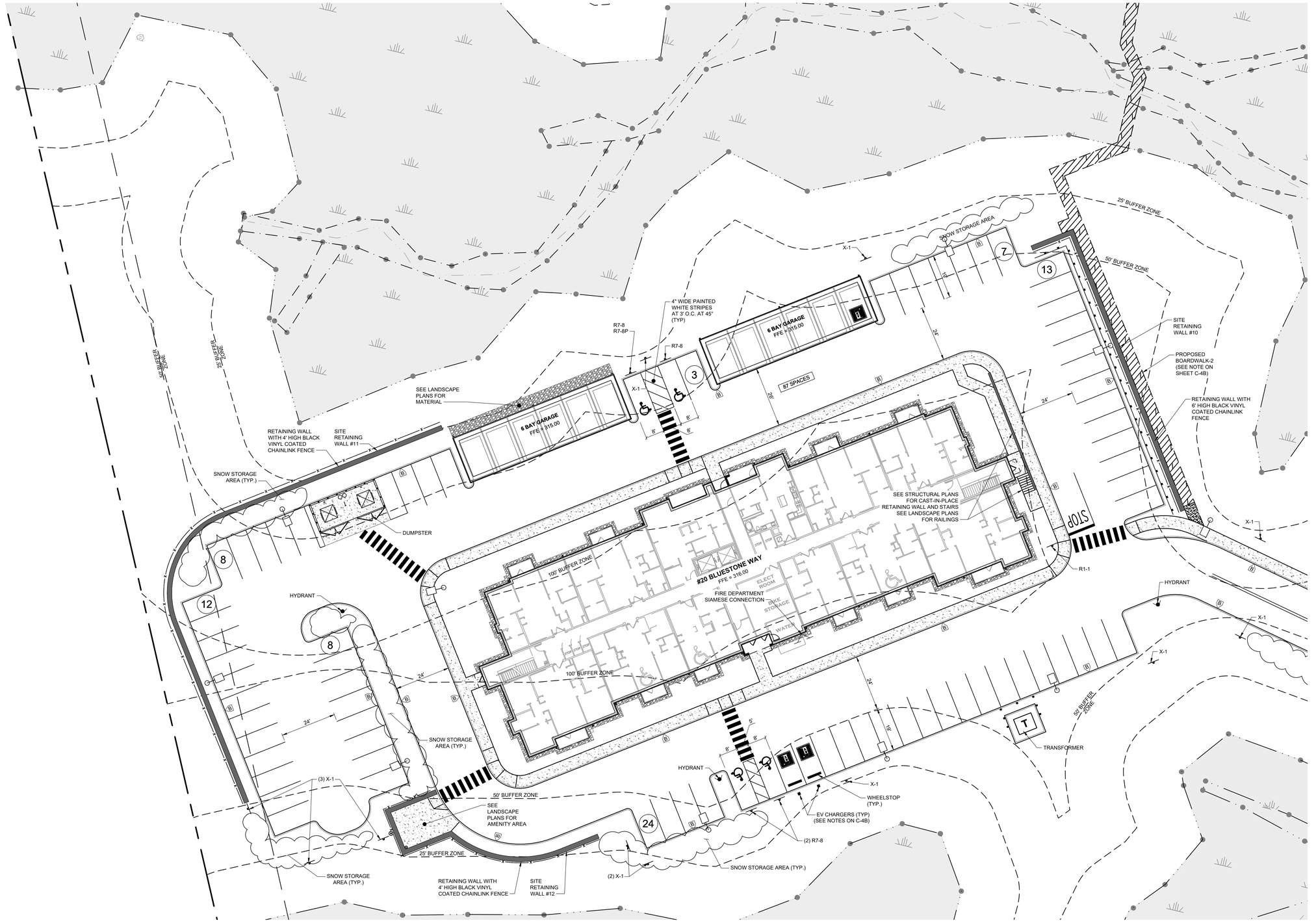

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PREPARED FOR:

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30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-5

DATE: 03/25/2025 PROJECT NO.: 22016

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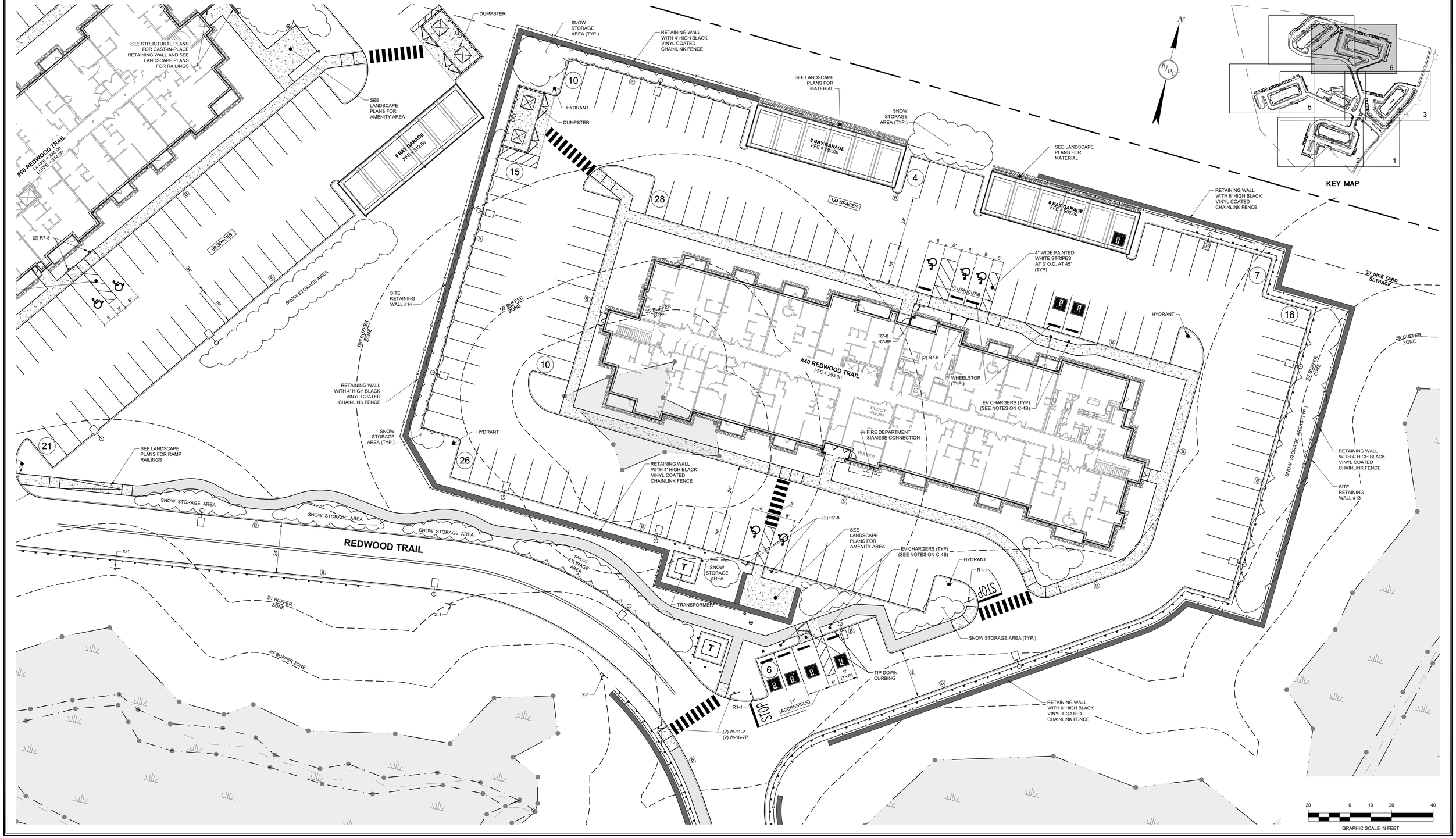

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BRAINTREE, MA 02184

SEAL:

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BRIAN P. DUNDON
CIVIL
No.41506
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

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FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-6

DATE: 03/25/2025 PROJECT NO.: 22016

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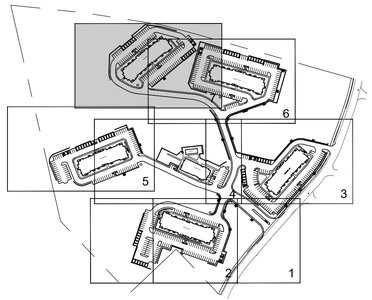

KEY MAP

LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL
VAN	ACCESSIBLE VAN PARKING SYMBOL
AR	ACCESSIBLE RAMP
	CROSSWALK
	DIRECTIONAL ARROWS
	FIRE HYDRANT
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XXX SPACES	PARKING COUNT (TOTAL)
	RETAINING WALL
	SIGN
STOP	STOP BAR
-x-x-x-	CHAIN LINK FENCE
	GUARDRAIL
	CEMENT CONCRETE PAVING/SIDEWALK
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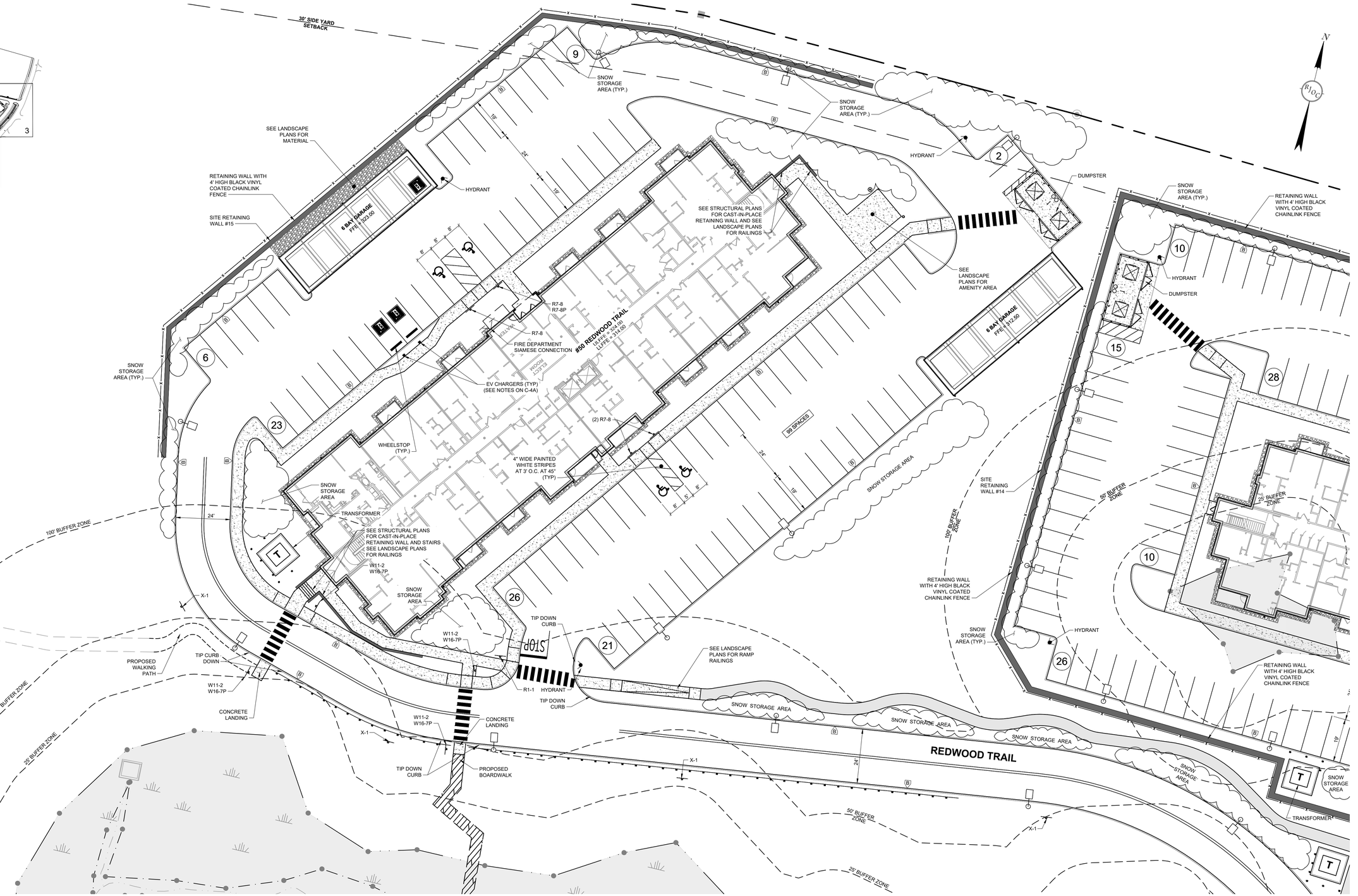
GUARDRAIL NOTE:

1. GUARDRAIL TYPE (I.E. WOOD OR STEEL) TO BE DECIDED BY OWNER. DETAILS OF BOTH ARE PROVIDED ON DETAIL SHEETS.



20 0 10 20 40

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BRAINTREE, MA 02184

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BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED
PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

PARKING & TRAFFIC CONTROL PLAN

DRAWING NUMBER:

C-4B-7

DATE: 03/25/2025 PROJECT NO.: 22016

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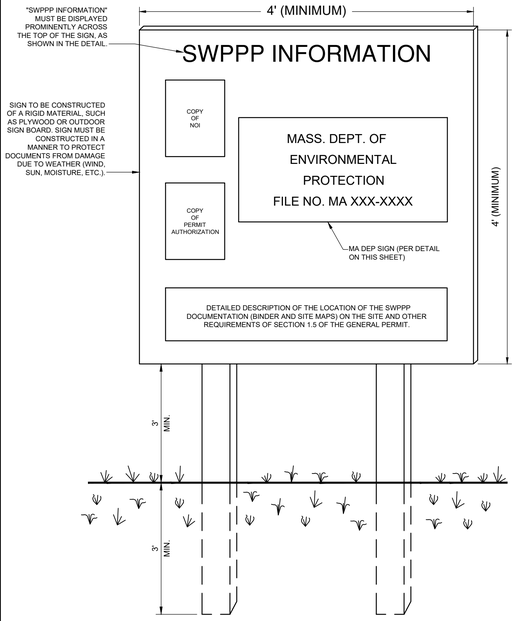
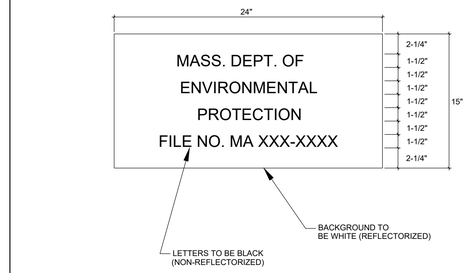
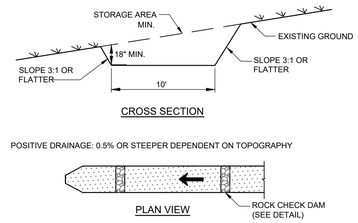


NOTES:
1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN
SCALE: N.T.S.

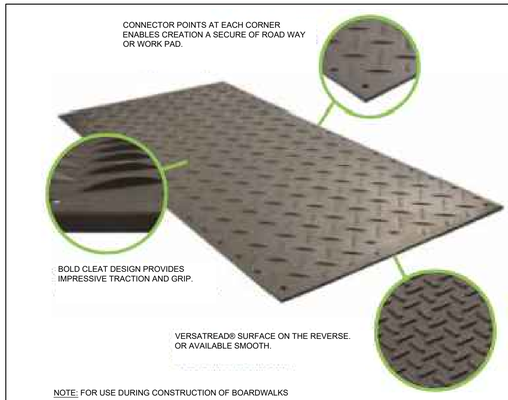


TYPICAL MASSACHUSETTS DEP SIGN DETAIL
SCALE: N.T.S.



CONSTRUCTION SPECIFICATIONS
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE FLOW TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AND UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE FOR SLOPES GREATER THAN 2%.
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT AND AS REQUIRED BY THE PERMIT.

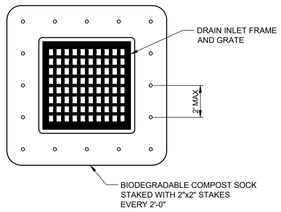
TEMPORARY SWALE DETAIL
SCALE: N.T.S.



NOTE: FOR USE DURING CONSTRUCTION OF BOARDWALKS

GROUND PROTECTION MATS (WITHIN BOARDWALK AREAS)
SCALE: N.T.S.

NOTE:
THIS DETAIL IS TO BE USED WHEN PARKING AREAS ARE AT SUBGRADE ELEVATION.

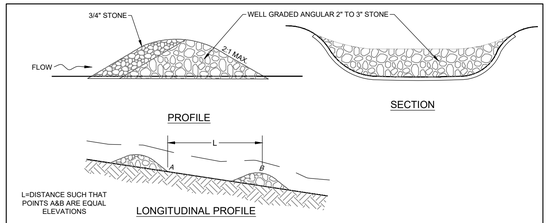


NOTES:
1. COMPOST SOCK SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT COMPOST SOCK.

2. COMPOST SOCK SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE COMPOST SOCK.

3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

TYPICAL COMPOST SOCK INLET PROTECTION DETAIL
SCALE: N.T.S.



NOTES:

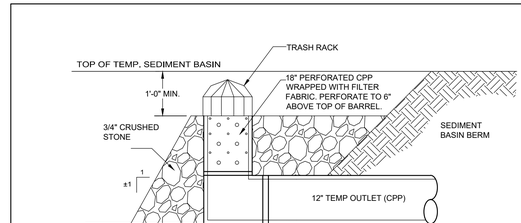
1. THE MAXIMUM HEIGHT OF THE CHECK DAM AT THE CENTER SHALL NOT EXCEED ONE HALF THE DEPTH OF THE CHANNEL.
2. MAXIMUM SPACING SHALL BE SO THE TOE OF THE UPSTREAM DAM IS THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
3. REMOVE SEDIMENT WHEN ACCUMULATION IS 25% THE HEIGHT OF THE WEIR.
4. REMOVE CHECK DAMS WHEN SITE STABILIZATION IS ACHIEVED.

CHECK DAM SPACING CRITERIA

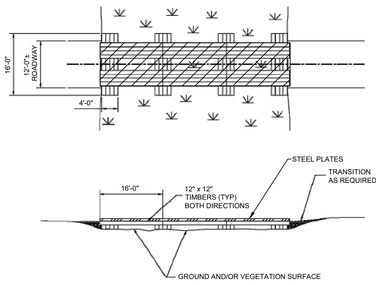
SPILLWAY HEIGHT	CHANNEL SLOPE	CHECK DAM SPACING
1.5	1%	150 FT.
2.0	1%	200 FT.
1.5	2%	75 FT.
2.0	2%	100 FT.
1.5	3%	50 FT.
2.0	3%	67 FT.
1.5	4%	38 FT.
2.0	4%	50 FT.
1.5	5%	30 FT.
2.0	5%	40 FT.

*ASSUME CHANNEL DEPTH IS 2 TIMES SPILLWAY HEIGHT

ROCK CHECK DAM DETAIL
SCALE: N.T.S.

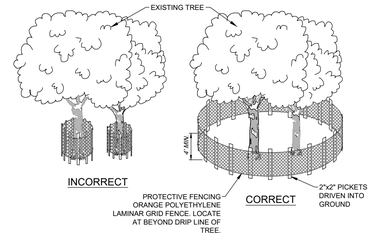


TEMPORARY STAND PIPE DETAIL
SCALE: N.T.S.



