

TOWN OF SWAMPSCOTT, MASSACHUSETTS

ATLANTIC AVENUE AND JESSIE STREET

WATER MAIN IMPROVEMENTS

MARCH 2021

BOARD OF SELECTMEN

PETER SPELLIOS, CHAIR
POLLY TITCOMB, VICE CHAIR
NEAL DUFFY
DAVID GRISHMAN
DONALD HAUSE

TOWN ADMINISTRATOR

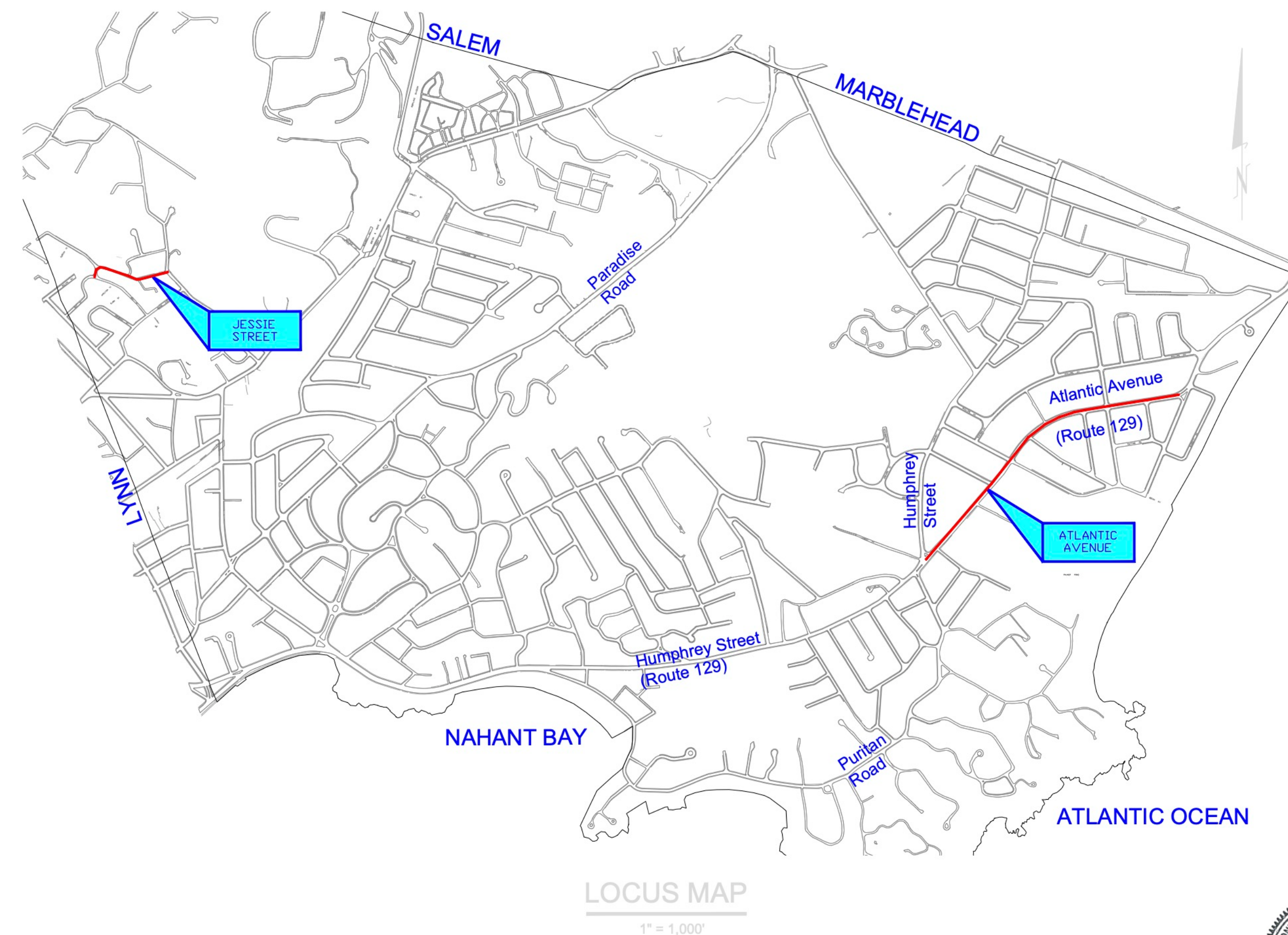
SEAN R. FITZGERALD

DIRECTOR OF PUBLIC WORKS

GINO A. CRESTA JR.

