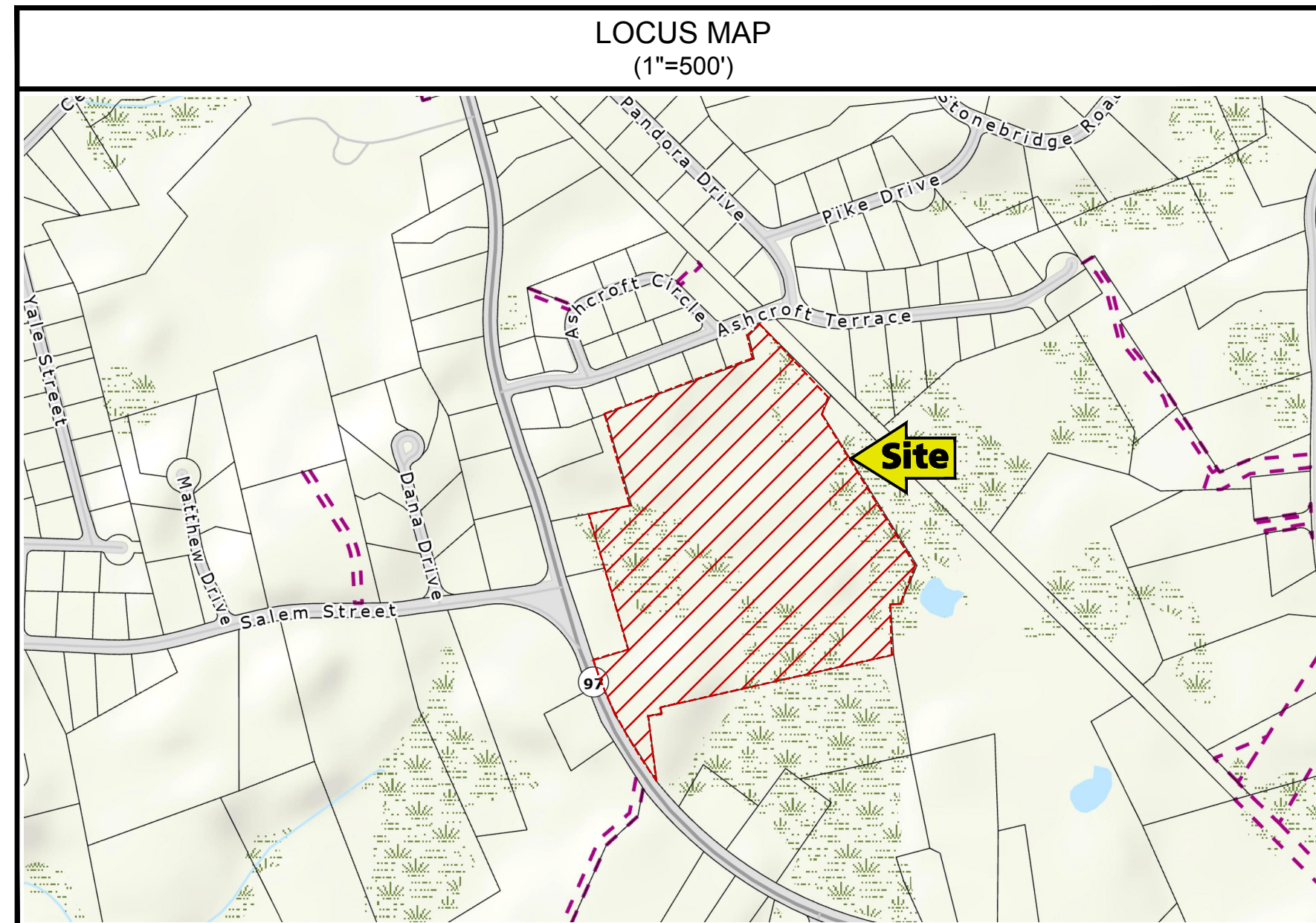


SITE PLAN FOR REDEVELOPMENT 912 SALEM STREET - GROVELAND, MA



DRAWING INDEX			
DRAWING DATE	LAST REVISION	DRAWING	DRAWING DESCRIPTION
08/11/2023	02/07/2024	C-0	COVER SHEET
06/23/2023	-	EX-1	OVERALL EXISTING SITE PLAN
06/23/2023	-	EX-2	LIMITED EXISTING CONDITIONS PLAN
08/11/2023	01/17/2024	N-1	GENERAL NOTES
08/11/2023	01/17/2024	C-1	DEMOLITION AND EROSION CONTROL PLAN
08/11/2023	01/17/2024	C-2	GRADING AND DRAINAGE PLAN
08/11/2023	01/17/2024	C-3	UTILITY PLAN
08/11/2023	01/17/2024	C-4	SITE LAYOUT PLAN
08/11/2023	02/07/2024	L-1	LANDSCAPE PLANTING AND LIGHTING (PREPARED BY MDLA)
08/11/2023	02/07/2024	L-2	LANDSCAPE PHOTOMETRIC PLAN (PREPARED BY MDLA)
08/11/2023	02/07/2024	L-3	PLANTING DETAILS (PREPARED BY MDLA)
08/11/2023	02/07/2024	L-4	LIGHTING CUT SHEETS (PREPARED BY MDLA)
08/11/2023	01/17/2024	C-5	EROSION CONTROL DETAILS
08/11/2023	01/17/2024	C-6	DRAINAGE DETAILS
08/11/2023	02/07/2024	C-7	UTILITY DETAILS
08/11/2023	01/17/2024	C-8	PARKING AND TRAFFIC CONTROL DETAILS

**REVISED PER ADDITIONAL PEER
REVIEW COMMENTS
02/07/2024**



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:

MARK A. ABARE
144 HILLDALE AVENUE
HAVERHILL MA 01832

DESIGN TEAM	
<p>CIVIL ENGINEERING: RJ O'CONNELL & ASSOCIATES, INC. 80 MONTVALE AVENUE SUITE 201 STONEHAM, MA 02180 ATTN: STEVE GLOWACKI PHONE: (781) 279-0180</p>	<p>LANDSCAPE ARCHITECT: MDLA 840 SUMMER STREET, SUITE 201A BOSTON, MA 02127 ATTN: MICHAEL D'ANGELO PHONE: (203) 592-4788</p>
<p>SURVEY: RJ O'CONNELL & ASSOCIATES, INC. 80 MONTVALE AVENUE SUITE 201 STONEHAM, MA 02180 ATTN: MATT LOWRY PHONE: (781) 279-0180</p>	<p>ENVIRONMENTAL CONSULTANT: LEC ENVIRONMENTAL CONSULTANTS 380 LOWELL STREET, SUITE 101 WAKEFIELD, MA 01880 ATTN: DAN WELLS PHONE: (781) 245-2500</p>
<p>TRAFFIC: VANASSE & ASSOCIATES INC 35 NEW ENGLAND BUSINESS CENTER DRIVE SUITE 140 ANDOVER, MA 01810 ATTN: SCOTT THORNTON PHONE: (781) 474-8800</p>	

GOVERNMENT/UTILITY CONTACTS

BOARD OF HEALTH:
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: ROSEMARY DECIE, RS
PHONE: (978) 556-7211

ELECTRIC DEPARTMENT:
GROVELAND MUNICIPAL ELECTRIC
DEPARTMENT
944 SALEM STREET
GROVELAND, MA 01834
ATTN: KEVIN SNOW, MANAGER
PHONE: (978) 372-1671

POLICE DEPARTMENT:
181 MAIN STREET
GROVELAND, MA 01834
ATTN: JEFFREY GILLEN, CHIEF
PHONE: (978) 521-1212

HIGHWAY DEPARTMENT:
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: RENNY CARROLL, HIGHWAY
SUPERINTENDENT
PHONE: (978) 556-7208

TOWN ADMINISTRATOR:
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: REBECCA OLDHAM, TOWN ADMIN.
PHONE: (978) 556-7204

CABLE DEPARTMENT
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: CHRIS LIQUORI, CABLE MANAGER
PHONE: (978) 556-7200

PLANNING AND CONSERVATION:
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: ANNIE SCHINDLER,
TOWN PLANNER
PHONE: (978) 556-7214

FIRE DEPARTMENT:
181 MAIN STREET
GROVELAND, MA 01834
ATTN: ROBERT VALENTINE, CHIEF
PHONE: (978) 374-1923

WATER AND SEWER DEPARTMENT:
23 SCHOOL STREET
GROVELAND, MA 01834
ATTN: COLIN STOKES, SUPERINTENDENT
PHONE: (978) 556-7200 EXT.7219

INSPECTIONAL SERVICES:
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: SAM JOSLIN, BUILDING
COMMISSIONER, ZEO
PHONE: (978) 556-7209

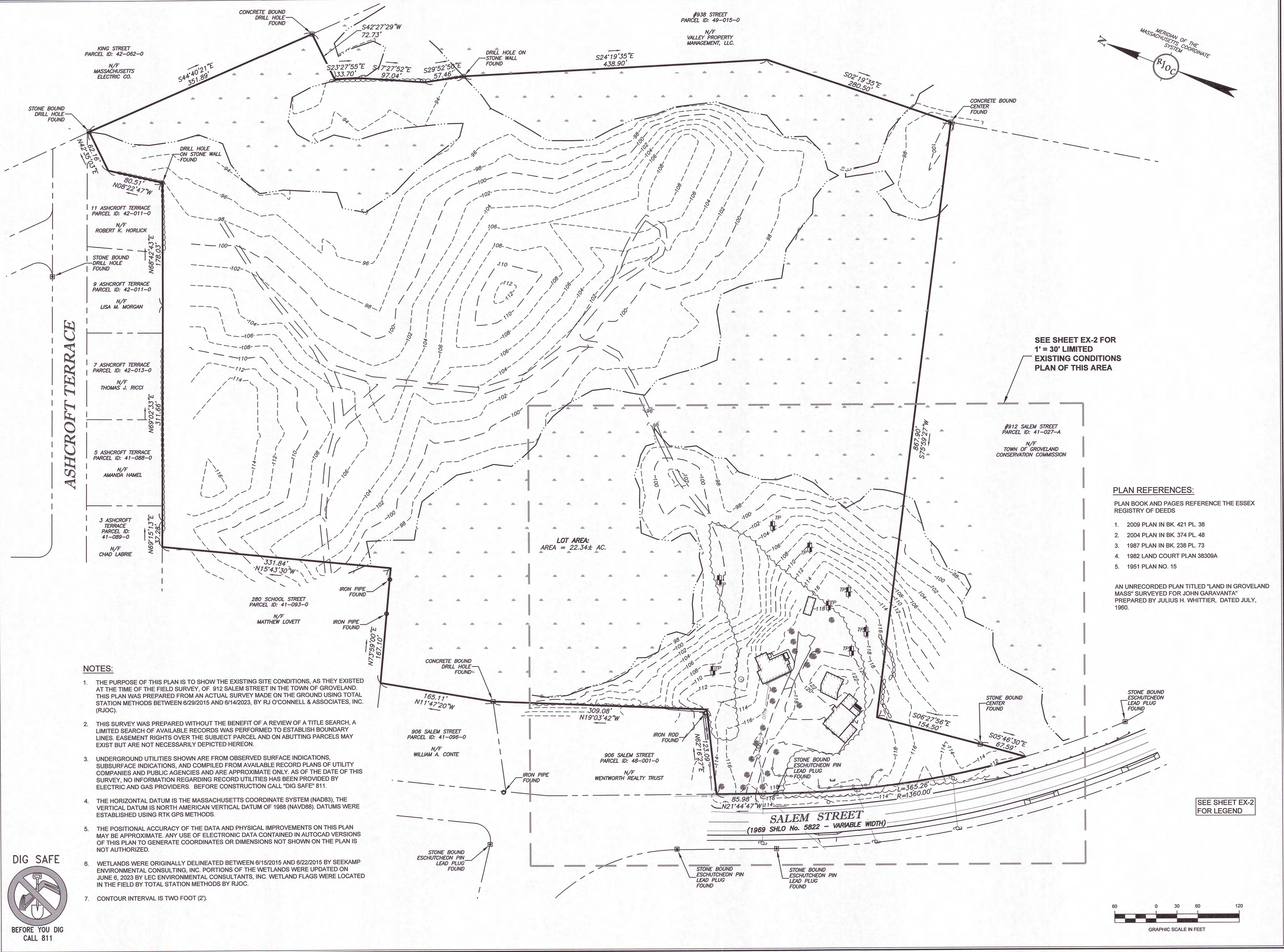
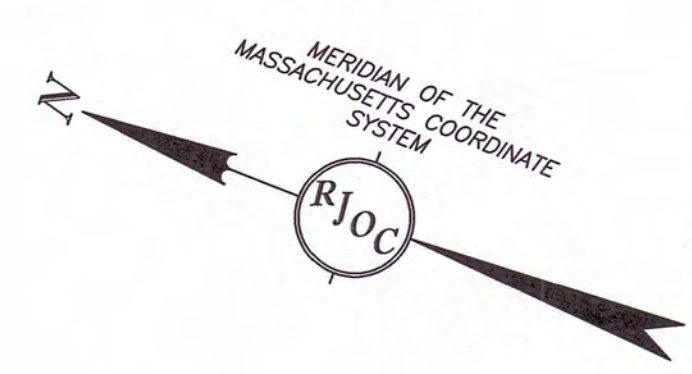
TOWN CLERK:
TOWN HALL
183 MAIN STREET
GROVELAND, MA 01834
ATTN: ELIZABETH CUNNIFF, TOWN
CLERK/ RECORDS ACCESS OFFICER
PHONE: (978) 556-7221

DRAWING NUMBER:

C-0

PROJECT NUMBER:

22021



SEE SHEET EX-2 FOR
1" = 30' LIMITED
EXISTING CONDITIONS
PLAN OF THIS AREA

PLAN REFERENCES:

PLAN BOOK AND PAGES REFERENCE THE ESSEX
REGISTRY OF DEEDS

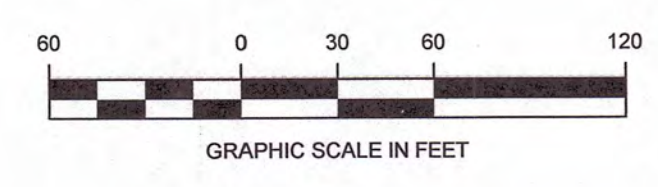
1. 2009 PLAN IN BK. 421 PL. 38
2. 2004 PLAN IN BK. 374 PL. 48
3. 1987 PLAN IN BK. 238 PL. 73
4. 1982 LAND COURT PLAN 38309A
5. 1951 PLAN NO. 15

AN UNRECORDED PLAN TITLED "LAND IN GROVELAND
MASS" SURVEYED FOR JOHN GARAVANTA"
PREPARED BY JULIUS H. WHITTIER, DATED JULY,
1960.

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING SITE CONDITIONS, AS THEY EXISTED AT THE TIME OF THE FIELD SURVEY, OF 912 SALEM STREET IN THE TOWN OF GROVELAND. THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BETWEEN 6/29/2015 AND 6/14/2023, BY RJ O'CONNELL & ASSOCIATES, INC. (RJOC).
2. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A REVIEW OF A TITLE SEARCH, A LIMITED SEARCH OF AVAILABLE RECORDS WAS PERFORMED TO ESTABLISH BOUNDARY LINES. EASEMENT RIGHTS OVER THE SUBJECT PARCEL AND ON ADJUTING PARCELS MAY EXIST BUT ARE NOT NECESSARILY DEPICTED HEREON.
3. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
4. THE HORIZONTAL DATUM IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
5. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
6. WETLANDS WERE ORIGINALLY DELINEATED BETWEEN 6/15/2015 AND 6/22/2015 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC. PORTIONS OF THE WETLANDS WERE UPDATED ON JUNE 6, 2023 BY LEC ENVIRONMENTAL CONSULTANTS, INC. WETLAND FLAGS WERE LOCATED IN THE FIELD BY TOTAL STATION METHODS BY RJOC.
7. CONTOUR INTERVAL IS TWO FOOT (2').

SEE SHEET EX-2
FOR LEGEND



NO.	REVISION	DATE

Record Owner:
BRYAN FAMILY REALTY TRUST
WILLIAM T. BRYAN III, TRUSTEE
158 ACADEMY AVENUE
WEYMOUTH, MA
BK. 21008 PG. 437

Location:
PARCEL ID: 41-95-0
912 SALEM STREET
GROVELAND, MA

PREPARED BY:
**RJ O'CONNELL
& ASSOCIATES, INC.**
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
90 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJCONNELL.COM

PREPARED FOR:
MARK A. ABARE
144 HILLDALE AVENUE
HAVERHILL, MA 01832

PROJECT NAME:
912 SALEM STREET
GROVELAND, MASSACHUSETTS

SEAL



Matthew Lowry 6/23/2023
DATE
PROFESSIONAL LAND SURVEYOR FOR
RJ O'CONNELL & ASSOCIATES, INC.
DRAWN BY: RJK
REVIEWED BY: ML
SCALE: 1" = 60'
FIELD CREW: RJK/JMS

DATE: 6/23/2023
DRAWING NAME:

**OVERALL EXISTING
SITE PLAN**

DRAWING NUMBER:
EX-1

PROJECT NUMBER:
22021



DATE	REVISION	NO.

Record Owner:
 BRYAN FAMILY REALTY TRUST
 WILLIAM T. BRYAN III, TRUSTEE
 158 ACADEMY AVENUE
 WEYMOUTH, MA
 BK. 21008 PG. 437

Location:
 PARCEL ID: 41-95-0
 912 SALEM STREET
 GROVELAND, MA

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
 CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
 80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
 PHONE: 781.279.9189 RJOC@CONNELL.COM

PREPARED FOR:

MARK A. ABARE
 144 HILLDALE AVENUE
 HAVERHILL, MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MASSACHUSETTS

SEAL



Matthew Lowry 6/23/2023
 PROFESSIONAL LAND SURVEYOR FOR
 RJ O'CONNELL & ASSOCIATES, INC. DATE

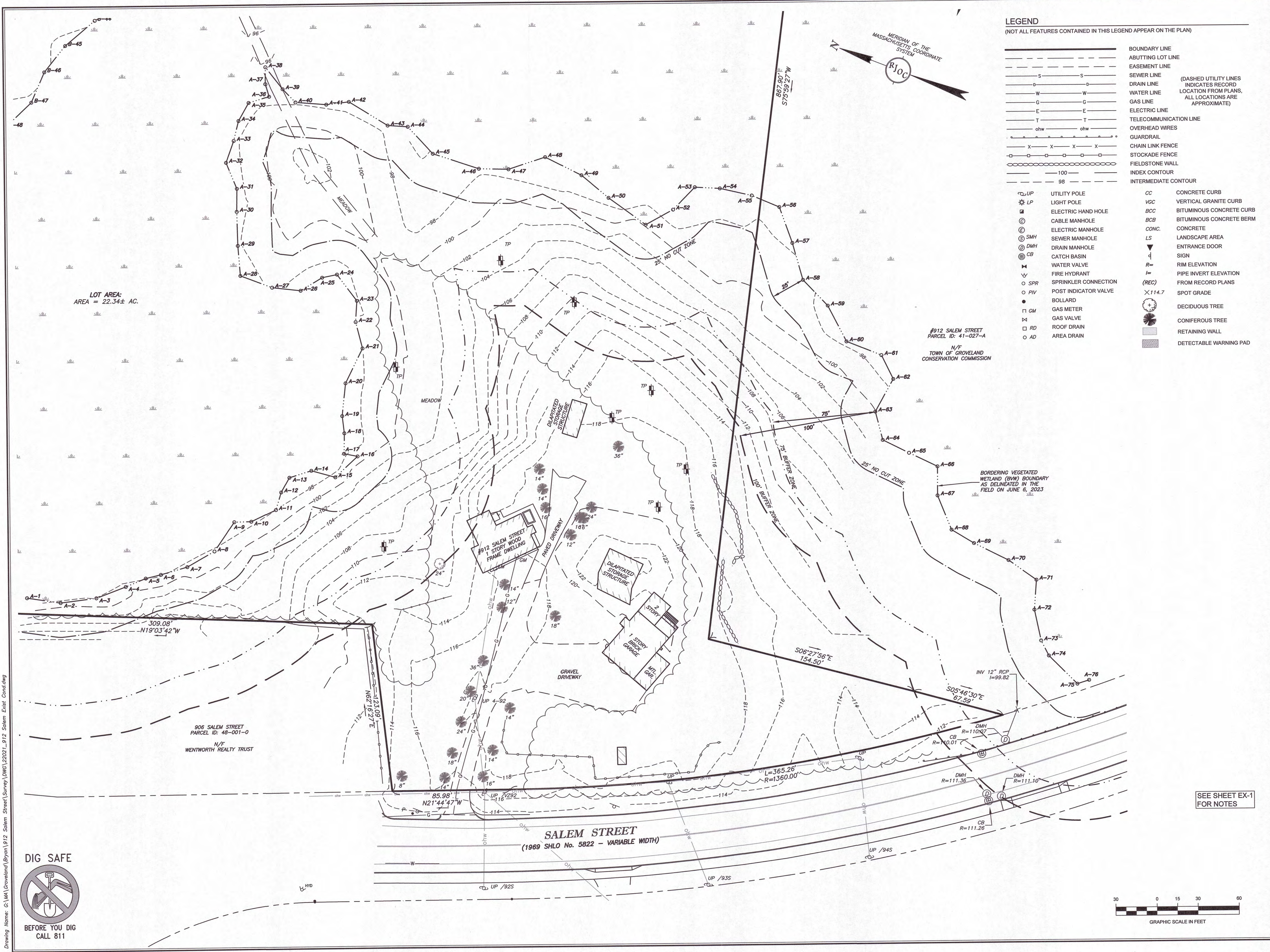
DRAWN BY: RJK
 REVIEWED BY: ML
 SCALE: 1" = 30'
 FIELD CREW: RJK / JWS

DATE: 6/23/2023
 DRAWING NAME:

**LIMITED EXISTING
 CONDITIONS PLAN**

DRAWING NUMBER:
EX-2

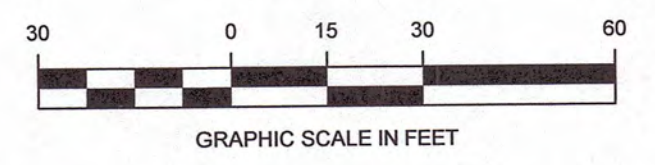
PROJECT NUMBER: 22021



LEGEND
 (NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

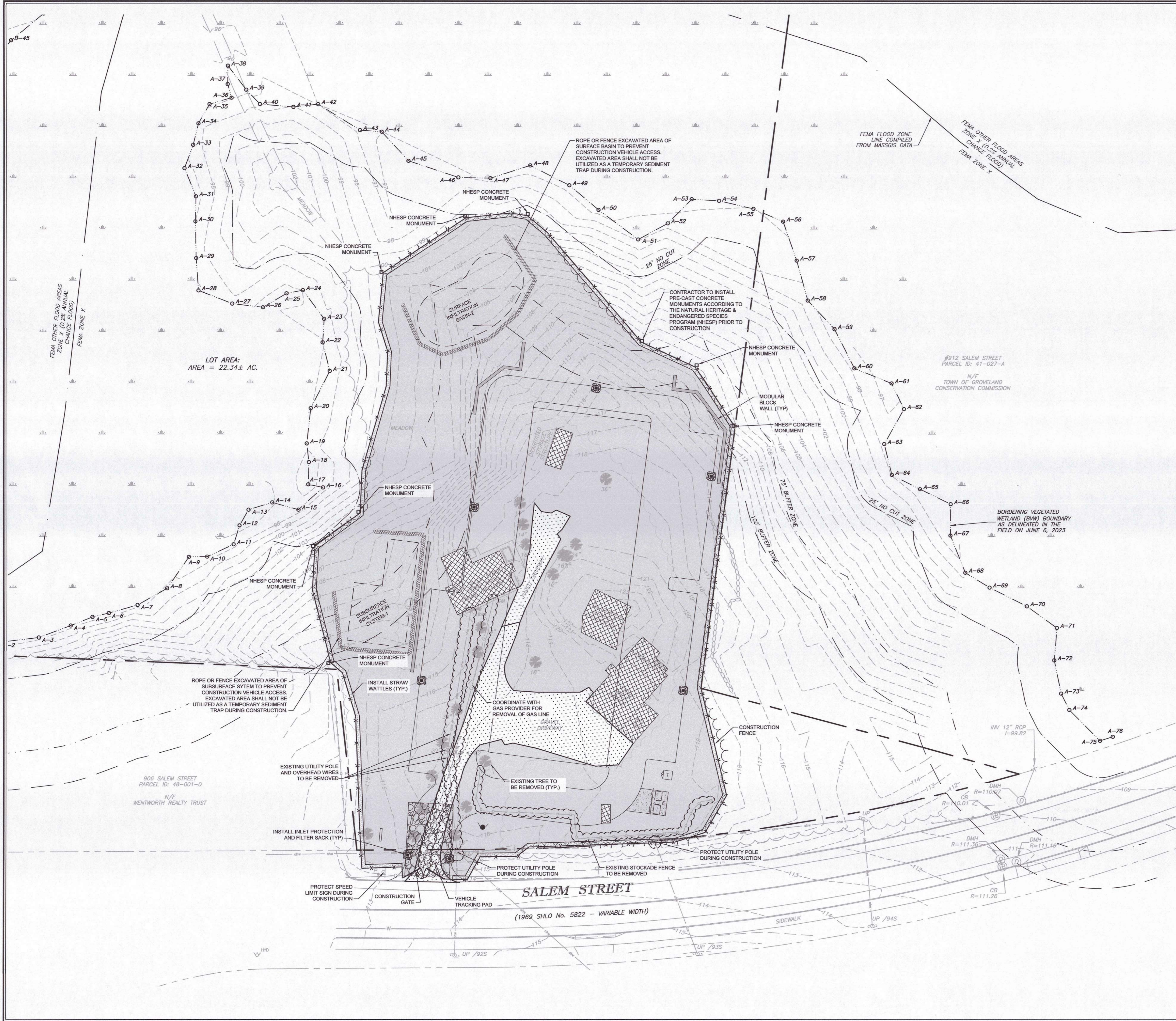
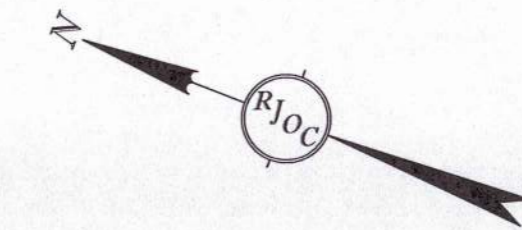
	BOUNDARY LINE		SEWER LINE (DASHED UTILITY LINES INDICATES RECORD LOCATION FROM PLANS, ALL LOCATIONS ARE APPROXIMATE)
	ABUTTING LOT LINE		DRAIN LINE
	EASEMENT LINE		WATER LINE
			GAS LINE
			ELECTRIC LINE
			TELECOMMUNICATION LINE
	OVERHEAD WIRES		GUARDRAIL
	CHAIN LINK FENCE		STOCKADE FENCE
	FIELDSTONE WALL		INDEX CONTOUR
	INTERMEDIATE CONTOUR		

	UTILITY POLE		CONCRETE CURB
	LIGHT POLE		VERTICAL GRANITE CURB
	ELECTRIC HAND HOLE		BITUMINOUS CONCRETE CURB
	CABLE MANHOLE		BITUMINOUS CONCRETE BERM
	ELECTRIC MANHOLE		CONCRETE
	SEWER MANHOLE		LANDSCAPE AREA
	DRAIN MANHOLE		ENTRANCE DOOR
	CATCH BASIN		SIGN
	WATER VALVE		RIM ELEVATION
	FIRE HYDRANT		PIPE INVERT ELEVATION
	SPRINKLER CONNECTION		FROM RECORD PLANS
	POST INDICATOR VALVE		SPOT GRADE
	BOLLARD		DECIDUOUS TREE
	GAS METER		CONIFEROUS TREE
	GAS VALVE		RETAINING WALL
	ROOF DRAIN		DETECTABLE WARNING PAD
	AREA DRAIN		

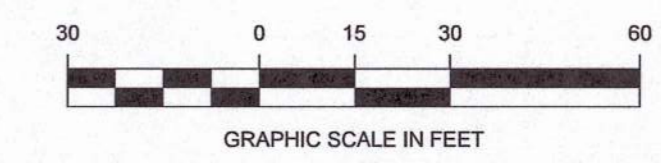


SEE SHEET EX-1 FOR NOTES

Drawing Name: G:\MA\Groveland\Bryan\912 Salem Street\Survey\DWG\22021_912 Salem Street.dwg



LEGEND	DESCRIPTION
	DEMOLITION/REMOVAL CLOUD
	EXISTING PAVEMENT TO BE RECLAIMED
	EXISTING LANDSCAPE AREA TO BE REMOVED
	EXISTING BUILDING TO BE REMOVED
	STRAW WATTLE
	CONSTRUCTION FENCE
	VEHICLE TRACKING PAD
	FILTER BAG
	INLET PROTECTION & FILTER BAG PROPOSED CATCH BASIN



NO.	DATE	REVISION

NO.	DATE	REVISION
2	01/17/2024	REVISED PER FINAL COMMENTS
1	11/27/2023	REVISED PER PEER REVIEW AND TOWN COMMENTS
	08/11/2023	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT

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

PREPARED FOR:
MARK A. ABARE
 144 HILLDALE AVENUE
 HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MA

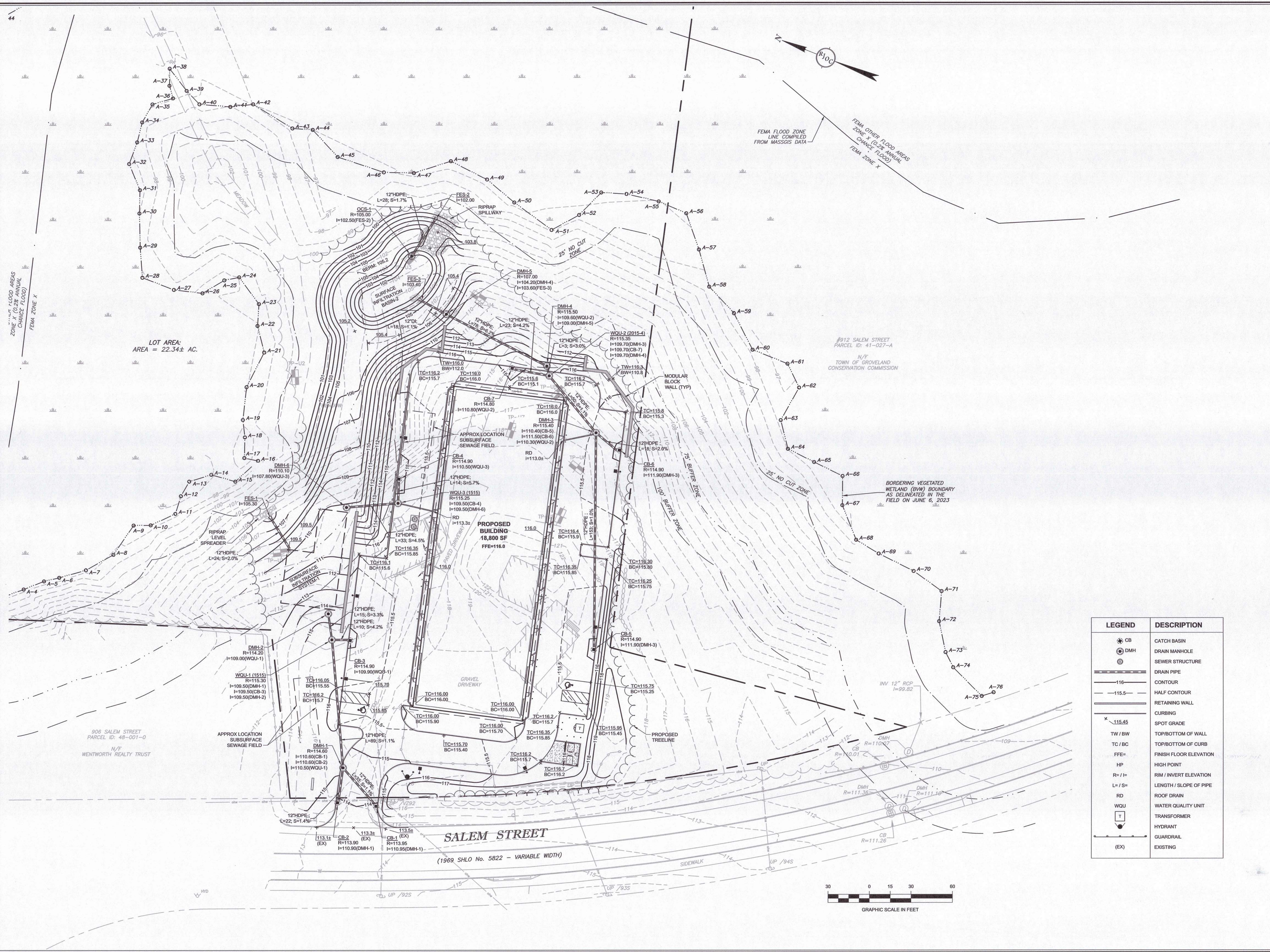


DESIGNED BY: SPG
 DRAWN BY: HAA
 REVIEWED BY: ACF
 SCALE: 1" = 30'
 DATE: 08/11/2023
 DRAWING NAME:

DEMOLITION AND EROSION CONTROL PLAN

DRAWING NUMBER:
C-1
 PROJECT NUMBER:
 22021

Drawing name: C:\MA\Groveland\Bryan\912 Salem Street\Main\22021_C-1 Demolition and Erosion Control Plan.dwg
 Jan 17, 2024 - 10:08am



Drawing name: G:\MA\Groveland\Bryan\912 Salem Street\Main\22021_C-2 Grading and Drainage Plan_20K bldg.dwg
Jan 17, 2024 - 12:17pm

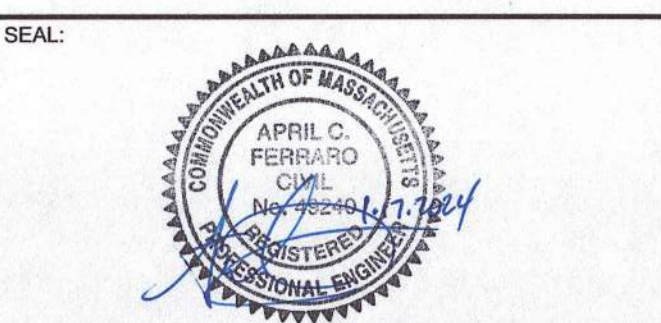
NO.	REVISION	DATE
4	REVISED PER FINAL COMMENTS	01/17/2024
3	REVISED PER PLANNING BOARD COMMENTS	01/02/2024
2	REVISED PER PEER REVIEW 12/22/2023	12/19/2023
1	REVISED PER PEER REVIEW & TOWN COMMENTS	11/27/2023
	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT	08/11/2023

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

PREPARED FOR:
MARK A. ABARE

144 HILLDALE AVENUE
 HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MA

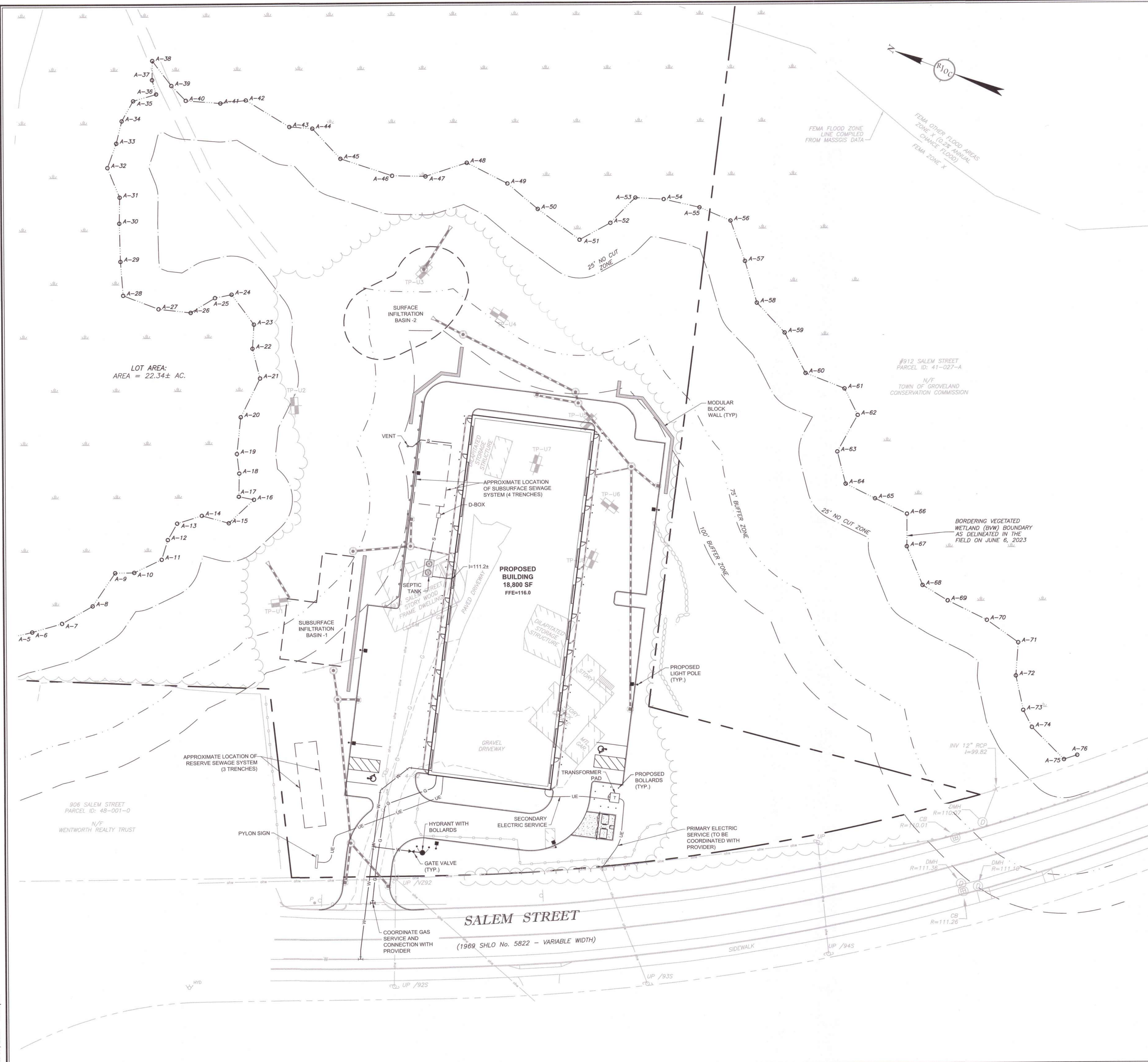


DESIGNED BY: SPG
 DRAWN BY: HAA
 REVIEWED BY: ACF
 SCALE: 1" = 30'
 DATE: 08/11/2023
 DRAWING NAME:

GRADING AND DRAINAGE PLAN

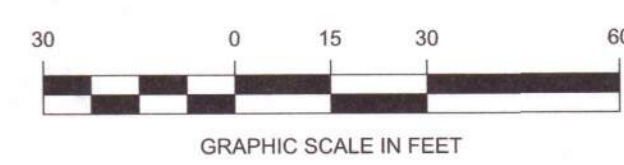
DRAWING NUMBER:
C-2

PROJECT NUMBER:
22021



LEGEND	DESCRIPTION
	CATCH BASIN
	DRAIN MANHOLE
	DRAIN PIPE
	ELECTRIC LINE
	WATER LINE
	GAS LINE
	SEWER LINE
	RETAINING WALL
	CURBING
$R= / I= / S=$	RIM / INVERT ELEVATION
$L= / S=$	LENGTH / SLOPE OF PIPE
	GATE VALVE
	HYDRANT
	TRANSFORMER
	GUARDRAIL
	LIGHT POLE

- NOTES:
1. THE SUBSURFACE SEWAGE DISPOSAL SYSTEM HAS BEEN SHOWN FOR SCHEMATIC PURPOSE ONLY. A SEPARATE DESIGN PLAN SHALL BE PREPARED IN ACCORDANCE WITH GROVELAND BOARD OF HEALTH AND TITLE 6 REGULATIONS AND SUBMITTED TO THE BOARD OF HEALTH FOR APPROVAL.
 2. CONTRACTOR TO MAINTAIN ACCURATE ASBUILT LOCATIONS FOR CONSTRUCTED DRAINAGE AND UTILITY COMPONENTS. COORDINATE LOCATION OF TREE PLANTINGS TO AVOID CONSTRUCTED UTILITIES.



NO.	REVISION	DATE
4	REVISED PER FINAL COMMENTS	01/17/2024
3	REVISED PER PLANNING BOARD COMMENTS	01/02/2024
2	REVISED PER PEER REVIEW COMMENTS	12/19/2023
1	REVISED PER PEER REVIEW & TOWN COMMENTS	11/27/2023
-	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT	08/11/2023
NO.	REVISION	DATE

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

PREPARED FOR:
MARK A. ABARE
 144 HILLDALE AVENUE
 HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MA



DESIGNED BY: SPG
 DRAWN BY: HAA
 REVIEWED BY: ACF
 SCALE: 1" = 30'
 DATE: 08/11/2023
 DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:
C-3

PROJECT NUMBER:
22021

Copyright © 2023 by R.J. O'Connell & Associates, Inc.

ZONING TABLE			
ZONE DISTRICT: INDUSTRIAL DISTRICT (I)			
DESCRIPTION	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	43,560 S.F.	973,222± S.F.	973,222± S.F.
MIN. LOT FRONTAGE	150 FT	451.23± FT	451.23± FT
MAX LOT COVERAGE	25%	0.48%	1.9%
MAX IMPERVIOUS AREA	50%	1.22%	4.9%
MIN. FRONT YARD	50 FT	14.4 FT	50 FT
MIN. SIDE YARD	25 FT	> 25 FT	54.6 FT
MIN REAR YARD	25 FT	> 25 FT	> 25 FT
MAX. BUILDING HEIGHT (FT)	35 FT	< 35 FT	28± FT

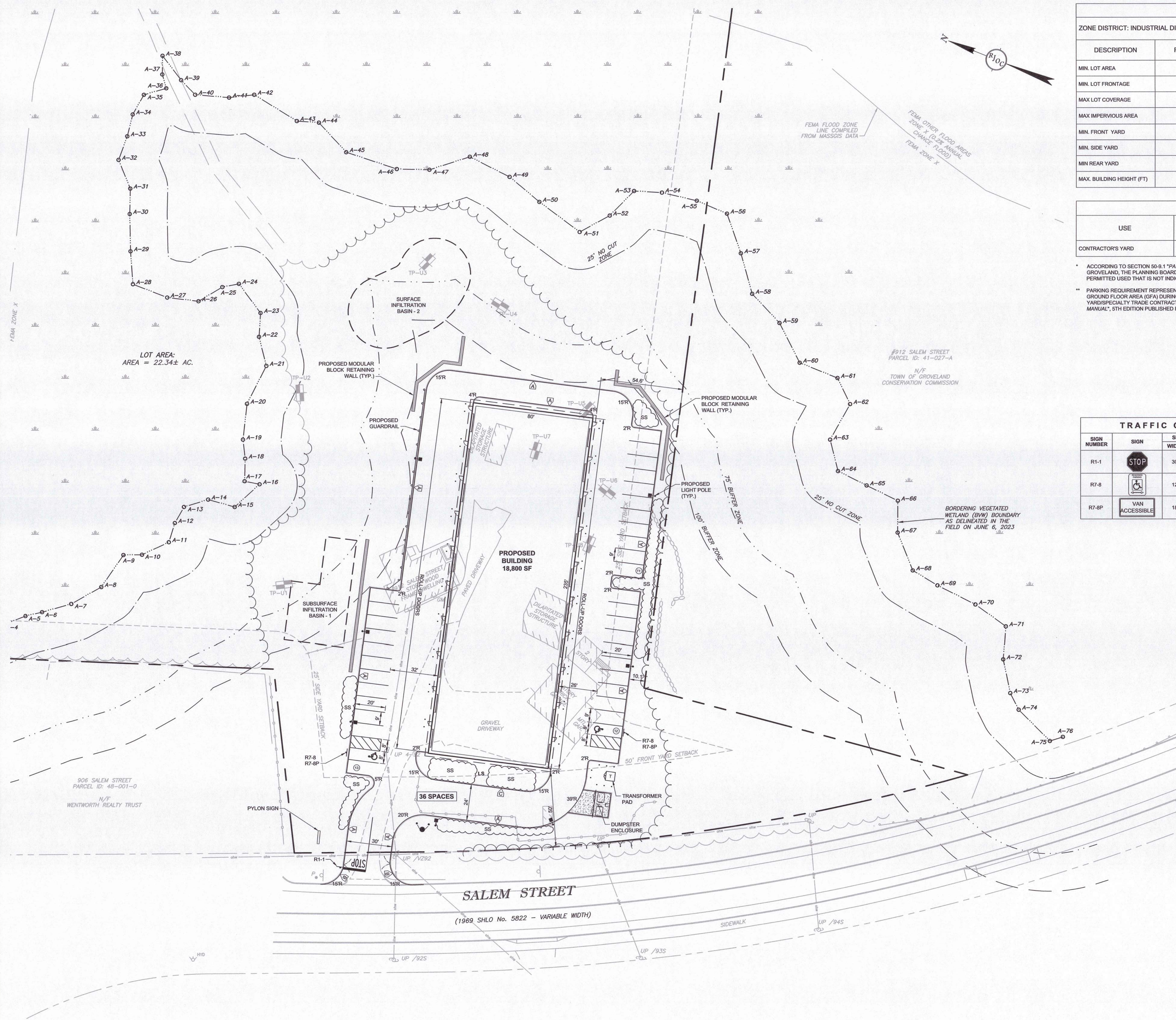
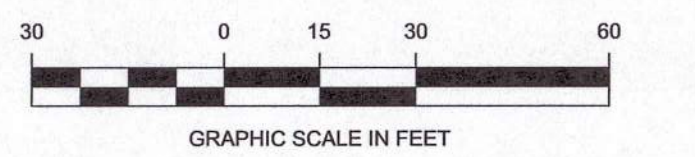
PARKING			
USE	PARKING REQUIREMENT*	REQUIRED NUMBER BY ZONING	PROVIDED
CONTRACTOR'S YARD	1.76 SPACE/1,000 SF GFA**	34 SPACES	36 SPACES

* ACCORDING TO SECTION 59-9.1 "PARKING REQUIREMENTS" OF THE ZONING BYLAW OF THE TOWN OF GROVELAND, THE PLANNING BOARD MAY DETERMINE THE PARKING SPACES REQUIRED FOR ANY PERMITTED USE THAT IS NOT INDICATED IN THE TABLE OF OFF-STREET PARKING REQUIREMENTS.