NOTES:
1. **TO BE INSTALLED IN INTERMITTENT STREAM/WETLAND AREAS AS DEPICTED ON SHEET C-1A AND C-1B.**
2. **MATS TO BE SAW-CUT BY CONTRACTOR ONSITE TO AVOID IMPACTS UPON EXISTING TREES.**
3. **MATS SHOULD NOT BE PLACED SO THAT THEY RESTRICT THE NATURAL FLOW OF THE STREAM.**
4. **MORE THAN ONLY ONE LAYER OF TIMBERS MAY BE NECESSARY TO RAISE CROSSING ABOVE STREAM.**
5. **MORE THAN ONLY ONE LAYER OF MATS MAY BE NECESSARY IN AREAS WHICH ARE INUNDATED OR HAVE DEEP ORGANIC WETLAND SOILS.**
6. **MATTED STREAM CROSSING SHOULD BE MONITORED TO ASSURE CORRECT FUNCTIONING OF THE MATS. INSPECT MATS AFTER USE. LOOK FOR ANY DEFECTS OR STRUCTURAL PROBLEMS. MATS WHICH BECOME COVERED WITH SOILS OR CONSTRUCTION DEBRIS SHOULD BE CLEANED AND THE MATERIALS REMOVED AND DISPOSED OF IN AN UPLAND LOCATION. THE MATERIAL SHOULD NOT BE SCRAPED OR SHOVELED INTO THE RESOURCE AREA. MATS WHICH BECOME IMBEDDED MUST BE RESET OR LAYERED TO PREVENT MUD FROM COVERING THEM OR WATER PASSING OVER THEM.**

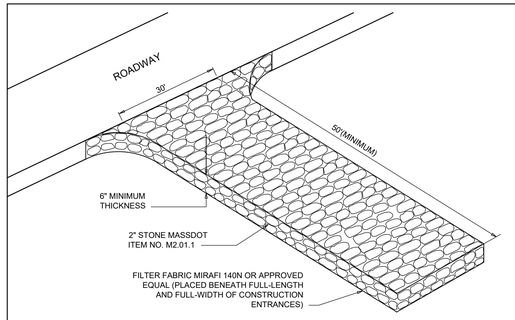
CONSTRUCTION SWAMP MAT (AT INTERMITTENT STREAM) DETAIL
SCALE: N.T.S.



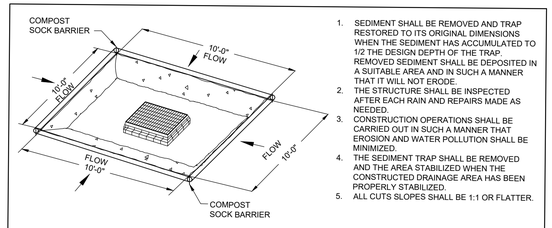
BARRIER TO BE INSTALLED AT DRIP LINE OF TREE BRANCHES. USE HIGHLY VISIBLE "HAZARD" FENCE IN VIBRANT COLOR (YELLOW OR ORANGE).

NOTES:
1. TREE PROTECTION BARRIERS MUST BE PLACED AROUND TREES TO BE RETAINED WITHIN AN AREA WHERE LAND ALTERATION AND CONSTRUCTION ACTIVITIES WILL OCCUR. TREES TO REMAIN SHALL BE INDICATED ON THE PLANS.
2. TREE PROTECTION BARRIER MUST REMAIN IN PLACE UNTIL GRADING AND CONSTRUCTION ACTIVITY IS COMPLETE OR UNTIL COMMENCEMENT OF FINISH GRADING AND SODDING.
3. BARRIERS SHALL BE PLACED AROUND TREES AT THE DRIPLINE EXCEPT WHERE LAND ALTERATION OR CONSTRUCTION ACTIVITIES ARE APPROVED WITHIN THE DRIPLINE.
4. THE DRIPLINE OF A TREE IS THE IMAGINARY VERTICAL LINE THAT EXTENDS DOWNWARD FROM THE OUTERMOST TIPS OF THE TREE'S BRANCHES TO THE GROUND.
5. AREAS SURROUNDED BY THE TREE PROTECTION BARRIERS SHALL BE PROTECTED FROM VEGETATION REMOVAL, PLACEMENT OF SOIL, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND.
6. ALL TREE ROOTS WITHIN AREA TO BE GRADED AND ORIGINATING FROM A PROTECTED TREE SHALL BE SEVERED CLEANLY AT THE LIMITS OF THE PROTECTED AREA.
7. ALL TREE PRUNING AND TRIMMING ON ANY TREE TO BE RETAINED SHALL BE PERFORMED BY AN ARBORIST CERTIFIED BY THE AMERICAN SOCIETY OF ARBORICULTURE (ASA).
8. 2'x2' TREE PROTECTION SIGNS SPACED A MINIMUM OF ON SIGN EVERY 300' SHALL CONTAIN THE WORDING "TREE PROTECTION ZONE - KEEP OUT".

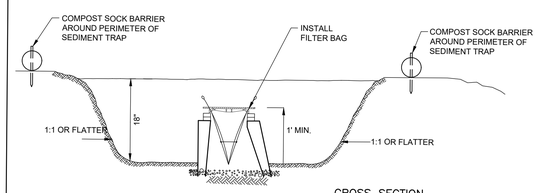
TREE PROTECTION BARRIER
SCALE: N.T.S.



VEHICLE TRACKING PAD
SCALE: N.T.S.



1. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
2. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
3. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
4. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
5. ALL CUTS SLOPES SHALL BE 1:1 OR FLATTER.



STORM INLET SEDIMENT TRAP
SCALE: N.T.S.

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NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
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SEAL:
COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
SITE DETAILS - I

DRAWING NUMBER:
C-5

DATE: 10/30/2023 PROJECT NO.: 22016

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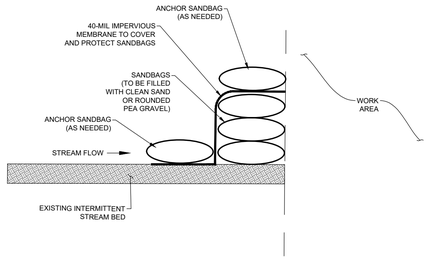
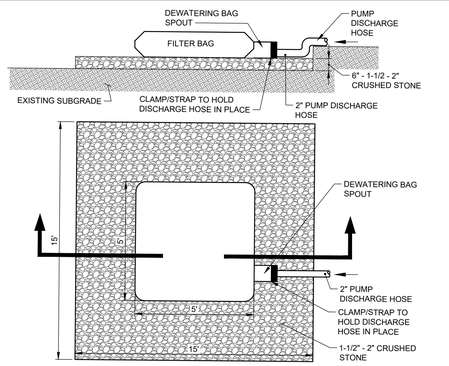
Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\220216_C-5 Site Details - I.dwg
Jun 30, 2025 - 15:30pm



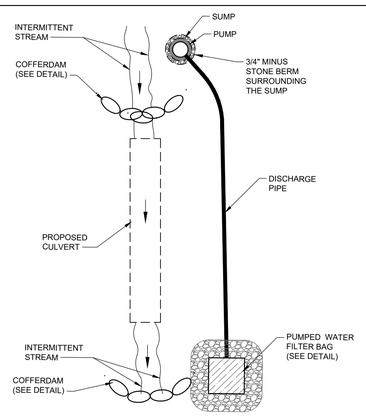
NOTES:
1. IN-WATER CONTROLS SHALL BE REMOVED AS SOON AS POSSIBLE ONCE THE WORK IS COMPLETED AND THE AREA IS STABILIZED.

SANDBAG COFFERDAM DETAIL
SCALE: N.T.S.



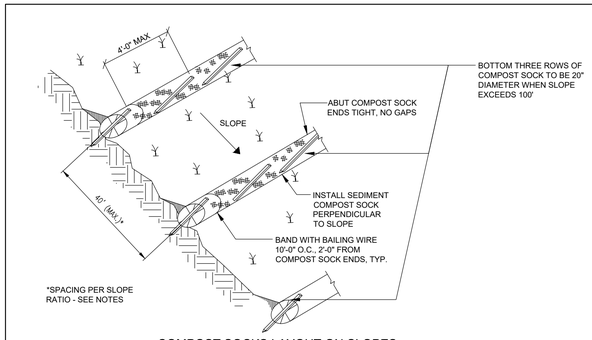
NOTES:
1. THE FILTER BAG AND BASIN SHALL BE SIZED TO ACCOMMODATE THE ANTICIPATED FLOW RATE.
2. CONTRACTOR SHALL MONITOR THE FILTER BAG AT ALL TIMES TO PREVENT OVERFILLING.
3. FILTER BAG TO BE REPLACED WHEN BAG IS HALF FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE PUMP DISCHARGE FLOW RATE TO AN IMPRACTICAL RATE

PUMPED WATER FILTER BAG DETAIL
SCALE: N.T.S.

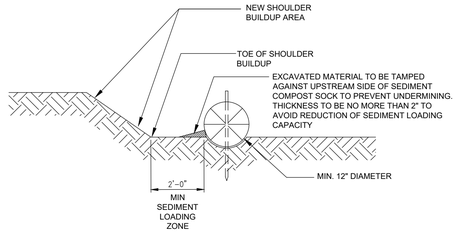


NOTES:
1. SUMP SHALL BE DUG UPSTREAM OF THE PROPOSED COFFERDAM TO AN ELEVATION TO ALLOW FOR COMPLETE SUBMERSION OF THE PUMP.
2. CONTRACTOR TO APPROPRIATELY SIZE PUMP TO MEET STREAM FLOW REQUIREMENTS.
3. CONTRACTOR SHALL MAINTAIN AN ADDITIONAL EQUIVALENT SIZE REDUNDANT PUMP ONSITE TO ACCOMMODATE STORM EVENTS AND POSSIBLE PUMP MECHANICAL ISSUES.

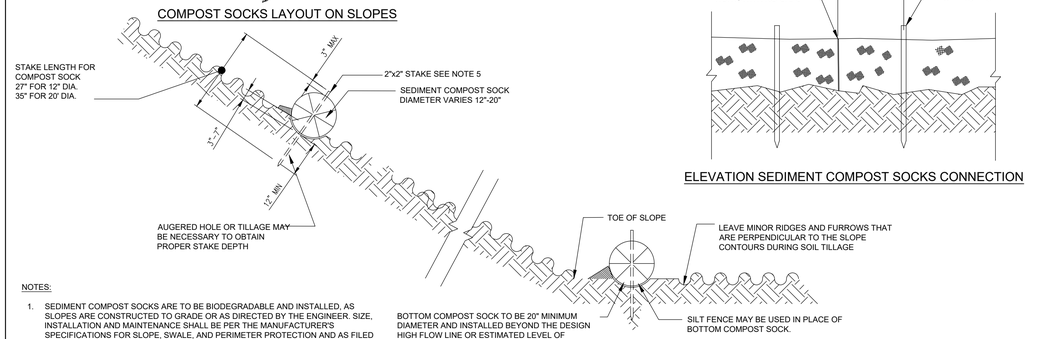
TEMPORARY COFFERDAM AND PUMP BYPASS DETAIL
SCALE: N.T.S.



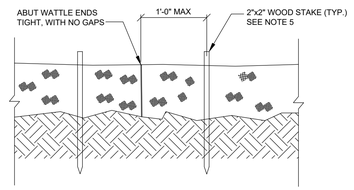
COMPOST SOCKS LAYOUT ON SLOPES



SECTION SEDIMENT COMPOST SOCKS



SECTION - COMPOST SOCKS LAYOUT ON SLOPES



ELEVATION SEDIMENT COMPOST SOCKS CONNECTION

NOTES:
1. SEDIMENT COMPOST SOCKS ARE TO BE BIODEGRADABLE AND INSTALLED, AS SLOPES ARE CONSTRUCTED TO GRADE OR AS DIRECTED BY THE ENGINEER. SIZE, INSTALLATION AND MAINTENANCE SHALL BE PER THE MANUFACTURER'S SPECIFICATIONS FOR SLOPE, SWALE, AND PERIMETER PROTECTION AND AS FILED CONDITIONS WARRANT.
2. TRENCHES TO BE CONSTRUCTED ALONG AND PARALLEL TO THE CONTOURS. TRENCH DEPTH TO BE ⅓ THE THICKNESS OF THE SEDIMENT COMPOST SOCK. PLACE EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
3. LOCATE SEDIMENT COMPOST SOCKS AS INDICATED ON PLANS OR AS DIRECTED BY THE ENGINEER. SPACE COMPOST SOCK TRENCHES ACCORDING TO THE FOLLOWING SCHEDULE:

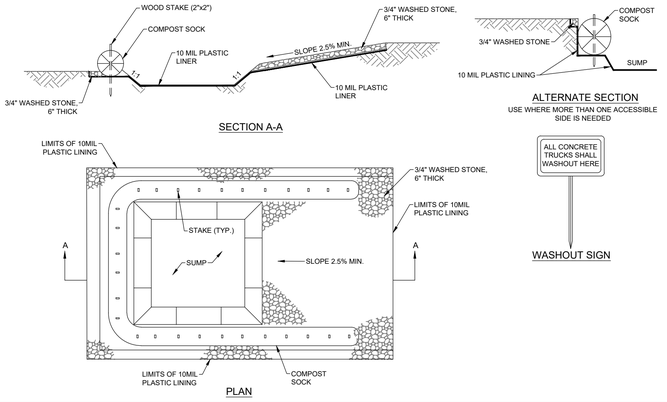
SLOPE RATIO	MAX SPACING INTERVALS
1:1 AND STEEPER, APPLY MINIBENCHING OR OTHER SUITABLE BMP'S.	
2:1	10'-0"
3:1	20'-0"
4:1	30'-0"
5:1	40'-0"
6:1	40'-0"

4. SEDIMENT COMPOST SOCKS TO BE IN CONTINUOUS CONTACT WITH TRENCH BOTTOM AND SIDES. NO DAYLIGHT SHOULD BE SEEN UNDER THE COMPOST SOCK. DO NOT OVERLAP THE ENDS ON TOP OF EACH OTHER.
5. STAKES TO PENETRATE SOIL OF TRENCH BOTTOM 12" MINIMUM. STAKES TO BE EXPOSED 3" MAXIMUM ABOVE THE TOP OF COMPOST SOCK. SPACE STAKES 4'-0" O.C. MAX., 1'-0" MAX. AT COMPOST SOCK ENDS. A 20" DIAMETER COMPOST SOCK MAY NEED TO BE MADE FROM 2-3 ROLLED EXCELSIOR OR STRAW BLANKETS.
6. REPAIR ANY RILLS OR GULLIES PROMPTLY.
7. THE INSTALLATION AND MAINTENANCE OF SEDIMENT COMPOST SOCK BMP'S SHALL NOT NEGATIVELY IMPACT TRAFFIC SAFETY.

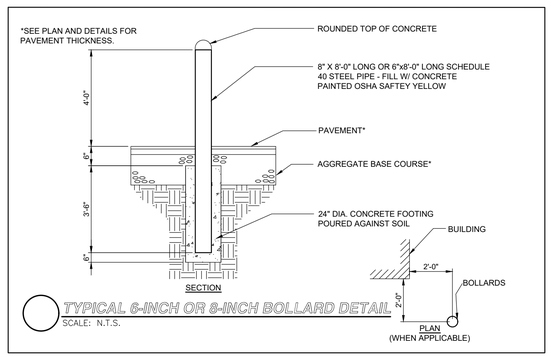
NOTE:
NO STRAW BALES ALLOWED.

COMPOST SOCK EROSION AND SILTATION BARRIER
SCALE: N.T.S.

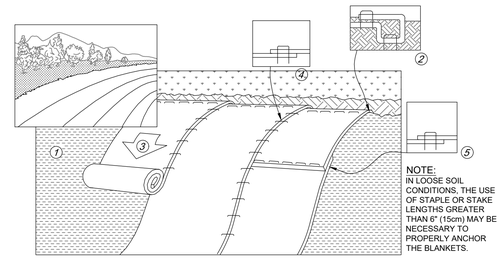
NOTES:
1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12."
4. FACILITY SHALL NOT BE FILLED BEYOND 75% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAW CUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT & GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, & SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.



CONCRETE WASHOUT AREA
SCALE: N.T.S.



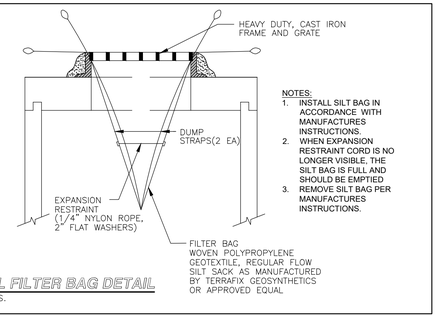
TYPICAL 6-INCH OR 8-INCH BOLLARD DETAIL
SCALE: N.T.S.



NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACK FILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO PREPARED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF THE BLANKET BACK OVER SEED AND SOIL. SECURE BLANKET OVER SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS DOWN ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH THE APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN
4. GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
5. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
6. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.
7. EROSION CONTROL BLANKETS SHALL BE INSTALLED FOLLOWING MANUFACTURERS SPECIFICATIONS.

EROSION CONTROL BLANKET DETAIL FOR SLOPE INSTALLATION
SCALE: N.T.S.



NOTES:
1. INSTALL SILT BAG IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.
2. WHEN EXPANSION RESTRAINT CORD IS NO LONGER VISIBLE, THE SILT BAG IS FULL AND SHOULD BE EMPTIED
3. REMOVE SILT BAG PER MANUFACTURES INSTRUCTIONS.

TYPICAL FILTER BAG DETAIL
SCALE: N.T.S.

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-6 Site Details - II.dwg
Jun 30, 2025 - 15:31pm

RJOC

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NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:
COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
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No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

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PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
SITE DETAILS - II

DRAWING NUMBER:
C-6

DATE: 10/30/2023 PROJECT NO.: 22016

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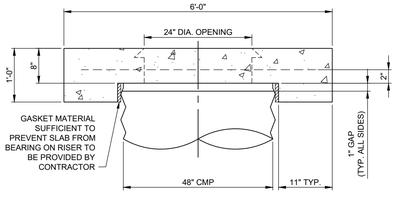
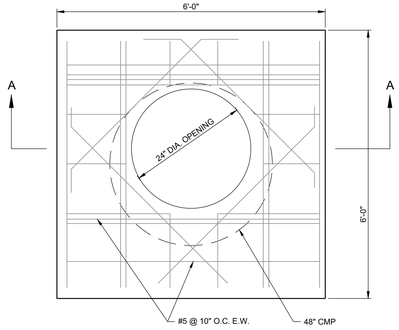


SECTION A-A

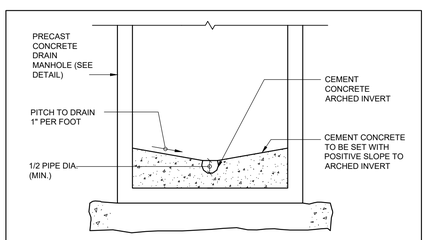


NOTES:

1. TRIM OPENING WITH DIAGONAL #4 BARS.
2. EXTEND BARS TO A MINIMUM OF 12" BEYOND OPENING.
3. BEND BARS AS A REQUIRED TO MAINTAIN BAR COVER.
4. PROVIDE ACCESS MANHOLE COVERS AT ALL CORNERS AND INLET/OUTLET PIPES IN SYSTEMS. (LOCATIONS DEPICTED ON SHEETS C-2A AND C-2B)

TYPICAL ACCESS MANHOLE FOR SUBSURFACE CMP INFILTRATION SYSTEMS

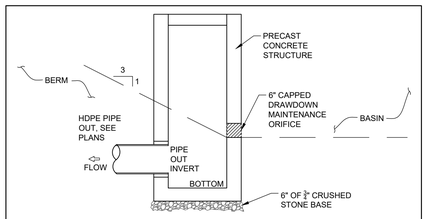
SCALE: N.T.S.