ASSISTANT TOWN ENGINEER

KELLY STEVENS



INDEX TO DRAWINGS

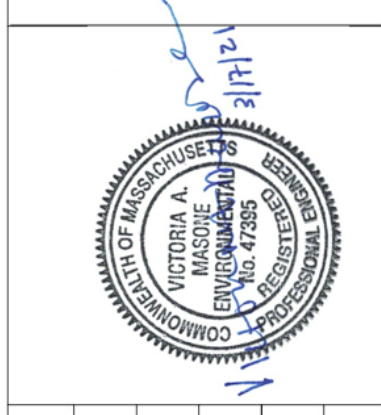
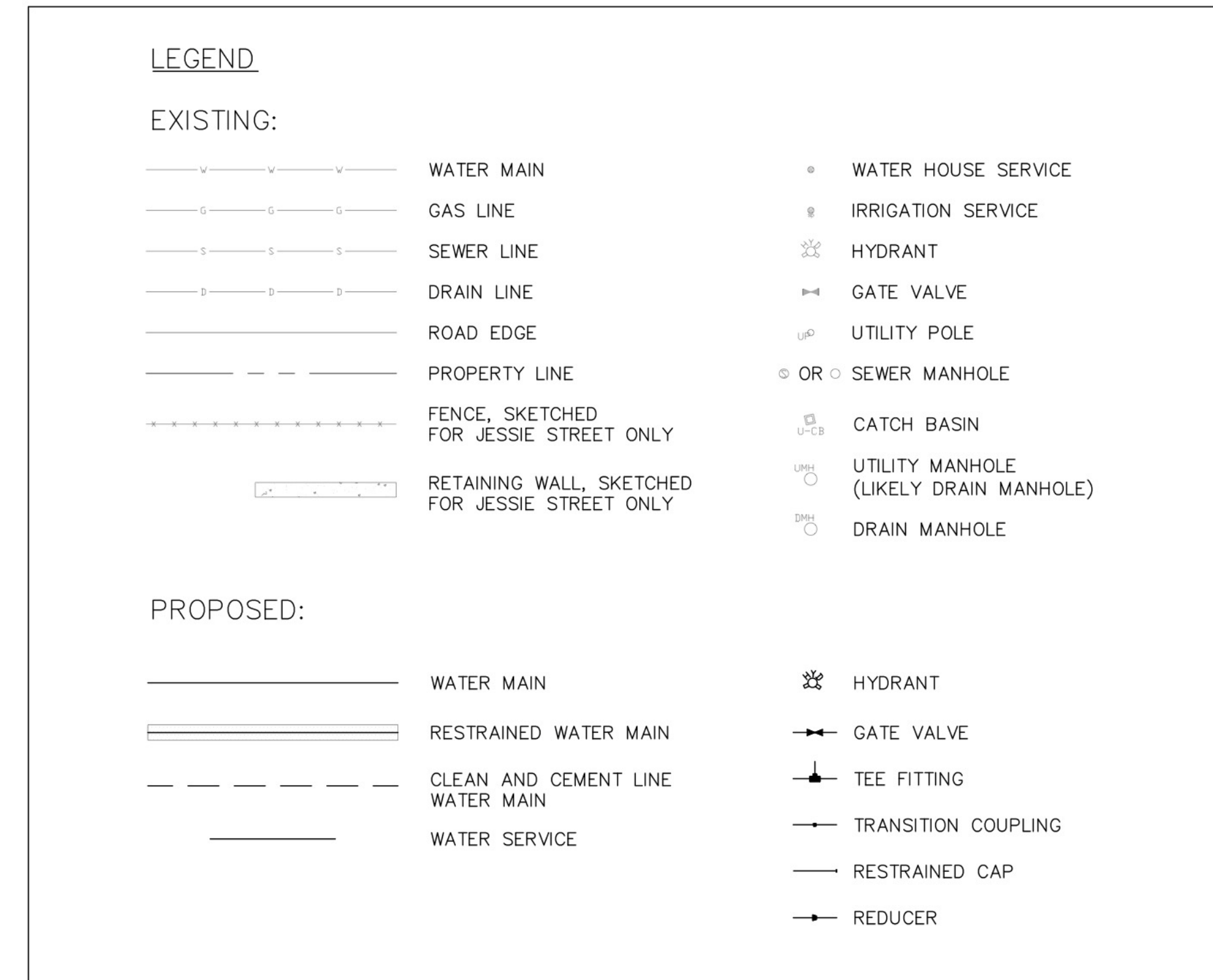
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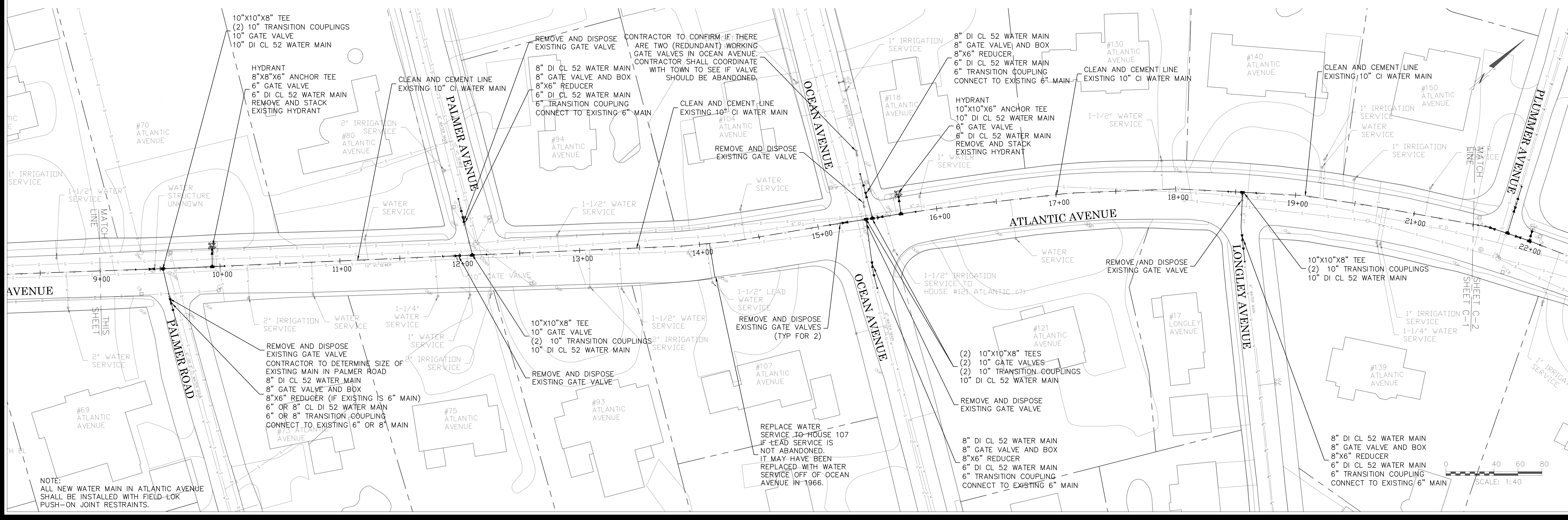
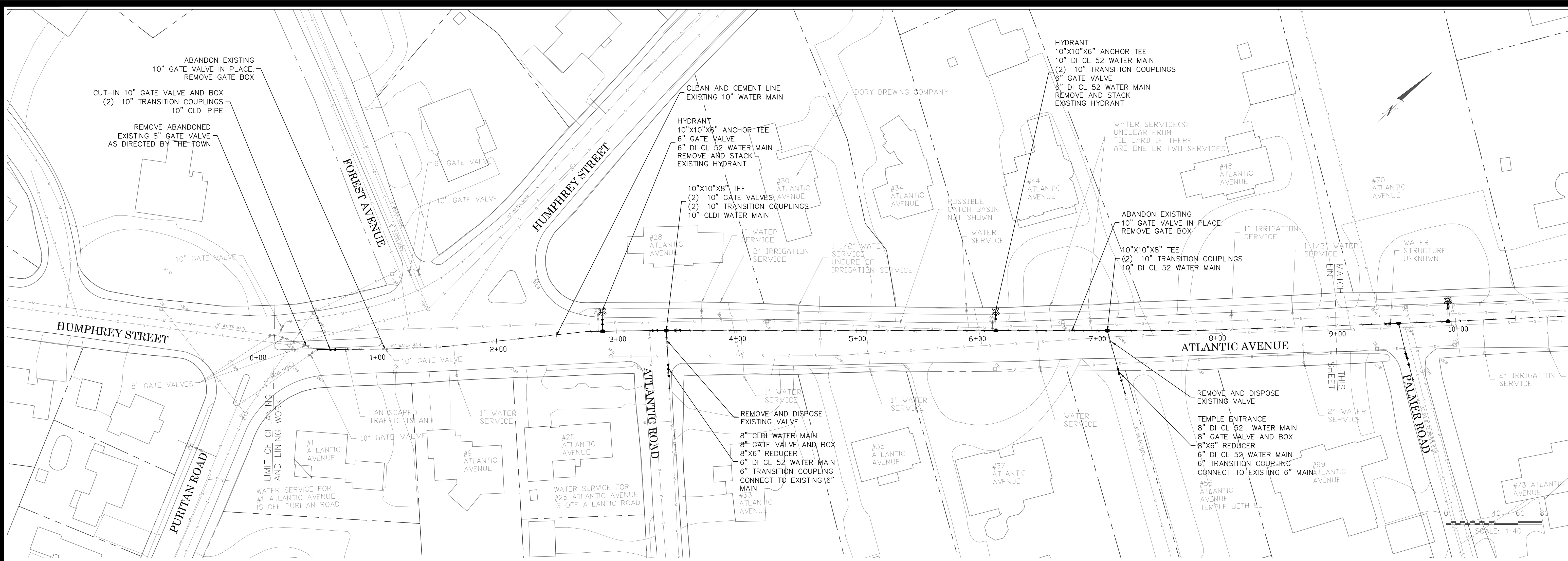
VM CONSULTING ENGINEERS, LLC

GENERAL NOTES:

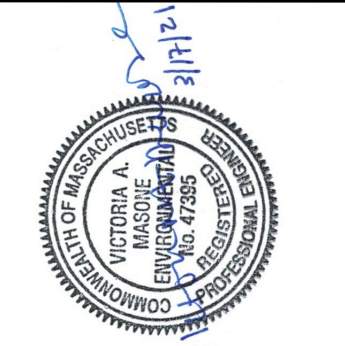
- BASE MAP INFORMATION WAS COMPILED FROM THE TOWN'S GIS DATA, TIE CARDS, MARKED FIELD INDICATORS AND OBSERVABLE UTILITIES AND IS INTENDED TO BE APPROXIMATE ONLY. NO SURVEY WAS PERFORMED FOR THE BASE MAP INFORMATION SHOWN IN THE PLANS. THE LOCATIONS OF UTILITIES, BUILDINGS, PROPERTY LINES, LAYOUT LINES SHOWN IN THE PLANS ARE APPROXIMATE. OWNER ASSUMES NO RESPONSIBILITY FOR LOCATION AND TYPE OF UNDERGROUND UTILITIES.
- THE LOCATION OF THE EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE INTENDED ONLY TO ADVISE THE CONTRACTOR OF THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATIONS OF ALL EXISTING UTILITIES, INCLUDING SERVICES. CONTACT THE DIG SAFE CALL CENTER (WWW.DIGSAFE.COM, 811 OR 1-888-344-7233) FOR FIELD LOCATIONS OF ALL EXISTING UTILITIES. IN ADDITION, THE CONTRACTOR SHALL CONTACT THE TOWN OF SWAMPSCOTT FOR WATER, SEWER AND DRAIN LINE LOCATIONS.
- CONTRACTOR IS RESPONSIBLE FOR CONFIRMING UTILITY LOCATIONS PRIOR TO FINALIZING WATER MAIN AND APPURTENANCES LAYOUT. CONTRACTOR TO COORDINATE WITH OWNER IN THE FIELD TO DETERMINE FINAL LOCATIONS FOR WATER MAINS, HYDRANTS, VALVES AND FITTINGS.
- COORDINATE CONSTRUCTION ACTIVITY WITH UTILITY COMPANIES, DEPARTMENT OF PUBLIC WORKS, EMERGENCY SERVICES AND THE SCHOOL DEPARTMENT.
- THE CONTRACTOR SHALL MAINTAIN CONTINUOUS TRAFFIC FLOW (MINIMUM OF ONE LANE) DURING CONSTRUCTION.
- STATIONING ALONG THE LENGTH OF THE WATER MAIN IS INTENDED FOR GENERAL REFERENCE.
- THE CONTRACTOR SHALL MAINTAIN WATER SERVICE TO ALL CUSTOMERS AND HYDRANTS UNTIL NEW WATER SERVICE HAS BEEN TESTED AND DISINFECTED.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT NOT TO DISTURB THE EXISTING WATER SYSTEM. NO ADDITIONAL PAYMENT SHALL BE MADE FOR DAMAGE CREATED AT THE CONVENIENCE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT EQUIPMENT FLUIDS FROM REACHING ANY WATER COURSE. ANY INADVERTENT FLUID DISCHARGES SHALL BE IMMEDIATELY CLEANED FROM THE WATERS USING WHATEVER MEANS NECESSARY, AS DETERMINED BY THE ENGINEER.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF SWAMPSCOTT. A TOWN STREET OPENING PERMIT AND TRENCH OPENING PERMIT WILL BE REQUIRED FOR ALL STREETS WITHIN THE PROJECT AREA PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF PAVEMENT MARKINGS, TRAFFIC SIGN LOOPS, STRIPING, ARROWS, CROSSWALKS, ETC.
- BRACING OF UTILITY POLES, WHERE REQUIRED, SHALL BE INCIDENTAL TO THE INSTALLATIONS OF THE WATER MAIN. NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL AT HIS EXPENSE REPAIR ANY DAMAGE TO EXISTING SIDEWALKS, CURBS, PAVING, DRIVEWAYS, RETAINING WALLS, FENCES, SHRUBS, TREES, STONE WALLS, LAWNS, ETC. ALL EXCAVATED AREAS SHALL BE RETURNED TO EQUAL OR BETTER THAN PRIOR CONDITION BY THE CONTRACTOR.
- PROTECT AND DO NOT DISTURB PROPERTY IRONS AND MONUMENTS. IF DISTURBED, RESET AT THE CONTRACTOR'S EXPENSE BY A LICENSED LAND SURVEYOR REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS.
- UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, THE NEW WATER MAIN SHALL PASS UNDER THE EXISTING UTILITIES, EXCEPT SEWER.
- PROVIDE 18-INCHES VERTICAL SEPARATION AND 10-FEET HORIZONTAL SEPARATION BETWEEN WATER MAIN AND SEWER OR DRAIN LINES.
- CONTRACTOR SHALL MAINTAIN 5-FEET OF COVER OVER WATER MAINS AND SERVICES.
- THE CONTRACTOR AT HIS EXPENSE SHALL PROVIDE ADDITIONAL TAPS AS NECESSARY FOR THE CHLORINATING AND HYDROSTATIC TESTING. TAPS SHALL BE CAPPED AFTER TESTING IS COMPLETE.
- WATER SERVICE LOCATIONS ARE SHOWN BASED ON TOWN'S WATER TIE CARD INFORMATION.
- MANY HOUSES IN ATLANTIC AVENUE HAVE SEPARATE IRRIGATION WATER SERVICES. SIZE OF WATER SERVICES AND IRRIGATION SERVICES IS SHOWN WHEN INFORMATION WAS INCLUDED IN THE TIE CARD. WATER SERVICES VARY IN SIZE (1", 1-1/4", 1-1/2", 2"). CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL WATER AND IRRIGATION SERVICES WHERE WATER MAIN IS CEMENT LINED. CONTRACTOR SHALL ONLY REPLACE LEAD WATER SERVICES, AND ANY SERVICES LOCATED IN NEW SECTIONS OF WATER MAIN. CONTRACTOR WILL BE PAID BASED ON ACTUAL SIZE OF WATER SERVICE INSTALLED.
- ALL SERVICES IN JESSIE STREET AND HIGHLAND PLACE SHALL BE REPLACED. ALL WATER SERVICES IN JESSIE STREET AND HIGHLAND PLACE SHALL BE 1-INCH. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SIZE OF EXISTING WATER SERVICE AND INSTALL ANY NECESSARY TRANSITION FITTINGS. NEW WATER SERVICES SHALL CONSIST OF A NEW CORPORATION, COPPER SERVICE TUBING, COUPLING, AND CURB STOP. NEW SERVICES TO BE INSTALLED AS SPECIFIED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS. NEW SERVICES ARE SHOWN ON THE PLANS NEXT TO EXISTING SERVICES FOR CLARITY. NEW SERVICES ARE TO BE INSTALLED IN EXISTING WATER SERVICE TRENCH. UNLESS OTHERWISE APPROVED BY THE ENGINEER, ALL ABANDONED SERVICES ARE TO BE SHUT OFF AT THE CORPORATION AT THE TIME OF THE NEW TIE OVER.
- HOUSE SERVICE CONNECTIONS SHALL BE COMPLETED AFTER THE NEW WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND APPROVED.
- ALL MECHANICAL JOINT FITTINGS, HYDRANTS AND VALVES SHALL BE RESTRAINED. RESTRAINTS FOR MECHANICAL JOINTS SHALL BE SERIES 1100 MEGALUG AS MANUFACTURED BY EBAA IRON CO., UNI-FLANGE SERIES 1400 MECHANICAL JOINT RESTRAINT, MJ FIELD LOK GASKET BY U.S. PIPE OR EQUAL.
- RESTRAINTS FOR PUSH-ON JOINTS SHALL BE SERIES 1700 AS MANUFACTURED BY EBAA IRON CO., SERIES 1390 AS MANUFACTURED BY UNI-FLANGE OF THE RESTRAINED JOINT GASKET TYPE AS MANUFACTURED BY THE SAME DUCTILE IRON PIPE COMPANY OF THE PIPE FOR WHICH THEY ARE USED ON. RESTRAINED GASKETS SHALL BE EQUAL TO THE FIELD LOK 350 GASKET AS MANUFACTURED BY U.S. PIPE AND GRIFFIN PIPE. ALL NEW PIPE IN ATLANTIC AVENUE SHALL BE INSTALLED WITH PUSH-ON JOINT RESTRAINTS. NEW PIPE IN JESSIE STREET AND HIGHLAND PLACE SHALL BE RESTRAINED AS SHOWN IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL RESTRAIN AT LEAST TWO LENGTHS OF PIPE BEFORE AND AFTER GATE VALVES AND BEFORE DEAD END IN HIGHLAND PLACE.
- ALL WATER MAIN TRENCHES IN EXISTING PAVED ROADS SHALL BE RESURFACED WITH TRENCH PAVEMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ALL VALVES ON ABANDONED WATER MAINS SHALL BE CLOSED, THE TOP SECTION OF THE GATE BOX REMOVED, AND THE REMAINING PORTION OF THE GATE BOX FILLED WITH SAND AND TOPPED AS SPECIFIED.
- ALL ABANDONED WATER MAIN SHALL BE PLUGGED WITH CONCRETE AND BRICK.
- CONTRACTOR SHALL USE A WATER TIGHT PLUG DURING THE WATER MAIN INSTALLATION. PLUG SHALL REMAIN IN PLACE AT ALL TIMES.
- CONTRACTOR TO COORDINATE SHUTDOWN AND TIE-IN PROCEDURES AT ALL INTERSECTIONS WITH THE TOWN OF SWAMPSCOTT WATER DEPARTMENT.
- CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OFF-SITE, ANY EXISTING WATER MAIN AND SERVICES APPEARING IN THE SAME TRENCH AS THE PROPOSED WATER MAIN AND SERVICES AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OFF-SITE, ANY EXISTING GATE VALVES, WATER BOXES AND COVERS AND APPURTENANCES AT NO ADDITIONAL COST TO THE OWNER. HYDRANTS SHALL BE RETAINED AND DELIVERED TO THE HUMPHREY STREET PUMP STATION AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL COMPACT IN 12-INCH LIFTS.
- THE LOCATION OF SUBSURFACE ROCK IS NOT KNOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN DETERMINATION AS TO THE LOCATION OF SUBSURFACE ROCK.
- WHERE NEW WATER MAINS OR APPURTENANCES ARE TO JOIN OR BE CONNECTED TO EXISTING PIPE, CONTRACTOR SHALL CUT AND REMOVE THE EXISTING PIPE AS NECESSARY TO INSTALL THE NEW WORK. ALL EXISTING SIZES AND MATERIAL TYPES SHALL BE VERIFIED.
- WHENEVER POSSIBLE, THE CONTRACTOR SHALL BEND THE WATER MAIN AROUND CURVES USING JOINT DEFLECTION. JOINT DEFLECTION SHALL NOT EXCEED ALLOWABLE PIPE DEFLECTION.
- PRIOR TO THE START OF CONSTRUCTION, A TEMPORARY BY-PASS PIPING SYSTEM SHALL BE INSTALLED, CHLORINATED, AND TESTED PRIOR TO INSTALLING TEMPORARY SERVICE CONNECTIONS. THE CONTRACTOR SHALL SUBMIT A BY-PASS PIPING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION. A MUTUALLY AGREEABLE PLAN INCLUDING SIZE, MATERIALS, LOCATION AND METHOD OF THE TEMPORARY BY-PASS PIPING SYSTEM SHALL BE RESPONSIBILITY OF THE CONTRACTOR. ALL COMPONENTS IN THE TEMPORARY BY-PASS PIPING SYSTEM SHALL BE NSF-61 APPROVED.
- BY PASS PIPING SHALL BE 6-INCH DIAMETER IN ATLANTIC AVENUE AND 4-INCH DIAMETER IN JESSIE STREET. ALL BYPASS PIPING SHALL HAVE A CONNECTION TO ACTIVE WATER MAINS ON BOTH SIDES OF THE STREET.
- CONTRACTOR SHALL INSTALL TEMPORARY WATER SERVICES TO RESIDENCES AND BUSINESSES. CONTRACTOR SHALL NOTIFY EACH RESIDENT PRIOR TO CONNECTION TO TEMPORARY BYPASS. CONTRACTOR SHALL NOTIFY RESIDENTS/WATER SYSTEM CUSTOMERS AT LEAST 48 HOURS PRIOR TO ANY SCHEDULED INTERRUPTIONS IN WATER SERVICE.
- ONLY THE TOWN OF SWAMPSCOTT SHALL OPERATE HYDRANTS AND GATE VALVES. CONTRACTOR SHALL NOTIFY TOWN OF SWAMPSCOTT AT LEAST 72 HOURS PRIOR TO SCHEDULED SHUTDOWN. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY ALL NEIGHBORS 48 HOURS PRIOR TO SHUT DOWN.
- TEMPORARY BLOWOFF/SAMPLE TAPS MUST BE MADE AT THE BEGINNING AND END OF EACH RUN, AND ADDITIONALLY EVERY 1,200- FEET. THE SAMPLE LINES MUST BE REMOVED TO THE CORPORATION AFTER THE TESTING/SAMPLING HAS BEEN COMPLETED. MATERIAL COST FOR TEMPORARY BLOWOFF/SAMPLE TAPS IS INCIDENTAL TO THE TESTING.



