FDH17

RECEIVED
APR 27 2026
Land Use Department

Anna Wynn

From: Blacker, Katherine <blackerk@grotonutilities.com>
Sent: Monday, April 27, 2026 12:56 PM
To: Hannah Gienau; Elizabeth Burdick; Anna Wynn
Cc: LaFontaine, Doug; Acimovic, Karl; Monk, Cassidy; Pratt, Joseph; water pollution control authority
Subject: Comments - 1947 Center Groton Road Residential Development - WIP#2-1864
Attachments: 1947 Center Groton Rd_WIP02-1864_GU Water & Watershed Comments_04-24-26.pdf; GU WATER SPECS._SELECTION.pdf; L0098_Water Main Record Plan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Completed

Hannah & Liz,

Please see attached Comments on behalf of Groton Utilities -water and watershed.
Our Engineers received the Stormwater and geotechnical packets and have requested additional time to review these.

At the request of Ed Lynch- WPCA Chairperson, the members of the Ledyard WPCA Board will be forwarded these comments as a courtesy/for transparency of the Water infrastructure review, as GU is acting as its Water Contract Operator.

Additionally attached are:

- GU Water Specification Details (entire book is available upon request).
- L0098 – Record Plan on 16" Water Main on Center Groton Road

Please feel free to forward my contact information as I have been assigned as project manager of this project.

Thank you,
Kate

Kate Blacker
Project Management | Technical Aide
Water & Wastewater

GROTON UTILITIES

Office: (860) 629-7012
Cell: (860) 625-0720
Office Hours: 7am – 3pm (M-F)

LETTER OF TRANSMITTAL

Town of Ledyard Land Use Department

741 Colonel Ledyard Highway, Ledyard, CT 06339
Telephone: (860) 464-3216
Email: Zoning.official@ledyardct.org

DATE: April 13, 2026

TO:				
	☐ Town Engineer	☒ Groton Public Utilities	☐ Building Dept.	☐ Assessor
	☐ Town Attorney	☐ SCWA	☐ Fire Marshal	☐ Police
	☐ Ledge Light Health	☐ Mayor	☐ DOT	☐ CAM
	☐ WPCA	☐ Public Works	☐ DEEP	☐ Other

Project Name: IWWC#26-7SITE
Project Location: 1947 Center Groton Rd, Ledyard CT, 06339

The following items have been transmitted:
☒ Application Plans and/or Supporting Documents via Hand Delivered
☐ Regulations
☐ Other

Description
Please review & comment on application.

Transmitted as checked below. Please submit comments on or before:

☐ For approval ☐ For your use ☐ As requested ☒ **For your review and comment**

Note: Please return comments to Zoning.official@ledyardct.org.

Remarks: If you are unable to submit written comments on or before May 5, 2026, please contact me by phone at the Land Use Department at (860) 464-3216. Thank you.

Signed: *Hannah Gienau*

Hannah Gienau, Zoning & Wetlands Official/Blight Enforcement Officer

Reviewing Agency:	Groton Utilities (contract operator for Water) and
Review Date:	Groton Utilities - Watershed
Reviewed By:	Cassidy Monk & Karl Acimovic (Watershed)
	Kate Blacker (Water Project Manager)
Project Name:	1947 Center Groton Road, Ledyard Center
Project Location:	
Comments:	Please see comments; not approved.

Electronic Signature: Kate Blacker

CITY OF GROTON
DEPARTMENT OF UTILITIES
SITE PLAN REVIEW SHEET

Title of Plan Multifamily Residential Dvlpt. - 1947 Center Groton Rd Latest Revision Date 04/22/2026

Location 1947 Center Groton Road, Ledyard Center W.I.P. # 02-1864

Engineer BL Companies & EG Homes Phone #_____

Reviewed By Blacker Date of Review 04/23/26

*Please include all Notes on Plan.

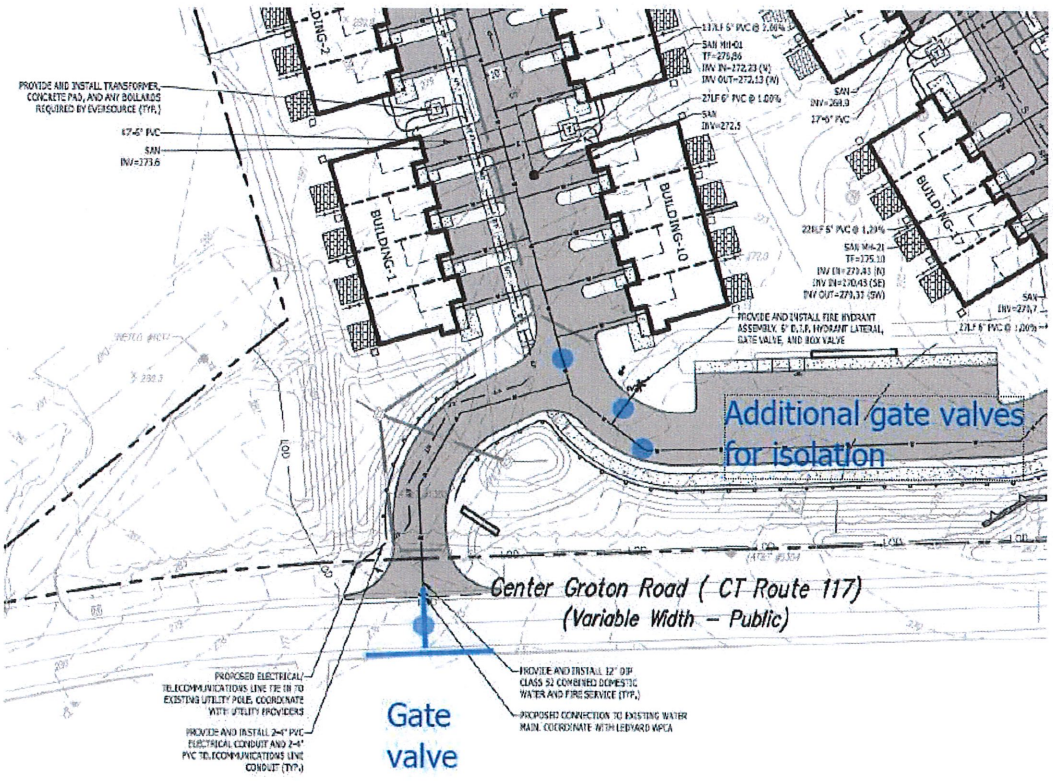
	Check for the Following:	Required Yes	No
1.	**Note** - All water main and service installations shall conform to the City of Groton, Department of Utilities, Water Main and Service Construction Specifications, with most current revisions.	X	
2.	**Note** - Approved backflow preventers are required on all fire sprinkler and domestic water lines.	X	
3.	**Note** - Remote water meter read box required for each meter.	X	
4.	**Note** - minimum cover shall be 4.5' from finish grade.	X	
5.	**Note** - Pipe separations -10' min between water and sewer 10' min between water and buildings 5' min between water and catch basins or drain pipes.	X	
6.	**Note** - Site must be at subgrade before water utilities can be installed.	X	
7.	**Note** - Valve locations - All branch line valves to be located as close as possible to main lines.	X	
8.	**Note** - Engineer to provide flow calculations to confirm hydrant flow and domestic flow requirements for meter sizing.	X	
9.	Architectural plans to show utility room locations and entry point of water service.	X	
10.	Water meter location inside building or meter pit.	X	
11.	Electronic Copy of the site plan and as-built is required	X	
12.	Is site located in Groton Utilities' watershed?	X[1]	

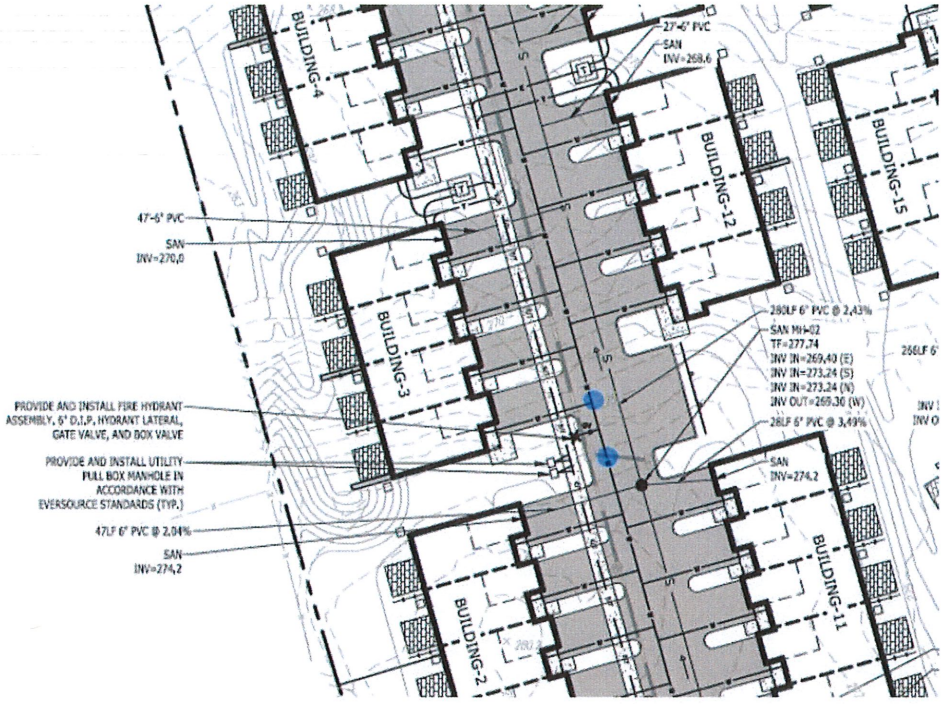
13. Comments: Plans not approved for GU Water & Watershed – See attached comments from GU - Contract Operator for Ledyard WPCA Water system.