NOTE:
MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS

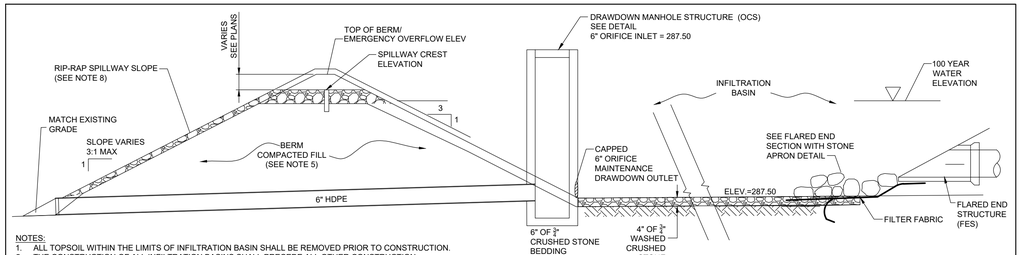
TYPICAL CEMENT CONCRETE INVERT SECTION FOR DRAIN MANHOLE

SCALE: N.T.S.



OUTLET CONTROL STRUCTURE (OCS)

SCALE: N.T.S.



NOTES:

1. ALL TOPSOIL WITHIN THE LIMITS OF INFILTRATION BASIN SHALL BE REMOVED PRIOR TO CONSTRUCTION.
2. THE CONSTRUCTION OF ALL INFILTRATION BASINS SHALL PRECEDE ALL OTHER CONSTRUCTION.
3. MONITORING WELL SHALL BE INSTALLED TO A DEPTH OF 20 FEET BELOW THE BOTTOM OF BASIN.
4. DRAWDOWN OUTLET TO BE INSTALLED AS DEPICTED ON GRADING & DRAINAGE PLANS IN THIS PLAN SET.
5. FILL TO BE USED AS RAISE-IN-GRADE FILL FOR THE INFILTRATION BASIN. BERM SHALL BE LOW PERMEABILITY FILL FREE FRO ICE, SNOW, ROOTS, SURFACE COATINGS, SOD, LOAM, RUBBISH AND OTHER DELETERIOUS MATERIALS AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS

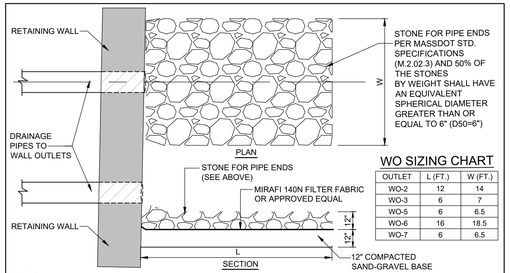
SIEVE SIZE	PERCENT PASSING BY WEIGHT
6-INCH	100
NO. 4	25-95
NO. 40	15-75
NO. 200	20-40

6. WHERE A RAISED IN GRADE FILL IS NECESSARY FOR THE INFILTRATION BASIN BERM, EXISTING VEGETATION, TOP SOIL, SUB SOIL, STUMPS, SURFACE BOULDERS SHALL BE REMOVED TO EXPOSE THE TOP OF THE NATURAL UNDISTURBED SOIL.
7. RAISE-IN-GRADE FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 INCH THICK AND COMPACTED TO AT LEAST 95% OF IT MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557, METHOD C.
8. RIP RAP TO BE STONE FOR PIPE ENDS, MASS DOT ITEM NO. M2.02.3.

BASIN No.	TOP OF BERM/EMERGENCY OVERFLOW ELEV.	TOP OF SPILLWAY ELEV.	100 YR WATER ELEV.	ESHGW
1	290.60	289.50	289.52	285.50 (TP-40)

TYPICAL STORMWATER BASIN-1 SECTION

SCALE: N.T.S.

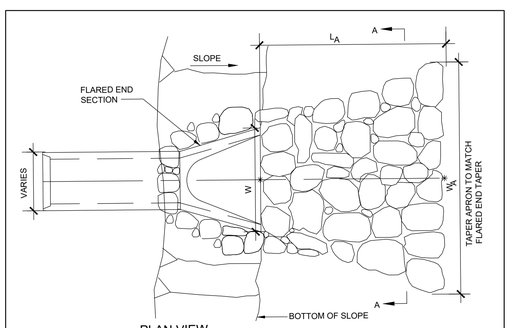


OUTLET	L (FT.)	W (FT.)
WO-2	12	14
WO-3	6	7
WO-5	6	6.5
WO-6	16	18.5
WO-7	6	6.5

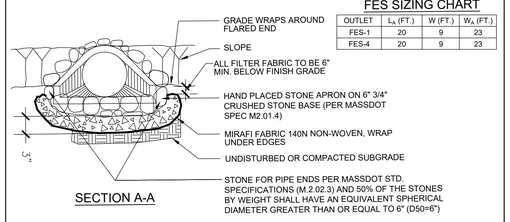
WO SIZING CHART

STONE APRON AT WALL OUTLET

SCALE: N.T.S.



PLAN VIEW



SECTION A-A

OUTLET	L_A (FT.)	W (FT.)	W_A (FT.)
FES-1	20	9	23
FES-4	20	9	23

FES SIZING CHART

FLARED END SECTION WITH STONE APRON

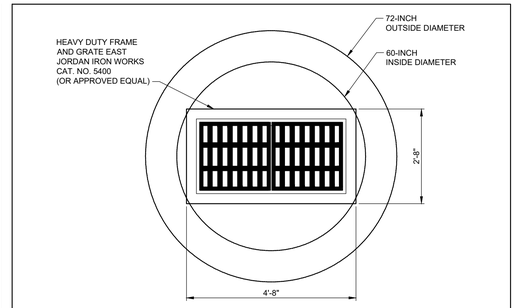
SCALE: N.T.S.

NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6. PEDESTRIAN GRATES AND AREA MANHOLE COVERS BY LANDSCAPE AND SHALL MEET H-10 LOAD RATING.
7. USE PEDESTRIAN GRATES IN SIDEWALK AREAS.
8. USE DOME GRATES IN LANDSCAPED AREAS.

12" DIAMETER NYLOPLAST AREA DRAIN (AD) & AREA MANHOLE (AMH) DETAIL

SCALE: N.T.S.

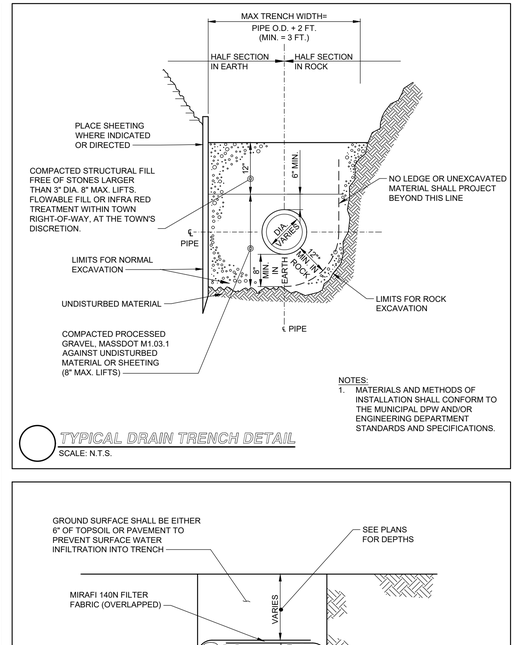


NOTES:

1. CATCH BASIN CONCRETE COVER SLAB TO BE CAST WITH 22" x 47½" OPENING TO ACCOMMODATE FRAME AND GRATE.
2. COVER SLAB TO MEET OR EXCEED H-20 LOADING.

TYPICAL DOUBLE CATCH BASIN GRATE DETAIL

SCALE: N.T.S.



NOTES:

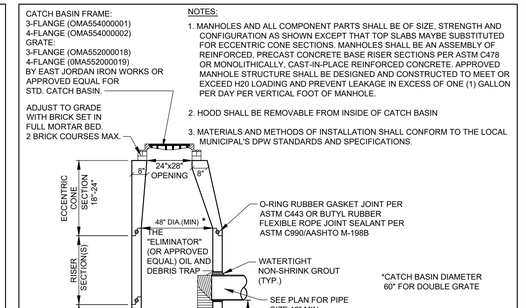
1. MATERIALS AND METHODS OF INSTALLATION SHALL CONFORM TO THE MUNICIPAL DPW AND/OR ENGINEERING DEPARTMENT STANDARDS AND SPECIFICATIONS.

TYPICAL DRAIN TRENCH DETAIL

SCALE: N.T.S.

FOUNDATION/UNDER DRAIN DETAIL

SCALE: N.T.S.

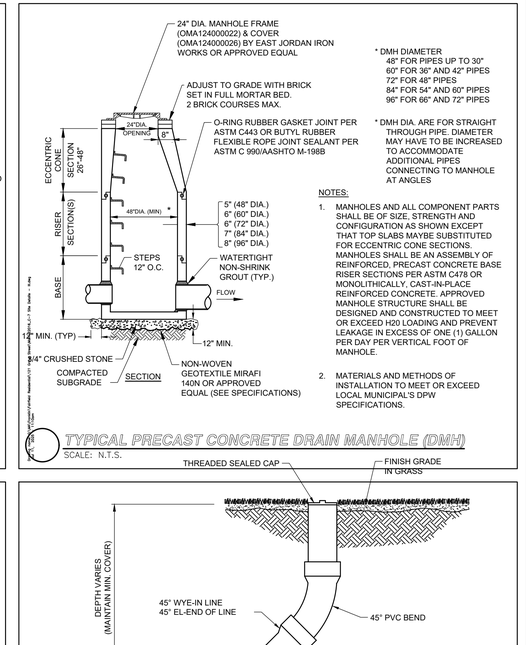


NOTES:

1. MANHOLES AND ALL COMPONENT PARTS SHALL BE OF SIZE, STRENGTH AND CONFIGURATION AS SHOWN EXCEPT THAT TOP SLABS MAYBE SUBSTITUTED FOR ECCENTRIC CONE SECTIONS. MANHOLES SHALL BE AN ASSEMBLY OF REINFORCED, PRECAST CONCRETE BASE RISER SECTIONS PER ASTM C478 OR MONOLITHICALLY, CAST-IN-PLACE REINFORCED CONCRETE. APPROVED MANHOLE STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED TO MEET OR EXCEED H20 LOADING AND PREVENT LEAKAGE IN EXCESS OF ONE (1) GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.
2. HOOD SHALL BE REMOVABLE FROM INSIDE OF CATCH BASIN
3. MATERIALS AND METHODS OF INSTALLATION SHALL CONFORM TO THE LOCAL MUNICIPAL'S DPW STANDARDS AND SPECIFICATIONS.

TYPICAL CATCH BASIN WITH HOOD

SCALE: N.T.S.

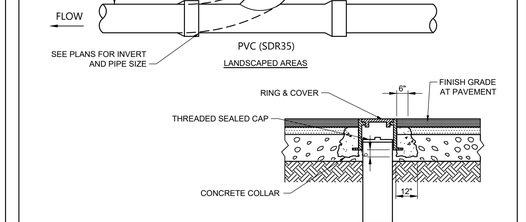


NOTES:

1. MANHOLES AND ALL COMPONENT PARTS SHALL BE OF SIZE, STRENGTH AND CONFIGURATION AS SHOWN EXCEPT THAT TOP SLABS MAYBE SUBSTITUTED FOR ECCENTRIC CONE SECTIONS. MANHOLES SHALL BE AN ASSEMBLY OF REINFORCED, PRECAST CONCRETE BASE RISER SECTIONS PER ASTM C478 OR MONOLITHICALLY, CAST-IN-PLACE REINFORCED CONCRETE. APPROVED MANHOLE STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED TO MEET OR EXCEED H20 LOADING AND PREVENT LEAKAGE IN EXCESS OF ONE (1) GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.
2. MATERIALS AND METHODS OF INSTALLATION TO MEET OR EXCEED LOCAL MUNICIPAL'S DPW SPECIFICATIONS.

TYPICAL PRECAST CONCRETE DRAIN MANHOLE (DMH)

SCALE: N.T.S.



CLEANOUT DETAILS

SCALE: N.T.S.

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-7 Site Details - III.dwg
Jul 11, 2025 - 11:10am

RJOC

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NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE DETAILS - III

DRAWING NUMBER:

C-7

DATE: 10/30/2023 PROJECT NO.: 22016

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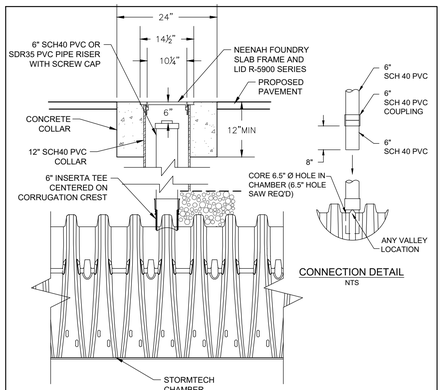
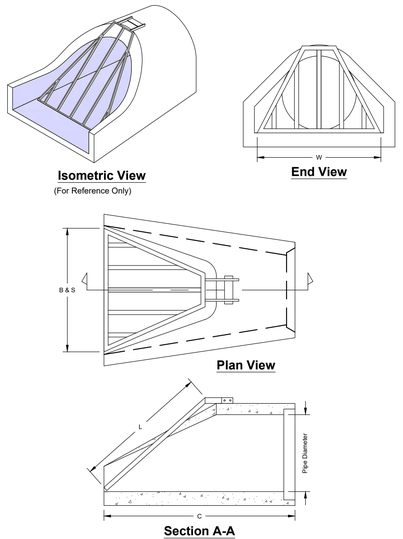


OBSERVATION PORT

SCALE: N.T.S.

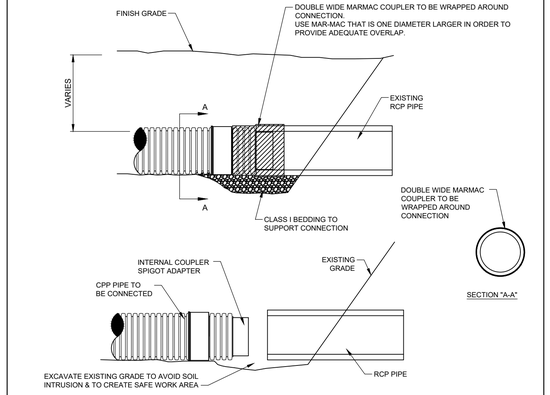


Pipe Diameter	Grate Width W (in.)	GRATE Length L (in.)	Total # of Bars B	Bar Spacing S (in.)
18"	33.00"	34.00"	3	8.0"
24"	40.00"	47.50"	5	8.0"
30"	55.00"	63.00"	5	9.0"
36"	58.00"	71.25"	6	8.0"

NOTE:
1. TO BE INSTALLED AT THE DISCHARGE OR INLET END OF ALL DRAINS 18" IN DIAMETER OR LARGER.

FLARED END GRATE DETAIL

SCALE: N.T.S.

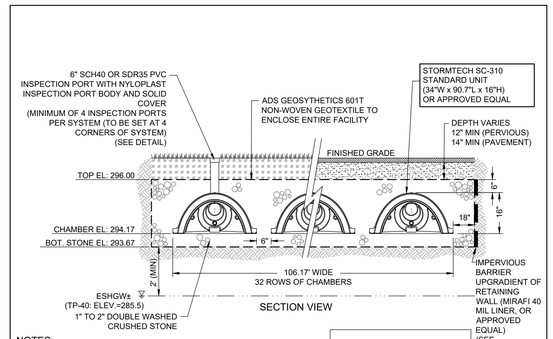


NOTES:

1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321, LATEST EDITION.
2. IN LIEU OF AN INTERNAL CYLINDER, AN HDPE WATERTIGHT REPAIR COUPLER CAN BE USED.
3. INTERNAL CYLINDER ADAPTER IS NOT RECOMMENDED FOR DOWNSTREAM CONNECTIONS.

CPP TO RCP CONNECTION (MARMAC) DETAIL

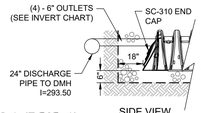
SCALE: N.T.S.



NOTES:

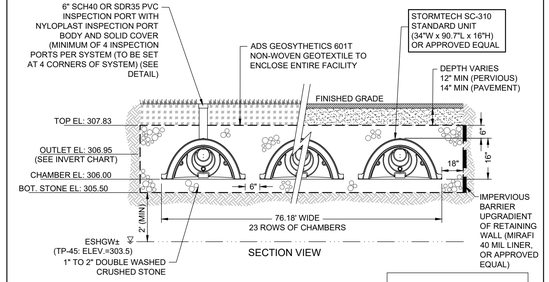
1. INSTALLED CHAMBER LENGTH IS 29.68'.
2. PROVIDE MINIMUM 4 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
4. SYSTEM COMPRISED OF 32 ROWS OF 4 CHAMBERS WITH A TOTAL OF 128 CHAMBERS.
5. CRUSHED STONE SYSTEM FOOTPRINT: 109.17' WIDE x 32.68' LONG.
6. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

INVERT CHART	
INLET ELEVATION:	294.17
OUTLET ELEVATION:	295.00*
* (4) - 6" OUTLETS TO CONNECT TO 24" DISCHARGE PIPE TO DMH	



SUBSURFACE INFILTRATION SYSTEM-1 (PSIS-1)

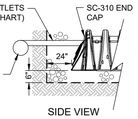
SCALE: N.T.S.



NOTES:

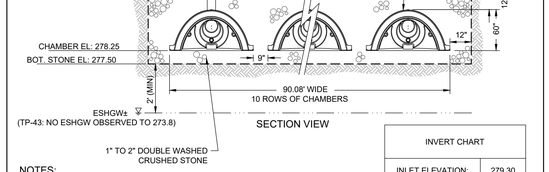
1. INSTALLED CHAMBER LENGTH IS 36.80'.
2. PROVIDE MINIMUM 2 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
4. SYSTEM COMPRISED OF 23 ROWS OF 5 CHAMBERS WITH A TOTAL OF 115 CHAMBERS.
5. CRUSHED STONE SYSTEM FOOTPRINT: 79.17' WIDE x 40.80' LONG.
6. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

INVERT CHART	
INLET ELEVATION:	306.00
OUTLET ELEVATION:	306.83*
* (4) - 6" OUTLETS TO CONNECT TO 18" DISCHARGE PIPE TO FES	



SUBSURFACE INFILTRATION SYSTEM-2 (PSIS-2)

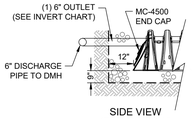
SCALE: N.T.S.



NOTES:

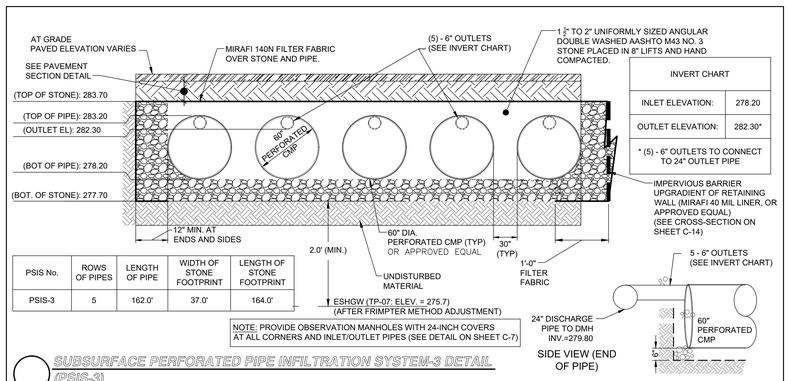
1. INSTALLED CHAMBER LENGTH IS 29.62'.
2. PROVIDE MINIMUM 4 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
4. SYSTEM COMPRISED OF 10 ROWS OF 6 CHAMBERS WITH A TOTAL OF 40 CHAMBERS.
5. CRUSHED STONE SYSTEM FOOTPRINT: 92.08' WIDE x 31.62' LONG.
6. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

INVERT CHART	
INLET ELEVATION:	279.30
OUTLET ELEVATION:	284.50*
* (1) - 6" OUTLET TO FES	



SUBSURFACE INFILTRATION INFILTRATION-6 (PSIS-6)

SCALE: N.T.S.

