

FOR

***RTE 85***

***REALTY CORP.***

**LOCATION OF SITE**  
**190, 194 & 198 HARTFORD AVENUE, TOWN OF BELLINGHAM**  
**NORFOLK COUNTY, MA**  
**MAP 24, LOTS 7, 8 & 9**

# C-101

**VISION 1 - 07/01/2025**

P:\2024\MAA240490.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\IP-CIVL-CNDS-MAA240490.00-1B----->LAYOUT: C-101 COVER



[illegible][illegible][illegible]

FOR ENTIRE PLAN SET		ME	MATCH EXISTING		
MAASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	MEP	MECHANICAL, ELECTRICAL, AND PLUMBING		LIMIT OF W
MAC	ACRE / ACRES	MH	MAN-HOLE		LIMIT OF D
MAAD	AREA DRAIN	MIN	MINIMUM		SAWCUT L
MAADA	ACCESSIBLE / AMERICANS WITH DISABILITIES ACT	MJ	MECHANICAL JOINT		
MAAG	ABOVE GROUND	MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES	EXISTING NOTE	
MAAPPROX	APPROXIMATE	NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		
MAARCH	ARCHITECTURAL	NRCS	NATIONAL RESOURCE CONSERVATION SERVICE		
MAASPH	ASPHALT	O&M	OPERATIONS AND MAINTENANCE		
MAASSF	AREA SUBJECT TO STORMWATER FLOWAGE	OC	ON CENTER		
MAASSOC	BOTTOM OF CURB	OCS	OUTLET CONTROL STRUCTURE		
MACBC	BASEMENT FLOOR	OGS	OIL AND GRIT SEPARATOR		
MACBF	BIOGARDEN	ORD	ORDINANCE		
MACBIT	BITUMINOUS	PA / POA	POINT OF ANALYSIS		
MACBK	BLOCK	PC	POINT OF CURVATURE		
MACBL	BASELINE	PCCR	POINT OF CURVATURE, CURB RETURN		
MACBLDG	BUILDING	PERF	PERFORATED		
MACBM	BENCH MARK	PG	PROPOSED GRADE		
MACBRL	BUILDING RESTRICTION LINE	PI	POINT OF INTERSECTION		
MACBVW	BORDERING VEGETATIVE WETLAND	POG	POINT OF GRADE		
MACCB	CATCH BASIN	PP	POLYPROPYLENE PIPE		
MACCF	CUBIC FEET	PROP	PROPOSED		
MACCI	CURB INLET	PT	POINT OF TANGENCY		
MACCIT	CHANGE IN TYPE	PTCR	POINT OF TANGENCY, CURB RETURN		
MACCL	CENTER LINE	PVI	POINT OF VERTICAL INTERSECTION		
MACCML	CORROUGED METAL PIPE	PVMT	PAVEMENT		
MACCO	CLEAN OUT	PVT	POINT OF VERTICAL TANGENCY		
MACCONC	CONCRETE	R	RADIUS / RADII		
MACCONN	CONNECTION	RW	RIGHT-OF-WAY / RIGHTS-OF-WAY		
MACCOORD	COORDINATE	RCP	REINFORCED CONCRETE PIPE		
MACCYP	CUBIC YARD	RD	ROAD DRAIN		
MACDEC	DECORATIVE	REGS	REGULATIONS		
MACDET	DEPARTMENT OF ENVIRONMENTAL PROTECTION	RELO	TO BE RELOCATED		
MACDEP	DETENTION	REQ	REQUIRED		
MACDIA	DIAMETER	RET	RETENTION		
MACDMH	DRAINAGE MANHOLE	RET WALL	RETAINING WALL		
MACDOM	DOMESTIC	RETO	TO BE RETURNED TO OWNER		
MACDOT	DEPARTMENT OF TRANSPORTATION	RG	RAIN GARDEN		
MACDP	DESIGN POINT	S	SLOPE		
MACDWL	DASHED WHITE LINE	SAN	SANITARY SEWER		
MACDYL	DOUBLE YELLOW LINE	SESC	SOIL EROSION AND SEDIMENT CONTROL		
MACEG	EXISTING GRADE	SF	SQUARE FEET		
MACELEC	ELECTRIC	SHLO	STATE HIGHWAY LAYOUT		
MACELEV	ELEVATION	SMH	SANITARY MANHOLE		
MACENR	ENGINEER OF RECORD	STA	STATION		
MACEP / EOP	EDGE OF PAVEMENT	STM	STORM WATER / STORM SEWER		
MACES / EOS	EDGE OF SHOULDER	SWL	SINGLE/SOLID WHITE LINE		
MACEW	END WALL	SWPPP	STORMWATER POLLUTION PREVENTION PLAN		
MACEXIST	EXISTING	TBA	TO BE ABANDONED		
MACFDC	FIRE DEPARTMENT CONNECTION	TBR	TO BE REMOVED		
MACFEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	TBV	TO BE VACATED		
MACFES	FLARED END SECTION	TC	TOP OF CURB		
MACFF	FINISH / FIRST FLOOR	Tc	TIME OF CONCENTRATION		
MACFFE	FINISH / FIRST FLOOR ELEVATION	TD	TRENCH DRAIN		
MACFG	FINISH GRADE	TELE	TELECOMMUNICATIONS / TELEDATA		
MACFM	FIRE HYDRANT	TPF	TREE PROTECTION FENCE		
MACFH	FORCE MAIN	TR	TO REMAIN		
MACFO	FIBER OPTIC	TRANS	TRANSITION		
MACGRADE	GRADE	TYP	TYPICAL		
MACGC	GENERAL CONTRACTOR	UG	UNDERGROUND		
MACGEO	GEOTECH/GEOTECHNICAL	UP	UTILITY POLE		
MACGF / GFE	GARAGE FLOOR ELEVATION (AT DOOR)	USGS	UNITED STATES GEOLOGICAL SURVEY		
MACSGFA	GOOD FLOOR AREA	VERT	VERTICAL		
MACGLH	GRADE HIGH (WALL)	VIF	VERIFY IN FIELD		
MACGL	GRADE LOW (WALL)	W	WIDE / WIDTH		
MACGRT	GRATE	WL	WATER LINE		
MACGT	GREASE TRAP	WM	WATER METER		
MACGV	GATE VALVE	WQ	WATER QUALITY UNIT		
MACHDPE	HIGH DENSITY POLYETHYLENE	YD	YARD DRAIN		
MACHOR	HORIZONTAL	#	NUMBER		
MACHP	HIGH POINT	##	SLOPE EXPRESSED IN HORIZONTAL/VERTICAL IN FEET		
MACHW	HEADWALL	±	PLUS OR MINUS		
MACICS	INLET CONTROL STRUCTURE	°	DEGREE		
MACINF	INFILTRATION	Ø	DIAMETER		
MACINT	INTERSECTION	'	FEET/FOOT		
MACINV					

WORK  
DISTURBANCE  
LINE

LOW LOW  
LOD LOD

TYPICAL NOTE TEXT

ONSITE PROPERTY LINE / R.O.W. LINE

NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE

EASEMENT LINE

SETBACK LINE

PROPOSED NOTE

CONCRETE CURB & GUTTER

CURB AND GUTTER

SPILL TRANSITION

DEPRESSED CURB AND GUTTER

UTILITY POLE WITH LIGHT

POLE LIGHT

TRAFFIC LIGHT

UTILITY POLE

TYPICAL LIGHT

ACORN LIGHT

TYPICAL SIGN

PARKING COUNTS

CONTOUR LINE

SPOT ELEVATIONS

FF 517.00 TC 516.00 BC 515.50 MEQ 516.00

SANITARY LABEL

STORM LABEL

SANITARY SEWER LATERAL

UNDERGROUND WATER LINE

UNDERGROUND ELECTRIC LINE

UNDERGROUND GAS LINE

OVERHEAD WIRE

UNDERGROUND TELEPHONE LINE

UNDERGROUND CABLE LINE

STORM SEWER

SANITARY SEWER MAIN

HYDRANT

SANITARY MANHOLE

STORM MANHOLE

WATER METER

WATER VALVE

GAS VALVE

GAS METER

TYPICAL END SECTION

HEADWALL OR ENDWALL

GRATE INLET

CURB INLET

CLEAN OUT

ELECTRIC MANHOLE

TELEPHONE MANHOLE

ELECTRIC BOX

ELECTRIC PEDESTAL

MONITORING WELL

TEST

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING  
LANDSCAPE ARCHITECTURE  
PROGRAM MANAGEMENT  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

REVISIONS

REV DATE COMMENT DRAWN BY CHECKED BY

1 07/01/2025 SITE LAYOUT REVISIONS CPB LMD

811

Know what's below.  
Call before you dig.  
ALWAYS CALL 811  
It's fast. It's free. It's the law.

PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MAA240490.00-1B  
DRAWN BY: SGB  
CHECKED BY: CPB  
DATE: 02/05/2025  
CAD I.D.: P-CIVL-CNDS

PROJECT:

SITE  
DEVELOPMENT  
PLANS

FOR

RTE 85  
REALTY CORP.

PROPOSED  
MIXED-USE DEVELOPMENT

MAP: 24 | LOTS: 7, 8 & 9  
190, 194 & 198 HARTFORD AVENUE  
NORFOLK COUNTY  
BELLINGHAM, MA

BOHLER

352 TURNPIKE ROAD, 3rd FLOOR  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

www.BohlerEngineering.com

SEAL OF THE COMMONWEALTH OF MASSACHUSETTS  
JOHN A. KUCIEMBA  
CIVIL ENGINEER  
No. 41530  
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:  
GENERAL  
NOTES  
AND  
LEGEND

SHEET NUMBER:  
2 of 2





N/F  
KURT D. LOVELL  
AND  
DEBORAH A. LOVELL  
BOOK: 31626 PAGE: 504  
HOUSE 11

N/F  
TIMOTHY M. &  
SHARON M. NORTON  
BOOK: 35441 PAGE: 441  
7 CEDAR HILL RD

N/F  
KIMBERLY A. LADOUCEUR  
BOOK: 40692 PAGE: 279  
4 SAGAMORE RD

N/F  
LINDO F. MONTEIRO &  
MICHELLE A. MONTEIRO  
BOOK: 37725 PAGE: 550  
4 CEDAR HILL RD

N/F  
IBRAHIM T. &  
NAWAL MORKOS  
BOOK: 13872 PAGE: 493  
202 HARTFORD AV  
HAAOD

N/F  
296 MAIN LLC  
BOOK: 38212 PAGE: 274  
186 HARTFORD AV  
A.M. 24 LOT 6  
AREA=13,592.55'  
(0.31+AC)  
HAAOD

N/F  
217 RIVER ROAD LLC  
BOOK: 35064 PAGE: 365  
190 HARTFORD AV  
A.M. 24 LOT 7  
AREA=11,042.15'  
(0.39+AC)  
HAAOD

N/F  
217 RIVER ROAD LLC  
BOOK: 35064 PAGE: 365  
194 HARTFORD AV  
A.M. 24 LOT 8  
AREA=13,169.15'  
(0.35+AC)  
HAAOD

N/F  
217 RIVER ROAD LLC  
BOOK: 35064 PAGE: 365  
198 HARTFORD AV  
A.M. 24 LOT 9  
AREA=21,179.15'  
(0.49+AC)  
HAAOD

CEDAR HILL ROAD  
PUBLIC

HARTFORD AVENUE (ROUTE 126)

THIS PLAN TO BE UTILIZED  
FOR DEMOLITION PURPOSES  
ONLY

SCALE: 1" = 20'

## MASSACHUSETTS DEMOLITION NOTES

(Rev. 1/2023)