** PARKING REQUIREMENT REPRESENTS THE AVERAGE NUMBER OF SPACES REQUIRED PER 1,000 S.F. OF GROUND FLOOR AREA (GFA) DURING PEAK PERIOD PARKING DEMAND FOR A CONTRACTOR'S YARD/SPECIALTY TRADE CONTRACTOR USE. THIS NUMBER IS TAKEN FROM THE "PARKING GENERATION MANUAL", 5TH EDITION PUBLISHED BY THE INSTITUTE OF TRANSPORTATION DATED JANUARY 2019.

TRAFFIC CONTROL SCHEDULE						
SIGN NUMBER	SIGN	SIZE OF SIGN WIDTH HEIGHT	DESCRIPTION	MOUNT TYPE	MOUNT HEIGHT	REMARKS
R1-1	STOP	30" 30"	WHITE ON RED	3" POST	7'-0"	REFLECTORIZED SIGN
R7-8	Handicap Symbol	12" 18"	BLUE & GREEN ON WHITE	3" POST	6'-0"	REFLECTORIZED SIGN
R7-8P	VAN ACCESSIBLE	18" 9"	GREEN ON WHITE	3" POST	5'-0"	REFLECTORIZED SIGN

LEGEND	DESCRIPTION
	ACCESSIBLE PARKING SYMBOL
LS	LANDSCAPE AREA
XX	PARKING COUNT
XX SPACES	PARKING COUNT (TOTAL)
	RETAINING WALL
	SIGN
	STOP BAR
	DOOR
	GUARDRAIL
	6" REVEAL CONCRETE CURB
	VERTICAL GRANITE CURB
	4" REVEAL CONCRETE CURB
	HYDRANT
15R	CURB RADIUS
SS	SNOW STORAGE AREA



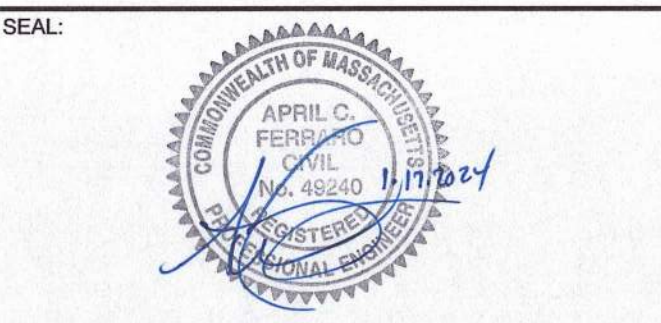
Drawing name: G:\MA\Groveland\Bryan\912 Salem Street\Main\22021_C-4 Site Layout Plan.dwg
Jan 17, 2024 - 12:15pm

NO.	DATE	REVISION
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT
2	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
3	01/02/2024	REVISED PER PLANNING BOARD COMMENTS
3	01/17/2024	REVISED PER FINAL COMMENTS

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

PREPARED FOR:
MARK A. ABARE
 144 HILDALE AVENUE
 HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MA



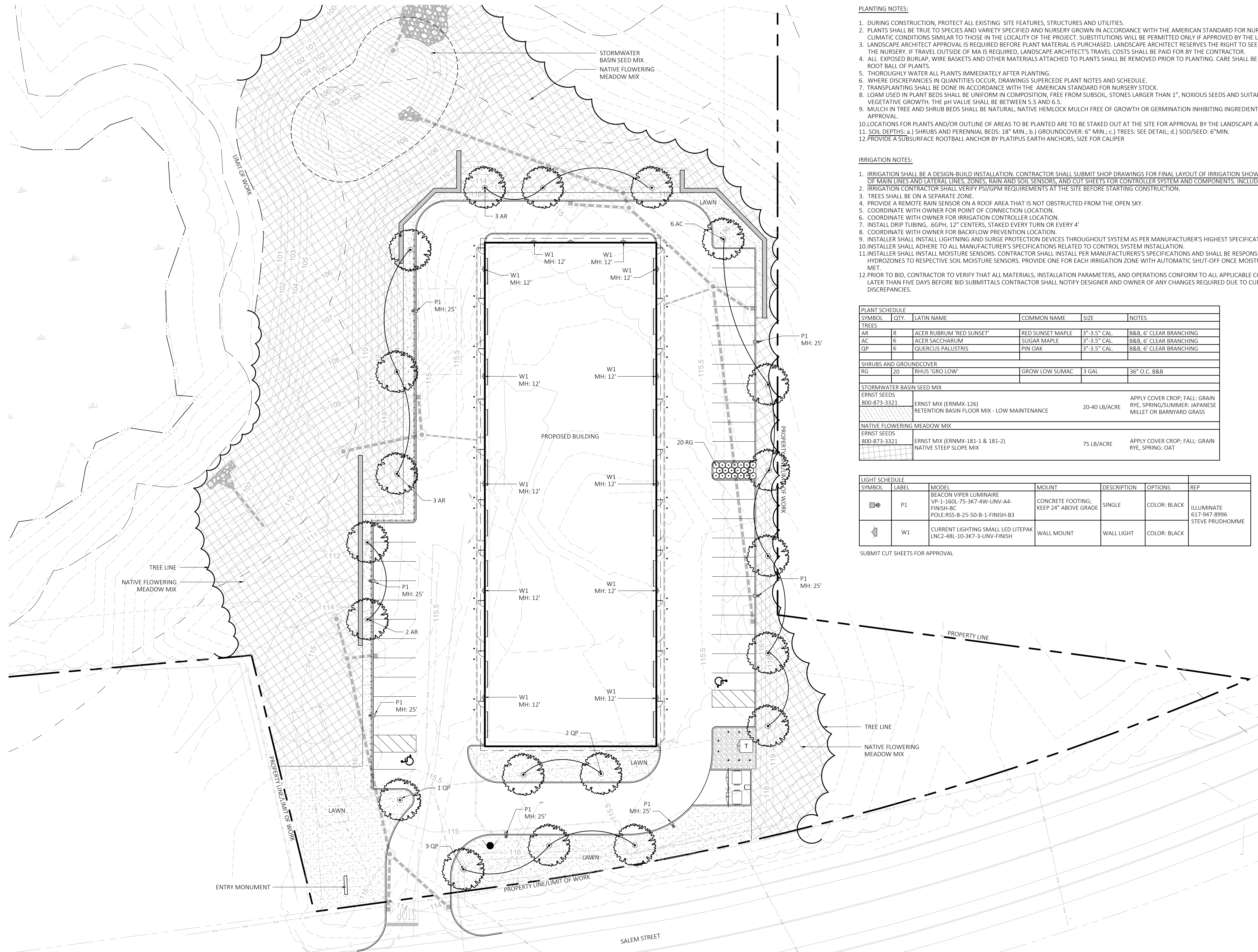
DESIGNED BY: SPG
 DRAWN BY: HAA
 REVIEWED BY: ACF
 SCALE: 1" = 30'
 DATE: 08/11/2023
 DRAWING NAME:

SITE LAYOUT PLAN

DRAWING NUMBER: **C-4**

PROJECT NUMBER: **22021**

Copyright © 2023 by R.J. O'Connell & Associates, Inc.



PLANTING NOTES:

1. DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
3. LANDSCAPE ARCHITECT APPROVAL IS REQUIRED BEFORE PLANT MATERIAL IS PURCHASED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SEE ALL MATERIAL IN PERSON AT THE NURSERY. IF TRAVEL OUTSIDE OF MA IS REQUIRED, LANDSCAPE ARCHITECT'S TRAVEL COSTS SHALL BE PAID FOR BY THE CONTRACTOR.
4. ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
5. THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
6. WHERE DISCREPANCIES IN QUANTITIES OCCUR, DRAWINGS SUPERCEDE PLANT NOTES AND SCHEDULE.
7. TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
8. LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
9. MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
10. LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
11. SOIL DEPTHS: a) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b) GROUND COVER: 6" MIN.; c) TREES: SEE DETAIL; d) SOO/SEED: 6" MIN.
12. PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER

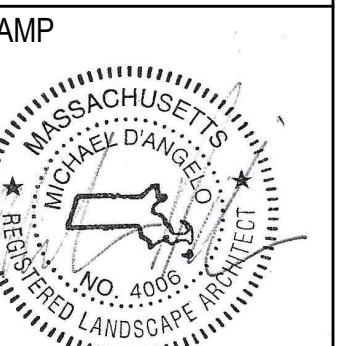
IRRIGATION NOTES:

1. IRRIGATION SHALL BE A DESIGN-BUILD INSTALLATION. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING.
2. IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
3. TREES SHALL BE ON A SEPARATE ZONE.
4. PROVIDE A REMOTE RAIN SENSOR ON A ROOF AREA THAT IS NOT OBSTRUCTED FROM THE OPEN SKY.
5. COORDINATE WITH OWNER FOR POINT OF CONNECTION LOCATION.
6. COORDINATE WITH OWNER FOR IRRIGATION CONTROLLER LOCATION.
7. INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
8. COORDINATE WITH OWNER FOR BACKFLOW PREVENTION LOCATION.
9. INSTALLER SHALL INSTALL LIGHTNING AND SURGE PROTECTION DEVICES THROUGHOUT SYSTEM AS PER MANUFACTURER'S HIGHEST SPECIFICATION LEVELS.
10. INSTALLER SHALL ADHERE TO ALL MANUFACTURER'S SPECIFICATIONS RELATED TO CONTROL SYSTEM INSTALLATION.
11. INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.
12. PRIOR TO BID, CONTRACTOR TO VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS, AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY DESIGNER AND OWNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES.

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
TREES					
AR	8	ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
AC	6	ACER SACCHARUM	SUGAR MAPLE	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
QP	6	QUERCUS PALUSTRIS	PIN OAK	3"-3.5" CAL.	B&B, 6' CLEAR BRANCHING
SHRUBS AND GROUND COVER					
RG	20	RHUS 'GRO LOW'	GROW LOW SUMAC	3 GAL	36" O.C. B&B
STORMWATER BASIN SEED MIX					
ERNST SEEDS					APPLY COVER CROP; FALL: GRAIN RYE, SPRING/SUMMER: JAPANESE MILLET OR BARNYARD GRASS
800-873-3321		ERNST MIX (ERNMX-126)		20-40 LB/ACRE	
		RETENTION BASIN FLOOR MIX - LOW MAINTENANCE			
NATIVE FLOWERING MEADOW MIX					
ERNST SEEDS					APPLY COVER CROP; FALL: GRAIN RYE, SPRING: OAT
800-873-3321		ERNST MIX (ERNMX-181-1 & 181-2)		75 LB/ACRE	
		NATIVE STEEP SLOPE MIX			

LIGHT SCHEDULE						
SYMBOL	LABEL	MODEL	MOUNT	DESCRIPTION	OPTIONS	REP.
☉	P1	BEACON VIPER LUMINAIRE VP-1-160L-75-3K7-4W-UNV-A4-FINISH-BC POLE:RSS-B-25-50-B-1-FINISH-B3	CONCRETE FOOTING; KEEP 24" ABOVE GRADE	SINGLE	COLOR: BLACK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
☾	W1	CURRENT LIGHTING SMALL LED LITEPAK LNC2-48L-10-3K7-3-UNV-FINISH	WALL MOUNT	WALL LIGHT	COLOR: BLACK	

SUBMIT CUT SHEETS FOR APPROVAL



REV. NO.	DATE	DESCRIPTION
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL
2	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
3	1/17/2024	REVISED PER FINAL COMMENTS
4	2/7/2024	REVISED PER ADDITIONAL PEER REVIEW COMMENTS

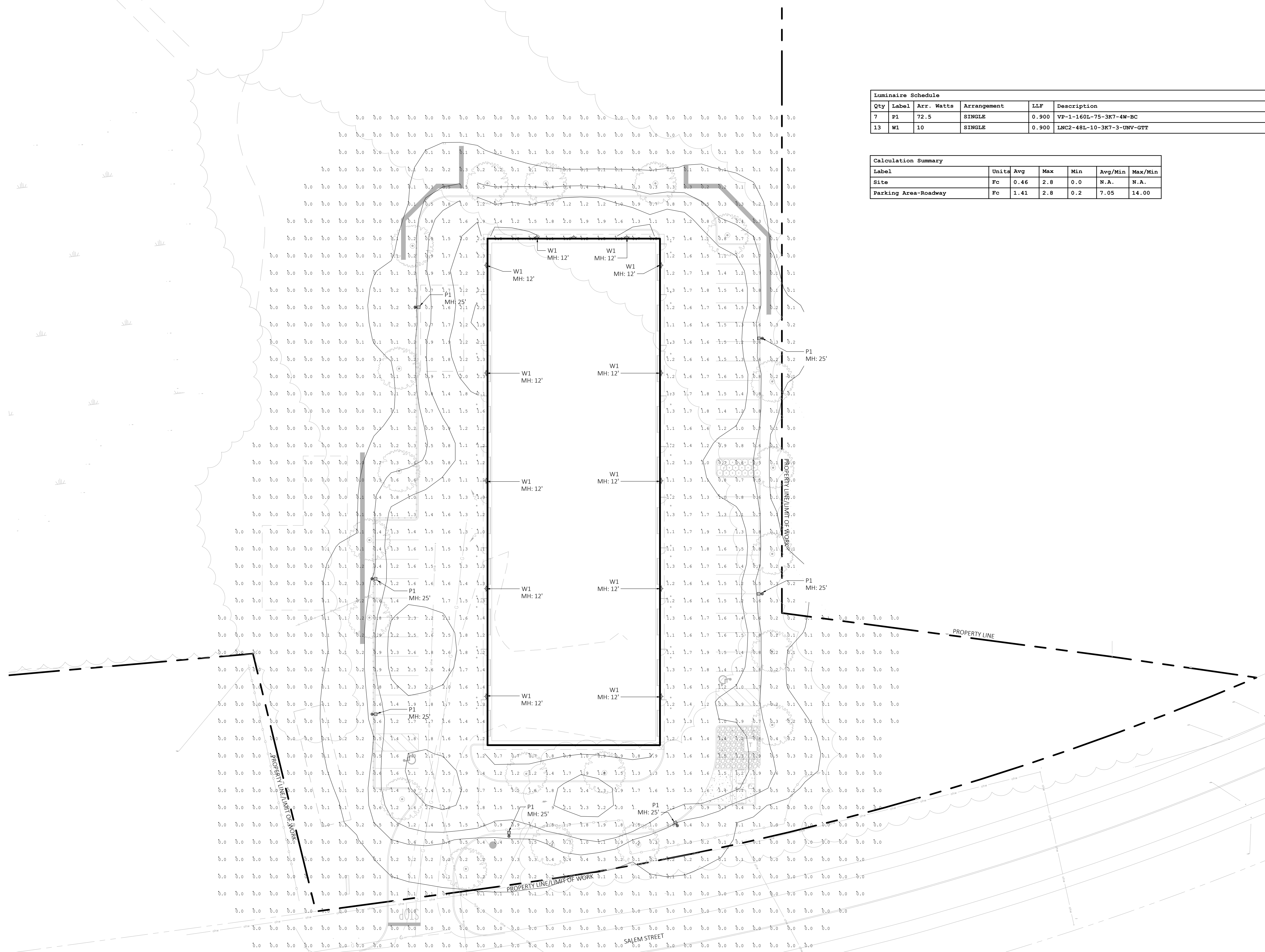
LANDSCAPE PLANTING AND LIGHTING PLAN

DRAWN:	HB
CHECKED:	MD
SCALE:	L1
AS NOTED	
DATE:	07/14/23

1 LANDSCAPE PLANTING AND LIGHTING PLAN
SCALE: 1" = 20'-0"



NOT FOR CONSTRUCTION



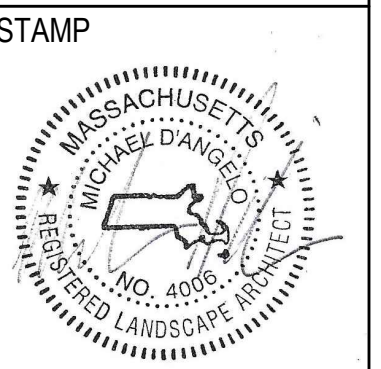
Luminaire Schedule					
Qty	Label	Arr. Watts	Arrangement	LLF	Description
7	P1	72.5	SINGLE	0.900	VP-1-160L-75-3K7-4W-BC
13	W1	10	SINGLE	0.900	LNC2-48L-10-3K7-3-UNV-GTT

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Site	Fc	0.46	2.8	0.0	N.A.	N.A.
Parking Area-Roadway	Fc	1.41	2.8	0.2	7.05	14.00

1 LANDSCAPE PHOTOMETRIC PLAN
SCALE: 1" = 20'-0"



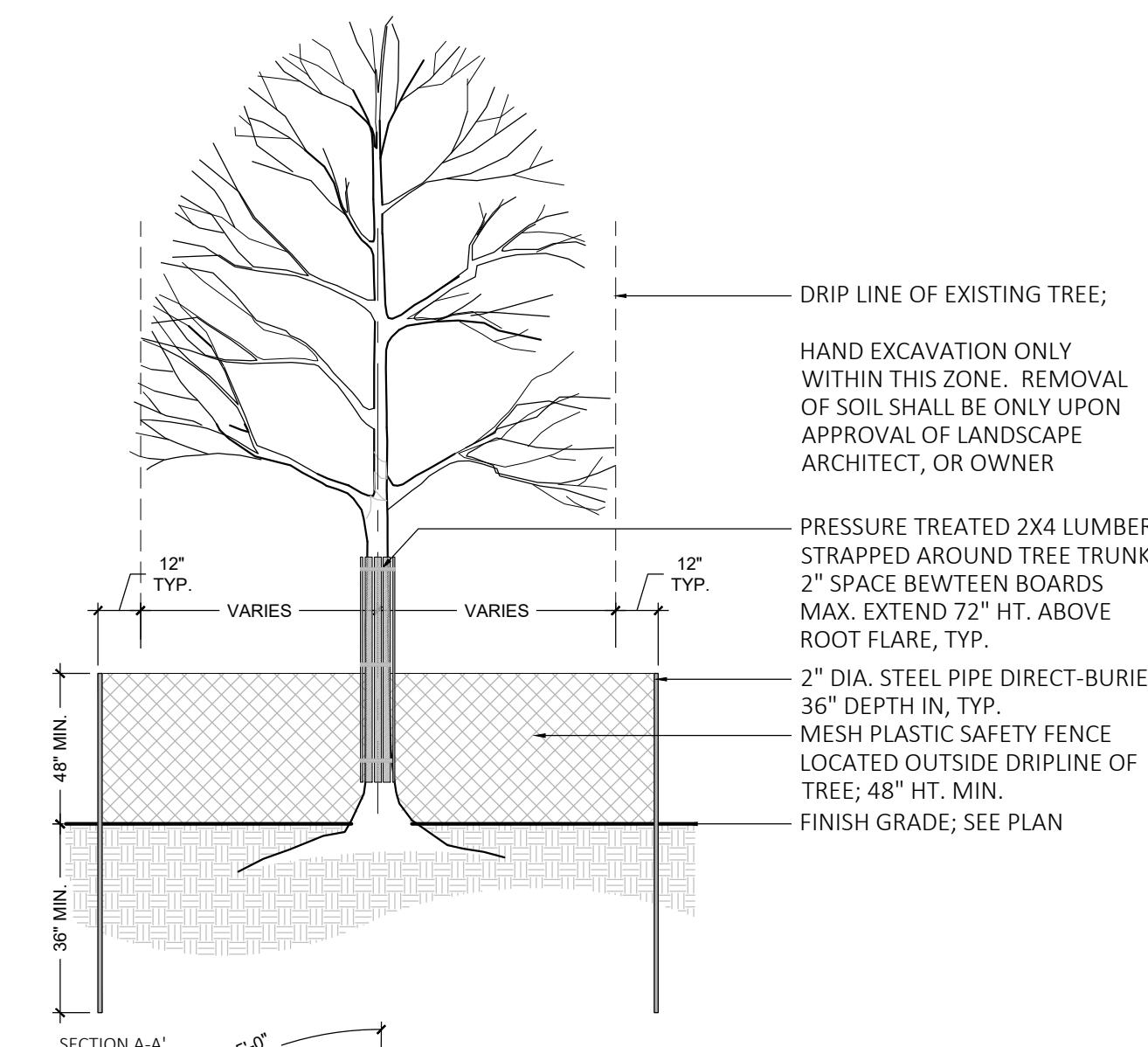
NOT FOR CONSTRUCTION



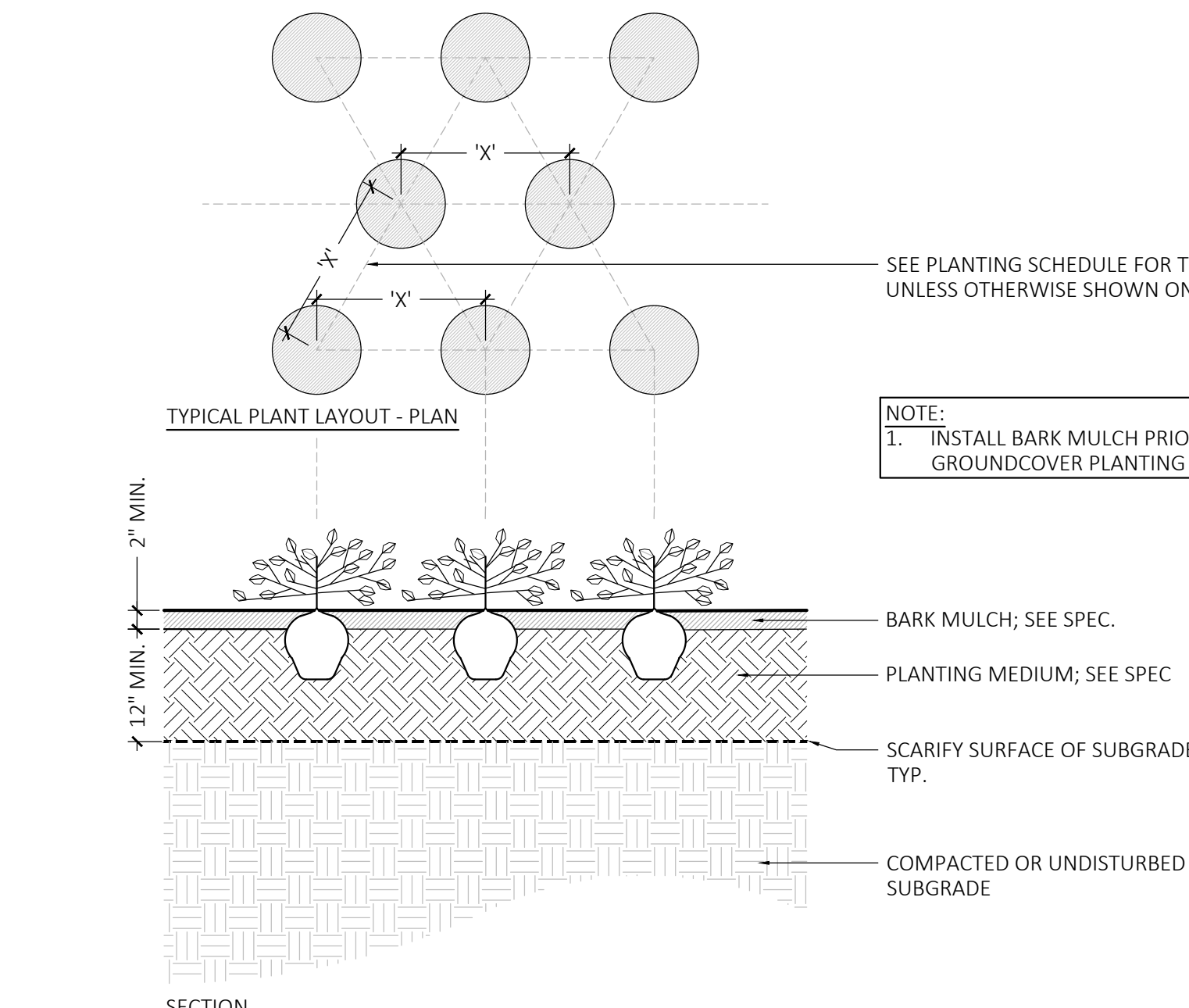
REV. NO.	DATE	DESCRIPTION
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL
2	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
3	1/17/2024	REVISED PER FINAL COMMENTS
4	2/7/2024	REVISED PER ADDITIONAL PEER REVIEW COMMENTS