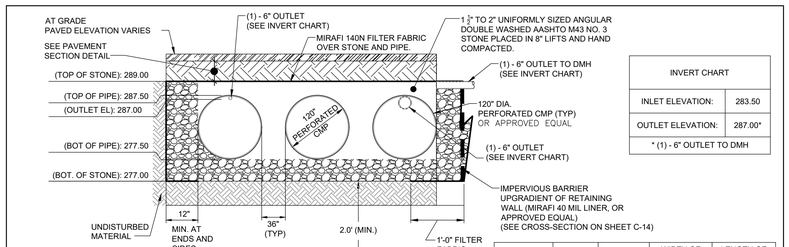


INVERT CHART	
INLET ELEVATION:	278.20
OUTLET ELEVATION:	282.30*
* (5) - 6" OUTLETS TO CONNECT TO 24" OUTLET PIPE	

PSIS No.	ROWS OF PIPES	LENGTH OF PIPE	WIDTH OF STONE FOOTPRINT	LENGTH OF STONE FOOTPRINT
PSIS-3	5	162.0'	37.0'	164.0'

SUBSURFACE PERFORATED PIPE INFILTRATION SYSTEM-3 DETAIL (PSIS-3)

SCALE: N.T.S.

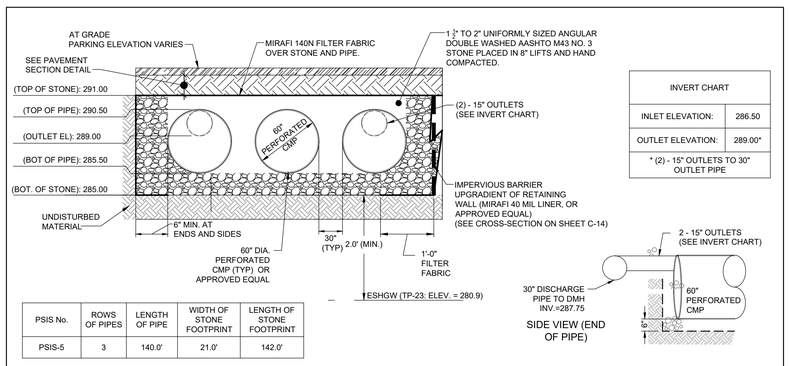


INVERT CHART	
INLET ELEVATION:	283.50
OUTLET ELEVATION:	287.00*
* (1) - 6" OUTLET TO DMH	

PSIS No.	ROWS OF PIPES	LENGTH OF PIPE	WIDTH OF STONE FOOTPRINT	LENGTH OF STONE FOOTPRINT
PSIS-4	3	118.0'	38.0'	120.0'

SUBSURFACE PERFORATED PIPE INFILTRATION SYSTEM-4 DETAIL (PSIS-4)

SCALE: N.T.S.



INVERT CHART	
INLET ELEVATION:	286.50
OUTLET ELEVATION:	289.00*
* (2) - 15" OUTLETS TO 30" OUTLET PIPE	

PSIS No.	ROWS OF PIPES	LENGTH OF PIPE	WIDTH OF STONE FOOTPRINT	LENGTH OF STONE FOOTPRINT
PSIS-5	3	140.0'	21.0'	142.0'

SUBSURFACE PERFORATED PIPE INFILTRATION SYSTEM-5 DETAIL (PSIS-5)

SCALE: N.T.S.

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-8 Site Details - IV.dwg
Jun 30, 2025 - 15:32pm

RJOC

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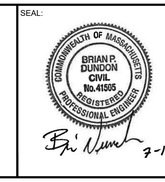
NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:



PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE DETAILS - IV

DRAWING NUMBER:

C-8

DATE: 10/30/2023 PROJECT NO.: 22016

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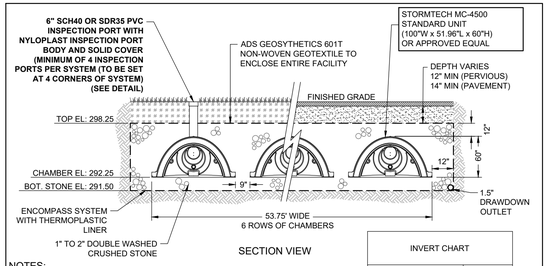


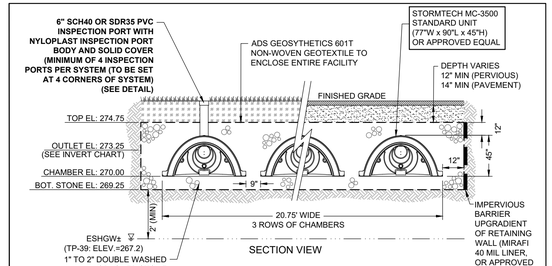
INVERT CHART	
INLET ELEVATION:	292.50
OUTLET ELEVATION:	296.70*
DRAWDOWN OUTLET ELEVATION:	291.50**
* (1) - 6" OUTLET	
** (1) - 1.5" OUTLET	

NOTES:

1. ISOLATOR ROW TO BE INSTALLED ON INLET ROW.
2. INSTALLED CHAMBER LENGTH IS 130.24'.
3. LIMITS OF DETENTION SYSTEM CRUSHED STONE TO BE ENCOMPASSED WITH THERMOPLASTIC LINER (TO BE DESIGNED BY OTHERS).
4. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
5. SYSTEM COMPRISED OF 6 ROWS OF 31 CHAMBERS WITH A TOTAL OF 186 CHAMBERS.
6. CRUSHED STONE SYSTEM FOOTPRINT: 55.75' WIDE x 132.24' LONG.
7. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

SUBSURFACE DETENTION SYSTEM-1 (PSDS-1)

SCALE: N.T.S.



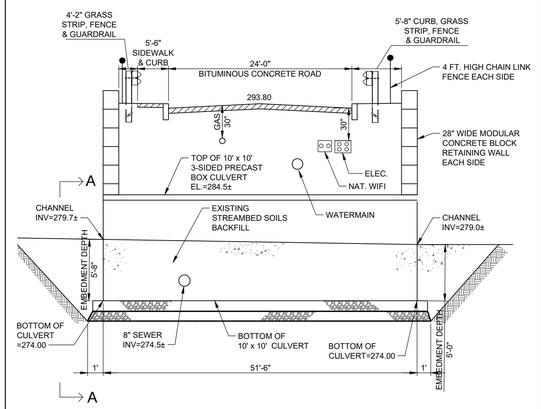
INVERT CHART	
INLET ELEVATION:	270.00
OUTLET ELEVATION:	273.25*
* (1) - 6" OUTLET TO 12" DISCHARGE PIPE TO FES	

NOTES:

1. INSTALLED CHAMBER LENGTH IS 46.72'.
2. PROVIDE MINIMUM 4 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
4. SYSTEM COMPRISED OF 3 ROWS OF 6 CHAMBERS WITH A TOTAL OF 18 CHAMBERS.
5. CRUSHED STONE SYSTEM FOOTPRINT: 22.75' WIDE x 48.72' LONG.
6. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

SUBSURFACE INFILTRATION SYSTEM-7 (PSIS-7)

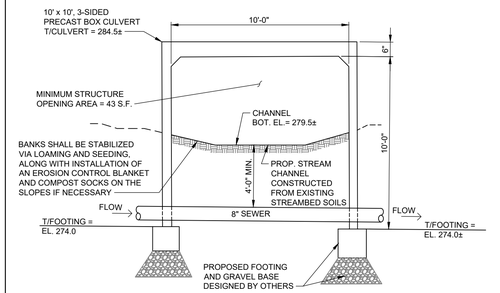
SCALE: N.T.S.



ELEVATION

NOTES:

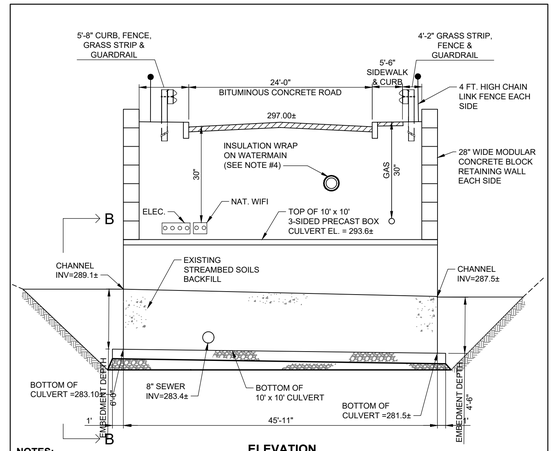
1. THE EXISTING STREAMBED SOILS SHALL BE REMOVED AND STOCKPILED SEPARATELY FOR REUSE IN REESTABLISHING THE STREAMBED AFTER CULVERT INSTALLATION.
2. RECONSTRUCT THE STREAMBED IN THE CULVERT WITH NATURAL BOTTOM SUBSTRATES THAT MATCH UNDISTURBED UPSTREAM AND DOWNSTREAM SUBSTRATES.
3. SEE ROADWAY SECTION AT INTERMITTENT STREAM CROSSING No. 1 ON THIS SHEET FOR ADDITIONAL ROADWAY INFORMATION.



SECTION A-A

INTERMITTENT STREAM CROSSING No. 1

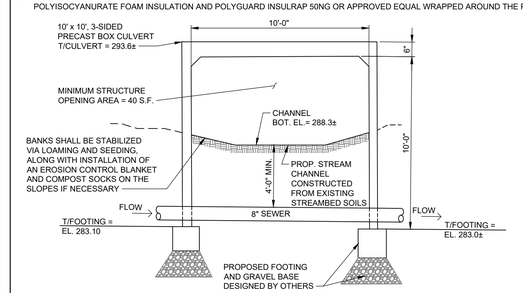
SCALE: N.T.S.



ELEVATION

NOTES:

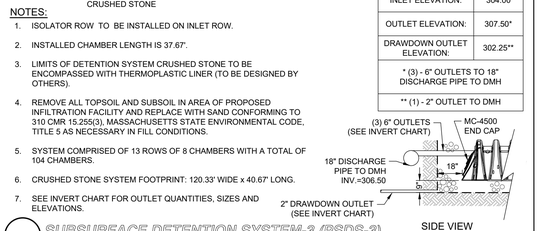
1. THE EXISTING STREAMBED SOILS SHALL BE REMOVED AND STOCKPILED SEPARATELY FOR REUSE IN REESTABLISHING THE STREAMBED AFTER CULVERT INSTALLATION.
2. RECONSTRUCT THE STREAMBED IN THE CULVERT WITH NATURAL BOTTOM SUBSTRATES THAT MATCH UNDISTURBED UPSTREAM AND DOWNSTREAM SUBSTRATES.
3. SEE ROADWAY SECTION AT INTERMITTENT STREAM CROSSING No. 1 ON THIS SHEET FOR ADDITIONAL ROADWAY INFORMATION.
4. WHERE COVER OVER THE WATERMAIN IS LESS THAT 5' THE PIPE SHALL BE INSULATED WITH 2" THICK TRYMER 2000XP POLYISOCYANURATE FOAM INSULATION AND POLYGUARD INSULRAP 50NG OR APPROVED EQUAL WRAPPED AROUND THE PIPE.



SECTION B-B

INTERMITTENT STREAM CROSSING No. 2

SCALE: N.T.S.



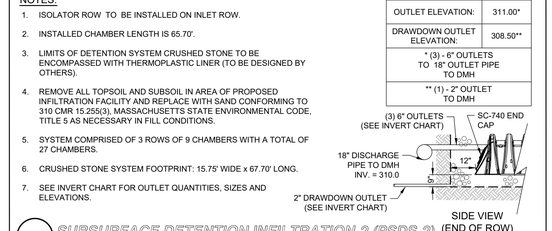
INVERT CHART	
INLET ELEVATION:	304.00
OUTLET ELEVATION:	307.50*
DRAWDOWN OUTLET ELEVATION:	302.25**
* (3) - 6" OUTLETS TO 18" DISCHARGE PIPE TO DMH	
** (1) - 2" OUTLET TO DMH	

NOTES:

1. ISOLATOR ROW TO BE INSTALLED ON INLET ROW.
2. INSTALLED CHAMBER LENGTH IS 37.67'.
3. LIMITS OF DETENTION SYSTEM CRUSHED STONE TO BE ENCOMPASSED WITH THERMOPLASTIC LINER (TO BE DESIGNED BY OTHERS).
4. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
5. SYSTEM COMPRISED OF 13 ROWS OF 8 CHAMBERS WITH A TOTAL OF 104 CHAMBERS.
6. CRUSHED STONE SYSTEM FOOTPRINT: 120.33' WIDE x 40.67' LONG.
7. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

SUBSURFACE DETENTION SYSTEM-3 (PSDS-3)

SCALE: N.T.S.



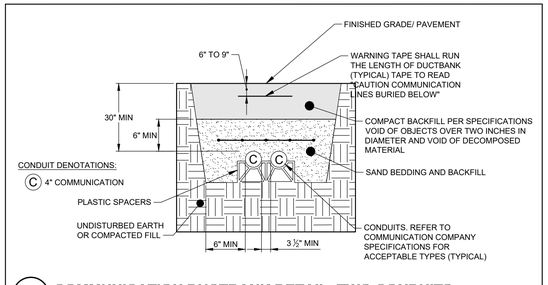
INVERT CHART	
INLET ELEVATION:	309.50
OUTLET ELEVATION:	311.00*
DRAWDOWN OUTLET ELEVATION:	308.50**
* (3) - 6" OUTLETS TO 18" OUTLET PIPE TO DMH	
** (1) - 2" OUTLET TO DMH	

NOTES:

1. ISOLATOR ROW TO BE INSTALLED ON INLET ROW.
2. INSTALLED CHAMBER LENGTH IS 65.70'.
3. LIMITS OF DETENTION SYSTEM CRUSHED STONE TO BE ENCOMPASSED WITH THERMOPLASTIC LINER (TO BE DESIGNED BY OTHERS).
4. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.
5. SYSTEM COMPRISED OF 3 ROWS OF 9 CHAMBERS WITH A TOTAL OF 27 CHAMBERS.
6. CRUSHED STONE SYSTEM FOOTPRINT: 15.75' WIDE x 67.70' LONG.
7. SEE INVERT CHART FOR OUTLET QUANTITIES, SIZES AND ELEVATIONS.

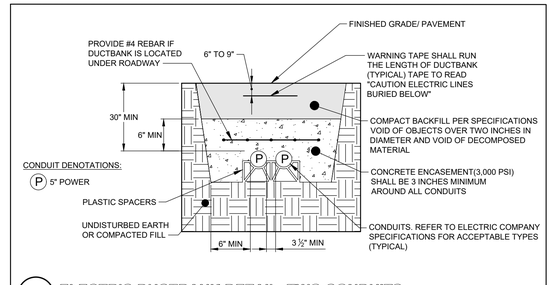
SUBSURFACE DETENTION INFILTRATION-2 (PSDS-2)

SCALE: N.T.S.



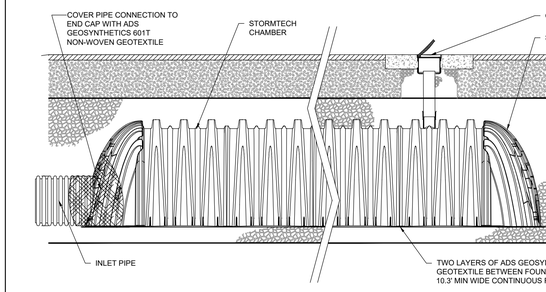
COMMUNICATION DUCTBANK DETAIL- TWO CONDUITS

SCALE: N.T.S.



ELECTRIC DUCTBANK DETAIL- TWO CONDUITS

SCALE: N.T.S.



ISOLATOR ROW DETAIL

NTS

TYPICAL STORMTECH ISOLATOR ROW DETAIL (PSDS-1, PSDS-2 & PSDS-3)

SCALE: N.T.S.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. OBSERVATION PORTS
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-9 Site Details - V.dwg
Jun 30, 2025 - 15:32pm

RJOC

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NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE DETAILS - V

DRAWING NUMBER:

C-9

DATE: 10/30/2023 PROJECT NO.: 22016

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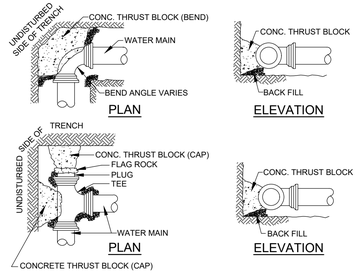


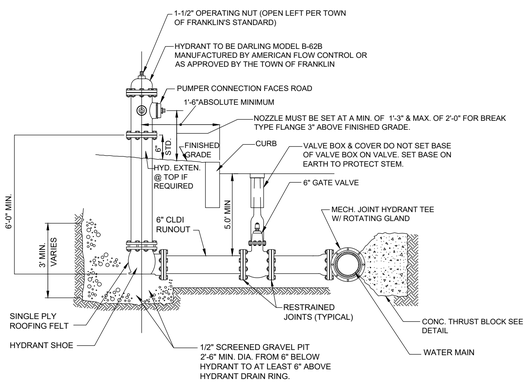
MINIMUM THRUST BLOCKING BEARING AREAS IN SQUARE FEET					
PIPE DIA.	TEES/CAP/HYD	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	2	2	2	2	1
6"	4	5	3	2	1
8"	6	8	5	2	1
10"	9	13	7	3	2
12"	13	18	10	4	3
14"	18	25	14	6	4
16"	23	32	18	8	6

NOTES:

1. ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
2. ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
3. SIZE OF CONCRETE THRUST BLOCKS AS NOTED ABOVE.
4. MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 4,000 P.S.I.
5. MINIMUM BEARING AREA BASED ON 2000 LB/SF ALLOWABLE SOIL BEARING PRESSURE WITH A 1.5 SAFETY FACTOR.
6. A MINIMUM OF 1/3 CUBIC YARD OF CONCRETE MUST BE USED FOR THRUST BLOCKS
7. MATERIALS, METHOD INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S WATER/SEWER DEPARTMENT'S SPECIFICATIONS.

TYPICAL THRUST BLOCK DETAIL

SCALE: N.T.S.

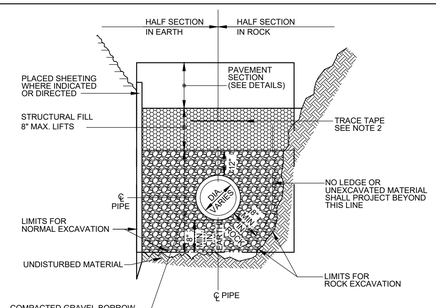


NOTE:

1. HYDRANT MATERIALS AND INSTALLATION SHALL MEET OR EXCEED THE TOWN OF FRANKLIN'S WATER AND/OR FRANKLIN FIRE DEPARTMENT'S SPECIFICATIONS.
2. HYDRANT TO BE FACTORY PAINTED PER THE TOWN OF FRANKLIN'S REQUIREMENTS (ORANGE WITH WHITE BONNET AND HUBS).
3. HYDRANTS SHALL BE INSTALLED NOT LESS THAN 34 INCHES FROM GROUND AND NOT MORE THAN 40 INCHES HIGH.

TYPICAL FIRE HYDRANT CONNECTION DETAIL

SCALE: N.T.S.