1. THE CONTRACTOR MUST LOCATE AND CLEARLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
2. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND IF REQUIRED, DIG EXPLORATORY TEST PITS TO CONFIRM EXACT LOCATION AND DEPTH OF UTILITIES. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER WITH ANY CONFLICTS AS NEEDED TO COORDINATE FINAL LOCATION OF ALL PROPOSED IMPROVEMENTS.
3. CONTRACTOR SHALL INSPECT ALL EXISTING UTILITY STRUCTURES THAT ARE TO REMAIN FOR THE PROJECTS RE-USE TO VERIFY SUITABILITY FOR SAME. IF STRUCTURES CAN NOT BE REUSED THEN THE CONTRACTOR SHALL PROVIDE A NEW STRUCTURE. THE CONTRACTOR SHALL COORDINATE SUCH WORK WITH THE APPLICABLE UTILITY PROVIDER.
4. CONTRACTOR TO REMOVE ANY BUILDING FOUNDATION REMAINS OR ASSOCIATED IMPROVEMENTS, DELETERIOUS MATERIALS, AND/OR DEBRIS THAT IMPEDE THE WORK SHOWN ON THESE PLANS.
5. THE CONTRACTOR SHALL REVIEW THE PLANS VERSUS THE LOCATION OF EXISTING STRUCTURES, UTILITIES AND APPURTENANCES IN THE FIELD TO CONFIRM ACCURACY OF SAME AND VERIFY ITEMS TO BE REMOVED. THE CONTRACTOR SHALL CARRY COSTS FOR REMOVAL OF ANY EXISTING STRUCTURES, APPURTENANCES, AND UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO, DRAIN, WATER, SEWER, STEAM, IRRIGATION, GAS, TELECOM AND ELECTRIC.
6. THE CONTRACTOR SHALL MAINTAIN, ADJUST OR ABANDON EXISTING MONITORING WELLS IN ACCORDANCE WITH THE DIRECTION OF THE ENVIRONMENTAL CONSULTANT (TYP.).
7. WHERE THE LIMIT OF WORK COINCIDES WITH PROPERTY LINE, TREE LINE, PROPOSED SAWCUT OR COMBINATION THEREOF IT IS SHOWN ADJACENT TO THESE FEATURES FOR GRAPHICAL CLARITY.
8. EXISTING TREES TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION UNLESS CLEARLY INDICATED OTHERWISE. REASONABLE CARE AND CAUTION SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT DAMAGE AND SELECTIVE PRUNING MAY BE REQUIRED TO ENSURE THAT TREES DO NOT CONFLICT WITH THE DEVELOPMENT.
9. CONTRACTOR SHALL REPAIR/REPLACE ANY TRAFFIC LOOP DETECTORS THAT ARE DAMAGED DURING CONSTRUCTION WITHIN EXISTING OR PROPOSED RIGHTS OF WAYS. ANY SUCH WORK SHALL BE PERFORMED BY A LICENSED / DOT APPROVED SIGNAL CONTRACTOR. ANY DAMAGED LOOPS OR OTHER SIGNAL EQUIPMENT SHALL BE REPAIRED IMMEDIATELY AFTER THE WORK IS COMPLETE. THE SIGNAL CONTRACTOR SHALL BE AVAILABLE TO MAKE ANY TEMPORARY SIGNAL CHANGES IF REQUESTED BY DOT AND/OR THE MUNICIPALITY.
10. THE CONTRACTOR MUST FIELD VERIFY THE LOCATIONS WHERE PROPOSED UTILITIES CROSS EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO DETERMINE THE EXACT SIZE, DEPTH AND LOCATION, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. CONTRACTOR SHALL LOCATE ANY EXISTING UTILITY SERVICES THAT ARE TO BE TERMINATED AT THE EXISTING MAIN AND/OR PROPERTY LINE. THESE SERVICES ARE TO BE TERMINATED IN ACCORDANCE WITH MUNICIPAL, STATE TRANSPORTATION DEPARTMENT REQUIREMENTS.

## REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	07/01/2025	SITE LAYOUT REVISIONS	CPB LMD



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REALTY CORP.

PROPOSED  
MIXED-USE DEVELOPMENT  
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190, 194 & 198 HARTFORD AVENUE  
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SHEET TITLE:

EXISTING  
CONDITIONS/  
DEMOLITION  
PLAN

SHEET NUMBER:

C-201

REVISION 1 - 07/01/2025





N/F  
KURT D. LOVELL  
AND  
DEBORAH A. LOVELL  
BOOK 31626 PAGE 504  
HOUSE 11

N/F  
TIMOTHY M. &  
SHARON M. NORTON  
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7 CEDAR HILL RD

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4 SAGAMORE RD

N/F  
LINDO F. MONTEIRO &  
MICHELLE A. MONTEIRO  
BOOK: 37725 PAGE: 550  
4 CEDAR HILL RD

N/F  
296 MAIN LLC  
BOOK: 38212 PAGE: 274  
186 HARTFORD AV  
A.M. 24 LOT 6  
AREA: 13,502.55'  
(0.314AC)  
HAAD

## ZONING TABLE

ZONE: RESIDENTIAL, HARTFORD AVENUE ADAPTIVE USE OVERLAY DISTRICT (AUOD)  
USE: FREESTANDING GENERAL RETAIL & OFFICE  
MAP: 24 LOTS: 7, 8 & 9

## BULK REQUIREMENTS

ITEM	CODE	PERMITTED	EXISTING	PROPOSED
MIN LOT AREA	§ 240-40	40,000 SF (0.92 AC)	53,400 SF (1.23 AC)	NO CHANGE
MIN LOT FRONTAGE	§ 240-40	150.0'	336.5'	NO CHANGE
MIN YARD SETBACKS				
FRONT YARD	§ 240-40	20.0'	10.8'	50.2'
SIDE YARD	§ 240-40	10.0'	44.6'	39.3'
REAR YARD	§ 240-40	20.0'	N/A	N/A
MAX PERMITTED HEIGHT	§ 240-40	35.0'	<35.0'	<35.0'
PARKING SETBACK	§ 240-61	20.0' FROM STREET R/W	N/A	21.0'
		KEY = EX NON-CONFORMITY		

## PARKING REQUIREMENTS

ITEM	CODE	PERMITTED	EXISTING	PROPOSED
MIN STALL SIZE	§ 240-64	9.0' X 18.0'	N/A	9.0' X 18.0'
MIN NUMBER OF STALLS	§ 240-69	40	N/A	41

FREESTANDING GENERAL RETAIL & OFFICE:  
REQUIRED FOR RETAIL USE = 4 SPACES PER 1000 SF  
REQUIRED FOR OFFICE USE = 4 SPACES PER 1,000 SF  
10,000 SF (4 SPACES/1,000 SF) = 40 STALLS

KEY = EX NON-CONFORMITY

## MASSACHUSETTS SITE NOTES

(Rev. 5/2024)

- WHEN APPLICABLE, OWNER/ OPERATOR MUST FILE THE NOI FOR NPDES PERMITS AT APPROPRIATE AND/OR REQUIRED TIME FRAMES BASED UPON THE DESIRED START OF CONSTRUCTION. LAND DISTURBING ACTIVITIES MUST NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN). THE CONTRACTOR MUST STRICTLY ADHERE TO THE APPROVED SWPPP PLAN DURING CONSTRUCTION OPERATIONS (IF PROVIDED).
- ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THE PLANS, DETAILS AND GEOTECHNICAL REPORT THEN THE GEOTECHNICAL REPORT SHALL GOVERN.
- THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UNDER SEPARATE APPLICATION UNLESS DONE SO AS PART OF JURISDICTIONAL PERMITTING PROCEDURES.
- THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.
- WORK WITHIN THE RIGHT-OF-WAY MUST BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS AND STANDARDS OF THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DEPARTMENT, HIGHWAY DIVISION, AND/OR STATE DOT HIGHWAY DEPARTMENT.
- WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL WIDTHS DO NOT REPRESENT THE ACTUAL WIDTH OF THE PROPOSED WALL, RATHER THEY ARE AN ASSUMPTION BASED ON WALL TYPE AND WALL HEIGHT. WALL FOOTINGS AND/OR FOUNDATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT AN APPROPRIATELY LICENSED PROFESSIONAL DESIGNS ALL WALLS SHOWN HEREON AND PRIOR TO CONSTRUCTION. REFER TO GRADING NOTES REGARDING RETAINING WALL DESIGN.
- CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN.



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DATE: 02/05/2025  
CAD I.D.: P-CIVIL-PROP

PROJECT:

## SITE DEVELOPMENT PLANS

FOR

RTE 85  
REALTY CORP.

PROPOSED  
MIXED-USE DEVELOPMENT  
MAP: 24 | LOTS: 7, 8 & 9  
190, 194 & 198 HARTFORD AVENUE  
NORFOLK COUNTY  
BELLINGHAM, MA

## BOHLER

352 TURNPIKE ROAD, 3rd FLOOR  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

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SHEET TITLE:

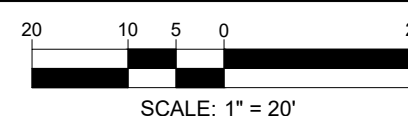
## SITE PLAN

SHEET NUMBER:

C-301

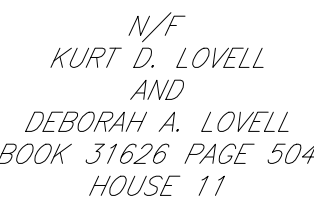
REVISION 1 - 07/01/2025

THIS PLAN TO BE UTILIZED  
FOR SITE LAYOUT PURPOSES  
ONLY



SCALE: 1" = 20'





N/F  
LINDO F MONTEIRO &  
MICHELLE A MONTEIRO  
BOOK:37725 PAGE:550  
4 CEDAR HILL RD

N/F  
TIMOTHY M. &  
SHARON M. NORTON  
BOOK: 35441 PAGE: 441  
7 CEDAR HILL RD

N/F  
KIMBERLY A. LADOUCEUR  
BOOK: 40692 PAGE:279  
1. CAGNIARD, BB

N/F  
IBRAHIM T. &  
NAWAL MORKOS  
BOOK:13872 PAGE:493  
202 HARTFORD AV

(Rev. 1/2023)

1. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR SHALL MARK ALL UTILITIES WITH WHITE PLASTIC OR APPROPRIATE, MARK UTILITY ENDS WITH MAGNETIC TRACER TAPE, MARK TERMINUS LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL UTILITY STUBS ON A CLEAN COPY OF THE PLAN. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE ENGINEER BEFORE THE START OF CONSTRUCTION. THE CONTRACTOR SHALL MARK ALL UTILITY STUBS ON THE STORM AND SANITARY PIPE LENGTHS INDICATED ARE NOMINAL AND ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS INDICATED ON THE PLANS OTHERWISE.
2. UNLESS CLEARLY INDICATED OTHERWISE, ALL STORM PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) WITH A MINIMUM 12" RADIUS. ALL STORM PIPE SHALL BE 12" RADIUS UNLESS OTHERWISE CALLED FOR ON THE PLANS. IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT/SOIL TIGHT JOINT. PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 PVC OR SCHEDULE 40 UNLESS INDICATED OTHERWISE. ALL JOINT GASKETS MUST CONFORM TO ASTM F777. DRAIN PIPE INSTALLATION SHALL BE 12" OR OVER TEN (10) FEET OVER COVER AND/OR IN HIGH WIND/STORM CONDITIONS SHALL BE SANITITE HP POLYPROPYLENE PIPE (PP), OR APPROVED EQUIVALENT.

(Rev. 5/2024)

- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
1. CONTRACTOR MUST CONFIRM AND ENSURE THAT AS CONSTRUCTED IMPROVEMENTS CREATE THE FOLLOWING MINIMUM SLOPES (EXCEPT WHERE ADA REQUIREMENTS LIMIT THEM): 1.0% ON ALL CONCRETE SURFACES, 1.5% ON ASPHALT SURFACES, 1.5% IN LANDSCAPED AREAS AND 0.75% SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS TO PROVIDE POSITIVE DRAINAGE.
2. WITHIN FINISHING TOLERANCES, TOP AND BOTTOM OF WALL ELEVATIONS (GH & GL) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE TOP AND THE BOTTOM OF THE WALL AND DO NOT REPRESENT THE OVERALL HEIGHT OF THE WALL TO ITS EXTENTS (I.E. ANY CAP UNITS OR COURSES ABOVE THE FINISHING ELEVATION). CONTRACTOR SHALL VERIFY THE FINISHED GRADE ELEVATIONS HAVE BEEN IDENTIFIED HEREIN AND ARE TO BE SET DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE DESIGNER. CONTRACTOR SHALL VERIFY THE FINISHED GRADE ELEVATIONS HAVE BEEN IDENTIFIED HEREIN AND ENSURE THAT THERE ARE NO UTILITIES ON THE PASSIVE SIDE OF THE RETAINING WALL. NO EXCAVATION MAY BE PERFORMED ON THE PASSIVE SIDE OF THE RETAINING WALL WITHOUT APPROPRIATELY AND SAFELY SUPPORTING THE WALL IN ACCORDANCE WITH THE STANDARD OF CARE AND ALL APPLICABLE RULES, ORDINANCES, CODES, AND REGULATIONS.
3. MSE OR GRAVITY BLOCK WALLS SHALL BE CONSTRUCTED SUCH THAT UPON COMPLETION OF CONSTRUCTION THERE IS NO UNFINISHED SURFACE OR LIFTING RINGS VISIBLE (E.G. USE OF FINISHED TOP BLOCK OR CAP STONE).
4. STORMWATER RUNOFF WITHIN PROPERTY MUST BE COLLECTED ON-SITE WITH NO OVERLAND RUNOFF ONTO THE RIGHT-OF-WAY OR ADJACENT PROPERTIES TO THE MAXIMUM EXTENT POSSIBLE OR IN THE MANNER SPECIFIED BY THE CONTRACTOR. ANY RUNOFF ONTO ADJACENT PROPERTIES SHALL BE CONTROLLED AS TO NOT ADVERSELY IMPACT SAID PROPERTIES.
5. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD FOR REVIEW AND GENERAL APPROVAL OF THE DESIGN, JUDGEMENTS AND REQUIREMENTS.
6. FOR ALL RETAINING WALLS 4 FEET OR GREATER IN HEIGHT:
- a. THE OWNER OR THE OWNER'S CONTRACTOR IS TO PROVIDE A SITE-SPECIFIC RETAINING WALL DESIGN SUBMITTED BY THE CONTRACTOR TO THE GEOTECHNICAL ENGINEER OF RECORD IN THE STATE OF TEXAS WHERE THE CONSTRUCTION OCCURS. SOIL TYPES, WATER TABLE ELEVATION, EXISTING & PROPOSED SURROUNDING IMPROVEMENTS/CONDITIONS (INCLUDING BUT NOT LIMITED TO SLOPES, DRIVE AISLES, CURBS, FENCING, ETC.) SHALL BE IDENTIFIED AND PROVIDED TO THE GEOTECHNICAL ENGINEER OF RECORD AND OTHER SITE AGENTIES THAT COULD HAVE AN INFLUENCE OR IMPACT ON THE RETAINING WALL(S) CONSTRUCTABILITY AND/OR LONGEVITY SHALL BE CONSIDERED AND INCORPORATED INTO THE RETAINING WALL DESIGN AS WELL AS THE DESIGN OF THE RETAINING WALL.
- b. A PEER REVIEW AND GLOBAL STABILITY ANALYSIS OF THE RETAINING WALL DESIGN MUST BE COMPLETED BY THE OWNER'S GEOTECHNICAL ENGINEER TO CERTIFY THE DESIGN MEETS INDUSTRY STANDARDS FOR FACTOR OF SAFETY. SOIL TYPES, WATER TABLE ELEVATION AND DESIGN PROPERTIES AS NOTED ABOVE MUST BE FIELD CONFIRMED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.
9. CONTRACTOR SHALL INSTALL CONCRETE CURB ALONG FACE OF BUILDING / WALL AS SHOWN TO PROVIDE A MINIMUM 12" WIDTH ALONG LENGTH OF PROPOSED ACCESSIBLE RAMP AND RAMP LANDING TO MEET ADA'S REQUIREMENTS.
10. CONTRACTOR SHALL REVIEW RETAINING WALL LOCATIONS VERSUS APPLICABLE STATE AND LOCAL CODES AND PROVIDE ALL NECESSARY PERMITS TO THE CITY OF AUSTIN.
11. CONTRACTOR SHALL COORDINATE WITH OWNER/OPERATOR TO REVIEW EXISTING DEPRESSIONS WITHIN EXISTING PAVEMENT AREAS TO REMAIN AND SHALL CONFIRM THAT THE SCOPE OF WORK SHALL PROVIDE POSITIVE DRAINAGE BY FIXING ANY EXISTING AREAS OF FONDING.
12. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD.