[1] If site is located in watershed, fill out Watershed Source Water Protection Checklist.

Water Utility General Comments:

1. Existing water mains at Center Groton Rd = 16" DI – please show on Site Plan (As-built drawing is provided with these comments).
2. Existing Static Pressure is approximately 63 PSI static at Center Groton Road.
3. Request addition of "Groton Utilities (GU) noted as contract operator of Ledyard WPCA water system on page G0.01. in comments and in Definitions, for clarity.
    a. Please update #103 required water depth from 4.5' to 4.6'
4. GU requires tap to be made at the 16" DI water main on Center Groton Rd. with a tapping sleeve and valve. Please show this on the Plan. Contractor to coordinate with GU Project Management on tapping requirements and procedures. Note this on Utility Plan Sheet #8 of 13.
5. Please indicate pipe size and material of services, as well as a Spec detail of the "combined domestic and fire service" as noted on the Plan.
6. A meter pit and curb box will be required for each individual water service, per Ledyard WPCA Rules and Regulations.
7. Additionally please note on Plan:
    a. Required 10' separation of water and sewer infrastructure, including laterals.
    b. Required 5' horizontal or 18" vertical clearance separation of water and storm water utilities.
    c. Note 6' min. horizontal separation from UG telecommunications and electric.
    d. Recommended showing additional gate valves at driveway entrance for isolation, and three-way valves at all hydrants.
    e. See images below:
    f.





Gate valve on both sides of hydrant - for isolation

g.

8. Flow Demand Letter to be provided to GU Water Meter Department. GU Meter Department will size meters based on flow demand provided. Meters are provided by GU.
9. Contact GU Water Meter Department to review requirements for the layout, quantities, and sizing of meters and backflow devices at domestic and fire protection:
    a. **Groton Utilities Meter Department: 860-446-4077**.
    b. Contractor to coordinate with GU Water Meter Department for temporary water meter/backflow device rental and water usage requirements during construction.
10. Hydrants:
    a. Hydrant quantities and locations are to be determined/approved by Fire Marshal.
    b. Please coordinate with Groton Utilities about ownership and hydrant agreements.
    c. Three hydrants are called out via text boxes though it appears that four hydrants are drawn on the plan (one is shown in the area between building 14 and 5. Request clarification).
11. Unmetered Fire Sprinkler Agreement will be required for annual billing.
12. Contractor to provide As-built records at project completion.
13. Please remove Windham Water Spec details on page: C3.100and replace with Groton Utilities' Water Specification Sheets 1-20: Add GU Technical Drawings
    #1 – Typical Gate Box
    #2 – Gate Valve Connection Detail
    #3 - Tapping Sleeve & Valve
    #4 – Thrust Block Details
    #5 – Typical Sewer & Drain Crossing
    #6 – Hydrant Assembly Detail
    #7 – Brass Wedge Detail
    #9 – Meter Pit 1-1/2"
    #13 –Backflow Preventer Install
    #17 – Typical Trench Detail
    #19 – Typical Tracer Wire Detail
    #20 – Water Service Trench Detail

14. Please contact Groton Utilities Project Manager, Kate Blacker, assigned to this project.
15. Groton Utilities is the Contracted Water Operator (This does not include the Sewer): Suggested coordination with Ledyard WPCA's consultants, Weston and Sampson, to review sewer and force sewer infrastructure on this project.
    a. Upon initial review, water pipes in some areas appear to be at the same depth as sewer infrastructure. Recommend further investigating the sewer to avoid conflict.
16. Verify with Ledge Light Health District for requirements to abandoning of two wells noted on plans.

Watershed Comments

1. The drainage report was received on 4/23/2026 and is currently under review. Any additional comments will be provided via email.

2. Groton Utilities shall be kept fully informed throughout the planning approval process and during construction.

3. **Drainage**

    a. Additional drainage is required. Based on the contour lines, most of the stormwater and roof runoff flows into one swale and toward the western side of the site, where only a limited number of catch basins are present. This will result in drainage issues and may cause stormwater to discharge towards our reservoir.
    b. There should be more treatment chambers, there seems to only be one that the plan calls out. An underground treatment chamber may be beneficial for this size of site.
    c. **Roof** - Are there any mechanics on roof? If so, an oil water separator would need to be present as well, catch any hazardous material running off the roof.
        i. No explanation is provided in the legend for the lines shown extending from the roof

4. One oil-water separator may not be adequately sized for the total volume of oil stored on-site, especially considering the proposed transformer and proposed emergency generator. Given the size of the site and the combined storage capacity of these units, additional evaluation is recommended to verify that the separator can properly manage potential spills or leaks.
    a. SPCC Plan for potential spills

5. **Sedimentation and Erosion Controls-** Erosion and Sediment controls must be present before construction begins and inspected by GU employees throughout the entire construction process. Emergency spill prevention plans (including basic on-site spill containers and adsorbents) and procedures should be in place at each equipment and storage area during construction

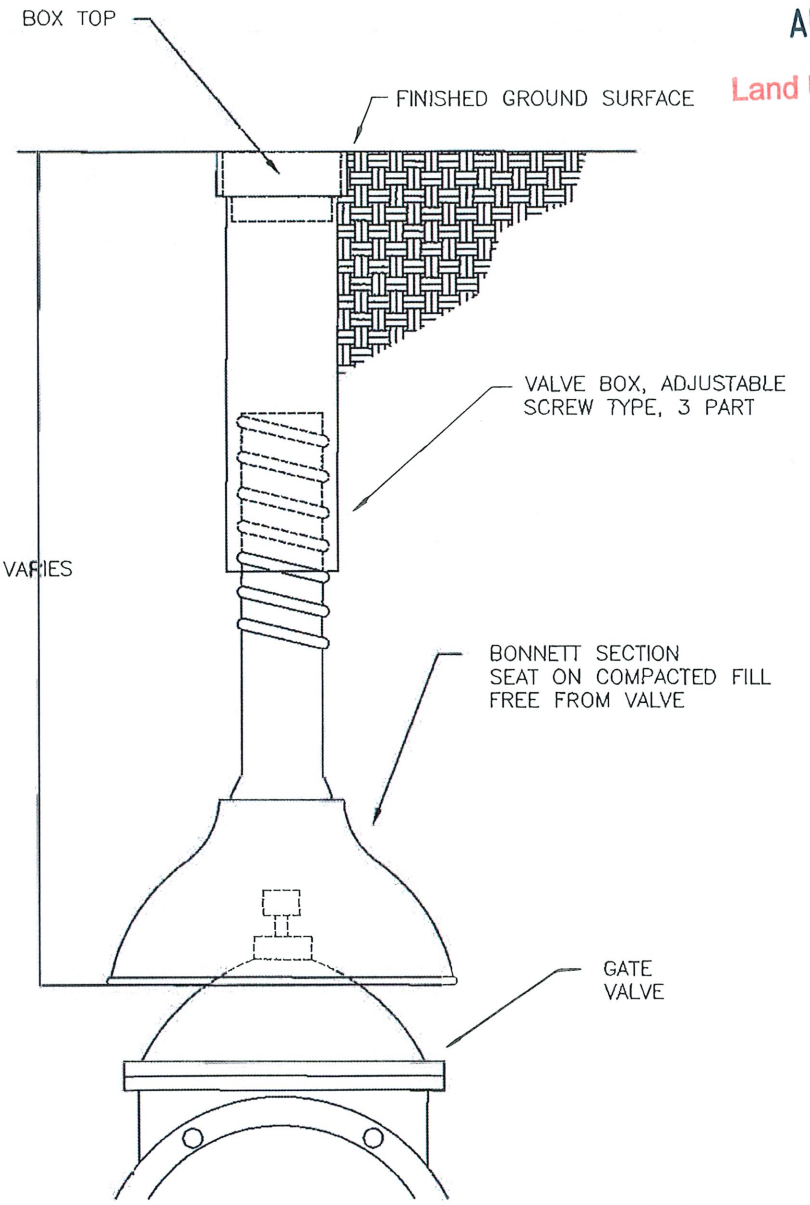
6. **Request for the following:**

a. **Memorandum of Understanding** - We recommend that a Memorandum of Understanding be filled out and agreed upon by both parties, i.e., Groton Utilities and the new site owner. The MOU will ensure future compliance through maintenance of the stormwater facilities, in keeping with a Stormwater Maintenance Plan. This should be reviewed and filled out by both parties before construction begins.

   i. We must ask for significant maintenance guarantees– namely stormwater effluent test results starting with quarterly test periods during the first year, then (if results are acceptable) semi-annual testing in the second and third years and finally (if the program is found to be acceptable) continue on a semi-annual reporting basis from that point on. Test results are to be provided to Groton Utilities, with the provision that Groton Utilities water operations personnel will have the right (upon proper notification to the Owner) to retrieve their own samples for testing.

   ii. The Owner must also show annual proof of contracts with vendors for the testing and maintenance of drainage facilities and provide a copy of such to Groton Utilities. Any deficiencies identified must be corrected within a period of one to three months and Groton will have the right to modify the testing and reporting intervals to such as may be deemed sufficient to ensure that repairs or improvements to the drainage facilities are functioning as intended. Testing protocols will be set up by representatives from Groton Utilities, the Owner or the Owner's designated representative (engineer or environmental professional). Payment for all testing, maintenance and the correction of any deficiencies will be the responsibility of the Owner.

