

BISHOPS LANE

DEFINITIVE SUBDIVISION PLAN

ASSESSORS MAP 70 LOTS 20 AND 22 HINGHAM, MASSACHUSETTS

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C1.1	COVER / INDEX
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C5.1	GRADING/LOT DEVELOPMENT PLAN
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PROJECT AREA MAP
SCALE: 1"=200'

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GENERAL NOTES:

- THE APPLICANT SHALL BEAR THE RESPONSIBILITY TO SEE THAT ANY INCONSISTENCIES WITH THE PLAN AND DECISIONS OF OTHER STATE OR LOCAL AGENCIES OR BOARDS ARE RESOLVED.
- THE APPLICANT SHALL COMPLETE ALL WORK SHOWN ON THE PLAN, INCLUDING ALL WAYS, DRAINAGE FACILITIES, AND UTILITIES, WITHIN TWO YEARS OF THE DATE OF ENDORSEMENT OF THE PLAN OR THIS APPROVAL OF THE PLAN SHALL BE NULL AND VOID, UNLESS, AT THE REQUEST OF THE APPLICANT, THE PLANNING BOARD EXTENDS THE TIME FOR PERFORMANCE OF SUCH WORK.
- THE ROADWAY, DRAINAGE FACILITIES, AND OTHER UTILITIES WITHIN THE EXTENDED SUBDIVISION ROAD SHALL REMAIN PRIVATE AND THE MAINTENANCE, REPAIR AND IMPROVEMENT THEREOF SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND/OR THE OWNERS OF THE LOTS WITHIN THE SUBDIVISION. SUCH OBLIGATION SHALL BE SET FORTH IN A DECLARATION OF EASEMENTS, RESTRICTIONS AND COVENANTS RUNNING WITH THE LAND (THE "DECLARATION"), A FINAL VERSION WHICH SHALL BE REVIEWED AND APPROVED BY THE PLANNING BOARD PRIOR TO ENDORSEMENT OF THE PLAN AND TO BE RECORDED WITH THE PLAN.
- THIS SUBDIVISION PLAN IS SUBJECT TO THE CONDITIONS SET FORTH IN A CERTIFICATE OF ACTION, DATED _____, ISSUED BY THE HINGHAM PLANNING BOARD AND TO BE RECORDED WITH THIS SUBDIVISION PLAN.
- ALL WORK MUST BE IN COMPLIANCE WITH THE TOWN OF HINGHAM SUBDIVISION RULES AND REGULATIONS AS AMENDED THROUGH SEPTEMBER 11, 2018 EXCEPT AS WAIVED HEREIN.

PLANNING BOARD WAIVER REQUESTS:

ALL WORK MUST BE CONSTRUCTED IN COMPLIANCE WITH SECTION 5 OF THE PLANNING BOARD RULES AND REGULATIONS AS AMENDED THROUGH AUGUST 18, 2014, EXCEPT AS WAIVED HEREIN:

- SECTION 4 - G - SIDEWALKS
REQUEST TO WAIVE SIDEWALK REQUIREMENT
ALLOW NO PROPOSED SIDEWALK
- SECTION 5 - B4, STREET TREES
REQUEST TO WAIVE 50' ON CENTER SPACING REQUIREMENT FOR STREET TREES.
ALLOW STREET TREES TO BE PLANTED ONLY IN FEASIBLE LOCATIONS SHOWN ON THE PLAN (REFER SHEET C5.1)

RECORD OWNER:
ASSESSORS MAP 70 LOTS 20 AND 22
YOUNG FAMILY TRUST
DEED BOOK 51869 PAGE 119
DEED BOOK 48690 PAGE 288

PLAN REFERENCES:
1. PLAN BOOK 3354 PAGE 436

FOR REGISTRY USE ONLY

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

DATE APPROVED: _____

DATE SIGNED: _____

THIS APPROVAL IS SUBJECT TO A COVENANT DULY EXECUTED DATED _____ RUNNING WITH THE LAND TO BE DULY RECORDED BY OR FOR THE OWNER OF THE RECORD. THE COVENANT IS RECORDED AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS, RECORDED IN BOOK _____ PAGE _____

HINGHAM TOWN CLERK

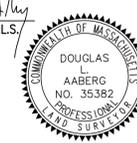
I HEREBY CERTIFY THAT THERE HAS BEEN NO APPEAL TAKEN TO THIS PLANNING BOARD ACTION DURING THE TWENTY DAY STATUTORY APPEAL PERIOD.

DATE: _____

TOWN CLERK, TOWN OF HINGHAM

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Douglas Aberg
DOUGLAS ABERG, P.L.S.
DATE: 7/14/23



REVISIONS

NO.	DATE	REVISIONS
1.	7/14/23	REVIEW COMMENTS



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DESIGNED BY: DK

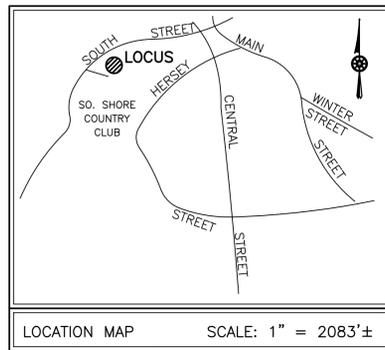
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DEFINITIVE SUBDIVISION PLAN
16 BISHOPS LANE
HINGHAM, MASSACHUSETTS
PREPARED FOR: YOUNG FAMILY TRUST
16 BISHOPS LANE
HINGHAM, MA 02043

MARCH 24, 2023
SCALE: AS NOTED
JOB No. 17-360
LATEST REVISION:
JULY 14, 2023

COVER AND INDEX
SHEET C1.1



FLOOD NOTE:
 BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, AS SHOWN ON COMMUNITY MAP No. 25023C0082J, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 2012, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

RECORD OWNER:
 ASSESSORS MAP 70 LOTS 20 AND 22
 #16 BISHOPS LANE

YOUNG FAMILY TRUST
 16 BISHOPS LANE
 HINGHAM, MA 02043
 DEED BOOK 51869 PAGE 119
 DEED BOOK 48690 PAGE 288

PLAN REFERENCE
 PLAN BOOK 3354, PAGE 436

NOTES:

- PROPERTY LINE, STREET LINE AND OWNER INFORMATION WAS COMPILED FROM RECORDS ON FILE AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS AND THE TOWN OF HINGHAM ASSESSORS DEPARTMENT.
- TOPOGRAPHY AND DETAIL INFORMATION SHOWN HEREON IS BASED UPON AN ON THE GROUND SURVEY PERFORMED BY MERRILL ENGINEERS AND LAND SURVEYORS BETWEEN DECEMBER OF 2017 AND JUNE OF 2018.
- WETLAND RESOURCE AREAS WERE DELINEATED BY ENVIRONMENTAL CONSULTING AND RESTORATION, LLC (ECR) AND FIELD LOCATED BY MERRILL ENGINEERS AND LAND SURVEYORS IN 2017 AND CONFIRMED BY ECR IN MAY 2013.
- SUBJECT SITE IS IN THE "RESIDENCE A" ZONE AS DEPICTED ON THE TOWN OF HINGHAM ZONING MAP.
- EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE AND AVAILABLE RECORD PLANS AND ARE TO BE CONSIDERED APPROXIMATE. MERRILL ENGINEERS AND LAND SURVEYORS DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.
- ALL ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.
- THE NOTATION OF THE GARDEN SHOWN HEREON IS NOT AN INDICATION OF RIGHTS INCONSISTENT WITH THOSE OF THE OWNER OF RECORD.

LEGEND

EXISTING	DESCRIPTION
— 30 —	1' CONTOUR
+30.5	SPOT ELEVATION
— EOP —	EDGE OF PAVEMENT
— CCB —	CAPE COD BERM
— —	EDGE OF GRAVEL
— — —	BRICK WALK
— — — —	RETAINING WALL
— — — —	WATER LINE
— — — —	GAS LINE
— — — —	OVERHEAD WIRE
— — — —	STONE WALL
— — — —	FENCE
100' WETLAND BUFFER	100 FT WETLAND BUFFER
50' WETLAND BUFFER	50 FT WETLAND BUFFER
△ WFA5	UPLAND
△ WFA6	WETLAND
— HYD —	HYDRANT
— WG —	WATER GATE
— GG —	GAS GATE
— GM —	GAS METER
— LP —	LIGHT
— UP —	UTILITY POLE
— SMH —	SEWER MANHOLE
— MH —	UNIDENTIFIED MANHOLE
— CB —	CATCH BASIN
— — — —	FLAG POLE
— — — —	SIGN
— MB73 —	MAILBOX

HINGHAM TOWN CLERK

I HEREBY CERTIFY THAT THERE HAS BEEN NO APPEAL TAKEN TO THIS PLANNING BOARD ACTION DURING THE TWENTY DAY STATUTORY APPEAL PERIOD.

DATE: _____
 TOWN CLERK, TOWN OF HINGHAM

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Douglas Aberg 7/14/23
 DOUGLAS ABERG, P.L.S. DATE

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED
 DATE APPROVED: _____

DATE SIGNED: _____

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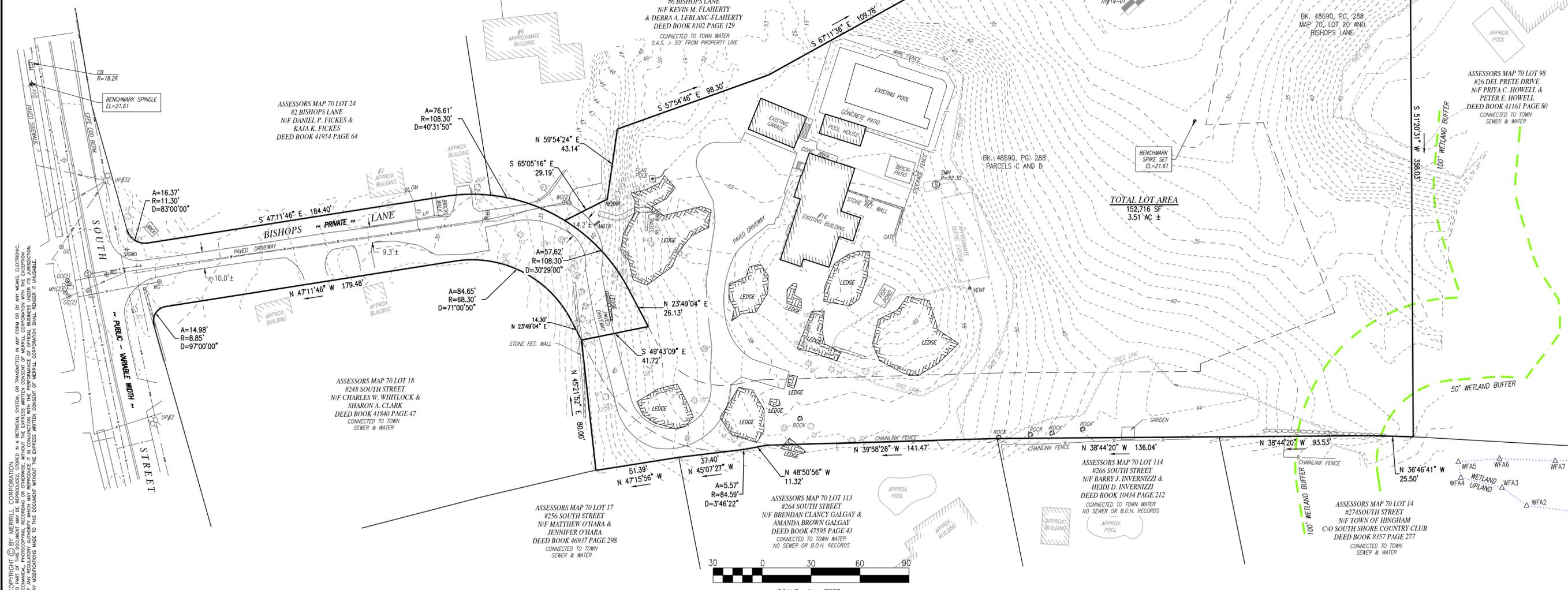
1.	7/14/23	REVIEW COMMENTS
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DRAWN BY: JG
 DESIGNED BY: DK
 CHECKED BY: DK

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 #16 BISHOPS LANE
 HINGHAM, MASSACHUSETTS
 PREPARED FOR: YOUNG FAMILY TRUST
 16 BISHOPS LANE
 HINGHAM, MA 02043

MARCH 24, 2023
 SCALE: AS NOTED
 JOB No. 17-360
 LATEST REVISION:
 JULY 14, 2023
 EXISTING CONDITIONS PLAN



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ZONING DATA

DISTRICT: RESIDENCE A

ZONING REQUIREMENTS:

LOT AREA	20,000 S.F.
LOT FRONTAGE	125'
MAX. HEIGHT	35' (2.5 STORIES)
MAX. STRUCTURE COVERAGE	N/A
FRONT SETBACK (AVG OF ADJOINING)	25'
SIDE SETBACK	15'
REAR SETBACK	15'
PARKING	2 SPACES
PERP. STALL SIZE	9' x 18'

ROADWAY DATA

ROADWAY TYPE: MINOR STREET

MINIMUM DESIGN STANDARDS:

WIDTH OF RIGHT OF WAY	46 FT
WIDTH OF TRAVELED WAY	22 FT
EDGE TREATMENT	12" CAPE CODE BERM EACH SIDE
SIDEWALK	5 FT WIDE, ONE SIDE
MINIMUM CENTERLINE RADII	200 FT
MAXIMUM CENTERLINE GRADE	8%
MINIMUM CENTERLINE GRADE	1%
MAXIMUM CURB RADIUS AT STREET INTERSECTION	30 FT
MIN. LENGTH OF TANGENT BETWEEN REVERSE CURVES	0 FT
DEPTH OF PAVEMENT	3" BASE, 1.5" TOP
SUB-BASE	24"-8" LIFTS

PROPOSED:

46 FT (PROPOSED ROADWAY)	46 FT
22 FT	22 FT
12" CAPE CODE BERM EACH SIDE	12" CAPE CODE BERM EACH SIDE
NO SIDEWALK - WAIVER REQUESTED	NO SIDEWALK - WAIVER REQUESTED
200 FT	200 FT
8%	8%
1%	1%
30 FT	30 FT
0 FT	0 FT
3" BASE, 1.5" TOP	3" BASE, 1.5" TOP
24"-8" LIFTS	24"-8" LIFTS

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Douglas Aaberg
DOUGLAS AABERG, P.L.S.



7/14/23
DATE

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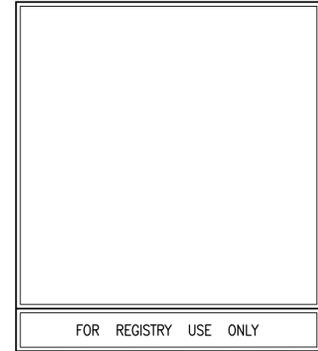
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TOWN CLERK, TOWN OF HINGHAM

HINGHAM PLANNING BOARD

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ASSESSORS MAP 70 LOT 97
#23 DEL PRETE DRIVE
N/F DAVID J. GRIFFIN &
KATHY M. GRIFFIN
DEED BOOK 13366 PAGE 311