03/17/21	BID SET				
1		No.	Description	Date	REVISIONS



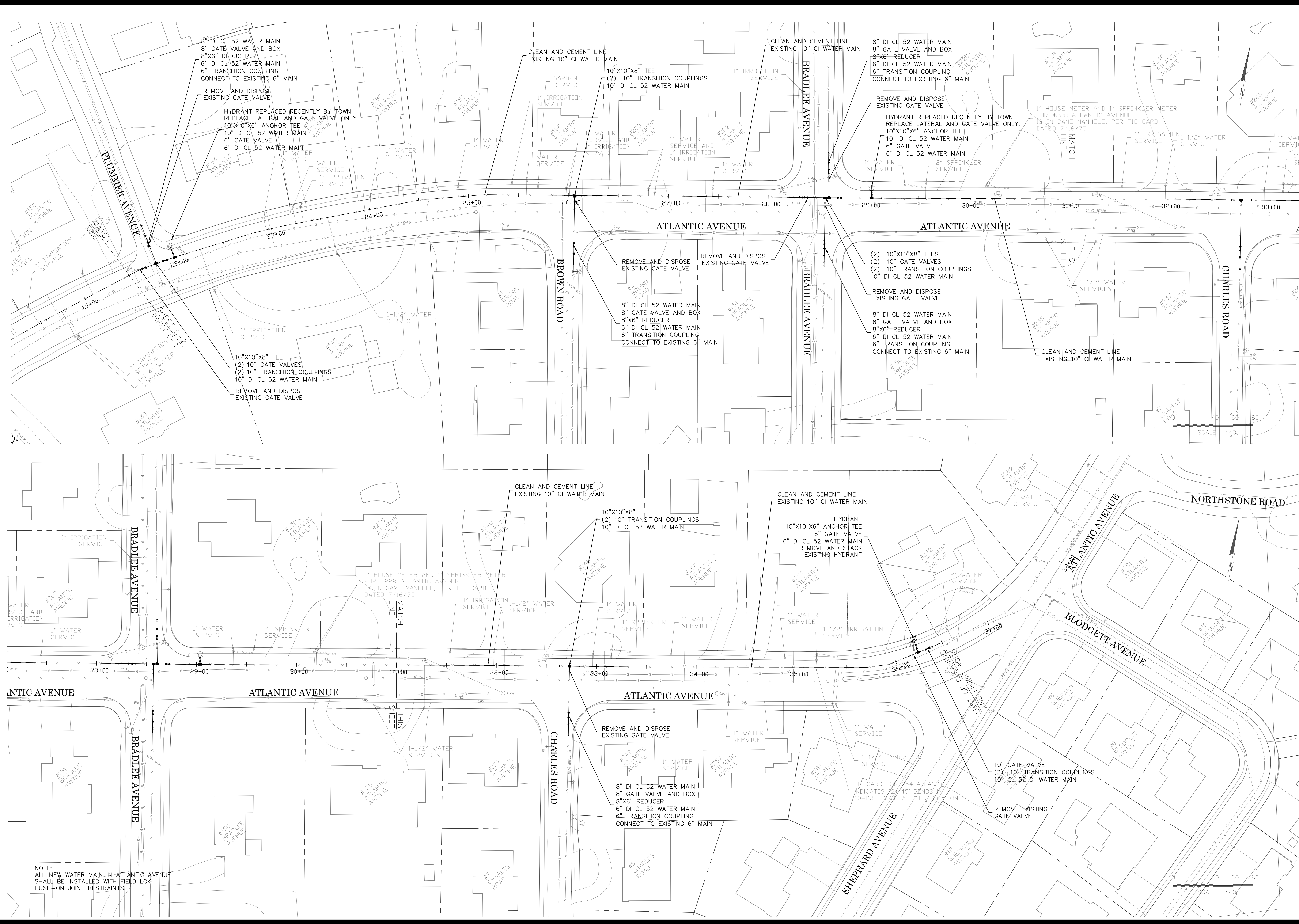
NOTE:
ALL NEW WATER MAIN IN ATLANTIC AVENUE
SHALL BE INSTALLED WITH FIELD-LOCK
PUSH-ON JOINT RESTRAINTS.