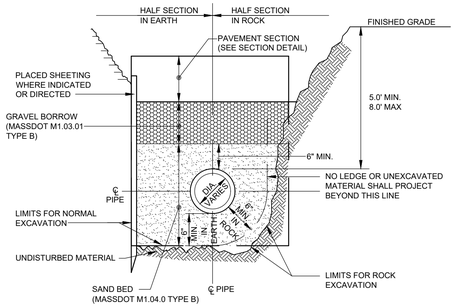


NOTE:

1. METHODS OF INSTALLATION MUST MEET OR EXCEED THE TOWN OF FRANKLIN'S SEWER DEPARTMENT AND PIPE MANUFACTURER'S SPECIFICATION'S.
2. ALL BUILDING SEWERS AND SEWER LINES SHALL HAVE A METALLIC TRACE TAPE IN THE TRENCH ONE FOOT BELOW FINISHED GRADE.

TYPICAL SEWER TRENCH DETAIL

SCALE: N.T.S.

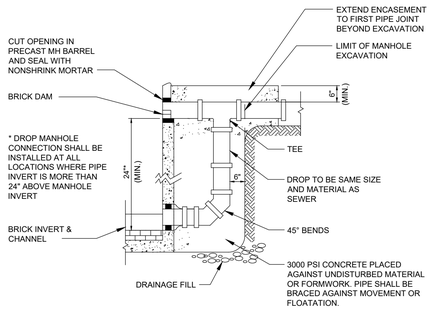


NOTE:
WHERE MORE STRINGENT, CONTRACTOR SHALL COMPLY WITH TOWN OF FRANKLIN'S WATER DEPARTMENT AND PIPE MANUFACTURER'S SPECIFICATIONS.

TYPICAL WATER TRENCH DETAIL

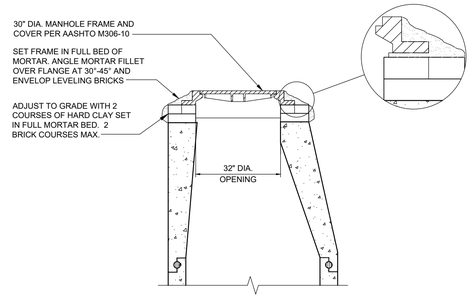
SCALE: N.T.S.

NOTE:
DIMENSIONS AND CONSTRUCTION OF DROP MANHOLE TO BE SIMILAR TO TYPICAL MANHOLE EXCEPT AS SHOWN.



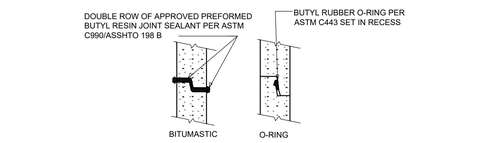
TYPICAL EXTERIOR DROP SEWER MANHOLE CONNECTION DETAIL

SCALE: N.T.S.



PRECAST CONCRETE SEWER MANHOLE (SMH) CASTING DETAIL

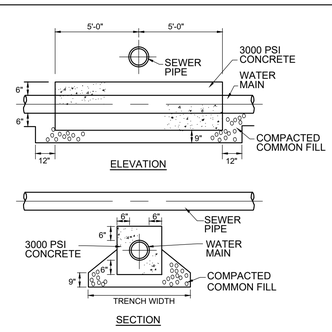
SCALE: N.T.S.



NOTES:
1. HORIZONTAL JOINTS BETWEEN PRECAST CONCRETE MANHOLE SECTIONS SHALL BE OF A TYPE APPROVED BY THE ENGINEER. JOINTS SHALL BE MADE WATERTIGHT WITH A BUTYL RUBBER O-RING PER ASTM C443 OR A DOUBLE ROW OF BUTYL RESIN JOINT SEALANT IN ROPE FORM CONFORMING TO AASHTO 198 B/ASTM C990.
2. ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
4. MATERIALS AND METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS.

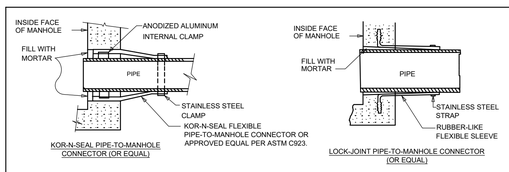
DETAIL 'A' SEWER MANHOLE JOINTING METHODS

SCALE: N.T.S.



CONCRETE ENCASEMENT DETAIL

SCALE: N.T.S.

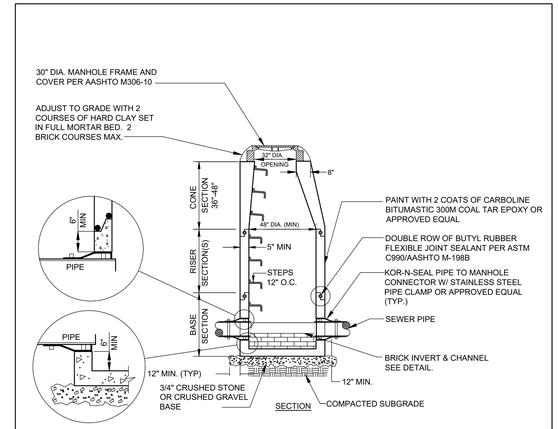


NOTES:

1. PIPE TO MANHOLE CONNECTIONS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND SHALL BE WATERTIGHT.
2. MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO TOWN OF FRANKLIN'S SPECIFICATIONS.

PIPE CONNECTIONS TO SEWER MANHOLE DETAIL

SCALE: N.T.S.

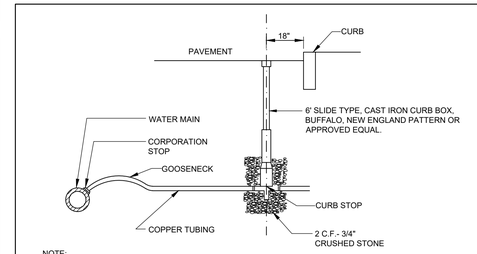


NOTES:

1. MANHOLES AND ALL COMPONENT PARTS SHALL BE OF SIZE, STRENGTH AND CONFIGURATION AS SHOWN EXCEPT THAT TOP SLABS MAYBE SUBSTITUTED FOR ECCENTRIC CONE SECTIONS. MANHOLES SHALL BE AN ASSEMBLY OF REINFORCED, PRECAST CONCRETE BASE RISER SECTIONS PER ASTM C478 OR MONOLITHICALLY, CAST-IN-PLACE REINFORCED CONCRETE. APPROVED MANHOLE STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED TO MEET OR EXCEED H-20 LOADING AND PREVENT LEAKAGE IN EXCESS OF ONE (1) GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.
2. MANHOLE STEPS TO BE STEEL REINFORCED, CO-PLYMER, POLY-PROPLYLENE PLASTIC CONFORMING TO ASTM D4101. STEEL REINFORCING SHALL BE A DEFORMED 1/2" ROD, GRADE 60, ASTM A615. ALIGN STEPS WITH MANHOLE OPENING.

PRECAST CONC. SEWER MANHOLE (SMH) WITH BRICK INVERT

SCALE: N.T.S.

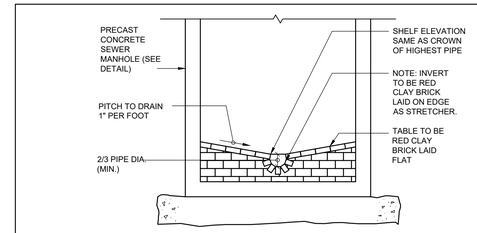


NOTE:

1. INSTALLATION AND MATERIALS TO BE IN ACCORDANCE WITH TOWN OF FRANKLIN'S SPECIFICATIONS.
2. WATER SERVICES LARGER THAN 1" ARE TO BE RESTRAINED TO MAIN W/ APPROVED SADDLE.

TYPICAL WATER SERVICE CONNECTION DETAIL

SCALE: N.T.S.



NOTES:

1. MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS

TYPICAL BRICK INVERT SECTION FOR SEWER MANHOLE

SCALE: N.T.S.

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-10 Site Details - VI.dwg
Jul 21, 2025 - 13:12pm

RJOC

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NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE DETAILS - VI

DRAWING NUMBER:

C-10

DATE: 10/30/2023 PROJECT NO.: 22016

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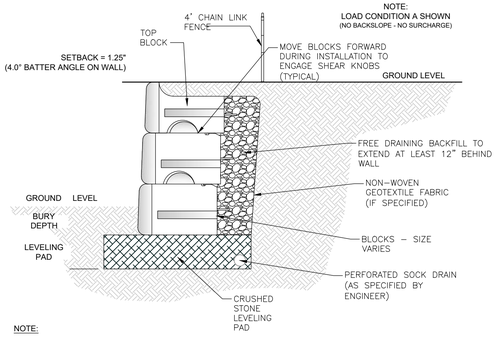
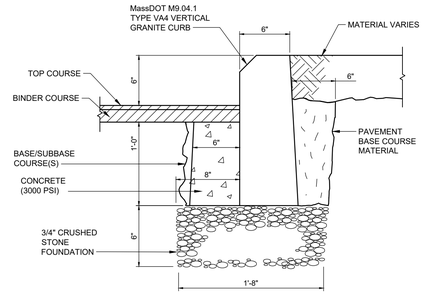


NOTE:

1. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL COSTS ASSOCIATED WITH RETAINING WALL SHOP DRAWINGS THAT HAVE BEEN PREPARED BY A LICENSED ENGINEER. THE CONTRACTOR WILL SUBMIT TO THE ENGINEER A SET OF RETAINING WALL PLANS FOR REVIEW OF DIMENSIONAL REQUIREMENTS PRIOR TO INSTALLATION OF THE WALL. DESIGN OF RETAINING WALL TO INCLUDE A GLOBAL STABILITY ANALYSIS USING FEDERAL HIGHWAY ADMINISTRATION CRITERIA.

TYPICAL GRAVITY 'DESIGN BUILD' WALL (REDI-ROCK OR APPROVED EQUAL) (LARGE BLOCK WALL)

SCALE: N.T.S.

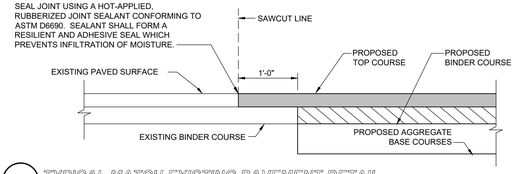


VERTICAL GRANITE CURB DETAIL <A>

SCALE: N.T.S.

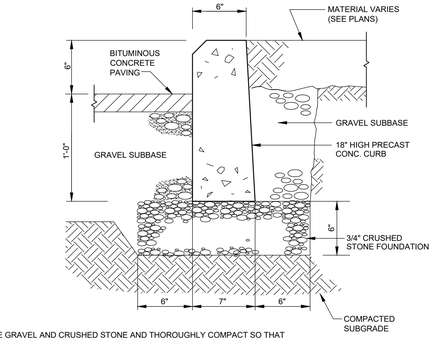
LEDGE CUT DETAIL

SCALE: N.T.S.



TYPICAL MATCH EXISTING PAVEMENT DETAIL

SCALE: N.T.S.

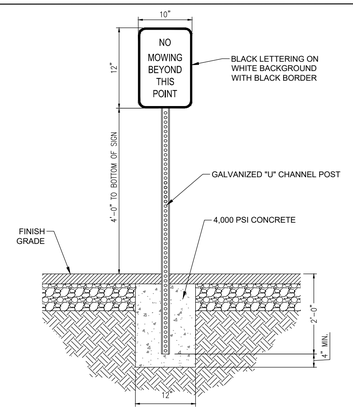


NOTES:

1. PLACE GRAVEL AND CRUSHED STONE AND THOROUGHLY COMPACT SO THAT CURBING IS COMPLETELY SUPPORTED THROUGHOUT ITS LENGTH.
2. CURBING SHALL BE FITTED TOGETHER AS CLOSELY AS POSSIBLE, JOINTS FILLED WITH CEMENT MORTAR AND NEATLY POINTED ON THE TOP AND FRONT EXPOSED PORTIONS. AFTER POINTING, CURBING SHALL BE CLEANED OF ALL EXCESS MORTAR FORCED OUT OF JOINTS.

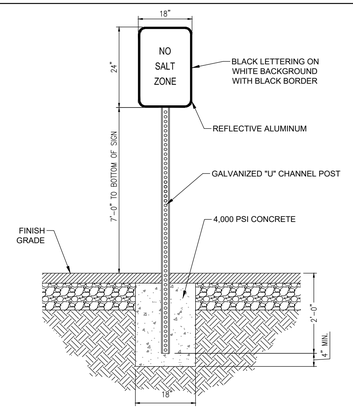
PRE-CAST CONCRETE CURB DETAIL <B>

SCALE: N.T.S.



NO MOWING SIGN (X-1)

SCALE: N.T.S.



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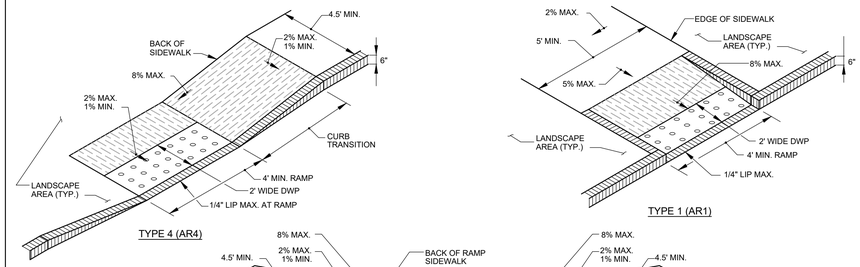
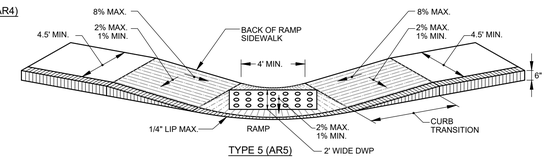
SCALE: N.T.S.



TYPE 4 (AR4)

TYPE 1 (AR1)



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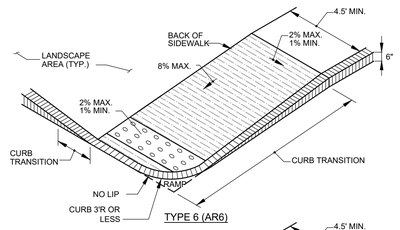

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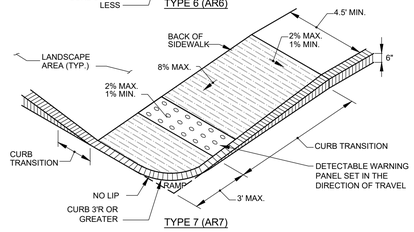

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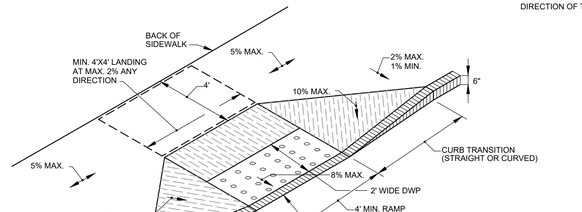

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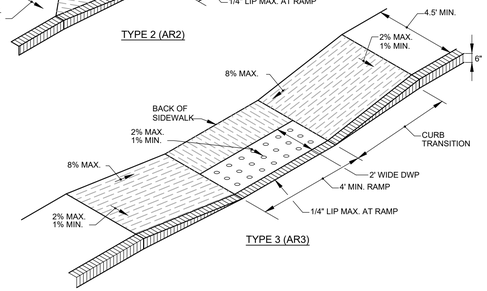

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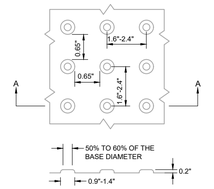


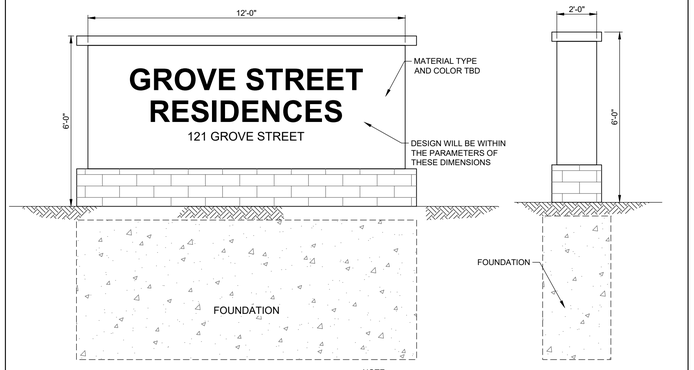
DETECTABLE WARNING PANEL (DWP)

NOTES:

1. SEE PLANS FOR CURB TYPE.
2. CURBS AND WALKS ALONG ACCESSIBLE ROUTES SHALL MEET OR EXCEED THE APPLICABLE MA REGULATIONS AND ADA.
3. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 2% (1% MIN).
4. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
5. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 8%.
6. MAINTAIN A MINIMUM OF 3 FEET CLEAR AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS ETC.)
7. GRADE BASE OF RAMP TO PREVENT PONDING.
8. RAMP CONSTRUCTION SHALL CONFORM TO TYPICAL SIDEWALK SECTION.
9. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5'X5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
10. ALL CURBING AT RAMPS SHALL BE VERTICAL CURBING SET FLUSH WHERE IT ABUTS ROADWAY.
11. ALL RAMPS SHALL BE CEMENT CONCRETE WITH BROOM NON-SLIP SURFACE.
12. ALL RAMPS SHALL HAVE A 24" WIDE DETECTABLE WARNING PANEL EXTENDING THE FULL WIDTH OF THE FLUSH RAMP EDGE.
13. DETECTABLE WARNING PANEL SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL TO THE MAXIMUM EXTENT PRACTICABLE.

ACCESSIBLE CURB RAMPS (AR)

SCALE: N.T.S.

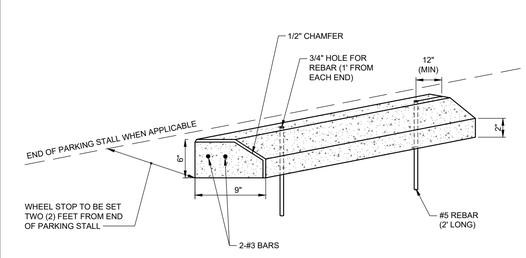


NOTE

SIGN TO BE EITHER INTERNAL ILLUMINATED OR EXTERNAL ILLUMINATED BASED ON FINAL DESIGN. INTERIOR LIGHTING SHALL BE NON -EXPOSED. EXTERNAL LIGHTING SHALL BE SHIELDED AND DIRECTED SOLELY AT THE SIGN.

TYPICAL CONCRETE SIDEWALK DETAIL

SCALE: N.T.S.



NOTES:

1. CENTER WHEEL STOP IN PARKING STALL.
2. CONCRETE 4,000 PSI MINIMUM AFTER 28 DAYS.

TYPICAL PRECAST CONCRETE WHEEL STOP DETAIL

SCALE: N.T.S.