## GUIDELINES

(Rev. 5/2024)

1. IN ADDITION TO THE ACCESSIBILITY DESIGN GUIDELINES ON SHEET C-102, THE CONTRACTOR MUST ALSO ENSURE THAT ALL ACCESSIBLE COMPONENTS AND ACCESSIBLE ROUTES ARE CONSTRUCTED IN STRICT ACCORDANCE WITH THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGULATIONS 521 CMR. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES BETWEEN THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE AND STATE BUILDING CODE AS IT RELATES TO ANY ACCESSIBLE IMPROVEMENTS BEING CONSTRUCTED PRIOR TO COMMENCING THE WORK.

## REVISIONS

REV	DATE	COMMENT	DRAWN BY
			CHECKED BY
1	07/01/2025	SITE LAYOUT REVISIONS	CPB
			LMD



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VIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION  
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	MAA240490.00-1B
DRAWN BY:	SBB
CHECKED BY:	CPB
DATE:	02/05/2025
CAD I.D.:	P-CIVL-GRDR

PROJECT:

# SITE DEVELOPMENT PLANS

\_\_\_\_\_ FOR \_\_\_\_\_

**RTE 85  
REALTY CORP.**

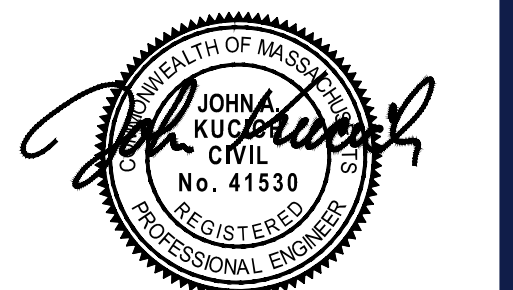
**PROPOSED  
MIXED-USE DEVELOPMENT**

**MAP: 24 | LOTS: 7, 8 & 9**  
**190, 194 & 198 HARTFORD AVENUE**  
**NORFOLK COUNTY**  
**BELLINGHAM, MA**

**BOHLER //**

**352 TURNPIKE ROAD, 3rd FLOOR  
SOUTHBOROUGH, MA 01772**  
Phone: (508) 480-9900

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SHEET TITLE:

## GRADING AND DRAINAGE PLAN

SHEET NUMBER:

# C-401

REVISION 1 - 07/01/2025

2:12024\MAA240490.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\IP-CIVL-GRDR-MAA240490.00-1B----->LAYOUT: C-401 GRDR

**TREET**

**THIS PLAN TO BE UTILIZED  
FOR GRADING, DRAINAGE AND  
UTILITIES PURPOSES ONLY**







N/F  
KURT D. LOVELL  
AND  
DEBORAH A. LOVELL  
BOOK 31626 PAGE 504  
HOUSE 11

N/F  
TIMOTHY M. &  
SHARON M. NORTON  
BOOK: 35441 PAGE: 441  
7 CEDAR HILL RD

N/F  
KIMBERLY A. LADOUCEUR  
BOOK: 40692 PAGE: 279  
4 SAGAMORE RD

N/F  
LINDO F. MONTEIRO &  
MICHELLE A. MONTEIRO  
BOOK: 37725 PAGE: 550  
4 CEDAR HILL RD

N/F  
296 MAIN LLC  
BOOK: 38212 PAGE: 274  
186 HARTFORD AV  
A.M. 24 LOT 6  
AREA=13,502.55  
(0.31342)

#186  
1-STORY  
W/F HOUSE

N/F  
M A REALTY ACQUISITION LLC  
BOOK: 26834 PAGE: 118  
189 HARTFORD AV

N/F  
193 HARTFORD AVE. REALTY LLC  
BOOK: 41251 PAGE: 74  
193 HARTFORD AV

N/F  
BELLINGHAM N MAIN ST II LLC  
BOOK: 22912 PAGE: 459  
217 HARTFORD AV

## MASSACHUSETTS UTILITY NOTES

(Rev. 7/2024)

- THE CONTRACTOR'S PRICE FOR WATER AND SEWER SERVICE INSTALLATIONS MUST INCLUDE ALL FEES, COSTS, AND APPURTENANCES REQUIRED BY THE UTILITY PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK) TO PROVIDE FULL AND COMPLETE WORKING SERVICE, INCLUDING (BUT NOT LIMITED TO) NECESSARY FEES, TESTING, DISINFECTING, INSPECTIONS, ROAD OPENING & BACKFILL REQUIREMENTS, TRAFFIC CONTROL AND SURETY BONDS AS DEFINED BY THE PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK).
- ALL WORK ASSOCIATED WITH UTILITY POLES, OVERHEAD WIRES AND ANYALL APPURTENANCES SHALL BE COORDINATED BY THE GC WITH THE LOCAL UTILITY COMPANIES PRIOR TO THE ORDERING OF ANY MATERIALS. THIS MAY INCLUDE BUT IS NOT LIMITED TO THE REMOVAL, INSTALLATION, RELOCATION OR PROTECTION OF ANY BRACING, GUY WIRES, OVERHEAD WIRES, ETC. AS MAY BE REQUIRED TO ACCOMMODATE THE PROJECT.
- SEWERS CONVEYING SANITARY FLOW, OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST, AT A MINIMUM, BE IN SEPARATE TRENCHES WITH THE AT LEAST 18 INCHES OF VERTICAL SEPARATION FROM THE BOTTOM OF THE WATER MAIN TO THE TOP OF THE SEWER LINE. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SANITARY SEWER MUST BE PROVIDED. ALL CROSSINGS SHALL BE IN ACCORDANCE WITH JURISDICTIONAL PERMITTING/UTILITY AUTHORITIES REGULATIONS.
- WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP ENDS OF INSTALLED UTILITIES AS APPROPRIATE, MARK UTILITY ENDS WITH MAGNETIC TRACER TAPE, MARK TERMINUS LOCATIONS WITH A 24x STAKE, AND MUST NOTE THE LOCATION OF ALL UTILITY STUDS ON A CLEAN COPY OF THE PLAN. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
- UNLESS INDICATED OTHERWISE, ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC., MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- SANITARY PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE CLEARLY INDICATED OTHERWISE. SANITARY LATERALS(S) MUST BE PVC SDR 26 UNLESS CLEARLY INDICATED OTHERWISE.
- UNLESS CLEARLY INDICATED OTHERWISE ALL SANITARY PIPE MUST BE:
  - FOR PIPES LESS THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034.
  - FOR PIPES GREATER THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 26 PER ASTM D3034.
  - UNLESS LOCAL OR STATE BUILDING / PLUMBING CODE CLEARLY SPECIFIES DIFFERENTLY, SANITARY LATERALS MUST BE PVC SDR 26.
  - FOR ALL UTILITY PIPING (INCLUDING DRAIN) WITHIN 10 FT OF A BUILDING, PIPE MATERIAL SHALL COMPLY WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES. CONTRACTOR SHALL REFER TO PLUMBING ENGINEERING PLANS AND VERIFY PIPE MATERIAL WITH LOCAL OFFICIAL PRIOR TO ORDERING OF MATERIALS.
  - CONTRACTOR SHALL VERIFY THE CONNECTION OF EXTERIOR PIPING TO ANY FIXTURES (SUCH AS AN EXTERIOR GREASE INTERCEPTOR) OR OTHER DRAINAGE SYSTEMS WITH LOCAL OFFICIALS FOR COMPLIANCE WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES PRIOR TO ORDERING OF MATERIALS.
- WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DI) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
- GAS METERS MUST BE PROTECTED AS REQUIRED BY THE JURISDICTIONAL GAS PROVIDER.
- TRANSFORMERS AND SWITCH GEARS: GC SHALL PROVIDE ALL APPURTENANCES IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS AND CARRY SAME IN BASE BID. APPURTENANCES SHALL INCLUDE, BUT NOT BE LIMITED TO: THE CONCRETE PAD, SECONDARY SPILL CONTAINMENT AREAS (IF REQUIRED), BOLLARD / VEHICULAR PROTECTION, AND OTHER ITEMS AS MAY BE REQUIRED BY THE UTILITY PROVIDER FOR INSTALLATION OF THE TRANSFORMER AND SWITCH GEAR (IF REQUIRED). GC SHALL COORDINATE ALL ASPECTS OF INSTALLATION WITH UTILITY PROVIDER PRIOR TO ORDERING OF MATERIALS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS IN WRITING.

**ALL WET UTILITIES WITHIN 10-FT OF THE BUILDING, INCLUDING OIL/WATER SEPARATOR (IF APPLICABLE), ARE GOVERNED BY THE MASSACHUSETTS UNIFORM STATE PLUMBING CODE (248 CMR 10.00). SEE PLUMBING PLANS FOR PIPE MATERIAL WITHIN 10-FT OF THE BUILDING. WET UTILITIES ARE DRAWN TO THE BUILDING FACE FOR COORDINATION PURPOSES ONLY.**



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PROJECT No.: MAA240490-00-1B  
DRAWN BY: SBB  
CHECKED BY: CPB  
DATE: 02/05/2025  
CAD ID: P-CIVIL-PROP

PROJECT:

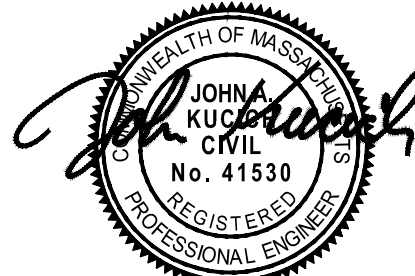
## SITE DEVELOPMENT PLANS FOR

RTE 85  
REALTY CORP.

PROPOSED  
MIXED-USE DEVELOPMENT  
MAP: 24 | LOTS: 7, 8 & 9  
190, 194 & 198 HARTFORD AVENUE  
NORFOLK COUNTY  
BELLINGHAM, MA

## BOHLER

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SHEET TITLE:

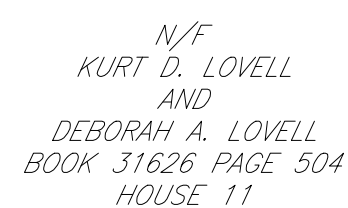
## UTILITY PLAN

SHEET NUMBER:

C-501

REVISION 1 - 07/01/2025





N/F  
TIMOTHY M. &  
SHARON M. NORTON  
BOOK: 35441 PAGE: 441  
7 CEDAR HILL RD

N/F  
KIMBERLY A. LADOUCEUR  
BOOK: 40692 PAGE:279  
4 SAGAMORE RD

N/F  
LINDO F MONTEIRO &  
MICHELLE A MONTEIRO  
BOOK:37725 PAGE:550  
4 CEDAR HILL RD

N/F  
296 MAIN LLC  
BOOK:38212 PAGE:274  
186 HARTFORD AV  
A.M. 24 LOT 6  
AREA=13,587±SF  
(0.31+AC)

N/F  
IBRAHIM T. &  
NAWAL MORKOS  
BOOK:13872 PAGE:493  
202 HARTFORD AV


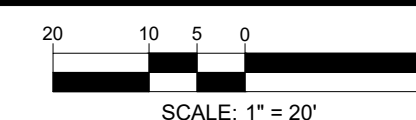
**HARTFORD AVENUE (ROUTE 126)**

N/F  
M A REALTY ACQUISITION LLC  
BOOK:26834 PAGE:118  
189 HARTFORD AV

N/F  
193 HARTFORD AVE REALTY LLC  
BOOK:41251 PAGE:74  
193 HARTFORD AV

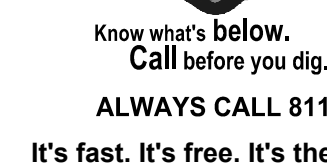
N/F  
BELLINGHAM N MAIN ST II LLC  
BOOK:22912 PAGE:459  
217 HARTFORD AV

**THIS PLAN TO BE UTILIZED FOR  
SOIL EROSION AND SEDIMENT  
CONTROL PURPOSES ONLY**

The Bohler logo is located in the bottom right corner of the page. It consists of the word "BOHLER" in a large, bold, blue sans-serif font. Above the letters "HLER" are two parallel orange diagonal lines. To the right of the word, there is a small "TM" trademark symbol.