LANDSCAPE
PHOTOMETRIC
PLAN

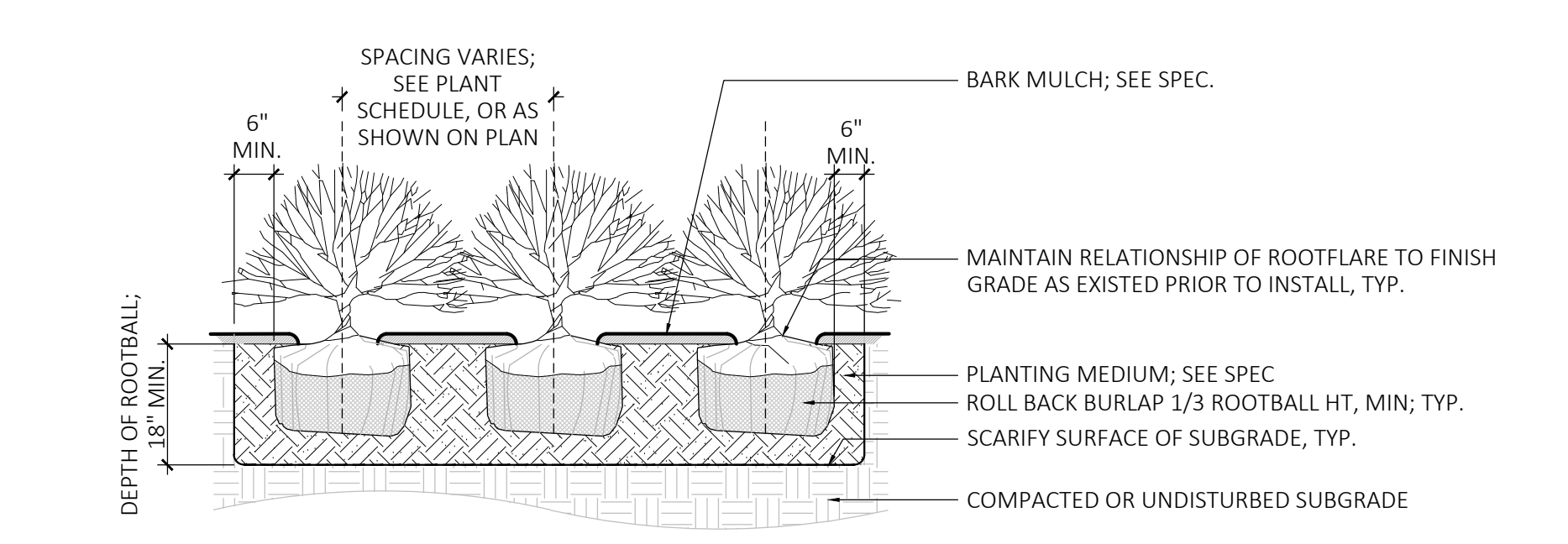
DRAWN:	HB
CHECKED:	MD
SCALE:	L2
AS NOTED	
DATE:	07/14/23



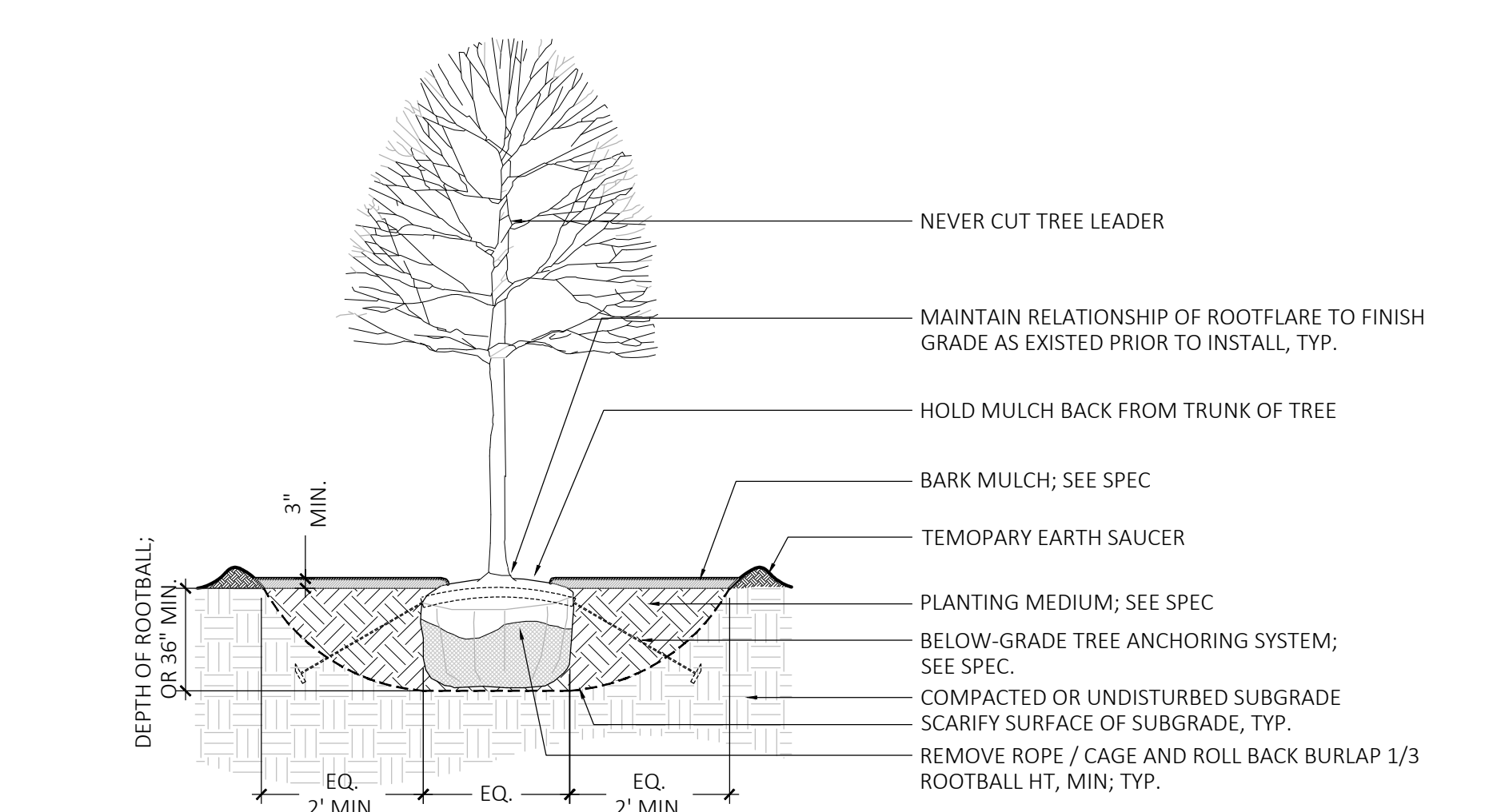
1 EXISTING TREE PROTECTION
NOT TO SCALE



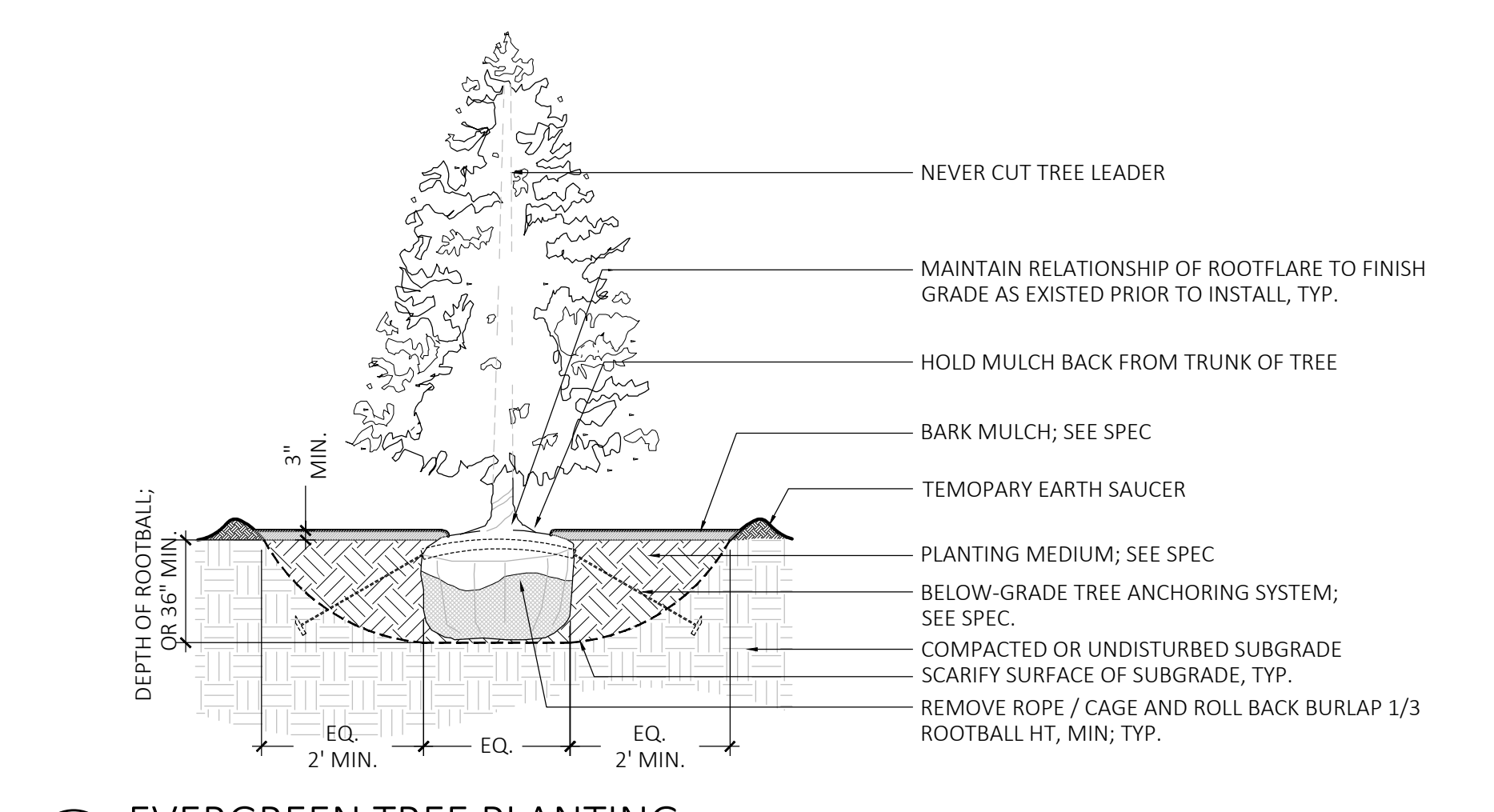
2 GROUNDCOVER PLANTING
NOT TO SCALE



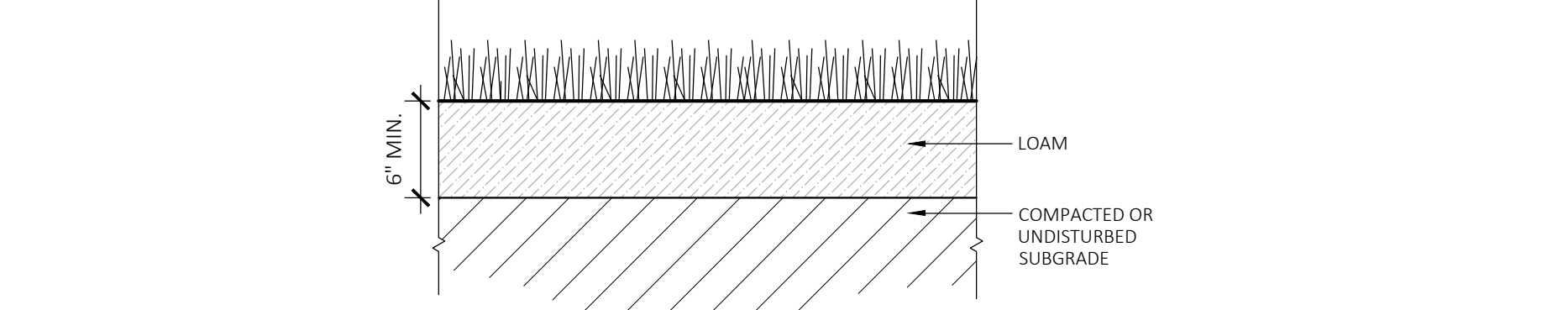
3 SHRUB PLANTING
NOT TO SCALE



4 DECIDUOUS TREE PLANTING
NOT TO SCALE



5 EVERGREEN TREE PLANTING
NOT TO SCALE



6 LAWN
NOT TO SCALE



Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Fall

Date: August 28, 2018

Native Steep Slope Mix w/ Grain Rye - ERNMX-181-2

Botanical Name	Common Name	Price/lb
40.00 % <i>Secale cereale</i> , Variety Not Stated	Grain Rye, Variety Not Stated	0.21
20.40 % <i>Sorghastrum nutans</i> , PA Ecotype	Indiangrass, PA Ecotype	10.60
8.10 % <i>Andropogon gerardii</i> , 'Niagara'	Big Bluestem, 'Niagara'	13.06
7.50 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20 % <i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50 % <i>Schizachyrium scoparium</i> , 'Camper'	Little Bluestem, 'Camper'	12.59
3.70 % <i>Tridens flavus</i>	Purpletop	18.56
3.00 % <i>Agrostis perennans</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype	14.00
2.30 % <i>Panicum virgatum</i> , 'Shawnee'	Switchgrass, 'Shawnee'	7.51
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
1.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Gallardia aristata</i>	Perennial Gallardia (Blanketflower)	32.00
0.80 % <i>Rudbeckia hirta</i>	Blackeyed Susan	20.00
0.70 % <i>Heliopsis helianthoides</i> , PA Ecotype	Oxeye Sunflower, PA Ecotype	42.00
0.40 % <i>Aster lateriflorus</i>	Calico Aster	320.00
0.30 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	196.00

100.00 % **Mix Price/lb Bulk: \$9.88**

Seeding Rate: 75 lb per acre
Erosion Control & Revegetation

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

7 NATIVE FLOWERING MEADOW SEED MIX - FALL
NOT TO SCALE



Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Spring

Date: August 28, 2018

Native Steep Slope Mix w/ Grain Oats - ERNMX-181-1

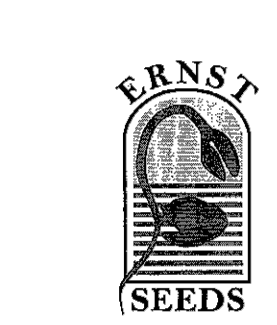
Botanical Name	Common Name	Price/lb
40.00 % <i>Avena sativa</i> , Variety Not Stated	Oats, Variety Not Stated	0.22
20.40 % <i>Sorghastrum nutans</i> , NY Ecotype	Indiangrass, NY Ecotype	12.90
8.10 % <i>Andropogon gerardii</i> , 'Niagara'	Big Bluestem, 'Niagara'	13.06
7.50 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20 % <i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50 % <i>Schizachyrium scoparium</i> , Fort Indiantown Gap-PA Ecotype	Little Bluestem, Fort Indiantown Gap-PA Ecotype	12.00
3.70 % <i>Tridens flavus</i> , Fort Indiantown Gap-PA Ecotype	Purpletop, Fort Indiantown Gap-PA Ecotype	18.78
3.00 % <i>Agrostis perennans</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype	14.00
2.30 % <i>Panicum virgatum</i> , 'Shawnee'	Switchgrass, 'Shawnee'	7.51
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
1.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Gallardia aristata</i>	Perennial Gallardia (Blanketflower)	32.00
0.80 % <i>Rudbeckia hirta</i>	Blackeyed Susan	20.00
0.70 % <i>Heliopsis helianthoides</i> , PA Ecotype	Oxeye Sunflower, PA Ecotype	42.00
0.40 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype	360.00
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	196.00
0.20 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.10 % <i>Penstemon digitalis</i>	Tall White Beardtongue	160.00

100.00 % **Mix Price/lb Bulk: \$10.45**

Seeding Rate: 75 lb per acre
Erosion Control & Revegetation

Use this formula with grain oats as a cover crop in the spring and summer (until September 1st). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

8 NATIVE FLOWERING MEADOW SEED MIX -SPRING
NOT TO SCALE



Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: May 08, 2023

Retention Basin Floor Mix - Low Maintenance - ERNMX-126

Botanical Name	Common Name	Price/lb
20.00 % <i>Panicum clandestinum</i> , Tioga	Deertongue, Tioga	18.75
20.00 % <i>Poa annua</i> , Fulls	Alkaligrass, Fulls	3.89
18.00 % <i>Elymus virginicus</i> , Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype	8.63
15.00 % <i>Agrostis stolonifera</i> , 'Penncross'	Creeping Bentgrass, 'Penncross'	12.00
15.00 % <i>Poa polystris</i>	Fowl Bluegrass	14.00
10.00 % <i>Carex vulpoides</i> , PA Ecotype	Fox Sedge, PA Ecotype	24.00
1.00 % <i>Carex scoparia</i> , PA Ecotype	Blunt Broom Sedge, PA Ecotype	68.00
1.00 % <i>Juncus effusus</i>	Soft Rush	40.00

100.00 % **Mix Price/lb Bulk: \$13.44**

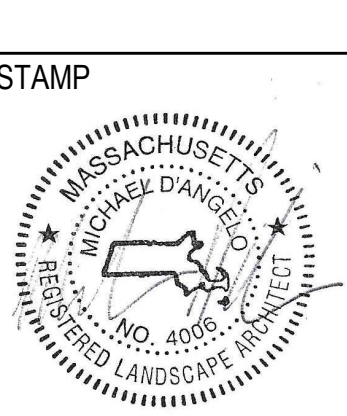
Seeding Rate: 20-40 lbs per acre, or 0.5-1 lb/1,000 sq ft with a cover crop. For a cover crop use one of the following: grain rye (1 Sep to 30 Apr; 30 lbs/acre), Japanese millet (1 May to 31 Aug; 10 lbs/acre), or barnyard grass (1 May to 31 Aug; 10 lbs/acre).

Grasses & Grass-like Species - Herbaceous Perennial; Stormwater Management

The hardy inexpensive grass and grass-like species are ideal for retention basins that may have high salt inflows and where mowing may be required. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

9 STORMWATER BASIN SEED MIX
NOT TO SCALE

NOT FOR CONSTRUCTION



REV. NO.	DATE	DESCRIPTION
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL
2	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
3	1/17/2024	REVISED PER FINAL COMMENTS
4	2/7/2024	REVISED PER ADDITIONAL PEER REVIEW COMMENTS

PLANTING DETAILS

DRAWN:	HB
CHECKED:	MD
SCALE:	L3
AS NOTED	
DATE:	07/14/23



VIPER Area/Site VIPER LUMINAIRE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, wISCAPE and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY

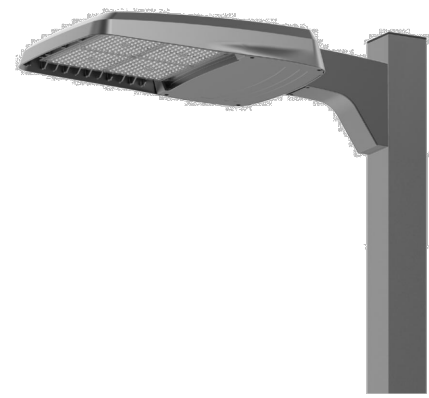


SPECIFICATIONS

- CONSTRUCTION**
- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
 - Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
 - External hardware is corrosion resistant
- OPTICS**
- Micro Strike Optics (50, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
 - Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 2
 - Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
 - One-piece silicone gasket ensures a weatherproof seal
 - Zero up-light at 0 degrees of tilt
 - Field rotatable optics
- INSTALLATION**
- Mounting patterns for each arm can be found on page 11
 - Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASGU) or accessory for square and round poles
 - All mounting hardware included

- INSTALLATION (CONTINUED)**
- Knuckle arm filter option available for 2-3/8" OD tenon
 - For products with ERA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended
- ELECTRICAL**
- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
 - Drivers have greater than 90% power factor and less than 20% THD
 - LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
 - Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C82.41.2 Category C High and Surge Location Category C3. Automatically takes fixture off-line for protection when device is compromised
 - Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined
- CONTROLS**
- Photo control, occupancy sensor, programmable controls, and ZigBee wireless controls available for complete on/off and dimming control
 - Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
 - 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)

MICROSTRIKE STRIKE



10-DAY QUICK SHIP PROGRAM
QSA

KEY DATA	
Lumen Range	5,000-80,000
Wattage Range	36-600
Efficacy Range (LPW)	92-155
Weight lbs. (kg)	13.7-30.9 (6.2-13.9)

Current

currentlighting.com/beacon
© 2022 HL Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values unless measured under laboratory conditions.