REVISIONS

NO.	DATE	REVISION
1.	7/14/23	REVIEW COMMENTS



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MARCH 24, 2023

SCALE: AS NOTED

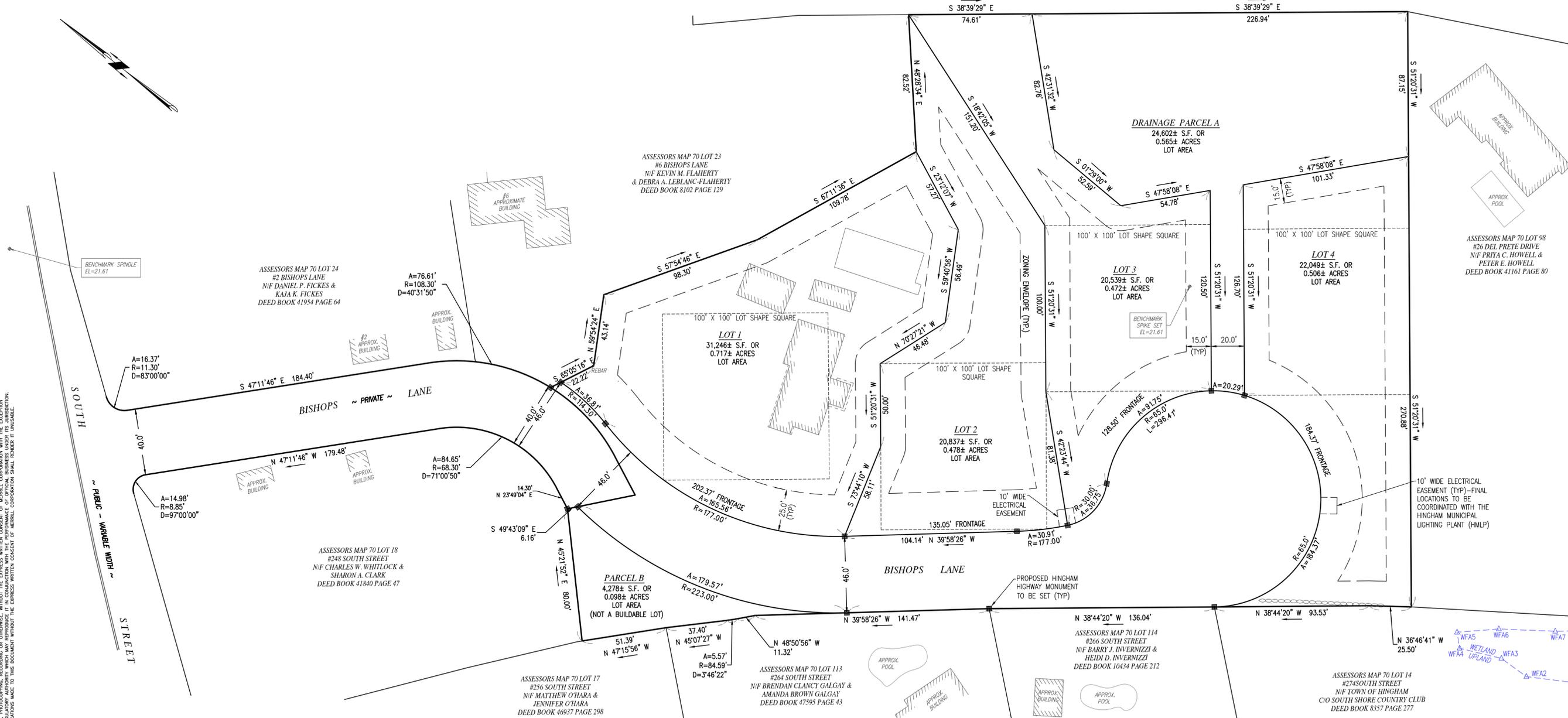
JOB No. 17-360

LATEST REVISION:
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LOTING PLAN

SHEET C3.1

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SCALE IN FEET

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ROADWAY
PLAN AND PROFILE

SHEET C4.1

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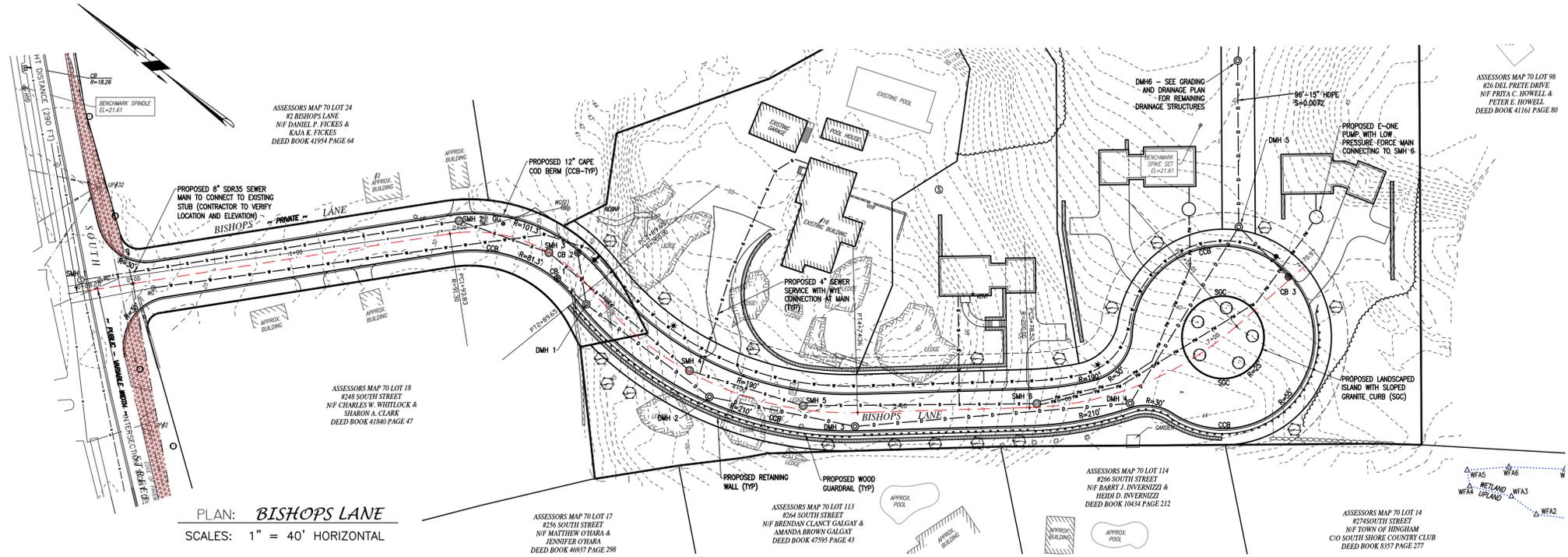
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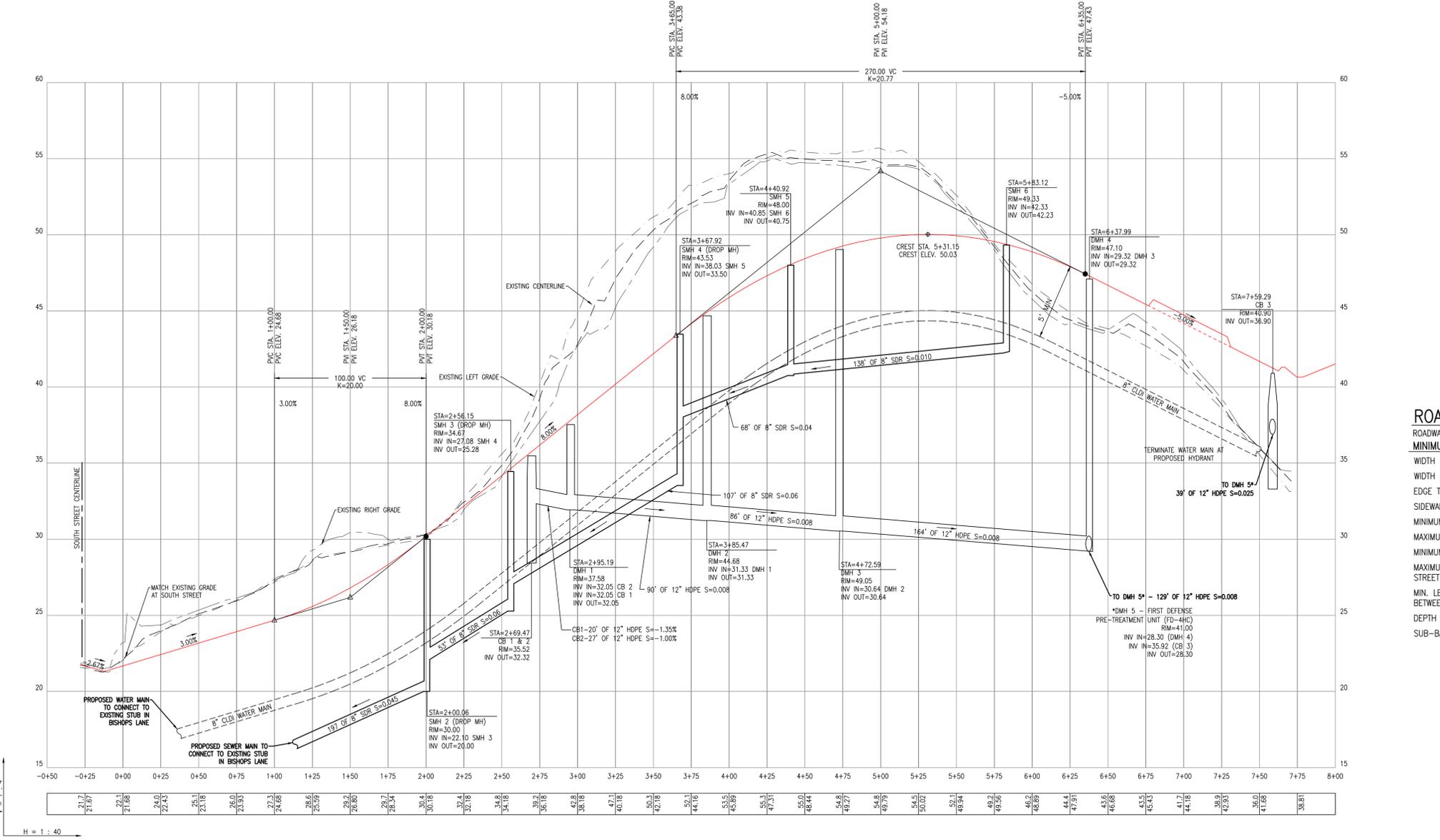
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 TOWN CLERK, TOWN OF HINGHAM

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 Douglas J. Aberg
 DOUGLAS ABERG, P.L.S.
 7/14/23
 DATE



PLAN: **BISHOPS LANE**
 SCALES: 1" = 40' HORIZONTAL



PROFILE: **BISHOPS LANE**
 SCALES: 1" = 40' HORIZONTAL
 1" = 4' VERTICAL



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MARCH 24, 2023

SCALE: AS NOTED

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GRADING / LOT
DEVELOPMENT PLAN

SHEET C5.1

HINGHAM TOWN CLERK

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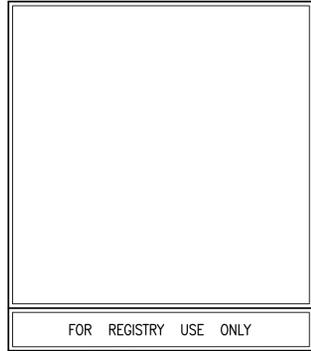
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DOUGLAS ABERG, P.L.S.

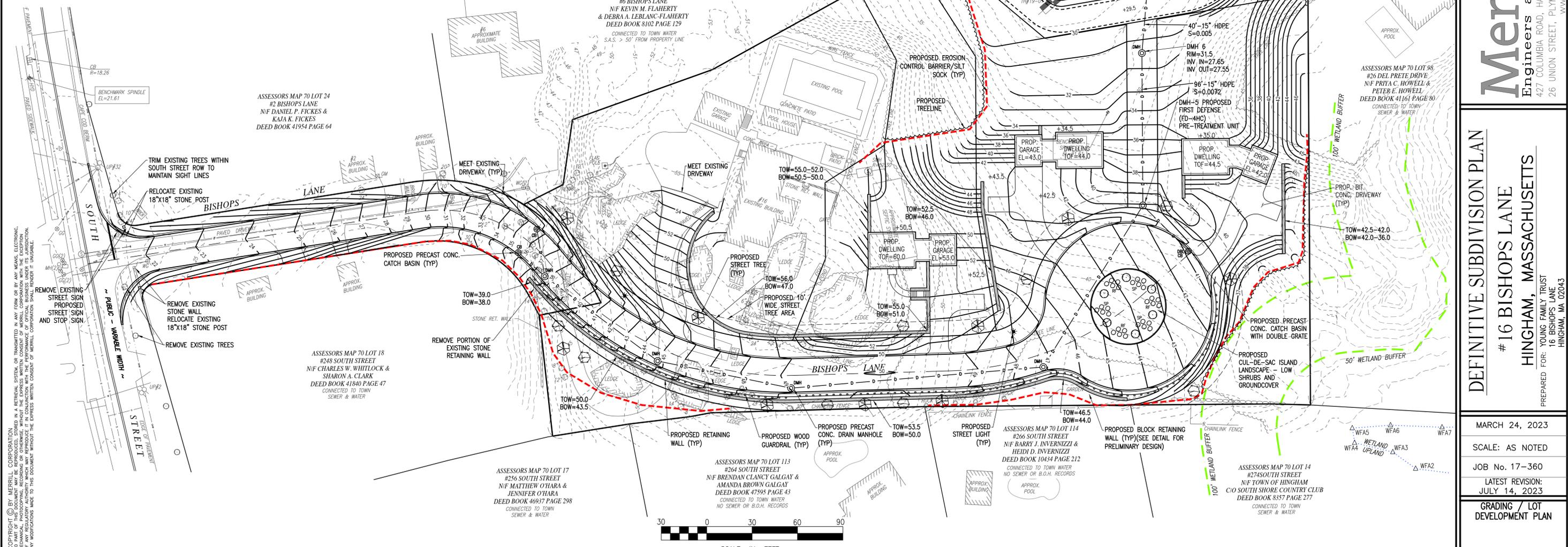
7/14/23
DATE

NOTES:

1. THE HOUSE LOCATIONS AND PROPOSED GRADING SHOWN ON THIS PLAN ARE CONCEPTUAL AND MAY CHANGE AT TIME OF INDIVIDUAL LOT DEVELOPMENT.
2. EROSION CONTROL MEASURES SHALL BE USED AT THE TIME OF INDIVIDUAL LOT DEVELOPMENT AS REQUIRED.
3. LENGTH OF NEW ROAD IS 450± FT, STREET TREE REQUIREMENT OF 18 PROPOSED STREET TREES. ALL STREET TREES SHALL BE NATURAL DECIDUOUS TREES.

LEGEND

EXISTING	DESCRIPTION	PROPOSED	DESCRIPTION
30	1' CONTOUR	8	8" C.I.D.I. WATER MAIN
+30.5	SPOT ELEVATION	+30.5	12" HDPE
EDP	EDGE OF PAVEMENT		
CCB	CAPE COD BERM		
	EDGE OF GRAVEL		
	BRICK WALK		
RET WALL	RETAINING WALL		
	WATER LINE		
	GAS LINE		
	OVERHEAD WIRE		
	STONE WALL		
	FENCE		
100' WETLAND BUFFER	100 FT WETLAND BUFFER		
50' WETLAND BUFFER	50 FT WETLAND BUFFER		
WFA5	WETLAND		
WFA6	WETLAND		
HYD	HYDRANT	W.G.	WATER GATE
WG	WATER GATE	G.G.	GAS GATE
GG	GAS GATE		GAS METER
GM	GAS METER		LIGHT
LP	LIGHT		UTILITY POLE
UP	UTILITY POLE	SMH	SEWER MANHOLE
SMH	SEWER MANHOLE	DMH	UNIDENTIFIED MANHOLE
MH	UNIDENTIFIED MANHOLE	CB	CATCH BASIN
CB	CATCH BASIN		FLAG POLE
SIGN	SIGN		MAILBOX
MB73	MAILBOX		TREE/SHRUB
	TREE/SHRUB		CLEANOUT
	CLEANOUT		VERTICAL CONCRETE CURB
	VERTICAL CONCRETE CURB		CAPE COD BERM
	CAPE COD BERM		SLOPED GRANITE CURB
	SLOPED GRANITE CURB		



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WATER NOTES:

- ALL WATER SYSTEM MATERIALS SHALL BE AS PER TOWN WATER DEPARTMENT SPECIFICATIONS (LATEST VERSION).
- WATER MAINS TO BE DUCTILE IRON PIPE, CLASS 52 CONFORMING TO AWWA C150 AND AWWA C151, PUSH ON TYPE JOINTS WITH GASKETS CONFORMING TO AWWA C111, DOUBLE CEMENT LINES INSIDE CONFORMING TO AWWA C104, AND ASPHALT SEAL COATED OUTSIDE (CONFORMING TO AWWA 203), IN AREAS WHERE GROUNDWATER LEVELS ARE ABOVE THE PIPE LAYING DEPTH, FURNISH AND INSTALL POLYETHYLENE ENCASEMENT ("Y-BIO" ENHANCED POLYETHYLENE ENCASEMENT AS MANUFACTURED BY THE DUCTILE-IRON PIPE RESEARCH ASSOCIATION).
- ALL PIPE FITTINGS SHALL BE DUCTILE IRON, CLASS 350 MECHANICAL JOINT CONFORMING TO AWWA C153. ALL FITTINGS SHALL BE RESTRAINED WITH SERIES 1100 MEGALUG AS MANUFACTURED BY EBAA IRON, OR APPROVED EQUAL.
- ALL GATE VALVES SHALL BE RESILIENT WEDGE SEATED VALVES CONFORMING TO AWWA C509 (MUELLER CO 2360 SERIES OR APPROVED EQUAL). VALVES SHALL HAVE CORROSION RESISTANT FUSION - BONDED INTERIOR AND EXTERIOR COATINGS. VALVES ARE TO HAVE DOUBLE O RING SEALS, A NON-RISING STEM, 2 INCH OPERATING NUT, AND BE OPEN "RIGHT" (CLOCKWISE TO OPEN). AN ARROW INDICATING THE OPENING POSITION SHALL BE CAST INTO THE OPERATING NUT.
- VALVE BOXES SHALL BE CAST IRON, ASPHALT COATED, SLIDING TYPE, ADJUSTABLE, TOGETHER WITH CAST IRON COVERS WITH THE WORD "WATER" PLAINLY CAST IN RELIEF ON THE TOP SURFACE. A MINIMUM 6" OVERLAP IS REQUIRED BETWEEN SLIDING SECTIONS. THE INSIDE DIAMETER OF THE BOTTOM SECTION SHALL BE AT LEAST 5-1/4 INCHES AND SHALL HAVE A BELLED BASE. THE TOP SECTION SHALL BE AT LEAST 6-1/8 INCHES AND HAVE TOP FLANGES. THE BOTTOM SECTION SHALL BE AT LEAST 36 INCHES IN LENGTH. THE TOP SECTION SHALL BE AT LEAST 26 INCHES IN LENGTH AND HAVE A PLAIN BOTTOM.
- TAPPING SLEEVES AND VALVES SHALL HAVE RESILIENT WEDGE GATE VALVES AS SPECIFIED ABOVE WITH THE FOLLOWING EXPECTATIONS. TAPPING SLEEVE SHALL BE MUELLER CO. STAINLESS STEEL TAPPING SLEEVE MODEL H-304SS. SLEEVES SHALL MEET ANSI/NSF 61 STANDARDS. SLEEVE OUTLET SHALL HAVE A 3/4" TESTING PORT WITH A 3/4" SPT BRASS TEST PLUG. TAPPING VALVES SHALL BE FULL PORT OPENING AND ABOVE SPECIFIED.
- HYDRANTS SHALL BE MUELLER SUPER CENTURION A-423, CONFORMING TO AWWA C502 (DRY BARREL HYDRANTS) AND PAINTED RED. FIRE HYDRANTS SHALL HAVE MECHANICAL JOINT SHOES, 5"-6" BURY (STREET LEVEL SHOULDER AREAS) OR 6"-0" BURY (RAISED SIDEWALK) AND MARKED WITH AN ARROW AND THE WORD "OPEN" TO INDICATE THE DIRECTION TO TURN THE STEM TO OPEN THE HYDRANT. HYDRANTS SHALL OPEN RIGHT (CLOCKWISE TO OPEN).
- CURB STOP BOXES SHALL BE CAST IRON ERIE TYPE WITH RECESSED LID WITH PENTAGON BOLT AND THE WORD "WATER" CAST ON TOP, AND ADJUSTABLE SLIDING TYPE WITH ARCH PATTERN. CURB STOP BOXES SHALL BE DOMESTICALLY MANUFACTURED BY MUELLER OR BINGHAM AND TAYLOR.
- DUCTILE IRON PIPE AND FITTINGS SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH REQUIREMENTS OF AWWA C600, LATEST EDITION. WATER MAINS SHALL HAVE A MINIMUM OF FIVE FEET OF COVER. PRESSURE TESTING SHALL CONSIST OF 200 PSI FOR 10 MINUTES AND 150 PSI FOR 2 HOURS.
- THE MINIMUM VERTICAL AND HORIZONTAL SEPARATION MUST BE MAINTAINED FOR ALL WATER LINES AND OTHER UTILITIES: 18 INCHES VERTICAL (WATER LINE 18-INCHES ABOVE) AND 10 FEET HORIZONTAL.
- AT NO TIME SHALL A WATER MAIN OR SERVICE BE INSTALLED GREATER THAN 8 FEET BELOW FINISHED GRADE.
- WATER MAINS SHALL NOT BE INSTALLED BELOW CONCRETE PADS AND CONCRETE SIDEWALKS AND OR LANDSCAPED ISLANDS SHALL BE AVOIDED WHENEVER POSSIBLE.

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Douglas Aberg
DOUGLAS ABERG, P.L.S.

7/14/23
DATE

HINGHAM TOWN CLERK

I HEREBY CERTIFY THAT THERE HAS BEEN NO APPEAL TAKEN TO THIS PLANNING BOARD ACTION DURING THE TWENTY DAY STATUTORY APPEAL PERIOD.

DATE: _____

TOWN CLERK, TOWN OF HINGHAM

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

DATE APPROVED: _____

DATE SIGNED: _____

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FOR REGISTRY USE ONLY

REVISIONS

1.	7/14/23	REVIEW COMMENTS
----	---------	-----------------

DEBORAH W. KELLER
CIVIL
No. 45574
REGISTERED
PROFESSIONAL ENGINEER

Deborah W. Keller

DRAWN BY: JG
DESIGNED BY: DK
CHECKED BY: DK

Merrill
Engineers and Land Surveyors

427 COLUMBIA ROAD, HANOVER, MA 02339 / T: (781) 826-9200
26 UNION STREET, PLYMOUTH MA 02360 / T: (508) 746-6060
WWW.MERRILLINC.COM

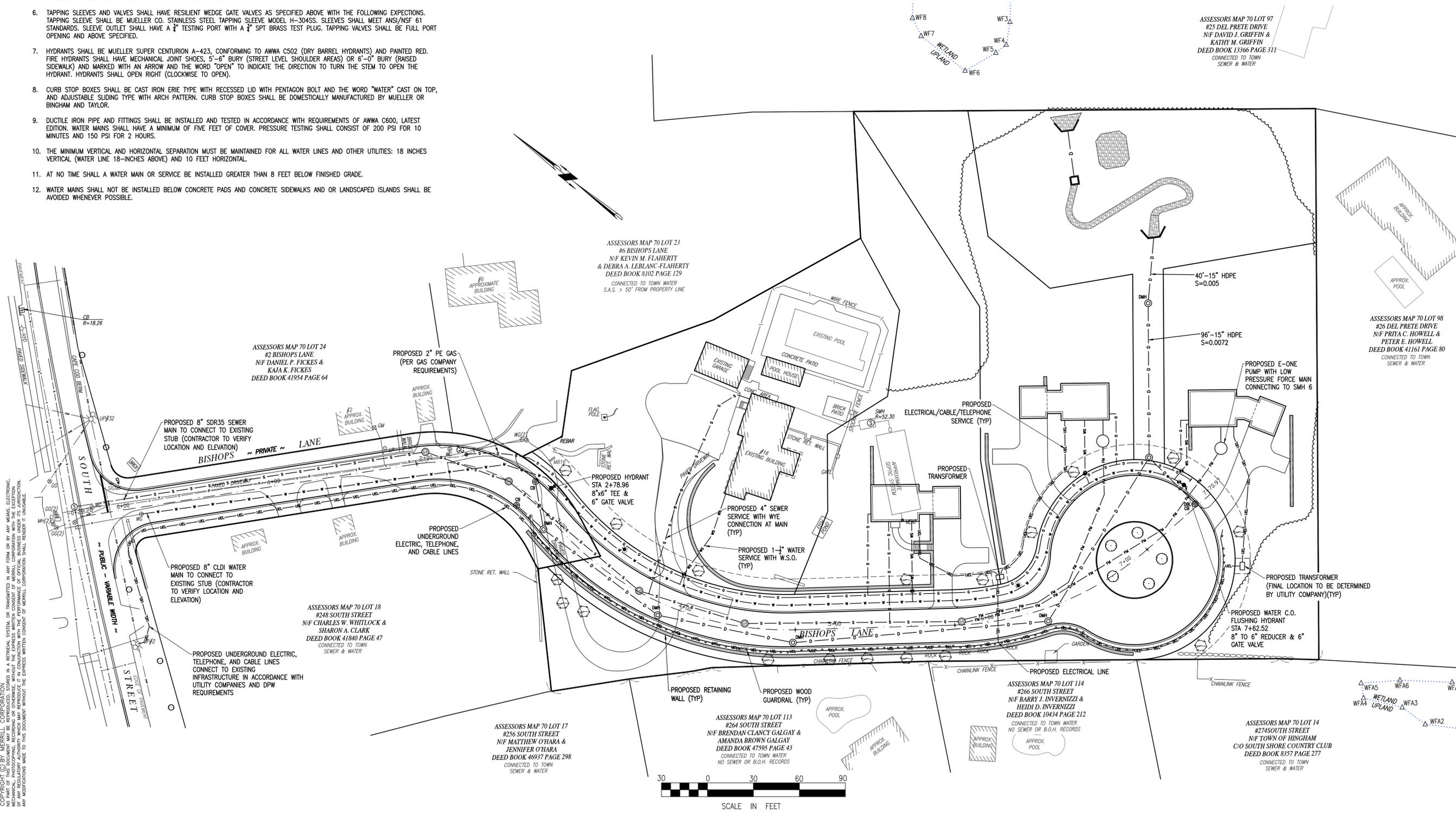
DEFINITIVE SUBDIVISION PLAN

#16 BISHOPS LANE
HINGHAM, MASSACHUSETTS

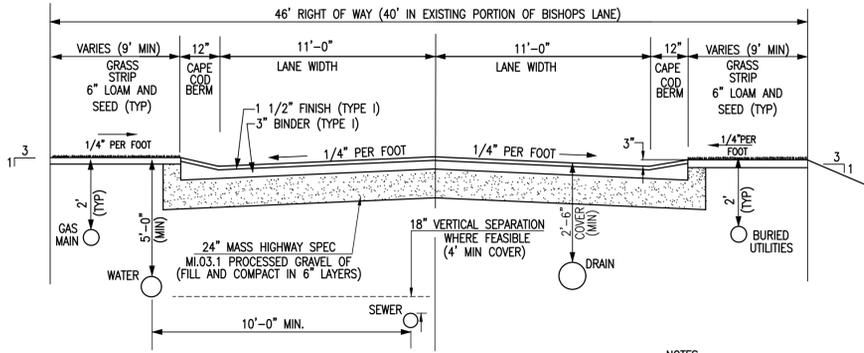
PREPARED FOR: YOUNG FAMILY TRUST
16 BISHOPS LANE
HINGHAM, MA 02043

MARCH 24, 2023
SCALE: AS NOTED
JOB No. 17-360
LATEST REVISION:
JULY 14, 2023

UTILITY PLAN
SHEET C6.1

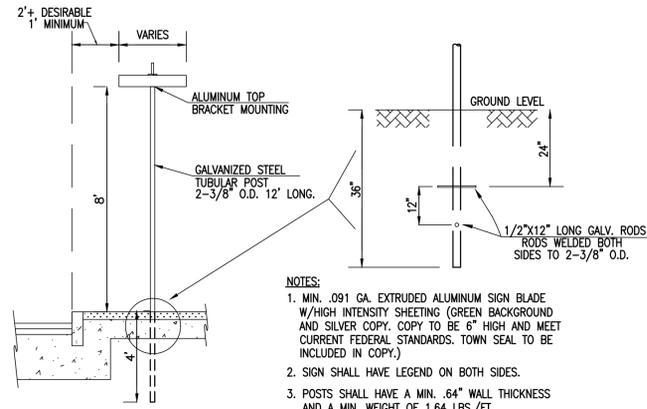


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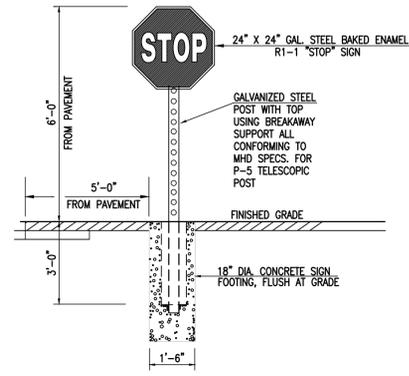
TYPICAL ROADWAY SECTION (PRIVATE LOCAL ROADWAY)
(NOT TO SCALE)

NOTES:
1. WATER AND SEWER WILL BE SEPARATED 10' MIN HORIZONTALLY WHERE FEASIBLE



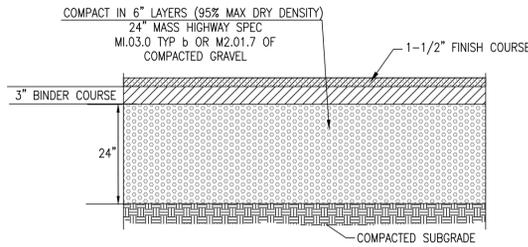
STREET SIGN DETAIL
(NOT TO SCALE)

NOTES:
1. MIN. .091 GA. EXTRUDED ALUMINUM SIGN BLADE W/HIGH INTENSITY SHEETING (GREEN BACKGROUND AND SILVER COPY. COPY TO BE 6" HIGH AND MEET CURRENT FEDERAL STANDARDS. TOWN SEAL TO BE INCLUDED IN COPY.)
2. SIGN SHALL HAVE LEGEND ON BOTH SIDES.
3. POSTS SHALL HAVE A MIN. .64" WALL THICKNESS AND A MIN. WEIGHT OF 1.64 LBS./FT.
4. STREET SIGNS ARE REQUIRED TO BE INSTALLED BY THE DEVELOPER, FOLLOWING THE INSTALLATION OF THE BASE COURSE OF THE ROADWAY.
5. ALL SIGNS SHALL BE MAINTAINED BY THE DEVELOPER UNTIL ALL WAYS ARE ACCEPTED BY THE TOWN.
6. STREET SIGN SHALL BE INSTALLED SO AS TO NOT CAUSE A SIGHTLINE CONCERN.



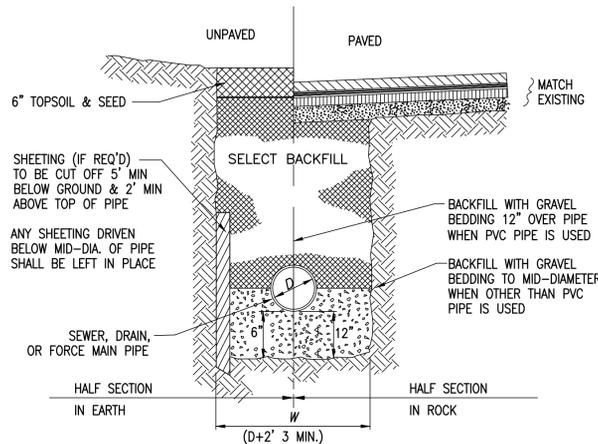
STOP SIGN DETAIL
(NOT TO SCALE)

NOTE:
1. ALL SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS.



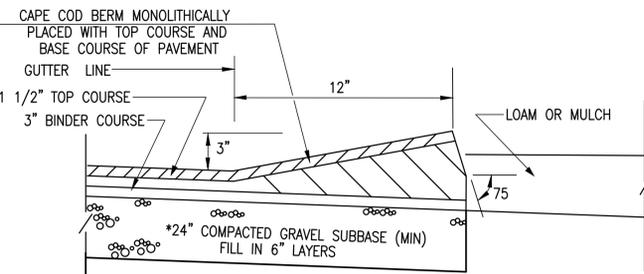
NOTE:
1. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH CLEAN GRAVEL BASE (95% COMPACTION)
2. ALL DRIVEWAY AND PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS SPECIFICATIONS.

BITUMINOUS CONCRETE PAVEMENT
(NOT TO SCALE)



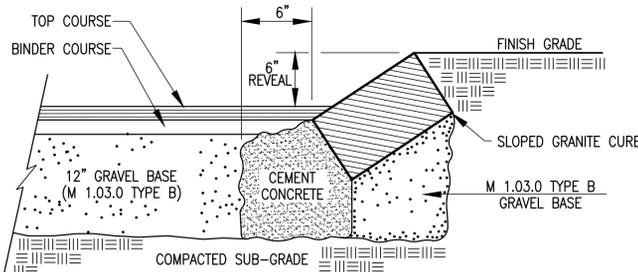
TYPICAL UTILITY TRENCH
(NOT TO SCALE)

1. HDPE DRAIN PIPE JOINTS SHALL BE SEALED BY USE OF APPROVED RUBBER GASKETS.

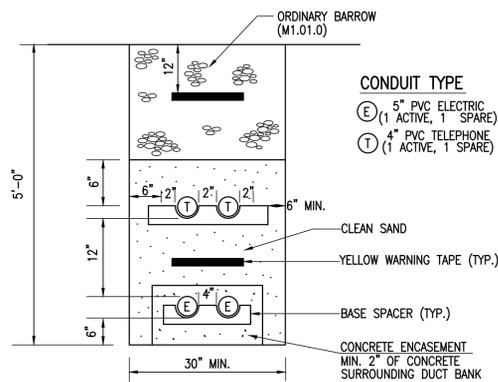


CAPE COD BERM DETAIL
(NOT TO SCALE)