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**LAND SURVEYING**  
**PROGRAM MANAGEMENT**  
**LANDSCAPE ARCHITECTURE**  
**SUSTAINABLE DESIGN**  
**PERMITTING SERVICES**  
**TRANSPORTATION SERVICES**

## REVISIONS

[illegible]

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PROJECT No.:	MAA240490.00-
DRAWN BY:	SI
CHECKED BY:	CI
DATE:	02/05/20
CAD I.D.:	P-CIVL-PRG

PROJECT:

## SITE DEVELOPMENT PLANS

\_\_\_\_\_ FOR -

**RTE 85  
REALTY CORP.**

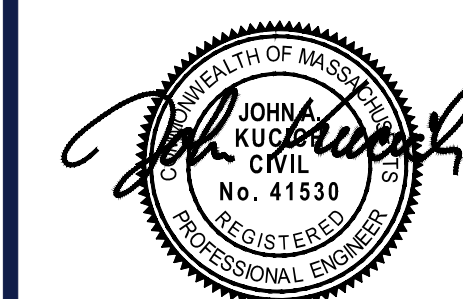
**PROPOSED  
MIXED-USE DEVELOPMENT**

**MAP: 24 | LOTS: 7, 8 & 9**  
**190, 194 & 198 HARTFORD AVENUE**  
**NORFOLK COUNTY**  
**BELLINGHAM, MA**

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SHEET TITLE:

## SOIL EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER

**C-801**

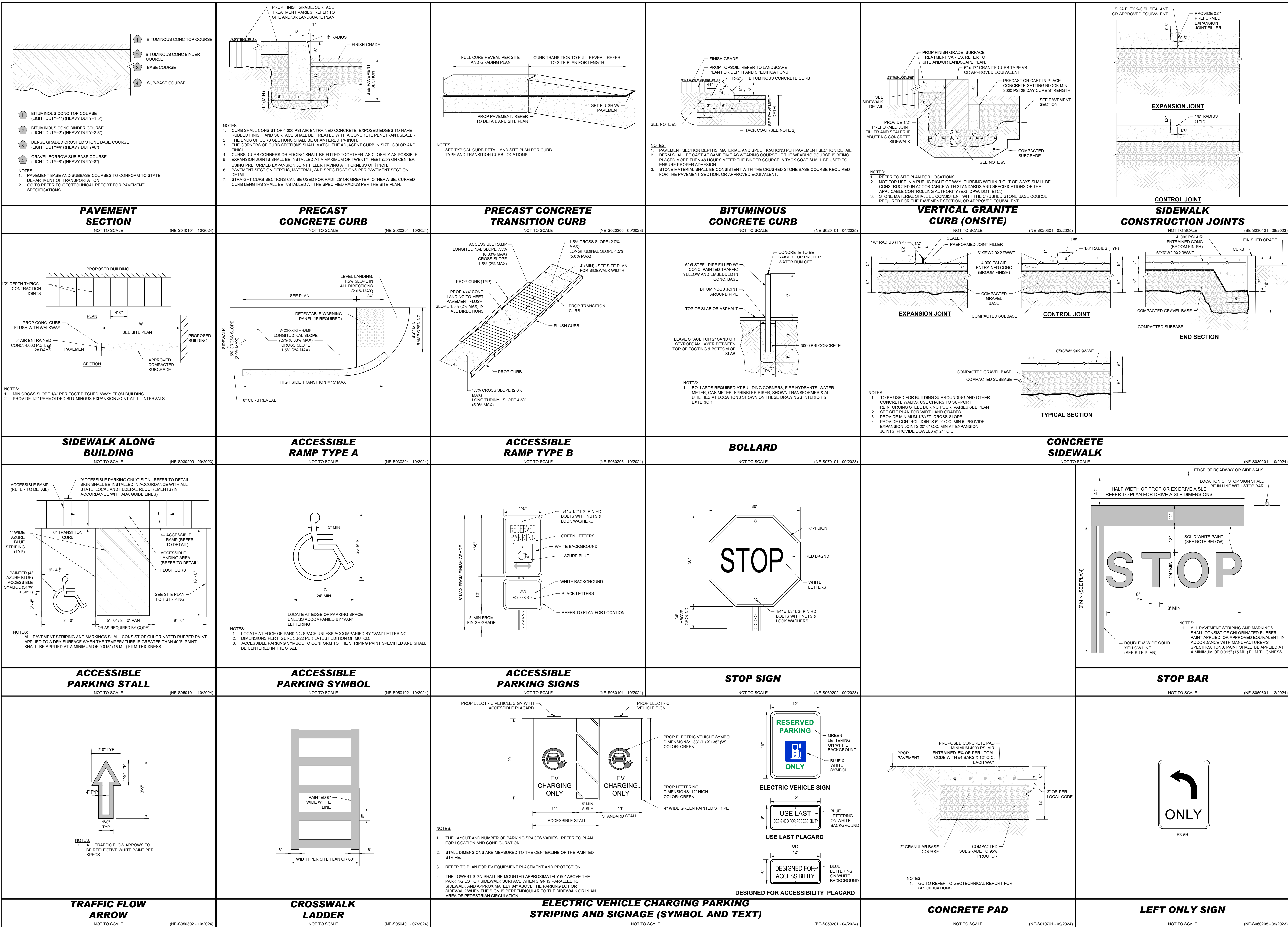
REVISION 1 - 07/01/2025







P:\2024\MAA240490\00\CD\DRAWINGS\PLAN SET\BTR\CIVIL SITE PLANS\BTR-CIVIL-CND5-MAA240490-00-1B-.....LAYOUT: C-901 DETL



TM

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SITE CIVIL AND CONSULTING ENGINEERING

PROGRAM MANAGER

LANDSCAPE ARCHITECT

SUSTAINABLE DESIGN

PERMITTING SERVICES

TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	07/01/2025	SITE LAYOUT REVISIONS	CPB	LMC

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PROJECT No.: MAA240490-00-1B

DRAWN BY: SBB

CHECKED BY: CPB

DATE: 02/05/2025

CAD ID: P-CIVIL-CND5

PROJECT:

SITE DEVELOPMENT PLANS

FOR

RTE 85 REALTY CORP.

PROPOSED MIXED-USE DEVELOPMENT

MAP: 24 | LOTS: 7, 8 & 9

190, 194 & 198 HARTFORD AVENUE

NORFOLK COUNTY

BELLINGHAM, MA

BOHLER

352 TURNPIKE ROAD, 3rd FLOOR

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SEAL OF THE COMMONWEALTH OF MASSACHUSETTS

JOHN A. BOHLER

REGISTERED PROFESSIONAL ENGINEER

No. 41530

SHEET TITLE:

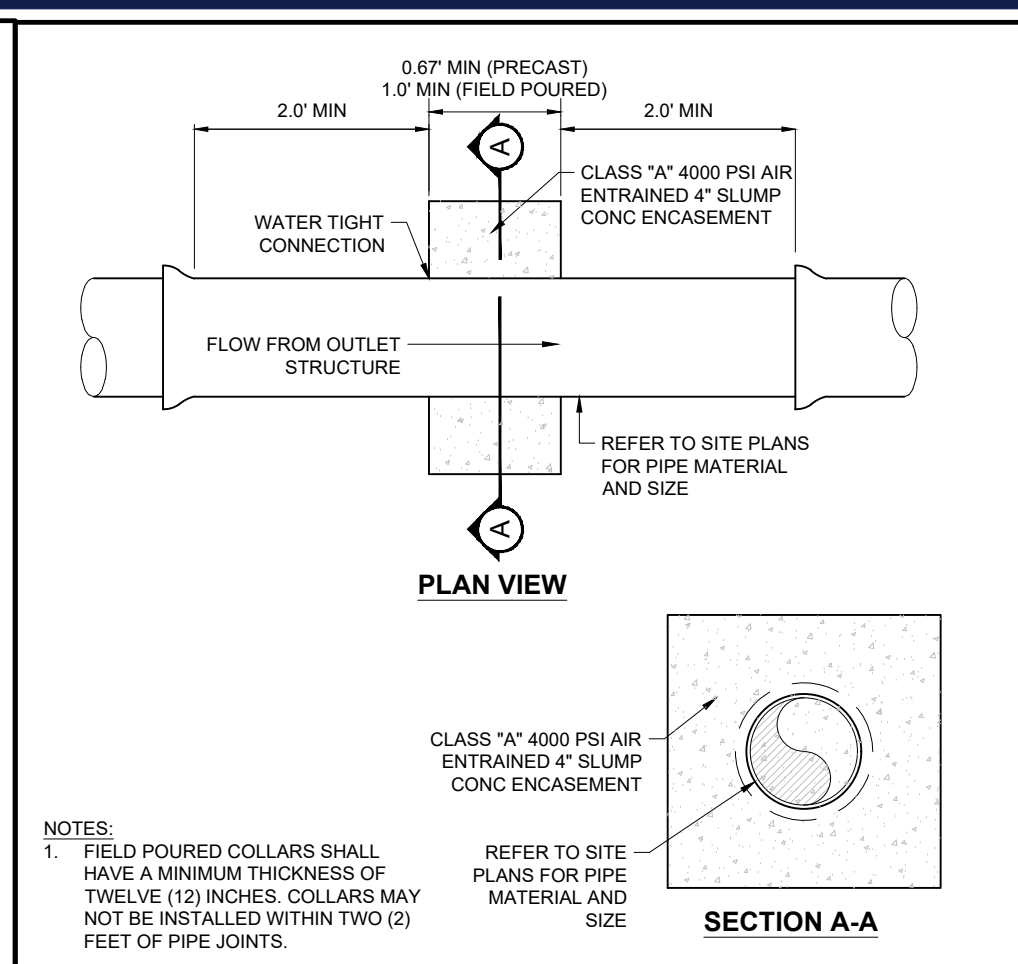
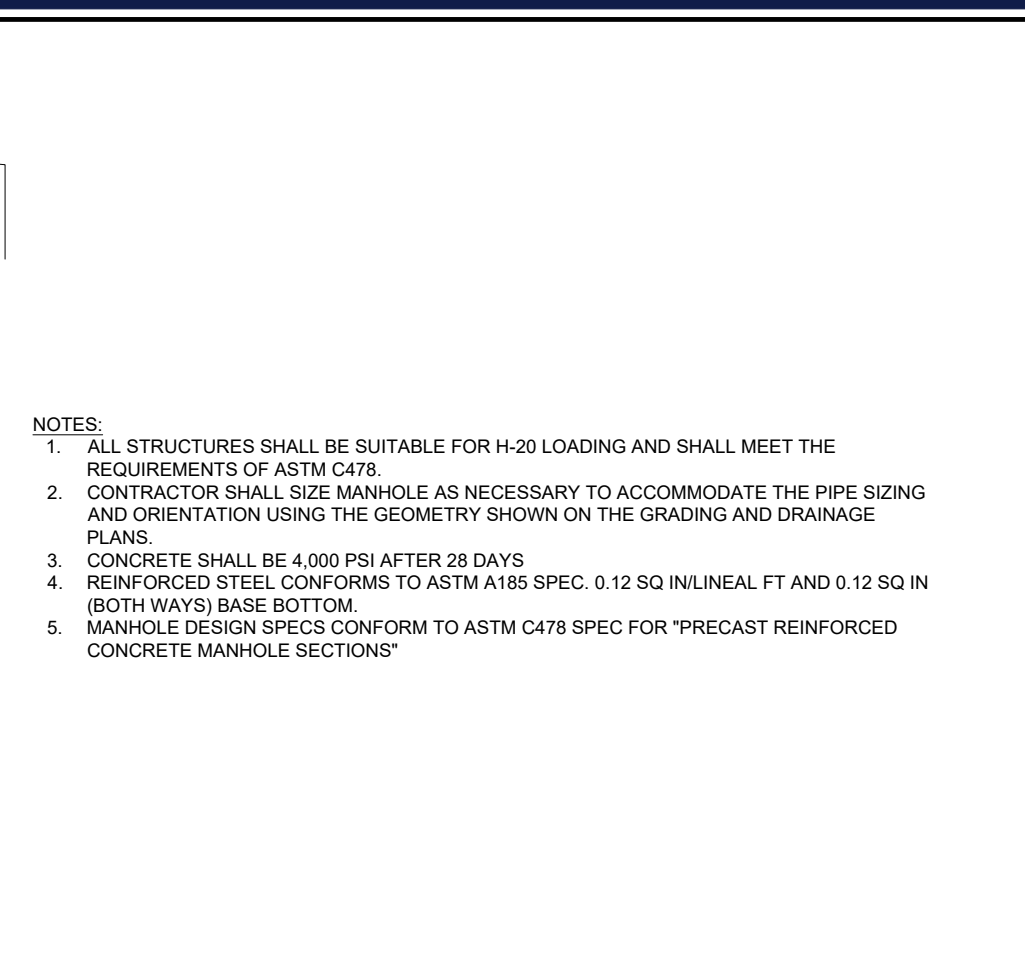
CONSTRUCTION DETAILS

SHEET NUMBER:

C-901

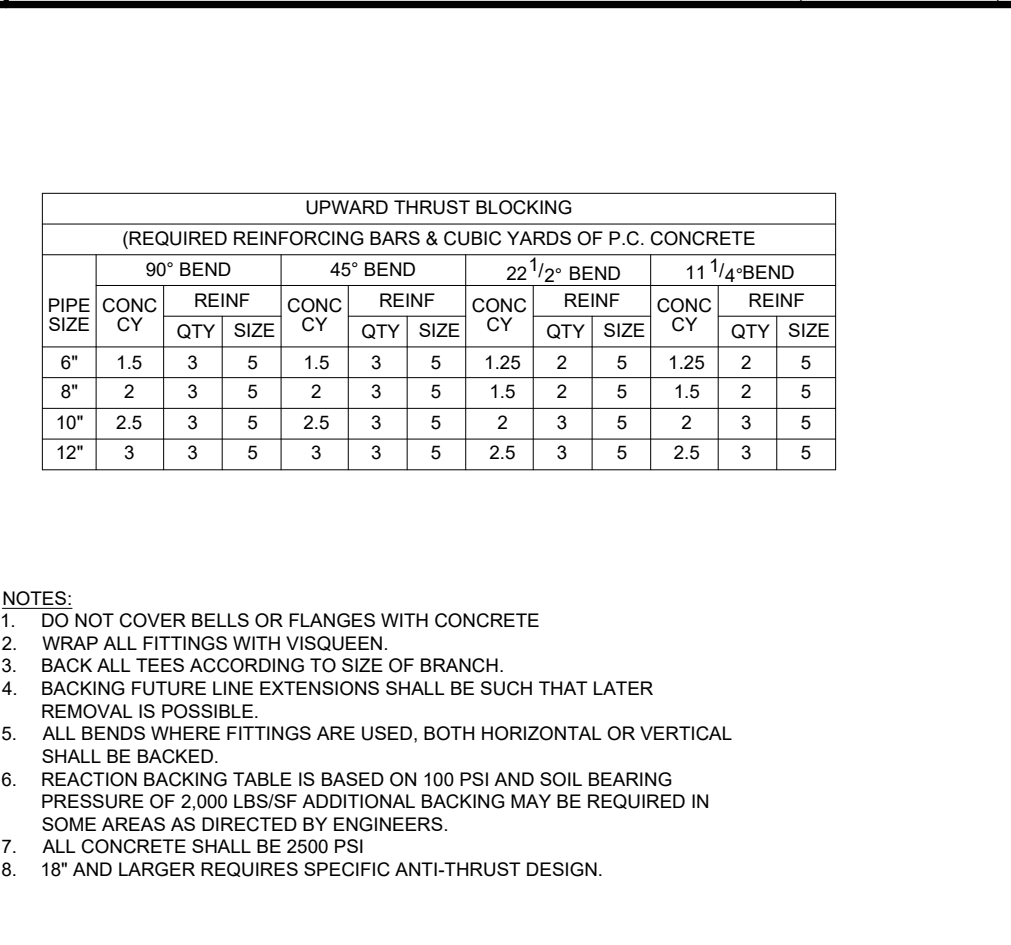
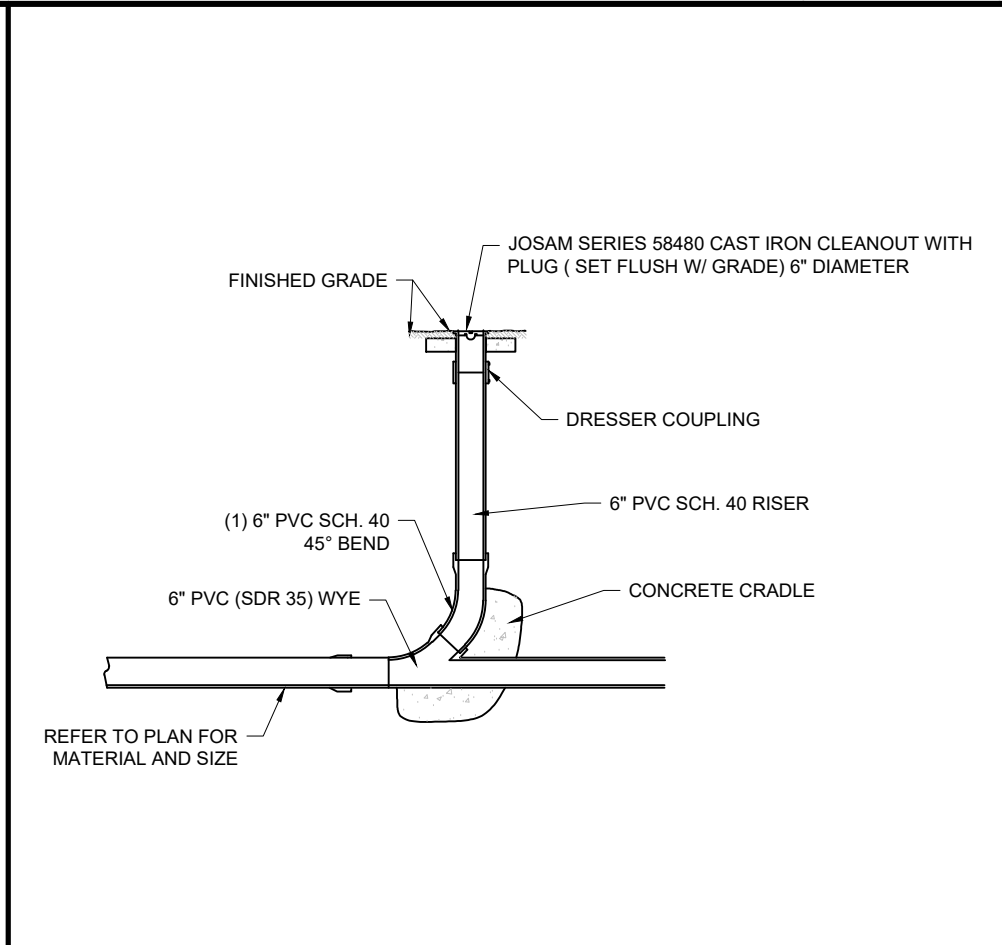
REVISION 1 - 07/01/2025





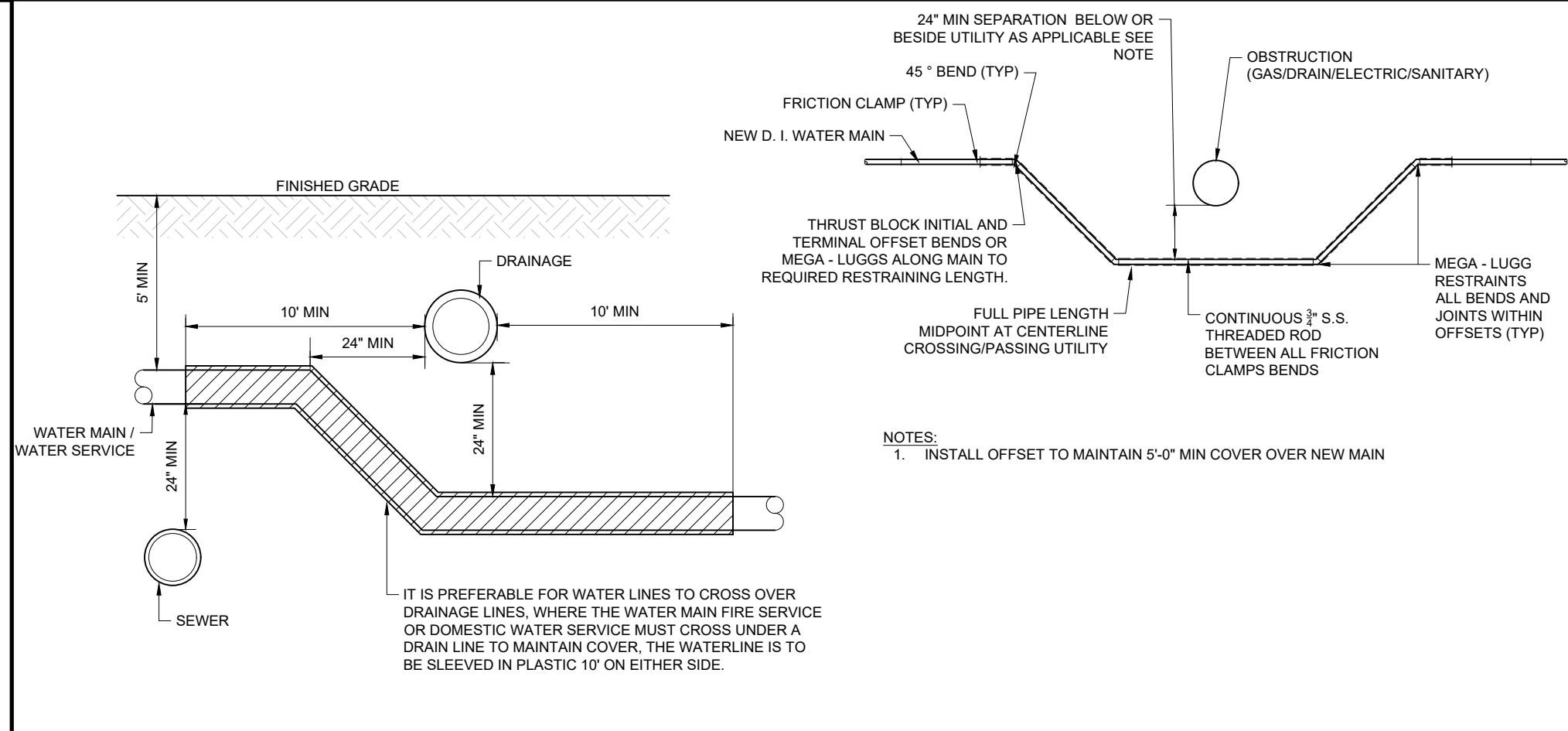
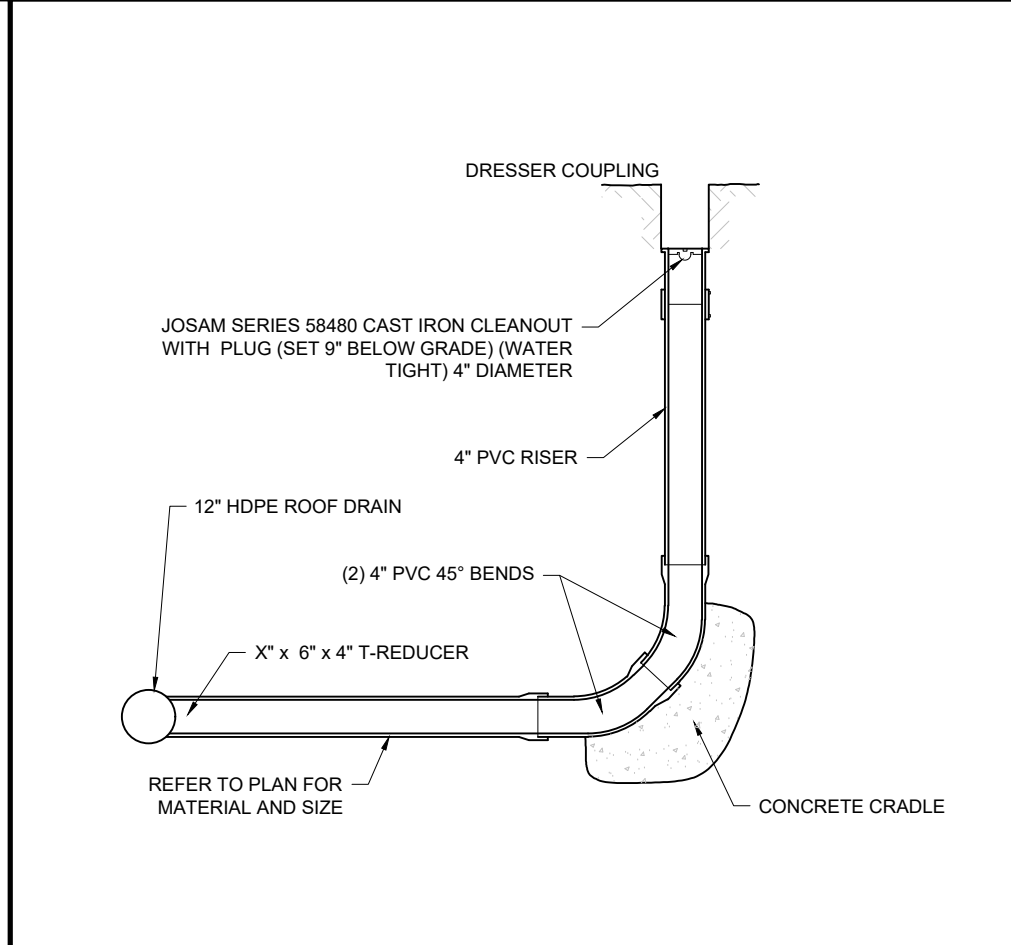
## **GATE VALVE**

(NE-U030201 - 09/2023)