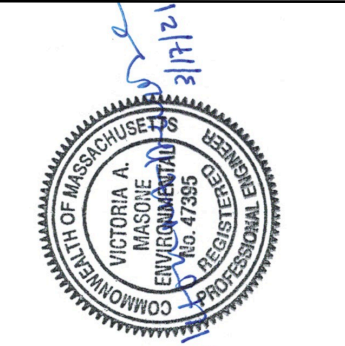
No.	Description	Date
1	BID SET	03/17/21

OWNER: TOWN OF SWAMPSCOTT
PROJECT: ATLANTIC AVENUE AND JESSIE STREET
DRAWING: WATER MAIN IMPROVEMENTS
SHEET: C-1

ATLANTIC AVENUE - STA 0+00 TO 21+50

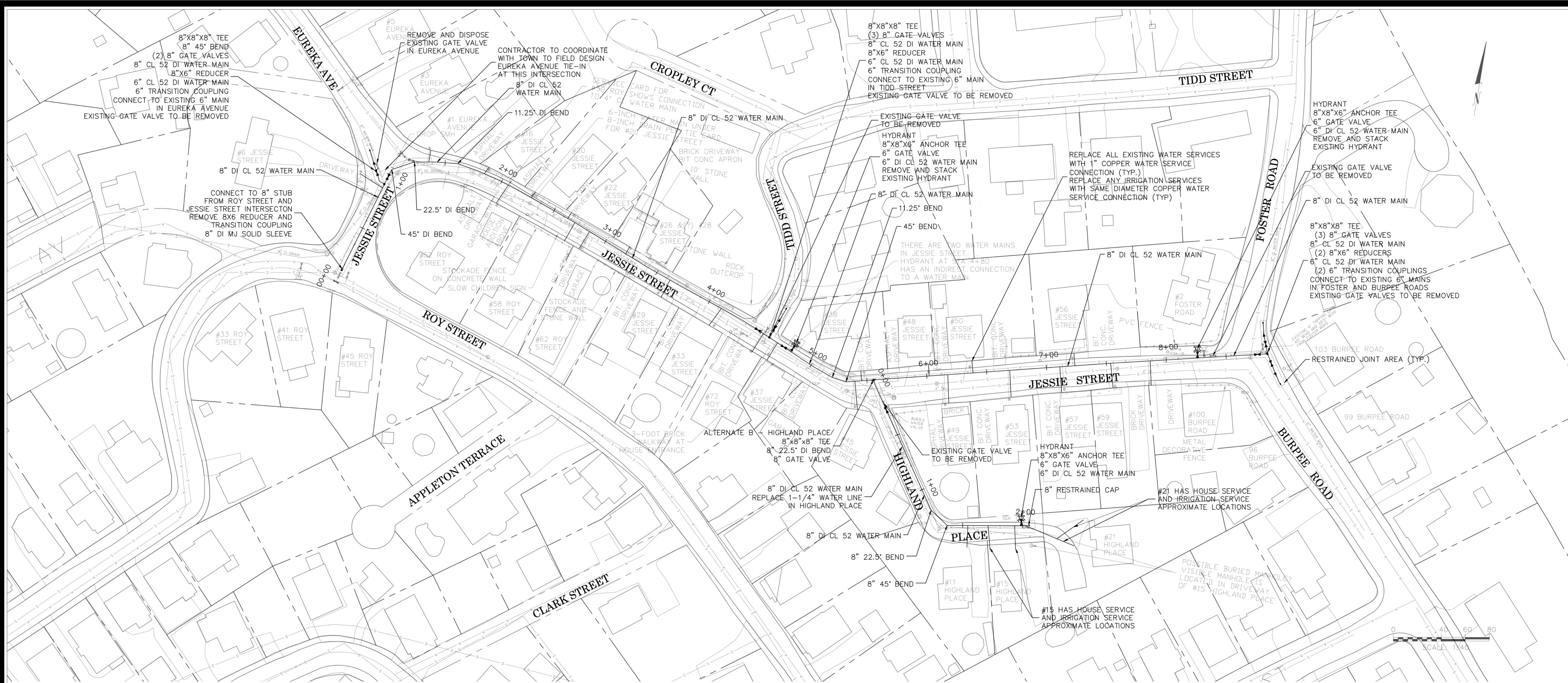


NOTE:
ALL NEW WATER MAIN IN ATLANTIC AVENUE
SHALL BE INSTALLED WITH FIELD LOK
PUSH-ON JOINT RESTRAINTS.



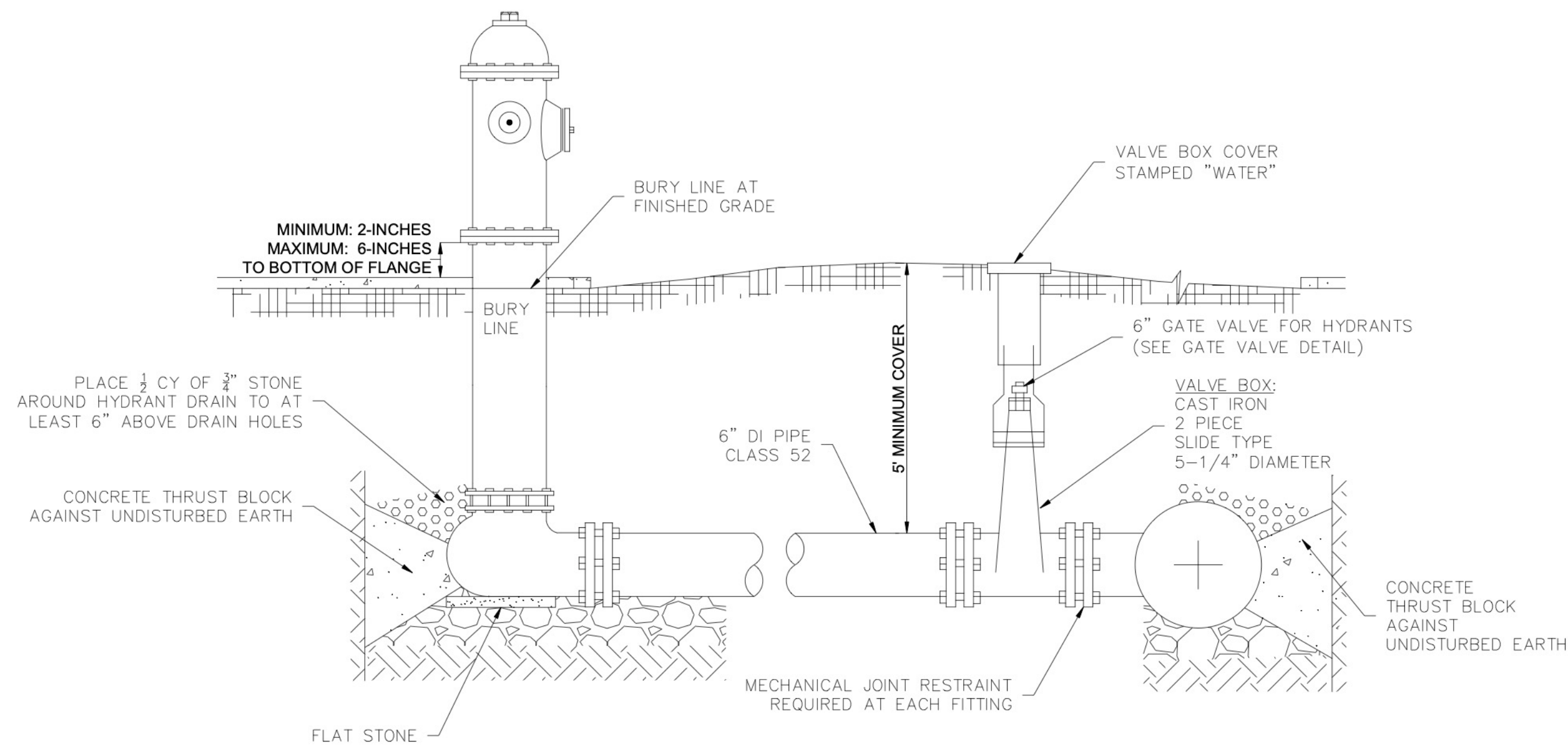
No.	Description	Date
1	BID SET	03/17/21
	REVISIONS	