NO.	REVISION	DATE
7.	90% CD SET	03/25/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

DRAWING NAME: SITE DETAILS - VII

PROJECT NAME: GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NUMBER: C-11

DATE: 10/30/2023 PROJECT NO.: 22016

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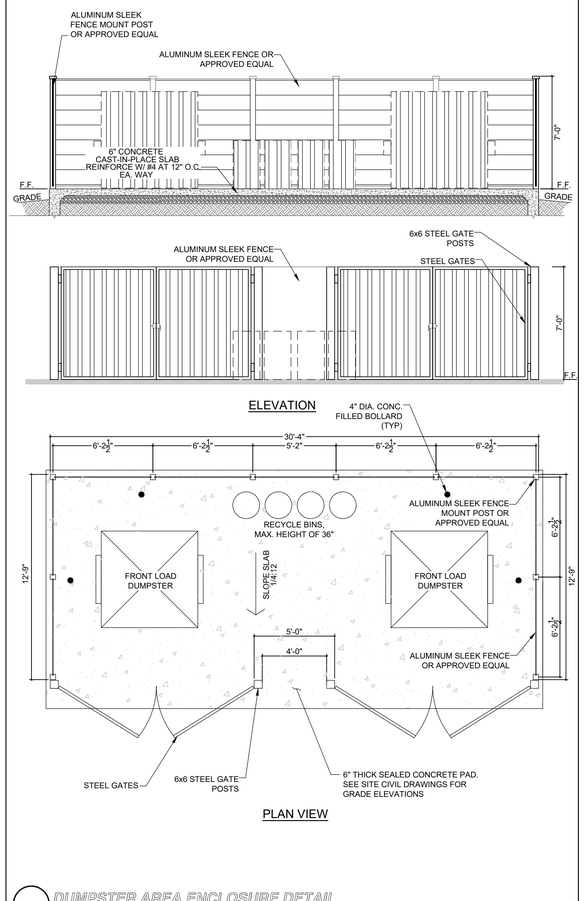
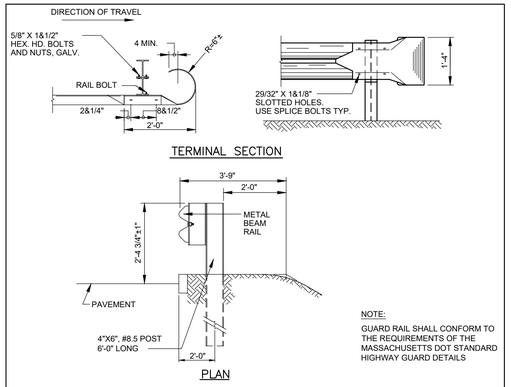
Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-11 Site Details - VII.dwg
Jul 17, 2025 - 9:12am



DUMPSTER AREA ENCLOSURE DETAIL

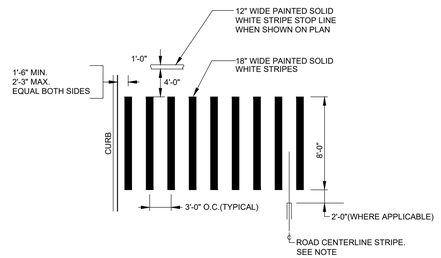
SCALE: N.T.S.



NOTE:
GUARD RAIL SHALL CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS DOT STANDARD HIGHWAY GUARD DETAILS

TYPICAL W-BEAM GUARDRAIL/TERMINAL SECTION DETAIL

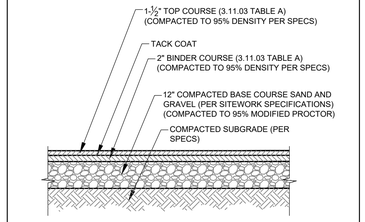
SCALE: N.T.S.



NOTE:
ROAD CENTERLINE (STRIPE) TO ALIGN WITH STRIPE OR SPACE CENTERLINE (SPACE SHOWN)

TYPICAL 18" WIDE 90° PAINTED CROSSWALK DETAIL

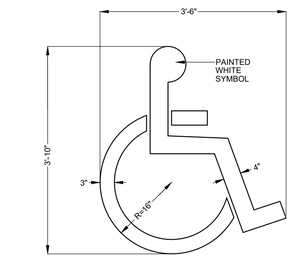
SCALE: N.T.S.



NOTE:
FOR PAVEMENT MATERIALS REFER TO MassDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, LATEST EDITIONS.

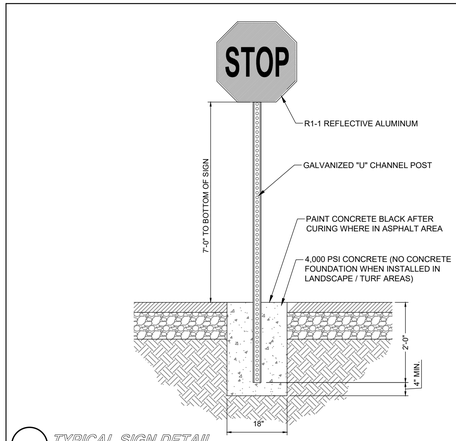
ASPHALT PAVEMENT SECTION

SCALE: N.T.S.



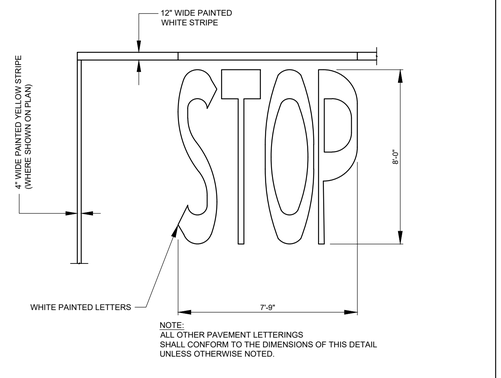
TYPICAL PAINTED HANDICAP SYMBOL DETAIL

SCALE: N.T.S.



TYPICAL SIGN DETAIL

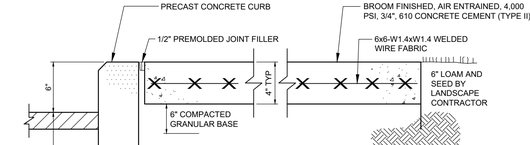
SCALE: N.T.S.



NOTE:
ALL OTHER PAVEMENT LETTERINGS SHALL CONFORM TO THE DIMENSIONS OF THIS DETAIL UNLESS OTHERWISE NOTED.

TYPICAL PAINTED "STOP" DETAIL

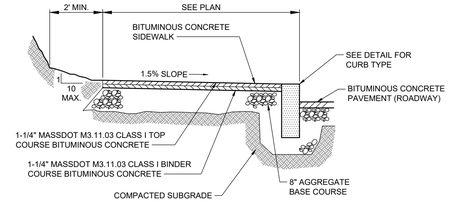
SCALE: N.T.S.



1. CONTRACTION JOINTS SPACE TO BE EQUAL TO SIDEWALK WIDTH.
2. EXPANSION JOINTS 30' O.C.
3. ALL JOINTS SEALED PER SPEC

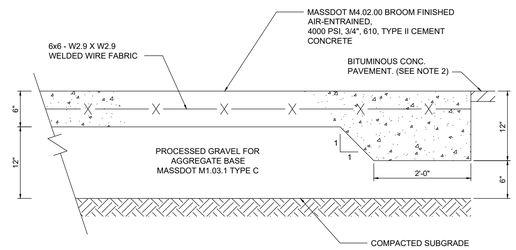
TYPICAL CONCRETE SIDEWALK DETAIL

SCALE: N.T.S.



BITUMINOUS SIDEWALK DETAIL

SCALE: N.T.S.

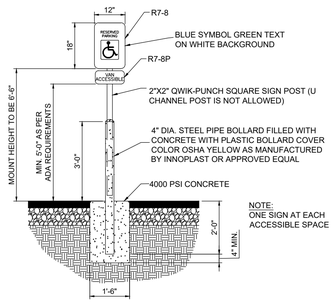


NOTES:

1. CONSTRUCTION AND MATERIALS PER GEOTECHNICAL ANALYSIS.
2. WHERE CONCRETE PAVEMENT ABUTS BITUMINOUS CONCRETE PAVEMENT, INCREASE THE OUTER 2' OF THE CONCRETE PAVEMENT TO 12".

TYPICAL CONCRETE PAVEMENT SECTION - DUMPSTER PAD

SCALE: N.T.S.

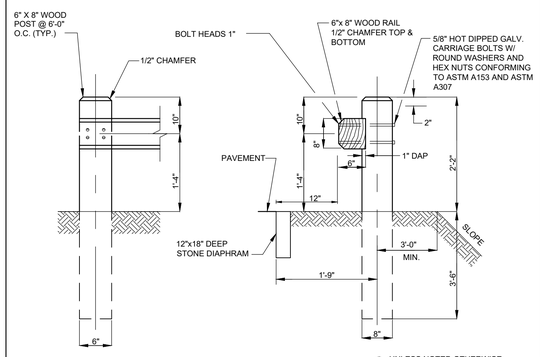


NOTE:
ONE SIGN AT EACH ACCESSIBLE SPACE

NOTE:
NO BOLLARD REQUIRED WHEN SIGN IS LOCATED AT BACK OF SIDEWALK.

BOLLARD MOUNTED ACCESSIBLE PARKING SIGN DETAIL

SCALE: N.T.S.

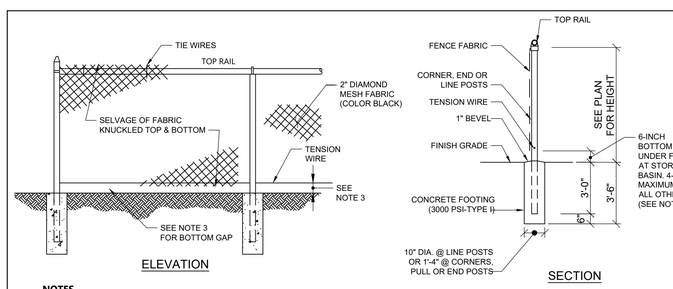


* UNLESS NOTED OTHERWISE ON THE PLANS.

NOTE:
ALL TIMBERS SHALL MEET THE REQUIREMENTS OF AASHTO M-168 AND SHALL BE PRESSURED TREATED PER AASHTO M-133.

TYPICAL WOOD BEAM GUIDE RAIL DETAIL

SCALE: N.T.S.



NOTES

1. MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.
2. ALL POSTS, RAILS, FABRIC AND COMPONENTS SHALL BE BLACK VINYL COATED.
3. PROVIDE A MINIMUM OF A 6-INCH BOTTOM GAP UNDER FENCING THAT SURROUNDS SURFACE STORMWATER BASIN TO FACILITATE WILDLIFE MOVEMENT FOR SMALL SPECIES. A MAXIMUM OF 4-INCH GAP AT ALL OTHER FENCES.

TYPICAL BLACK VINYL COATED CHAIN LINK FENCE DETAIL

SCALE: N.T.S.

RJOC

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NO.	REVISION	DATE
7.	90% CD SET	07/01/2025
6.	100% DD SET	03/25/2025
5.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

SITE DETAILS - VIII

DRAWING NUMBER:

C-12

DATE: 10/30/2023 PROJECT NO.: 22016

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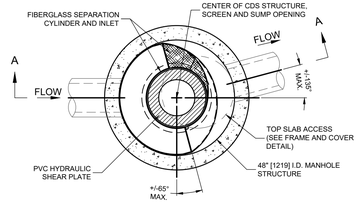
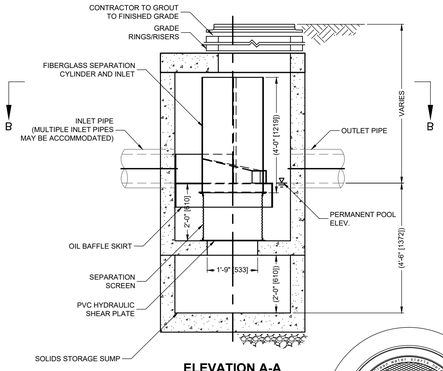
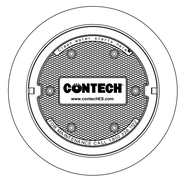
Jul 11, 2025 - 11:09am



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

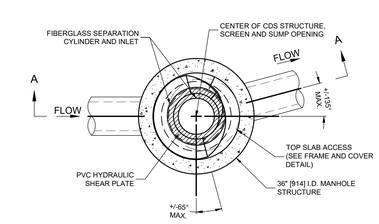


FRAME AND COVER
N.T.S.

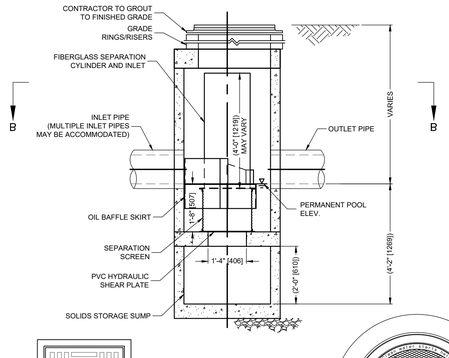
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

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.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
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.

CDS-2 (CDS2015-4-C) DETAIL
SCALE: N.T.S.

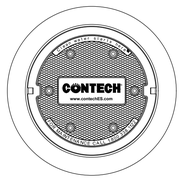


PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

FRAME AND GRATE
(MAY VARY)
NOT TO SCALE



FRAME AND COVER
N.T.S.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
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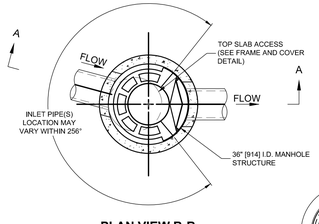
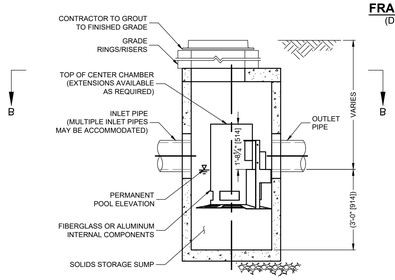
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
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.

CDS-1, 4-6, 8, 10, 12-15 (CDS1515-3-C) DETAIL
SCALE: N.T.S.



PLAN VIEW B-B
NOT TO SCALE

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

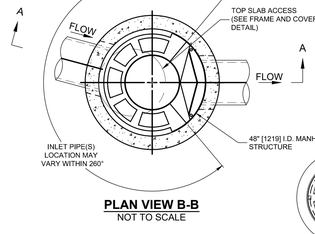


ELEVATION A-A
NOT TO SCALE

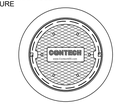
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

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 CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
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.

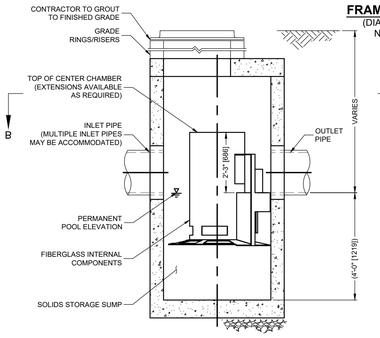
CDS-9 (CS-3) CASCADE SEPARATOR STANDARD DETAIL
SCALE: N.T.S.



PLAN VIEW B-B
NOT TO SCALE



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
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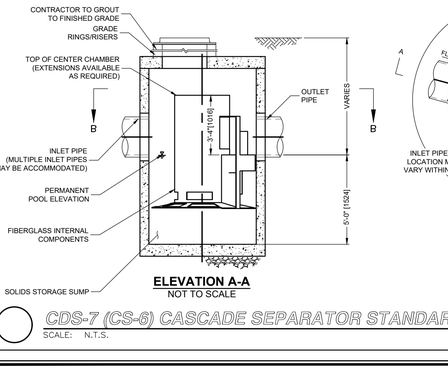
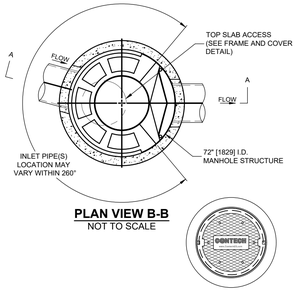
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CDS-11 (CS-4) CASCADE SEPARATOR STANDARD DETAIL
SCALE: N.T.S.



ELEVATION A-A
NOT TO SCALE



PLAN VIEW B-B
NOT TO SCALE

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
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6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
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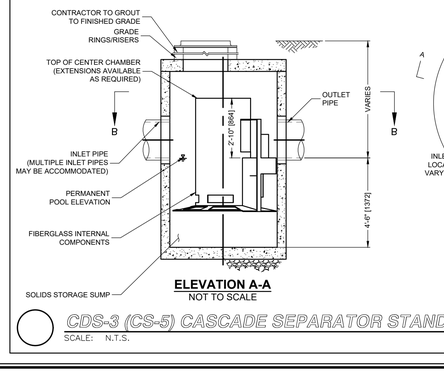
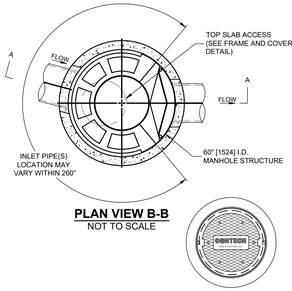
CDS-7 (CS-6) CASCADE SEPARATOR STANDARD DETAIL
SCALE: N.T.S.



ELEVATION A-A
NOT TO SCALE



PLAN VIEW B-B
NOT TO SCALE

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

GENERAL NOTES
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CDS-3 (CS-5) CASCADE SEPARATOR STANDARD DETAIL
SCALE: N.T.S.

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-13 Site Details - IX.dwg
Jun 30, 2025 - 15:35pm

RJOC

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NO.	REVISION	DATE
6.	90% CD SET	07/01/2025
5.	100% DD SET	03/25/2025
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
3.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
1.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41055
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

DRAWING NAME: SITE DETAILS - IX

PROJECT NAME: GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NUMBER: C-13

DATE: 02/02/2024 PROJECT NO.: 22016

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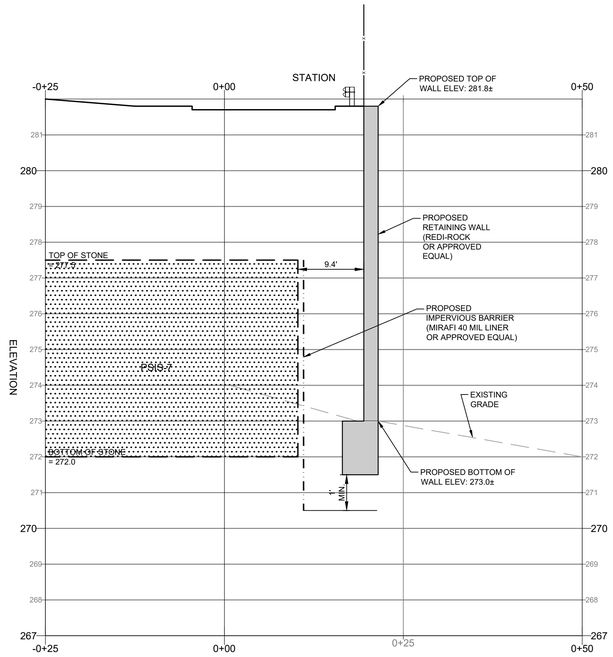
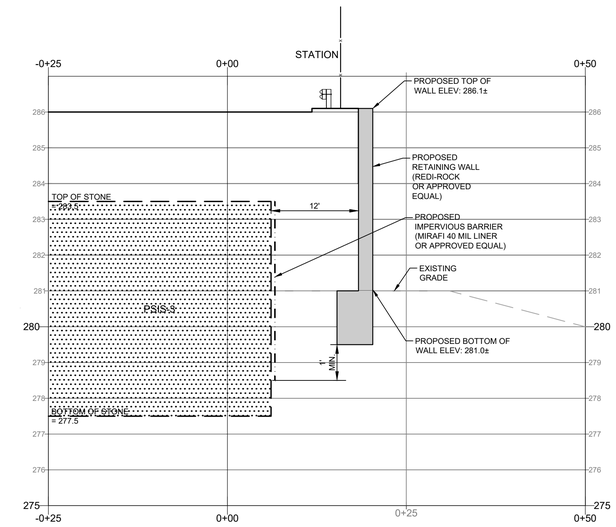