Page 1 of 8
Rev: 03/18/23
BEA_VIPERSPEC_804

1 P1 POLE LIGHT
NOT TO SCALE



LNC2 SMALL LED LITEPAK

FEATURES

- 60% more lumens and increased performance than smaller LNC models
- 3000K, 4000K and 5000K as well as Amber
- Type I, II and IV distributions available for a variety of application needs
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada
- Full out-of-neighbor friendly
- Optional photocontrol for additional energy savings



CONTROL TECHNOLOGY



SPECIFICATIONS

- CONSTRUCTION**
- Rugged die-cast aluminum housing protects components and provides an architectural appearance
 - Casting thermally conducts LED heat to optimize performance and long life
 - Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating
- OPTICS**
- Zero uplight distributions using individual acrylic Micro Strike Optics
 - LED optics provide IES type II and IV distributions. Optional (CS) acrylic diffuser available for reduced glare
 - Prismatic refractor lens provides ~10% uplight for recessed vertical footcandies and forward light projection ideal for security lighting
 - L96 at 60,000hrs (Projected per IESNA TM-21-11), see table on page 3 for all values
- INSTALLATION**
- Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box)
 - Designed for direct j-box mount
 - Optional 1/2" conduit hubs available (standard for control options and battery versions)

- ELECTRICAL**
- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
 - 347V and 480V dimmable driver option available in 25W and 35W configurations
 - Minimum operating temperature is -40°C/-40°F
 - Drivers have greater than 90 power factor and less than 20% Total Harmonic Distortion
 - Driver RoHS and IP66
 - 10kA surge protector available as an option
 - 3000K CCT nominal, 4000K CCT nominal, 5000K CCT nominal (70 CR)
- CONTROLS**
- Universal button photocontrol for use with 120-277V configurations
 - Occupancy sensor options available for complete on/off and dimming control
 - NX Lighting Controls™ available that feature dimming and occupancy sensor
 - Integral Battery Backup provides emergency lighting for the required 90 minute path of egress. Uses 15 watts of power for about 2000 lumens
 - Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be included in one fixture.

KEY DATA	
Lumen Range	1000-5600
Wattage Range	10-45
Efficacy Range (LPW)	108-124
Weights lbs. (kg)	9.6 (24.5)

Current

currentlighting.com/exo
© 2022 HL Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values unless measured under laboratory conditions.

Page 1 of 8
Rev: 06/23/23
HOL_LNC2LED_spec_802

2 W1 WALL LIGHT
NOT TO SCALE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____



10-DAY QUICK SHIP PROGRAM
QSA

Current

currentlighting.com/exo
© 2022 HL Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values unless measured under laboratory conditions.

Page 1 of 8
Rev: 06/23/23
HOL_LNC2LED_spec_802

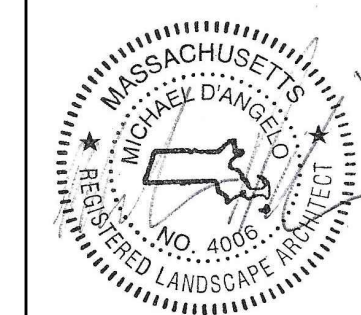
MDLA
MICHAEL D'ANGELO Landscape Architecture

MICHAEL D'ANGELO
LANDSCAPE ARCHITECTURE LLC

840 SUMMER STREET
SUITE 201A
BOSTON, MA 02127
T. 203.592.4788
www.m-d-l-a.com

912 SALEM STREET
GROVELAND, MA

STAMP



REV. NO.	DATE	DESCRIPTION
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL
2	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
3	1/17/2024	REVISED PER FINAL COMMENTS
4	2/7/2024	REVISED PER ADDITIONAL PEER REVIEW COMMENTS

LIGHTING
CUT SHEETS

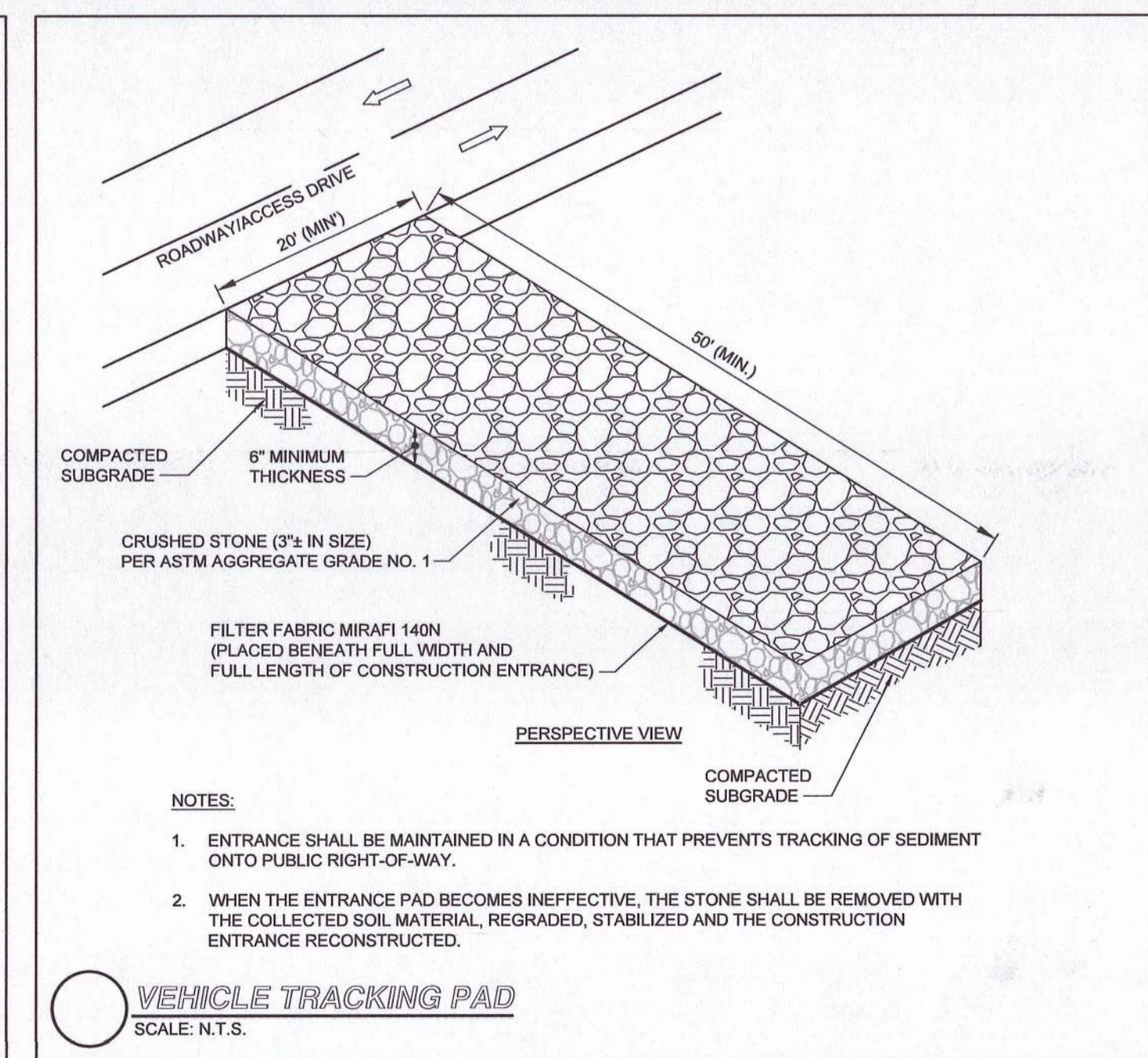
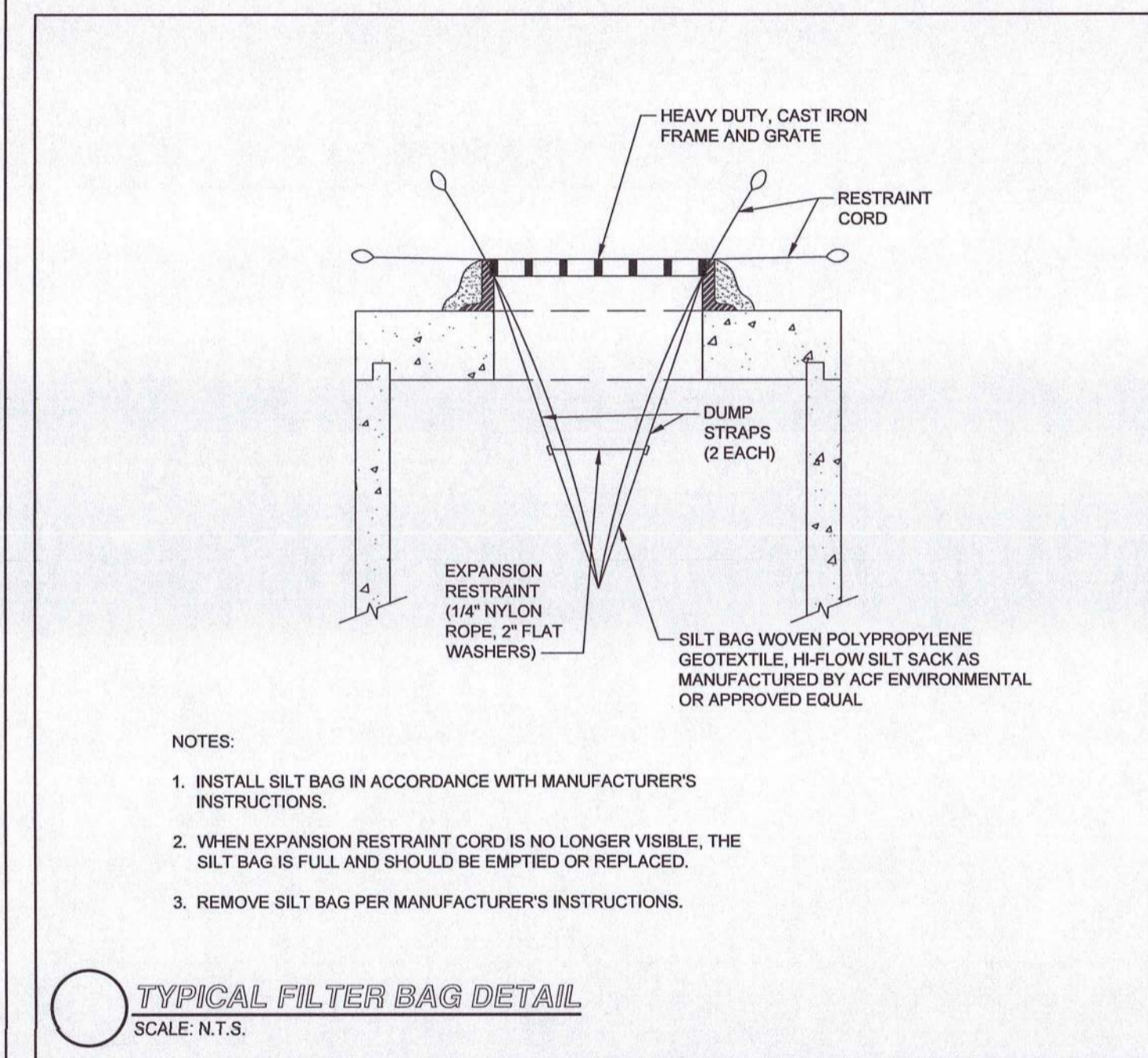
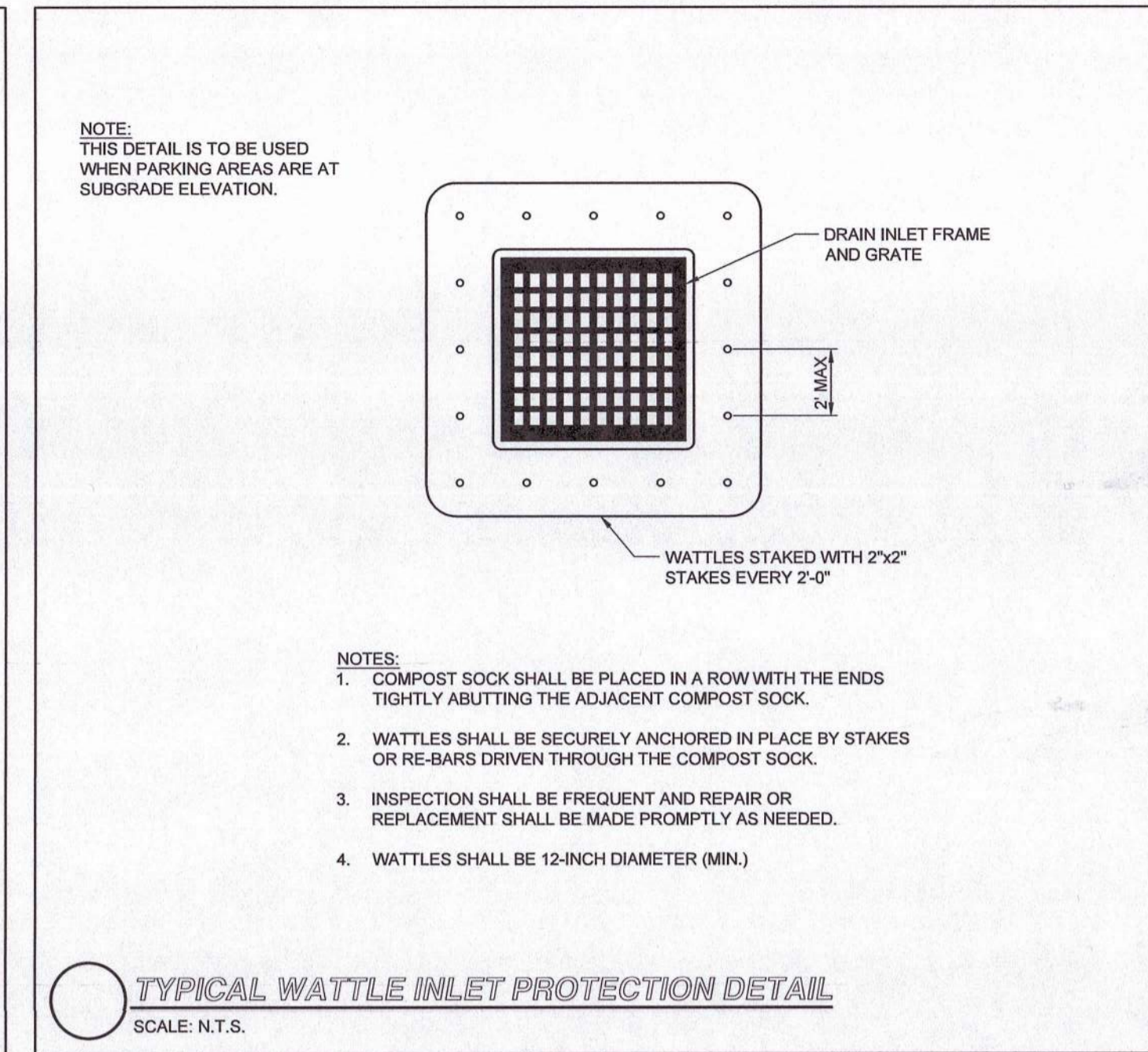
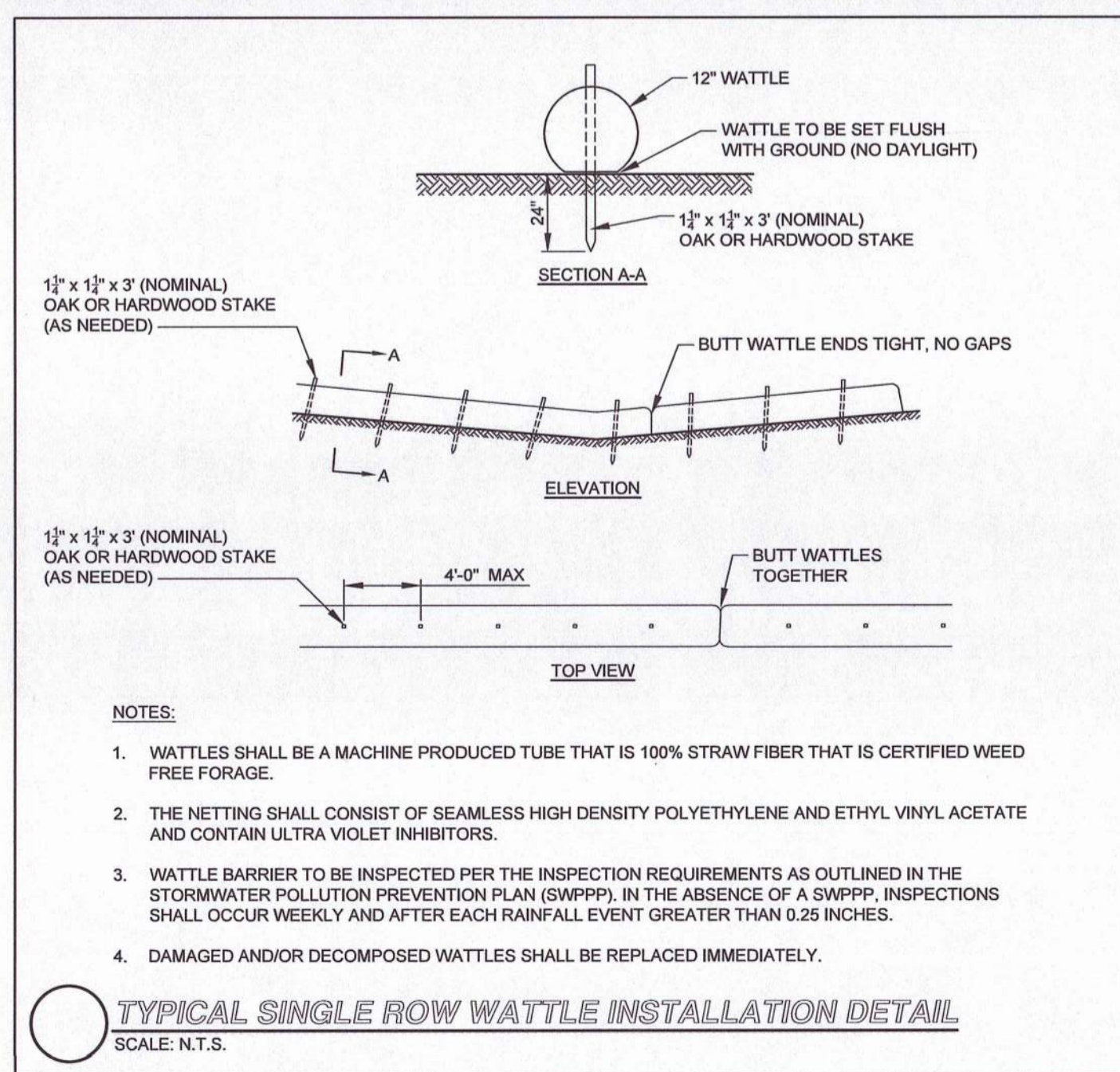
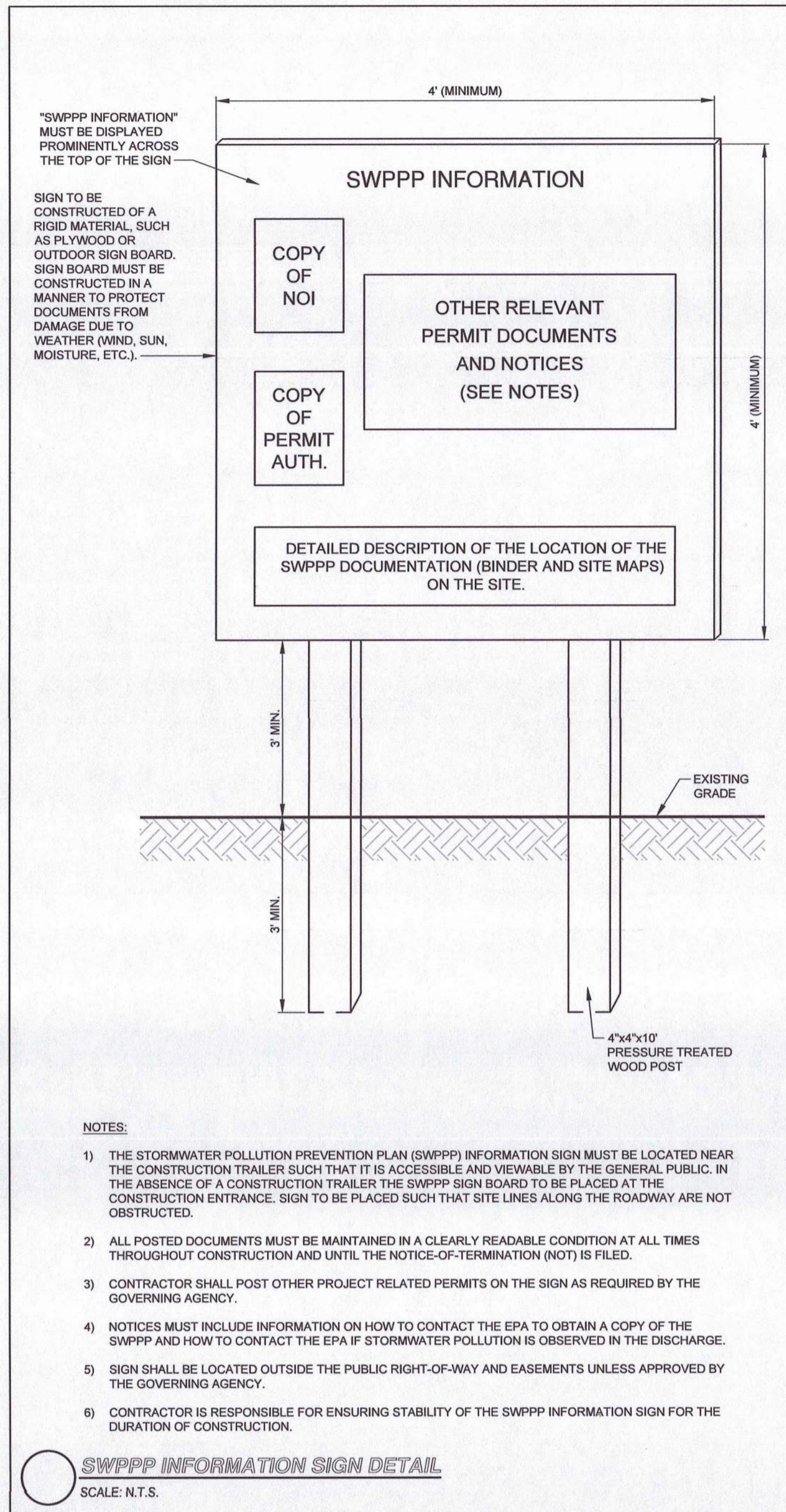
DRAWN:
HB
CHECKED:
MD
SCALE:
AS NOTED
DATE:
07/14/23

L4

NOT FOR CONSTRUCTION

SHEET 4 OF 4

NO.	DATE	REVISION
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT
	01/17/2024	REVISED PER FINAL COMMENTS



PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0160 RJOCONNELL.COM

PREPARED FOR:
MARK A. ABARE
144 HILLDALE AVENUE
HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
GROVELAND, MA

DESIGNED BY: SPG
DRAWN BY: HAA
REVIEWED BY: ACF
SCALE: N.T.S.
DATE: 08/11/2023
DRAWING NAME:

EROSION CONTROL DETAILS

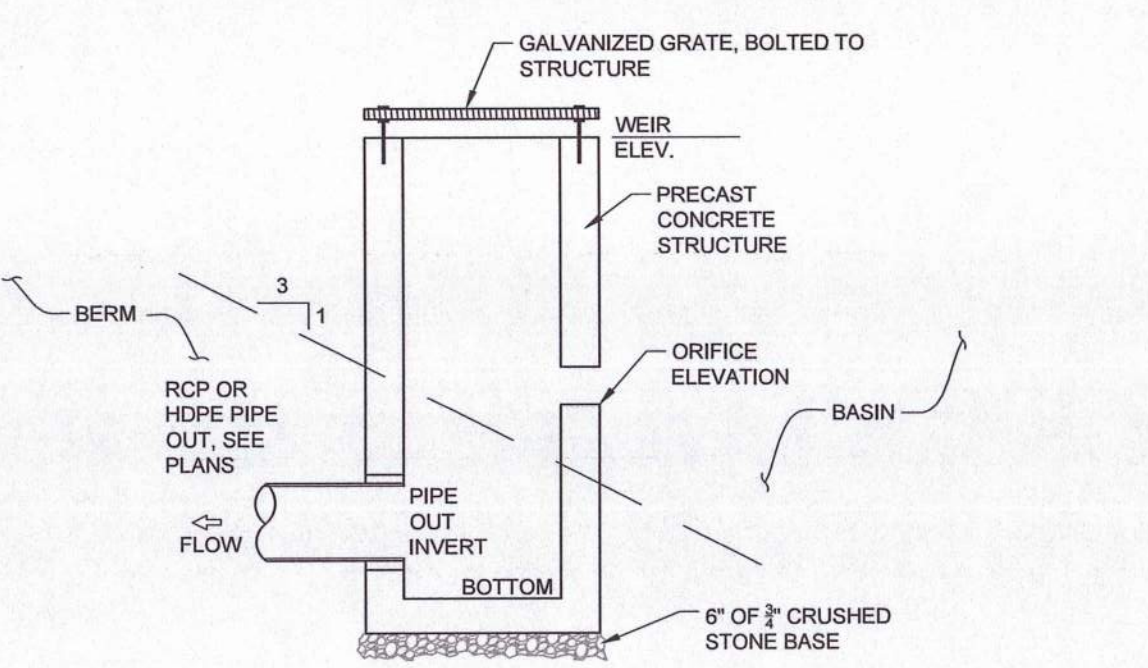
DRAWING NUMBER:
C-5

PROJECT NUMBER: 22021

UNOFFICIAL SOILS INFORMATION

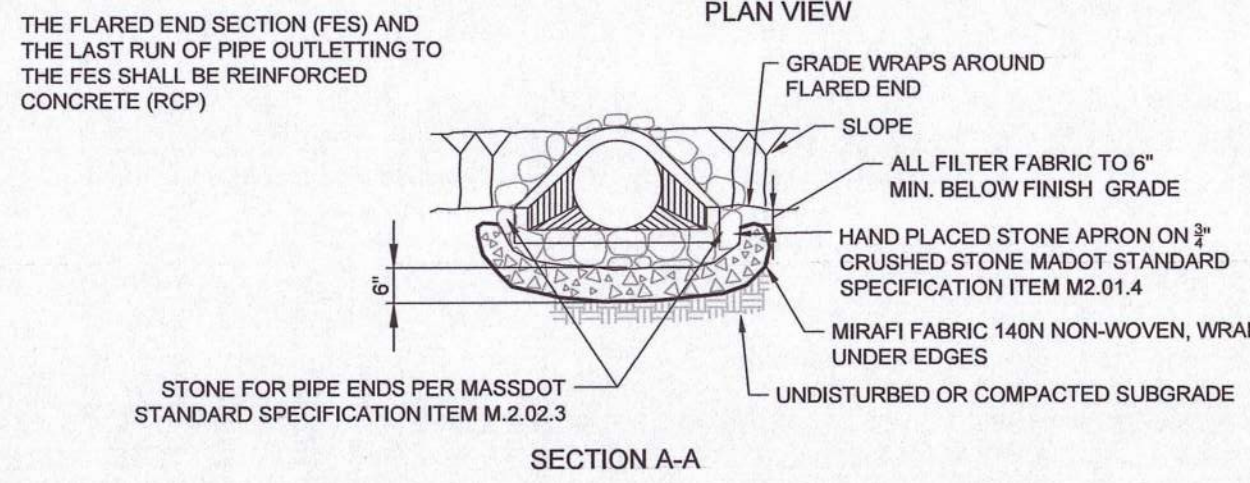
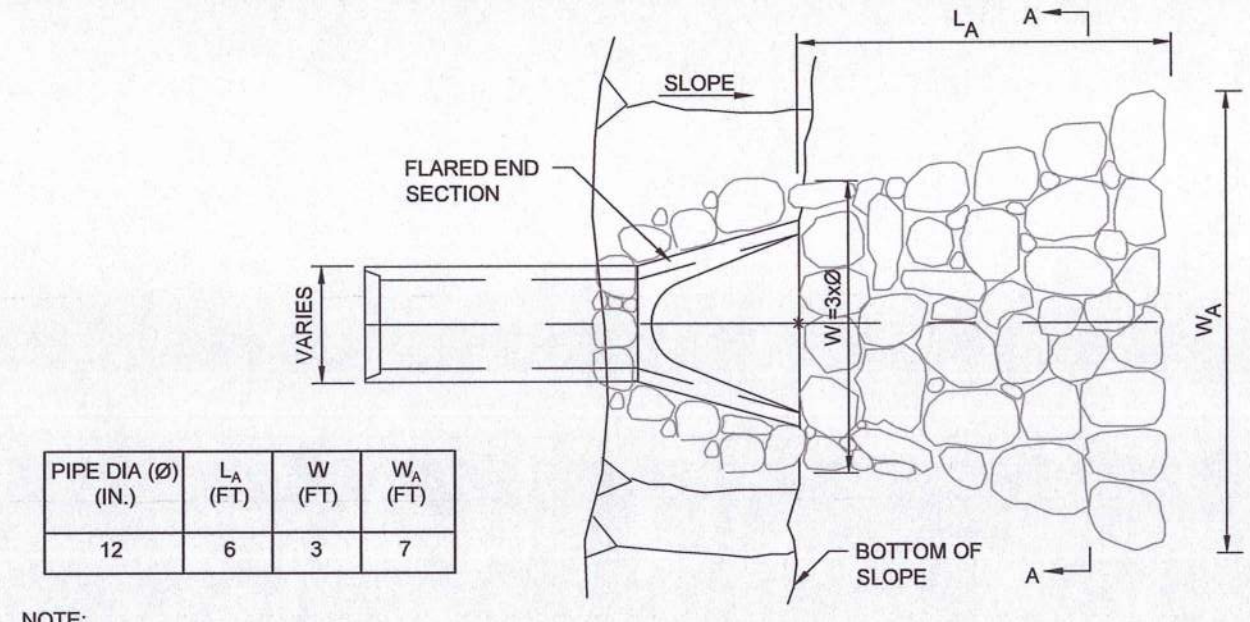
UNOFFICIAL TEST PITS TP-U1 THRU TP-U8 WERE PERFORMED ON MAY 28, 2023 BY APRIL FERRARO, CSE OF RJOC

TEST PIT: TP-U1	TEST PIT: TP-U6
0'-13" HORIZON A: FINE LOAMY SAND	0'-10" HORIZON A: LOAMY SAND
13'-34" HORIZON B: GRAVELY LOAMY SAND	10'-48" HORIZON B: GRAVELY SAND
34'-99" HORIZON C: GRAVELY SAND	R
NO ESHGW OBSERVED	NO ESHGW OBSERVED
NO WEEPING/STANDING WATER	NO WEEPING/STANDING WATER
TEST PIT: TP-U2	TEST PIT: TP-U7
0'-9" HORIZON A: LOAMY SAND	0'-14" HORIZON A: FINE LOAMY SAND
9'-42" HORIZON C1: FINE LOAMY SAND	14'-27" HORIZON B: FINE LOAMY SAND
42'-70" HORIZON C2: GRAVELY SAND	27'-42" HORIZON C1: GRAVELY COARSE SAND
	42'-80" HORIZON C2: MEDIUM SAND
ESHGW @ 45'	80'-96" HORIZON C3: FINE LOAMY SAND
WEEPING/STANDING WATER @ 53'	NO ESHGW OBSERVED
NO WEEPING/STANDING WATER	NO WEEPING/STANDING WATER
TEST PIT: TP-U3	TEST PIT: TP-U8
0'-12" HORIZON A: FINE LOAMY SAND	0'-11" HORIZON A: FINE LOAMY SAND
12'-20" HORIZON B: FINE LOAMY SAND	11'-28" HORIZON B: FINE LOAMY SAND
20'-40" HORIZON C1: MEDIUM SAND	28'-35" HORIZON C1: MEDIUM SAND
40'-98" HORIZON C2: GRAVELY SAND	35'-46" HORIZON C2: LOAMY SAND
ESHGW @ 64' (STREAKS)	46'-54" HORIZON C3: COARSE SAND
NO WEEPING/STANDING WATER	54'-66" HORIZON C4: MEDIUM SAND
	66'-75" HORIZON C5: GRAVELY LOAMY SAND
TEST PIT: TP-U4	R/BOULDER
0'-17" HORIZON A: FINE LOAMY SAND	
17'-30" HORIZON B: FINE LOAMY SAND	
30'-58" HORIZON C1: GRAVELY FINE LOAMY SAND	
58'-78" HORIZON C2: GRAVELY SAND	
NO ESHGW OBSERVED	
NO WEEPING/STANDING WATER	
NO WEEPING/STANDING WATER	
**78" IS AVERAGE DEPTH OF REFUSAL	
TEST PIT: TP-U5	
0'-12" HORIZON A: FINE LOAMY SAND	
12'-22" HORIZON B: FINE LOAMY SAND	
22'-40" HORIZON C1: GRAVELY LOAMY SAND	
40'-75" HORIZON C2: GRAVELY SAND	
ROCK AT BOTTOM	
NO ESHGW OBSERVED	
NO WEEPING/STANDING WATER	

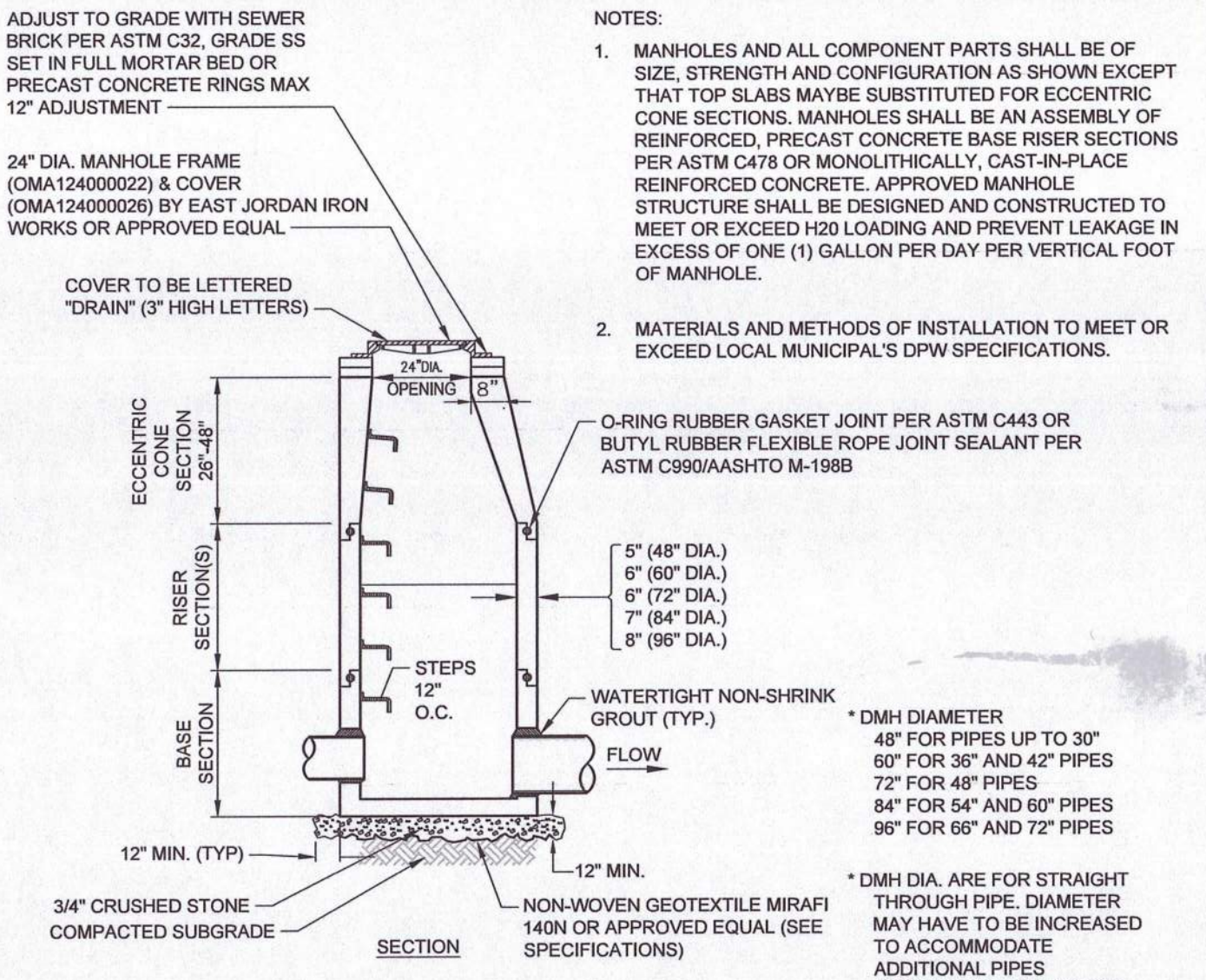


OCS-	ORIFICE TYPE	ORIFICE SIZE	ORIFICE ELEV.	WEIR ELEV.	PIPE INV. OUT	DIMENSIONS OF STRUCTURE
1	RECTANGLE	(2) - 12"W x 4"H	103.25	105.0	102.5	4' Ø

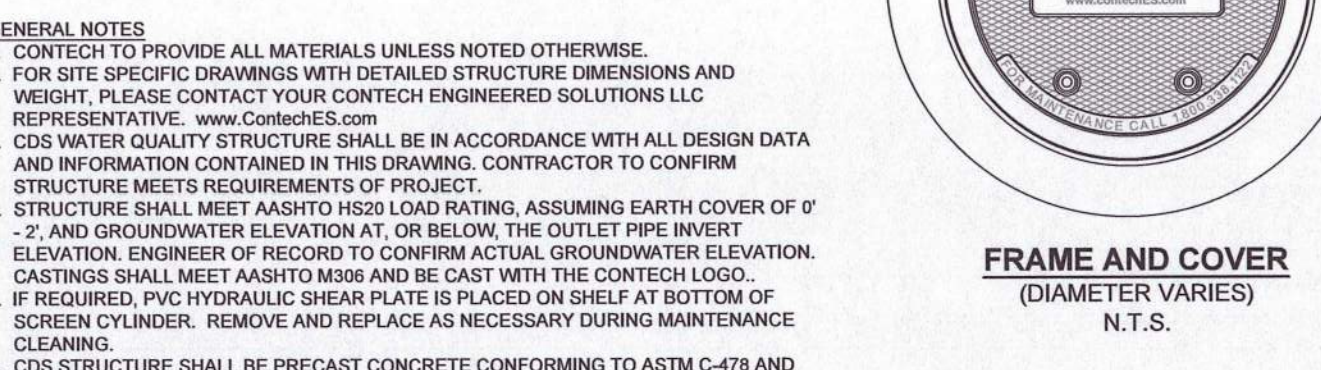
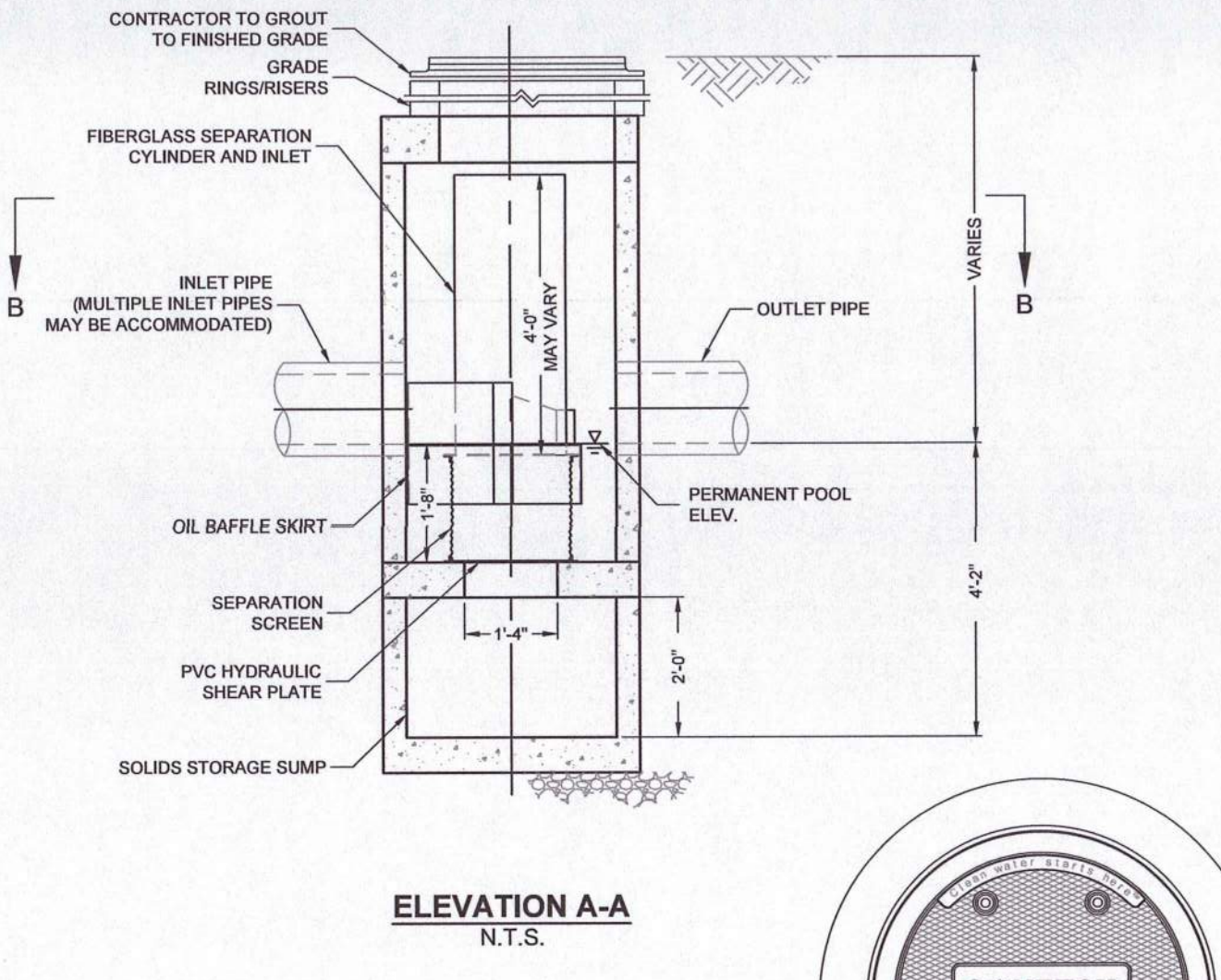
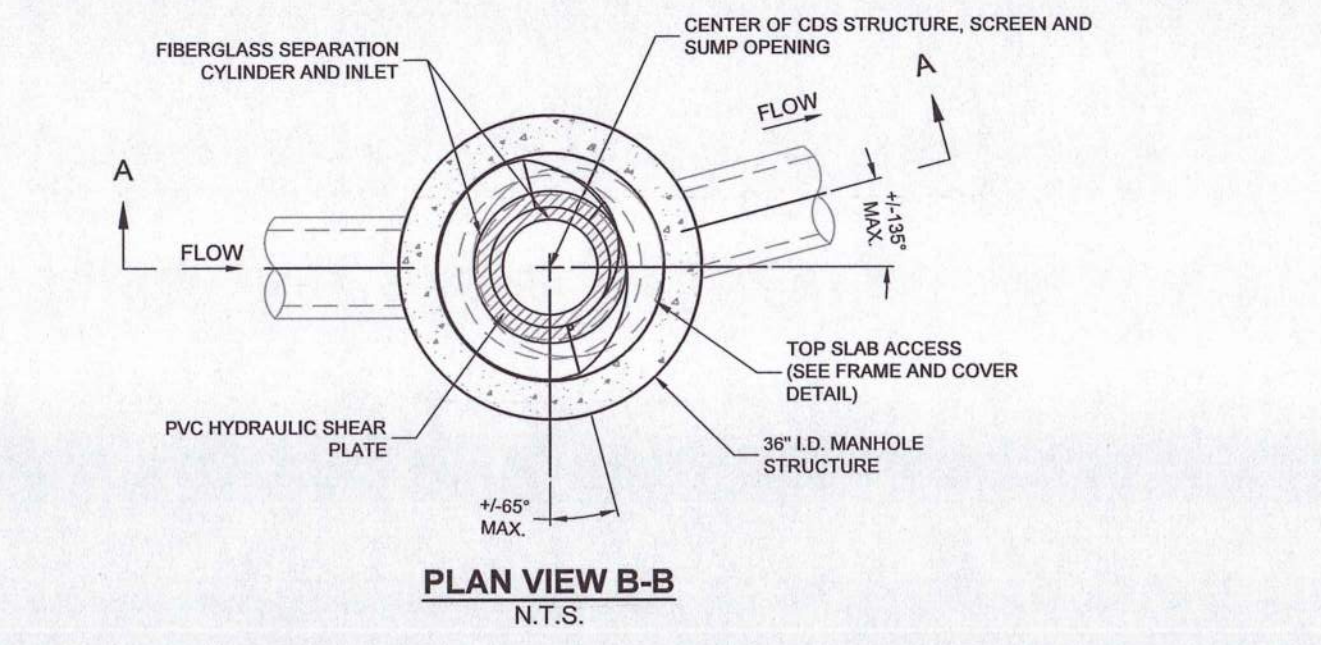
OUTLET CONTROL STRUCTURE (OCS)
SCALE: N.T.S.



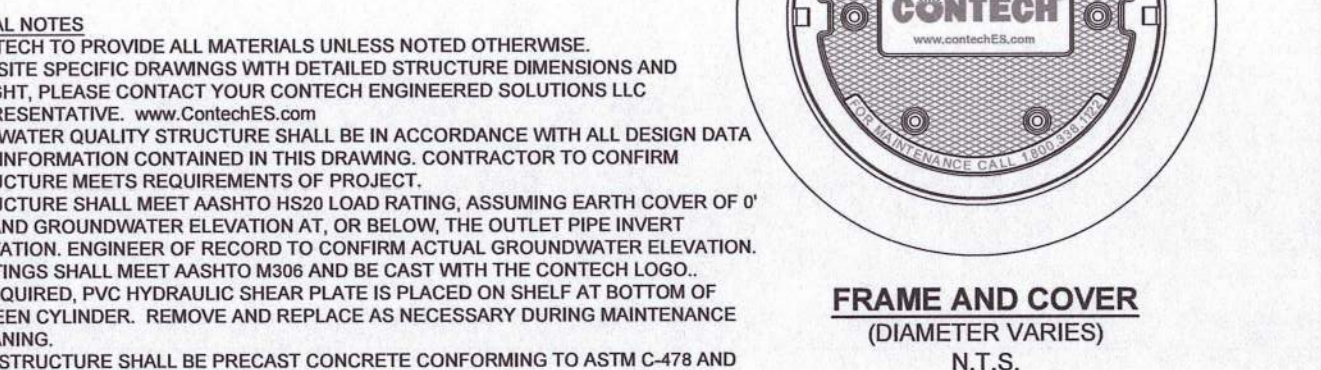
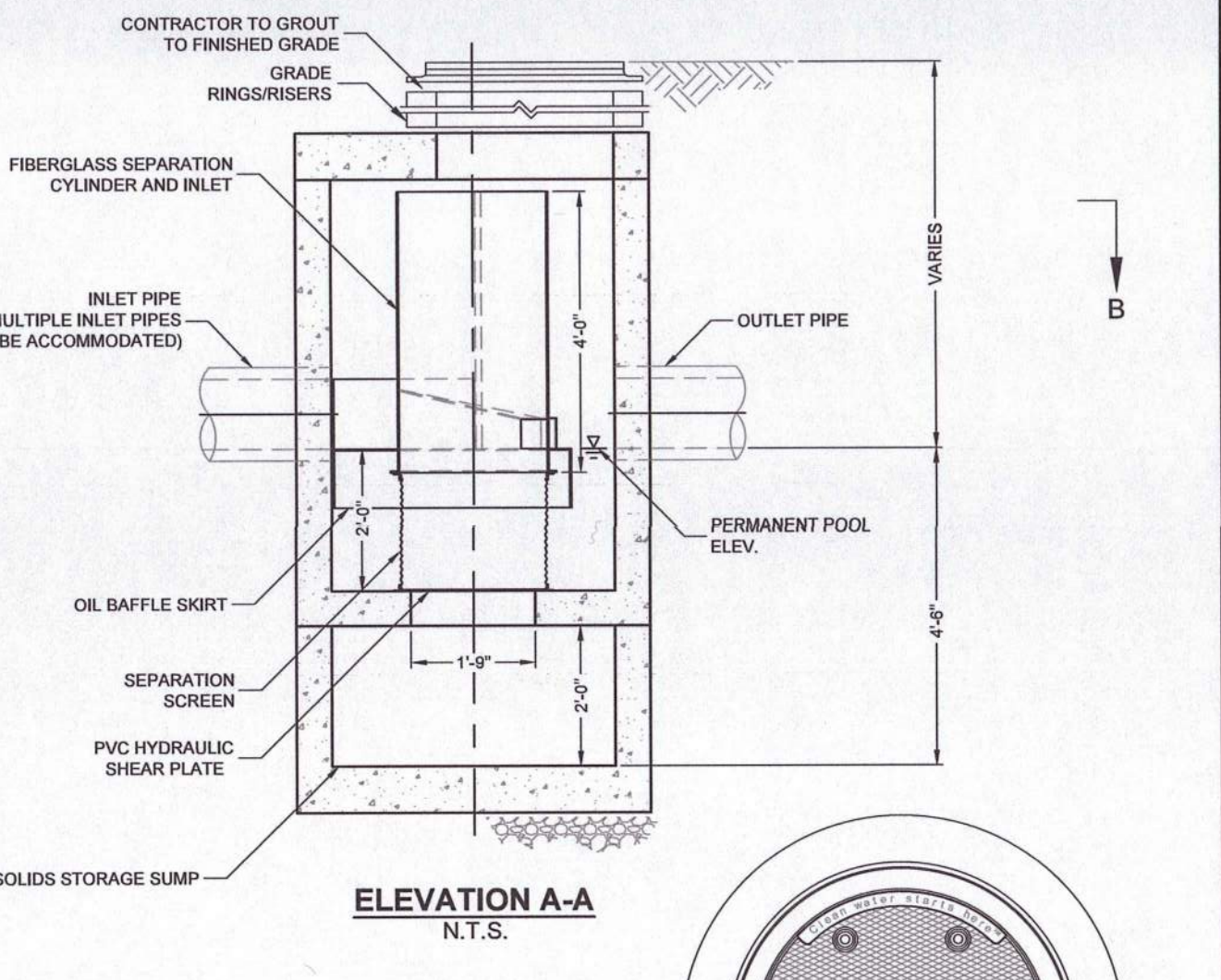
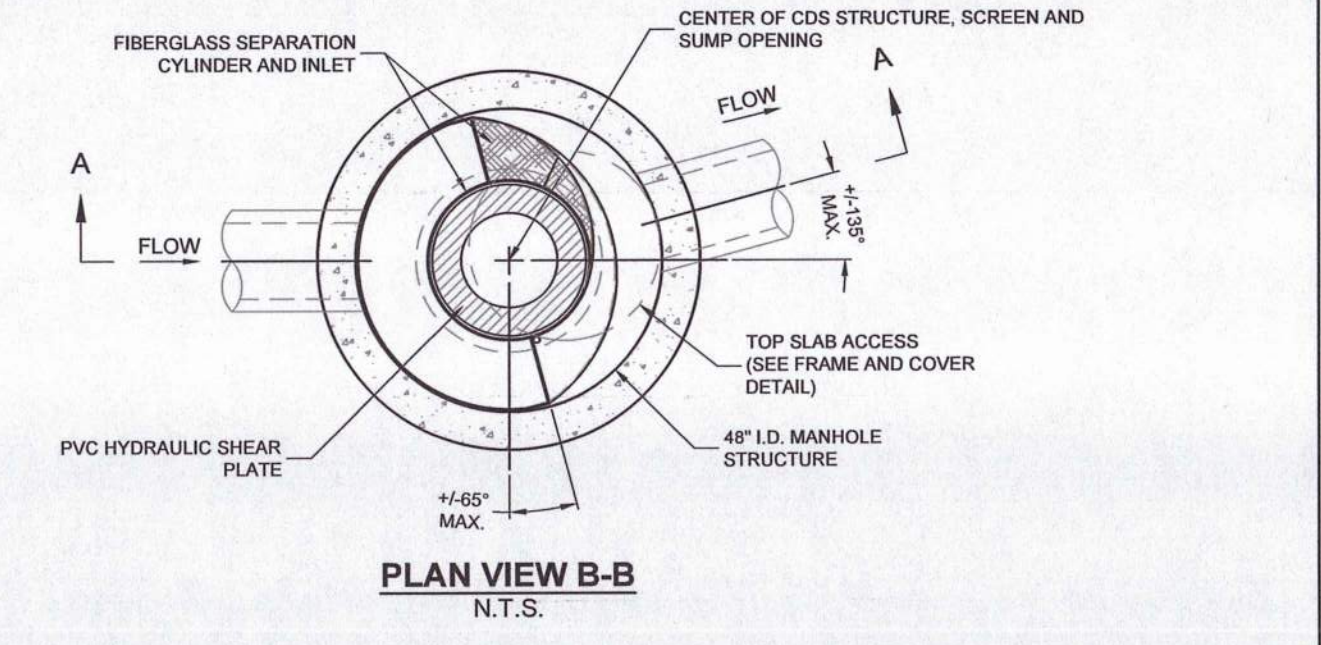
FLARED END SECTION WITH RIP RAP APRON
SCALE: N.T.S.



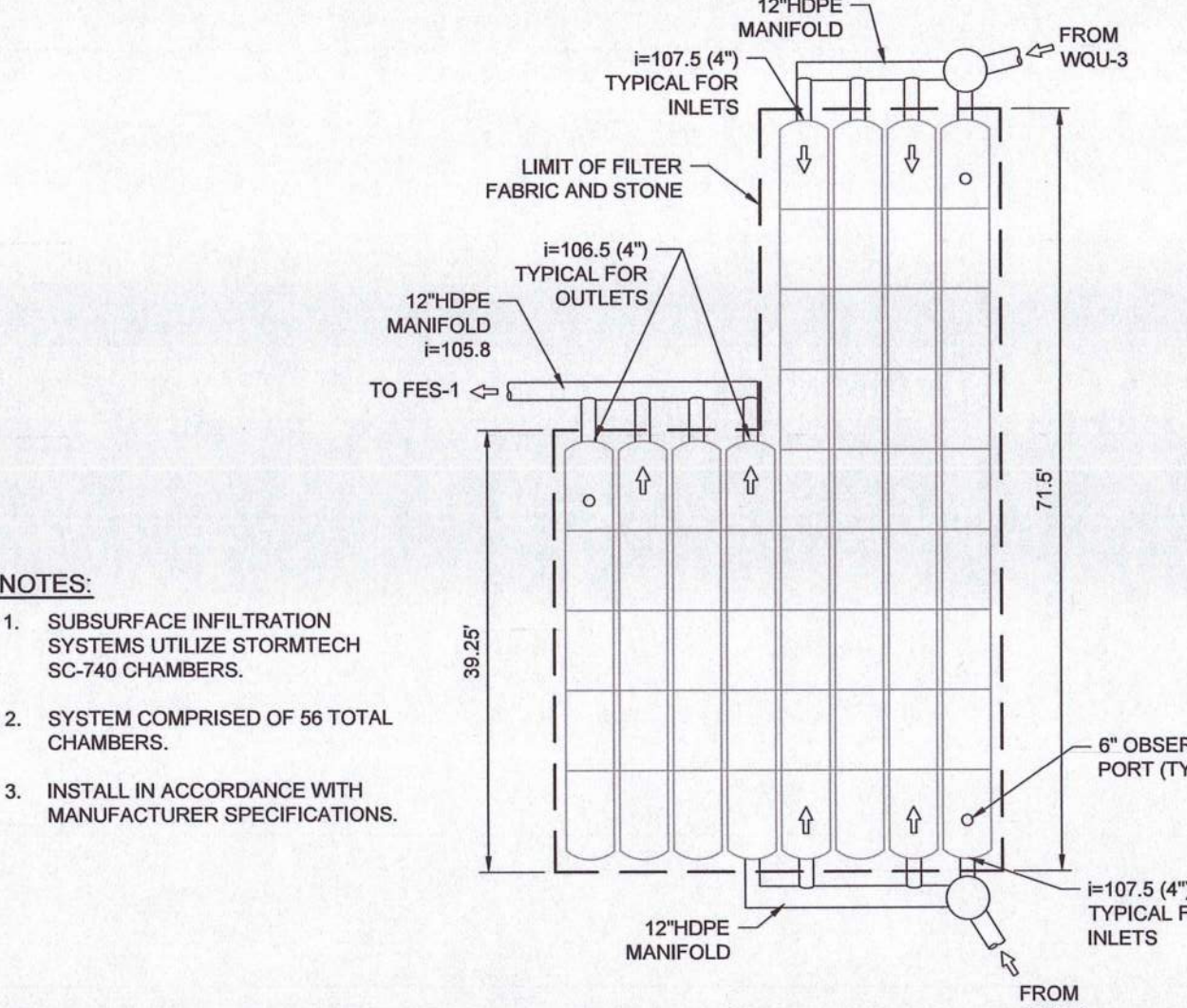
TYPICAL PRECAST CONCRETE DRAIN MANHOLE (DMH)
SCALE: N.T.S.



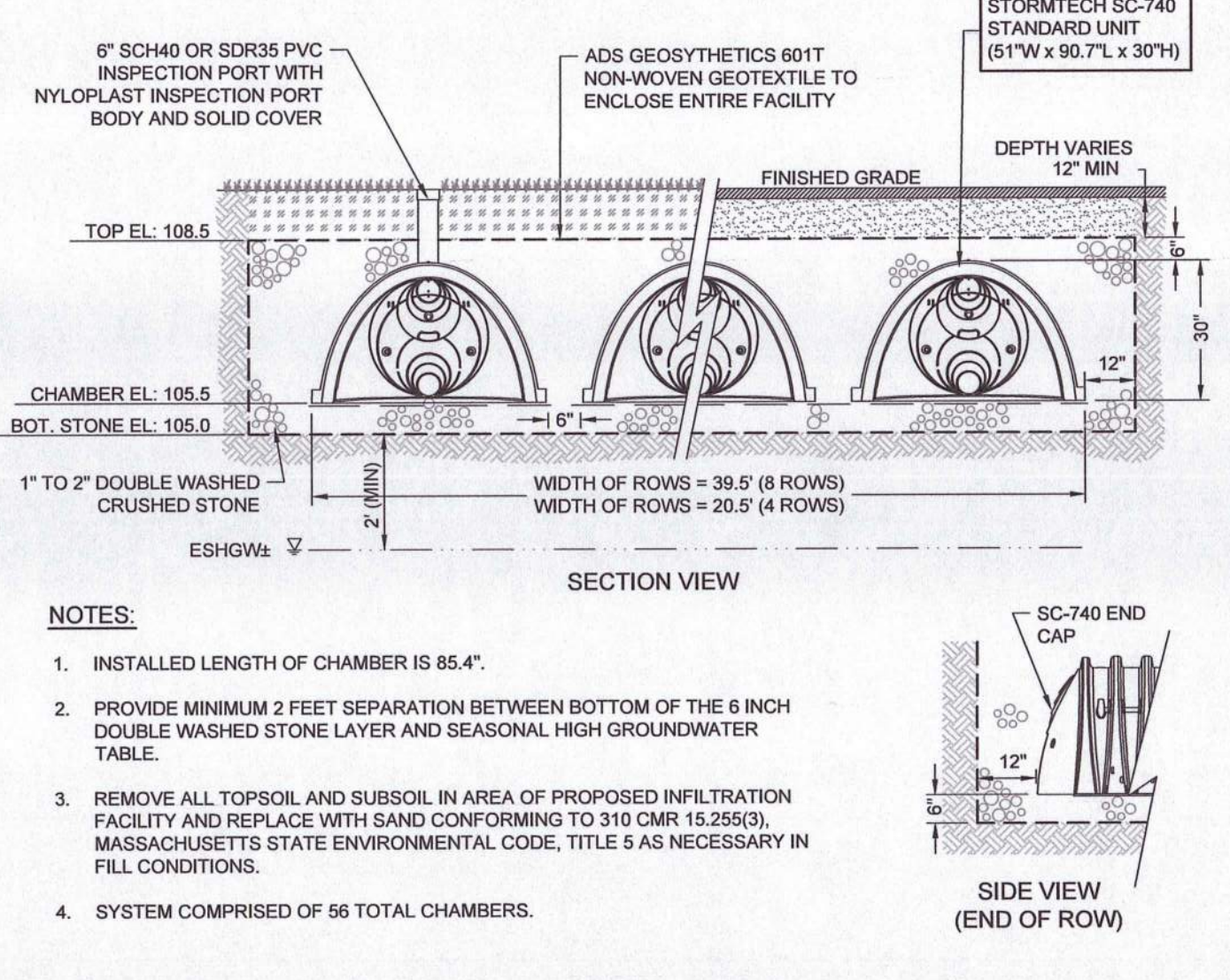
CDS WATER QUALITY UNIT - WQU-1 & WQU-3 (CDS1515-3)
SCALE: N.T.S.



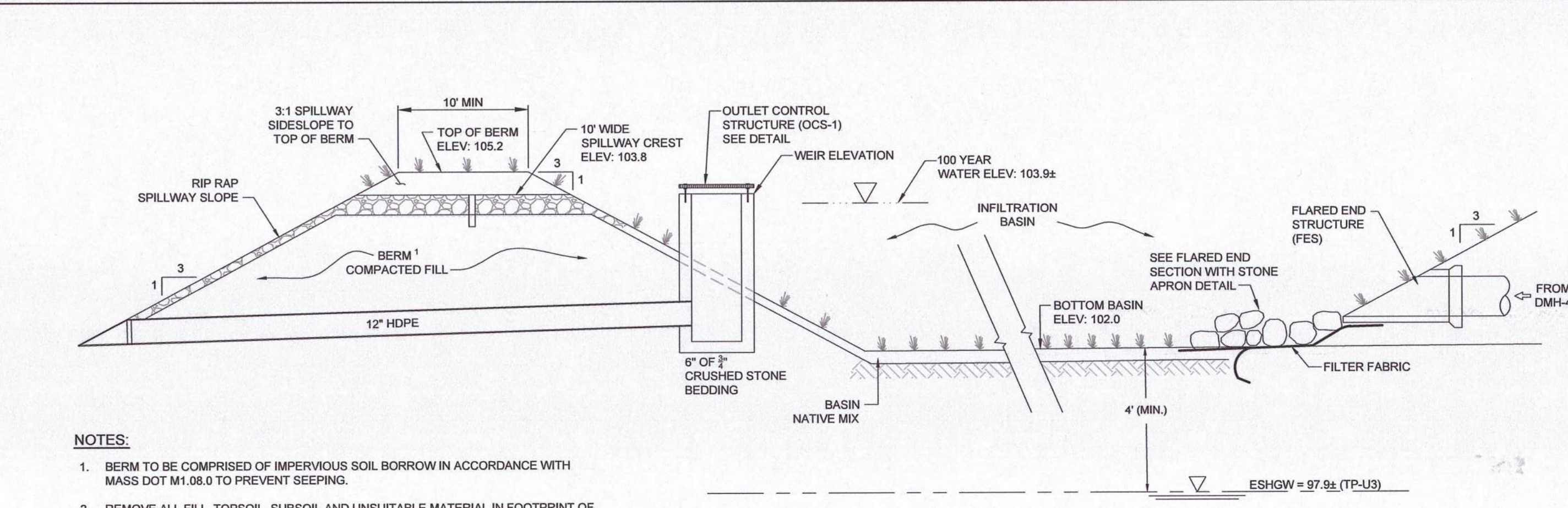
CDS WATER QUALITY UNIT - WQU-2 (CDS1515-4)
SCALE: N.T.S.



SUBSURFACE INFILTRATION SYSTEM - 1
SCALE: N.T.S.



SUBSURFACE INFILTRATION SYSTEM - 1
SCALE: N.T.S.



SURFACE INFILTRATION BASIN - 2 SECTION
SCALE: N.T.S.

NO.	DATE	REVISION
3	01/17/2024	REVISED PER FINAL COMMENTS
2	12/19/2023	REVISED PER PEER REVIEW 12/12/2023
1	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
	08/11/2023	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT

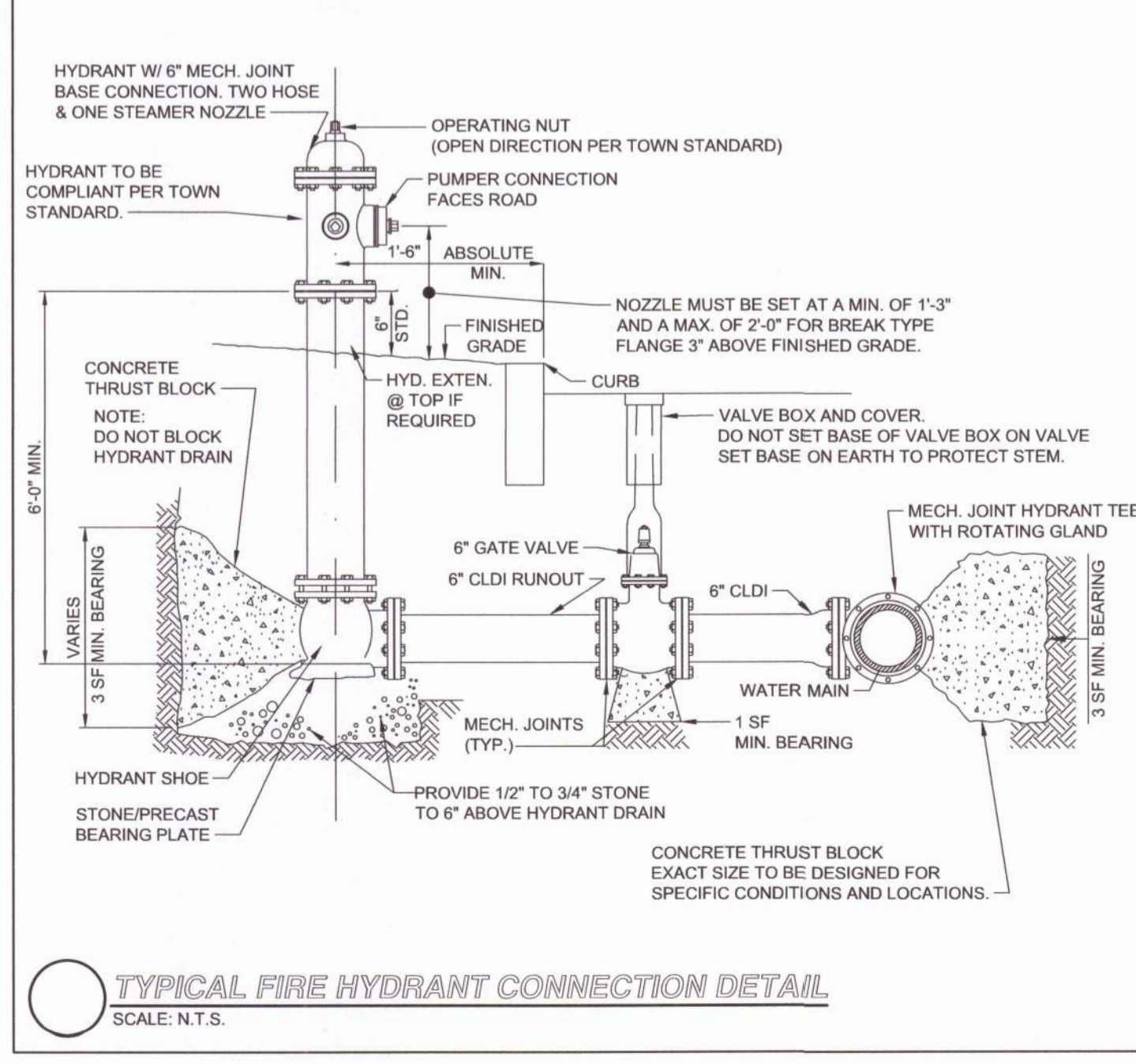
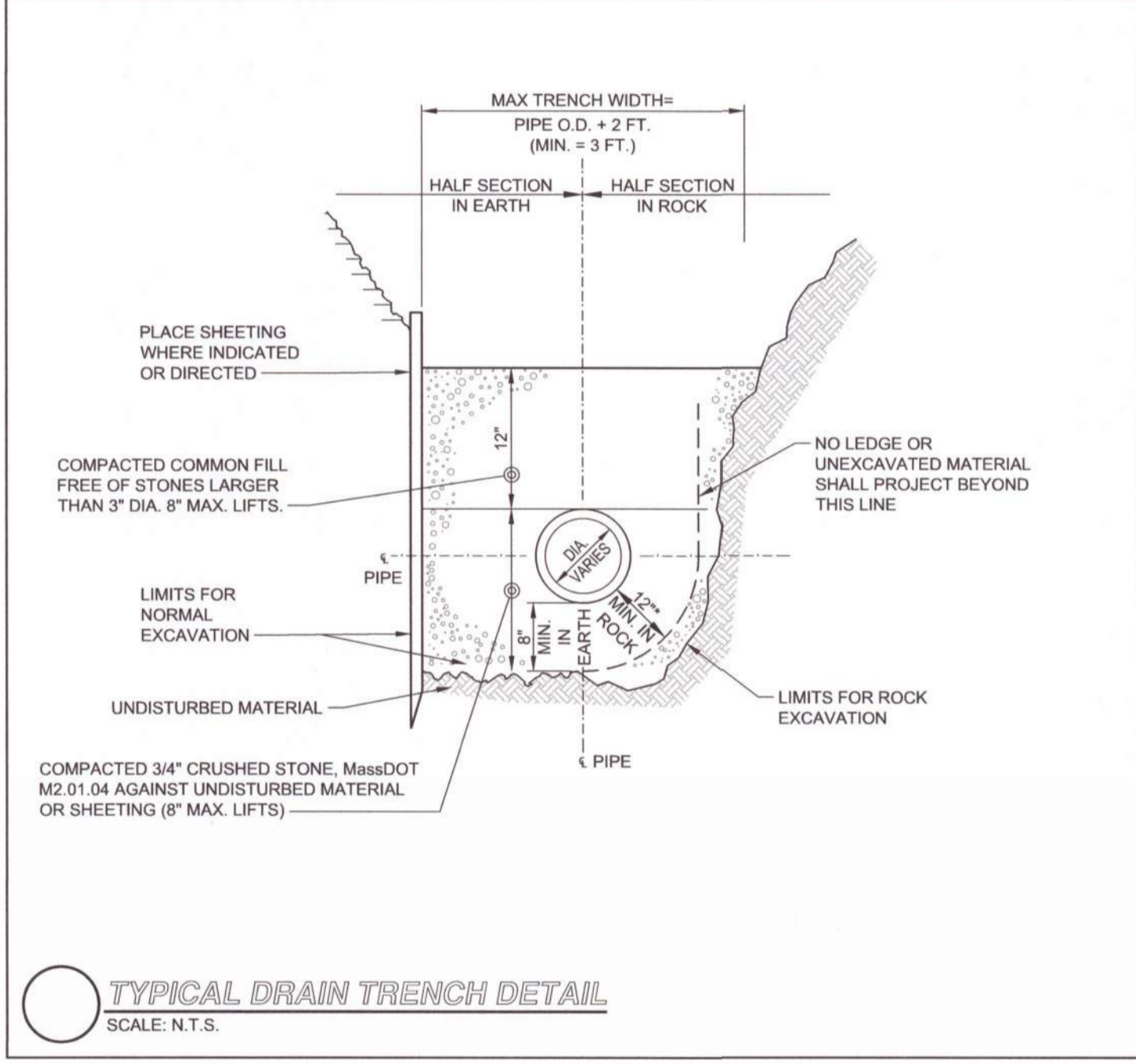
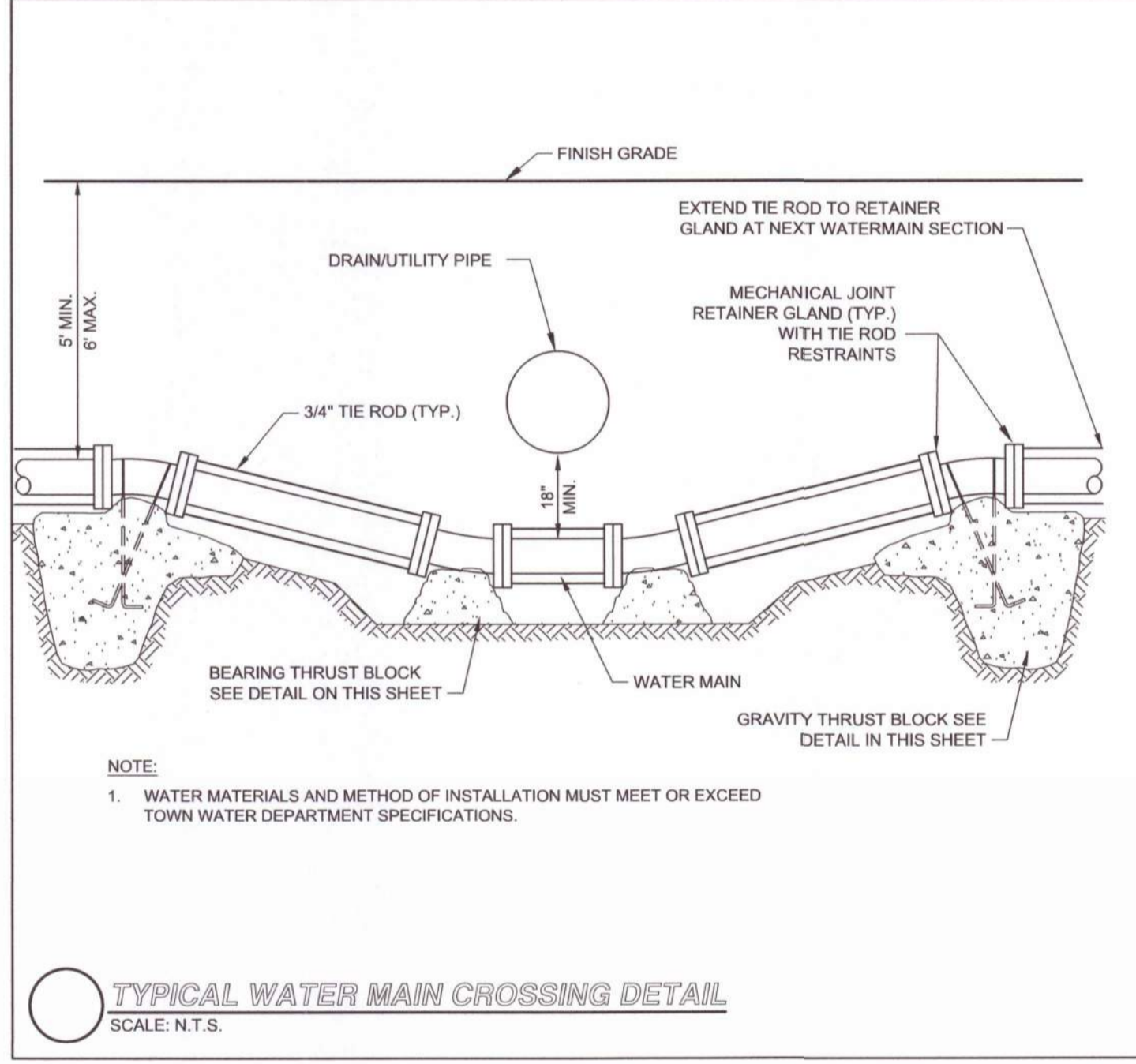
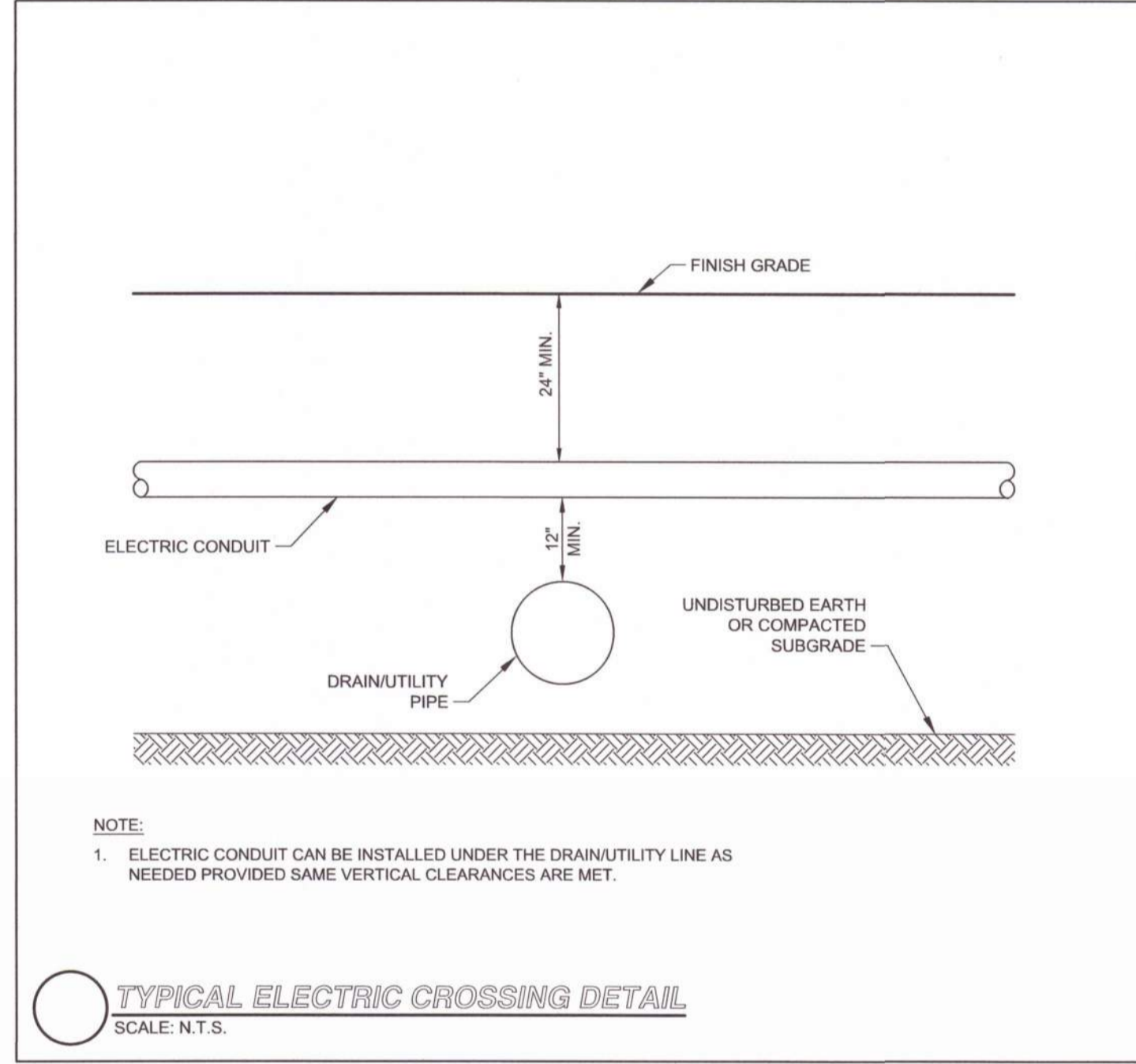
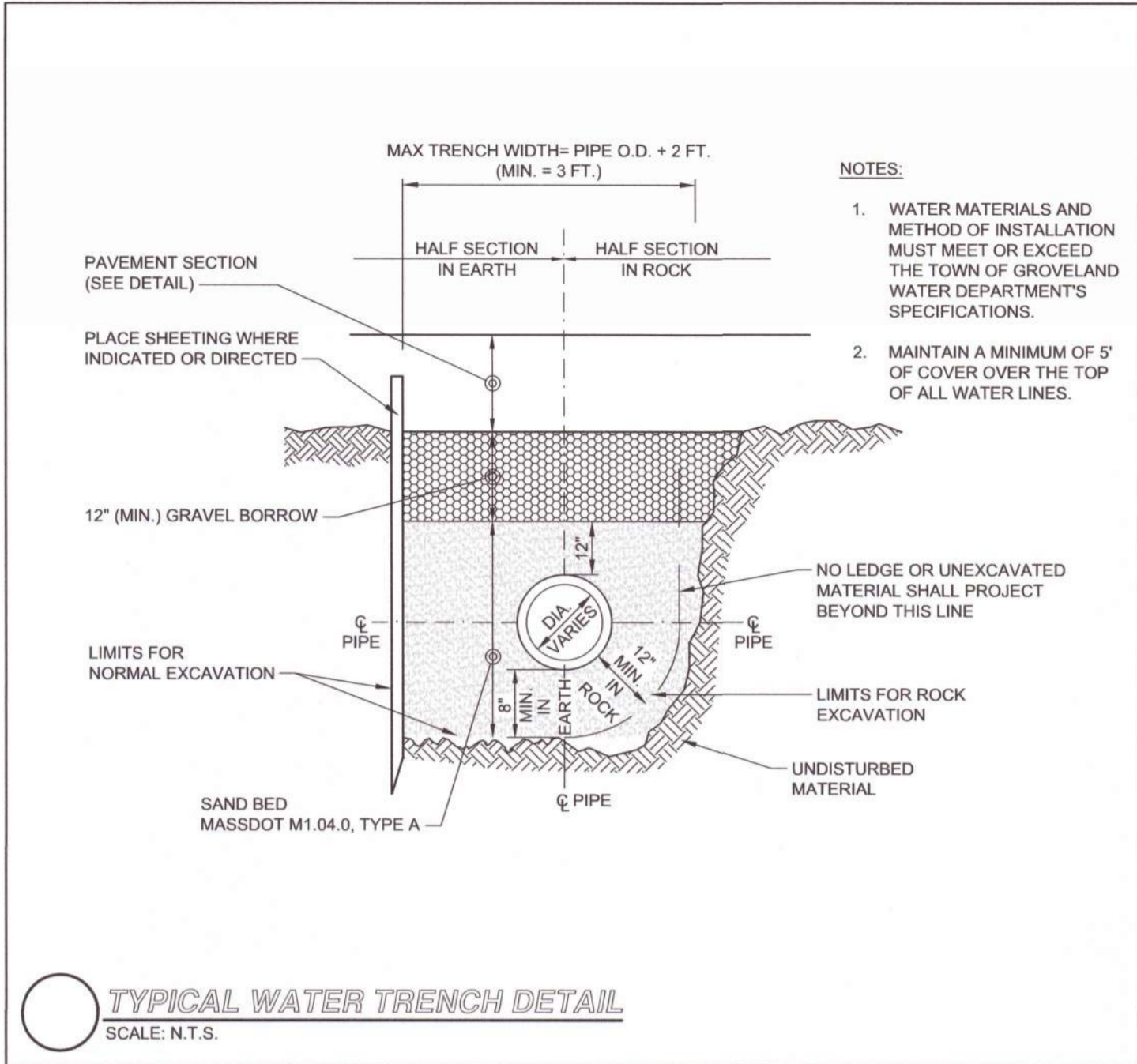
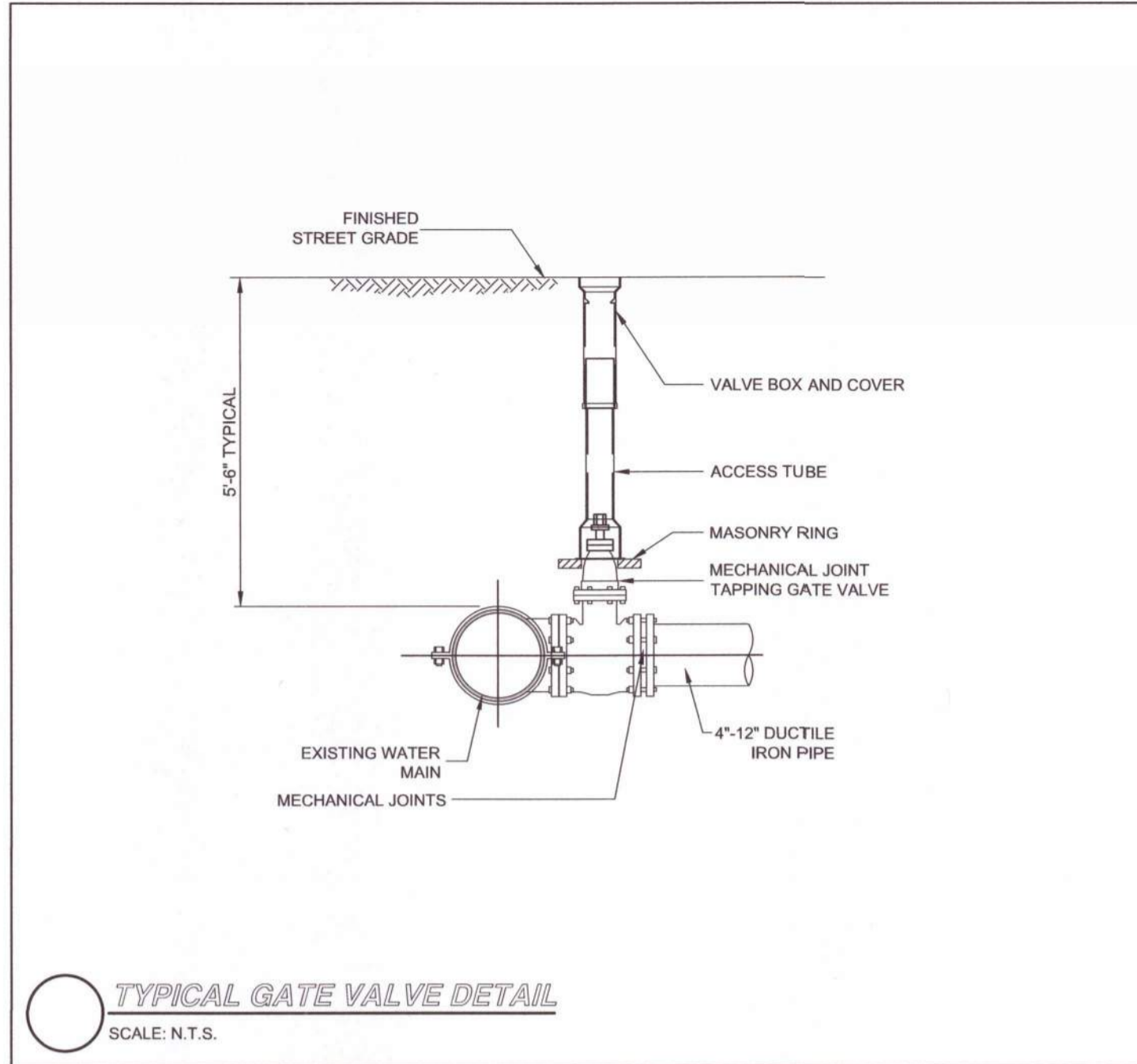
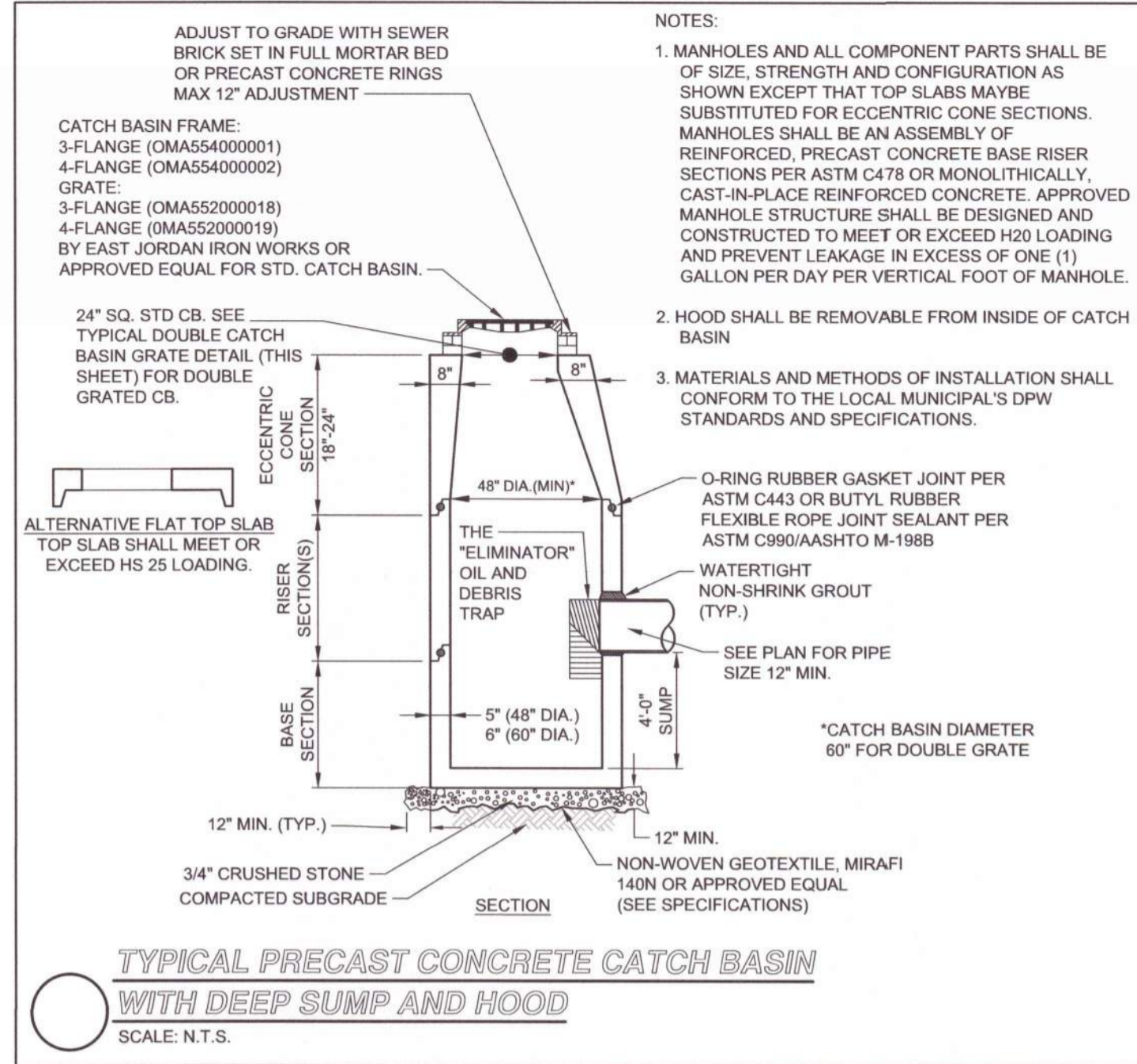
PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0100 RJOCONNELL.COM

PREPARED FOR:
MARK A. ABARE
144 HILLDALE AVENUE
HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
GROVELAND, MA

DESIGNED BY: SPG
DRAWN BY: HAA
REVIEWED BY: ACF
SCALE: N.T.S.
DATE: 08/11/2023
DRAWING NAME:

DRAINAGE DETAILS
DRAWING NUMBER: **C-6**
PROJECT NUMBER: 22021
Copyright © 2023 by R.J. O'Connell & Associates, Inc.



NO.	DATE	REVISION
2	02/07/2024	REVISED PER ADDITIONAL PEER REVIEW COMMENTS
1	01/17/2024	REVISED PER FINAL COMMENTS
1	08/11/2023	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
 CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
 80 MONTVILLE AVENUE, SUITE 201 STONEHAM, MA 02180
 PHONE: 781-379-0180 RJOCONNELL.COM

PREPARED FOR:
MARK A. ABARE
 144 HILLDALE AVENUE
 HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MA

DESIGNED BY: SPG
 DRAWN BY: HAA
 REVIEWED BY: ACF
 SCALE: N.T.S.
 DATE: 08/11/2023
 DRAWING NAME:

UTILITY DETAILS
 DRAWING NUMBER:
C-7
 PROJECT NUMBER:
22021
 Copyright © 2023 by R.J. O'Connell & Associates, Inc.

NO.	DATE	REVISION


NO.	DATE	REVISION
2	01/17/2024	REVISED PER FINAL COMMENTS
1	11/27/2023	REVISED PER PEER REVIEW & TOWN COMMENTS
	08/11/2023	ISSUED FOR SITE PLAN APPROVAL AND NOTICE OF INTENT

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

PREPARED FOR:
MARK A. ABARE
 144 HILLDALE AVENUE
 HAVERHILL MA 01832

PROJECT NAME:
912 SALEM STREET
 GROVELAND, MA

SEAL:



DESIGNED BY: SPG
 DRAWN BY: HAA
 REVIEWED BY: ACF
 SCALE: N.T.S.
 DATE: 08/11/2023
 DRAWING NAME:

PARKING AND TRAFFIC CONTROL DETAILS

DRAWING NUMBER:
C-8
 PROJECT NUMBER:
 22021