OWNER: TOWN OF SWAMPSCOTT
PROJECT: ATLANTIC AVENUE AND JESSIE STREET WATER MAIN IMPROVEMENTS
DRAWING: ATLANTIC AVENUE - STA 21+50 TO 36+50



03/17/21			
1	BID SET		
No.	Description	Date	
	REVISIONS		

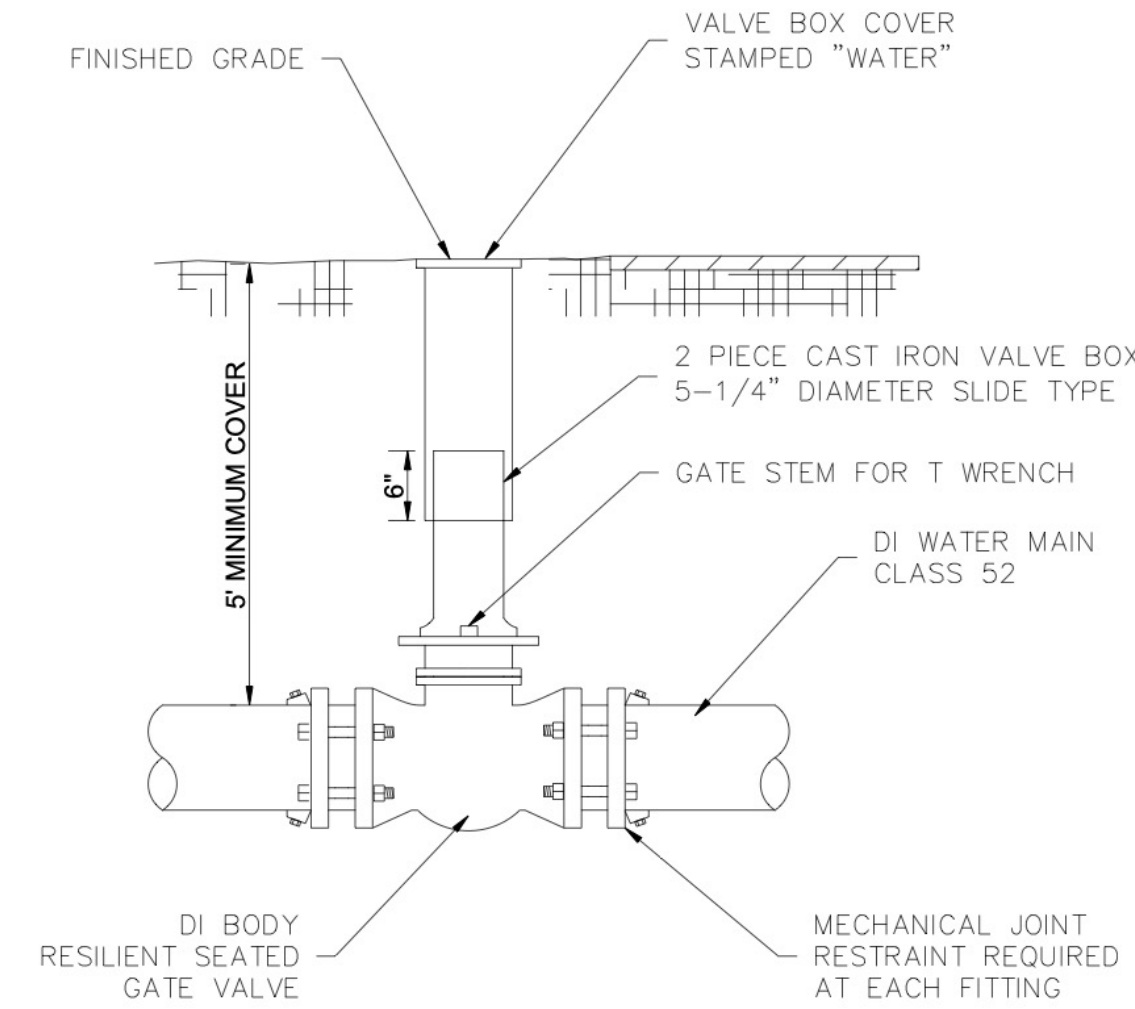
OWNER: TOWN OF SWAMPSCOTT
 PROJECT: ATLANTIC AVENUE AND JESSIE STREET WATER MAIN IMPROVEMENTS
 DRAWING: JESSIE STREET - STA 0+00 TO STA 8+85 (ALT. A)
 HIGHLAND PLACE - STA 0+00 TO STA 2+00 (ALT. B)



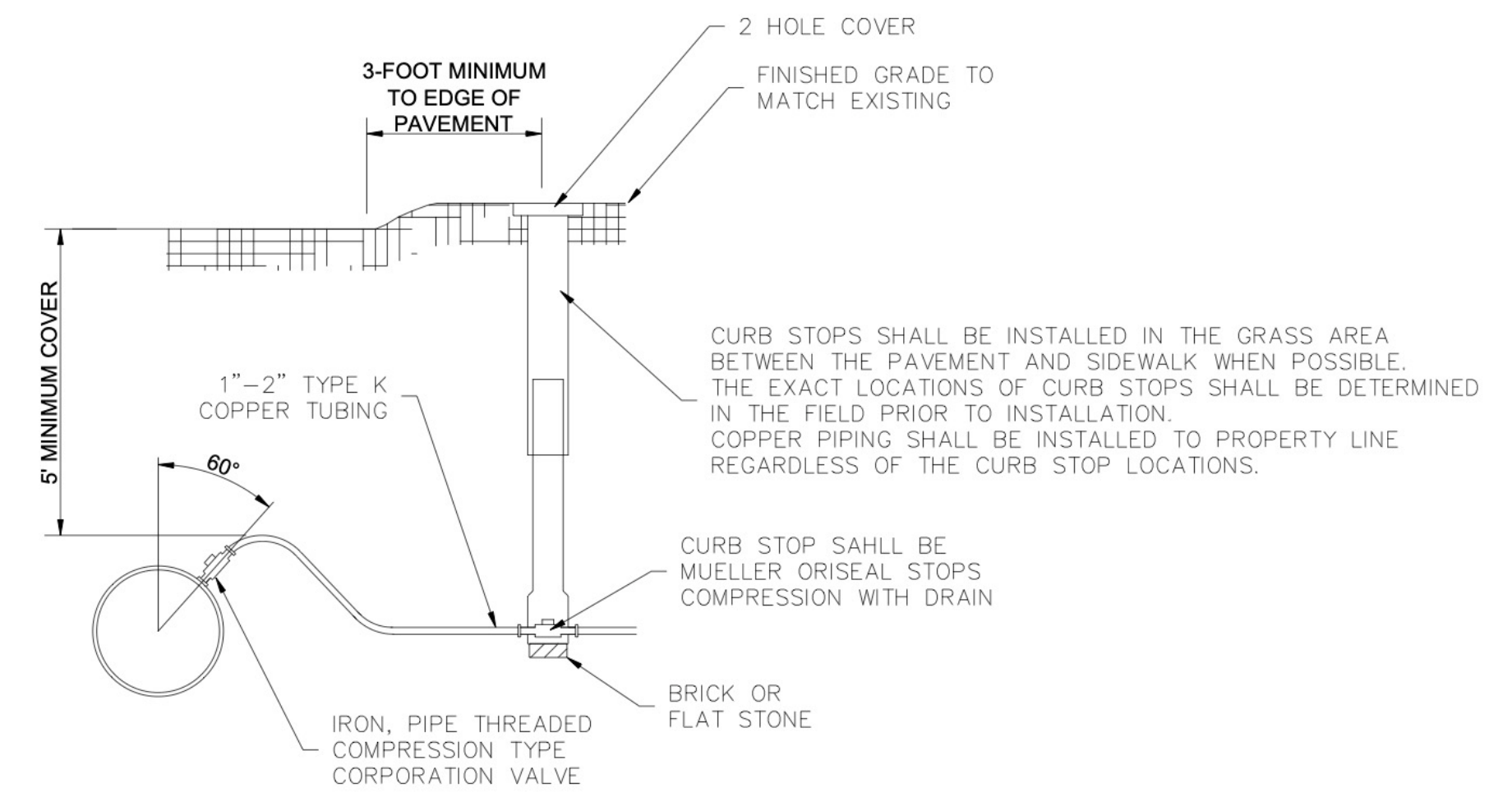
NOTES:

1. THRUST BLOCKS BACKED AGAINST UNDISTURBED SOIL AT HYDRANT AND ANCHOR TEE.
2. HYDRANT SHALL BE A MINIMUM OF 5'-0" FROM EDGE OF TRAVELED WAY (WHERE POSSIBLE)
3. ALL HYDRANTS SHALL HAVE RETAINER GLAND.
4. PROVIDE HYDRANT AND VALVE JOINTS WITH RESTRAINED MECHANICAL JOINTS.
5. SUPPORT BLOCKS TO BE CONCRETE MASONRY BLOCK.
6. ALL VALVES OPEN RIGHT.
7. VALVE BOX DETAIL. TYPICAL FOR ALL GATE VALVE INSTALLATIONS.

HYDRANT SETTING WITH A GATE VALVE
NOT TO SCALE



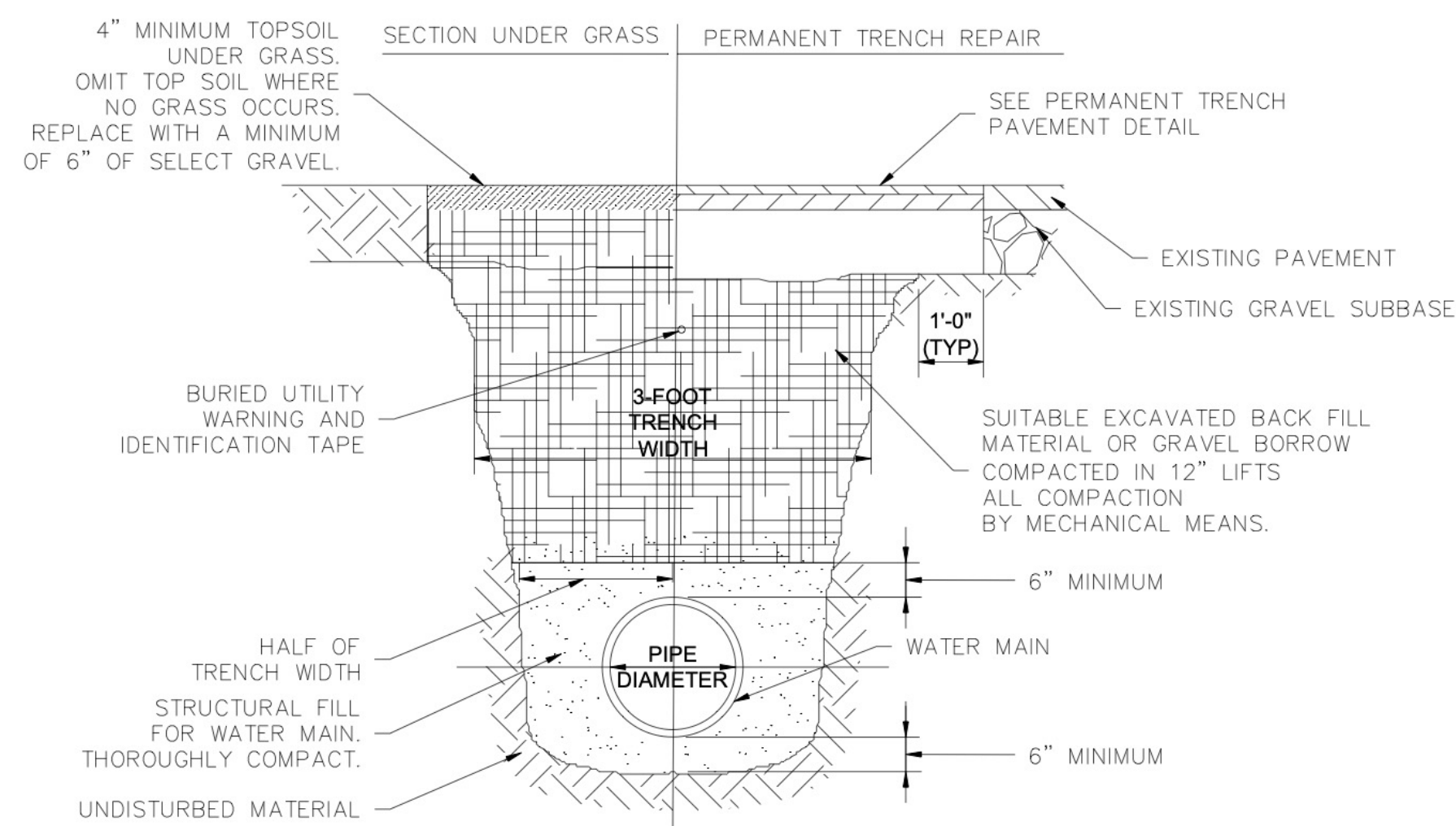
GATE VALVE
NOT TO SCALE



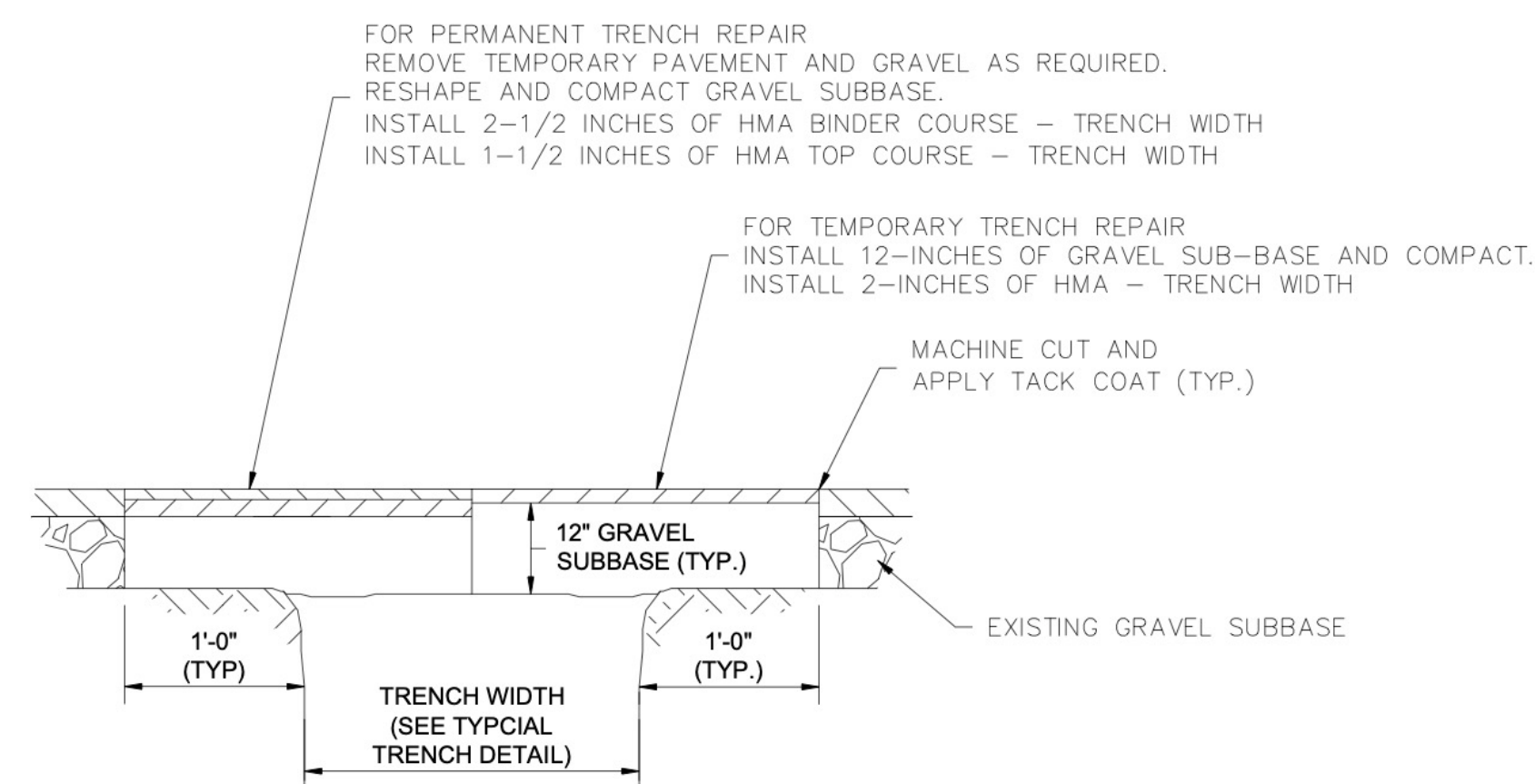
NOTES:

1. SERVICES OF 1-INCH AND GREATER IN DUCTILE IRON AND CAST IRON MAINS WITH A DIAMETER OF 12-INCHES OF GREATER SHALL BE DIRECT TAP.