*IF THE IN-SITU MATERIAL IS TO BE USED FOR THE SUBBASE IT SHALL MEET THE MASS HIGHWAY SPEC. M1.03.0 TYPE b OR M2.01.7

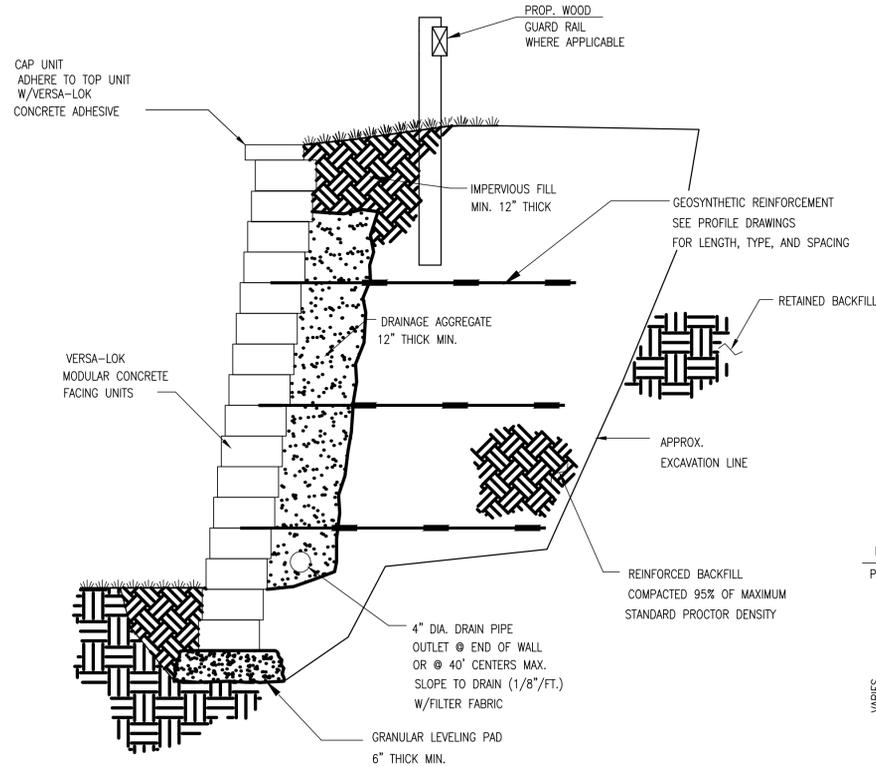


SLOPED GRANITE CURB
(NOT TO SCALE)



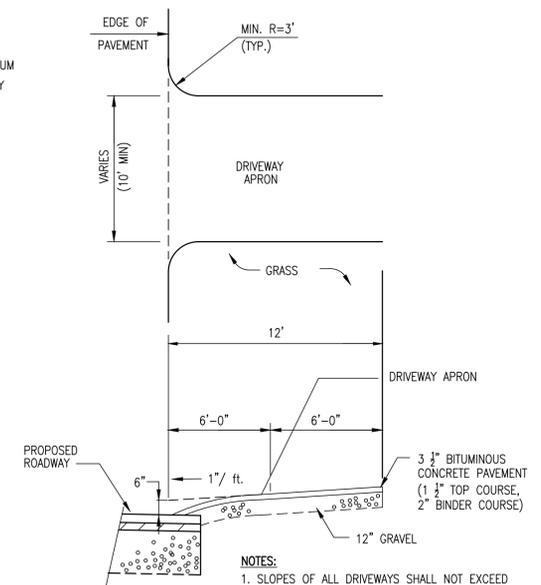
NOTE:
ELECTRIC/TELEPHONE/CABLE LOCATIONS AND DETAILS SHOWN ON THIS PLAN SET ARE NOT INTENDED FOR CONSTRUCTION PURPOSES. INDIVIDUAL UTILITY PROVIDERS SHALL BE RESPONSIBLE FOR THE DESIGN OF THE ACTUAL INFRASTRUCTURE INCLUDING LOCATIONS OF HANDHOLES, VAULTS, ETC. THE CONTRACTOR SHALL COORDINATE INSTALLATION WITH UTILITY PROVIDERS AND THE TOWN OF HINGHAM DPW.

COMMON TRENCH DETAIL
ELECTRIC/TELEPHONE/FIRE ALARM/CABLE
NOT TO SCALE



NOTE:
DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. STAMPED FINAL DESIGN OF MODULAR WALL SYSTEM TO BE PROVIDED BY WALL MANUFACTURER BASED ON GEOTECHNICAL ENGINEERS RECOMMENDATIONS PRIOR TO CONSTRUCTION

REINFORCED BLOCK RETAINING WALL DETAIL
(NOT TO SCALE)



NOTES:
1. SLOPES OF ALL DRIVEWAYS SHALL NOT EXCEED 10% WITHIN 75 FEET OF STREET LINE.

DRIVEWAY APRON DETAIL
(NOT TO SCALE)

HINGHAM PLANNING BOARD

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Douglas Aberg
DOUGLAS ABERG, P.L.S. 7/14/23
DATE

REVISIONS

NO.	DATE	DESCRIPTION
1.	7/14/23	REVIEW COMMENTS



DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK

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DEFINITIVE SUBDIVISION PLAN
#16 BISHOPS LANE
HINGHAM, MASSACHUSETTS
PREPARED FOR: YOUNG FAMILY TRUST
16 BISHOPS LANE
HINGHAM, MA 02043

MARCH 24, 2023

SCALE: AS NOTED

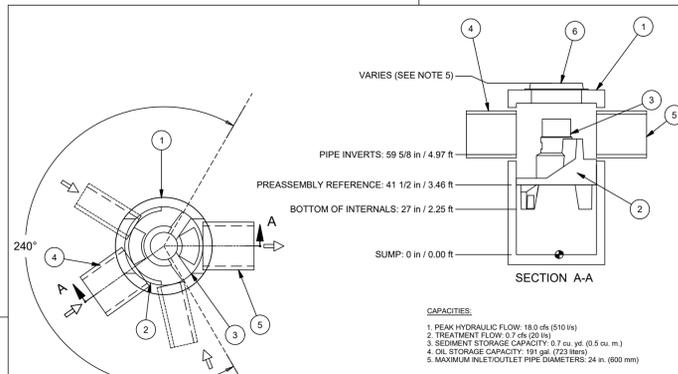
JOB No. 17-360

LATEST REVISION:
JULY 14, 2023

CONSTRUCTION
DETAIL PLAN

SHEET C7.1

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Notes

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

REVISION HISTORY

NO.	DATE	DESCRIPTION
1	11/25/14	Scale 1/4" = 10"

Scale 1/4" = 10"

Drawn RC **Checked** **Approved**

Title
4-FT DIAMETER FIRST DEFENSE

Hydro International

Stormwater Solutions
94 Mulhills Drive
Portland, Maine 04102
Tel: (207) 756-6200
Fax: (207) 756-6212
stormwaterinquiry@hydro-int.com

CAD Ref: F-4HC-MAX
Project No. xx-xxxx
Drawing No. F-4HC-S1 Rev. A

Part List

ITEM	SIZE (in)	DESCRIPTION
1	48	1-D. PRECAST MANHOLE
2		LEDGER SUPPORT
3		SEPARATION MODULE
4	12	INLET PIPE (BY OTHERS)
5	18	OUTLET PIPE (BY OTHERS)
6	30	FRAME AND COVER (ROUND)

Capacities:

1. PEAK HYDRAULIC FLOW: 18.0 cfs (510 l/s)
2. TREATMENT FLOW: 0.7 cfs (20 l/s)
3. SEDIMENT STORAGE CAPACITY: 0.7 cu. yd. (0.5 cu. m.)
4. OIL STORAGE CAPACITY: 181 gal. (723 liter)
5. MAXIMUM INLET/OUTLET PIPE DIAMETERS: 24 in. (600 mm)

GENERAL NOTES:

1. General arrangement drawings only. Contact Hydro International for site specific fabrication drawings.
2. The diameter of the inlet & outlet pipes may be no more than 24".
3. Multiple inlet pipes possible (refer to project plans).
4. Inlet/outlet pipe angle can vary to align with drainage network (refer to project plans).
5. Peak flow rate and minimum height limited by available cover and pipe diameter.
6. Larger sediment storage capacity may be provided with a deeper sump depth.

PRODUCT SPECIFICATIONS:

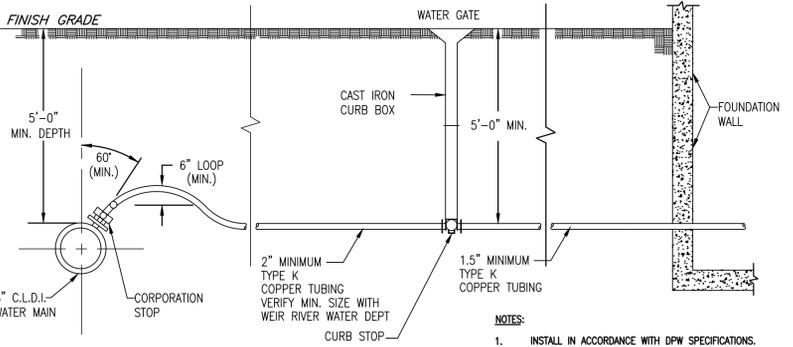
- The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
- The treatment system shall fit within the limits of excavation (size and depth) as shown in the project plans and will not exceed the dimensions for the design flow rates specified herein.
- The treatment system shall convey greater than or equal to 95% of TSS based on the Target Particle Size (TPS) of 106 microns and/or 80% of TSS based on the TPS of 250 microns at 0.7 cfs and 1.2 cfs, respectively.
- The treatment system shall convey the Peak Overbank Flow Rates of up to 18.0 cfs without causing upstream surcharge conditions. Full scale independent laboratory scour testing shall demonstrate effluent control of less than or equal to 5 mg/L for all flows up to 200% of WQV 100.
- The treatment system shall be capable of capturing and retaining the silt and sand size particles. Analysis of captured sediment from full-scale field installations shall demonstrate particle sizes predominantly in the 20-micron range.

Notes:

1. Inlet pipe(s) can enter anywhere within 240° arc.

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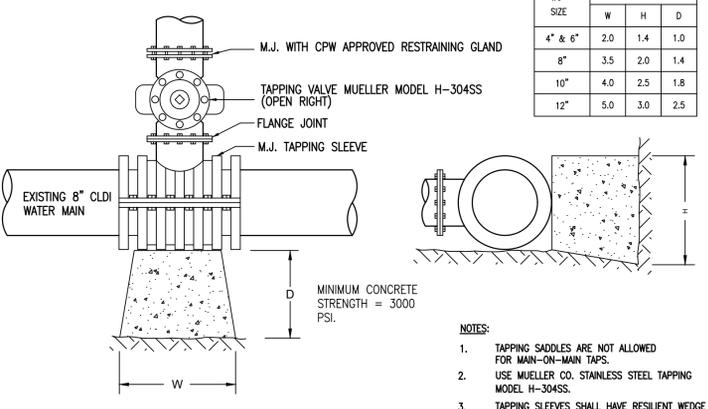
FIRST DEFENSE HIGH CAPACITY PRETREATMENT UNIT (FD-4HC) - DMH 5
(DESIGNED FOR H-20 LOADING)
(NOT TO SCALE)



WATER SERVICE DETAIL
(NOT TO SCALE)

- NOTES:**
1. INSTALL IN ACCORDANCE WITH DPW SPECIFICATIONS.
 - 1.5" SERVICE LINE REQUIRED FOR SERVICES BETWEEN 100 FT AND 150 FT IN LENGTH (SEE WEIR RIVER WATER DEPARTMENT SPECS)
 - 2" SERVICE LINE FROM MAIN TO PROPERTY FOR 1.5" CUSTOMER SERVICE.

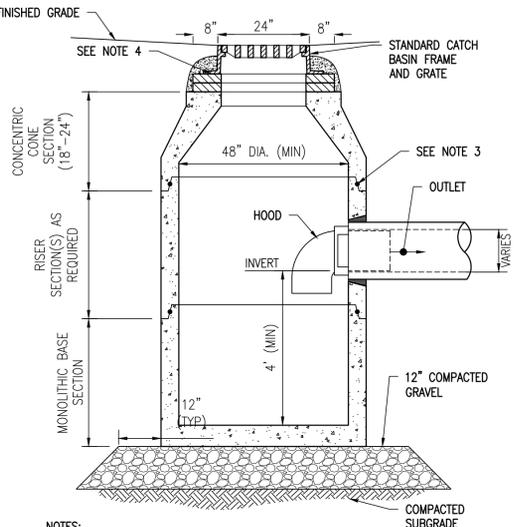
TAP SIZE	DIMENSIONS IN FEET		
	W	H	D
4" & 6"	2.0	1.4	1.0
8"	3.5	2.0	1.4
10"	4.0	2.5	1.8
12"	5.0	3.0	2.5



TAPPING SLEEVE DETAIL
(NOT TO SCALE)

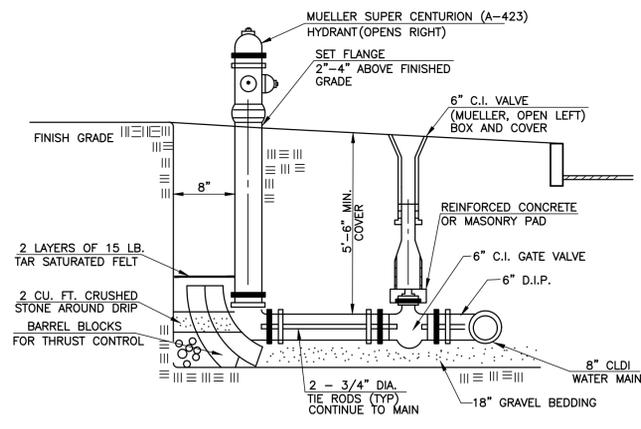
CONSULT HINGHAM WATER DEPARTMENT PRIOR TO PURCHASING ANY WATER MAIN OR SERVICE MATERIALS. COMPLETE INSTALLATION IN ACCORDANCE TO HINGHAM WATER DEPARTMENT REQUIREMENTS.

- NOTES:**
1. TAPPING SADDLES ARE NOT ALLOWED FOR MAIN-ON-MAIN TAPS.
 2. USE MUELLER CO. STAINLESS STEEL TAPPING MODEL H-304SS.
 3. TAPPING SLEEVES SHALL HAVE RESILIENT WEDGE GATE VALVES.
 4. BOLTS AND NUTS FOR ALL TAPPING SLEEVES SHALL BE 316 SS.
 5. USE THRUST BLOCKING ONLY FOR WET TAPS UNLESS OTHERWISE APPROVED BY CPW.
 6. DEPTH FROM GROUND SURFACE TO TOP OF BLOCKING SHALL BE GREATER THAN HEIGHT OF BLOCKING.
 7. THE END OF THE TAPPING SLEEVE SHALL BE NO CLOSER THAN 4 FEET TO A JOINT.
 8. SLEEVES SHALL MEET ANSI NSF 61 STANDARDS AND BE FULL PORT OPENING.



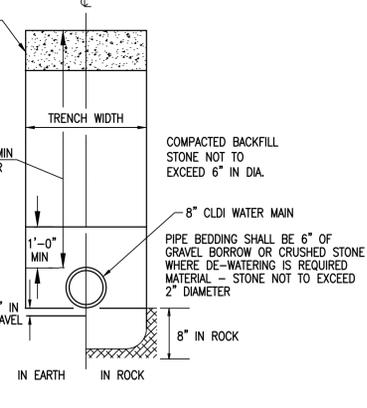
- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR. (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

PRECAST CATCH BASIN DETAIL
(NOT TO SCALE)



HYDRANT DETAIL
(NOT TO SCALE)

- NOTES:**
1. MEGA-LUGS ARE TO BE USED ON ALL TIE RODS AND MECHANICAL JOINTS
 2. CONTRACTOR SHALL VERIFY ALL WATERMAIN, SERVICE, AND APPURTENANCE PROCEDURES, FEES AND METHODS WITH HINGHAM WATER DEPARTMENT PRIOR TO PURCHASING ANY MATERIALS OR CONSTRUCTION
 3. BARRELL SECTION SHALL BE 5-1/4" DIAMETER
 4. PROVIDE TWO (2) 2-1/2" HOSE NOZZLES AND ONE (1) 4-1/2" PUMPER OUTLET.
 5. ALL COMPONENTS SHALL COMPLY WITH AWWA C502.



WATER TRENCH DETAIL
(NOT TO SCALE)

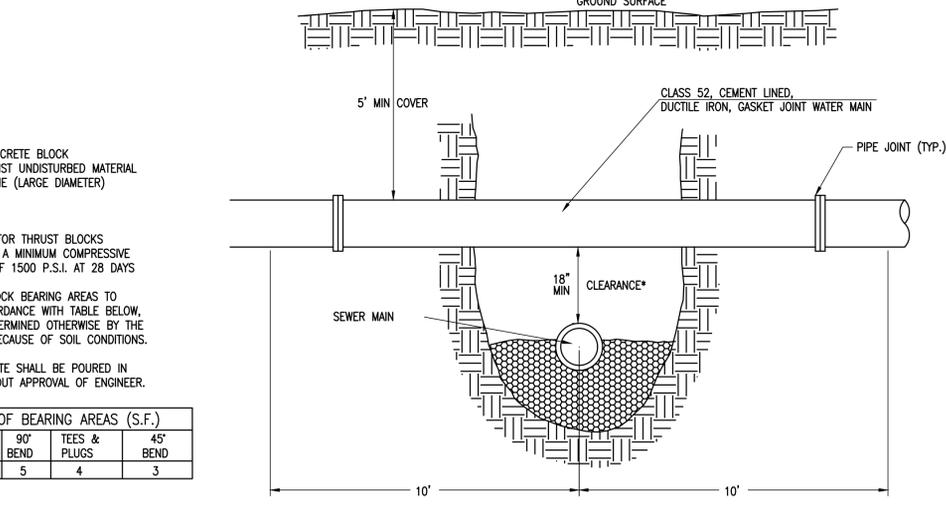


TEE-PLAN/TAPPING SLEEVE

THRUST BLOCK DETAILS
(NOT TO SCALE)

TABLE OF BEARING AREAS (S.F.)