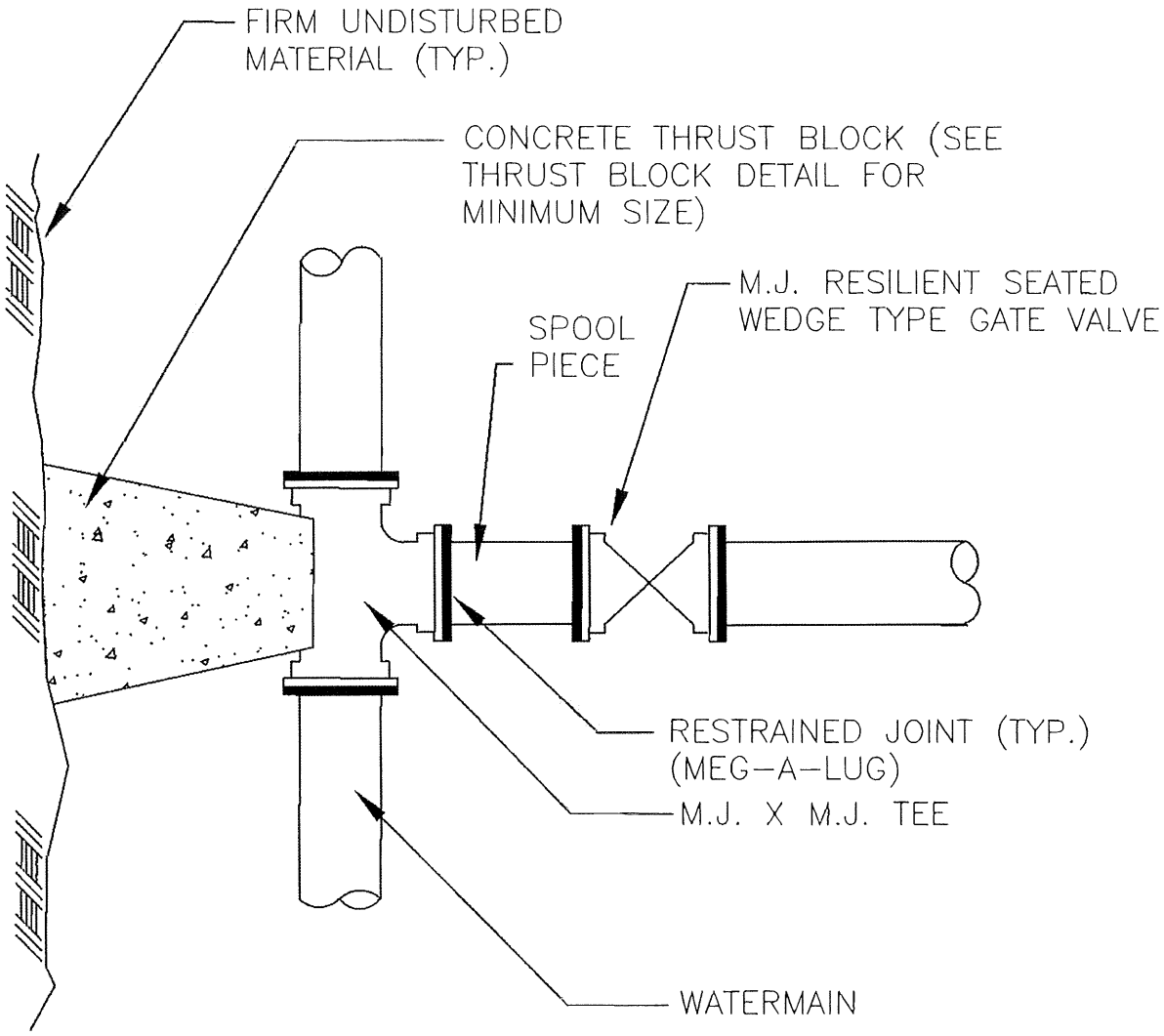
b. **Copy of Construction Stormwater General Permit from CTDEEP (Disturbance acres is over 5 acres)**



GATE BOX DETAIL

NOT TO SCALE

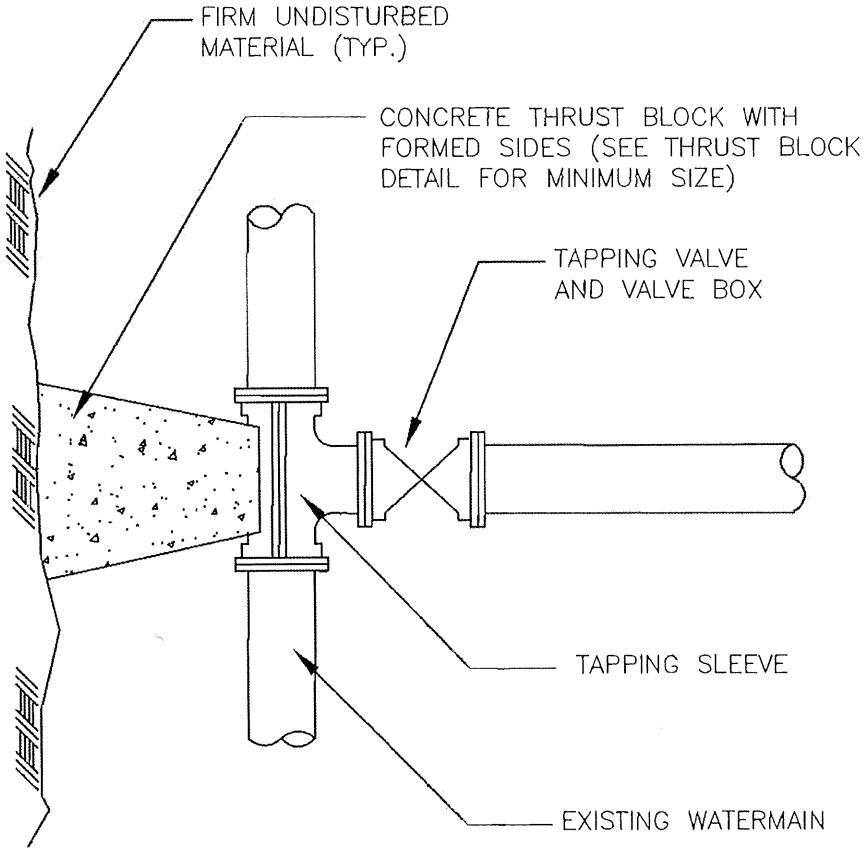
APPROVED	DATE		BY D.L.C. CHECKED
		STANDARDS	REVISED CHECKED
			DATE 1/8/01
		TYPICAL GATE BOX	1



GATE VALVE CONNECTION DETAIL

NOT TO SCALE

APPROVED	DATE			
		STANDARDS	BY D.L.C.	CHECKED
			REVISED	CHECKED
		TYPICAL GATE VALVE CONNECTION	DATE 1/8/01	
			2	

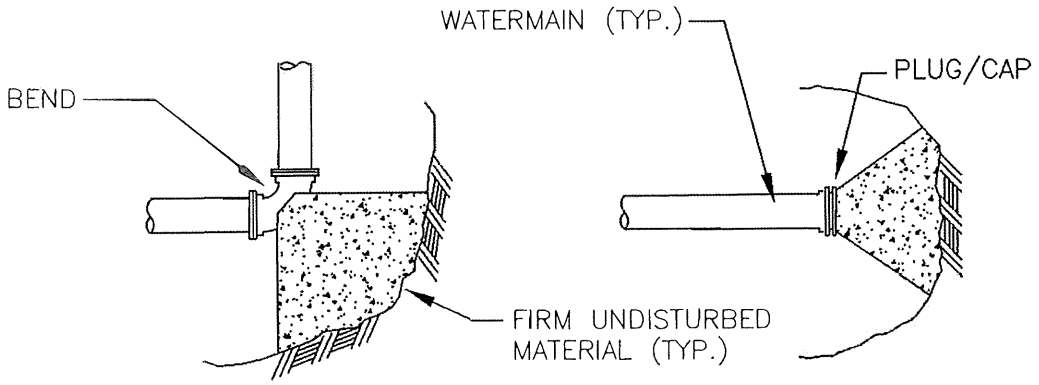


NOTE: CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING MAIN.