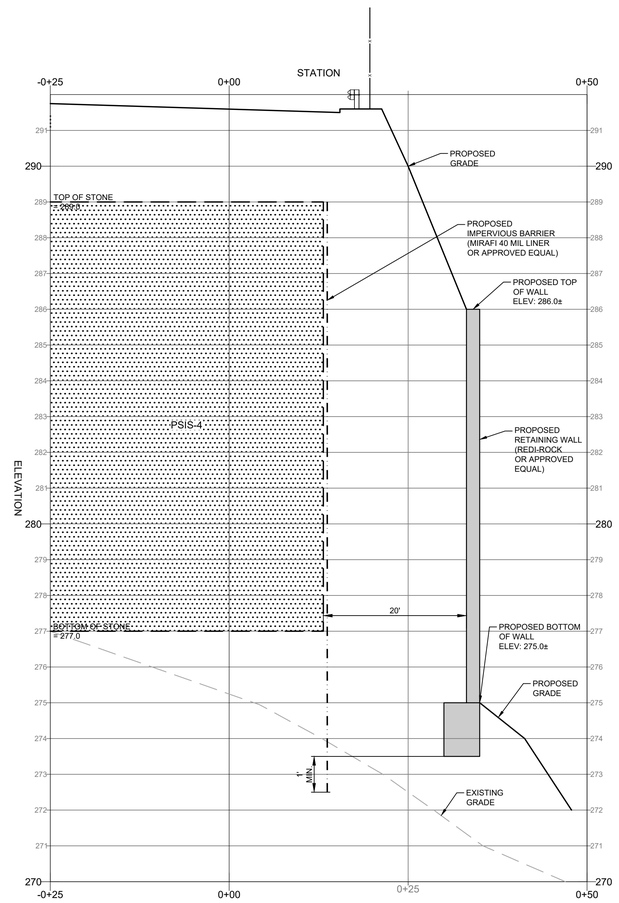
PROPOSED CROSS SECTION A-A

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'



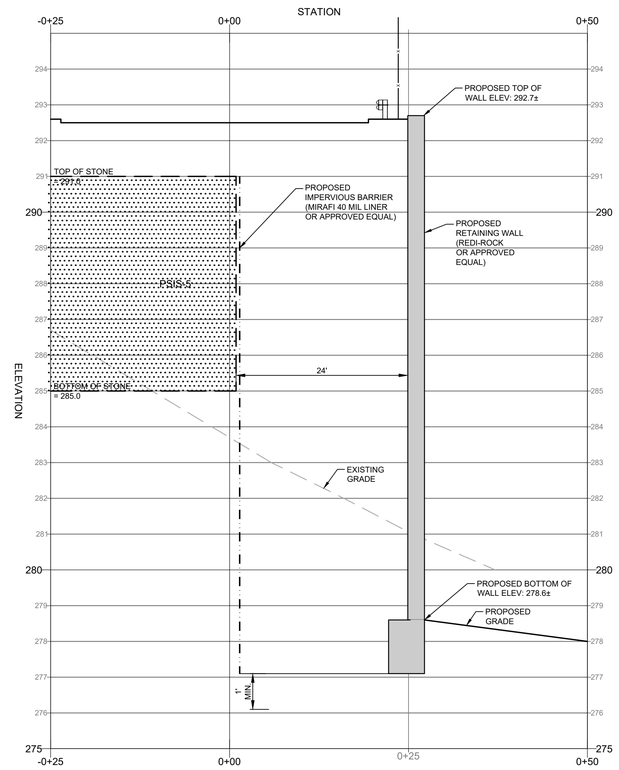
PROPOSED CROSS SECTION B-B

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'



PROPOSED CROSS SECTION C-C

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'



PROPOSED CROSS SECTION D-D

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'

20 0 10 20 40
GRAPHIC SCALE IN FEET

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\220216_C-14 Retaining Wall Cross Sections.dwg
Jun 30, 2025 - 15:36pm

RJOC

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NO.	REVISION	DATE
6.	90% CD SET	07/01/2025
5.	100% DD SET	03/25/2025
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
3.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
1.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	AS NOTED

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

RETAINING WALL CROSS SECTION PLAN

DRAWING NUMBER:

C-14

DATE: 02/02/2024 PROJECT NO.: 22016

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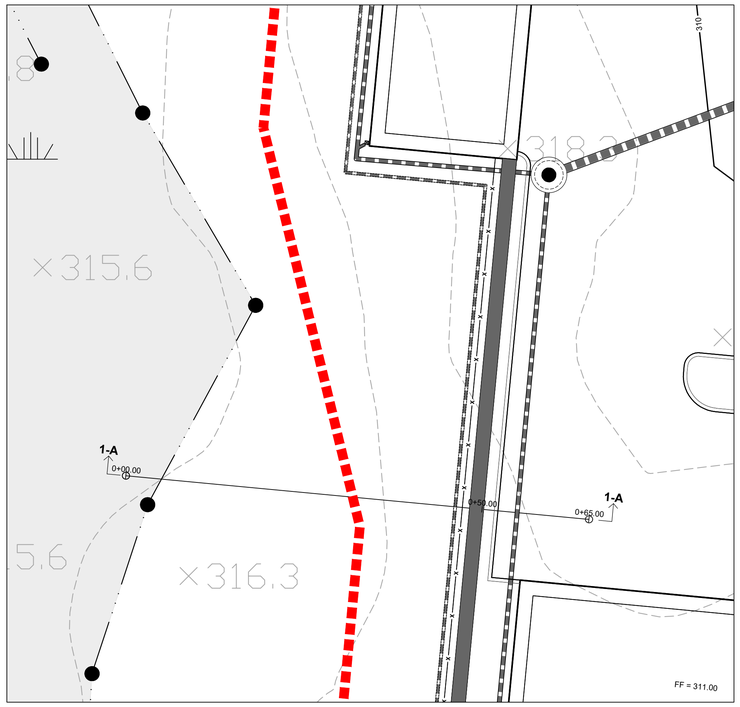
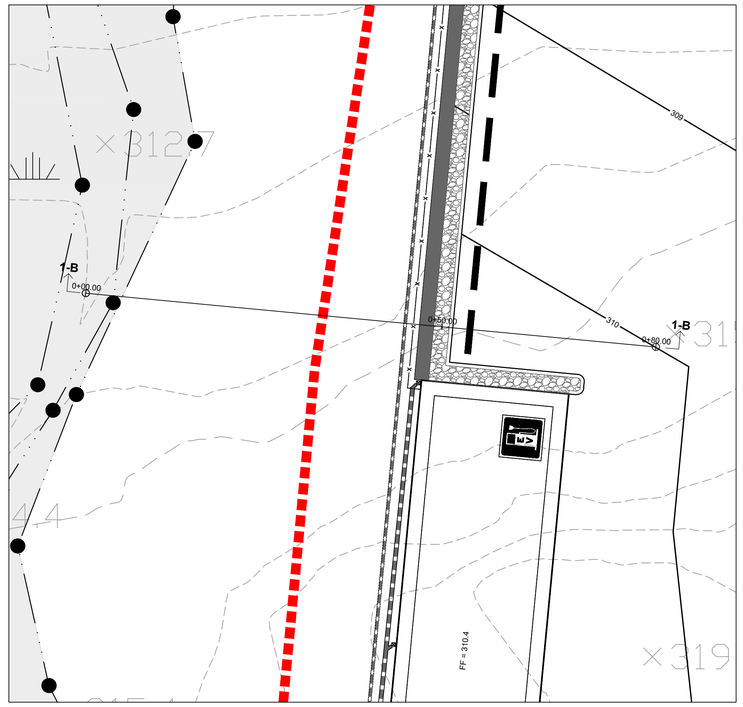
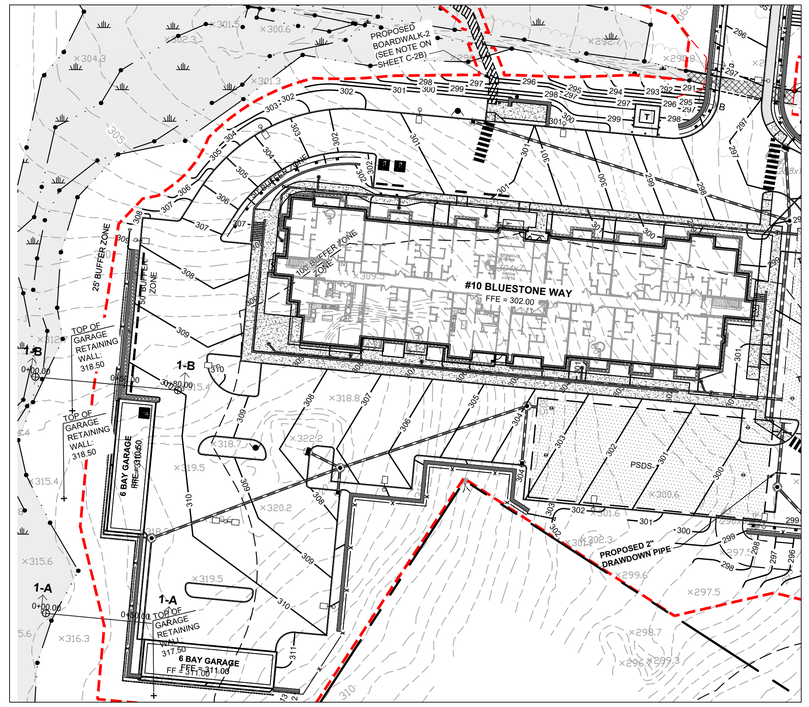


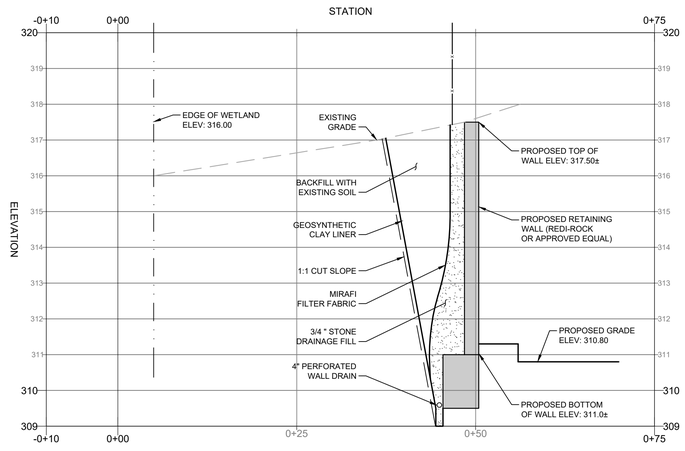
PLAN VIEW 1A-1A
SCALE: 1" = 10'



PLAN VIEW 1B-1B
SCALE: 1" = 10'



PROPOSED BUILDING 1
SCALE: 1" = 40'



PROPOSED CROSS SECTION 1A-1A
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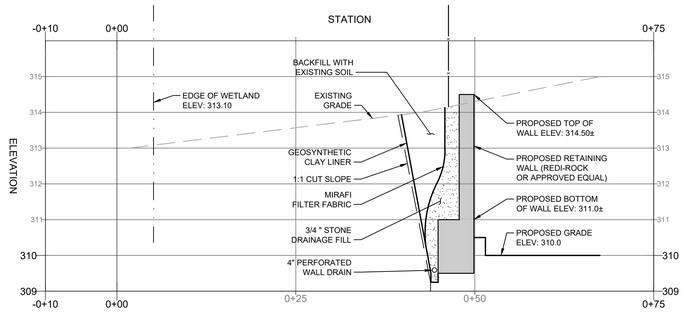
VERTICAL SCALE: 1" = 1'



PROPOSED CROSS SECTION 1B-1B
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 1'

10 0 5 10 20
GRAPHIC SCALE IN FEET

RJOC

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NO.	REVISION	DATE
6.	90% DD SET	07/01/2025
5.	100% DD SET	03/25/2025
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
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2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
1.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	AS NOTED

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

RETAINING WALL CROSS SECTION PLAN

DRAWING NUMBER:

C-15

DATE: 02/02/2024 PROJECT NO.: 22016

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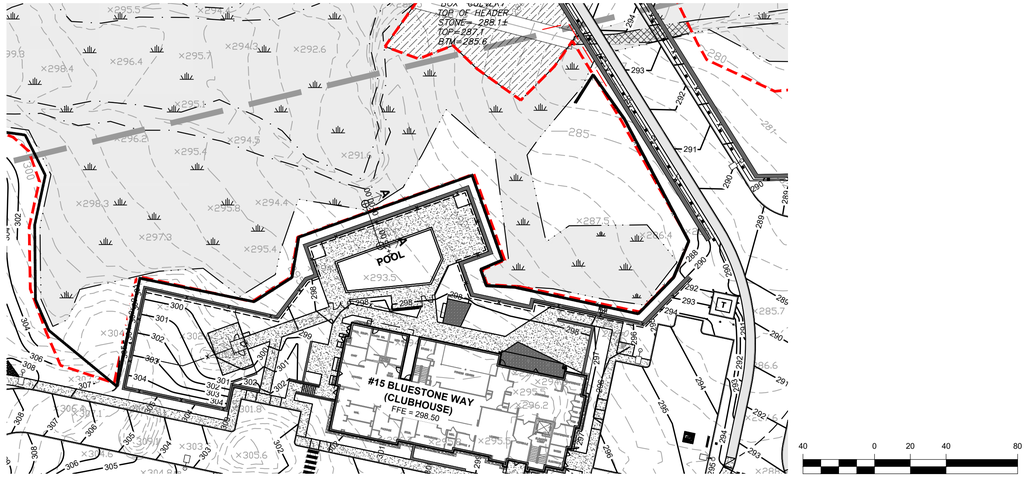
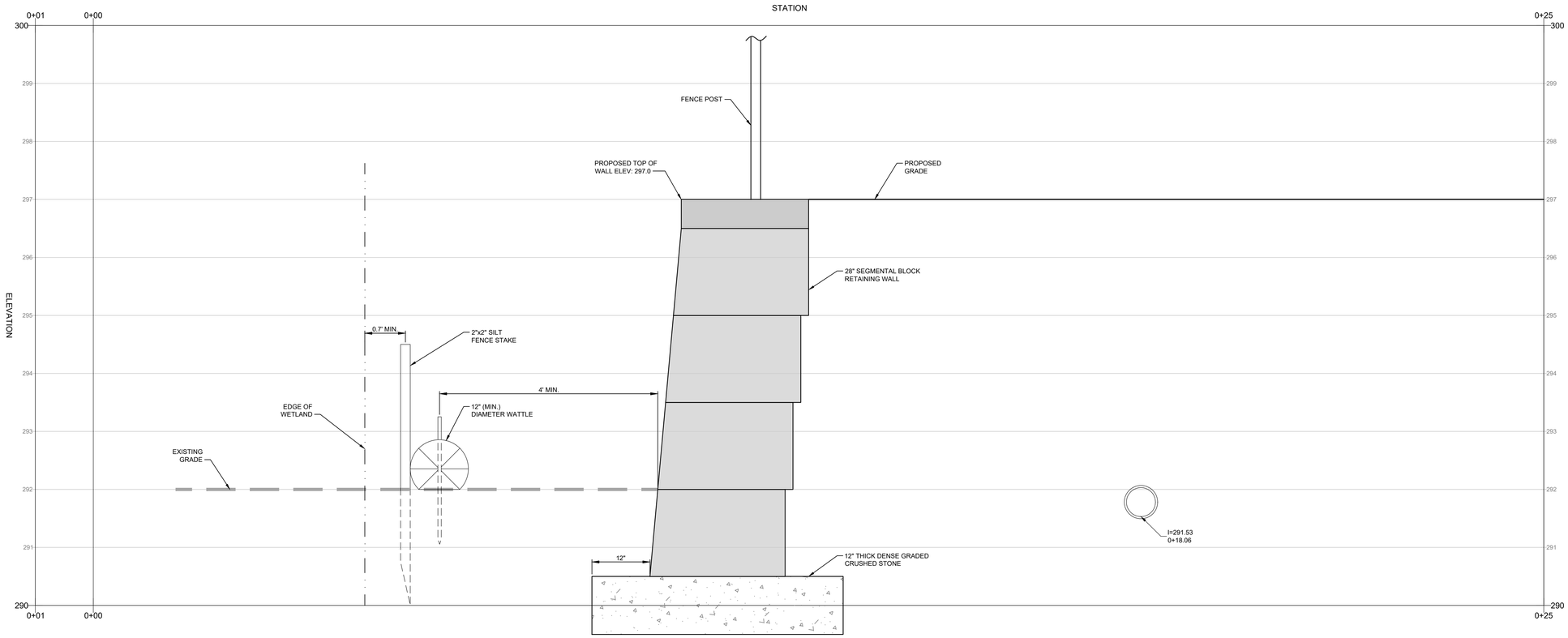
Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-15 Retaining Wall Cross Sections.dwg
Jun 30, 2025 - 15:39pm



PLAN VIEW A-A
SCALE: 1" = 5'



PROPOSED CROSS SECTION A-A
HORIZONTAL SCALE: 1" = 1'
VERTICAL SCALE: 1" = 1'

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_C-16 Sediment & Erosion Control at Closest Wetland Point.dwg
Jun 30, 2025 - 15:53pm

RJOC

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NO.	REVISION	DATE
4.	90% CD SET	07/01/2025
3.	100% DD SET	03/25/2025
	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	AS NOTED

PREPARED FOR:
FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:
COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:
GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:
SEDIMENT & EROSION CONTROL AT CLOSEST WETLAND POINT PLAN

DRAWING NUMBER:
C-16

DATE: 03/28/2024 PROJECT NO.: 22016

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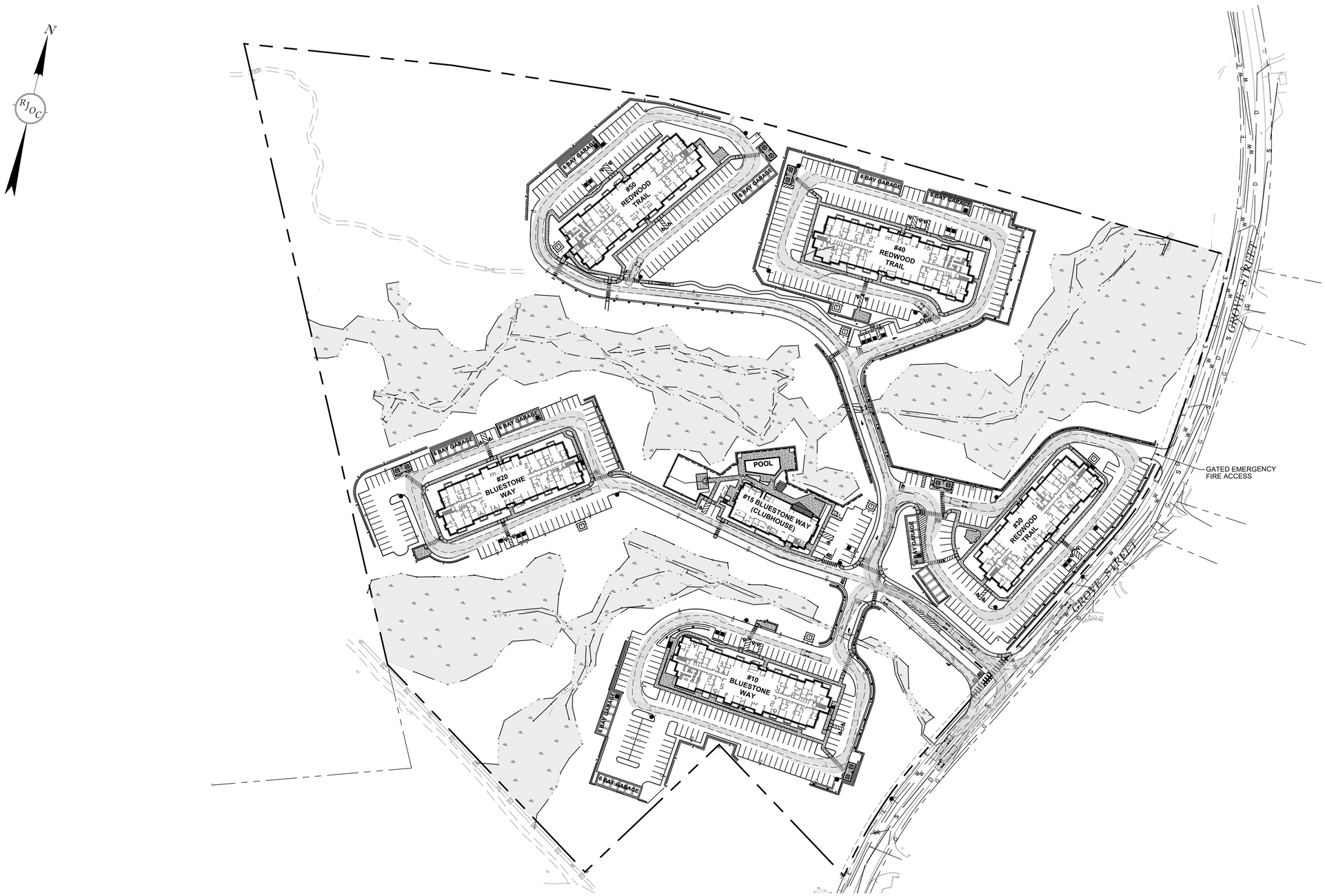
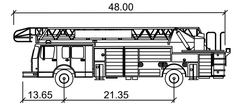