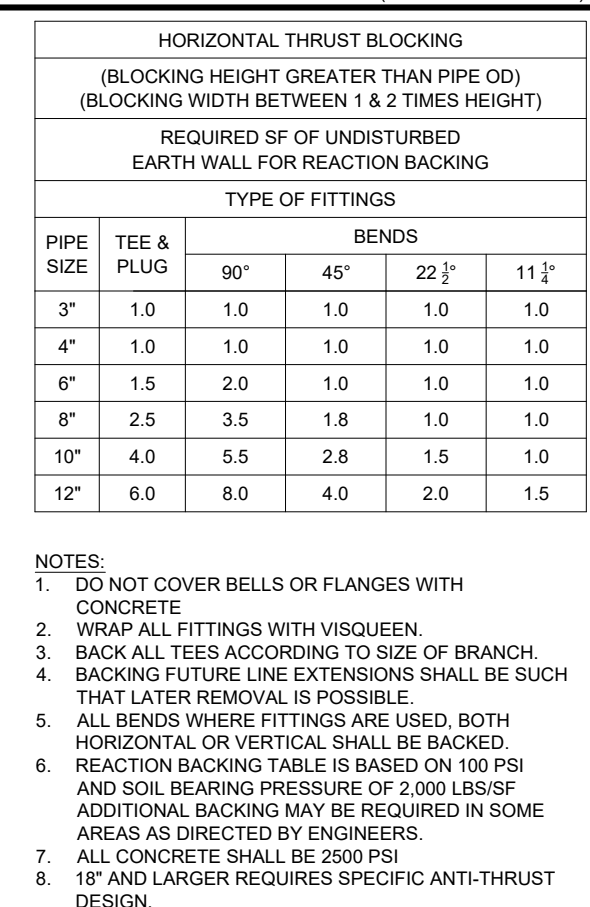
## PERMIT SET

(NE-U030502 - 11/2024)



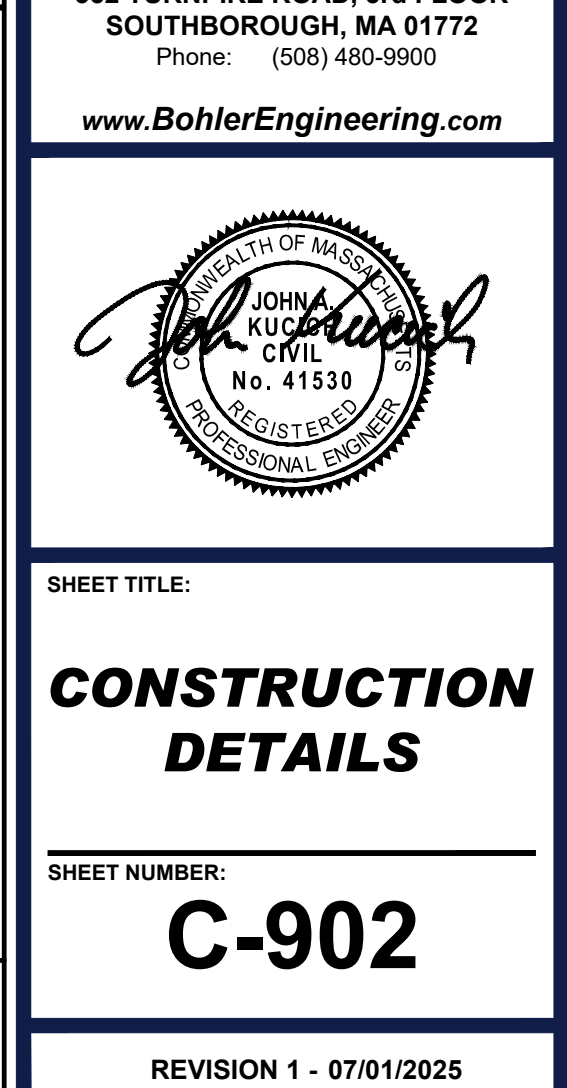
### **WATER SERVICE OR MAIN AT UTILITY CROSSING**

(NE-U050102 - 09/2023)



## ***TAPPING SLEEVE AND GATE VALVE***

(NE-U030501 - 11/2024)







2. CHAMBERS SHALL BE STORMTIGHT SC-740.
3. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL, STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD REDUCE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENTATIONS.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2781 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS 1) MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM MOMENT FROM RELATIVE MOVEMENT OF 3" AND 3) ALLOWABLE COVER WITH PARKED 1) WEEKS) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LOGS.
  - TO MAINTAIN A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2 INCHES.
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, AT THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT<sup>2</sup>. THE ASD IS DEFINED IN SECTION 12.12.4 OF ASTM F2418. AND 4) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F + 2° F), CHAMBERS SHALL BE BACKFILLED FROM RELIEF HOLES WITH A MINIMUM OF 10% FILL BELOW THE CHAMBER JOINT.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
  - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
  - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.56 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD. THE MINIMUM REQUIRED BY ASTM F2781 AND BY SECTIONS 9.01 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
  - TEST DERIVED OR TEST DERIVED DATA SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT WHERE IT SHALL BE THE 75-MM MODULES USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANHOLE SIZE IS TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANHOLE SIZING GUIDE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONDITIONS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANHOLE COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE PRIVATE URINE LINE SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF URINE LINE SYSTEMS, THE URINE LINE SYSTEM SHALL BE DESIGNED BY A KNOWLEDGEABLE GEOTECHNICAL PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

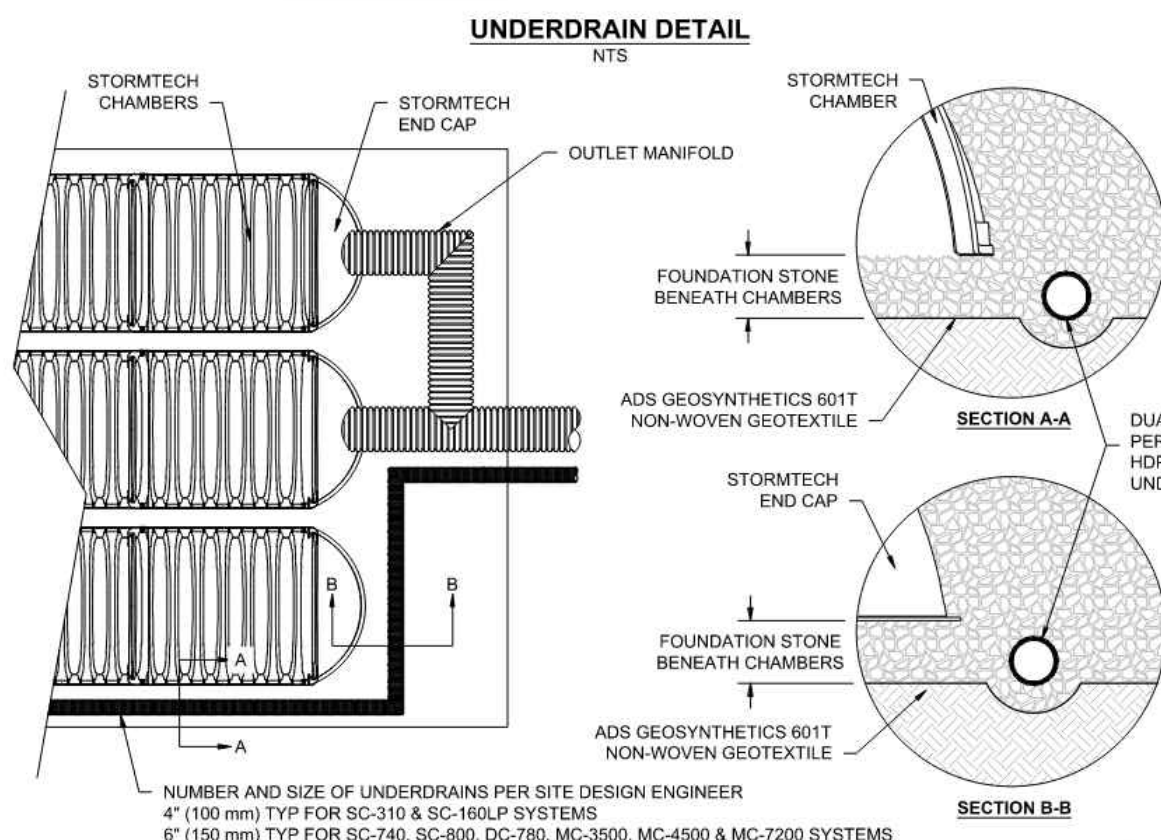
1. STORMTRENCH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTRENCH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTRENCH SC-310/SC-740/SC-800/SC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTRENCH RECOMMENDS 3 BACKFILL METHODS:
  - STONEHOURD LOCATED OFF THE CHAMBER BED.
  - BACKFILL ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 93, 3/4", 4", 5.6, OR 57.
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

**NOTES FOR CONSTRUCTION EQUIPMENT**

1. STORMTRENCH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTRENCH SC-310/SC-740/SC-800/SC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE ACHIEVED IN ACCORDANCE WITH THE "STORMTRENCH SC-310/SC-740/SC-800/SC-780 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTRENCH SC-310/SC-740/SC-800/SC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

**USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTRENCH STANDARD WARRANTY.**

CONTACT STORMTRENCH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



**INSERTA TEE DETAIL**  
NTS

CONVEYANCE PIPE MATERIAL MAY VARY (PVC, HDPE, ETC.)

INSERTA TEE CONNECTION

PLACE ADJUSPL WOVEN GEOTEXTILE

(x)

**SECTION A-A**

DO NOT INS. INSERTA-TEE CHAMBER J.

INSERTA TEE TO BE INSTALLED, CENTERED OVER CORRUGATION

**SIDE VIEW**

CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM OF CHAMBER
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
SC-800	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)
MC-7200	12" (300 mm)	8" (200 mm)

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40, SCH 80, SCH 160, SCH 200, SCH 300, SCH 400, SCH 600, SCH 800, SCH 1000, SCH 1200, SCH 1400, SCH 1600, SCH 1800, SCH 2000, SCH 2200, SCH 2400, SCH 2600, SCH 2800, SCH 3000, SCH 3200, SCH 3400, SCH 3600, SCH 3800, SCH 4000, SCH 4200, SCH 4400, SCH 4600, SCH 4800, SCH 5000, SCH 5200, SCH 5400, SCH 5600, SCH 5800, SCH 6000, SCH 6200, SCH 6400, SCH 6600, SCH 6800, SCH 7000, SCH 7200, SCH 7400, SCH 7600, SCH 7800, SCH 8000, SCH 8200, SCH 8400, SCH 8600, SCH 8800, SCH 9000, SCH 9200, SCH 9400, SCH 9600, SCH 9800, SCH 10000, SCH 10200, SCH 10400, SCH 10600, SCH 10800, SCH 11000, SCH 11200, SCH 11400, SCH 11600, SCH 11800, SCH 12000, SCH 12200, SCH 12400, SCH 12600, SCH 12800, SCH 13000, SCH 13200, SCH 13400, SCH 13600, SCH 13800, SCH 14000, SCH 14200, SCH 14400, SCH 14600, SCH 14800, SCH 15000, SCH 15200, SCH 15400, SCH 15600, SCH 15800, SCH 16000, SCH 16200, SCH 16400, SCH 16600, SCH 16800, SCH 17000, SCH 17200, SCH 17400, SCH 17600, 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NTS

90.7" (2304 mm) ACTUAL LENGTH

85.4" (2169 mm) INSTALLED LENGTH  
 ⇔ BUILD ROW IN THIS DIRECTION

START EN

OVERLAP NEXT CHAMBER HERE  
 (OVER SMALL CORRUGATION)

29.3" (744 mm)

12.3" (310 mm)

45.9" (1166 mm)

30.0" (762 mm)

51.0" (1295 mm)

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.0"
CHAMBER STORAGE	45.0 CUBIC FEET
MINIMUM INSTALLED STORAGE*	74.0 CUBIC FEET
WEIGHT	75.0 lbs.
<b><u>NOMINAL END CAP SPECIFICATIONS</u></b>	
SIZE (W X H X INSTALLED LENGTH)	45.9" X 29.3" X 9.6"
END CAP STORAGE	2.6 CUBIC FEET
MINIMUM INSTALLED STORAGE**	13.5 CUBIC FEET
WEIGHT	11.7 lbs.

SIZE (W X H X INSTALLED LENGTH)	45.9" X 29.3" X 9.6"
END CAP STORAGE	2.6 CUBIC FEET
MINIMUM INSTALLED STORAGE**	13.5 CUBIC FEET
WEIGHT	11.7 lbs.