TAPPING SLEEVE & VALVE DETAIL

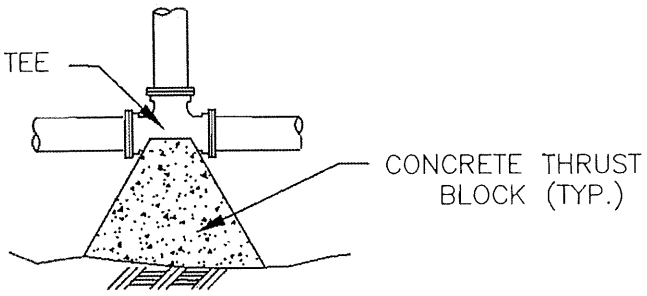
NOT TO SCALE

APPROVED	DATE		
		STANDARDS	BY D.L.C. CHECKED
			REVISED CHECKED
		TAPPING SLEEVE AND VALVE	DATE 1/8/01
			3



(TYP.) BEND–PLAN VIEW

PLUG/CAP–PLAN VIEW



TEE–PLAN VIEW

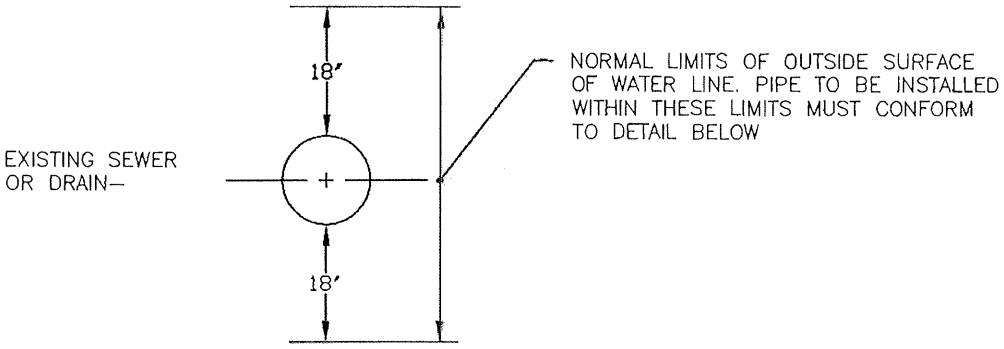
TABLE OF BEARING AREAS (S.F.)			
SIZE OF MAIN (IN.)	BEND (90)	BENDS (45 & UNDER)	TEES, CAPS OR PLUGS
8 & UNDER	6	3	4
10 & 12	12	6	9

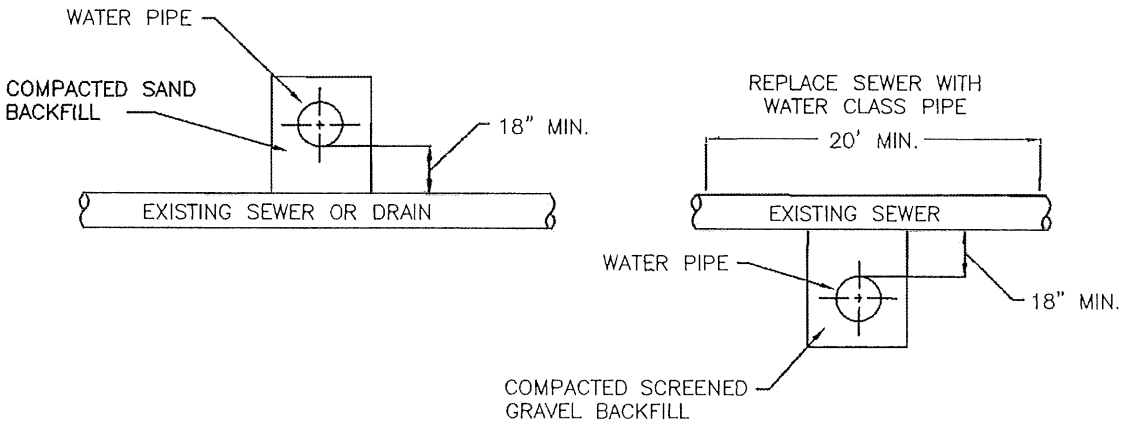
NOTES:
1. CONCRETE FOR THRUST BLOCKS SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
2. THRUST BLOCK BEARING AREAS TOO BE IN ACCORDANCE WITH TABLE, UNLESS DETERMINED OTHERWISE BY THE ENGINEER BECAUSE OF SOIL CONDITIONS.
3. THRUST BLOCK SIDES SHALL BE FORMED WITH PLYWOOD.

THRUST BLOCK DETAILS

NOT TO SCALE

APPROVED	DATE			
		STANDARDS	BY D.E.I.	CHECKED
			REVISED	CHECKED
		CONCRETE BACKING FOR WATER PIPE	DATE 2/4/74	
			4	

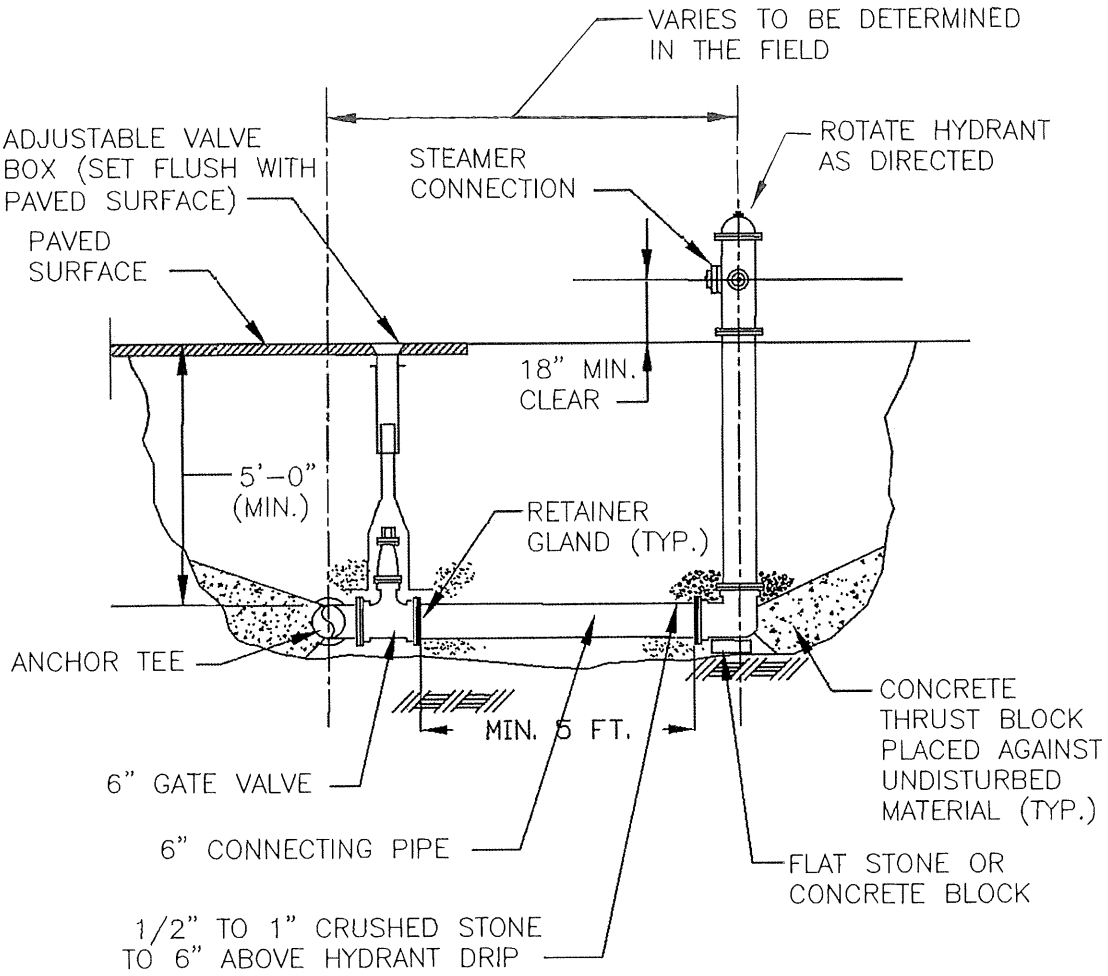




TYPICAL SEWER AND DRAIN CROSSING

NOT TO SCALE

APPROVED	DATE		
		STANDARDS	BY D.E.I. CHECKED
			REVISED CHECKED
		TYPICAL SEWER AND DRAIN CROSSING DETAIL	DATE 12/18/75
			5

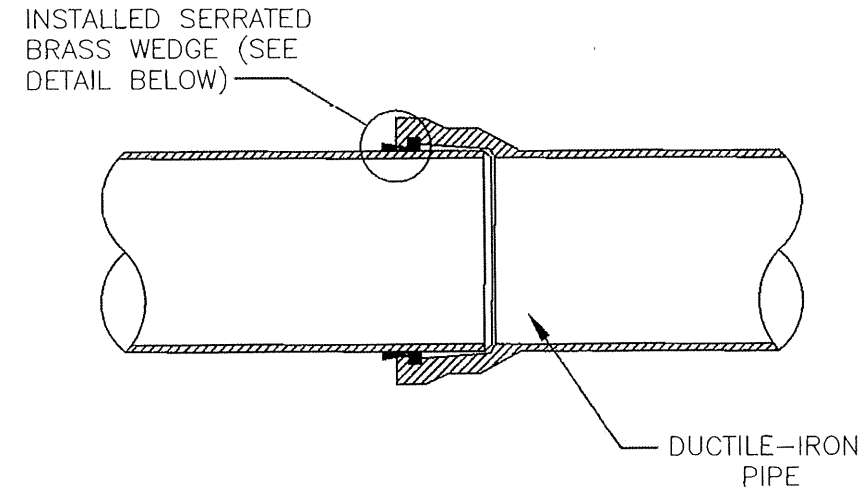


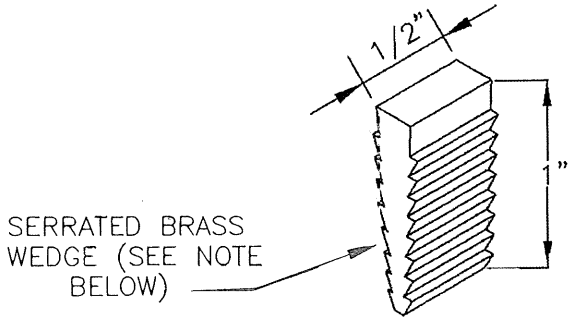
NOTE: DEPTH OF HYDRANT BURY TO SUIT INSTALLED DEPTH OF COVER OVER WATERMAIN.

HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

APPROVED	DATE			
	~~HYDRANT.DWG~~	**STANDARDS**	BY D.L.C.	CHECKED
			REVISED	CHECKED
		TYPICAL HYDRANT AND VALVE DETAIL	DATE 1/8/01	
			6	



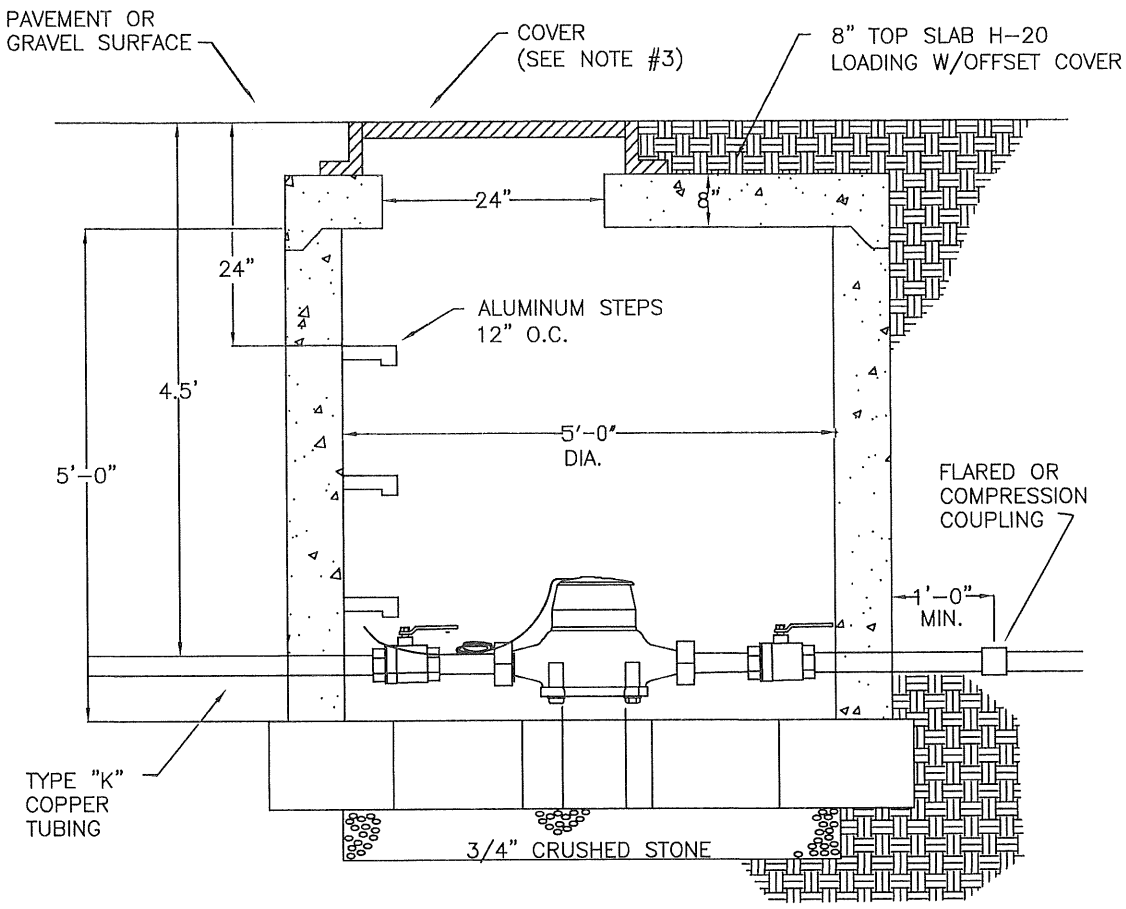


NOTE:
BRASS WEDGES ARE TO BE INSTALLED ON ALL DUCTILE-IRON, PUSH-ON PIPING, INCLUDING HYDRANT BRANCHES, ETC; TO PROVIDE FOR ELECTRICAL THAWING. FOR 2" THROUGH 12" PIPE, TWO WEDGES SHALL BE USED PER JOINT; FOR LARGER DIAMETER PIPE FOUR WEDGES SHALL BE USED PER JOINT. EACH WEDGE IS DRIVEN INTO THE OPENING BETWEEN THE PLAIN END AND THE BELL UNTIL SNUG. WHEN FOUR WEDGES ARE USED, THEY ARE INSTALLED SIDE BY SIDE, IN PAIRS.

SERRATED BRASS WEDGE DETAIL

NOT TO SCALE

APPROVED	DATE		BY D.L.C. CHECKED D.E.I.
		STANDARDS	REVISED CHECKED
		TYPICAL SERRATED BRASS WEDGES TO PROVIDE ELECTRICAL THAWING OF WATER PIPING	DATE 3/30/81
			7



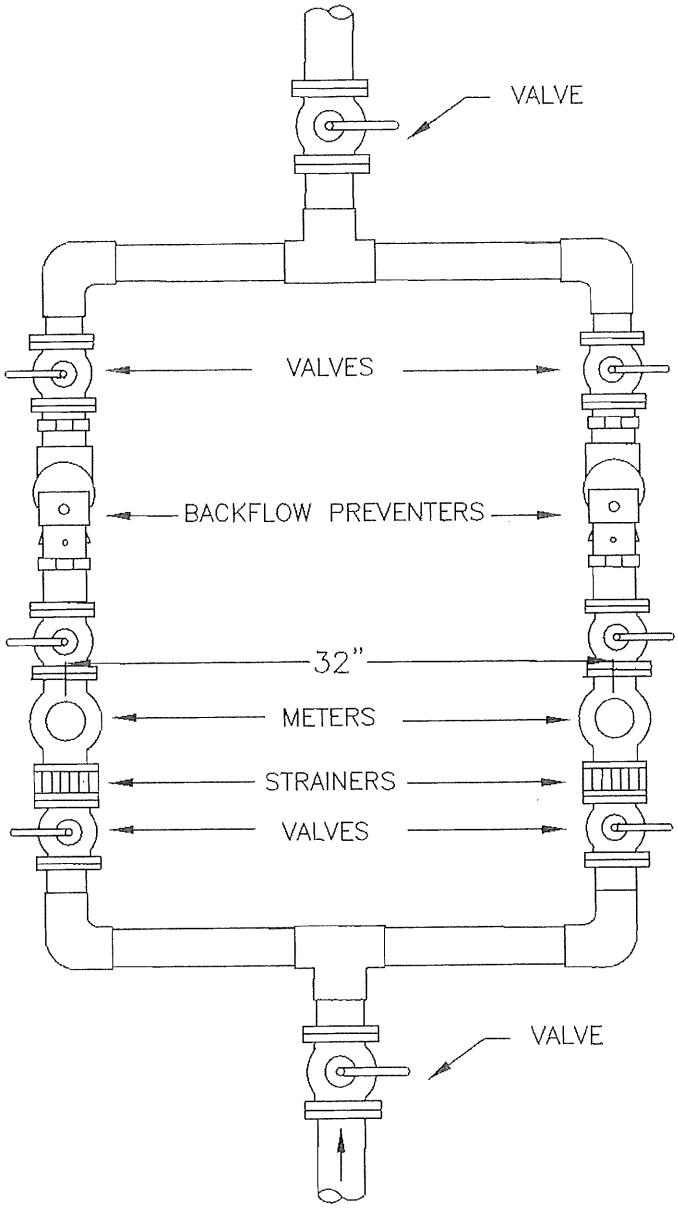
NOTES:

1. INSTALL VALVES ON BOTH SIDES OF METER (FULL FLOW VALVES)
2. METER SPACER LOANED BY UTILITIES DEPT. FOR CONSTRUCTION
3. AREAS SUBJECT TO TRAFFIC: BILCO TYPE J-2 REINFORCED STEEL DOOR (2'-6"X2'-6"), H-20 LOADING
   AREAS SUBJECT TO NON-TRAFFIC: BILCO TYPE J-2AL ALUMINUM DOOR (2"-6"X2'-6")
4. MIN. HEIGHT CLEARANCE INSIDE METER PIT 5'-8"
5. WHERE REMOTE METERS ARE REQUIRED, WIRE WILL BE INSTALLED IN PVC CONDUIT TO THE BUILDING OR 4"X4" PRESSURE TREATED POST INSTALLED 4 FT. ABOVE GRADE
6. FOR PVC WATER SERVICES FROM METER PIT BUILDING TRACER WIRE WILL BE INSTALLED BY CONTRACTOR.
   * TRACE WIRE DIRECT BURIAL #12 AWG SOLID (0.0808" DIAMETER),STEEL CORE SOFT DRAWN TRACER WIRE, #250 AVERAGE TENSILE BREAK LOAD, 30 MIL HIGH MOLECULAR-HIGH DENSITY POLYETHYLENE JACKET COMPLYING WITH ASTM-D-1248, 30 VOLT RATING.