FRANKLIN FIRE TRUCK



Overall Length	48.000ft
Overall Width	10.000ft
Overall Body Height	7.715ft
Min Body Ground Clearance	0.627ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	36.583ft

80 0 40 80 160

GRAPHIC SCALE IN FEET

RJOC

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NO.	REVISION	DATE
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4.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
3.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	MAC
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

FIRE TRUCK TURNING PLAN

DRAWING NUMBER:

FT-1

DATE: 10/30/2023 PROJECT NO.: 22016

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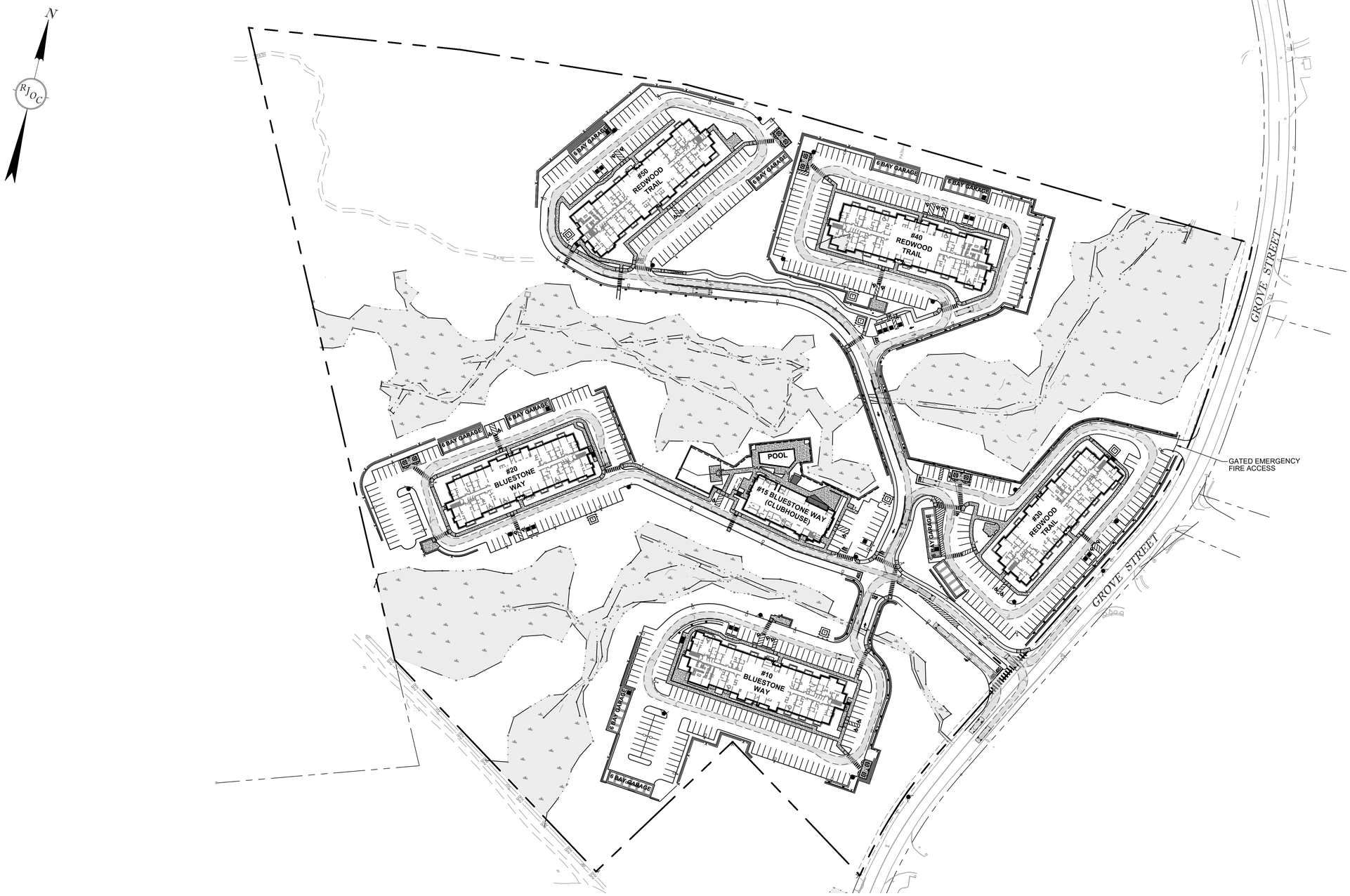
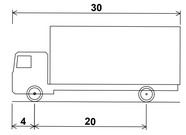
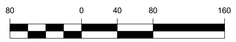
Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_FT-1 Fire Truck Turning Plan.dwg
Jun 30, 2025 - 15:55pm





SU-30 - Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°



GRAPHIC SCALE IN FEET

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_TT-1 Moving Truck Turning Plan.dwg
Jun 30, 2025 - 15:58pm

RJOC

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NO.	REVISION	DATE
6.	90% CD SET	07/01/2025
5.	100% DD SET	03/25/2025
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
3.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
1.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	MAC
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41505
REGISTERED PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

MOVING TRUCK TURNING PLAN

DRAWING NUMBER:

TT-1

DATE: 02/02/2024 PROJECT NO.: 22016

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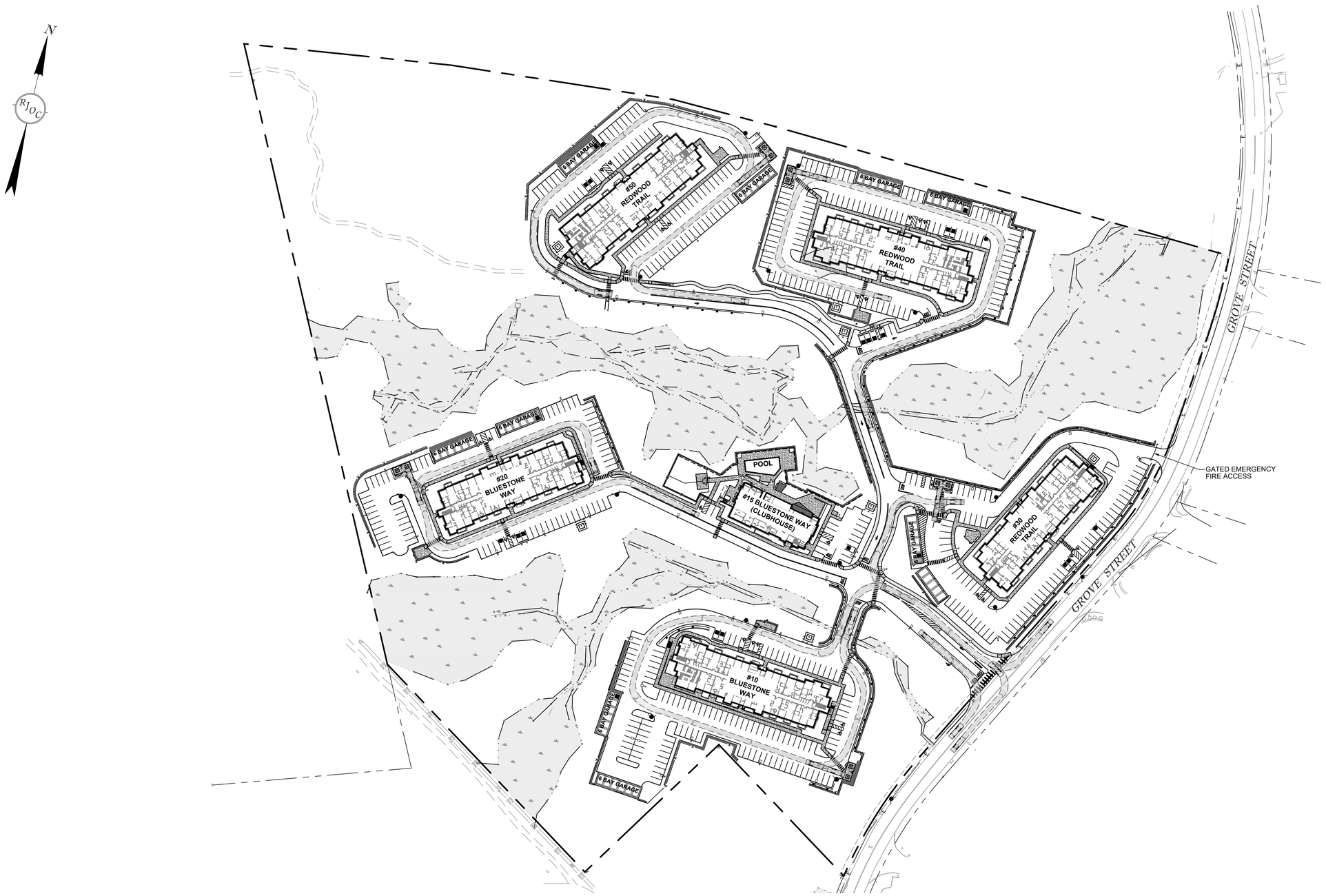

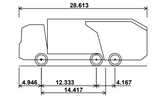

Trash/Recycle Truck	
Overall Length	28.613ft
Overall Width	8.000ft
Overall Body Height	10.481ft
Min Body Ground Clearance	1.311ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	33.500ft

80 0 40 80 160

GRAPHIC SCALE IN FEET

RJOC

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NO.	REVISION	DATE
6.	90% CD SET	07/01/2025
5.	100% DD SET	03/25/2025
4.	REVISED PER CONCOM PEER REVIEW COMMENTS	05/10/2024
3.	REVISED PER CONCOM PEER REVIEW COMMENTS	03/28/2024
2.	REVISED PER ZBA PEER REVIEW COMMENTS	02/12/2024
1.	REVISED PER ZBA PEER REVIEW COMMENTS	02/02/2024

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	MAC
SCALE:	1" = 80'

PREPARED FOR:

FAIRFIELD GROVE STREET LLC
30 BRAINTREE HILL OFFICE PARK
SUITE 105
BRAINTREE, MA 02184

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No.41505
REGISTERED
PROFESSIONAL ENGINEER
7-1-2025

PREPARED BY:

RJO'CONNELL & ASSOCIATES, INC.
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80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

GROVE STREET RESIDENCES
FRANKLIN, MA

DRAWING NAME:

TRASH/RECYCLE TRUCK TURNING PLAN

DRAWING NUMBER:

TT-2

DATE: 02/02/2024 PROJECT NO.: 22016

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Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016_TT-2 Trash Recycle Truck Turning Plan.dwg
Jun 30, 2025 - 15:59pm

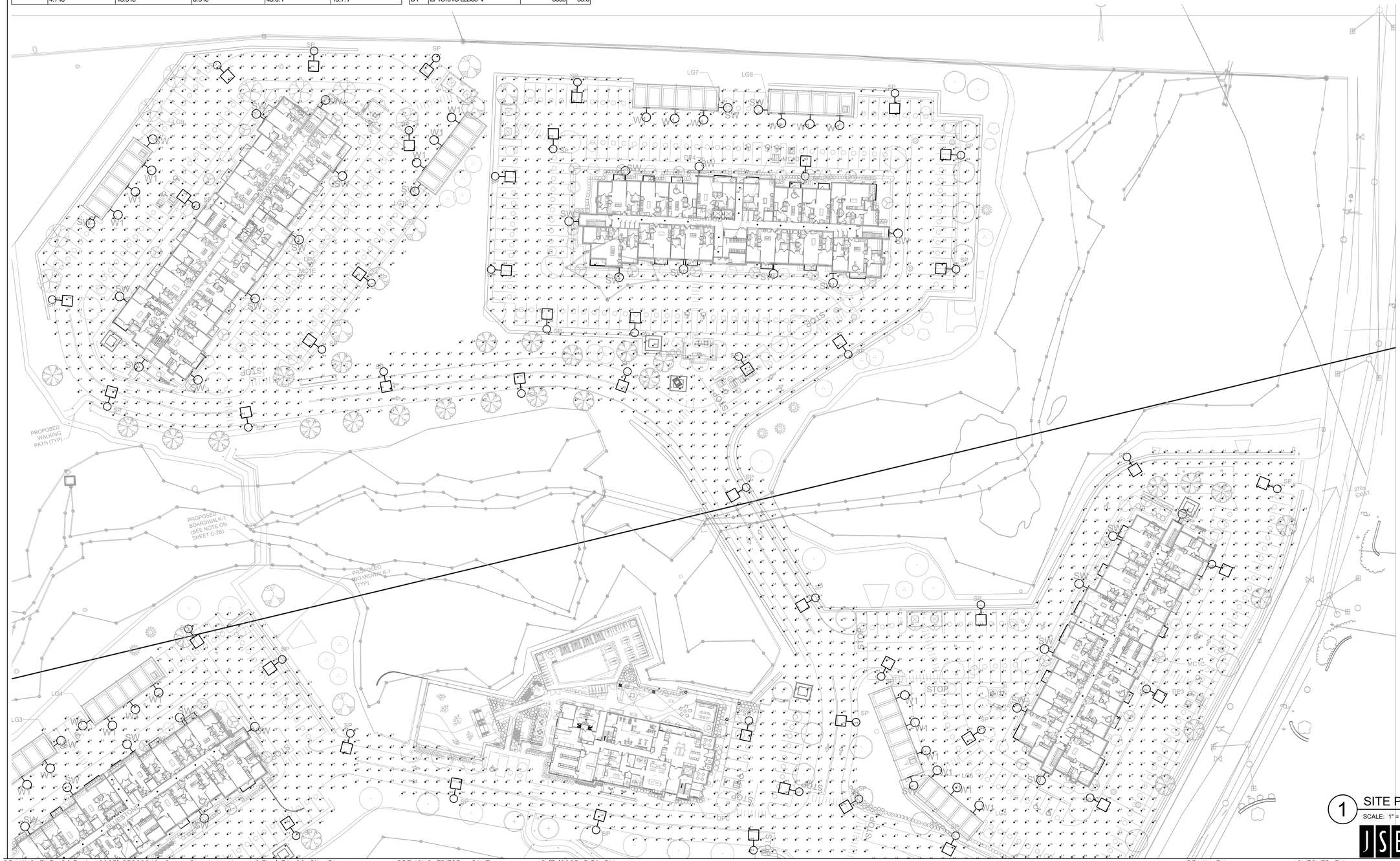
building #1	Average	Maximum	Minimum	Max/Min	Average/Min
	3.0 fc	20.8 fc	0.1 fc	208.0:1	30.0:1
Building #2	Average	Maximum	Minimum	Max/Min	Average/Min
	3.1 fc	13.4 fc	0.1 fc	134.0:1	31.0:1
Building #3	Average	Maximum	Minimum	Max/Min	Average/Min
	2.8 fc	25.4 fc	0.1 fc	254.0:1	28.0:1
Building #4	Average	Maximum	Minimum	Max/Min	Average/Min
	3.0 fc	21.1 fc	0.1 fc	211.0:1	30.0:1
Building #5	Average	Maximum	Minimum	Max/Min	Average/Min
	2.7 fc	15.7 fc	0.1 fc	157.0:1	27.0:1
Drive Aisle	Average	Maximum	Minimum	Max/Min	Average/Min
	3.3 fc	16.7 fc	0.1 fc	167.0:1	33.0:1
Entry	Average	Maximum	Minimum	Max/Min	Average/Min
	4.7 fc	13.5 fc	0.3 fc	45.0:1	15.7:1

Label	Description	Lamp Lumens	Watts
SAV	TLWMK303YYZZ-2835	3631.3	28.27
SP	9677 SAL-150S-T3-8C3-BZ-Z10	19621.6	148.09
WM	WMC-DL-MCT	2013.95	23.62
LA	EPTS101C-LED35-V	3695	35.6

PROPOSED BOARDWALK-1 (SEE NOTE ON SHEET C-2B)
PROPOSED BOARDWALK-1 (TYP)
PROPOSED WALKING PATH (TYP)
PROPOSED BOARDWALK-2 (SEE NOTE ON SHEET C-2B)
BUILDING #1
BUILDING #2
BUILDING #3
BUILDING #4
BUILDING #5
LEASING
CLUBHOUSE
MAINTENANCE
BOULDER
BOULDER
BOULDER

building #1	Average	Maximum	Minimum	Max/Min	Average/Min
	3.0 fc	20.8 fc	0.1 fc	208.0:1	30.0:1
Building #2	Average	Maximum	Minimum	Max/Min	Average/Min
	3.1 fc	13.4 fc	0.1 fc	134.0:1	31.0:1
Building #3	Average	Maximum	Minimum	Max/Min	Average/Min
	2.8 fc	25.4 fc	0.1 fc	254.0:1	28.0:1
Building #4	Average	Maximum	Minimum	Max/Min	Average/Min
	3.0 fc	21.1 fc	0.1 fc	211.0:1	30.0:1
Building #5	Average	Maximum	Minimum	Max/Min	Average/Min
	2.7 fc	15.7 fc	0.1 fc	157.0:1	27.0:1
Drive Aisle	Average	Maximum	Minimum	Max/Min	Average/Min
	3.3 fc	16.7 fc	0.1 fc	167.0:1	33.0:1
Entry	Average	Maximum	Minimum	Max/Min	Average/Min
	4.7 fc	13.5 fc	0.3 fc	45.0:1	15.7:1

Label	Description	Lamp Lumens	Watts
SW	TLWMK303YYZZ-2835	3631.3	28.27
SP	9677 SAL-150S-T3-8C3-BZ-Z10	19621.6	148.09
WM	WMC-DL-MCT	2013.95	23.62
LA	EPTS101C-LED35-V	3695	35.6



1 SITE PLAN (NORTH)

SCALE: 1" = 40'-0"

CNK ARCHITECTS, INC.
3301 W. AIRPORT FREEWAY, STE. 220 BEDFORD, TEXAS 76021
(817) 684-0088 info@cnkarch.com

MARK N. WALDRIGHT
COMMONWEALTH OF MASSACHUSETTS
ELECTRICAL
No. 47244
REGISTERED PROFESSIONAL ENGINEER
7/7/25

GROVE STREET RESIDENCES

121 GROVE STREET, FRANKLIN, MA

Revisions:
- 100% DD SET - 03/25/25
- 90% CD SET - 07/01/25

Job no.: 2506-0049

Issue date: 07/01/25

Sheet info: SITE PHOTOMETRICS

Sheet no. E1-03

Jordan & Skala Engineers
10375 Richmond Avenue, Suite 300 • Houston, TX 77042
p. 281.617.3200 • f. 281.617.3207
Project Number: 25060049 Drawn By: JP Checked By: RP