\*\*ASSUMES 6" (152 mm) STONE ABOVE AND BELOW END CAPS, 6" (152 mm) BETWEEN ROWS, 12" (305 mm) BEYOND END CAPS

PART #	STUB	B	C
SC74DEP08PTC		18.5" (470 mm)	---
SC74DEP080BPC	8" (150 mm)	---	0.5" (13 mm)
SC74DEP081PTC	6" (200 mm)	16.5" (419 mm)	---
SC74DEP080BPC		---	0.6" (15 mm)
SC74DEP101PTC	10" (250 mm)	14.5" (368 mm)	---
SC74DEP100BPC		---	0.7" (18 mm)
SC74DEP121PTC	12" (300 mm)	12.5" (318 mm)	---
SC74DEP120BPC		---	1.2" (30 mm)
SC74DEP151PTC	15" (375 mm)	9.0" (229 mm)	---
SC74DEP180BPC		---	1.3" (33 mm)
SC74DEP181PTC	18" (450 mm)	5.0" (127 mm)	---
SC74DEP180BPC		---	1.6" (41 mm)
SC74DECEZ	24" (600 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

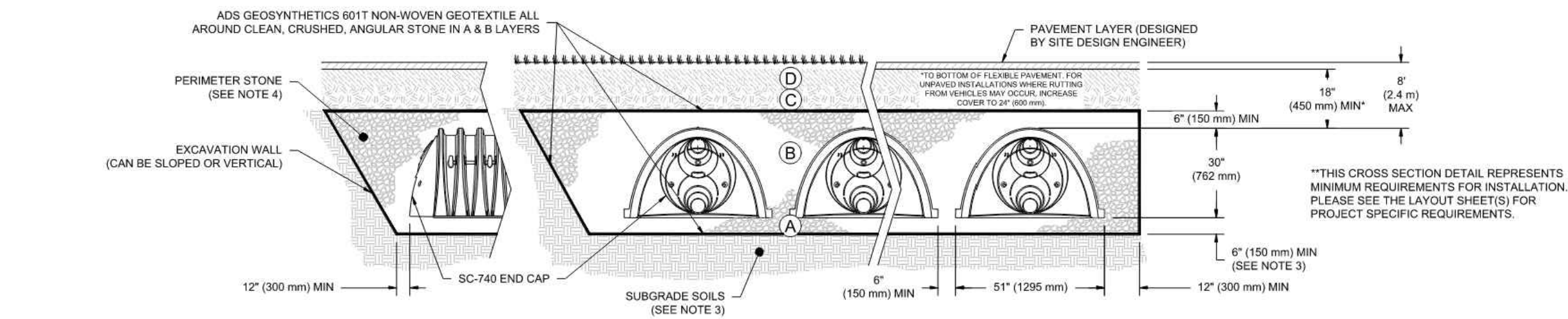
\* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm) BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL; PRE-CORED END CAPS END WITH "PC"

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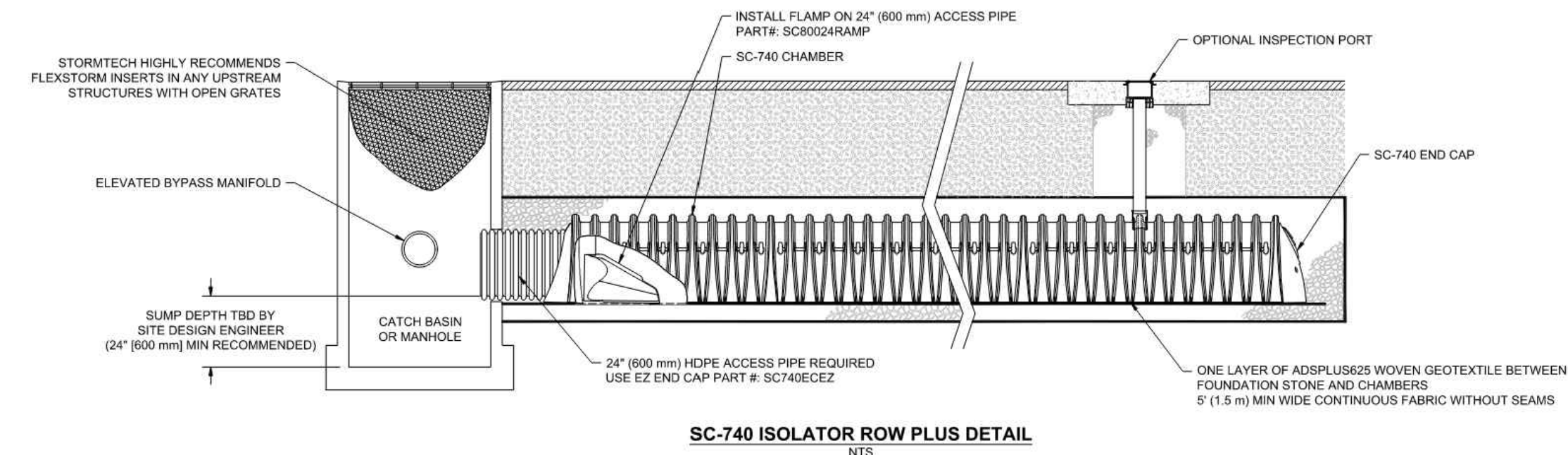
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	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDEDMENT STONE (B) LAYER TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SLAG/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE  MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2.4, A-3  OR  AASHTO M43 <sup>3</sup>  3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 90% RELATIVE DENSITY FOR PROCESSING MATERIALS. MIN. 95% PROCTOR DYNAMIC FORCE WEIGHT NOT TO EXCEED 12,000 lbs (54 kN). GROSS VEHICLE WEIGHT NOT TO EXCEED 20,000 lbs (89 kN).
B	<b>EMBEDEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A) LAYER TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE <sup>1</sup>	AASHTO M43 <sup>3</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE <sup>1</sup>	AASHTO M43 <sup>3</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACTION OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

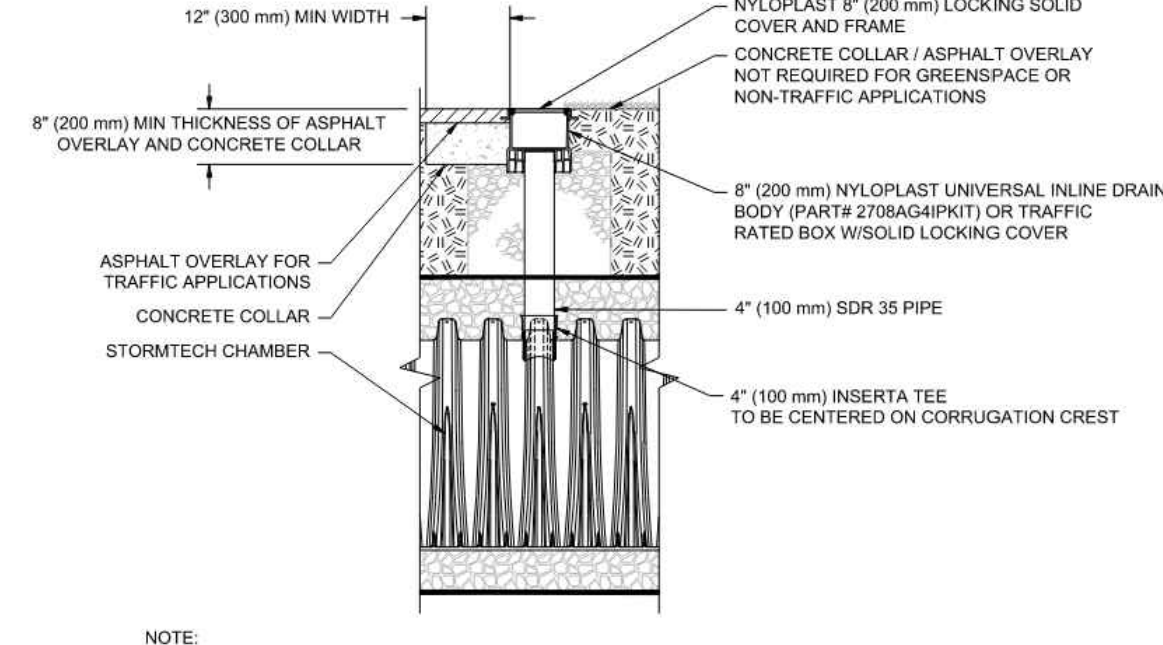
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1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. 30-74 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITHIN THE CHAMBER. THE DESIGNER SHALL CONSULT THE STANDARD SPECIFICATION MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERMITTER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - a. TO MAINTAIN THE STRENGTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - b. TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
  - c. TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT (AS DEFINED IN SECTION 6.2.8 OF ASTM F2418) SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT<sup>2</sup>, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOUT 73 ° F / 23 ° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW POLYPROPYLENE.

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## NTS

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STEP 1	<p>INSPECT ISOLATOR ROW PLUS FOR SEDIMENT</p> <ul style="list-style-type: none"> <li>A. INSPECTION POINTS (IF PRESENT)           <ul style="list-style-type: none"> <li>1. REMOVE/OPEN IDL ON KYOLPILAT INLINE INSTANT</li> <li>2. REMOVE AND CLEAN FLEXION FROM FILTER IN-STREAM</li> <li>3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG</li> <li>4. POWER A CAMERA AND PHOTOGRAPH FOR VISUAL INSPECTION OF SEDIMENT (IF OPTIONAL)</li> <li>5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2 IF NOT, PROCEED TO STEP 3.</li> </ul> </li> <li>B. ALL ISOLATOR PLUS ROWS           <ul style="list-style-type: none"> <li>1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS</li> <li>2. USING A FLASHLIGHT, INSPECT THE DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE               <ul style="list-style-type: none"> <li>i. MIRRORS ON PILES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY</li> <li>ii. FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE</li> </ul> </li> <li>3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2 IF NOT, PROCEED TO STEP 3.</li> </ul> </li> </ul>
STEP 2	<p>CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS</p> <ul style="list-style-type: none"> <li>A. A GOOD QUALITY CLEANING NOZZLE WITH A LENGTH OF 10 FEET OR MORE OF 45" (1.1 m) OR MORE IS PREFERRED</li> <li>B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLOW WATER IS CLEAN</li> <li>C. VACUUM STRUCTURE PUMP AS REQUIRED</li> </ul>
STEP 3	<p>REPLACE ALL COVERS, GRATERS, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.</p>
STEP 4	<p>INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMWATER SYSTEM.</p>

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.

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References			

[illegible]

Know what's below.  
Call before you dig.  
ALWAYS CALL 811  
It's fast. It's free. It's the law.

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY  
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION  
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MAA240490.00-  
DRAWN BY: SI  
CHECKED BY: CI  
DATE: 02/05/20  
CAD I.D.: P-CIVL-CNI

**SITE  
DEVELOPMENT  
PLANS**

\_\_\_\_\_ FOR \_\_\_\_\_

**RTE 85  
REALTY CORP.**

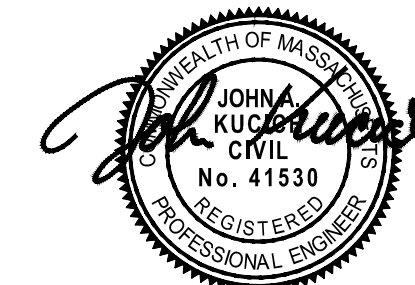
**PROPOSED  
MIXED-USE DEVELOPMENT**

**MAP: 24 | LOTS: 7, 8 & 9**  
**190, 194 & 198 HARTFORD AVENUE**  
**NORFOLK COUNTY**  
**BELLINGHAM, MA**

**BOHLER //**

**352 TURNPIKE ROAD, 3rd FLOOR  
SOUTHBOROUGH, MA 01772**  
Phone: (508) 480-9900

[www.BohlerEngineering.com](http://www.BohlerEngineering.com)



SHEET TITLE

## CONSTRUCTION DETAILS

**SHEET NUMBER**

**C-903**

**REVISION 1 - 07/01/2025**





N/F  
KURT D. LOVELL  
AND  
DEBORAH A. LOVELL  
BOOK: 31626 PAGE: 504  
HOUSE 11

N/F  
TIMOTHY M. &  
SHARON M. NORTON  
BOOK: 35441 PAGE: 441  
7 CEDAR HILL RD

N/F  
KIMBERLY A. LADOUCEUR  
BOOK: 40692 PAGE: 279  
4 SAGAMORE RD

N/F  
LINDO F. MONTEIRO &  
MICHELLE A. MONTEIRO  
BOOK: 37725 PAGE: 550  
4 CEDAR HILL RD

N/F  
296 MAIN LLC  
BOOK: 38212 PAGE: 274  
186 HARTFORD AV  
A.M. 24 LOT 9  
AREA: 12,381.25 SF  
(0.31240)  
(HARD)

N/F  
IBRAHIM T. &  
NANAL MORKOS  
BOOK: 13572 PAGE: 493  
202 HARTFORD AV  
HARD

HARTFORD AVENUE (ROUTE 126)  
1920 COUNTY  
LAYOUT

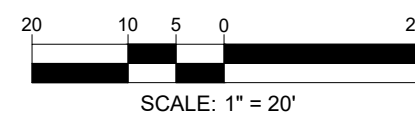
N/F  
M A REALTY ACQUISITION LLC  
BOOK: 26834 PAGE: 118  
189 HARTFORD AV

N/F  
193 HARTFORD AVE. REALTY LLC  
BOOK: 41251 PAGE: 74  
193 HARTFORD AV

N/F  
BELLINGHAM N MAIN ST II LLC  
BOOK: 22912 PAGE: 459  
217 HARTFORD AV

1972 TOWN LAYOUT  
BUSINESS 2

THIS PLAN TO BE UTILIZED  
FOR LANDSCAPE  
PURPOSES ONLY



PLANT SCHEDULE					
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
LT	3	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5'-3" CAL	B&B
QP	5	QUERCUS PALUSTRIS	PIN OAK	2.5'-3" CAL	B&B
TAB	5	TILIA AMERICANA 'BOULEVARD'	BOULEVARD AMERICAN LINDEN	2.5'-3" CAL	B&B
EVERGREEN TREES					
CLY	3	X CUPRESSOCYPARIS LEYLANDII	LEYLANDI CYPRESS	6'-8'	B&B
PPG	2	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	6'-8'	B&B
TOE	11	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6'-8'	B&B
TOG	4	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6'-8'	B&B
SHRUBS					
AA	4	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	BRILLIANT RED CHOKEBERRY	3 GAL.	CONTAINER
CS	6	CORNUS SERICEA	RED TWIG DOGWOOD	2'-3'	B&B
CSF	2	CORNUS STOLONIFERA 'FARROW'	ARCTIC FIRE RED TWIG DOGWOOD	2'-3'	CONTAINER
HF	2	HYPERICUM FRONDOSUM 'SUNBURST'	SUNBURST ST. JOHN'S WORT	18-24"	CONTAINER
IWR	5	ILEX VERTICILLATA 'WINTER RED'	WINTER RED WINTERBERRY	30-36"	CONTAINER
JJ	10	JUNIPERUS COMMUNIS	COMMON JUNIFER	15-18"	CONTAINER
RAG	8	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	15-18"	CONTAINER
RXR	6	ROSA X 'RADRAZZ'	KNOCK OUT SHRUB ROSE	18-24"	CONTAINER
VA	4	VACCINIUM ANGUSTIFOLIUM	LOWBUSH BLUEBERRY	1 GAL.	CONTAINER
GRASSES					
CAKF	25	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	1 GAL.	CONTAINER
GROUND COVER					
SJ	7	SPIRAEA JAPONICA	JAPANESE SPIREA	---	

PLANTING LEGEND  
PROPOSED HYDROSEED

#### REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	07/01/2025	SITE LAYOUT REVISIONS	CPB	LMD



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#### PERMIT SET

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PROJECT No.: MAA240490.00-1B  
DRAWN BY: MB  
CHECKED BY: JE  
DATE: 02/05/2025  
CAD ID: P-CIVIL-LSCP

PROJECT:

#### SITE DEVELOPMENT PLANS FOR

RTE 85  
REALTY CORP.