METER PIT 1 1/2" & 2"

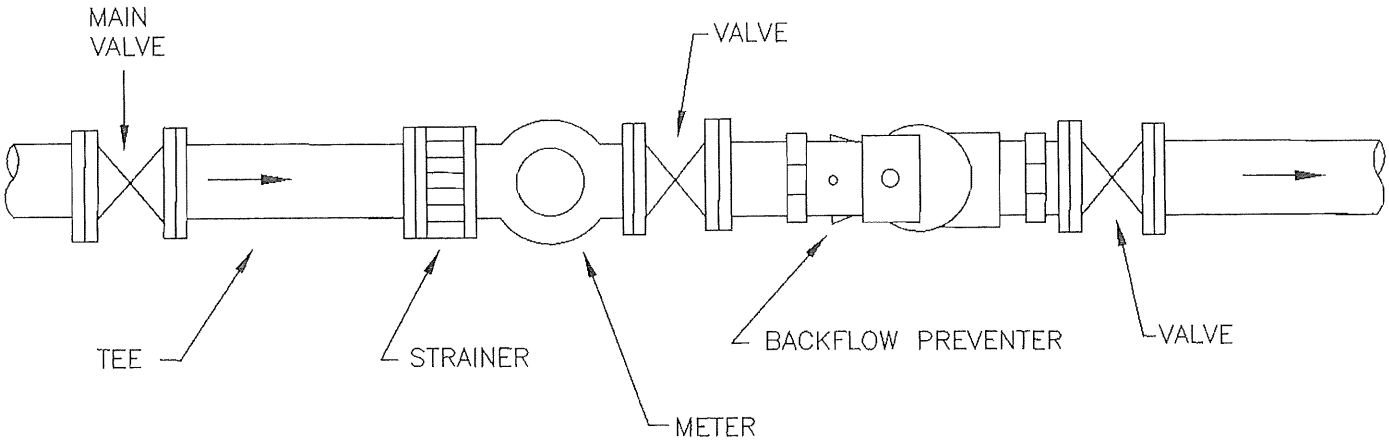
NOT TO SCALE

APPROVED	DATE		BY M.S.W. CHECKED
		STANDARDS	REVISED M.E.D CHECKED
			DATE 10/29/20
		WATER METER PIT 1 1/2" & 2"	9



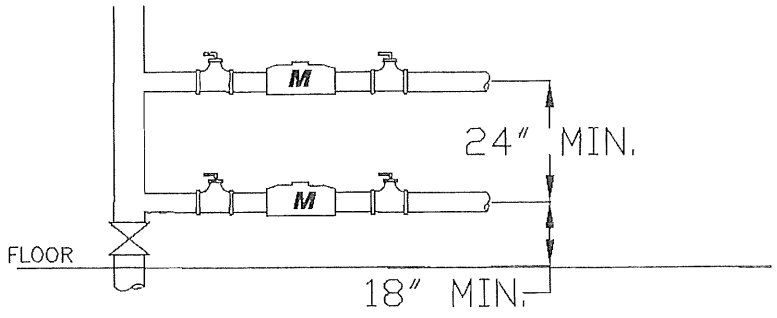
1. ALL PIPING AND FLANGED FITTINGS TO BE SUPPLIED BY CUSTOMER
2. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER FOR SIZES 3/4" THRU 6" WITH BY-PASS PIPING.
3. CENTER OF PIPE TO FLOOR 42"
4. CENTER OF PIPE TO WALL 18"

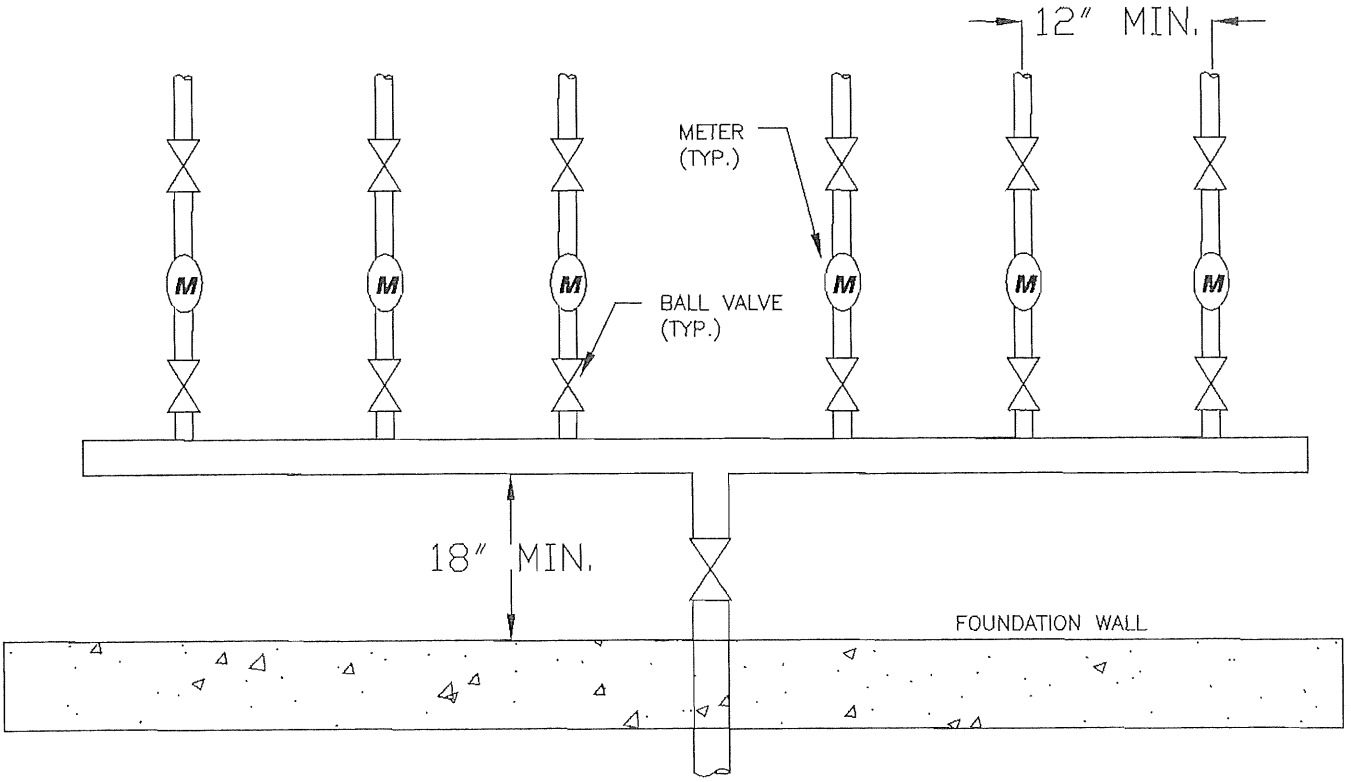
APPROVED	DATE	**STANDARDS**	BY MSW CHECKED
R.A.R.	5/21/99	TYPICAL	REVISED 5/6/99 CHECKED
		BACKFLOW PREVENTER INSTALLATION	DATE 8/21/87
		3/4" THRU 6" WITH BY-PASS PIPING	
		NOT TO SCALE	13



1. ALL PIPING AND FLANGED FITTINGS TO BE SUPPLIED BY CUSTOMER
2. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER FOR SIZES 3/4" THRU 2" FOR INSTALLATIONS NOT REQUIRING BY-PASS PIPING.
3. CENTER OF PIPE TO FLOOR 24"
4. CENTER OF PIPE TO WALL 18"

APPROVED	DATE		BY MSW CHECKED
R.A.R.	5/21/99	**STANDARDS** TYPICAL BACKFLOW PREVENTER INSTALLATION 3/4" THRU 2" WITHOUT BY-PASS PIPING NOT TO SCALE	REVISED 5/6/99 CHECKED
			DATE 8/21/87
			13A

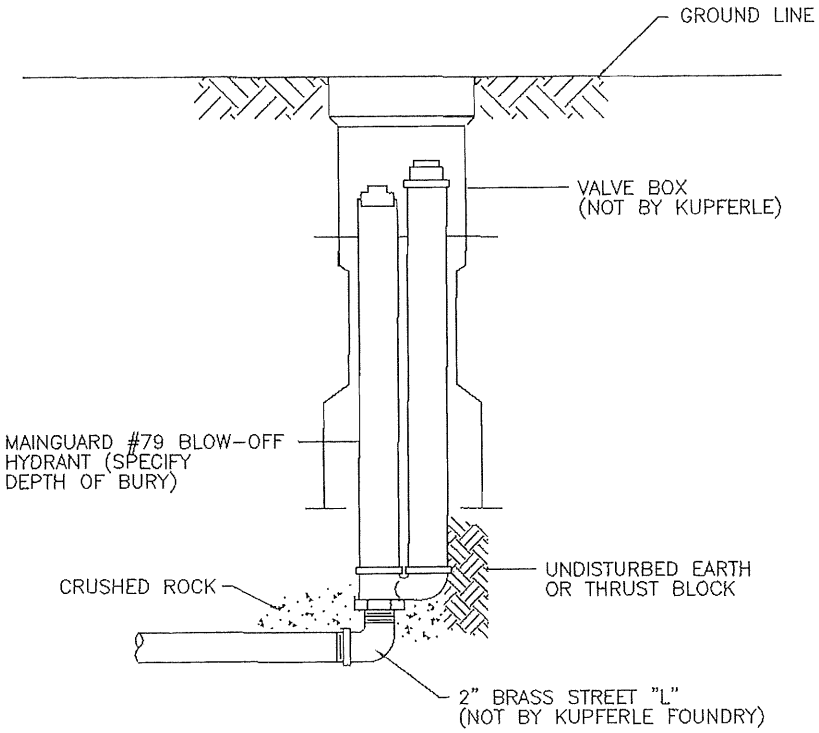




1. ALL VALVES TO BE FULL FLOW BALL VALVES.
2. ALL METERS TO BE INSTALLED HORIZONTALLY.
3. EACH METER AND SERVICE PIPE TO BE NUMBERED WITH THE CORRESPONDING CONDO NUMBER, AS WELL AS THE REMOTE READ BOX ON THE OUTSIDE OF THE BUILDING.
4. THE METERS ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE POINT OF ENTRY OF THE SERVICE PIPE INTO THE BUILDING. ANY VARIATION MUST BE APPROVED BY THE DEPARTMENT OF UTILITIES.

APPROVED	DATE		BY D.L.C. CHECKED
		STANDARDS	REVISED CHECKED
			DATE 1/8/01
		TYPICAL MULTIPLE METER INSTALLATION	14

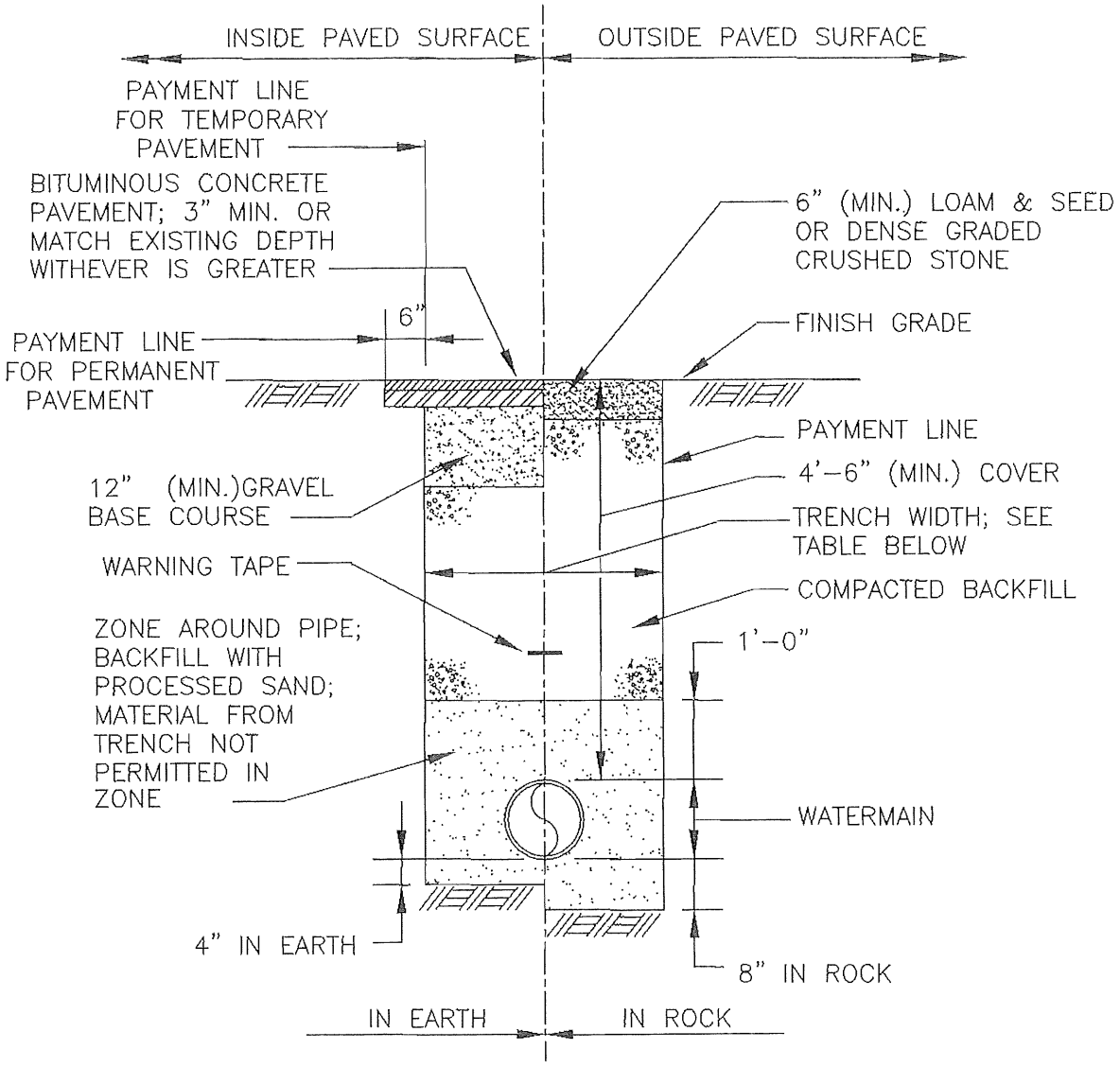
ECLIPSE NO. 79 (MAINGUARD) BLOW-OFF HYDRANT



Blow-Off Hydrants shall be non-freezing, self draining type. Set underground in a 5 1/4" valve box, these hydrants will be furnished with a 2" FIP inlet, a non-turning operating rod, and shall open to the left. All of these working parts shall be of bronze-to-bronze design, and be servicable from above grade with no digging. The outlet shall be a 2" FIP coupling with plug, as manufactured by Kupferle Foundry Co., St. Louis, MO, or approved equal.

(Specify overall length 6" shorter than normal depth of bury.)

APPROVED	DATE		BY D.L.C. CHECKED
		STANDARDS	REVISED CHECKED
		2" MANUAL AIR RELEASE	DATE 1/9/01
			15



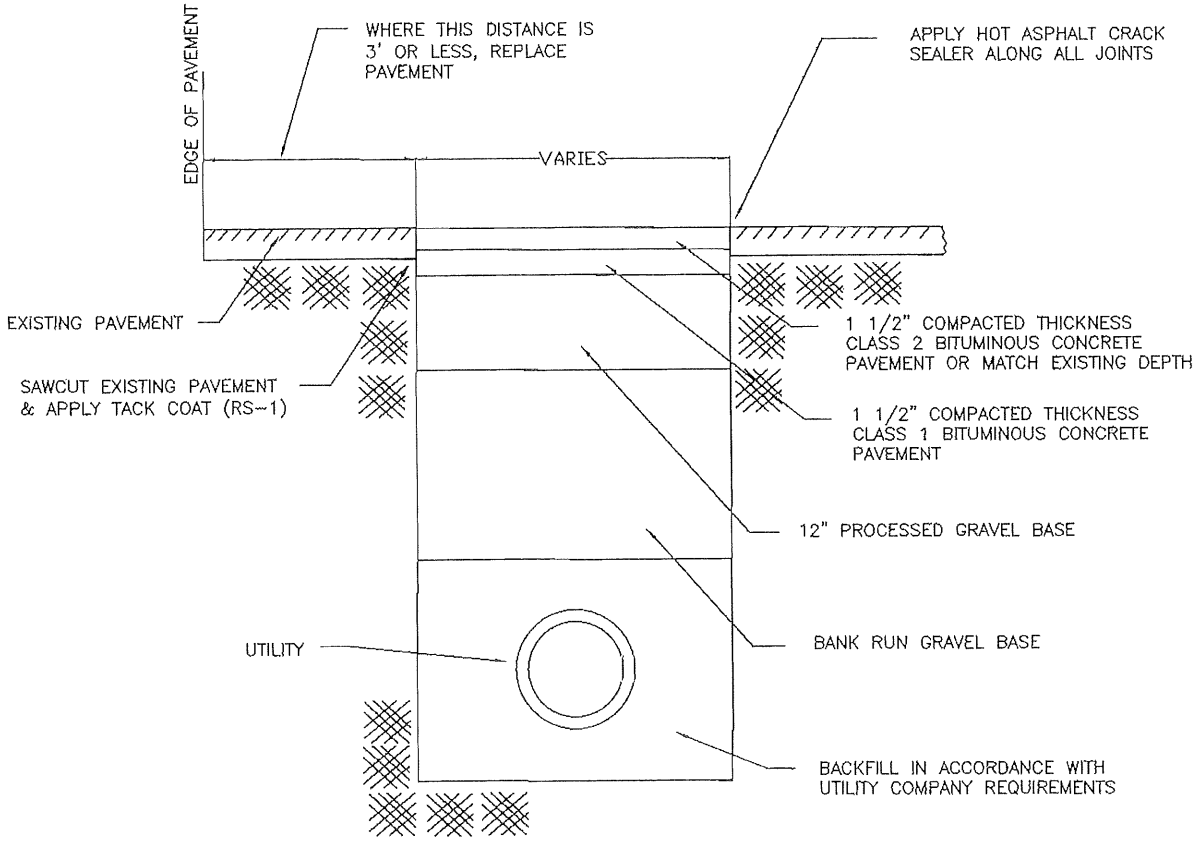
TRENCH WIDTH TABLE		
PIPE DIA.	12" & UNDER	16"
TRENCH WIDTH	3'-0"	3'-4"

NOTE: PAYMENT FOR PAVEMENT INSTALLED BEYOND PAYMENT LINE WILL BE MADE ONLY WHEN SUCH INSTALLATION IS APPROVED BY THE ENGINEER.

WATERMAIN TRENCH DETAIL

NOT TO SCALE

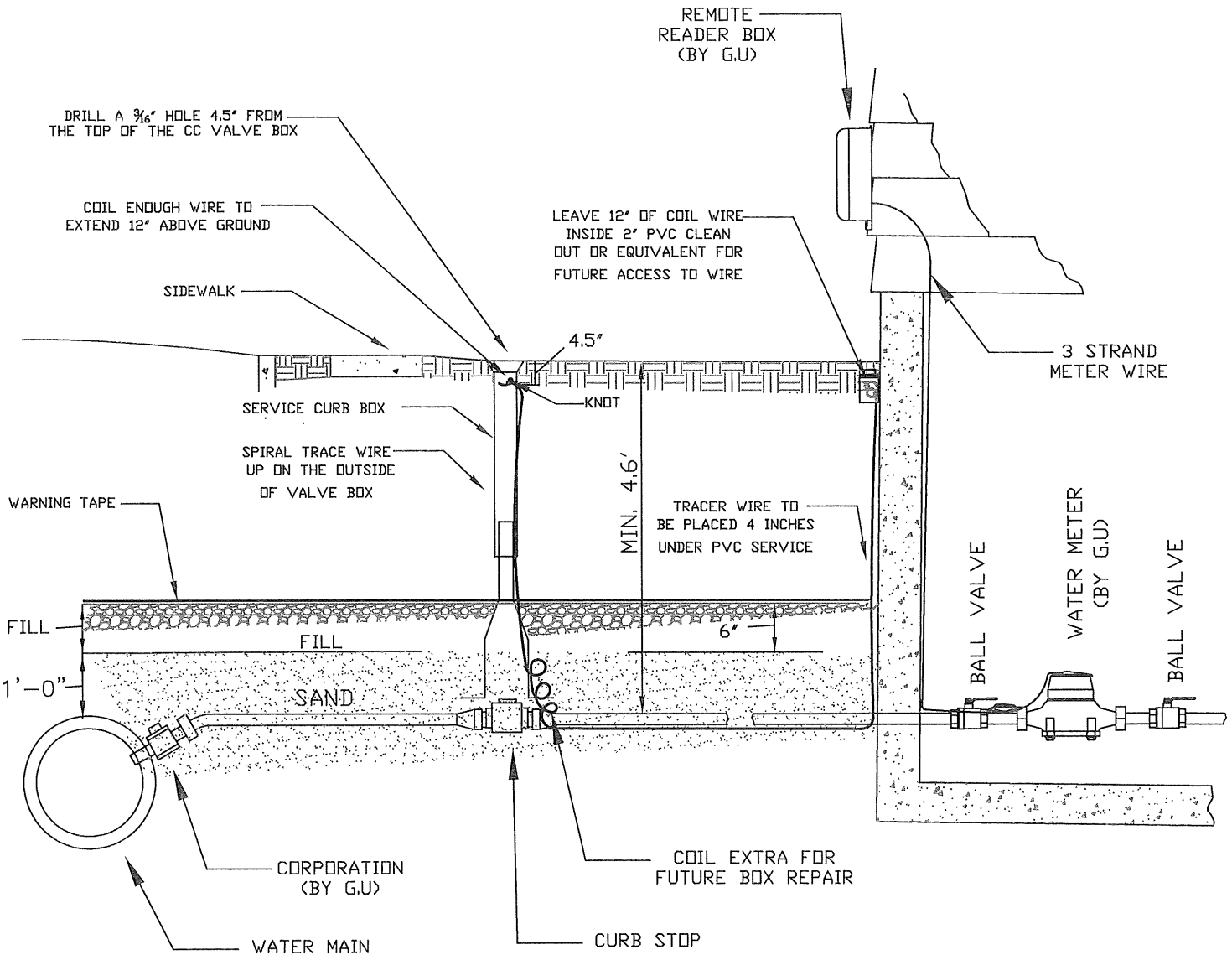
APPROVED	DATE			
		STANDARDS	BY D.L.C.	CHECKED
			REVISED	CHECKED
		TYPICAL TRENCH DETAIL	DATE 1/8/01	
			17	



UTILITY TRENCH PATCH

NOT TO SCALE

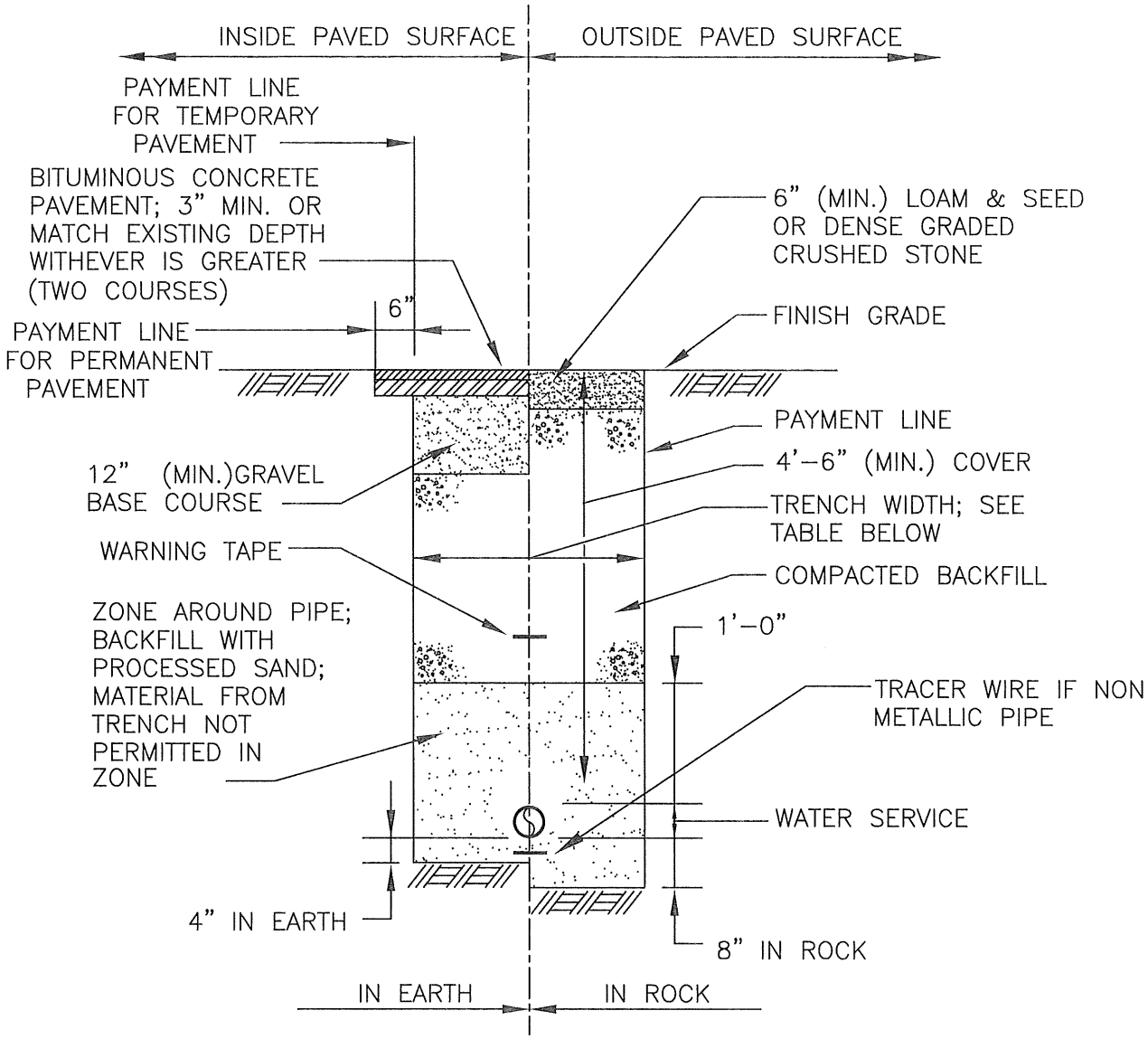
APPROVED	DATE			
		STANDARDS	BY D.L.C.	CHECKED
			REVISED	CHECKED
		TYPICAL PAVEMENT REPLACEMENT	DATE 1/8/01	
			18	



TYPE K COPPER TUBING WATER SERVICE
CLASS 200 (ASTM D-2737 CTS-OD) PVC PIPE

*TRACE WIRE DIRECT BURIAL #12 AWG SOLID (0.0808" DIAMETER), STEEL CORE SOFT DRAWN TRACER WIRE, 250# AVERAGE TENSILE BREAK LOAD, 30 MIL HIGH MOLECULAR- HIGH DENSITY POLYETHYLENE JACKET COMPLYING WITH ASTM-D-1248, 30 VOLT RATING.

APPROVED	DATE		
		STANDARDS	BY M.E.D CHECKED
			REVISED CHECKED
		TYPICAL TRACER WIRE DETAIL	DATE 10/29/20
			19



TRENCH WIDTH TABLE	
PIPE DIA.	2" & UNDER
TRENCH WIDTH	3'-0"

NOTE: PAYMENT FOR PAVEMENT INSTALLED BEYOND PAYMENT LINE WILL BE MADE ONLY WHEN SUCH INSTALLATION IS APPROVED BY THE ENGINEER.

WATER SERVICE TRENCH DETAIL

NOT TO SCALE

APPROVED	DATE		
		STANDARDS	BY D.L.C. CHECKED
			REVISED M.E.D CHECKED
		TYPICAL TRENCH DETAIL (WITHIN STATE ROADWAY)	DATE 10/29/20
			20