SIZE OF MAIN (IN)	90° BEND	TEES & PLUGS	45° BEND
8	5	4	3

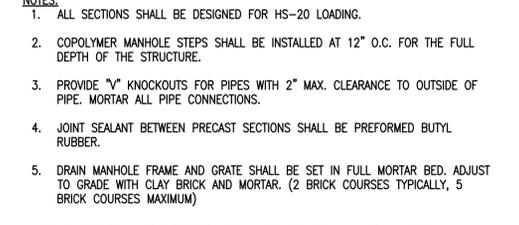


TYPICAL WATER CROSSING
(NOT TO SCALE)

- NOTE:**
1. CONCRETE FOR THRUST BLOCKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1500 P.S.I. AT 28 DAYS
 2. THRUST BLOCK BEARING AREAS TO BE IN ACCORDANCE WITH TABLE BELOW, UNLESS DETERMINED OTHERWISE BY THE ENGINEER BECAUSE OF SOIL CONDITIONS.
 3. NO CONCRETE SHALL BE POURED IN PLACE WITHOUT APPROVAL OF ENGINEER.

PRECAST CONCRETE MANHOLE DETAIL
(NOT TO SCALE)

- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 3. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 5. DRAIN MANHOLE FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR. (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)



HINGHAM TOWN CLERK

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DATE: _____

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Douglas Aberg, P.L.S.
DOUGLAS ABERG, P.L.S.

7/14/23
DATE

HINGHAM PLANNING BOARD

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APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

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DATE SIGNED: _____

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REVISIONS

NO.	DATE	REVISION
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DRAWN BY: JG
DESIGNED BY: DK
CHECKED BY: DK

Merrill Engineers and Land Surveyors
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WWW.MERRILLINC.COM

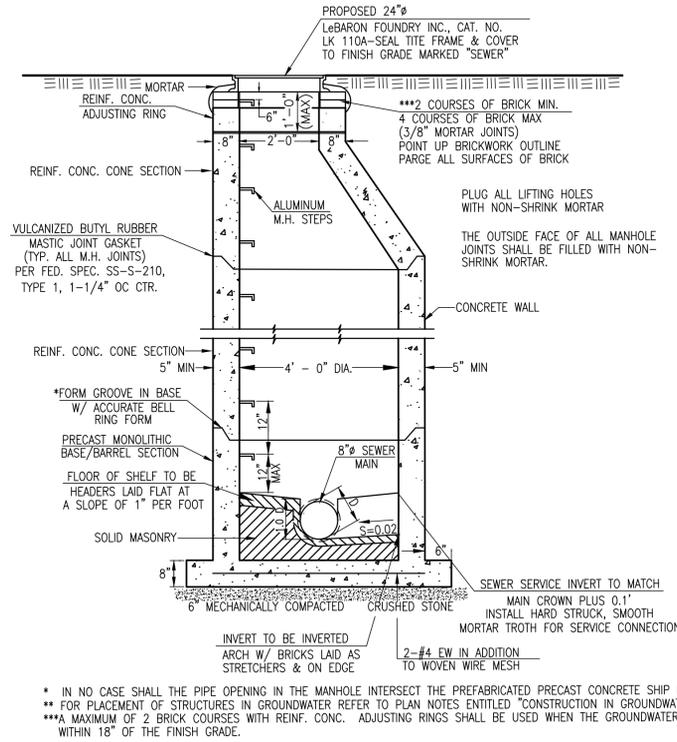
DEFINITIVE SUBDIVISION PLAN
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HINGHAM, MA 02043

MARCH 24, 2023
SCALE: AS NOTED
JOB No. 17-360
LATEST REVISION:
JULY 14, 2023

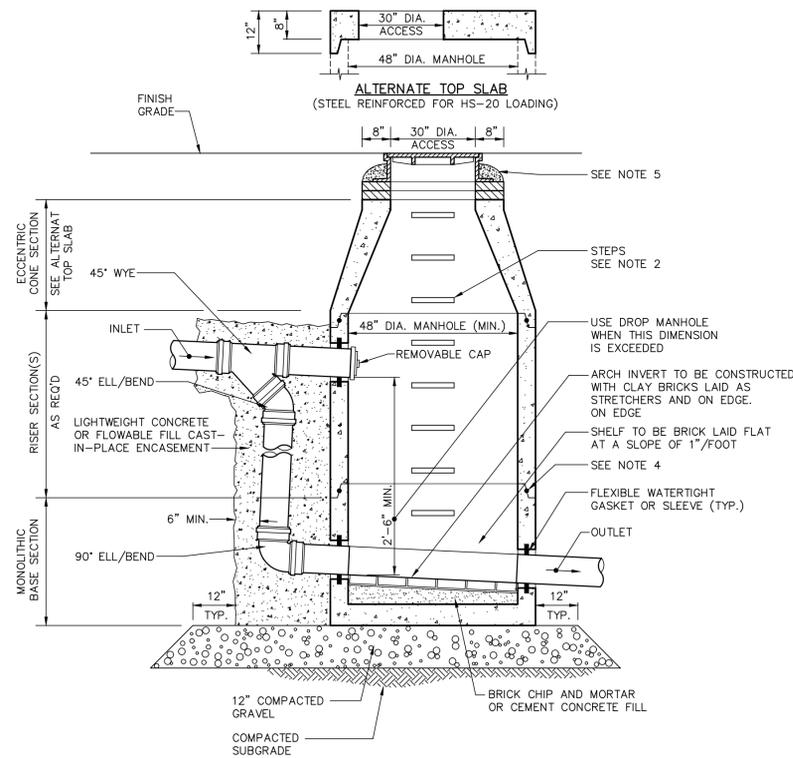
CONSTRUCTION DETAIL PLAN
SHEET C7.2

SEWER NOTES

1. ALL SEWERAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH STATE PLUMBING CODE AND HINGHAM SEWER COMMISSION REQUIREMENTS. THE SEWER SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED.
2. THE APPLICANT FOR THE BUILDING SEWER PERMIT SHALL NOTIFY THE COMMISSION AND DPW AT LEAST 48 HOURS PRIOR TO THE START OF AN APPROVED SEWER CONNECTION. THE APPLICANT SHALL CONNECT ALL SANITARY SEWER DISCHARGES TO THE BUILDING SEWER AND THE CONNECTION TO THE SANITARY SEWER SHALL BE MADE UNDER THE SUPERVISION OF HINGHAM DPW AND HINGHAM SEWER COMMISSION CONSTRUCTION SPECIFICATIONS.
3. THE ACCURACY OF EXISTING UTILITY LOCATIONS, DIMENSIONS AND LINES IS FROM EXISTING INFORMATION OF RECORD AND IS NOT WARRANTED. CONTRACTOR SHALL VERIFY PRIOR TO INITIATING CONSTRUCTION.
4. CALL DIG SAFE 1-888-344-7233 AT LEAST 3 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. WHEN IT IS IMPOSSIBLE TO ACHIEVE HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND SEWER SHOULD BE CONSTRUCTED OF MECHANICAL-JOINT CEMENT-LINED DUCTILE IRON PIPE OR ANOTHER EQUIVALENT THAT IS WATERTIGHT AND STRUCTURALLY SOUND. BOTH PIPES SHOULD BE PRESSURE TESTED TO 150 PSI TO ENSURE THAT THEY ARE WATERTIGHT.
6. THE CONTRACTOR SHALL REMOVE BY PUMPING OR OTHER MEANS ANY WATER ACCUMULATED IN THE TRENCH DURING THE PIPE LAYING PERIOD AND KEEP THE TRENCH DRY UNTIL THE JOINTS ARE PROPERLY CONNECTED. (TRENCH WATER CAN NOT BE PUMPED INTO THE SEWER)
7. ALL PIPE BEFORE BEING PLACED IN THE TRENCH SHALL BE CLEAN AND FREE FROM DEFECTS. THE PIPE SHALL BE LAID TO THE GRADE AND ALIGNMENT INDICATED ON THE APPROVED PLAN. A MINIMUM SLOPE OF 0.02 IS REQUIRED FOR SEWER SERVICES TO PROVIDE A SELF-CLEANING VELOCITY OF 2.5 FEET PER SECOND.
8. THE CONTRACTOR MUST NOTIFY TOWN PRIOR TO BACKFILLING.
9. WHEN EXCAVATION FOR A SEWER EXPOSES OTHER UTILITIES, THE AREA SURROUNDING ALL PIPES SHALL BE FILLED WITH CLEAN GRAVEL FROM THE BOTTOM OF THE DEEPEST NEWLY EXCAVATED TRENCH TO 6 INCHES ABOVE THE UPPER MOST PIPE.
10. THE SERVICE CONNECTION TEN FEET FROM THE FOUNDATION TO THE MAIN SHOULD NOT HAVE AN ANGULAR DEVIATION OF MORE THAN 180°. ALL DEFLECTIONS WITH EXCEPTION OF PIPE JOINTS, SHALL BE IN THE FORM OF LONG SWEEPS AND NOT SHORT ANGULAR FITTINGS.
11. THE USE OF ROUGH CUT SECTIONS OF PIPE IS DISCOURAGED AND SHALL BE USED ONLY WHEN NECESSARY. THE INSIDE EDGE OF THE ROUGH CUT PIPE SHALL BE FILED SMOOTH.
12. NO CEMENTED JOINTS SHALL BE ALLOWED UNLESS IN CONJUNCTION WITH RUBBER SEAL AND APPROVED BY THE TOWN.
13. OPEN ENDS OF SEWER PIPE AND CLEANOUTS SHALL BE SEALED WITH CAPS OR PLUGS AS RECOMMENDED AND FURNISHED BY THE MANUFACTURER.
14. 5" (MIN) CLEANOUTS SHALL BE LOCATED, 5 FEET FROM THE FOUNDATION, AT ANGLE POINTS OF GREATER THAN 45° WHERE LONG SWEEPS CAN NOT BE USED, AND FOR LONG SERVICES AT INTERVALS OF NOT MORE THAN 100 FEET.
15. THE SEWER PIPE SHALL BE PLACED ON A BED OF CLEAN GRAVEL. BACKFILL MATERIAL SHOULD BE FREE OF ANY LARGE STONES, ORGANIC SUBSTANCES OR FROST.
16. ALL INTERIOR PLUMBING TO BE PERFORMED BY A LICENSED CONTRACTOR.
17. THE TOPS OF ALL PRECAST STRUCTURES SHALL EXTEND ABOVE GROUNDWATER.
18. PRIOR TO PLACING THE SEWER SYSTEM ON LINE THE FOLLOWING SHALL BE PERFORMED: A LEAK TEST SHALL BE PERFORMED ON ALL SEWER PIPES BY UTILIZING THE LOW PRESSURE TESTING METHOD. ALL SEWERMAINS AND MANHOLES SHALL BE TESTED FOR DEFLECTION AND LEAKS AS PRESCRIBED IN TECHNICAL RELEASE 16, TR16 SECTION 2.3.9

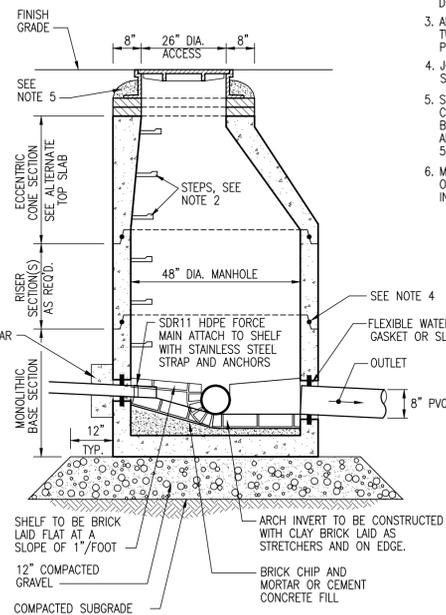
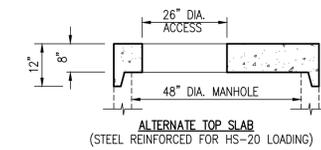


PROPOSED SANITARY SEWER MANHOLE
(ALL COMPONENTS OF THE SEWER COLLECTION SYSTEM SHALL BE WATERTIGHT)
(NOT TO SCALE)

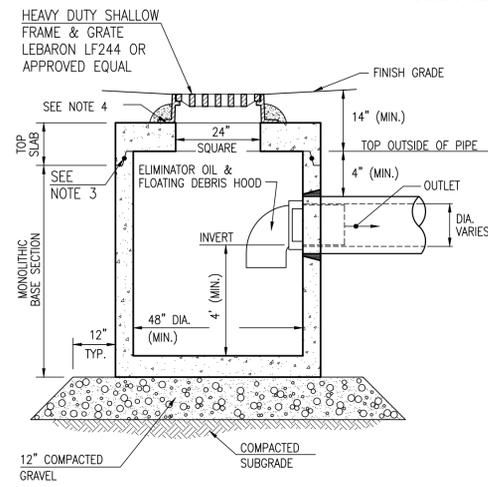


EXTERIOR DROP SEWER MANHOLE DETAIL
(NOT TO SCALE)

- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 3. ALL EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
 6. MATCH FORCEMAIN AND OUTLET PIPE CROWNS OR TRANSITION CHANNELS TO DIRECT FLOW INTO GRAVITY SEWER.

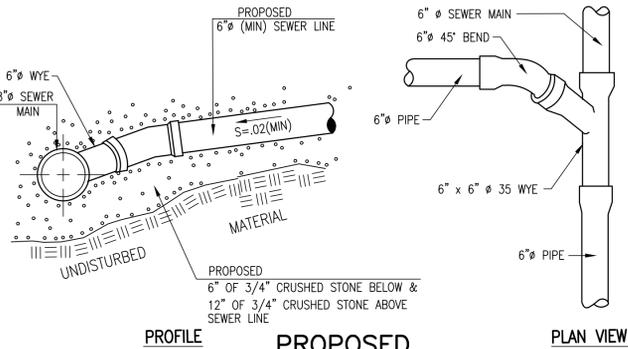


FORCE MAIN TO GRAVITY SEWER MANHOLE DETAIL
(NOT TO SCALE)



- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 4. CATCH BASIN FRAME AND GRATE (4" DEPTH) SHALL BE SET IN FULL MORTAR BED.
 5. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.

PRECAST CATCH BASIN (SHALLOW COVER) DETAIL
(NOT TO SCALE)



PROFILE PROPOSED BUILDING SEWER WYE CONNECTION
(NOT TO SCALE)

(NOTE: ALL PROPOSED PIPING TO BE PVC SDR 35 OR APPROVED EQUAL)

FOR REGISTRY USE ONLY

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

DATE APPROVED: _____

DATE SIGNED: _____

THIS APPROVAL IS SUBJECT TO A COVENANT DULY EXECUTED DATED _____, RUNNING WITH THE LAND TO BE DULY RECORDED BY OR FOR THE OWNER OF THE RECORD. THE COVENANT IS RECORDED AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS, RECORDED IN BOOK _____ PAGE _____

HINGHAM TOWN CLERK

I HEREBY CERTIFY THAT THERE HAS BEEN NO APPEAL TAKEN TO THIS PLANNING BOARD ACTION DURING THE TWENTY DAY STATUTORY APPEAL PERIOD.

DATE: _____

TOWN CLERK, TOWN OF HINGHAM

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Douglas Aberg
DOUGLAS ABERG, P.L.S.

7/14/23
DATE

REVISIONS

1.	7/14/23	REVIEW COMMENTS
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DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK

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Engineers and Land Surveyors
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WWW.MERRILLINC.COM

DEFINITIVE SUBDIVISION PLAN
16 BISHOPS LANE
HINGHAM, MASSACHUSETTS
PREPARED FOR: YOUNG FAMILY TRUST
16 BISHOPS LANE
HINGHAM, MA 02043

MARCH 24, 2023

SCALE: AS NOTED

JOB No. 17-360

LATEST REVISION:
JULY 14, 2023

CONSTRUCTION
DETAIL PLAN

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1. 7/14/23 REVIEW COMMENTS



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DESIGNED BY: DK

CHECKED BY: DK

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DEFINITIVE SUBDIVISION PLAN
 #16 BISHOPS LANE
 HINGHAM, MASSACHUSETTS
 PREPARED FOR: YOUNG FAMILY TRUST
 16 BISHOPS LANE
 HINGHAM, MA 02043

MARCH 24, 2023

SCALE: AS NOTED

JOB No. 17-360

LATEST REVISION:
 JULY 14, 2023

CONSTRUCTION
 DETAIL PLAN

SHEET C7.4

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Daugherty
 DOUGLAS ABERG, P.L.S.

7/14/23
 DATE

- NOTES:
1. FOR ADDITIONAL DETAIL SEE MASS HIGHWAY CONSTRUCTION STANDARD 206.6.0.
 2. CONCRETE SHALL BE CLASS A, 4,000 PSI (MIN). @ 28 DAYS
 3. REINFORCING #5 BAR GRADE 60 - 12" O.C.B.W

FOR REGISTRY USE ONLY

HINGHAM PLANNING BOARD

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APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

DATE APPROVED: _____

DATE SIGNED: _____

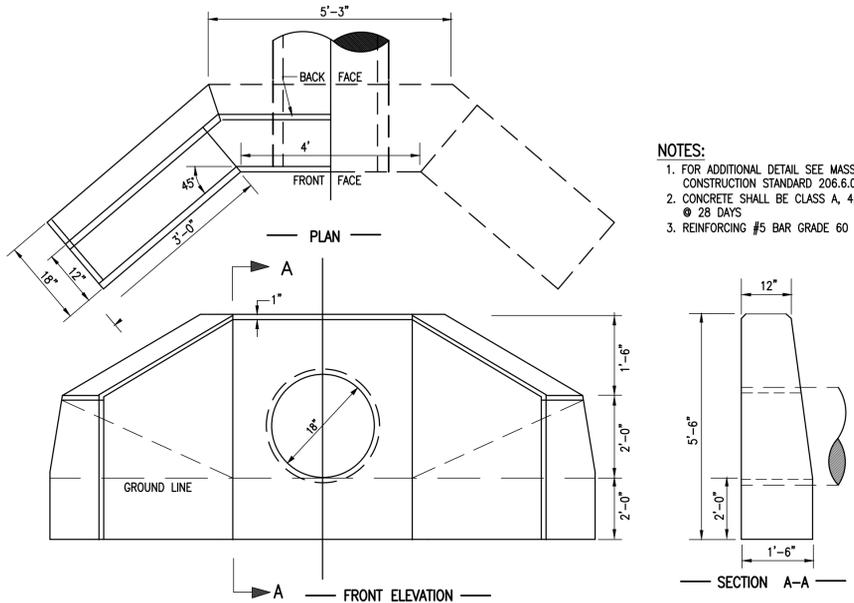
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HINGHAM TOWN CLERK

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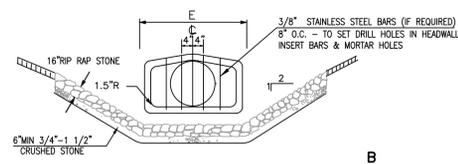
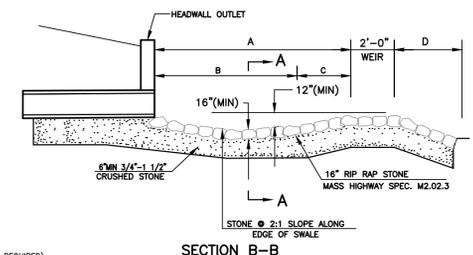
DATE: _____

TOWN CLERK, TOWN OF HINGHAM



DETAIL-CONCRETE WINGWALL
 (NOT TO SCALE)

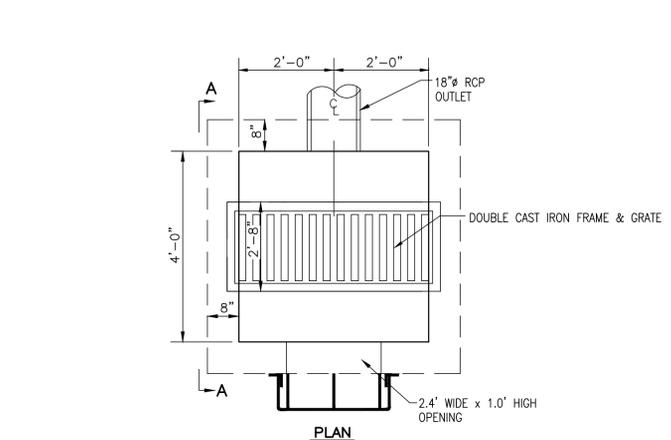
PIPE DIA.	12"	18"	24"	30"
A	12'-6"	15'-0"	20'-0"	24'-0"
B	9'-6"	11'-3"	15'-0"	18'-0"
C	3'-0"	3'-9"	5'-0"	8'-0"
D	4'-0"	4'-6"	6'-0"	8'-0"
E	5'-0"	6'-0"	8'-0"	10'-0"



(SECTION A-A)

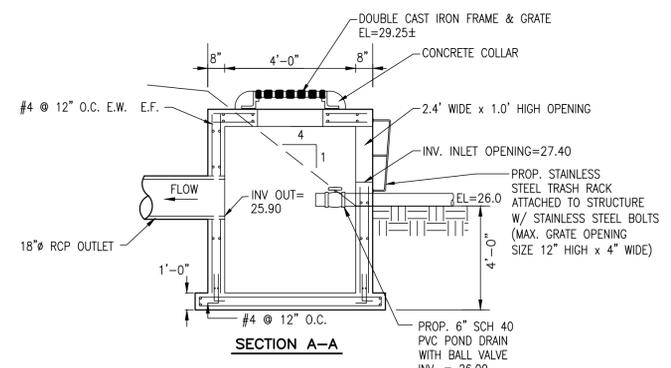
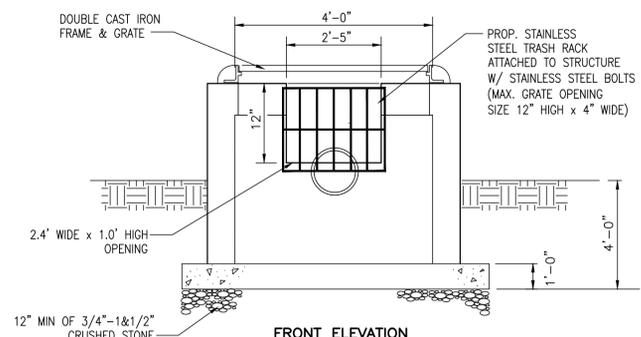
- NOTES:
1. STONE FOR EROSION CONTROL PADS SHALL COMPLY WITH MDPW MATERIAL SPEC M 2.02.3
 2. STONE BERM FOR SILT TRAP SHALL BE CONSTRUCTED AROUND SIDES OF EROSION CONTROL PADS

SEDIMENT TRAP DETAIL
 (NOT TO SCALE)



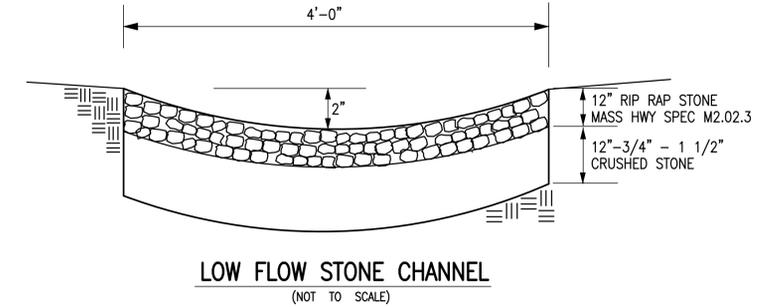
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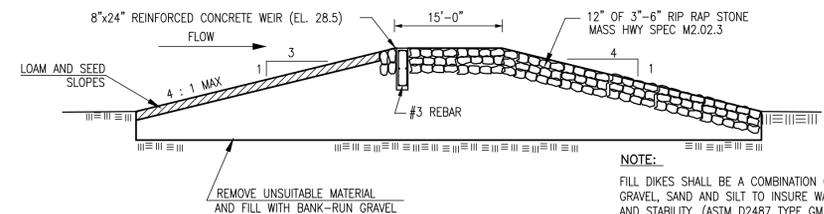


SECTION A-A

OVERFLOW OUTLET STRUCTURE FOR BIO-RETENTION AREA
 (NOT TO SCALE)



LOW FLOW STONE CHANNEL
 (NOT TO SCALE)

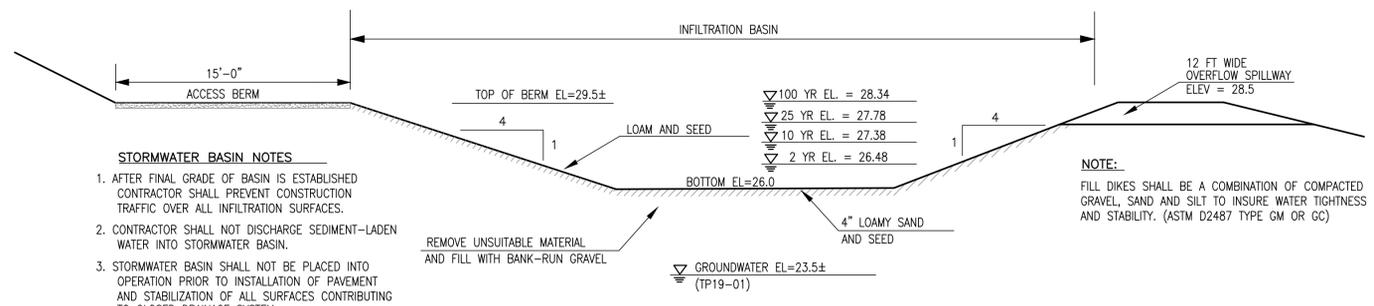


OVERFLOW SPILLWAY DETAIL
 (NOT TO SCALE)

NOTE:
 FILL DIKES SHALL BE A COMBINATION OF COMPACTED GRAVEL, SAND AND SILT TO INSURE WATER TIGHTNESS AND STABILITY. (ASTM D2487 TYPE GM OR GC)

STORMWATER BASIN NOTES

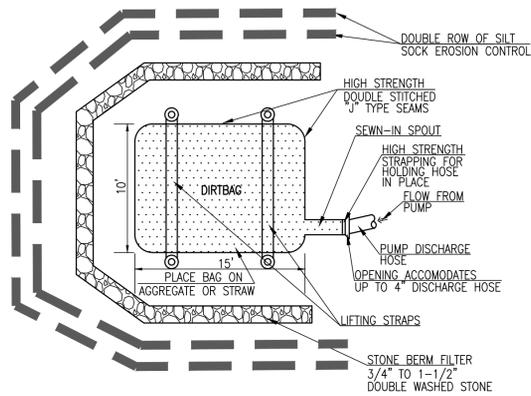
1. AFTER FINAL GRADE OF BASIN IS ESTABLISHED CONTRACTOR SHALL PREVENT CONSTRUCTION TRAFFIC OVER ALL INFILTRATION SURFACES.
2. CONTRACTOR SHALL NOT DISCHARGE SEDIMENT-LADEN WATER INTO STORMWATER BASIN.
3. STORMWATER BASIN SHALL NOT BE PLACED INTO OPERATION PRIOR TO INSTALLATION OF PAVEMENT AND STABILIZATION OF ALL SURFACES CONTRIBUTING TO CLOSED DRAINAGE SYSTEM.
4. EXCAVATE ALL MATERIAL BELOW INFILTRATION BASIN TO SAND LAYER (SEE SOIL LOGS) AND REPLACE WITH CLEAN COARSE SAND IN ACCORDANCE WITH 310 CMR 15.255.



SECTION THRU PROPOSED INFILTRATION BASIN
 (NOT TO SCALE)

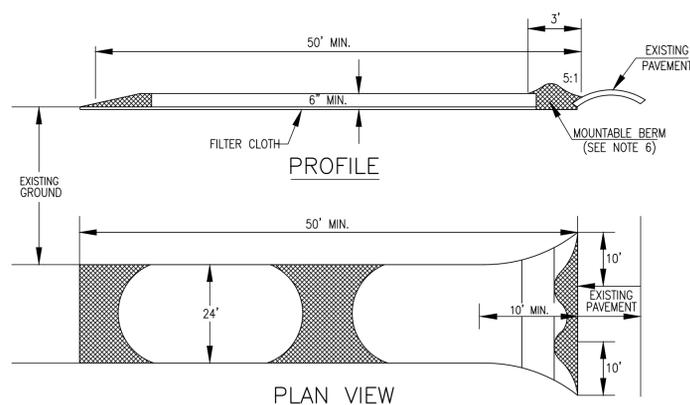
NOTE:
 FILL DIKES SHALL BE A COMBINATION OF COMPACTED GRAVEL, SAND AND SILT TO INSURE WATER TIGHTNESS AND STABILITY. (ASTM D2487 TYPE GM OR GC)

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NOTE:
CONTRACTOR WILL KEEP A SUFFICIENT SUPPLY OF SILT SOCK, CLEAN STONE AND DIRT BAGS TO ENSURE SILTATION IS CONTROLLED ON SITE. A MINIMUM OF TWO TIMES THE SILT SOCK AND STONE ARE NEEDED AND FOUR DIRT BAGS WILL BE KEPT ON SITE.

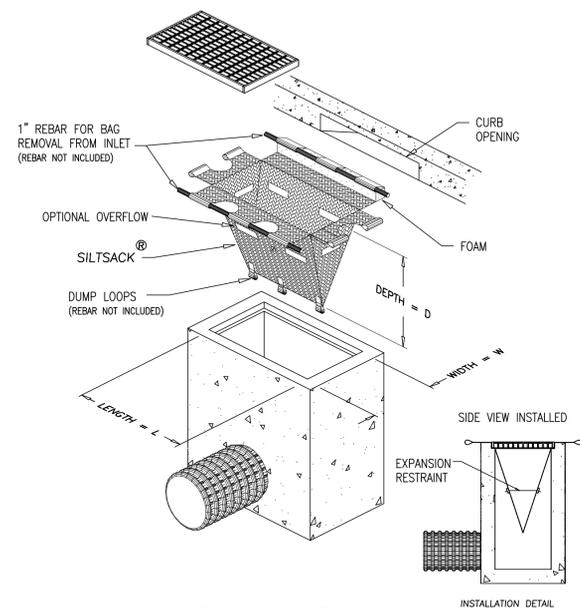
DIRTBAG DETAIL
(NOT TO SCALE)



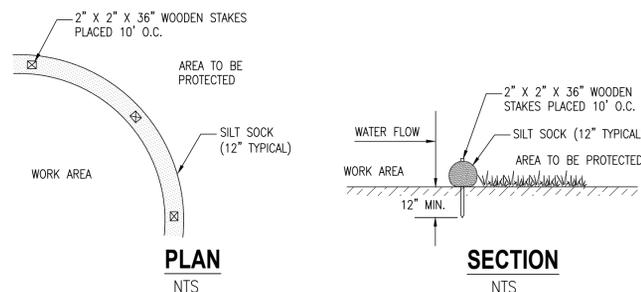
STABILIZED CONSTRUCTION ENTRANCE
(NOT TO SCALE)

SPECIFICATIONS

- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FT.(EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAYS MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

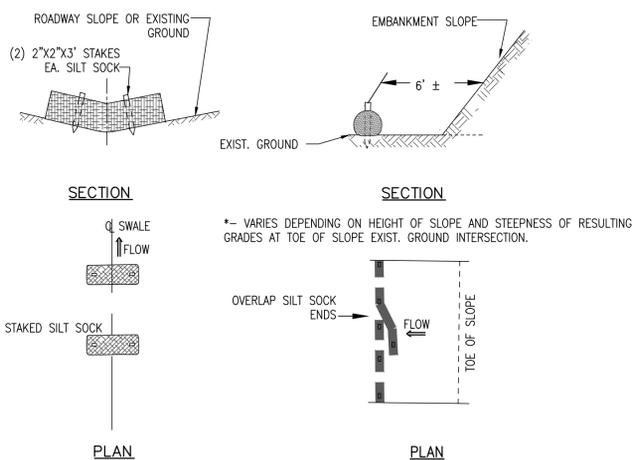


SILT SACK DETAIL
(NOT TO SCALE)



NOTE: REFER TO THE PLAN FOR PROPOSED LOCATION.

SILT SOCK DETAIL
(NOT TO SCALE)

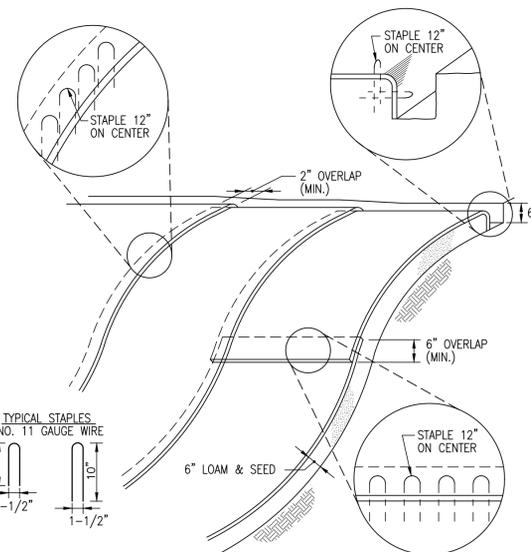


TEMPORARY EROSION CONTROL DETAILS
(NOT TO SCALE)

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

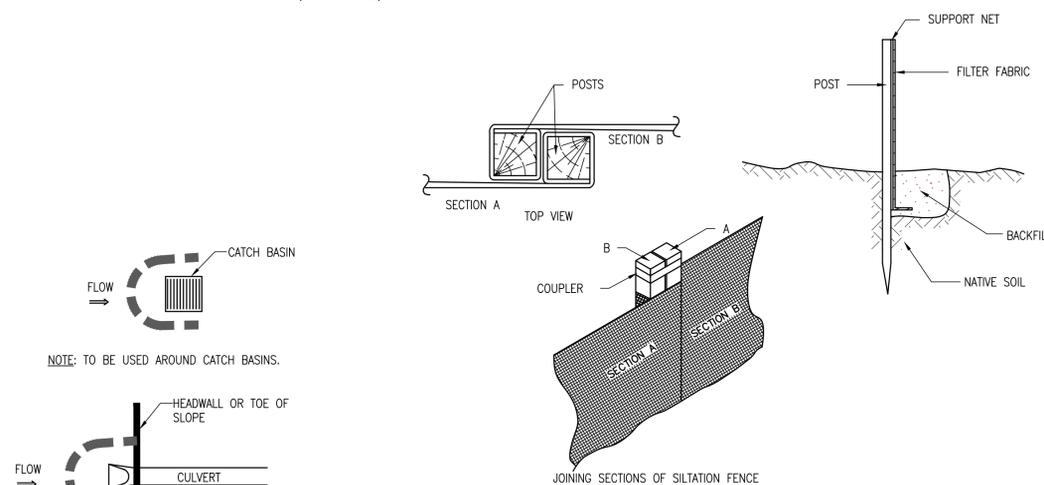
Douglas Amberg
DOUGLAS AMBERG, P.L.S.

7/14/23
DATE



- NOTES:**
- BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
 - ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
 - THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
 - WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
 - METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.

EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL
(NOT TO SCALE)



- CONSTRUCTION NOTES:**
- SILTATION FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
(NOT TO SCALE)

FOR REGISTRY USE ONLY

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

DATE APPROVED: _____

DATE SIGNED: _____

THIS APPROVAL IS SUBJECT TO A COVENANT DULY EXECUTED DATED _____, RUNNING WITH THE LAND TO BE DULY RECORDED BY OR FOR THE OWNER OF THE RECORD. THE COVENANT IS RECORDED AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS, RECORDED IN BOOK _____ PAGE _____

HINGHAM TOWN CLERK

I HEREBY CERTIFY THAT THERE HAS BEEN NO APPEAL TAKEN TO THIS PLANNING BOARD ACTION DURING THE TWENTY DAY STATUTORY APPEAL PERIOD.

DATE: _____

TOWN CLERK, TOWN OF HINGHAM

REVISIONS

1.	7/14/23	REVIEW COMMENTS
----	---------	-----------------



DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK

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Engineers and Land Surveyors
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26 UNION STREET, PLYMOUTH MA 02360 / T: (508) 746-6060
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DEFINITIVE SUBDIVISION PLAN
#16 BISHOPS LANE
HINGHAM, MASSACHUSETTS
PREPARED FOR: YOUNG FAMILY TRUST
16 BISHOPS LANE
HINGHAM, MA 02043

MARCH 24, 2023

SCALE: AS NOTED

JOB No. 17-360

LATEST REVISION:
JULY 14, 2023

**CONSTRUCTION
DETAIL PLAN**

GENERAL CONSTRUCTION AND EROSION CONTROL NOTES:

- 1. PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING THERE SHALL BE A PRE-CONSTRUCTION MEETING ATTENDED BY THE APPLICANT TEAM, THE CONSERVATION ADMINISTRATOR, THE TOWN PLANNER, THE ENGINEER FOR THE PLANNING BOARD, AND THE POLICE CHIEF OR HIS PROXY TO REVIEW THE INSTALLATION OF THE EROSION CONTROL MEASURES, ANSWER ANY QUESTIONS ON THE STORMWATER POLLUTION PREVENTION PLAN, DISCUSS THE PROJECT TIMELINE AND THE SCHEDULE OF POLICE DETAILS.
2. POLICE DETAILS SHALL BE REQUIRED AT THE DISCRETION OF THE CHIEF OF POLICE TO ASSIST IN MANAGING CONSTRUCTION TRAFFIC ENTERING OR EXITING THE SITE, AND WHEN MATERIAL IS BEING IMPORTED/EXPORTED FROM THE SITE DURING CONSTRUCTION OF ROADS OR INDIVIDUAL LOTS.
3. CONSTRUCTION VEHICLE TRAFFIC SHALL BE COORDINATED WITH THE CHIEF OF POLICE AS TO NOT INTERFERE WITH THE FOSTER SCHOOL SCHEDULE.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL STANDARDS.
5. THE ACCURACY OF EXISTING UTILITY LOCATIONS, DIMENSIONS AND LINES IS FROM EXISTING INFORMATION OF RECORD AND IS NOT WARRANTED. CONTRACTOR TO VERIFY PRIOR TO INITIATING CONSTRUCTION.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SECURE ALL NECESSARY STATE, MUNICIPAL AND OTHER UTILITY PERMITS AND VERIFY THE PROPOSED LOCATIONS OF UTILITIES WITH UTILITY COMPANIES.
7. UNDERGROUND UTILITIES TO BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE VARIOUS DEPARTMENTS OR COMPANIES.
8. ALL CONSTRUCTION SHALL CONFORM TO TOWN OF HINGHAM PLANNING BOARD RULES AND REGULATIONS, DPW SPECIFICATIONS, CONSERVATION COMMISSION REGULATIONS, WATER DEPARTMENT REGULATIONS AND ALL OTHER APPLICABLE CODES.
9. ALL STUMPS SHALL BE DISPOSED OFF SITE.
10. CONTRACTOR TO NOTIFY "DIG-SAFE" AND THE TOWN OF HINGHAM DEPARTMENT OF PUBLIC WORKS FOUR DAYS PRIOR TO CONSTRUCTION
11. WHERE PROPOSED PAVEMENT AND WALKS ARE TO MEET EXISTING, THE CONTRACTOR SHALL SAWCUT TO A NEAT LINE AND MATCH GRADE.
12. ALL AREAS DISTURBED BY CONSTRUCTION AND NOT TO BE PAVED OR OTHERWISE TREATED AS NOTED ON PLAN SHALL BE TREATED WITH 6" OF LOAM, SEEDED AND STRAW OR MULCHED FOR EROSION CONTROL.
13. DRAINAGE SYSTEM TO BE AS PER HINGHAM DEPARTMENT OF PUBLIC WORKS REQUIREMENTS.
14. ALL SUBSURFACE STRUCTURES TO CONFORM TO MASSACHUSETTS HIGHWAY DEPARTMENT CONSTRUCTION STANDARDS AND SHALL BE SUITABLE FOR H-20 LOADING.
15. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS DATED MARCH 1997, THE ORDER OF CONDITIONS AND ALL MUNICIPAL REGULATIONS.
16. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED.
17. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETER WITH MULCH LOGS TO PREVENT AND/OR CONTROL SILTATION AND EROSION. THE LOCATION OF THE STOCKPILE AREAS MAY BE MODIFIED AS APPROVED BY THE ENGINEER.
18. TOPS OF STOCKPILES SHALL BE COVERED IN SUCH A MANNER SO THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.
19. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR SEEDED FOR TEMPORARY VEGETATIVE COVER. WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE TEMPORARILY BEEN SUSPENDED FOR MORE THAN SEVEN DAYS, OR WHEN FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE, STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN THREE DAYS. AREAS THAT REMAIN DISTURBED BUT INACTIVE FOR AT LEAST THIRTY DAYS SHALL RECEIVE TEMPORARY SEEDING IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES.
20. EARTHWORK ACTIVITY ON THE SITE SHALL BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO THE LINE OF MULCH LOG.
21. CULVERT/PIPE INLETS AND OUTFALLS SHALL BE PROTECTED BY MULCH LOG FILTERS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
22. SILT BAGS SHALL BE UTILIZED AT ALL EXISTING AND PROPOSED CATCHBASINS SUBJECT TO STORMWATER RUNOFF FROM PROPOSED FILL AREAS DURING CONSTRUCTION, OR AS DIRECTED BY THE OWNER/ENGINEER. NO SEDIMENT SHALL ENTER THE ON-SITE DRAINAGE SYSTEMS AT ANY TIME.
23. ALL EROSION CONTROL MEASURES SHALL BE ROUTINELY INSPECTED, CLEANED AND REPAIRED REPLACED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION. IN ADDITION, INSPECTION SHALL TAKE PLACE AFTER EACH RAINFALL EVENT.
24. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL EROSION CONTROL MATERIALS (MULCH LOGS) FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER, THE CONSERVATION COMMISSION OR THE PLANNING BOARD TO MITIGATE ANY EMERGENCY CONDITION.
25. TEST PITS AND/OR BORINGS WERE TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY. THEY DO NOT NECESSARILY SHOW THE NATURE OF ALL MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
26. THE LIMIT OF WORK LINE FOR THE AREA TO BE CLEARED AND GRUBBED SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).
27. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL SEDIMENT, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
28. THE CONTRACTOR SHALL BE AWARE THAT SOIL, GRADES AND WETLANDS PROXIMITY AT THIS SITE MAKE IT PARTICULARLY SUSCEPTIBLE TO SOIL EROSION AND SENSITIVE TO ITS CONSEQUENCES. IT SHOULD BE NOTED THAT THE EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS DEPICT THE MINIMUM REQUIRED CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL DEVICES AS THE PROJECT PROGRESSES AND SITE DRAINAGE CONDITIONS CHANGE.
29. THE CONTRACTOR SHALL ANTICIPATE AND MODIFY EROSION CONTROL MEASURES BASED ON PAST AND CURRENT WEATHER CONDITION, SEASON AND EXPECTED FUTURE CONSTRUCTION ACTIVITIES.
30. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL. EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.
31. THE CONTRACTOR SHALL AT HIS EXPENSE SURVEY AND MARK OUT IN THE FIELD THE LIMITS OF CLEARING (I.E., EROSION CONTROL LINE).
32. THE CONTRACTOR SHALL NOTIFY THE TOWN'S PLANNER AND CONSERVATION AGENT AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY SITE WORK.

UTILITY NOTES:

- 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY. ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. PROPOSED GAS SERVICE LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM WITH THE GAS COMPANY THAT GAS LINE INSTALLATION SHALL BE BY THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION AND BACKFILL AND COMPACTION FOR THE GAS LINE, IF THE OWNER ELECTS TO INSTALL GAS.
3. DUE TO THE SMALL SCALE OF THE SITE WORK DRAWINGS, EXACT LOCATION OF UTILITY STUBS FOR BUILDING CONNECTIONS SHALL BE VERIFIED WITH THE BUILDING DRAWINGS.

HINGHAM WATER DEPARTMENT WATER SYSTEM NOTES:

- 1. ALL WATER SYSTEM MATERIALS SHALL BE AS PER HINGHAM WATER DEPARTMENT SPECIFICATIONS.
2. WATER MAINS TO BE DUCTILE IRON PIPE, CLASS 52 CONFORMING TO AWWA C150 AND AWWA C151, PUSH ON TYPE JOINTS WITH GASKETS CONFORMING TO AWWA C111, DOUBLE CEMENT LINES INSIDE CONFORMING TO AWWA C104, AND ASPHALT SEAL COATED OUTSIDE (CONFORMING TO AWWA 203). IN AREAS WHERE GROUNDWATER LEVELS AREA ABOVE THE PIPE LAYING DEPTH, FURNISH AND INSTALL POLYETHYLENE ENCASMENT ("V-BIO" ENHANCED POLYETHYLENE ENCASMENT AS MANUFACTURED BY THE DUCTILE-IRON PIPE RESEARCH ASSOCIATION).
3. ALL PIPE FITTINGS SHALL BE DUCTILE IRON, CLASS 350 MECHANICAL JOINT CONFORMING TO AWWA C153. ALL FITTINGS SHALL BE RESTRAINED WITH SERIES 1100 MEGALUG AS MANUFACTURED BY EBMA IRON, OR APPROVED EQUAL.
4. ALL GATE VALVES SHALL BE RESILIENT WEDGE SEATED VALVES CONFORMING TO AWWA C509 (MUELLER CO 2360 SERIES OR APPROVED EQUAL). VALVES SHALL HAVE CORROSION RESISTANT FUSION - BONDED INTERIOR AND EXTERIOR COATINGS. VALVES ARE TO HAVE DOUBLE O RING SEALS, A NON-RISING STEM, 2 INCH OPERATING NUT, AND BE OPEN "RIGHT" (CLOCKWISE TO OPEN). AN ARROW INDICATING THE OPENING POSITION SHALL BE CAST INTO THE OPERATING NUT.
5. VALVE BOXES SHALL BE CAST IRON, ASPHALT COATED, SLIDING TYPE, ADJUSTABLE, TOGETHER WITH CAST IRON COVERS WITH THE WORD "WATER" PLAINLY CAST IN RELIEF ON THE TOP SURFACE. A MINIMUM 6" OVERLAP IS REQUIRED BETWEEN SLIDING SECTIONS. THE INSIDE DIAMETER OF THE BOTTOM SECTION SHALL BE AT LEAST 5-1/4 INCHES AND SHALL HAVE A BELLED BASE. THE TOP SECTION SHALL BE AT LEAST 6-1/8 INCHES AND HAVE TOP FLANGES. THE BOTTOM SECTION SHALL BE AT LEAST 36 INCHES IN LENGTH. THE TOP SECTION SHALL BE AT LEAST 26 INCHES IN LENGTH AND HAVE A PLAIN BOTTOM.
6. TAPPING SLEEVES AND VALVES SHALL HAVE RESILIENT WEDGE GATE VALVES AS SPECIFIED ABOVE WITH THE FOLLOWING EXPECTONS. TAPPING SLEEVE SHALL BE MUELLER CO. STAINLESS STEEL TAPPING SLEEVE MODEL H-304SS. SLEEVES SHALL MEET ANSI/NSF 61 STANDARDS. SLEEVE OUTLET SHALL HAVE A 3/4" TESTING PORT WITH A 1/2" SPT BRASS TEST PLUG. TAPPING VALVES SHALL BE FULL PORT OPENING AND ABOVE SPECIFIED.
7. HYDRANTS SHALL BE MUELLER SUPER CENTURION A-423, CONFORMING TO AWWA C502 (DRY BARREL HYDRANTS) AND PAINTED RED. FIRE HYDRANTS SHALL HAVE MECHANICAL JOINT SHOES, 5"-6" BURY (TURN LEVEL SHOULDER AREAS) OR 6"-0" BURY (RAISED SIDEWALK) AND MARKED WITH AN ARROW AND THE WORD "OPEN" TO INDICATE THE DIRECTION TO TURN THE STEM TO OPEN THE HYDRANT. HYDRANTS SHALL OPEN RIGHT (CLOCKWISE TO OPEN).
8. CURB STOP BOXES SHALL BE CAST IRON ERIE TYPE WITH RECESSED LID WITH PENTAGON BOLT AND THE WORD "WATER" CAST ON TOP, AND ADJUSTABLE SLIDING TYPE WITH ARCH PATTERN. CURB STOP BOXES SHALL BE DOMESTICALLY MANUFACTURED BY MUELLER OR BINGHAM AND TAYLOR.
9. DUCTILE IRON PIPE AND FITTINGS SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH REQUIREMENTS OF AWWA C600, LATEST EDITION. WATER MAINS SHALL HAVE A MINIMUM OF FIVE FEET OF COVER. PRESSURE TESTING SHALL CONSIST OF 200 PSI FOR 10 MINUTES AND 150 PSI FOR 2 HOURS.
10. THE MINIMUM VERTICAL AND HORIZONTAL SEPARATION MUST BE MAINTAINED FOR ALL WATER LINES AND OTHER UTILITIES: 18 INCHES VERTICAL (WATER LINE 18-INCHES ABOVE) AND 10 FEET HORIZONTAL.
11. AT NO TIME SHALL A WATER MAIN OR SERVICE BE INSTALLED GREATER THAN 8 FEET BELOW FINISHED GRADE.
12. WATER MAINS SHALL NOT BE INSTALLED BELOW CONCRETE PADS AND CONCRETE SIDEWALKS AND OR LANDSCAPED ISLANDS SHALL BE AVOIDED WHENEVER POSSIBLE.
13. ALL EXCAVATION AND RESTORATION WORK SHALL MEET TOWN SPECIFICATIONS INCLUDING SPECIAL PROVISIONS OF THE GRANT OF LOCATION AND STREET OPENING PERMITS. A TOWN STREET OPENING PERMIT WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTRACT POLICE DETAIL AS REQUIRED.
14. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5 FEET OF COVER EXCEPT AS NOTED ON THE PLAN, REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES, OR AS DIRECTED BY THE HINGHAM WATER DEPARTMENT.
15. UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, THE NEW WATER MAIN SHALL PASS UNDER EXISTING UTILITY AND DRAIN LINES.
13. ALL WATER MAIN FITTINGS, TEES, HYDRANTS, ETC. SHALL BE RESTRAINED WITH CONCRETE THRUST BLOCKS AND SHALL BE MECHANICAL JOINTS WITH MEGALUG RESTRAINTS.
16. THE DOMESTIC WATER SERVICES SHALL BE 1" TYPE K COPPER TUBING AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED AND APPROVED GATE, BOX AND TEE FITTINGS.
17. CONTRACTOR SHALL USE A WATER TIGHT PLUG DURING THE WATER MAIN INSTALLATION. PLUG SHALL REMAIN IN PLACE AT ALL TIMES.
18. THE CONTRACTOR, AT THEIR EXPENSE, SHALL PROVIDE ADDITIONAL TAPS (IF REQUIRED) FOR THE CHLORINATING AND HYDROSTATIC TESTING. TAPS SHALL BE REMOVED AND CAPPED AFTER TESTING IS COMPLETE.
19. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH AQUARIUM WATER COMPANY STANDARDS AND REQUIREMENTS. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS RESULTS SHALL BE FURNISHED TO THE TO THE HINGHAM WATER DEPARTMENT FOR APPROVAL PRIOR TO WATER BEING TURNED ON.
20. NO WATER WILL BE TURNED ON FOR THE PROJECT WITHOUT HINGHAM WATER DEPARTMENT APPROVAL.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING/REPAIRING ANY PAVEMENT MARKINGS, STRIPING, CURBING, PAVEMENT, LANDSCAPING, ETC. TO EQUAL OR BETTER THAN PRIOR TO CONSTRUCTION CONDITION.

CONSTRUCTION SEQUENCE:

- 1. INSTALLATION OF EROSION CONTROL BARRIER. ROUTINE INSPECTIONS OF THE BARRIER SHALL BE PERFORMED BY THE CONTRACTOR AND SEDIMENT SHALL BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS AND OPERATIONS AND MAINTENANCE PLAN.
2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE
3. CLEAR AND GRUB ROADWAY AND EASEMENT AREAS
4. BRING CUT AREAS TO SUBGRADE
5. CONSTRUCT STORMWATER INFILTRATION BASIN INCLUDING LOAM AND SEED.
6. INSTALL SEDIMENTATION BARRIERS AROUND THE STORMWATR BASIN TO PREVENT DISCHARGE OF SEDIMENT INTO THE BASIN DURING CONSTRUCTION (STORMWATER BASIN SHALL NOT BE PLACED INTO OPERATION PRIOR TO INSTALLATION OF PAVEMENT AND STABILIZATION OF ALL SURFACES CONTRIBUTING TO CLOSED DRAINAGE SYSTEM.
7. INSTALL UTILITIES (ie, DRAIN, SEWER, WATER, ELECTRIC, etc.)
8. INSTALL MULCH LOGS AROUND CATCHBASINS TOGETHER WITH SILT SACKS BENEATH CATCHBASIN GRATES
9. CATCH BASIN GRATES ARE TO BE SET AT BINDER GRADE
10. INSTALL EROSION CONTROLS ON EXPOSED SLOPES
11. PLACE BASE COURSE OF PAVEMENT / LOAM AND SEED GRASS AREAS UNCOVER TEMPORARY DRAINAGE SEALS / FINISH PAVING ON ROADWAY
12. AFTER THE STORMWATER BASIN HAS BEEN PLACED INTO OPERATION, INSPECT AFTER ALL STORMS AND AT LEAST MONTHLY.

GRADING AND DRAINAGE NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
2. CATCH BASINS SHALL BE EQUIPPED WITH GAS/OIL HOODS AND ALL CATCH BASINS SHALL HAVE 4 FOOT SUMPS.
3. ALL ON-SITE STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE), UNLESS NOTED OTHERWISE. HDPE DRAIN PIPE JOINTS SHALL BE SEALED BY USE OF APPROVED RUBBER GASKETS.
4. REINFORCED CONCRETE MANHOLES & CATCH BASINS SHALL BE CAPABLE OF HANDLING H2O LOADING AND BE MANUFACTURED IN ACCORDANCE WITH ASTM SPECIFICATION C478 AND AASHTO DESIGNATION M199.
5. ALL PIPES AND STRUCTURES SHALL MEET THE LATEST MASS HIGHWAY DEPARTMENT SPECIFICATIONS, HINGHAM DPW SPECIFICATIONS AND THE HINGHAM PLANNING BOARD RULES AND REGULATIONS.
6. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES.
7. RIP RAP SPLASH APRONS SHALL BE PROVIDED AT ALL DRAINAGE OUTFALLS AS SHOWN ON THE DRAWINGS.
8. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO A POINT OF 10 FEET FROM THE BUILDING WALL UNLESS OTHERWISE NOTED OR DETAILED.

FOR REGISTRY USE ONLY

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

APPROVAL UNDER SUBDIVISION CONTROL LAW IS REQUIRED

DATE APPROVED: _____

DATE SIGNED: _____

THIS APPROVAL IS SUBJECT TO A COVENANT DULY EXECUTED DATED _____, RUNNING WITH THE LAND TO BE DULY RECORDED BY OR FOR THE OWNER OF THE RECORD. THE COVENANT IS RECORDED AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS, RECORDED IN BOOK _____ PAGE _____

HINGHAM TOWN CLERK

I HEREBY CERTIFY THAT THERE HAS BEEN NO APPEAL TAKEN TO THIS PLANNING BOARD ACTION DURING THE TWENTY DAY STATUTORY APPEAL PERIOD.

DATE: _____

TOWN CLERK, TOWN OF HINGHAM

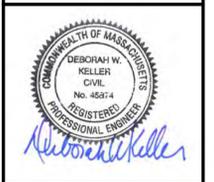
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Douglas Aberg, P.L.C. DOUGLAS ABERG, P.L.C.

7/14/23 DATE

REVISIONS

Table with 2 columns: No., Description. Row 1: 1, 7/14/23 REVIEW COMMENTS



DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK

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DEFINITIVE SUBDIVISION PLAN #16 BISHOPS LANE HINGHAM, MASSACHUSETTS PREPARED FOR: YOUNG FAMILY TRUST 16 BISHOPS LANE HINGHAM, MA 02043

MARCH 24, 2023

SCALE: AS NOTED

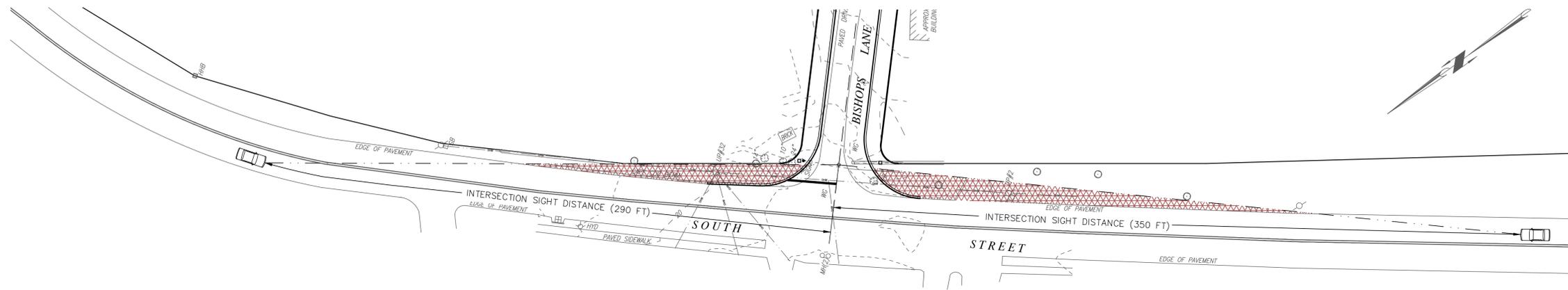
JOB No. 17-360

LATEST REVISION: JULY 14, 2023

CONSTRUCTION DETAIL PLAN

SHEET C7.6

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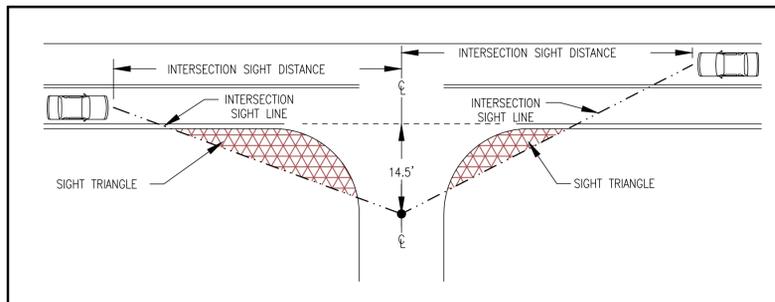
INTERSECTION SIGHT DISTANCE SUMMARY BISHOPS LANE / SOUTH STREET

LOCATION/DIRECTION	INTERSECTION SIGHT DISTANCE (FEET)		
	REQUIRED MINIMUM STOPPING SIGHT DISTANCE (SSD)	DESIRABLE INTERSECTION SIGHT DISTANCE (ISD)(b)	MEASURED SIGHT DISTANCE
STOPPING SIGHT DISTANCE:			
SOUTH STREET APPROACHING FROM THE NORTH:	250 FT. (a)		290 FT.
SOUTH STREET APPROACHING FROM THE SOUTH:	250 FT. (a)		350 FT.
INTERSECTION SIGHT DISTANCE:			
LOOKING TO THE NORTH (RIGHT):		290 FT. (c)	290 FT.
LOOKING TO THE SOUTH (LEFT):		335 FT. (c)	350 FT.

- (a) VALUES OBTAINED FROM A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 7TH EDITION; AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 2018.
 (b) VALUES SHOWN ARE THE INTERSECTION SIGHT DISTANCE FOR A VEHICLE TURNING RIGHT OR LEFT EXITING BISHOPS LANE UNDER STOP CONTROL SUCH THAT MOTORISTS APPROACHING THE INTERSECTION ON SOUTH STREET SHOULD NOT NEED TO ADJUST THEIR TRAVEL SPEED TO LESS THAN 70 PERCENT OF THEIR INITIAL APPROACH SPEED.
 (c) TRAVEL SPEED 30 MPH.

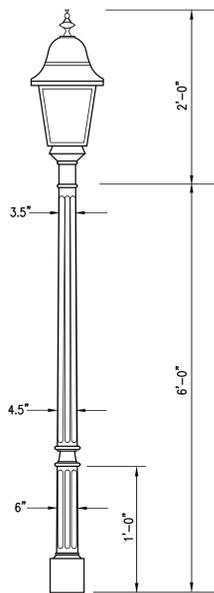
INTERSECTION SIGHT DISTANCE BISHOPS LANE

SIGNS, LANDSCAPING AND OTHER FEATURES LOCATED WITHIN THE SIGHT TRIANGLE AREA SHALL BE DESIGNED, INSTALLED AND MAINTAINED SO AS NOT TO EXCEED 3.5 FT. IN HEIGHT. SNOW ACCUMULATION (WINDROWS) LOCATED WITHIN SIGHT TRIANGLE AREAS THAT EXCEED 3.5 FT. IN HEIGHT OR THAT WOULD OTHERWISE INHIBIT SIGHT LINES SHALL BE PROMPTLY REMOVED.



INTERSECTION SIGHT DISTANCE LEGEND

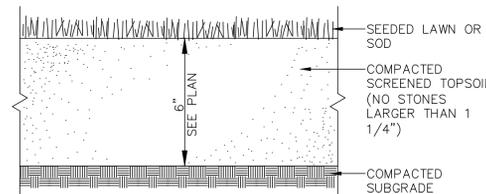
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STREET LIGHT DETAIL

(NOT TO SCALE)

- NOTES:
 1. SPECIFIC LIGHT FIXTURE TO BE DETERMINED. THIS DETAIL IS FOR GENERAL DESCRIPTION ONLY.
 2. THE LIGHT FIXTURE SHALL BE SHIELDED AND INSTALLED SO AS TO NOT SHINE IN THE ROADWAY.



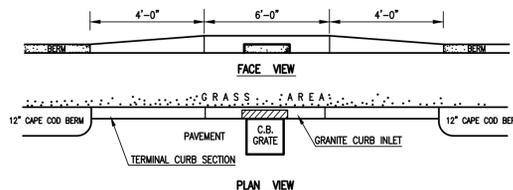
NOTES:

1. TOP OF LOAM (TOPSOIL) IS FINISHED GRADE.
 2. TOPSOIL SHALL CONTAIN BETWEEN 5% AND 12% ORGANIC MATTER AND SHALL HAVE A MAXIMUM STONE SIZE OF 1 1/4" AND SHALL CONFORM TO THE FOLLOWING GRADATION:

SIEVE	% PASSING
1 1/4 INCH	100
No.4	85-100
No.40	60-85
No.100	38-60
No.200	28-40

LOAM AND SEED DETAIL

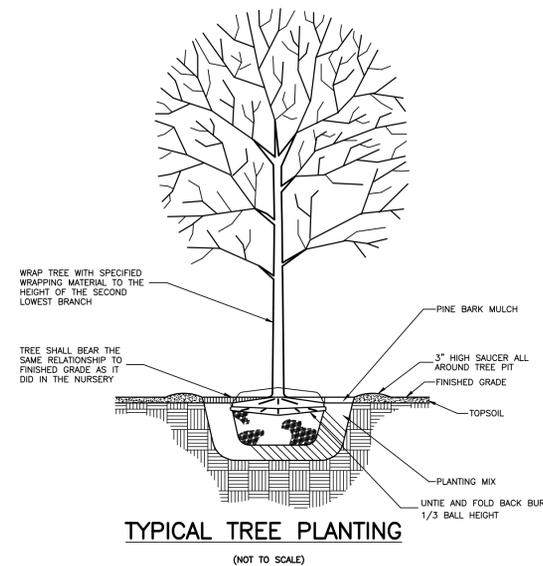
(NOT TO SCALE)



TYPICAL GRANITE CURB INLET INSTALLATION WITH CAPE COD BERM

(NOT TO SCALE)

- NOTES:
 1. GRANITE CURB INLETS ARE REQUIRED ON ALL CATCH BASINS
 2. PROVIDE GRANITE CURB INLETS FOR EACH NEW CATCH BASIN CONSTRUCTED

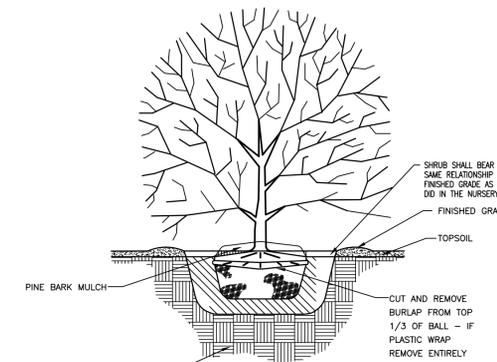


TYPICAL TREE PLANTING

(NOT TO SCALE)

PLANT LIST:

SYMBOL	QUAN	BOTANICAL NAME	COMMON NAME	SIZE
	9	ACER RUBRUM 'RED MAPLE'	RED SUNSET MAPLE	3" CAL.
	9	PLATANUS ACERIFOLIA	PLANE TREE	3" CAL.
	6	VIBURNUM SP.	VIBURNUM	2'-3'
	15	SPIREA SP.	SPIREA	18 - 24"
	15	RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM BLACK-EYED SUSAN	2 GALLON



SHRUB PLANTING DETAIL

(NOT TO SCALE)

PROPOSED PLANTING NOTES:

- STREET TREES SHALL BE A MINIMUM OF 12" IN HEIGHT AND OF A SPECIES APPROVED BY THE SUPERINTENDENT OF PUBLIC WORKS. (ALL STREET TREES SHALL BE THE SAME SPECIES)
- STREET TREES SHALL HAVE A MINIMUM CALIPER OF 3" MEASURED AT 3' ABOVE GRADE.
- TOTAL PROPOSED STREET TREES = 18 TREES
- STREET TREES SHALL BE PLANTED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY (STREET TREE REQUIREMENTS SHALL BE SPECIFIED IN THE DEED).
- CUL-DE-SAC ISLAND SHALL HAVE NO TREES PLANTED ON IT THAT COULD GROW AND IMPEDE THE TURNING RADIUS OF A FIRE APPARATUS.
- ISLANDS SHALL BE COMPLETELY COVERED WITH LOW LYING, LOW MAINTENANCE SHRUBS AND GROUND COVER PLANTS.

FOR REGISTRY USE ONLY

HINGHAM PLANNING BOARD

APPROVED CONDITIONALLY SUBJECT TO THE COMPLETION OF ALL REQUIRED GROUNDWORK AS SHOWN ON THESE PLANS AND AS SET FORTH IN THE COVENANT.

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TOWN CLERK, TOWN OF HINGHAM

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

Douglas Aberg
DOUGLAS ABERG, P.L.S. DATE: 7/14/23

REVISIONS

1. 7/14/23 REVIEW COMMENTS



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CHECKED BY: DK

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DEFINITIVE SUBDIVISION PLAN

#16 BISHOPS LANE
HINGHAM, MASSACHUSETTS

PREPARED FOR: YOUNG FAMILY TRUST
16 BISHOPS LANE
HINGHAM, MA 02043

MARCH 24, 2023

SCALE: AS NOTED

JOB No. 17-360

LATEST REVISION:
JULY 14, 2023

CONSTRUCTION DETAIL PLAN

SHEET C7.7

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