PROPOSED  
MIXED-USE DEVELOPMENT

MAP: 24 | LOTS: 7, 8 & 9  
190, 194 & 198 HARTFORD AVENUE  
NORFOLK COUNTY  
BELLINGHAM, MA

**BOHLER**

352 TURNPIKE ROAD, 3rd FLOOR  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

www.BohlerEngineering.com

SHEET TITLE:

#### LANDSCAPE PLAN

SHEET NUMBER:

L-101

REVISION 1 - 07/01/2025



## LANDSCAPE SPECIFICATIONS

<p>1. <b>SCOPE OF WORK:</b></p> <p>1.1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.</p>	<p>9.3. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.</p> <p>9.4. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.</p>
<p>2. <b>MATERIALS</b></p> <p>2.1. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.</p> <p>2.2. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.</p> <p>2.3. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN</p> <p>2.3.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.</p> <p>2.3.2. SOD SHALL BE STRONGLY ROOTED, VEEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE MULCHED TO HOLD SOD IN PLACE.</p> <p>2.4. MULCH - ALL PLANTING BEDS SHALL BE PEGGED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES/DETAILS.</p>	<p>9.5. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.</p> <p>9.6. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:</p> <p>9.6.1. PLANTS: MARCH 15 TO DECEMBER 15</p> <p>9.6.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1</p> <p>9.6.3. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON. THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.</p> <p>9.7. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF PROTECTOR AVAILABILITY, THE RISK OF PLANT DETH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:</p>
<p>2.5. FERTILIZER</p> <p>2.5.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.</p> <p>2.5.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.</p> <p>2.6. PLANT MATERIAL</p> <p>2.6.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (AND BY THE AMERICAN NURSERY &amp; LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN))</p> <p>2.6.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.</p> <p>2.6.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.</p> <p>2.6.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/2", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.</p> <p>2.6.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.</p> <p>2.6.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.</p> <p>2.6.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.</p> <p>2.6.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.</p>	<p>ACER RUBRUM PLATANUS X ACERIFOLIA          BETULA VARIETIES POPULUS VARIETIES          CARPINUS VARIETIES PRUNUS VARIETIES          CRATAEGUS VARIETIES PYRUS VARIETIES          KOELREUTERIA QUERCUS VARIETIES          LIQUIDAMBAR STYRACIFLUA TILIA TOMENTOSA          LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES</p> <p>9.8. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY.</p> <p>9.8.1. 1 PART PEAT MOSS</p> <p>9.8.2. 1 PART COMPOSTED COW MANURE BY VOLUME</p> <p>9.8.3. 3 PARTS TOPSOIL BY VOLUME</p> <p>9.8.4. 21 GRAMS AGRIFORM PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:</p> <p>9.8.4.1. 2 TABLETS PER 1 GALLON PLANT</p> <p>9.8.4.2. 3 TABLETS PER 5 GALLON PLANT</p> <p>9.8.4.3. 4 TABLETS PER 15 GALLON PLANT</p> <p>9.8.4.4. LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK</p> <p>9.9. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.</p> <p>9.10. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.</p> <p>9.11. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.</p> <p>9.12. GROUND COVER AREAS SHALL RECEIVE A 1/2" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.</p> <p>9.13. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.</p> <p>9.14. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.</p> <p>9.15. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.</p>
<p>3. <b>GENERAL WORK PROCEDURES</b></p> <p>3.1. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.</p> <p>3.2. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.</p>	<p>10. <b>TRANSPLANTING (WHEN REQUIRED)</b></p> <p>10.1. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.</p> <p>10.2. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.</p> <p>10.3. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.</p> <p>10.4. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.</p> <p>10.5. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.</p> <p>10.6. F TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.</p>
<p>4. <b>SITE PREPARATIONS</b></p> <p>4.1. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.</p> <p>4.2. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.</p> <p>4.3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.</p>	<p>11. <b>WATERING</b></p> <p>11.1. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.</p> <p>11.2. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.</p> <p>11.3. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.</p>
<p>5. <b>TREE PROTECTION</b></p> <p>5.1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT</p>	

N.T.S







N/F  
KURT D. LOVELL  
AND  
DEBORAH A. LOVELL  
BOOK 31626 PAGE 504  
HOUSE 11

N/F  
TIMOTHY M. &  
SHARON M. NORTON  
BOOK: 35441 PAGE: 441  
7 CEDAR HILL RD

N/F  
KIMBERLY A. LADOUCEUR  
BOOK: 40692 PAGE: 279  
4 SAGAMORE RD

N/F  
LINDO F. MONTEIRO &  
MICHELLE A. MONTEIRO  
BOOK: 37725 PAGE: 550  
4 CEDAR HILL RD

N/F  
296 MAIN LLC  
BOOK: 38212 PAGE: 274  
186 HARTFORD AV  
A.M. 24 LOT 6  
AREA: 12,387.25 SF  
(0.31342)  
HARD

#186  
1-STORY  
W/F HOUSE

HARTFORD AVENUE (ROUTE 126)  
1920 COUNTY  
1920 COUNTY  
1920 COUNTY

N/F  
193 HARTFORD AVE. REALTY LLC  
BOOK: 41251 PAGE: 74  
193 HARTFORD AV

N/F  
M A REALTY ACQUISITION LLC  
BOOK: 26834 PAGE: 118  
189 HARTFORD AV

N/F  
BELLINGHAM N MAIN ST II LLC  
BOOK: 22912 PAGE: 459  
217 HARTFORD AV

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Total Lamp Lumens
□	8	WPX0 LED ALO SWW2 MVOLT	SINGLE	N.A.
□	15	DSX1 LED P1 27K 80CRI AFR EGS	SINGLE	N.A.

LIGHTING LEGEND	
KEY	FIXTURE
L1	WALL PACK
L2	SINGLE-HEAD LIGHT POLE

TM

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LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

REVISIONS

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1	07/01/2025	SITE LAYOUT REVISIONS	CPB LMD



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PROJECT No.: MAA240490.00-1B  
DRAWN BY: DT  
CHECKED BY: JE  
DATE: 02/05/2025  
CAD ID: P-CIVL-LGHT

PROJECT:

SITE  
DEVELOPMENT  
PLANS  
FOR

RTE 85  
REALTY CORP.

PROPOSED  
MIXED-USE DEVELOPMENT

MAP: 24 | LOTS: 7, 8 & 9  
190, 194 & 198 HARTFORD AVENUE  
NORFOLK COUNTY  
BELLINGHAM, MA

BOHLER

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SOUTHBOROUGH, MA 01772  
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SHEET TITLE:

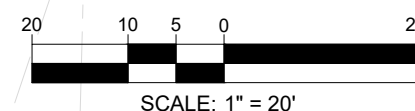
LIGHTING  
PLAN

SHEET NUMBER:

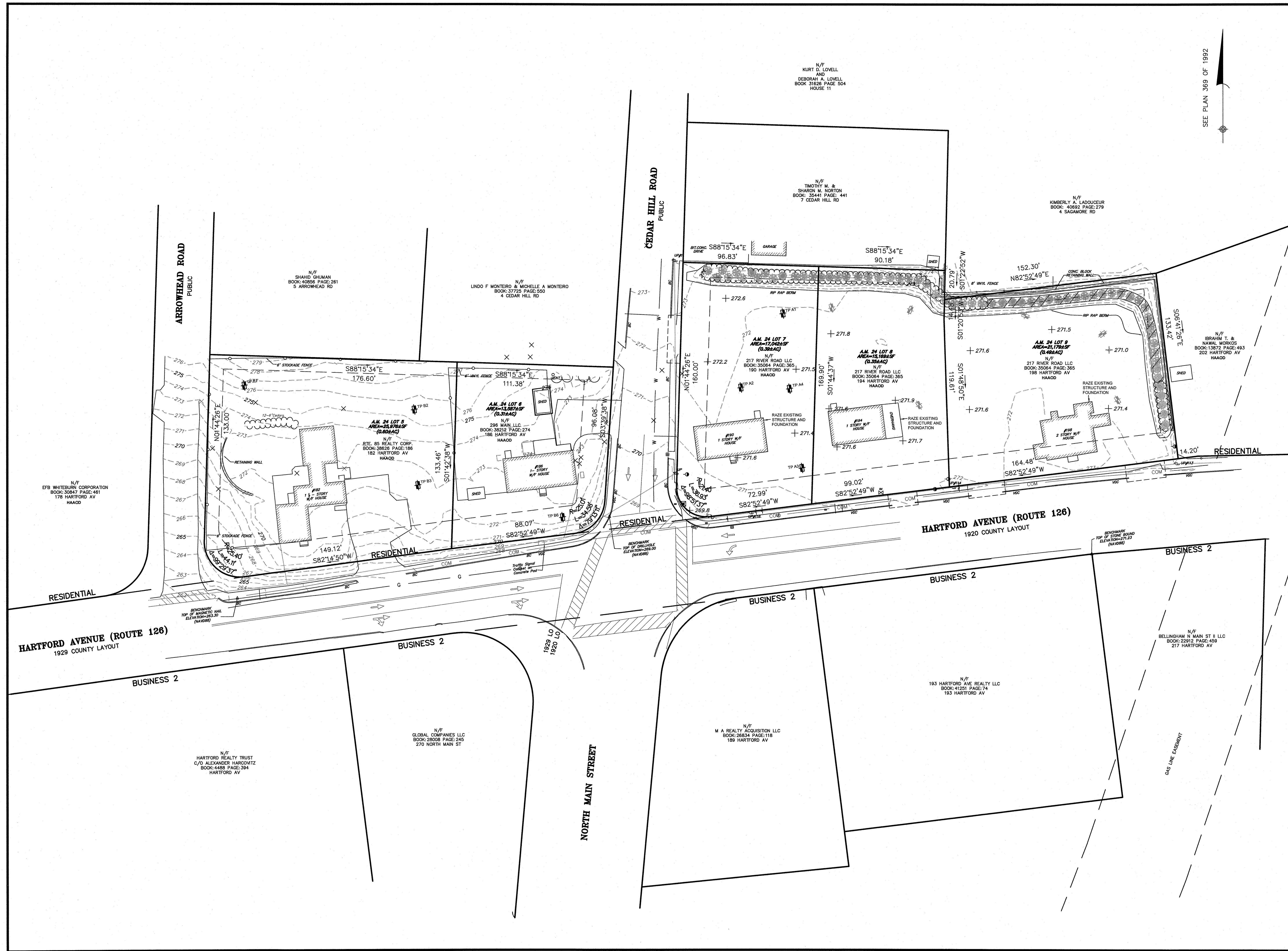
L-201

REVISION 1 - 07/01/2025

THIS PLAN TO BE UTILIZED  
FOR LIGHTING PURPOSES  
ONLY

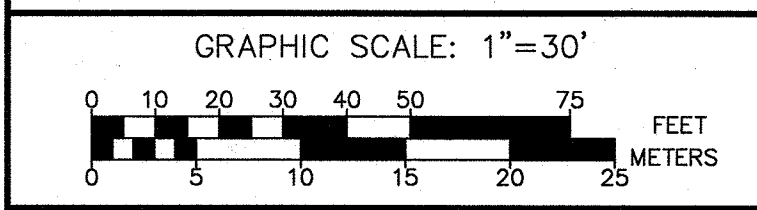






NOTES  
1) SEE THE FOLLOWING PLANS RECORDED AT THE NORFOLK DISTRICT REGISTRY OF DEEDS-  
PLAN 71 OF 1996  
PLAN 591 OF 1992  
PLAN 369 OF 1992  
PLAN 796 OF 1987  
PLAN 328 OF 1985  
2) THE VERTICAL DATUM IS NAVD88.

EXISTING CONDITIONS  
PLAN OF LAND  
182-198 HARTFORD AVENUE  
BELLINGHAM, MASS.  
SCALE: 1"=30'  
DATE: FEBRUARY 10, 2025



Guerriere & Hainon, Inc.  
ENGINEERING & LAND SURVEYING  
333 WEST STREET PH. (508) 473-6630  
MILFORD, MA 01757 FX. (508) 473-8243  
www.gandengineering.com