2. IF CONTRACTOR CHOOSES TO INSTALL SERVICES UNDER PAVEMENT, TRENCHLESS METHOD SHALL BE APPROVED PRIOR TO CONSTRUCTION.
3. FLUSH ALL NEW SERVICE LINES AFTER INSTALLATION.
4. CONNECT NEW SERVICE TO EXISTING SERVICE. FURNISH AND INSTALL ALL REQUIRED FITTINGS/ADAPTERS FOR CONNECTION.
5. CURB STOPS SHALL OPEN LEFT.

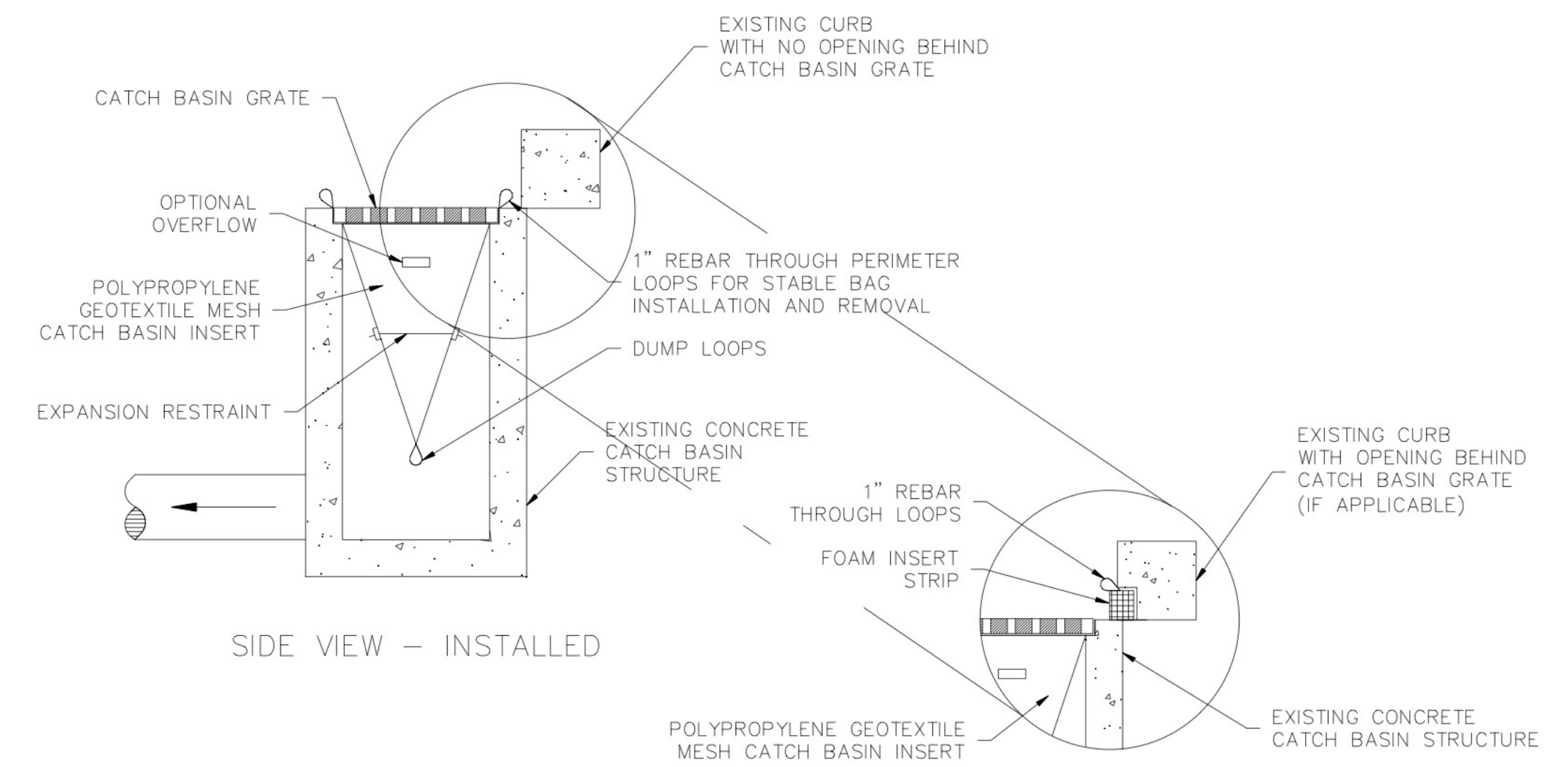
WATER SERVICE CONNECTION
NOT TO SCALE



TYPICAL TRENCH DETAIL
NOT TO SCALE



PERMANENT TRENCH PAVEMENT DETAIL
NOT TO SCALE



SIDE VIEW - INSTALLED

SIDE VIEW - INSTALLED FOR CURBS WITH OPENINGS BEHIND CATCH BASIN

CATCH BASIN SILT FILTERING SYSTEM
NOT TO SCALE



03/17/21			Date
1	BID SET		
No.		Description	REVISIONS

TOWN OF SWAMPSCOTT
ATLANTIC AVENUE AND JESSIE STREET
WATER MAIN IMPROVEMENTS

DETAILS

OWNER:
PROJECT:
DRAWING:

SHEET: