

***CANBY UTILITY
REGULAR BOARD MEETING
OCTOBER 10, 2023
7:00 P.M.***

AGENDA

- I. CALL TO ORDER
- II. AGENDA
 - Additions, Deletions or Corrections to the Meeting Agenda
- III. CONSENT AGENDA
 - Approval of Agenda
 - Approval of Regular Board Meeting Minutes of September 12, 2023 (pp. 1-5)
 - Approval of Write-Offs
 - Approval of Payment of Water and Electric Bills
- IV. CITIZEN INPUT ON NON-AGENDA ITEMS Citizen's wanting to speak virtually, please email or call the Board Secretary-Clerk by 4:30 p.m. on October 10, 2023 with your name, the topic you would like to speak on, and contact information: bbenson@canbyutility.org or 503-263-4312.
- V. PUBLIC HEARING: Electric Rate Proposal
- VI. RESOLUTION NO. 315 Revising Canby Utility's Electric Rate Schedules – Mike Schelske, Finance Manager and Carol Sullivan, General Manager (pp. 6-13)
- VII. RESOLUTION NO. 316 Adopt Revised Share the Warmth Policy – Cindy Dittmar, Customer Service Supervisor (pp. 14-18)
- VIII. RESOLUTION NO. 317 Adopt Updated Water Distribution Construction Standards and Specifications – Jason Peterson, Operations Field Supervisor (pp. 19-75)
- IX. DISCUSSION Waiver of Conflict of Interest – Carol Sullivan, General Manager (pp. 76-78)
- X. BOARD REPORT
 - Chair Comments
 - Board Member Comments
- XI. STAFF REPORTS

Operations Manager:

 - Quarterly Reliability Report (pp. 79-80)

Finance Manager:

 - Fiscal Year 2023 Fourth Quarter Financials (pp. 81-84)

General Manager Updates
- XII. ADJOURN

***CANBY UTILITY
REGULAR BOARD MEETING MINUTES
SEPTEMBER 12, 2023***

Board Present: Chair Thompson; Members Horrax, Molamphy, and Pendleton

Staff Present: Carol Sullivan, General Manager; Barbara Benson, Board Secretary; Jason Berning, Operations Manager; Mike Schelske, Finance Manager; Sue Arthur, Purchasing Agent; Cindy Dittmar, Customer Service Supervisor; and Jason Peterson, Operations Field Supervisor

Others Present: Jason Padden, City Council Liaison; Craig Woycheese and Lali Handwerker, Toth & Associates (virtual); Joe Brennan; and Jake Hill

Chair Thompson called the Regular Board Meeting to order at 7:00 p.m.

Chair Thompson presented the meeting agenda for consideration. She asked for any additions, deletions, or corrections to the meeting agenda. Board Secretary Barb Benson requested to add an operations manager staff report regarding a power outage to the agenda.

Chair Thompson presented the consent agenda for approval. Member Molamphy made the *MOTION to approve the consent agenda, consisting of the amended meeting agenda, regular meeting minutes of August 8, 2023, write-offs in the amount of \$539.65, payment of the electric and water department bills in the amount of \$1,460,854.15. Member Horrax seconded, and the motion passed 4-0.

Chair Thompson asked for citizen input on non-agenda items, and there was none.

Chair Thompson introduced CPA and Senior Utility Rate Consultant Craig Woycheese from Toth & Associates, who presented the electric cost of service and rate study. Woycheese began by explaining the rate-making process, which consists of the revenue requirements, cost allocation, and rate design. The rate revenue requirement process identifies debt service, capital budget, the 2024 operating budget, and maintenance of cash reserves. Woycheese explained that when they perform a rate study, they select a test year for the basis of the study to determine forecasted revenues. The test year for this study was the fiscal year ending June 2022, kilowatt-hour (kWh) consumption and revenue summary. Woycheese reviewed the year-end kWh by customer class, noting that 188 million kWh for all customer classes was the basis for forecasting usage in the study. He reviewed the revenue per kWh based on customer class. He noted that the study identified a sizable gap between the rate for residential and the general service single-phase customer groups with similar consumption characteristics.

Using test year power bills and the Bonneville Power Administration's (BPA) 2024 power rates, the forecasted power cost is 4.1¢ per kWh. This rate excludes the transmission costs. Woycheese presented two revenue requirement cases, one with a 5.9% increase and the other with a 7.5%

increase. The 5.9% increase will essentially pass through the 2024 BPA rate increase cost. This rate adjustment would impact the operating margin by -\$50,370 for 2024 and -\$265,731 for 2025. The change in cash position would be \$1,357,904 for 2024 and \$1,193,782 in 2025. The 7.5% increase would impact the operating margin by \$164,147 in 2024 and -\$51,214 in 2025. Woycheese recommended that the Board consider the 7.5% rate adjustment to keep up with inflation, thereby avoiding the compounding effect of not increasing rates, leading to more significant rate increases later.

Woycheese presented the cost-of-service summary comparing three rate adjustment scenarios representing the margin as a percentage of revenue. If the rates remained unchanged, there would be an overall -5.8% impact. A 5.9% rate increase would result in an overall -.03% impact. A 7.5% increase would result in a 1.1% impact. He also explained his approach to minimizing subsidies between rate classes through the rate-setting process, and discussion ensued.

Rate Analyst Lali Handwerker from Toth & Associates reviewed a summary of present and proposed rates using the 5.9% and 7.5% rate adjustment options. The base charge for the residential customer class would increase to \$15.00 from \$13.57. The base charge for the general service customer class would increase from \$17.88 for a single-phase service to \$19.25 and from \$38.75 for a three-phase service to \$43.25. She also reviewed the current energy and demand charges and how they would be impacted using the two rate adjustment options for each customer class. Member Pendleton asked about the approach to rate setting to encourage energy conservation and whether the rate increase should have been more significant on the energy charge and less on the base charge. Woycheese responded to his question and explained that increasing the base charge covers the inflation impacts on non-power supply expenses, like the increased cost of materials. Woycheese also explained the recommended New or Expanding Large Load customer rate changes. Handwerker then reviewed the average customer bill impact. The average of all residential customer bills is \$3.84 with a 5.9% rate increase or \$5.00 with a 7.5% increase.

Woycheese said that staff had shared with him that the Board had recently discussed time-of-day rates. He wanted to share some considerations should the Board wish to consider the alternative rate structure in the future. He discussed the drivers for implementing that type of rate. Less than 10% of utilities have adopted time-of-day rates but noted that it is increasing. He reviewed the pros and cons of implementing the rate structure. Another important consideration is the infrastructure and system requirements for AMI metering and software requirements, which will require upgrades. He also noted that the utility should apply the alternative rate structure to an entire rate class and not give customers an option. It will also require educating consumers about how the time-of-day rates impact their utility bills.

The board thanked Woycheese and Handwerker for their presentation. They departed the meeting at 8:05 p.m.

Finance Manager Mike Schelske recommended that the Board approve the proposed overall rate adjustment and schedule the public rate hearing based on the rate analysis and cost of service study performed by Toth & Associates. Member Molamphy made the *MOTION to approve

Management's recommendation of a proposed overall 7.5% rate adjustment and schedule a rate hearing for public input for October 10, 2023, at 7:00 p.m. Member Horrax seconded, and the motion passed 4-0.

Finance Manager Mike Schelske presented a recommendation to update Canby Utility's Master Fee Schedule. The proposed changes to the fee schedule generally reflect higher labor costs and increased costs of certain materials and services, such as concrete flat work and asphalt paving. Staff added a hydrant deposit of \$2,500 to recover the cost for potential damages to hydrants. The Board had no questions. Member Horrax made the *MOTION to adopt revised Exhibit A to Resolution No. 267, related to the Master Fee Schedule, effective October 1, 2023. Member Pendleton asked questions about the increases, and Schelske responded. Member Pendleton seconded, and the motion passed 4-0.

Finance Manager Mike Schelske presented the proposed inflationary adjustment to the water system development charges (SDC). The SDC methodology allows for an annual inflationary adjustment to the charges based on the Engineering News Records Construction Cost Index. The fiscal year 2024 inflation factor increase is 2.56% for one dwelling unit equivalent or \$119. Schelske noted that last year, the inflationary factor was 8.86%. With no responses, letters were mailed to 74 contractors on record to notify them of the proposed change. Chair Thompson asked if the SDC increase address funding towards the capital infrastructure plant in the updated Water Master Plan. Schelske responded that the increases are solely based on the established SDCs. The new water rate study will include a review of the SDC methodology. The results of that study may affect the SCD charges at a later date since it will take into consideration future capital improvements. Member Horrax made the *MOTION to adopt Resolution No. 313, adjusting Canby Utility's Water System Development Charges by the prescribed inflationary amount effective October 1, 2023, and repeal Resolution No. 310. Member Horrax seconded, and the motion passed 4-0.

Chair Thompson noted that the electric rate consultant's presentation included maintaining cash reserves. She asked if the increased rates consider capital project plans in the existing Electric Master Plan? Schelske explained that the rate consultant used the fiscal year 2024 data but not the 2025 projected costs. Schelske assured Chair Thompson that the rate study included a methodology for capturing capital improvement costs.

Member Pendleton reported receiving a complaint from a business owner regarding Canby Utility's method of determining costs for a new connection. The customer alleges they were told by staff that it would cost them \$75,000 to establish service for a data center, but that staff could not provide information supporting the costs and that Canby Utility waived the charge. This event transpired about a year to a year and a half ago. Member Pendleton asked staff if there is a structured process for determining the amount to charge customers for services. Based on the limited information that Member Pendleton had available, staff suspected it may have been discussions about a job cost estimate. It was also possible that the customer needed more information for staff to develop the job cost estimate, such as their expected power demand and anticipated usage. Operations Field Supervisor Jason Peterson reviewed the structured process when receiving a request for a new connection. The standard protocol includes having staff enter

the customer's project information into our PCS software system, which generates the job cost estimate. The systematic approach used for customer projects made Peterson question how this customer could have been given a cost quote without the formal job cost estimate. Chair Thompson recommended that Member Pendleton provide staff with customer information so they can investigate it. Operations Manager Jason Berning gave an overview of the process for a new project or an existing business, which often involves the city scheduling pre-application and pre-construction meetings to gather the project details. Customers need to provide us with their load expectations to order the appropriate transformer. Berning also added that depending on the size of the transformer required to serve the business, it could cost between \$75,000 to \$90,000 just for the transformer. A brief discussion ensued.

Chair Thompson noted that Board Secretary Barb Benson is working with the city staff to schedule the joint Canby City Council and Canby Utility Board work session to discuss the water master plan. The potential date for the work session is October 4.

Operations Manager Jason Berning reported that last Thursday, there was a power outage from Wescott Substation, transformer #2. Two feeders were out, and staff consulted with our electrical engineers to determine the cause. They discovered a bad low oil relay signaling to the system that the transformer was low on oil and opened a switch to protect the transformer from damage. After going through appropriate testing procedures, staff determined the relay was bad, and the transformer oil level was good. Berning noted that this event was compounded by the Supervisory Control and Data Acquisition (SCADA) system being offline the week prior and could not signal to operate the smart switches that would have prevented the power interruption. Member Molamphy commented on the recent substation maintenance work and why this happened. Berning responded that he asked the contractors those questions and added that their work was warranted. Member Molamphy requested that Berning report to the board what he finds out.

Operations Field Supervisor Jason Peterson gave an update on the nine fire hydrants slated for replacement. He removed one hydrant from the replacement list because the fire department gave approval to remove the hydrant. The water crew replaced seven hydrants. The remaining hydrant has yet to be replaced due to the joint being welded to the water main. The staff has ordered parts so that the hydrant can be replaced. Peterson anticipates that the work will be complete by the end of the month. The project is currently under budget, noting that the City of Canby's allocation of ARPA funds for this project is still under consideration.

General Manager Carol Sullivan reported that she met with Carollo, a Portland engineering firm focusing on water and wastewater. They expressed interest in the design phase of the new water treatment plant project, although they also offer the owner's representative services. Sullivan highlighted some of their project experience. Staff gave them a tour of the existing plant, the proposed new site, and the location of the point of diversion.

She also had a tour with Consor engineers and Libby Bakke of Barney & Worth. Bakke's expertise is strategic planning, communications, facilitation, and community engagement. She will be presenting the Water Master Plan along with Brian Ginter on September 26.

Sullivan met with Brian Ginter and water resource consultant Adam Sussman from GSI. Sussman prepared our Water Management and Conservation Plan and was involved with obtaining the water right permit on the Willamette River. Canby Utility applied for the Willamette River water right in 1990, and the Water Resources Department issued the permit in 2011. Sullivan noted that the location of our point of diversion will be reviewed in conjunction with the site analysis for a feasibility study.

Sullivan reported that she and Operations Manager Jason Berning met with Interim City Manager Eileen Stein. Stein shared her experience with moving a point of diversion at the City of Springfield and provided contact information for the Oregon Regional Solutions Director, who could assist Canby Utility in exploring funding resources at the state level.

Sullivan gave an update on the request for proposals for the water rate study, SDC analysis, and financial plan. Canby Utility received five submissions. Staff selected Donovan Enterprises' bid and executed a contract for the work to begin.

Sullivan shared that the trustees of Canby Utility's 401k plan met with Cornerstone Wealth LLP for the annual 401k meeting. They reviewed new laws affecting 401k plans and reviewed investments.

Sullivan reported that the adult center asked for volunteers to serve lunch. They have been shorthanded since Covid-19 began. Our front office staff agreed to help, and one staff member will volunteer on the first and third Wednesdays each month.

Member Molamphy made the *MOTION to adjourn the meeting. Member Pendleton seconded, and the motion passed 4-0.

The meeting adjourned at 8:36 p.m.

Melody Thompson, Chair

David Horrax, Member

John Molamphy, Member

Jack Pendleton, Member

Vacant

Barbara Benson, Board Secretary



MEMORANDUM

October 10, 2023

TO: Chair Thompson, Member Horrax, Member Molamphy, Member Pendleton, and Member Hill

FROM: Mike Schelske, Finance Manager and Carol Sullivan, General Manager

SUBJECT: Recommended Electric Rates Effective November 1, 2023

Suggested Motion: Motion to approve Management's recommendation of a proposed overall 7.5% rate adjustment effective November 1, 2023.

Recommendation:

Management recommends the Board approve proposed overall electric rate increase of 7.5% effective November 1, 2023. The rate proposal is based on the rate analysis and cost of service study performed by Toth & Associates.

Key Information:

Canby Utility Board last raised electric rates in 2019.

There was no rate increase in 2021. Instead, the Board opted to absorb the wholesale power rate increase without making a rate adjustment.

The current proposed rate adjustment is needed to cover cost increases for wholesale electric power and higher operating expenses.

The BPA is forecasting a 14.46% increase to Canby Utility in FY 2024-25 for wholesale electric power. This is primarily due to higher market prices for Tier 2 power.

Operating expenses have increased significantly since the last rate increase in 2019 due to effects of the COVID pandemic and inflation. The proposed rates will cover current higher expenses and a projected 4% increase in costs for FY 2025.

The 7.5% overall retail rate increase will provide sufficient revenue needed to achieve a positive operating margin for the combined two-year period of FY 2024 and FY 2025 and maintain current reserve levels.

Thank you, and we will be available to answer any questions the Board may have.

RESOLUTION NO. 315

A RESOLUTION REVISING ELECTRIC RATE SCHEDULES AND REPEALING RESOLUTION NO. 300

WHEREAS, the Canby City Charter requires electric rates to “be sufficient to pay all operating and maintenance costs of the Electric Department and its operations;” and

WHEREAS, Canby Utility has a contract to purchase electricity from the Bonneville Power Administration (BPA) at wholesale prices; and

WHEREAS, BPA concluded a rate case (BP-24) that implements new wholesale power and transmission rates effective on October 1, 2023 and ending on September 30, 2025; and

WHEREAS, Canby Utility signed a Regional Dialogue power sales contract with the BPA for delivery of a certain share of the Federal Columbia River Power System that began October 2011 through September 2028, known as a Tier 1 power, that BPA determines every two-year rate period; and

WHEREAS, Canby Utility must acquire market-based power for load growth, known as Tier 2 power that may be priced higher than Tier 1 power.

WHEREAS, Canby Utility procured an electric rate study that projects the costs the utility will incur to prudently maintain, operate and make timely and necessary improvements to the electric system; and

WHEREAS, the Board believes it is necessary to raise electric rates in order for Canby Utility to continue to effectively and efficiently maintain and operate the system and allow it to invest in future necessary improvements.

NOW, THEREFORE, the Canby Utility Board resolves as follows:

SECTION 1. RESIDENTIAL RATES AND STANDARDS

A. Rates.

Meter (Base) Charge: \$15.00/month

Energy Charge:

First 2,000 kWh: \$0.0743/kWh

Over 2,000 kWh: \$0.0801/kWh

B. Applicability.

1. The Residential rate applies to single family residences and individually metered residential apartment units for domestic uses and incidental lighting and power service at one point of delivery. Where a portion of a dwelling is used regularly to conduct business or where a portion of the electricity supplied is used for other than domestic and incidental power, service will be supplied under the General Service rate. Canby Utility will not make a connection to a three-phase service or serve a single-phase motor exceeding a rated capacity of 7.5 horsepower under this section.
 2. This section also applies to houses/residential units under construction and prior to occupancy except as provided in Resolution No. 293.
 3. The Residential rate is not applicable to electric service for resale, clubs, fraternities, schools, churches, group homes or orphanages, jointly metered multi-family residential complexes, rooming houses, laundry facilities, or similar groups/uses as Canby Utility in its sole discretion may classify. The General Service rate applies to such groups/uses.
- C. Character of Service. Energy will be supplied at approximately 60 Hz, alternating current. The Board reserves the right to specify the voltage and phase of service supplied under the Residential rate.
- D. Delivery Point. The Residential rate is based on the supply of service at a single voltage through a single delivery and metering point. Separate supply for the same customer at a different voltage or other points of consumption will be separately metered and billed.

SECTION 2. GENERAL SERVICE RATES AND STANDARDS

A. Rates.

Meter (Base) Charge:

1-phase:	\$19.25/month
3-phase:	\$43.25/month

Demand Charge:

First 50 kW:	No Charge
Over 50 kW:	\$8.50/kW

Primary Service Discount:	\$0.62/kW
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Energy Charge:

First 25,000 kWh:	\$0.0554/kWh
Over 25,000 kWh:	\$0.0483/kWh

- B. Applicability. The General Service rate applies to commercial, industrial and all other services that the Residential rate does not explicitly cover. This section also applies to houses/residential units under construction and prior to occupancy except as provided in Resolution No. 293.
- C. Character of Service. Energy will be supplied at approximately 60 Hz, alternating current. The Board reserves the right to specify the voltage and phase of service supplied under the General Service rate.
- D. Demand Charge.
1. Kilowatt demand for the billing period will be determined by suitable metering and will be measured as the average kilowatt delivery during the 30-minute period with the greatest amount of consumption.
 2. Metering, at the Board's option, may be done at the utilization voltage or at the primary voltage.
 3. The demand charge will be adjusted for power factor, at the Board's option, by increasing the measured demand by one percent or fraction thereof, for each one percent or fraction thereof that the average power factor is less than 95 percent lagging or more than 100 percent leading.
- E. Primary Service Discount. For customers that take service at the primary voltage and who own and maintain transformer switches, protection equipment and related apparatus necessary for service, the total demand charges at the applicable rate will be reduced by \$0.62/kW of demand charge. This discount is available only if Canby Utility determines that the customer's equipment has been properly designed, constructed and maintained.

SECTION 3. NEW OR EXPANDING LARGE LOAD RATES AND STANDARDS

A. Rates.

Meter (Base) Charge:

1-phase:	\$19.25/month
3-phase:	\$43.25/month

Demand Charge:

First 50 kW:	\$9.50/kW
Over 50 kW:	\$9.50/kW

Primary Service Discount: \$0.62/kW

Energy Charge:

First 25,000 kWh:	\$0.0854/kWh
Over 25,000 kWh:	\$0.0783/kWh

B. Definitions. For the purposes of this section, the following definitions apply:

1. “New Load” means any service that is first connected to the electrical distribution system after October 1, 2013 and that is expected to have a load of greater than or equal to 3.1 average megawatts (aMW) or peak of 3.1 MW.
2. “Expanding Load” means any service currently connected to the electrical distribution system and that is expected to increase average annual load greater than or equal to 3.1 aMW or additional peak of 3.1 MW when compared to that service’s monthly energy and demand consumption history during the immediately preceding calendar year.

C. Applicability.

1. The New or Expanding Large Load service rate applies to all New Loads and Expanded Loads.
2. A New Load can have an Expanded Load component and the cumulative New and Expanded loads will determine the applicability of this section.
3. This section does not apply to a load designated by Canby Utility or the BPA as New Large Single Load as defined by the BPA in their New Large Single Load Policy document, as amended from time to time. Section 3.G of this resolution governs the rates for such loads.
4. The NELL retail cost impact to the Residential and General Service rate classes shall be capped at an estimated five percent (5%) retail rate increase cost impact to Canby Utility.

D. Character of Service. Energy will be supplied at approximately 60 Hz, alternating current. The Board reserves the right to specify the voltage and phase of service supplied under this section.

E. Demand Charge.

1. Kilowatt demand for the billing period will be determined by suitable metering and will be measured as the average kilowatt delivery during the 30-minute period with the greatest amount of consumption.
2. Metering, at the Board's option, may be done at the utilization voltage or at the primary voltage.

3. The demand charge will be adjusted for power factor, at the Board's option, by increasing the measured demand by one percent or fraction thereof, for each one percent or fraction thereof that the average power factor is less than 95 percent lagging or more than 100 percent leading.

F. Primary Service Discount. For customers that take service at the primary voltage and who own and maintain transformer switches, protection equipment and related apparatus necessary for service, the total demand charges at the applicable rate will be reduced by \$0.62/kW of demand charge. This discount is available only if Canby Utility determines that the customer's equipment has been properly designed, constructed and maintained.

G. Contract Rate for New Large Single Loads. Canby Utility may negotiate and implement a contract rate for a General Service customer designated, or prospective customer expected to be designated, by Canby Utility or BPA as a New Large Single Load as defined by the BPA in their New Large Single Load Policy document, as amended from time to time. The contract rate will be designed to directly pass-through Canby Utility's power costs, transmission costs, ancillary service costs and taxes, if any. The contract rate may not shift costs onto other customers.

SECTION 4. RATES FOR UNMETERED LIGHTING FIXTURES

The monthly billing charge for all unmetered lighting fixtures shall be the lamp rating of that fixture in watts divided by 1000 multiplied by 365 hours of operation per month multiplied by the then current General Service billing rate. The monthly hours of operation is determined as 365 days in a year multiplied by 12 hours average operation per day divided by 12 months, which equals 365.

Based on a General Service rate of \$0.0554/kWh the following charges would apply to the sample lamp ratings listed:

<u>Lamp Size in Watts:</u>	<u>Monthly Charge:</u>
70	\$1.42
100	\$2.02
150	\$3.03
250	\$5.06
400	\$8.09

SECTION 5. OPTIONAL RENEWABLE ENERGY (GREEN POWER) RATE

A. Rate.

Energy Charge:

Per 100 kWh: \$0.92/100 kWh

The optional monthly charge is *in addition to* all other charges contained in the rate schedule under which the customer receives service. The green power charge will be added to the customer's bill as a separate line item.

- B. Applicability. Service under this schedule is available to all customers who choose it as an option.
- C. Definition. For the purposes of this resolution, green power means "Environmentally-Preferred Power" as BPA defines that term and includes renewable energy resources, programs and related costs.
- D. Terms and Conditions. Customers must enroll in advance to participate in the green power program. Customers may apply for, or terminate participation in, the program at any time during the year. Canby Utility will bill a prorated amount to customers who terminate their participation in the program.

SECTION 6. BPA WHOLESALE POWER COST ADJUSTMENTS AND CHARGES

- A. Applicability. Under BPA's General Rate Schedule Provisions, it has the authority to adjust up or down the price at which it sells power to wholesale customers such as Canby Utility. Such price adjustments for the October 1, 2023 to September 30, 2025 BPA rate period would be a monthly dollars per one percentage point of Non-Slice TOCA (Tier One Cost Allocation) and applied to Canby Utility's Non-Slice Customer Rate after other applicable rate adjustments and charges. Canby Utility reserves the right to pass-through to its customers with prior notice those wholesale cost impacts, plus five percent (5%) for the City of Canby's Payment-In-Lieu-Of-Taxes fee, that result from such BPA adjustments and charges so long as the cost impacts and the in-lieu-of fee combined do not exceed \$300,000 on an annualized basis. The Canby Utility Board will hold a public hearing prior to passing through to its customers cost impacts exceeding that threshold amount.
- B. Rate. Retail Rate Increase: The total wholesale cost increase plus increases in operating expenses and reserves will be allocated to reflect Canby's total system demand load according to a cost-of-service analysis. The resulting class dollar amounts will be applied to the meter and energy charge.
- C. Special Terms and Conditions. BPA wholesale rate adjustments that trigger changes to Canby Utility's retail rates will be calculated at least once every six months and changed as needed. The changes will include all applicable adjustments that BPA may define and assess.

SECTION 7. OTHER REQUIREMENTS

- A. At the Board's option, customers may be required to execute a contract for the purchase of energy for a minimum period that the Board establishes.

- B. Service received under the rate schedules contained in this resolution remains subject to all other applicable rules, regulations and policies of Canby Utility.

SECTION 8. EFFECTIVE DATE

This resolution and the rates contained in it are applicable to all meter readings on or after November 1, 2023.

SECTION 9. REPEAL OF CONFLICTING RESOLUTIONS

This resolution supersedes and replaces Resolution No. 300 and all other resolutions, ordinances and previously adopted policies that conflict with this resolution's terms.

ADOPTED by the Canby Utility Board this ___ day of _____, 2023.

Melody Thompson, Chair

David Horrax, Member

John Molamphy, Member

Jack Pendleton, Member

Jake Hill, Member

Barbara Benson, Board Secretary

MEMORANDUM

October 10, 2023

TO: Chair Thompson; Members Horrax, Molamphy, Pendleton, and Hill

FROM: Cindy Dittmar, Customer Service Supervisor

SUBJECT: Changes to Canby Utility's Share the Warmth Bill Assistance Program

Recommended Motion: Move to adopt Resolution No. 316, revising Canby Utility's Share the Warmth bill assistance program and repealing Resolution No. 258.

Background: The Board implemented an energy assistance program in 1987 known as Operation Housewarming, and the name was later changed to Share the Warmth (STW). This program is designed to help customers pay their bills when facing financial hardships and other challenges. The program is funded through a \$40,000 annual donation from the Board and generous contributions from our customers.

Customers must meet one of three criteria to be eligible for assistance through the program. These criteria include:

1. Senior citizen, disabled, or low-income;
2. All customers, regardless of income, who are at risk of service disconnection due to non-payment; or
3. Emergencies, family crises, or other requests are considered case-by-case.

Canby Utility contracts with the Canby Adult Center to screen applicants and determine their eligibility for assistance. The screening is conducted every Tuesday, and Canby Utility pays the Canby Adult Center \$5 for every customer intake processed.

Currently, the maximum assistance a customer is eligible for is \$200. This limit has been in effect since 2012. Staff proposes to increase the maximum bill assistance to \$225, based on the rising cost of electricity and water.

I will be available to answer any questions the board may have.

RESOLUTION NO. 316

A RESOLUTION REVISING THE CANBY UTILITY BOARD'S SHARE THE WARMTH BILL ASSISTANCE PROGRAM.

WHEREAS, the Canby Utility Board is an Oregon municipal utility operating in accordance with the Canby City Charter and ORS Chapter 225;

WHEREAS, the Canby Utility Board established a bill assistance program in 1987 to assist its customers with low income and special circumstances in paying their utility bill; and

WHEREAS, ORS 757.687(11), requires consumer-owned utilities to have in operation a bill assistance program for households that qualify for federal low-income energy assistance in Canby Utility's service area; and

WHEREAS, on January 22, 2013, the Board last adopted changes to the Share the Warmth program, to apply the six months of service eligibility criterion to not only the Door Hanger category of customers, but also the Low-Income/Disabled/Senior category; and

WHEREAS, the Board desires to amend the Share the Warmth program to increase the level of assistance a customer may receive in a 12-month period from \$200 to \$225; and

WHEREAS, the Board also desires to change the program's 12-month period from starting in July to now starting in November each year.

NOW, THEREFORE, the Canby Utility Board resolves as follows:

- A. Adopt Revised Procedure 562, attached hereto as Exhibit A.
- B. The procedure is effective on November 1, 2023.
- C. Resolution No. 258 is Repealed.

THIS RESOLUTION IS ADOPTED BY THE CANBY UTILITY BOARD THIS
10th DAY OF OCTOBER 2023

Melody Thompson, Chair

David Horrax, Member

John Molamphy, Member

Jack Pendleton, Member

Jake Hill, Member

Barbara Benson, Board Secretary

CANBY UTILITY

PROCEDURE 562

OCTOBER 2023

BILL ASSISTANCE PROGRAM

I. Purpose:

Establish procedures for Canby Utility's (CU) bill assistance program, known as Share the Warmth (STW). This procedure meets ORS 757.687 (11), standards that require consumer-owned utilities to have in operation a bill assistance program for households that qualify for federal low-income energy assistance.

II. Scope

The procedure establishes criteria for CU's bill assistance program. It authorizes staff to help those the program was designed for, helps others who have a need for temporary assistance in paying their utility bill, and assists customers that are dealing with an emergency or crisis in their life that could use assistance.

III. Policy

The policy is to assist CU customers in paying their utility bill when the established criteria have been met. CU will open the STW program to applicants in the fall and will close the program when available funds have reached a low level. Each qualified account can only receive assistance once during a twelve-month period, beginning November 1 through October 31, under the following categories:

- Low Income/Disabled/Senior (LIDS)
- Door Hanger (DH)

A customer may qualify for assistance under the Emergency category in addition to receiving funds under the LIDS or DH categories.

Funding: The program is funded by the CU Board of Directors allocating funds each fiscal year, and from donations made by individuals and organizations.

How to apply: Customers apply for bill assistance under the LIDS and DH categories through an established third-party intake center. Customers who request assistance under the Emergency category can apply directly at CU's business office.

Amount: Customers are eligible for up to \$225 in assistance for either LIDS or DH per year (November 1- October 31). Customers can only apply for assistance once during that period, except for the Emergency category. Customers who apply for assistance under the DH category will qualify for an amount outlined in section B; see below.

If at any time an account is disconnected and a credit balance remains that includes funds from the STW program, STW funds will be returned to the program, not refunded to the account holder.

Program Criteria

- A) Low Income/Disabled/Senior Category (LIDS)
 - 1. Must meet Federal LIHEAP standards, have a Supplemental Nutrition Assistance Program (SNAP) card, Oregon Trail Card, or meet low-income eligibility and can be verified through CU's designated third-party intake center.
 - 2. Customers are eligible for \$225 per year. Customers need to apply through the third-party intake center. A door hanger is not required if eligibility applies.

- B) Door Hanger Category (DH)
 - 1. Customers must have established service with CU for at least six (6) months.
 - 2. Customers are eligible for up to \$225 in assistance each year. Customers must pay the door hanger fee and 25% of the past due balance, or the amount that would bring their past due balance to zero, when STW funds are applied to their account. Customers must make the payment on the day they sign the STW agreement.

- C) Emergencies/Family Crisis/Other Category (E)
 - 1. Customers are eligible to receive up to \$225 in assistance per year. This may be in addition to receiving funds under the LIDS & DH categories.

2. Customers need to apply directly at CU business office. The Customer Service Supervisor or his/her designee will determine eligibility.
3. Customer Service Supervisor or their designee may initiate assistance in lieu of the customer's request if their need is generally known to the public, for instance, from news reports.

This procedure was adopted by the Board of Directors on _____ day of _____, 2023.

Barbara Benson, Board Secretary

Date



MEMORANDUM

October 6, 2023

TO: Chair Thompson; Members Horrax, Molamphy, Pendleton, and Hill

FROM: Jason Peterson Operations Field Supervisor

SUBJECT: Updated Water Distribution Construction Standards and Specifications

Suggested Motion: Move to adopt Resolution No. 317, updating Canby Utility's Water Distribution Construction Standards and Specifications.

Background: Canby Utility's water distribution construction standards and specifications were last updated in 2013. Water line construction, maintenance, and repairs have progressed in the past ten years. New materials and installation practices make working within our existing standards challenging for contractors.

The new construction standards will ensure system components and extensions meet quality and construction standards protecting public health. They serve as a resource to help guide developers and contractors through the steps to build or expand water infrastructure within our service area and to answer customers' questions about the water system.

The draft standards have been thoroughly reviewed by CU staff, Veolia, and a professional review by Sisul Engineering. The changes were made in conjunction with the updated water master plan so that the information in both documents aligns to ensure no conflicts and make it easier to conform to Canby Utility's policies. The updated Water Master Plan and Standards and Specifications will set Canby Utility up for future success as the city grows.

The attached standards and specifications adhere to Oregon Administrative Rules Chapter 333, Division 61 requirements. These rules established requirements that Canby Utility must follow to comply with construction standards for public water systems, operation and maintenance of water distribution system standards, and backflow assembly standards.

I will be available to answer any questions the board may have.

RESOLUTION NO. 317

A RESOLUTION ADOPTING REVISED WATER DISTRIBUTION CONSTRUCTION STANDARDS AND SPECIFICATIONS.

WHEREAS, the Canby Utility Board is an Oregon municipal utility operating in accordance with the Canby City Charter and ORS Chapter 225;

WHEREAS, the City of Canby delegated its authority to operate and manage the water system to the Canby Utility Board by an Intergovernmental Agreement; and

WHEREAS, Oregon Administrative Rules Chapter 333, Division 61 mandates that the Canby Utility Board adhere to construction standards for public water systems; operation and maintenance of a water distribution system standards; and backflow assembly standards; and

WHEREAS, Canby Utility Board’s existing Water Distribution Construction Standards and Specifications were last updated in 2013; and

WHEREAS, the updated water construction standards will improve water system operations and reflect current information from the 2023 Water Master Plan update.

NOW THEREFORE, be it Resolved by the Canby Utility Board that the Water Distribution Construction Standards and Specifications, which is attached hereto as Exhibit A and incorporated herein by reference is hereby adopted by the Canby Utility Board.

THIS RESOLUTION IS ADOPTED BY THE CANBY UTILITY BOARD THIS
10th DAY OF OCTOBER 2023.

Melody Thompson, Chair

David Horrax, Member

John Molamphy, Member

Jack Pendleton, Member

Jake Hill, Member

Barbara Benson, Board Secretary

Canby Utility Water Distribution

Construction Standards and Specifications



Scope

1.1

Canby Utility has set forth **minimum** standards and specifications pertaining to the planning, design, and construction of Canby's water distribution system and future improvements. Any additions and/or improvements shall adhere to Canby's water system master plan. Development engineers shall meet with a representative of Canby Utility to discuss system layout **prior to any plan submittal**. In the event that any design does not address the aforementioned qualifications Canby Utility, at its own discretion, will determine the appropriate course of action. Canby Utility retains the right to revise these requirements at any time without any prior notification. Projects that sit idle from pre-application meeting for a minimum of 1 year without any measurable progress will be subject to another complete review by Canby Utility before any construction can start/resume. All projects will be considered "Accepted" when a **revised** Project Cost sheet and As-Built are submitted to Canby Utility and pending the completion of any remaining issues listed on the final inspection form.

1.2

When designing any public water system improvements Canby's water system master plan **shall** be taken into consideration. Data being used to calculate peak day demand and fire flow demand shall be calculated

through flow tests. All flow tests **shall** be witnessed by Canby Utility for a nominal fee. Under no circumstances may the developer/contractor operate the fire hydrant. Depending on the size and scope of the future development the data may need to be modeled to prevent any sort of potential damage to existing water infrastructure.

1.3

A request for a flow test may be made by calling this number: (503) 266-1156

1.4

At least two (2) stamped copies of plans for any water system improvements or additions shall be submitted to Canby Utility for review.

1.5

Water system additions/improvements shall be constructed as shown on the plans and in accordance with these Standards and Standard Drawings. Equipment and materials shall be installed in compliance with the manufacturer's recommendations, except where a higher quality of workmanship is required by the Plan Specifications and these Standards. All materials and work shall be in strict accordance with any applicable regulations and requirements of Federal, State, and local authorities. The Contractor may be required to arrange for inspection by these agencies and submit evidence of their approval, when required or requested by Canby Utility. The contractor shall take care to prevent damage and/or contamination to pipe, fittings, and other materials and equipment during transportation, unloading, and final placement during installation. Manufacturer recommended product handling shall be followed to protect coatings, linings, and structural integrity of materials used in public water system construction. Under no circumstances shall materials be dropped or dumped into the trench. All materials and equipment damaged during construction shall be replaced or repaired to the satisfaction of Canby Utility. If any underground utilities are damaged the contractor/developer

shall be report what happened to Canby Utility and the owner of the damaged asset immediately. The Contractor shall maintain safe working conditions for employees, CUB staff, and the general public in-and-around any jobsite or excavation. Precautions shall be taken to avoid damage to franchise utilities, adjacent properties, existing water infrastructure, and public or private landscapes/hardscapes.

1.6

A representative from Canby Utility must be on-site throughout the duration of construction. Contractors shall schedule work accordingly and notify Canby Utility promptly before any construction takes place so that there are no scheduling conflicts with Canby Utility's day-to-day operations.

1.7

Water service shall remain constant to all existing customers at all times. When it becomes necessary to shut down service to make required tie-ins or repairs, the Contractor shall notify and get shut-off date approval from the Water Department so affected customers can be timely notified in advance. If a fire system is affected, the Contractor is required to contact the customer and the Canby Fire Department (503-266-5851) for any alternate fire protection requirements.

Water main and service shut-offs are to be coordinated through a Canby Utility representative. Customers are required to be notified prior to a service interruption a minimum of 48-hours in advance for any residential property and 72 hours in advance for any commercial property. Weekends and holidays will not be included as credit for notification time. Canby Utility will charge a nominal hourly fee for any inspections pertaining specifically to the construction of its water distribution system. Please keep in mind that Canby Utility also works a M-F 7:00am to 5:30pm schedule.

1.8

Any bulk water sales will be provided at the discretion of Canby Utility. Contractors are required to submit the appropriate paperwork and pay any applicable fees at Canby Utility's billing office (1265 SE 3rd Ave Canby, OR 97013). More information can be found here: <https://www.canbyutility.org/water-service/rates-fees/other-water-charges-fees/>. Before a hydrant meter is installed the contractor must provide proof of an approved air-gap per OAR 333-061-0070 (See Detail: 020).

1.9

Under no circumstances whatsoever will anyone other than a representative of Canby Utility operate any valve that is connected directly to the water distribution system.

Construction

2.1

Before any construction may occur, a pre-dig meeting with a Canby Utility representative **shall** take place. During this meeting the Developer/Contractor will present a formal construction plan and any safety concerns that may pose issues before completion of the project. Depending on the size and scope of the project Canby Utility will disclose any concerns we feel may be/become issues at any point before completion of construction. Materials used in any distribution system improvement/addition **shall** be made in the United States of America. Canby Utility will also inspect any and all materials to its satisfaction before construction can take place.

2.2

Construction staking is required for all water system improvements. Staking shall be performed by or under the supervision of an Oregon Registered Professional Land Surveyor or Registered Professional Engineer. Staking shall be in place prior to installation of water system improvements.

Staking shall be preserved and shall not be disturbed until the Construction Inspector authorizes it to be removed. If staking is disturbed or removed prior to the Inspector's approval, it shall be promptly replaced. Line and grade stakes for water mains shall be provided on an offset line at intervals not exceeding 25 feet. Offset distances shall not be greater than 20 feet. Stakes shall be marked with stationing as well as Hub elevations and elevation references (cut/fill) to finished grade, i.e., and/or to top of pipe. Locations of taps, valves, fittings, hydrants, water meters, and other appurtenances shall be marked with offset stakes. Hydrant and meter stakes shall be marked with elevation references (cut/fill) to top of curb or to finished grade if no curb will be installed. Meter stakes shall be marked with lot numbers.

2.3

Foundation Stabilization Materials: 2" to 3" dense graded crushed rock meeting ODOT Standard Specifications Section 00641, Section 02630, and is approved by the Canby Utility. Geotextile fabric is to meet ODOT Standard Specification Table 02320-1 (Drainage) for Type 2 geotextiles.

2.4

Bedding and Pipe Zone Materials Class: "B" ¾"-0" dense graded crushed rock, with no more than 5% passing the No.200 sieve (wet test) and meeting ODOT Standard Specification Section 00641 and Section 02630. Class "E" Controlled Low-Strength Material (CLSM) conforming to ODOT Standard Specifications Section 00442.

2.5

All CLSM mix designs are to be submitted for approval and must include 28-day cylinder break report from test batch as evidence of compressive strength, not exceeding 150 psi.

2.6

Backfill Materials Class "B" ¾"-0" dense graded crushed rock, with no more than 5% passing the No.200 sieve (wet test) and meeting ODOT Standard Specifications Section 00641 and Section 02630. Class "A" Clean native or imported earth material free of organics, rock, stones, wood, and other debris.

2.7

The contractor is to provide all materials, labor, and equipment necessary to protect trench excavations at all times. Excavations within the public right-of-way are required to be backfilled by the end of the work shifts, unless another method for safely covering the excavation can be implemented. Disposal of all excavated materials shall be at an approved permitted dumpsite meeting any and all State and local requirements.

2.8

The allowable open trench "maximum" length shall be no more than 300 feet. This distance may be considerably reduced within public right-of-way areas based on safety concerns, work conditions, vehicle access, or lack of Contractor resources for trench area management. The minimum trench width allowed is 24 inches and it will increase based on the pipe diameter (refer to detail # 001). Consideration shall be taken to ensure trench is wide enough to accommodate shoring, protective structures, pipe installation, backfilling, and compaction.

2.9

The trench (or any other excavation with any water infrastructure) shall be filled in loose lifts of 12 inches to 24 inches depending on compaction method. Compact material to a minimum 95% of maximum density as determined by AASHTO T-99. Water settling methods are not allowed.

2.10

For quality control, a third party ODOT certified testing company shall be contracted to perform nuclear density testing and any other applicable testing. Compaction test requirements shall be in accordance with ASTM D698. A standard proctor is to be obtained through an approved certified testing laboratory for all materials used by the Contractor. Generally, tests are to be performed one (1) every 100 feet of linear trench for pipeline trenches, and minimum one (1) test for each water service or other lateral appurtenance trench. Trenches 5 feet and greater will require compaction testing every 2 feet of depth. Frequency of in field testing will be determined by excavation type, depth of excavation, and the Contractor's compaction methods and equipment. If trench backfill does not pass compaction testing it shall be evaluated for deficiencies, such as inadequate moisture, material inconsistencies, and contamination. The Contractor shall discuss a plan for correcting these deficiencies by means of increased compaction effort, addition of water, or the removal and replacement of backfill material. The plan must be approved by Canby Utility. Trench backfill within an existing roadway is to be visually tested for soft spots at finish grade of the rock subgrade, according to ODOT TM 158 in ODOT Manual of Field Test Procedures.

Water Main Sizing and Location

3.1

All hydraulic calculations to determine pipeline sizing are to be made using Hazen-Williams "C" coefficient of 100 and velocity not exceeding 5 fps. The following pipe sizes are accepted for use in Canby Utility's water system: 4, 6, 8, 12, 18, and 24-inch. Distribution water mains typically have a minimum 8-inch diameter. Water piping serving dead-end streets may be reduced in size below 8 inches if all of the following conditions apply to the waterline:

1. It is under 250 feet in length.

2. It has no more than eight (8) service connections.
3. There is no possibility for future extension.
4. Design is accompanied by hydraulic calculations validating that the minimum fire flow required by the Canby Fire District is met. The Engineer is encouraged to meet with a Canby Utility representative prior to design to discuss the size of water mains and any other matters particular to the project (contact Canby Utility at: 503-266-1156). Pipeline size shall be determined based on service area and system requirements, or as established in the current Canby Utility Water System Master Plan.

3.2

Typical water main location will be no more than 6 feet from the face of the curb. The water main will be located on the opposite side of the road of any sanitary sewer main. In any instances where these requirements cannot be met Canby Utility may make an exemption upon a detailed review.

3.3

Minimum required cover over water main piping is 30 inches in accordance with OAR 333-061-0050. Care shall be taken to maintain the required cover depth over water system piping and appurtenances in all areas.

3.4

All utilities shall cross under water piping and appurtenances unless otherwise authorized by the Canby Utility. Where a water pipe crosses below a sanitary sewer line, one full length of water pipe shall be used with the pipe centered for maximum joint separation. Spacing and separation may be modified as allowed by OAR 333-061-0050 and approved by Canby Utility.

3.5

Parallel placement of sewers and water lines:

Sewers shall be laid at least 10 feet horizontally from any existing or proposed water line. The distance shall be measured edge-to-edge. There is no minimum vertical separation required provided the 10-foot horizontal separation is maintained.

Structures, other than pipelines or conduits, through which sanitary wastewater flows such as, but not limited to, manholes, valve vaults, meter pits and pump station wet wells shall also be constructed at least 10 feet horizontally from any existing or proposed water line, measured edge-to-edge. In cases where it is not possible to maintain a 10-foot horizontal separation, sewers shall be laid at least 5 feet horizontally and a minimum of 1.5 feet vertically below any existing or proposed water line. The distance shall be measured edge-to-edge.

- a. The sewer pipeline and/or structures and water line shall be laid in separate trenches and conform to the minimum requirements of OAR 333-061-0050 (9)
- b. The crown of the sewer pipeline shall be at least 1.5 feet below the invert of the water line.

In situations where it is impossible to obtain proper horizontal and vertical separation as stipulated above, the following protection shall be provided:

- a. Encasement of the sewer pipeline in concrete (min 6-inch thickness) or a carrier pipe for at least 10 feet either side of the area not complying with the minimum horizontal and vertical separation, or
- b. The design and construction of the sewer pipeline must meet the requirements applicable to water lines (any AWWA-approved material for potable water conveyance), and pressure tested in accordance with AWWA Specifications, or

c. In instances of conflict with sanitary wastewater structures mentioned above, relocate the water line to achieve the required horizontal or vertical separation.

d. A minimum of 1.5 feet of physical separation face-to-face.

3.6

Sewers crossing water lines:

Sewers crossing over water lines should be avoided, but if conditions warrant this situation, then adequate structural support shall be provided for the sewer to maintain line and grade:

a. Wherever possible, the bottom of the water line shall be 1.5 feet or more above the top of the sewer line and one full length of the water line shall be centered at the crossing;

b. Where the water line crosses over the sewer line but with a clearance of less than 1.5 feet, the sewer line shall be exposed to the sewer line joints on both sides of the crossing to permit examination of the sewer pipe. If the sewer pipe is in good condition and there is no evidence of leakage from the sewer line, the 1.5-foot separation may be reduced. However, in this situation, the water contractor/developer must center one length of the water line at the crossing and must prepare a written report of the findings and indicating the reasons for reducing the separation. If the water supplier determines that the conditions are not favorable or finds evidence of leakage from the sewer line, the sewer line shall be replaced with a full length of pipe centered at the crossing point, of PVC pressure pipe (ASTM D-2241, SDR 32.5), high-density PE pipe (Drisco pipe 1000), ductile-iron Class 50 (AWWA C-51), or other acceptable pipe; or the sewer shall be encased in a reinforced concrete jacket for a distance of 10 feet on both sides of the crossing.

c. Where the water line crosses under the sewer line, the contractor/developer shall expose the sewer line and examine it as indicated in paragraph b. If conditions are favorable and there is no

evidence of leakage from the sewer line, the sewer line may be left in place, but special precautions must be taken to assure that the backfill material over the water line in the vicinity of the crossing is thoroughly tamped in order to prevent settlement which could result in the leakage of sewage. In this situation, the contractor/developer must center one length of the water line at the crossing and must prepare a written report for Canby Utility recording the manner in which the sewer line was supported at the crossing and the material and methods used in backfilling and tamping to prevent settlement of the sewer. If Canby Utility determines that conditions are not favorable or finds evidence of leakage from the sewer line, the provisions of paragraph b apply.

3.7

Sewer laterals:

Sewer laterals crossing over or under water lines within the 18-inch vertical separation **shall** be constructed of SDR 11 HDPE pipe material. Should electrofusion couplings be required due to length, the engineering firm shall witness the electrofusion process and confirm satisfactory machine readings on each. Engineering firm shall include measurement from cleanout in sidewalk to electrofusion coupling location on as-built plan provided to Canby Utility at completion of the project. A minimum of 4-inch separation is required for any crossing.

3.8

If the need for an extension of public water system results from property development, the extension shall be at the expense of the owner(s) of the parcel(s) for which the extension will take place on. The condition is applicable to the full length of all street frontages. Water systems shall be installed through new development or improvements to existing infrastructure. Water system improvements shall take into consideration future development and effects to adjacent and downstream properties. Existing infrastructure that is deemed to be unusable due to its size,

location, or material type **shall** be relocated and/or replaced at the contractor/developer's expense.

3.9

Dead-end waterlines shall be avoided whenever possible (OAR 333-061-0050). Considerations for allowances of dead-end water mains are: future development, cul-de-sacs, or when the looping of the water system or banking of water meters is not practical. A line size valve shall be installed on all dead-end water mains where future extensions are probable. Dead-end water mains shall terminate prior to property boundary and be equipped with a blow-off assembly. If necessary, a Hydro-Guard HG-4 automatic blow-off assembly may need to be installed to maintain water quality. Canby Utility reserves the right to have an "automatic blow-off" installed at its own discretion during the plan review process or at any other point during the duration of any project.

3.10

If an "automatic blow-off" must be installed. A de-chlorination system must be furnished and installed along with the blow-off unit. The drainage system to which the unit discharges water into will be taken into consideration during the design/review process.

3.11

If a project contains multiple connection points to the City's existing water system, only one connection will be allowed until all testing, disinfection, and acceptance of water improvements have been completed to the satisfaction of the Canby Utility Water Department. The Contractor is to install a temporary blow-off at the end of each leg prior to the tie-in point to allow for flushing of the system. Proper equipment, tools, and facilities shall be provided and used by the Contractor for the safe and convenient execution of the work. Connections made to these tie-in locations shall take place after the pressure testing and chlorination procedure. All Tie-ins

shall be made with a representative of the Canby Utility Water Department on-site.

3.12

All pipe and appurtenances shall be installed at the location, elevation, and grade shown on the plans, or as directed by Canby Utility. At no time shall the water line deviate more than an acceptable amount vertically or horizontally from the approved design, without prior approval from Canby Utility. Pipe configuration shall be with the bell pointed in direction of installation whenever practical. Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed. During installation no debris, tools, clothing, or other materials shall be placed in the pipe. When pipe installation is not in progress, the ends of the pipe shall be closed by a watertight plug or equivalent mechanical means. Full lengths of pipe shall be used whenever possible to limit the number of joints. Pipe lengths less than 2 feet shall not be used unless approved by Canby Utility. The cutting of pipe must be executed in a neat manner without damage to the pipe or the lining. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the pipe ends shall be dressed with a file or power grinder to remove all rough and sharp edges. Cut ends of push-on joint pipe shall be suitably beveled. Approved cutting equipment includes abrasive cut-off saw, rotary wheel cutter, a guillotine pipe saw, or milling wheel saw.

4.1

All new water mains installed within Canby Utility's distribution system shall be made of ductile iron. All ductile iron pipe shall be class 52 thickness in adherence with the latest revision of ANSI/AWWA C151/A21.51.

All ductile iron pipe shall be cement mortar lined by the manufacturer, have an external bituminous coating and strictly adhere to ANSI/AWWA C104/A21.4 ANSI C151/A21.51. All pipe shall come in 18 or 20-foot-long

lengths. All pipe shall be manufactured and sourced in the United States of America.

4.2

All new Ductile iron pipe installed in any Canby Utility water distribution system improvement shall be encased in McWane V-bio polyethylene bags or any approved equal. Polyethylene encasement procedures shall adhere strictly to DIPRA Wet Trench Method. Any/all other procedures and materials shall adhere to the American National Standards Institute and the American Water Works Association (ANSI/AWWA C105/A21.5) standard for polyethylene encasement.

4.3

All mechanical joints shall be restrained. Installation of mechanical joints shall be as recommended by the manufacturer and in accordance with ANSI/AWWA C111/A21.11 Appendix A. If effective sealing is not obtained, the joint shall be disassembled, thoroughly cleaned, and reassembled. Bolts shall be uniformly tightened to the torque specified or according to manufacturer's instructions. Mechanically restrained follower rings may be disassembled then reassembled and torqued back to the manufacturer's recommendations. This disassembly and reassembly process must take place with a representative from Canby Utility on-site.

4.4

Fittings at valved intersections or at hydrant locations such as tees or crosses **shall** have flanged joints. Any outward facing joint shall have a mechanical joint. If in the event a flanged fitting cannot be obtained for construction in a timely manner then mechanical joints may be allowed at the discretion of Canby Utility. If mechanical joints must be used the minimum length of pipe between shall be two feet. (refer to detail #)

4.5

Installation of flange joints shall be accordance with the manufacturer's recommendations and ANSI/AWWA C111/A21.11 Appendix C. Flange faces shall be flat and perpendicular to the pipe center line. Flange faces must be cleaned with a wire wheel prior to installation of the valve (or any other fitting that will bolt directly to it).

Service Lines

5.1

Service line and meter locations will generally be 1.5 to 2 feet away from a property line. The property line chosen will preferably be the one that is on the opposite side of the proposed driveway. The service will be extended from the corporation stop to the proposed meter location in a straight line. Service lines inside a cul-de-sac will take the shortest possible route from the main line in the street to the proposed meter location. The top of the operating nut of the angle stop shall be exactly 8" below the top of the meter box. Service lines for flag lots will be located behind the driveway and on the opposite property line of the sanitary sewer. If a lot is being partitioned the contractor/developer shall work directly with Canby Utility to determine the best possible location of the water meter and service line.

5.2

Backflow assemblies are required on all commercial, industrial, large multi-family residential with water meter sizes 1½" or larger, public or semi-public facilities, irrigation, and fire service connections to the water system. Canby Utility shall determine level of hazard and assembly requirements during plan review/design process. Canby Utility also deems that any building greater than 2 stories regardless of the degree of hazard and meter size shall not only have premise isolation but must also have a RP or RPDA.

5.3

Water service lines in Canby **shall** be either 1" or 2". Certain exceptions may be made solely at Canby Utility's discretion. Any service line 2" and under shall be CTS (copper tube size) SDR-9 crosslinked polyethylene (PEX-a) conforming strictly to AWWA C-904, ANSI/NSF 61. 1 ½" services will not be allowed.

5.4

All service lines **shall** be installed inside of a Schedule 40 PVC conduit. 1" service lines are to be installed inside of their own 2" conduit. 2" service lines are to be installed inside of their own 4" conduit. The tracer wire is to be installed inside the conduit along with service tubing. The ends of the conduit pipe are to be sealed to prevent intrusion of any backfill material. The mainline end of the conduit near the corporation stop shall be no more than 3 feet away. The service connection end of the conduit shall extend all the way to the backside of the curb and no further. If the final meter location will be behind the sidewalk, then the conduit shall extend to the back of the proposed walkway but no further.

5.5

All service brass shall conform to AWWA C800 and NSF/ANSI 61. Corporation stops shall be Mueller 25008 or any other approved equal. 1" Angle stops **shall** be Mueller B-24258N or any approved equal. Stainless steel inserts are required when installing PEX-a tubing. Inserts shall be comprised of 304 stainless steel and have a retaining dimple and a flange to keep the insert from falling out of the service tubing.

All 1" service lines installed on ductile iron shall be direct tapped. Any polyethylene material on the outside of the pipe must be preserved during the tapping process. An 8" area of three layers of 10mil polyethylene adhesive tape must be placed on the surface where the tapping machine is to be installed. The tap can then be made through the adhesive tape.

Services larger than 1" shall be saddle tapped and have their own 2" gate valve at the water main.

2" inch copper meter setters are required on all water services with meters larger than 1 inch. These shall be designed for horizontal inlet and horizontal outlet FIPT connections. The vertical height of a copper meter setter shall be no more than 18 inches for all water services, and shall include a high or elevated by-pass assembly.

Copper meter setters shall include two angle ball valves, one at the inlet to the meter, and one at the outlet of the meter. Angle ball valves are to be full port and include drilled wings for padlock installation.

All solder used in the manufacturing of copper meter setters shall be lead free.

5.6

All curbs will have a "W" marked on the face of the curb directly in-line with the water meter location. All "W" marks shall be a minimum of 4 inches in width and height. Any curb marks will generally be made either during the curbing process, or when the service line is adjusted to the correct height/location. Until the final meter location is settled upon the developer/contractor will not be allowed to mark the "W" on the curb.

5.7

Service lines shall be one uniform installation with no cut joints or fittings in between the water main and the final location of the water meter. In the event that the amount of service line piping is too short to reach the final meter location or is damaged at any way during the project a coupler(s) will not be allowed. Canby Utility under certain instances may allow 1 or more bends on short-side 2" service lines to help the service line reach its correct location.

Valves

6.1

A sufficient number of valves shall be provided to facilitate water system isolation and minimize impact to surrounding customers. All system appurtenances shall include a valve for isolation during general maintenance and repair operations. Generally, valves shall be installed at water main intersections in groups of three (3) for tee applications and four (4) for cross applications. Valves shall be FLG/MJ style and include restraints. The maximum distance between main line valves shall be no more than 500 feet. Apart from hot taps, all valves 10 inch and smaller shall be gate valves. To have adequate cover, all valves 12 inch and larger shall be butterfly valves. All valves shall also be full size with no reduced ports. Valves shall be installed in areas that have adequate free-space to allow for a 3-foot clear zone maintained around all water system valve boxes. Fencing, trees, large bushes, retaining walls, and anything else that may interfere with the operation of a water valve is prohibited within the clear zone. Valves shall not be located within a curb, gutter, driveway, sidewalk surfaced area or ADA ramp. Valve operator extensions are required on all valves with operating nuts more than 4.5 feet below finish grade. Oversized valve cans and risers are to be included with all operator extension installations. Insertable valves will be allowed strictly on a case-by-case basis.

6.2

All valves shall be marked with valves size, class, manufacturer, and year of manufacture. Markings shall be cast in raised letters on the valve body. All valves located inside vaults require a handwheel. Gate valves shall be resilient-wedge type conforming to AWWA C509 and/or C515, and shall be UL listed and FM approved. All gate valves shall be hydrostatically tested at the factory and have a minimum rated working pressure of 200 psi. The wedge shall be ductile iron or cast iron completely encapsulated with

resilient material. The sealing material shall be permanently bonded to the wedge with a rubber tearing bond which meets ASTM D429.

6.3

Butterfly valves shall be rubber-seated type conforming to AWWA C504. Valves shall be bubble tight at rated pressures with flow in either direction, and shall be designed for applications involving valve operation after long periods of inactivity. Valves employing a complete rubber liner or with sprayed or plated seating surfaces are not acceptable. The valves shall be Class 150B as shown in AWWA C504, Table 2. All butterfly valves shall be hydrostatically tested at the factory and have a minimum rated working pressure of 150 psi. Butterfly valves shall be furnished with a 2-inch square operating nut and shall open counter-clockwise when viewed from above. All manual operators shall be approved for direct bury applications. Valve actuators shall be totally enclosed worm gear or the traveling nut self-locking type and shall be designed to hold the valve in any intermediate position between fully open or fully closed without creeping or fluttering. All valve actuators shall be capable of withstanding an overload input torque of 450 ft-lbs at full-open or full-closed position without damage to the valve or valve operator.

Valve Boxes

7.1

Valve boxes shall have cast iron top and lid, EJIW 3663 or any approved equal. The minimum inside diameter shall be 9-5/8". All riser pipes shall be 8" PVC (D3034) as required. All cast iron lids will be marked with a "W" cast into the top and have an inset picking notch to lift the lid out of the valve box bottom. All castings shall be free of any pitting, pocking and unevenness and any casting that Canby Utility deems "flawed" will not be accepted. All valve box riser pipes shall have a debris cap installed unless otherwise authorized by Canby Utility.

Hydrants

8.1

All fire hydrants shall be a dry barrel, have a traffic rated breakaway flange, and be UL listed and FM approved and conform to the latest revision of AWWA C502. All hydrants shall have a standard 1 ½" pentagonal operating nut that opens counter-clockwise and closes clockwise. The main valve of the hydrant shall have a 5 ¼" opening and shall be of the compression type that opens against the water pressure and closes with it. All nuts and bolts buried below ground must be stainless steel. The nozzle section shall consist of two 2 ½ inch hose connections and one minimum 4 ½ inch pumper connection. All nozzles shall be field replaceable. The thread type of the outlet connections shall be National Standard Fire Hose Coupling Screw Threads. The shoe of the hydrant shall have at least two bronze drain valves that can completely drain the hydrant when the main valve is closed and have a 6" mechanical joint connection. The maximum bury depth of any hydrant will have a bury depth of no more than four feet. All hydrants that do not come in the Safety Orange color specified by the Canby Fire District shall be painted by the contractor/developer. Painting shall be comprised of one coat Sherwin-Williams "Kem Kromik" red oxide universal metal primer and 2 coats of Sherwin Williams "Industrial Enamel" B54 E39 colored in Safety Orange.

8.2

Hydrant locations will be determined by the **Canby Fire District** and a representative of Canby Utility. Hydrants are typically spaced 300 feet apart and are located solely in a planter strip or behind the sidewalk near an FDC. The pumper port of the hydrant shall be no less than 3 feet away from the face of the curb and the hydrant shall have minimum 4' by 4' by 6" concrete pad poured at finished grade underneath the breakaway flange. Hydrants shall be installed completely plumb with the bury line at/extremely close to finished grade. If the wrong bury depth of hydrant is

installed the developer/contractor shall replace it with the correct one. Extensions will not be allowed.

8.3

Care shall also be taken not to damage any of the exterior coating of the hydrant during the installation/backfilling and any remainder of the project. Canby Utility reserves the right under its own discretion to have the exterior coating repaired at any given time during the duration of the project.

After Construction

9.1

Filling the water main shall take place slowly and methodically to adequately remove as much air as possible through hydrants, blow-offs, and service lines. Any new water main installation shall be closely supervised implemented by Canby Utility. Temporary blow-offs larger than 2" may need to be installed to achieve adequate flushing velocities on larger sized lines. At Canby Utility's discretion foam pigs may also be required to achieve proper scouring without excessive water use.

10.1

Prior to hydrostatic testing, all water improvements shall be completed including water mains, services, blow-offs, and any other appurtenances. Prior to hydrostatic testing the water main shall be allowed to sit and stabilize for a period of no less than 16 hours. The Contractor shall perform hydrostatic (pressure) and leakage tests on all newly laid pipes and valves in accordance with OAR 333-061-0050, the latest methods outlined in AWWA C600. The pressure test shall include fire hydrants. All materials to complete a valid pressure test shall be provided by the contractor. These materials will include but may not be limited to:

1. Barrel of water
2. Mechanical injection pump

3. Any hose and fittings needed to connect the pump to the newly laid water main
4. At least 1 Large faced pressure gauge with two (2) pound increments

10.2

The pipe shall be filled with water using an approved method that protects the existing distribution system from contamination. The new piping being tested shall remain isolated from the existing water system.

After the trench has been backfilled or partially backfilled, slowly fill the pipe with water, expelling all air during the filling.

The test pressure shall be a minimum of 150 psi for the 2-hour test. Apply the specified test pressure by pumping additional water into the new piping system with a hydrostatic pump.

Valve off the pump and hold the pressure in the line for the 2-hour test period. If the pressure falls below 145 psi, the line shall be pumped back up to 150 psi. The amount of water used to obtain 150 psi again shall be measured and counted against the allowable leakage.

At the end of the test period, again operate the pump until the test pressure of 150 psi is obtained, measuring the water used.

The suction side of the pump shall be in a barrel or similar container, or metered so that the amount of water required to restore the test pressure may be measured accurately.

10.3

Leakage shall be defined as the quantity of water necessary to restore the specified test pressure at the end of the test period. No pipe installation will be accepted if the leakage is greater than the number of ounces lost in a 2-hour period as determined by the following formula:

$$L = \frac{256 * S * D * \sqrt{P}}{148,000}$$

Where L = Allowable leakage (ounces/2 hours) S= Length of pipe tested (feet) D = Nominal diameter of pipe (inches) and P = Test pressure (PSI)

10.4

The Contractor shall schedule disinfection no later in the week than Tuesday, to allow for completion of bacteriological sampling on Thursday. The Contractor shall mix the hypochlorite granules or liquid in large plastic containers with sufficient water to obtain the required dilution. The containers must have sufficient capacity to ensure that the solution will mix thoroughly with the water when injected into the pipeline. Injection of the disinfectant into the pipeline to be treated through a corporation stop or other suitable appurtenance, at a point close to the feed source. Maintain the required flow of fresh water by operating water main and blow-off valves to sufficiently mix and pull the disinfectant throughout the system. Under no circumstances will the Contractor be allowed to operate any valves that are directly connected to Canby's water distribution system. The rate the disinfectant is injected into the piping shall be in such proportion to the rate of water entering the pipe that the combined mixture shall contain 25-50 MG/L of free available chlorine. The operation of all newly installed valves, hydrants, and other appurtenances during disinfection will ensure that the disinfection mixture is dispersed into all parts of the system

including dead-ends, new service lines, and similar areas that otherwise may not receive the treated water. At the completion of chlorine injection all valves should be closed and the pump shall be removed. The pressure in a chlorinated pipeline shall not be more than 10 psi. Water improvements that are one (1) pipe length or less may, at Canby Utility's discretion, be swabbed or sprayed with a hypochlorite solution as an approved disinfection method after a thorough rinsing with clean potable water.

10.5

The chlorine solution shall be left inside the newly installed water line/s for a minimum of 24 hours. The free chlorine residual after 24 hours shall be a minimum of 10mg/l. If the free chlorine residual is not sufficient the newly installed water line/s and service lines shall be chlorinated again until the desired residual is achieved.

10.6

After 24 hours have elapsed the water main and service lines shall be flushed until all of the chlorine solution has been sufficiently removed. The contractor shall provide any dechlorinating chemicals and hoses to properly discharge the water. The flushing process shall take place under the close supervision of Canby Utility.

10.7

After flushing and disposal of the disinfection mixture, a minimum of two (2) bacteriological samples will be drawn by Canby Utility. The first sample will be drawn after a minimum 16-hour retention period. The second sample **can** (at the discretion of Canby Utility) be drawn a minimum of 15 minutes later as long as the sample tap is kept running. If not, another sample (or samples) will be taken at another location on the jobsite. Both water samples must pass the bacteriological tests before the water line(s) can be put into service. At Canby Utility's discretion the contractor shall provide a representative to assist Canby Utility when samples are taken. All

chlorination taps used for testing and chlorination shall be removed at the completion of work and replaced with brass CC threaded plugs prior to final backfilling.

Tracer Wire

11.1

Tracer wire will be installed with all new water mains and service lines. Tracer wire will be Neptco Trace-safe 19 awg water blocking reinforced tracer wire or **approved** equal. All service connection and service tap locations will have Neptco Trace-safe compatible universal connectors. Service connection locations will have a universal connector with a with a stainless set screw for the positive side of an electronic locating device. In certain circumstances Canby Utility may only require a 12awg tracer wire with a blue HDPE jacket (This determination will be made during the plan review process).

Cathodic Protection

12.1

Cathodic protection shall be provided to protect the tracer wire from corrosion during its lifecycle. Cathodic protection will be in the form of a minimum 9lb magnesium anode. Tracer wire runs at phase break locations and certain tracer wire access locations (at Canby Utility's discretion) will be terminated with an anode. In the event that an anode is deemed necessary or most practical, a Trace-Safe universal connector will be used to run a black ground wire from the main locate wire to the location of the anode. Anodes shall be minimum 9lbs and be comprised of magnesium.

12.2

Cathodic protection shall also be required on all newly installed ductile iron piping in what Canby Utility deems as an "area of concern". These areas **could** include critical infrastructure, extremely corrosive soil conditions, crossing other cathodically protected utilities, or crossing inaccessible or

potentially inaccessible areas (railroad tracks, creeks, major thoroughfares/highways, etc.).

Approved Materials List

13.1

Per CUB resolution no. 259, all construction materials used in any distribution system improvement/addition **shall** be of domestic origin. Documentation to prove this may be requested by Canby Utility at any point during the project. Materials will also be subject to inspection by a representative of Canby Utility prior to the start of construction (as specified in section 2.1)

Valves

Material	Manufacturer	Model
Resilient Wedge Gate Valve	American AVK	All
	Mueller	All
	Kennedy	All
	East Jordan	All
	American Flow Control	All

Material	Manufacturer	Model
Butterfly Valve	Mueller	All
	Pratt	Groundhog

Valve Boxes

Material	Manufacturer	Model
Valve Box/Lid	East Jordan	3663

Hydrants

Material	Manufacturer	Model
Fire Hydrant	Mueller	Super Centurion 250 (A243)
	East Jordan	Water Master 5CD250
	Clow	Medallion

Ductile Iron Fittings

Material	Manufacturer	Model
Ductile Iron Fittings	American Cast Iron Pipe CO.	All (Domestic Only)
	US Pipe	All (Domestic Only)
	Tyler	All (Domestic Only)
	Sigma	All (Domestic Only)

Ductile Iron Pipe

Material	Manufacturer	Model
Ductile Iron Pipe	US Pipe	Class 52 (Domestic Iron Only)
	McWane	Class 52 (Domestic Iron Only)
	American	Class 52 (Domestic Iron Only)

Ductile Iron Gaskets

Material	Manufacturer	Model
Ductile Iron Pipe Gaskets	US Pipe	Field Lok 350
	McWane	Sure Stop 350
	American	FastGrip

Service Line Piping

Material	Manufacturer	Model
1" and 2" Service Line Tubing	Rehau	SDR9 CTS Pex (a) piping Shall be blue in color
	Uponor	
	Centennial Plastics	

Service Brass

Material	Manufacturer	Size	Model
Corporation Stop	Mueller	1"	B-25008N; B25028N (for use w/ saddle only)
	Ford	1"	FB-1000-4-Q-NL; FB-1100-4-Q-NL* (*for use w/ saddle only)
	AY McDonald	1"	74701BQ; 74704BQ* (*for use with saddle only)
Angle Meter Stop	Mueller	1"	B24258N
	AY McDonald	1"	74642BQ
	Ford Meter Box	1"	BA43-444WQ-NL
	Mueller	2"	B2423-2-99000N with 18" height, high bypass and

Copper Meter Setter			FIP/horizontal inlet and outlet connections
	Ford Meter Box	2"	VBB77-18HB-FF-77-NL
	AY McDonald	2"	724R718WWFF775
Brass Couplings	Mueller	All	All 110 style compression adaptors and couplings
	Ford Meter Box	All	All Quick-Joint compression adaptors and couplings
	AY McDonald	All	All McGrip style compression adaptors and couplings

Saddles and Tapping Sleeves

Material	Manufacturer	Size	Tap Size	Model
Service Saddles	Mueller	2" - 8"	1"	S-13000 Series (For use on C-900 only)
	Mueller	2" - 18"	1" and 2"	BR2W Series (for any tap/s larger than 1", on any main larger than 8", and/or for any main

Service Saddles (Continued)				size larger than 8")
	Ford Meter Box	2" – 24"	1" and 2"	S-90 (2"-8" C900; must be hinged); 101BS; 202BS; 202BSD
	Romac	All	All	All (Saddles must have stainless steel straps)
	A.Y. McDonald	2" – 12"	1" and 2"	3896 and 3846 (C900 only)
Tapping Sleeves	Romac	All	All	All
	Mueller	All	All	All
	Ford Meter Box	All	All	All
	A.Y. McDonald	All	All	All
	JCM Industries	All	All	All

Repair Clamps

Material	Manufacturer	Model
Repair Clamp (All repair clamps must have a bonding device or conductivity strip)	Mueller	500; 540; 550 series
	Ford Meter Box	FS1
	JCM Industries	All
	Romac	All

Pipe Couplings

Material	Manufacturer	Model
Pipe Couplings	Romac	All*
	JCM Industries	All*
	Ford Meter Box	All*
	Mueller	Hymaxx

*All pipe couplings shall have 316 stainless steel bolts. Repairs made on Ductile Iron and C-900 shall be made with a solid sleeve or approved restrained coupler.

Tracer Wire and Connectors

Material	Manufacturer	Model
Tracer Wire	Neptco	Trace-Safe TST602W
	Southwire	12awg wire w/blue jacket**
Wire Connectors	Neptco	Trace-safe universal connectors and universal connectors w/stainless set screw
	King Innovation	DryConn direct bury with lug connector

**12awg wire will only be allowed on connections to existing wire or any other instance that Canby Utility deems it necessary.

Sampling Station

Material	Manufacturer	Model
Sampling Station	Water Plus	301D (Blue in color)

Water Meter Boxes

Material	Manufacturer	Model
Water Meter Box Body	DFW Plastics	DFW486WBC-12-BODY
	DFW Plastics	DFWA4C-24-BODY (meter setter application only)
	Armorcast	A6001974PCX24
Water Meter Box Lid	DFW Plastics	DFW486C-AF4E-LID
	DFW Plastics	DFWA4C-AF4E-LID (meter setter application only)
	Armorcast	A6001975HD (meter setter application only)

Air Relief

Material	Manufacturer	Model
Air Relief	A.R.I.	S-050

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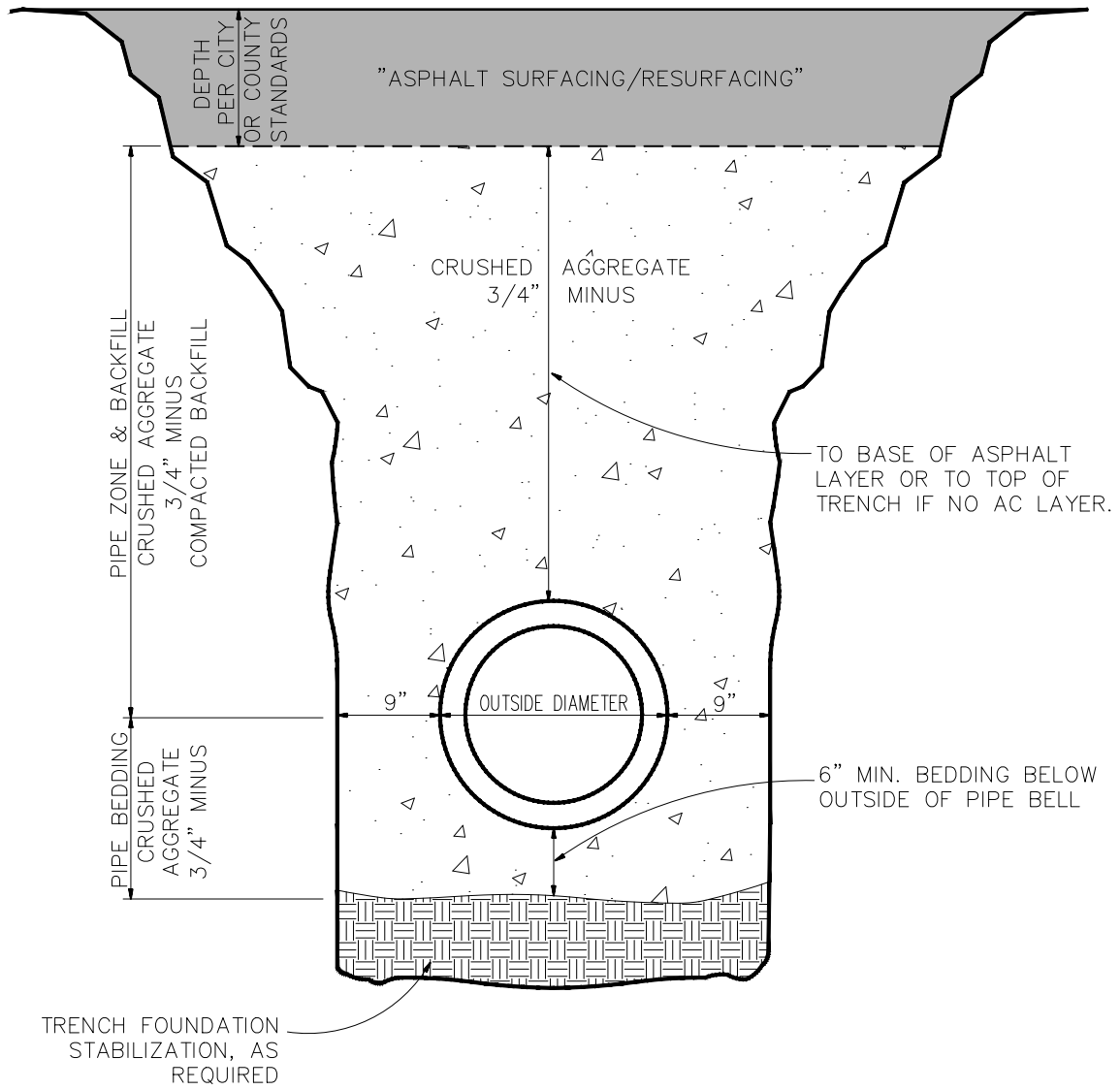
DRAWING NO.	DRAWING TITLE
001	TRENCH BACKFILL, BEDDING & PIPE ZONE
002	TYPICAL WATER LINE & FIRE HYDRANT LOCATION
003	TYPICAL WATER VALVE LOCATION
004	STANDARD FIRE HYDRANT ASSEMBLY
005	TYPICAL PLAN FOR 1" SERVICE
006	1" SERVICE ASSEMBLY
007	WATER METER INSTALLATION FOR 1½" & 2" METERS. TRENCH PROFILE FOR 2" SERVICE.
008	PHASE BREAK END FOR FUTURE EXTENSION (6" – 10" MAINLINE)
009	STANDARD 2" BLOWOFF ASSEMBLY (PERMANENT AREAS ONLY)
010	3" METER INSTALLATION
011	4" METER INSTALLATION
012	STANDARD VALVE BOX & COVER
013	VALVE OPERATOR EXTENSION ASSEMBLY
014	HYDRO-GUARD HG4 AUTOMATIC BLOWOFF ASSEMBLY
015	TAPPING SLEEVE
016	HYDROSTATIC TEST CHLORINATION TAP
017	PE BAG INSTALL MODIFIED DIPRA WET TRENCH METHOD
018	SAMPLING STATION
019	STRADDLE BLOCK 8" & SMALLER MAINLINE
020	MINIMUM PROTECTION FOR FILLING TANKER TRUCKS
021	SERVICE ABANDONMENT

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**CANBY
UTILITY**

DATE:	9/15/2023
DRAWING NO.	000

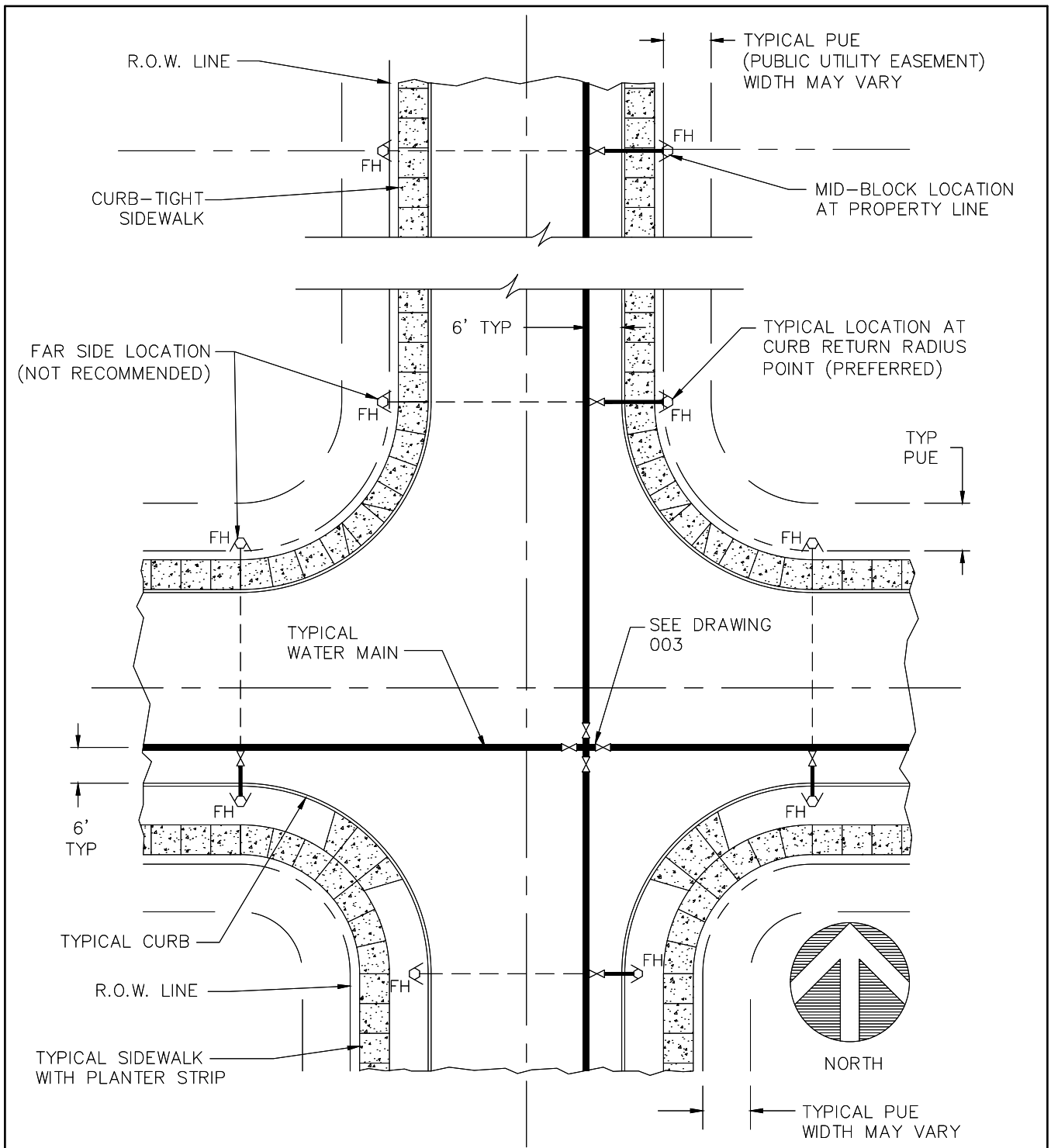


TRENCH BACKFILL, BEDDING & PIPE ZONE



DATE: 9/15/2023

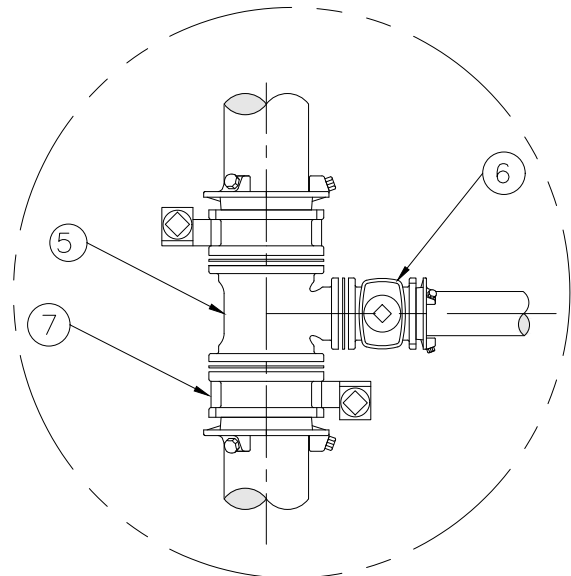
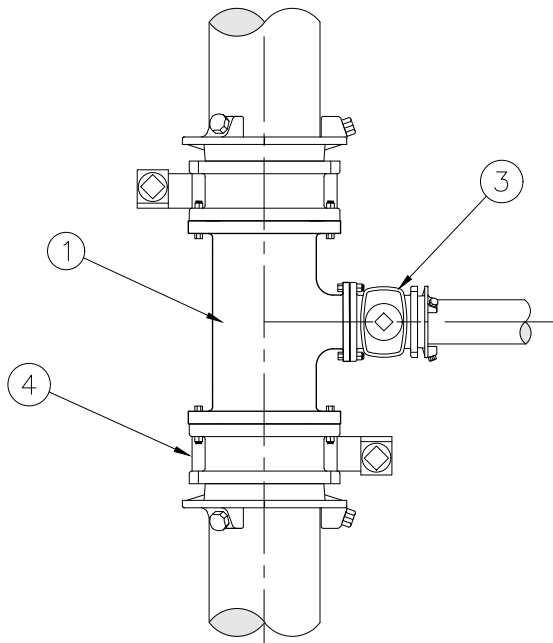
DRAWING NO. 001



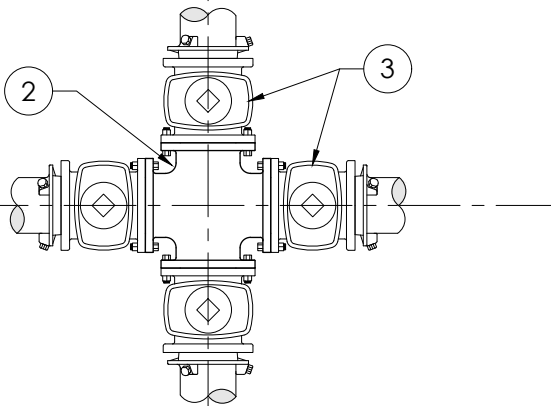
NOTES:

1. CANBY UTILITY AND CANBY FIRE DISTRICT MUST APPROVE LOCATION OF ALL FIRE HYDRANTS.
2. HYDRANT SHALL BE LOCATED IN AN AREA WHICH ALLOWS FOR REQUIRED CLEAR ZONE SURROUNDING THE HYDRANT.
3. SEE STANDARD DRAWING 004 FOR HYDRANT INSTALLATION DETAILS.
4. CURB AND SIDEWALK CONFIGURATION CAN BE FOUND IN THE CITY'S PUBLIC WORKS DESIGN STANDARDS.

TYPICAL WATER LINE & FIRE HYDRANT LOCATION	
	DATE: 9/15/2023
	DRAWING NO. 002

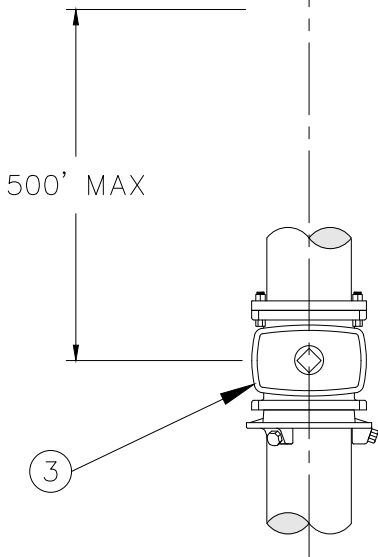


MJ JOINT OPTION
SEE NOTE 7.



KEYNOTES:

- ① FLG TEE
- ② FLG CROSS
- ③ FLG x MJ GATE VALVE
- ④ FLG x MJ BUTTERFLY VALVE
- ⑤ MJ TEE
- ⑥ MJ GATE VALVE
- ⑦ MJ BUTTERFLY VALVE



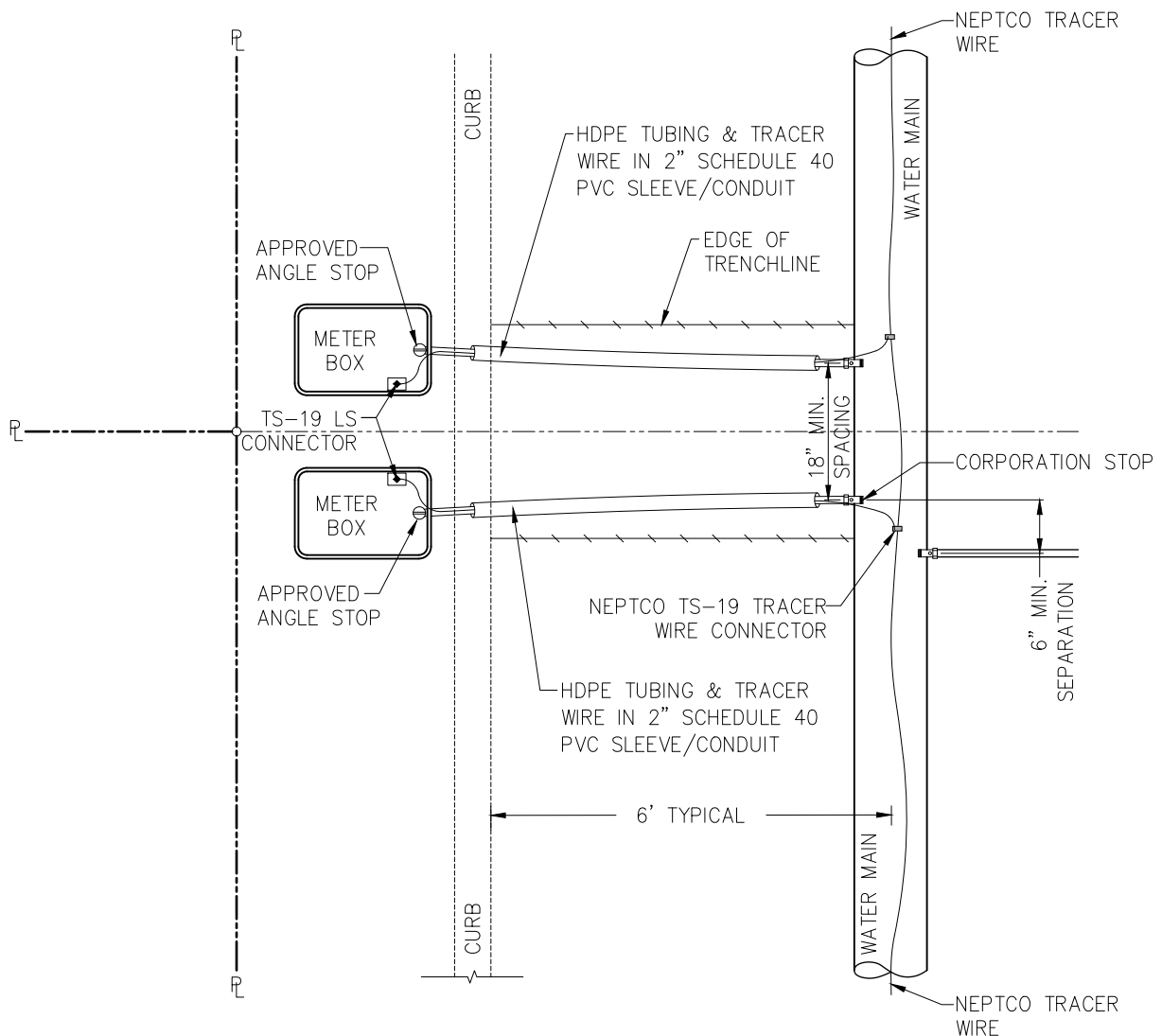
NOTES:

1. VALVES SHALL BE SAME SIZE AS WATER MAIN BEING SUPPLIED.
2. GATE VALVES 10" & SMALLER. BUTTERFLY VALVES 12" & LARGER.
3. MAXIMUM SPACING FOR VALVES: 500 FT.
4. VALVES SHALL NOT BE LOCATED IN CURB, GUTTER, OR SIDEWALK AREA.
5. SEE DRAWING 012 FOR VALVE BOX REQUIREMENTS.
6. ALL MECHANICAL JOINTS SHALL BE RESTRAINED.
7. MJ OPTION MAY BE USED WITH PRIOR APPROVAL BY CANBY UTILITY WATER DEPARTMENT.

TYPICAL WATER VALVE LOCATION



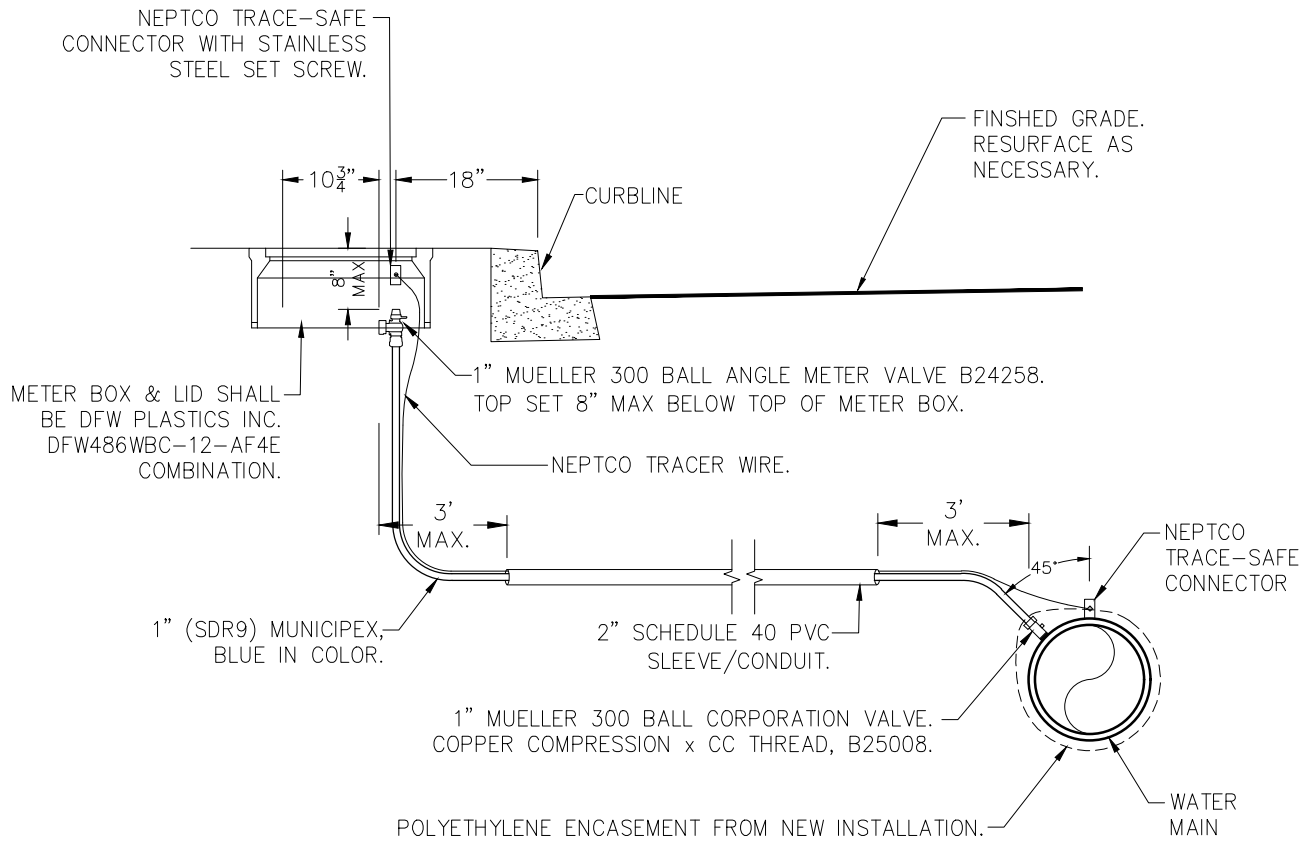
DATE: 9/15/2023
DRAWING NO. 003



NOTES:

1. SERVICE LINES MAY TAPER TO OUTSIDE EDGES OF SERVICE LINE TRENCH.
2. RESIDENTIAL METER BOXES AND COVERS SHALL BE MANUFACTURED BY DFW PLASTICS, INC. BOX AND LID COMBINATION SHALL BE DFW486WBC4-12-AF4E.
3. ALL BACKFILL MATERIAL SHALL MEET OR EXCEED APPLICABLE STANDARDS FOR TYPE AND MATERIAL.
4. 3/4"-0 BACKFILL IS REQUIRED FOR ALL EXCAVATIONS UNDER STREETS, DRIVEWAYS AND SIDEWALKS.
5. 3/4"-0 IS REQUIRED UNDER METER BOXES.

TRENCH PLAN FOR 1" SERVICE	
	DATE: 9/15/2023
	DRAWING NO. 005



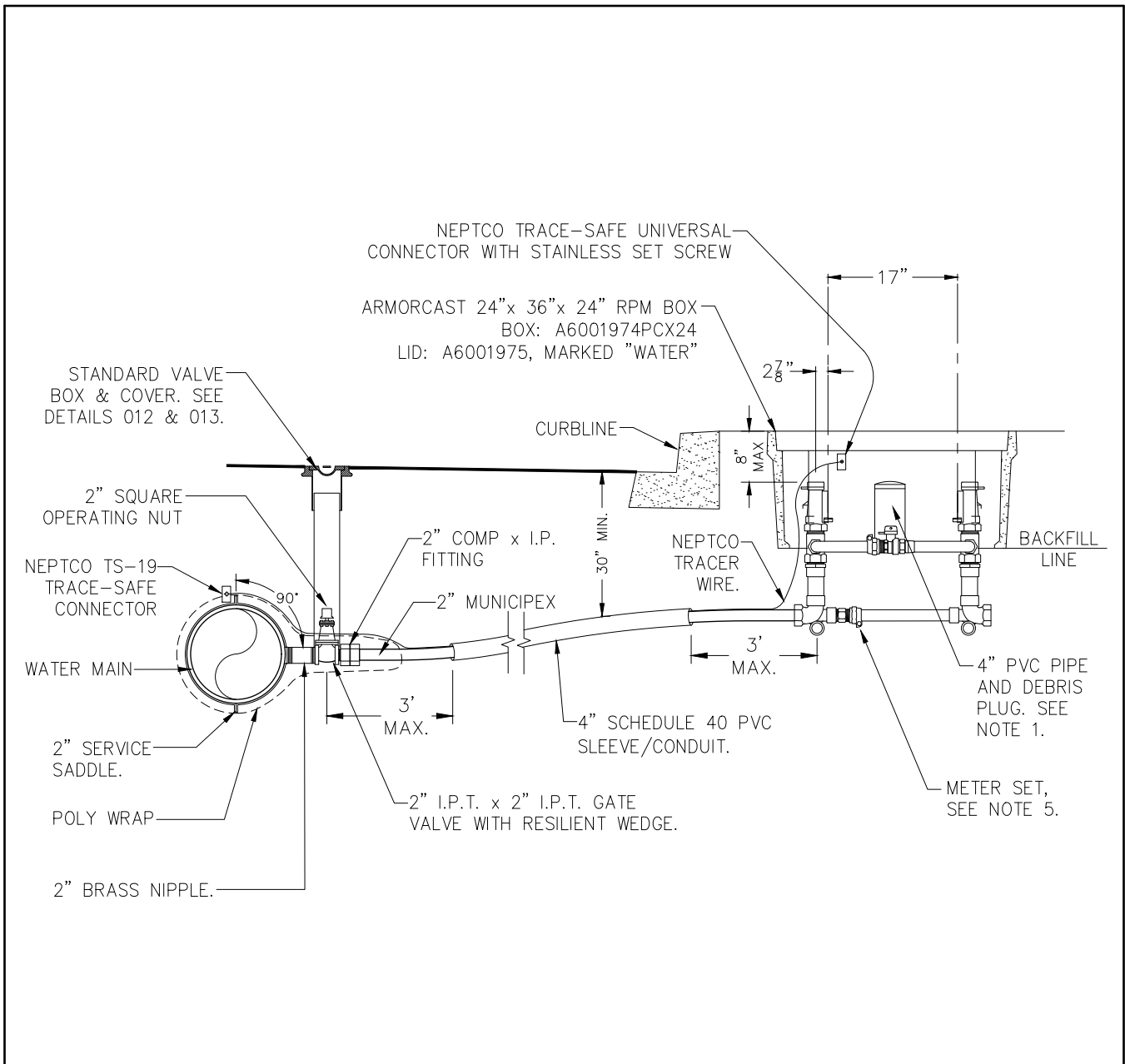
NOTES:

1. INSTALL SERVICE BRANCHES AT RIGHT ANGLES TO THE MAIN, EXCEPT IN CUL-DE-SACS.
2. METER BOX AND LID COMBINATION SHALL BE DFW PLASTICS INC. DFW48WBC6-12-AF4E.
3. MACHINE DRILLED AND TAPPED ONLY. NO HAND DRILLING IS ALLOWED.
4. ALL PIPE AND STRUCTURE ZONE SHALL BE BACKFILLED USING $\frac{3}{4}$ "-0 CRUSHED AGGREGATE COMPACTED TO 95% MAXIMUM DENSITY PER AASHTO T-180.
5. METER BOX SHALL BE CENTERED OVER FINAL METER LOCATION.
6. CONTRACTOR/DEVELOPER SHALL REPAIR POLYETHYLENE ENCASEMENT, AS NEEDED.

1" SERVICE ASSEMBLY



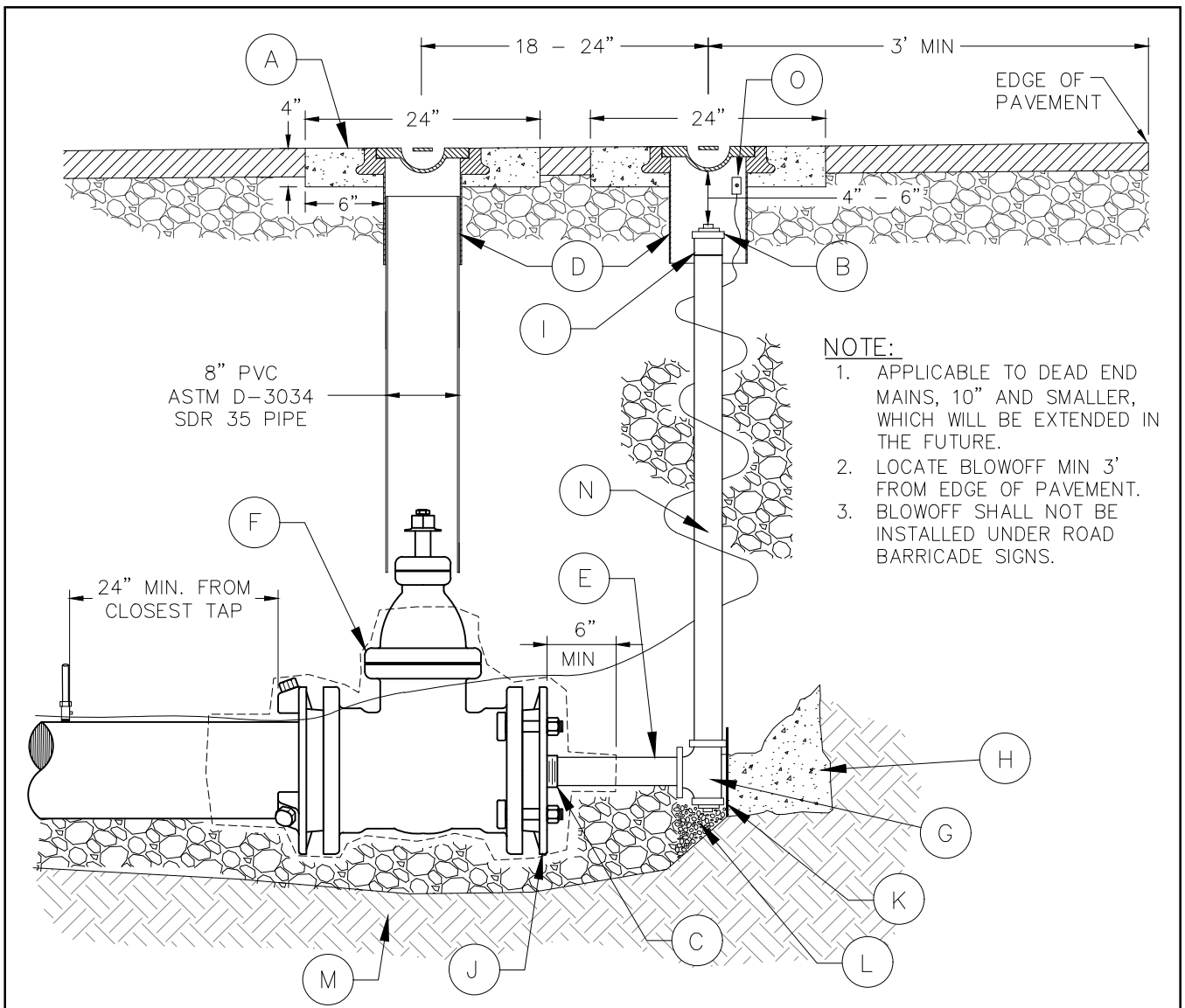
DATE: 9/15/2023
DRAWING NO. 006



NOTES:

1. INSTALL 4" PVC PIPE AND DEBRIS PLUG, IF NEEDED.
2. BACKFILL WITH 3/4"-0 CRUSHED AGGREGATE COMPACTED TO 95% MAXIMUM DENSITY PER AASHTO T-180.
3. CITY SIDE MINIMUM DEPTH 30". PRIVATE SIDE MINIMUM DEPTH 24".
4. LEAVE COPPER MALE COUPLING AT PROPERTY END OF PIPE UNLESS PLUMBER/OWNER REQUESTS COPPER FEMALE COUPLING.
5. METER SET ASSEMBLY SUPPLIED BY MUELLER MODEL #B-2423-99000N OR EQUIVALENT AS SPECIFIED ON APPROVED MATERIAL CHART. MUST HAVE HORIZONTAL INLET AND OUTLET. SETTER SHALL HAVE A HIGH BYPASS.

WATER METER INSTALLATION FOR 1 1/2" & 2" METERS. TRENCH PROFILE FOR 2" SERVICE	
	DATE: 9/15/2023
	DRAWING NO. 007



NOTE:

1. APPLICABLE TO DEAD END MAINS, 10" AND SMALLER, WHICH WILL BE EXTENDED IN THE FUTURE.
2. LOCATE BLOWOFF MIN 3' FROM EDGE OF PAVEMENT.
3. BLOWOFF SHALL NOT BE INSTALLED UNDER ROAD BARRICADE SIGNS.

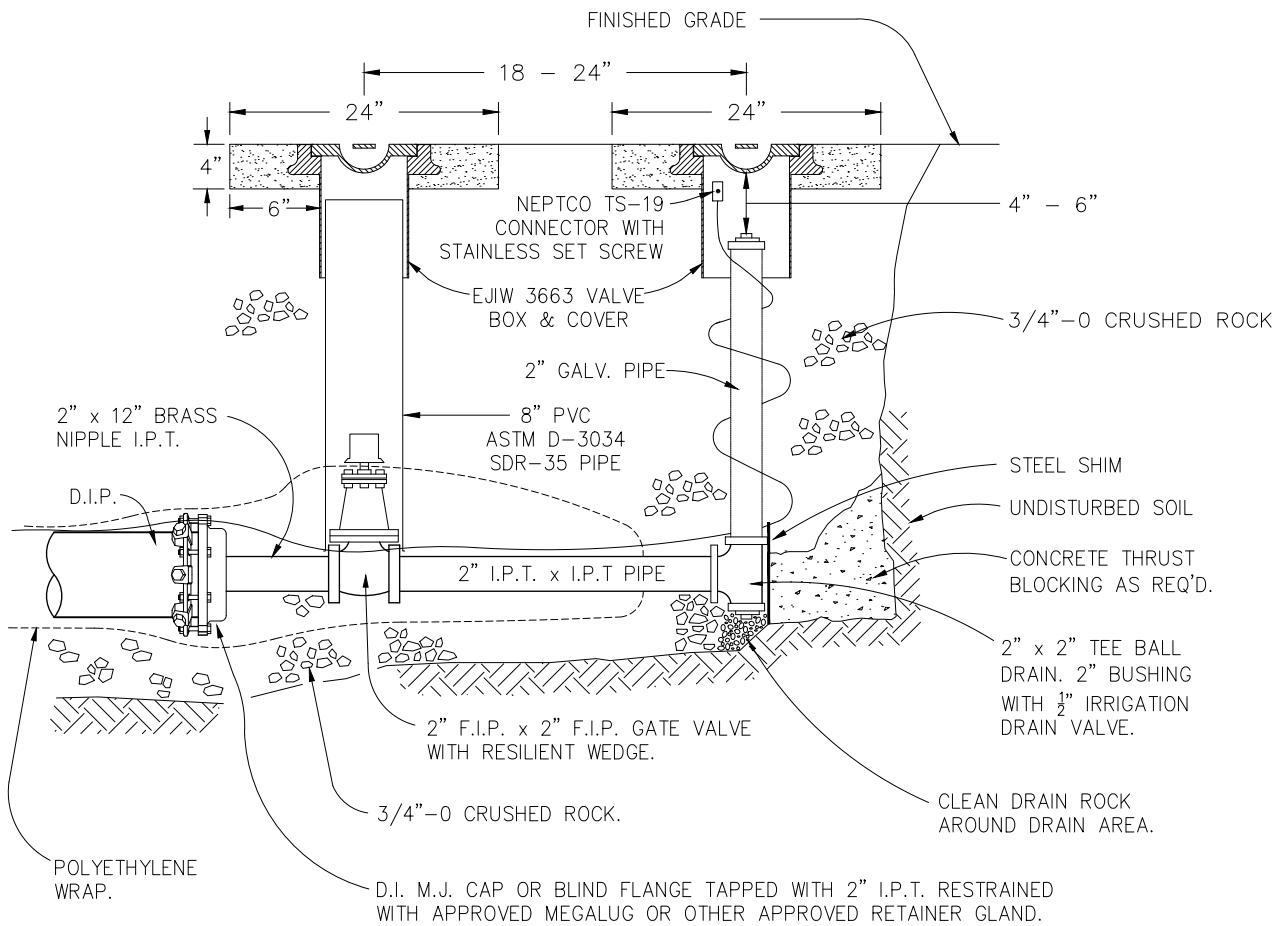
KEYNOTES:

- A. FINISHED GRADE. IF OUTSIDE THE PAVED AREA PROVIDE 4" THICK CONCRETE PAD OVER 4" COMPACTED 3/4"-0" CRUSHED ROCK. PAD SHALL EXTEND OF A MINIMUM OF 6" AROUND VALVE BOXES.
- B. 2" BRASS PLUG HAND-TIGHT. USE FOOD GRADE GREASE ON PLUG THREADS.
- C. 2" ADAPTER. COPPER SWEAT OR THREADED BRASS TO MIPT.
- D. VALVE BOX ASSEMBLY PER DETAIL 012.
- E. 2" TYPE K RIGID COPPER TUBING OR THREADED BRASS PIPING.
- F. LINE SIZE GATE VALVE. WRAP VALVE WITH 3 LAYERS OF POLYTHEYLENE ENCASEMENT. EXTEND POLYETHYLENE WRAP 1-FOOT BEYOND VALVE AND TAPE CLOSED THE OPEN END.
- G. 2" x 2" TEE BALL DRAIN. 2" BUSHING WITH 1/2" IRRIGATION DRAIN VALVE.
- H. CONCRETE TRUST BLOCKING AS REQUIRED.
- I. 2" ADAPTER. COPPER SWEAT TO FIPT.
- J. MJ PLUG WITH 2" TAP IN PLUG CENTER.
- K. STEEL SHIM.
- L. CLEAN DRAIN ROCK AROUND DRAIN AREA.
- M. UNDISTURBED SOIL.
- N. 2" GALVANIZED PIPE.
- O. NEPTCO TS-19 CONNECTOR WITH STAINLESS SET SCREW.

**PHASE BREAK END FOR
FUTURE EXTENSION
(6" - 10" MAINLINE)**



DATE: 9/15/2023
DRAWING NO. 008



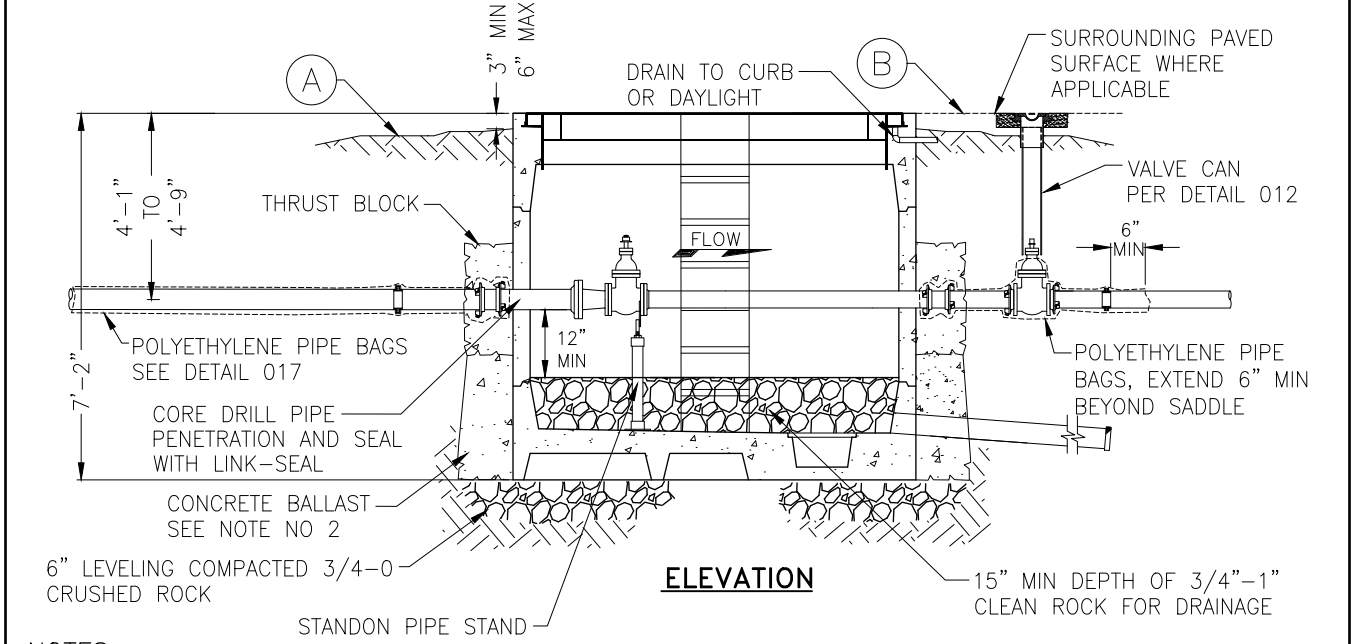
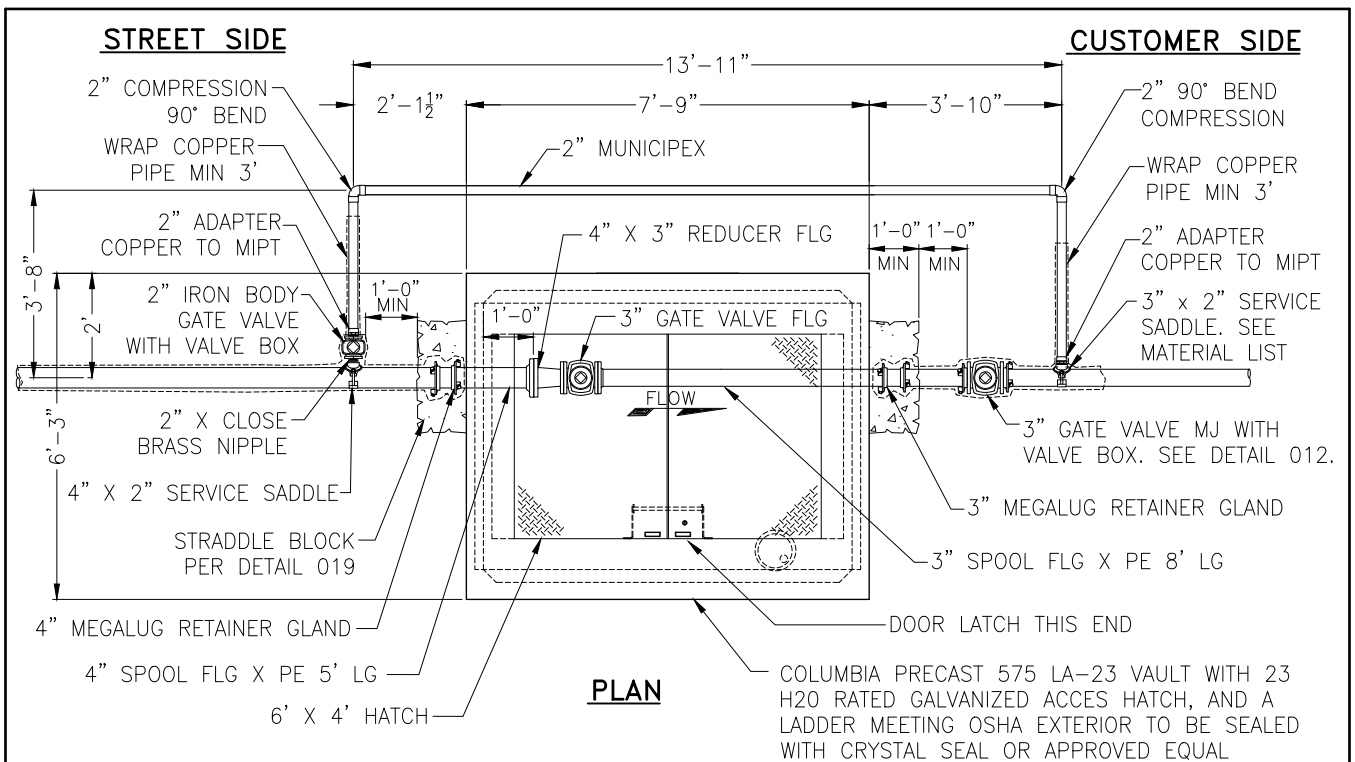
NOTES:

1. VALVE BOX SHALL BE EJIW 3663.
2. VALVE BOX TO BE CONCRETE ENCASED AS SHOWN, IF NOT IN PAVED AREA.
3. BLOW-OFF UNIT SHALL BE BACKFILLED WITH $\frac{3}{4}$ "-0 CRUSHED ROCK COMPACTED TO 95% OF MAX. DENSITY DETERMINED BY AASHTO T-180.
4. PLACE BLOW-OFF STANDPIPE 3 FT. INSIDE R.O.W. LINE AT END OF STREET (MIN. 2 FT. FROM A BARRICADE).
5. EXTEND POLYETHYLENE WRAP 1-FOOT BEYOND 2" GATE VALVE AND TAPE CLOSED THE OPEN END.

**STANDARD 2" BLOWOFF ASSEMBLY
(IN PERMANENT AREAS ONLY)**



DATE: 9/15/2023
DRAWING NO. 009

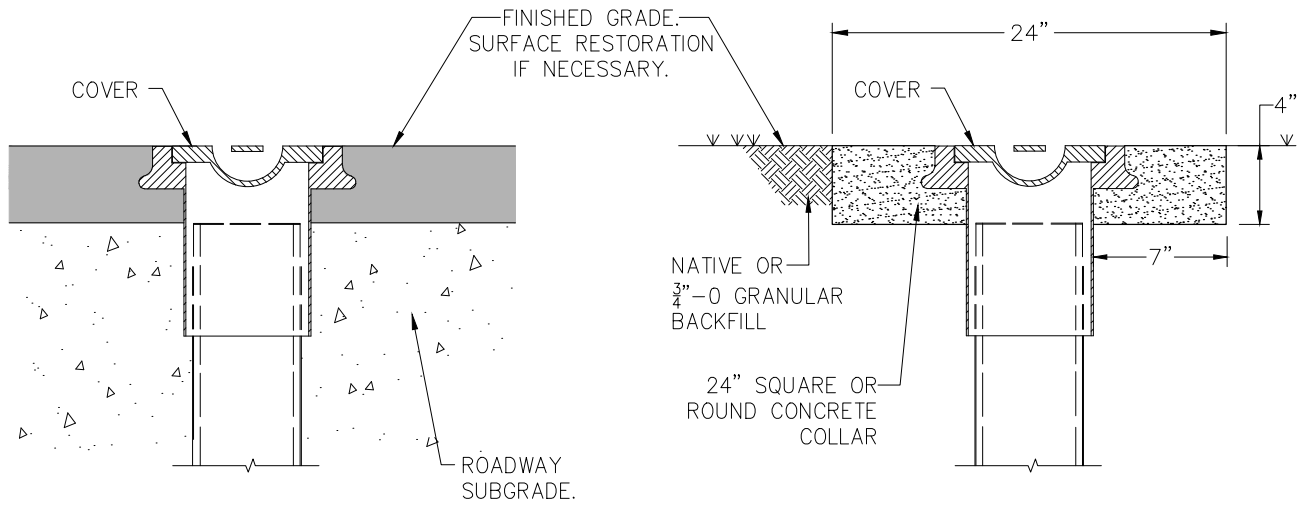


- NOTES:**
1. CONTRACTOR TO SEAL ALL OPENINGS IN VAULT WITH NON SHRINK GROUT.
 2. CONTRACTOR TO INSTALL CONCRETE BALLAST 3 CU YD MIN AROUND BASE OF VAULT IN AREAS WHERE FLOODING OR HIGH GROUND WATER EXISTS.
 3. ALL MATERIALS SHALL BE AS NAMED OR EQUAL. SUBMIT ALTERNATES FOR APPROVAL.
 4. ORS 92.044(7) PROHIBITS LOCATING ANY UTILITY INFRASTRUCTURE WITHIN 1-FEET OF A SURVEY MONUMENT. DEVELOPER SHALL PAY FOR ANY RELOCATION OF SERVICES AND/OR METER BOXES FOUND TO FALL WITHIN 1-FEET OF A SURVEY MONUMENT LOCATION.
 5. PAINT INTERIOR WALLS AND LID BOTTOM WHITE.

- KEYNOTES:**
- A. IN LANDSCAPING: FINISH GRADE SHALL SLOPE AWAY FROM VAULT LID.
 - B. IN PAVEMENT: FINISH GRADE SHALL BE FLUSH WITH SURROUNDING PAVEMENT.

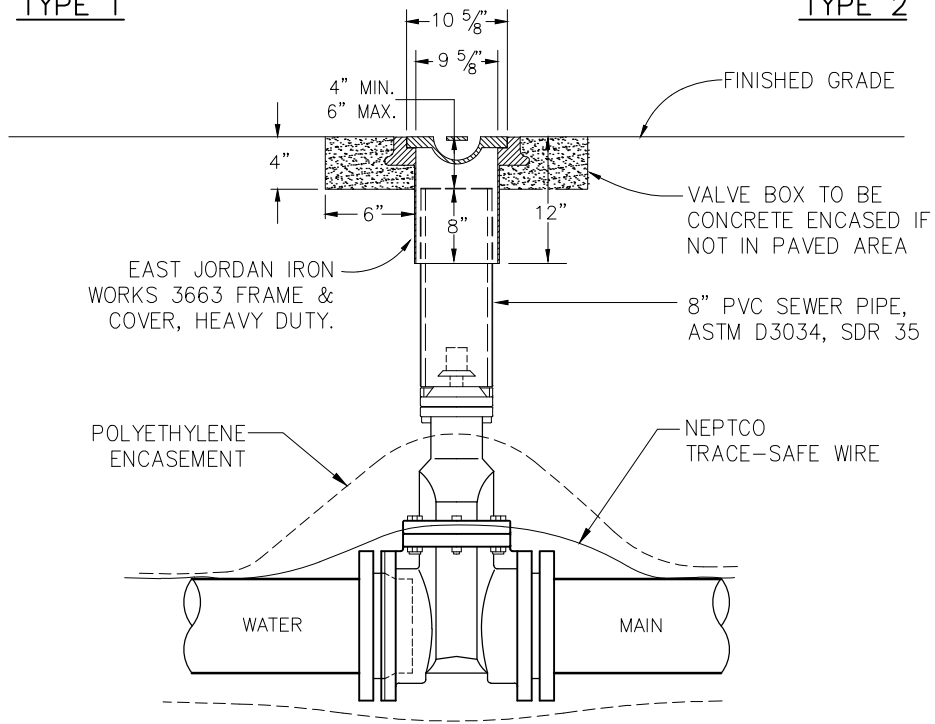
3" METER INSTALLATION

	DATE: 9/15/2023
	DRAWING NO. 010

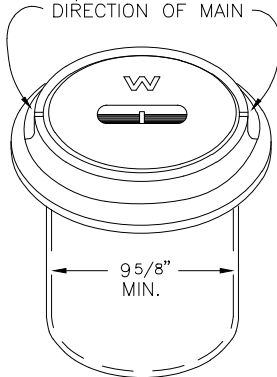


TYPE 1

TYPE 2



NOTCH 1/16" DEEP INDICATING DIRECTION OF MAIN



NOTES:

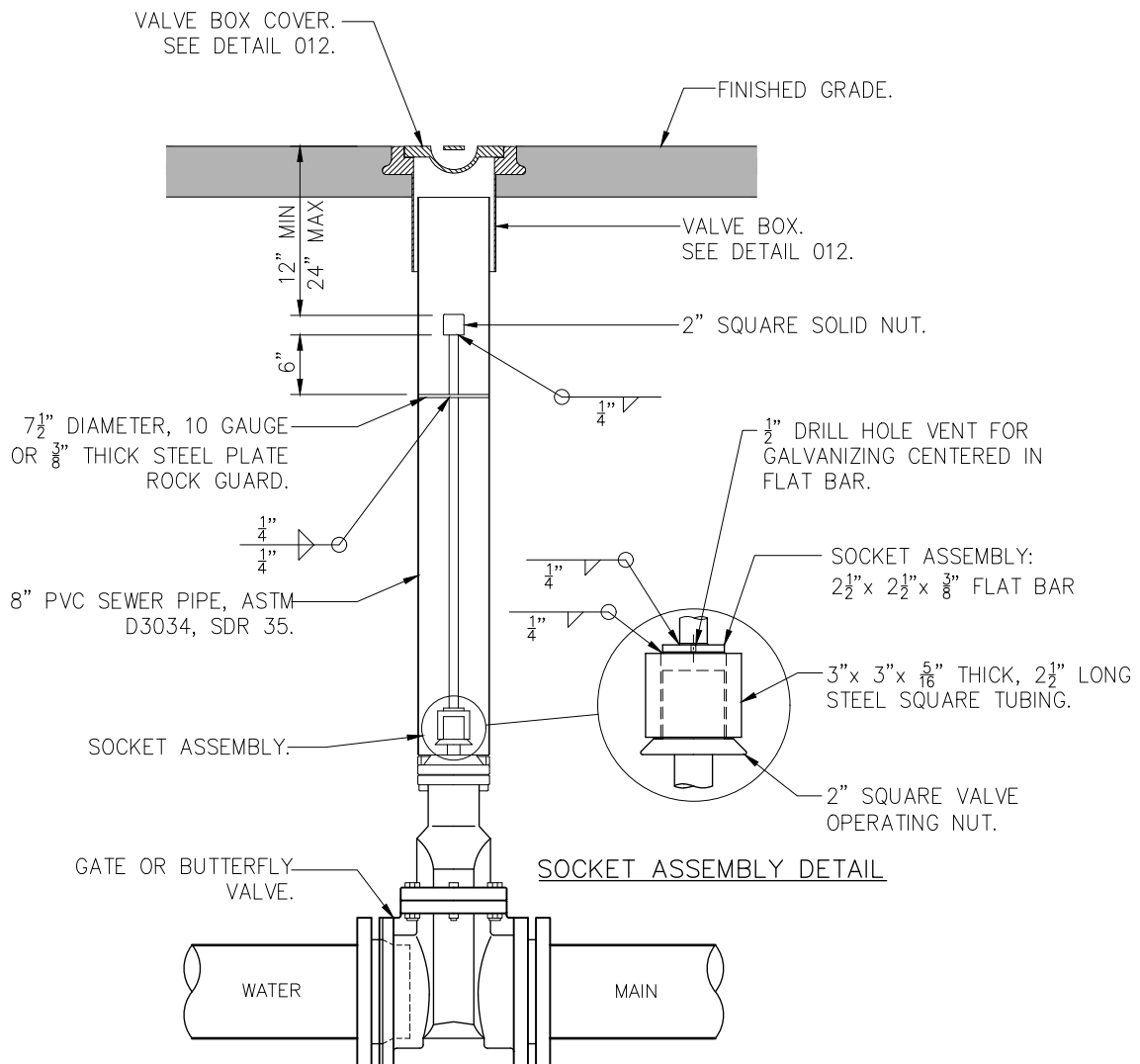
1. VALVE BOXES SHALL BE CENTERED DIRECTLY OVER THE VALVE NUT IN A VERTICAL POSITION.
2. VALVE BOX TOP SHALL BE ADJUSTED TO MEET FINISHED GRADE.
3. PVC SHALL BE ONE CONTINUOUS PIECE- NO BELLS OR COUPLERS.
4. INSTALL TRACER WIRE WHERE APPLICABLE.

**STANDARD VALVE BOX
& COVER**



DATE: 9/15/2023

DRAWING NO. 012



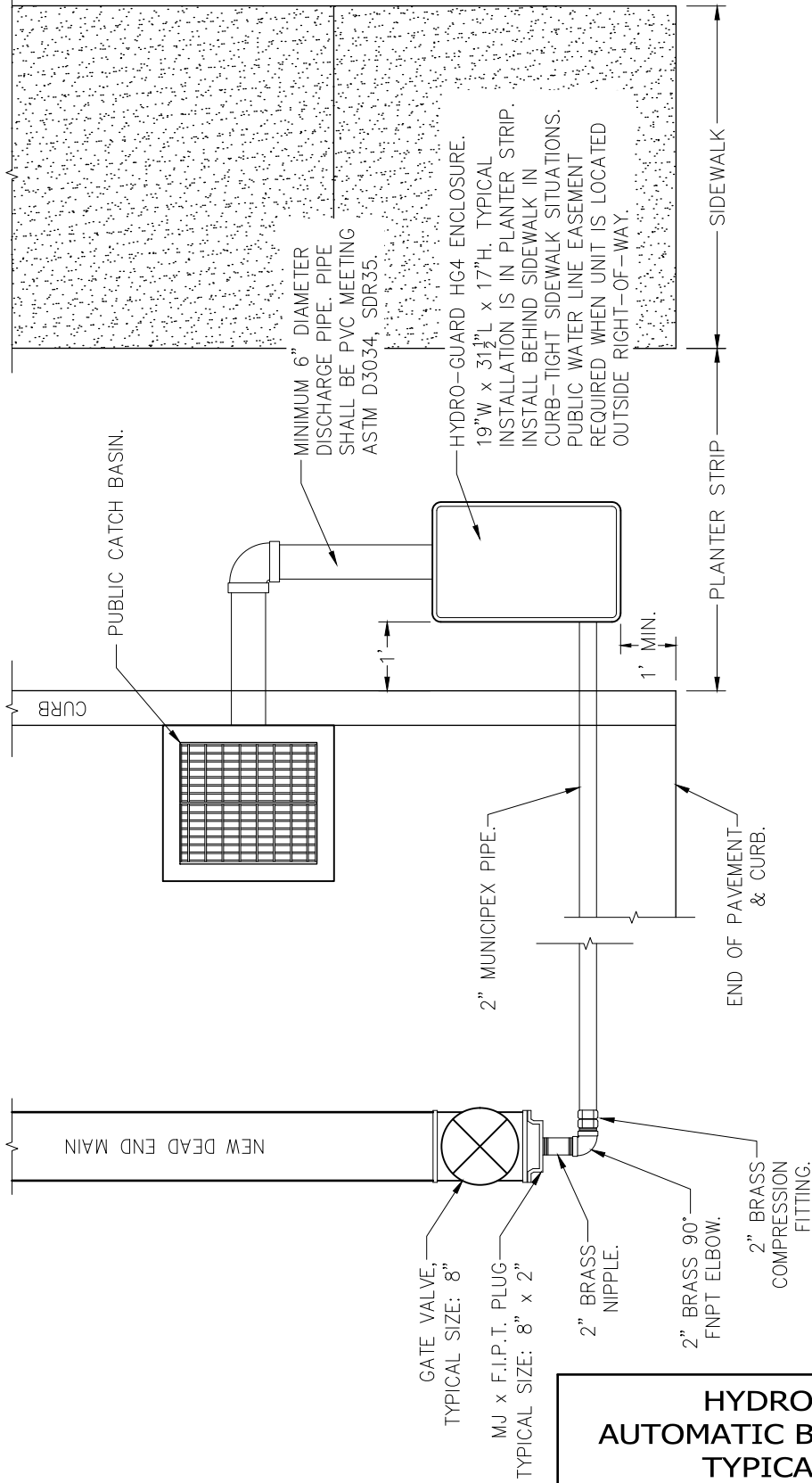
NOTES:

1. INSTALL VALVE OPERATOR EXTENSION IF TOP OF VALVE OPERATOR NUT IS 48" OR MORE BELOW THE PROPOSED FINISHED GRADE.
2. FABRICATE ALL VALVE OPERATOR EXTENSION COMPONENTS FROM A36 STEEL, CENTER AND SQUARE ALONG THE AXIS OF THE STEEL PIPE. HOT-DIP GALVANIZE COMPLETED ASSEMBLY AFTER FABRICATION.
3. FIBERGLASS OR PLASTIC EXTENSIONS WILL BE ALLOWED UNDER SOLE DISCRETION OF CANBY UTILITY.

**VALVE OPERATOR
EXTENSION ASSEMBLY**



DATE: 9/15/2023
DRAWING NO. 013



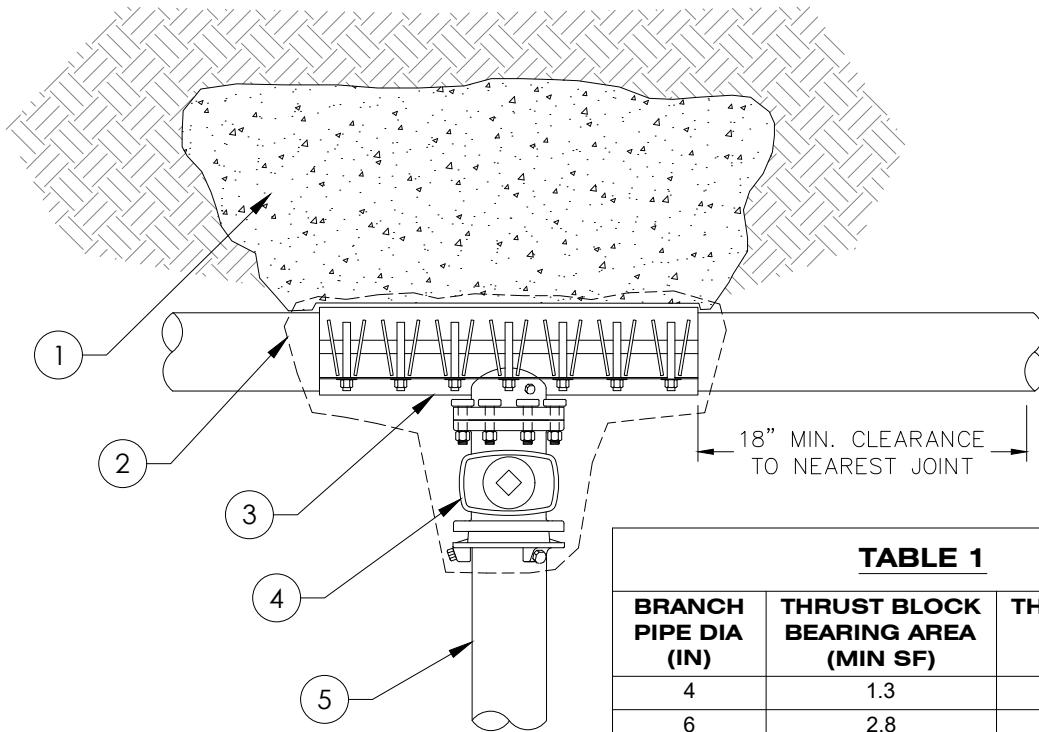
NOTES:

- 1. INSTALL TRACER WIRE ON ALL NON-TRACEABLE PIPE.

**HYDRO-GUARD HG4
AUTOMATIC BLOWOFF ASSEMBLY
TYPICAL PLAN VIEW**



DATE:	9/15/2023
DRAWING NO.	014




BRANCH PIPE DIA (IN)	THRUST BLOCK BEARING AREA (MIN SF)	THRUST BLOCK CONCRETE (MIN CY)
4	1.3	0.05
6	2.8	0.10
8	5.0	0.18
10	11.3	0.42
12	20.1	0.75
18	26.0	0.97

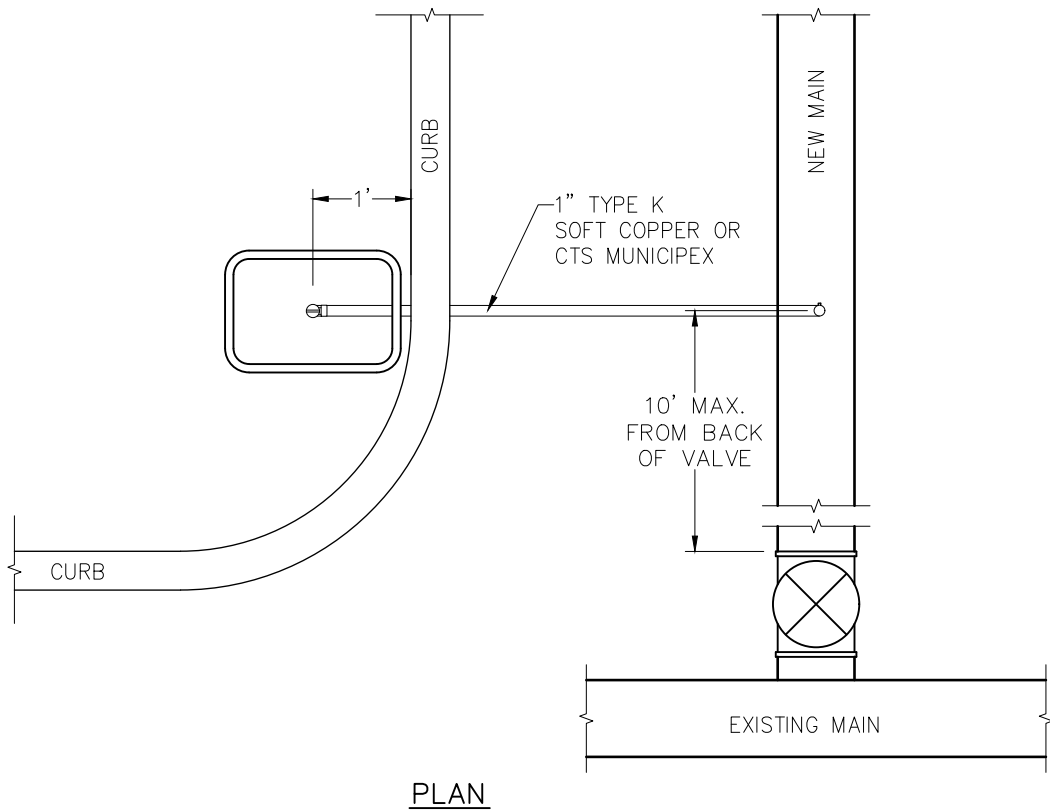
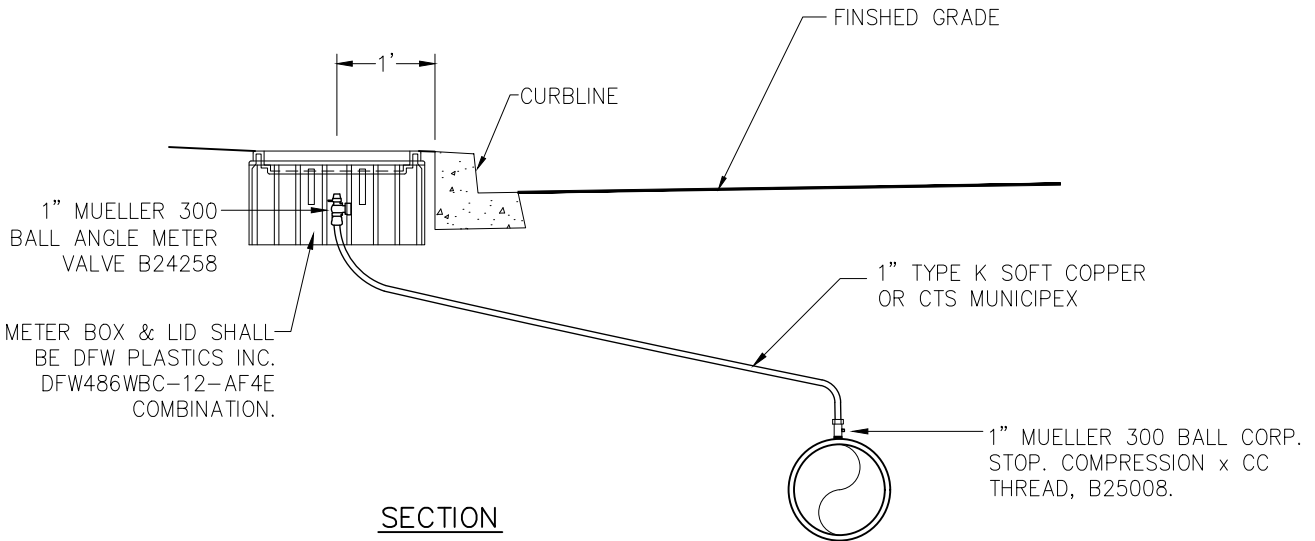
KEYNOTES:

- 1 CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH. THRUST BLOCK SIZE SHALL BE PER TABLE 1 AND SHALL NOT BE LESS THAN ONE FOOT IN ANY DIMENSION. CONCRETE SHALL BE CLASS 3000.
- 2 COVER TAPPING SLEEVE WITH 3 LAYERS OF 8 MIL POLY WRAP MATERIAL AS SHOWN PRIOR TO POURING THRUST BLOCK AND BACKFILLING.
- 3 STAINLESS STEEL TAPPING SLEEVE WITH GASKET AND FLANGED CONNECTION.
- 4 GATE VALVES 12" AND LARGER WITH LESS THAN 24" BETWEEN THE OPERATING NUT AND FINISHED GRADE WILL REQUIRE A HORIZONTAL BEVEL GEAR ACTUATOR.
- 5 ALL JOINTS ON BRANCH PIPE SHALL BE RESTRAINED.

NOTES: (TAPPING CONTRACTOR ONLY)

- 1. BEFORE INSTALLING TAPPING SLEEVE, CONTRACTOR SHALL THOROUGHLY CLEAN PIPE TO REMOVE ALL DIRT, ROCKS, AND OTHER FOREIGN MATERIAL FROM PIPE WHERE SLEEVE WILL BE INSTALLED.
- 2. SLEEVE BOLTS SHALL BE TIGHTENED TO MANUFACTURER'S TORQUE SPECIFICATIONS.
- 3. CONTRACTOR SHALL ENSURE THAT GASKET IS PROPERLY ALIGNED AND FREE OF FOREIGN MATERIAL PRIOR TO TIGHTENING SLEEVE BOLTS.
- 4. SLEEVE LOCATION AND INSTALLATION SHALL BE APPROVED BY WATER OPERATIONS INSPECTOR PRIOR TO TAPPING.
- 5. CONTRACTOR SHALL AIR TEST SLEEVE TO 40 PSI PRIOR TO TAPPING.
- 6. CONTRACTOR SHALL FLUSH VALVE PRIOR TO PIPE CONNECTION.
- 7. EDGE OF TAPPING SLEEVE SHALL BE A MINIMUM OF 18" FROM BEND OR JOINT.

TAPPING SLEEVE	
	DATE: 9/15/2023
	DRAWING NO. 015



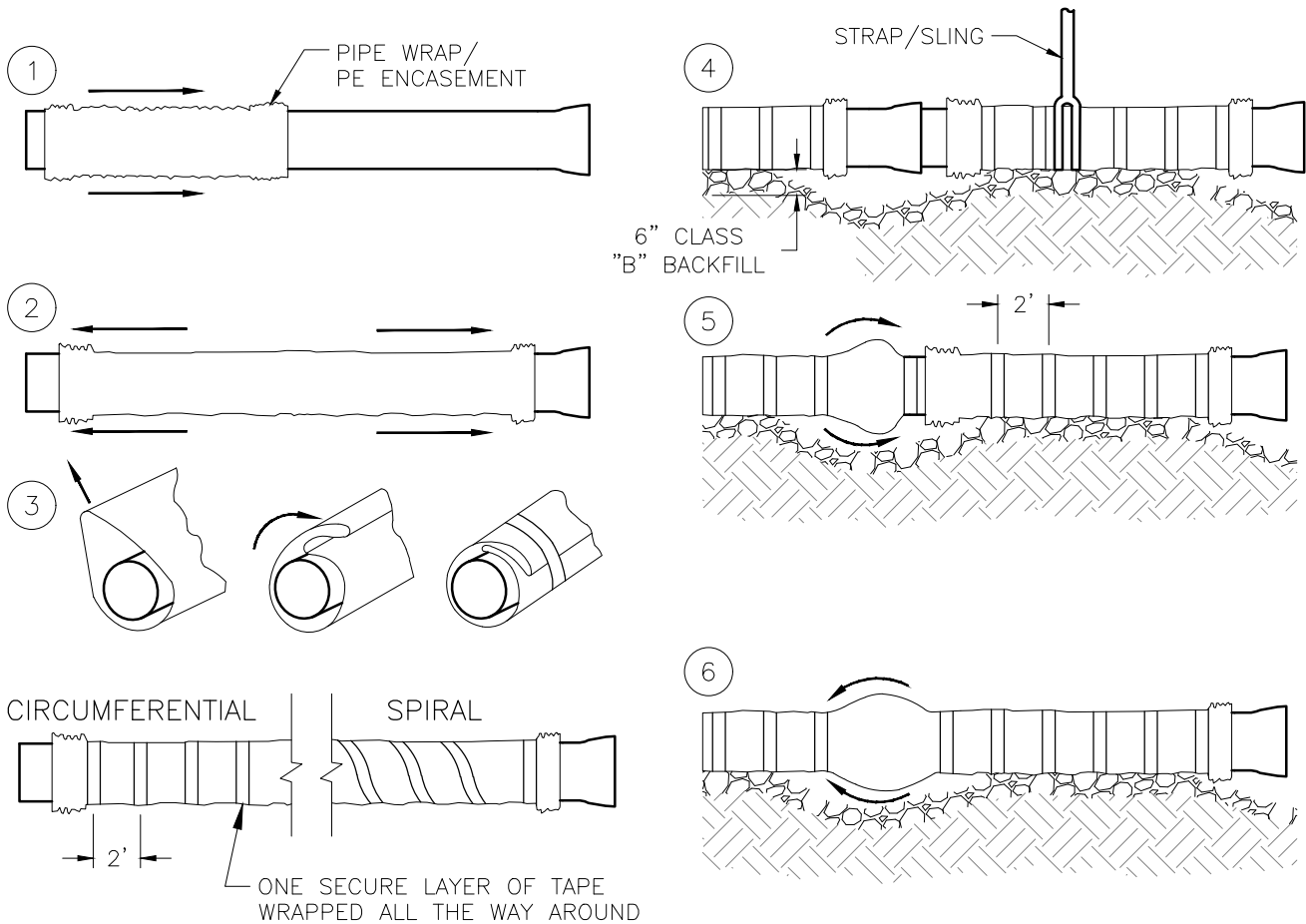
NOTES:

1. PROVIDE HYDROSTATIC AND CHLORINATION TAP FOR TESTING AND DISINFECTION.
2. REMOVE TO PLUG WITH CC MUELLER TAPERED PLUG WHEN PROCESS IS COMPLETE.
3. CANBY UTILITY TO WITNESS.

**HYDROSTATIC TEST
CHLORINATION TAP**



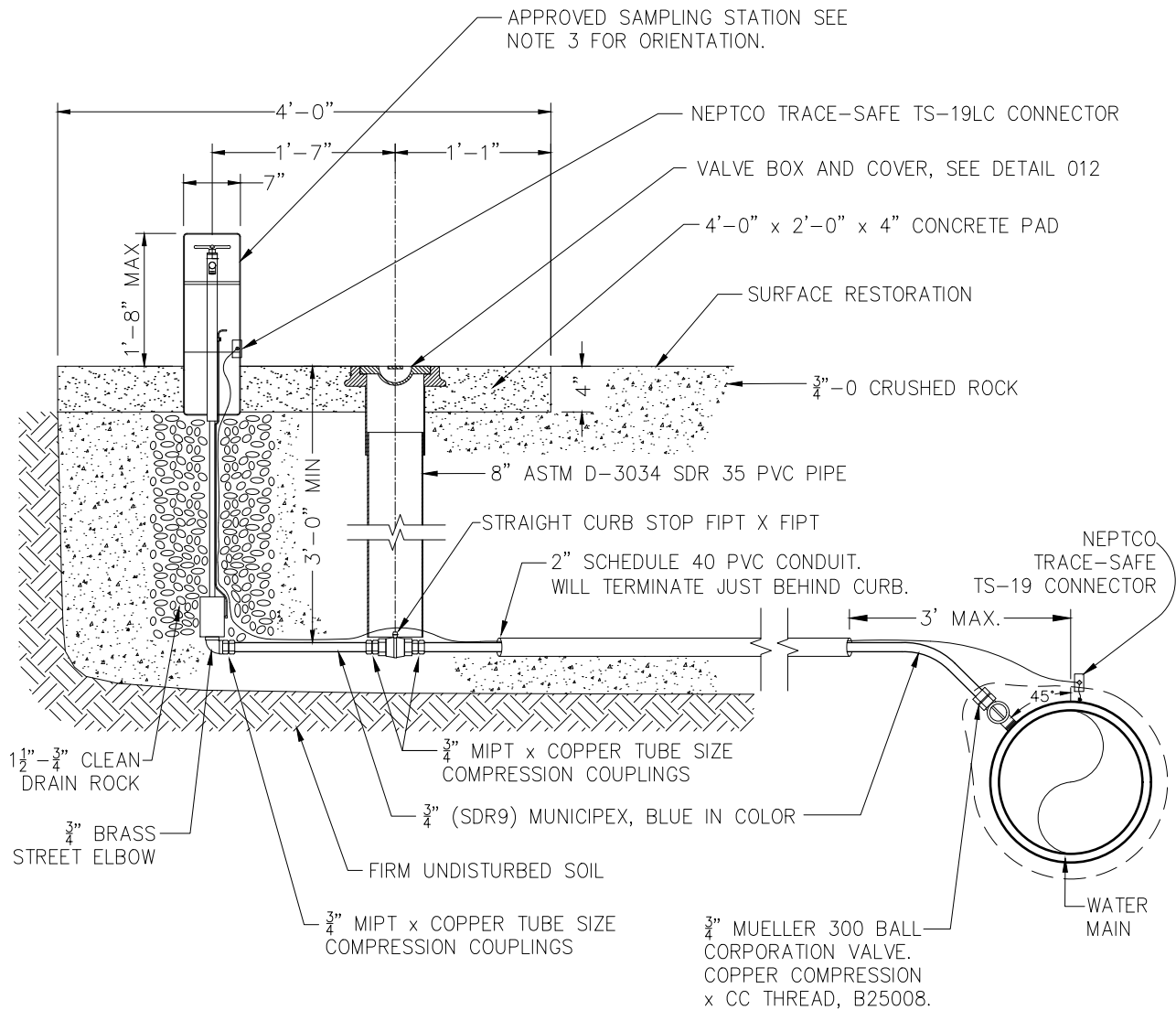
DATE: 9/15/2023
DRAWING NO. 016



KEYNOTES:

1. CUT THE POLYETHYLENE TUBE TWO FEET LONGER THAN PIPE AND SLIP OVER PIPE AS SHOWN.
2. SPREAD THE POLYETHYLENE TUBE AS SHOWN SO THAT ENOUGH IS LEFT TO PROVIDE A ONE FOOT OVERLAP AT EACH END OF PIPE.
3. TAKE UP SLACK IN THE TUBE ALONG THE PIPE BARREL, MAKING A SNUG BUT NOT TIGHT FIT. FOLD OVER ON TOP OF PIPE AND SECURE IN PLACE WITH ONE LAYER OF CIRCUMFERENTIALLY OR SPIRAL WRAPPED TAPE ABOUT TWO FEET ON CENTER. (PE SHOWN LOOSE FOR CLARITY) TAPE SHALL BE 10-MIL BLACK ADHESIVE PVC TAPE, CHRISTY'S PIPE WRAP TAPE, OR APPROVED EQUAL.
4. LOWER PIPE INTO TRENCH, BEING SURE THAT THE POLYWRAP IS NOT DAMAGED, AND MAKE UP JOINT.
5. PULL POLYETHYLENE FORWARD FROM PREVIOUS JOINT OVER THE BELL AND SECURE IN PLACE AS SHOWN.
6. PULL POLYETHYLENE FROM NEW PIPE OVER THIS SAME BELL, PROVIDING A DOUBLE LAYER OF POLYETHYLENE AND SECURE IN PLACE AS SHOWN.

PE BAG INSTALL MODIFIED DIPRA WET TRENCH METHOD	
	DATE: 9/15/2023
DRAWING NO. 017	



NOTES:

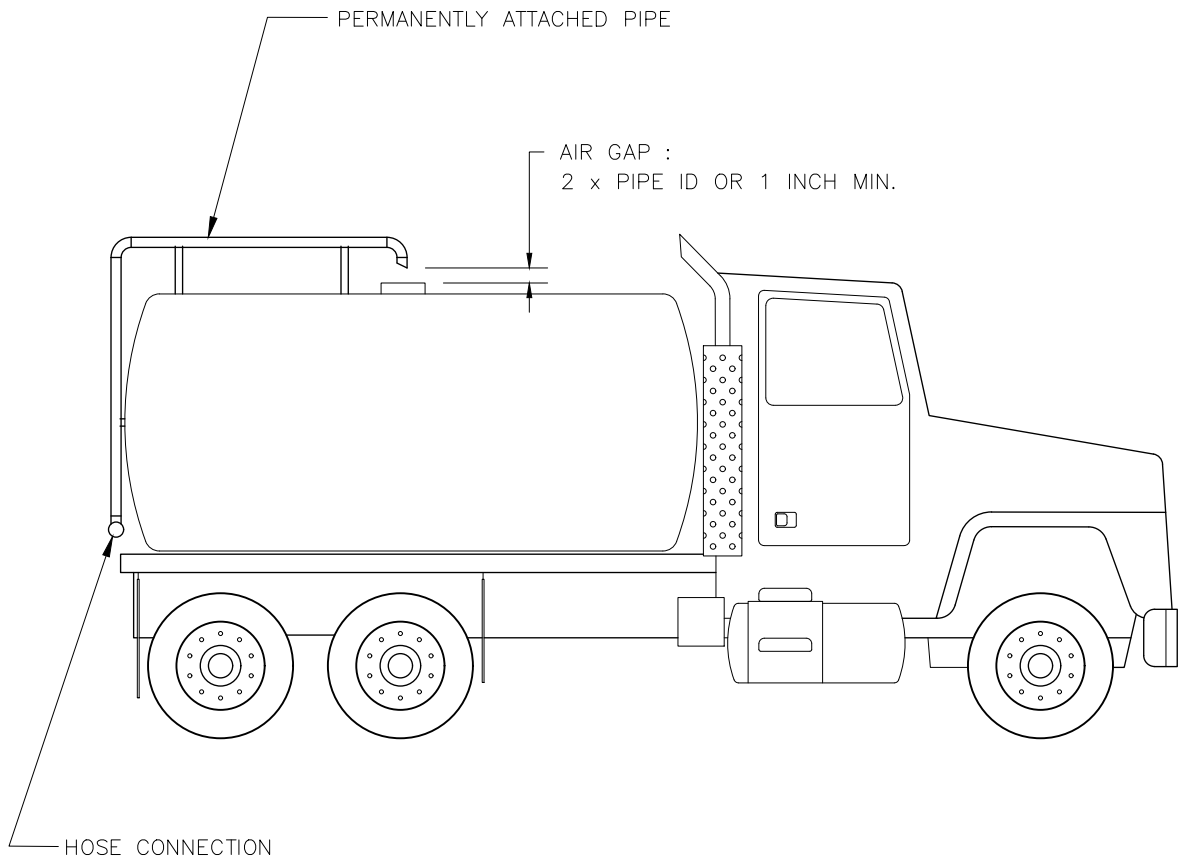
1. INSTALL CONCRETE PAD AT LOCATION. COMPLY WITH ALL ADA REQUIREMENTS IF INSTALLED IN A SIDEWALK.
2. ALL FILL MATERIAL SHALL BE COMPACTED AND TESTED ACCORDING TO CANBY UTILITY STANDARD CONSTRUCTION SPECIFICATIONS.
3. SAMPLING STATION DOOR TO FACE 90 DEGREES FROM STREET SUCH THAT HYDRANT NOZZLE IS DIRECTED TOWARD THE NEAREST ONCOMING TRAFFIC.

SAMPLING STATION



**CANBY
UTILITY**

DATE: 9/15/2023
DRAWING NO. 018



AIR GAP

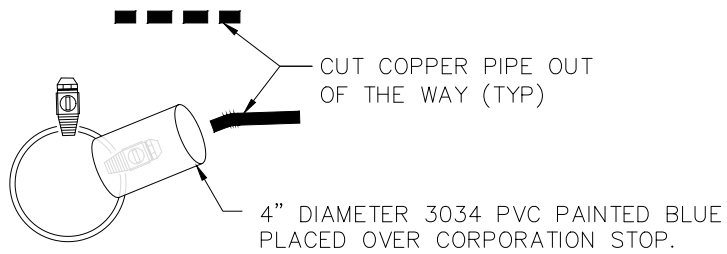
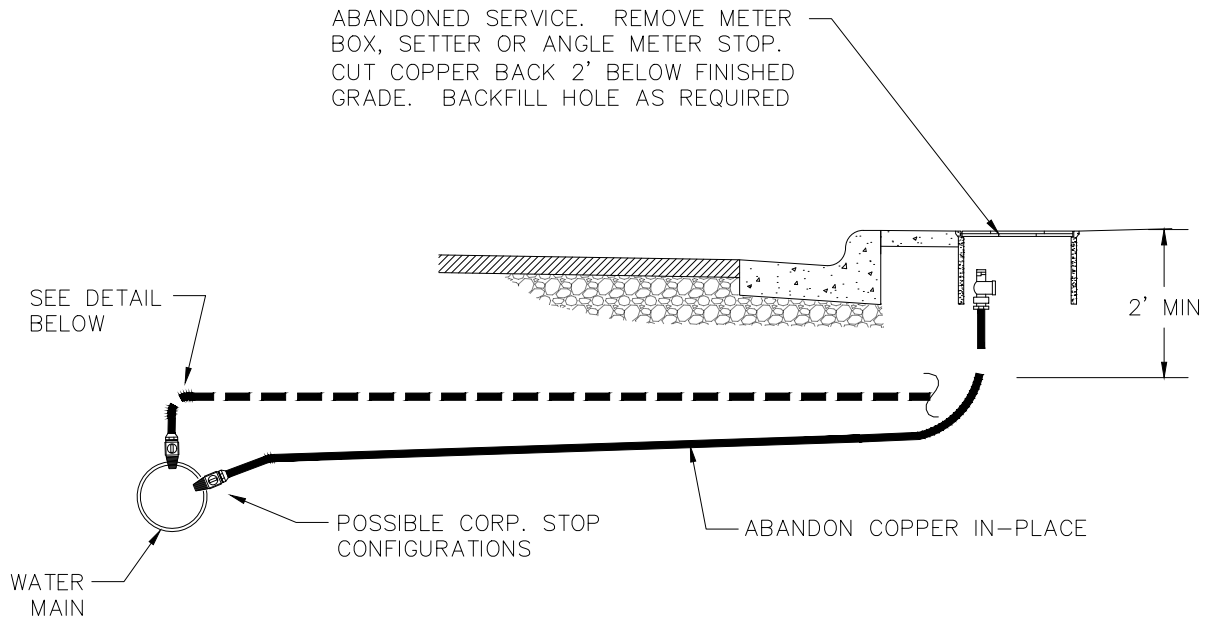
MINIMUM PROTECTION FOR
FILLING TANKER TRUCKS



**CANBY
UTILITY**

DATE:
9/15/2023

DRAWING NO.
020



DETAIL

NOTES:

1. EXCAVATE A HOLE LARGE ENOUGH TO ACCESS CORP.
2. TURN CORP OFF.
3. SEVER COPPER AWAY FROM CORP STOP AND PLACE 3034 PVC AROUND IT.
4. BACKFILL WITH $\frac{3}{4}$ " MINUS GRANULAR ROCK, FULL TRENCH DEPTH.
5. ABANDONMENT TO BE DONE WITH A CANBY UTILITY WATER INSPECTOR PRESENT.

SERVICE ABANDONMENT	
CANBY UTILITY	DATE: 9/15/2023 DRAWING NO. 021



MEMORANDUM

October 7, 2023

TO: Chair Thompson, Member Horrax, Member Molamphy, Member Pendleton, and Member Hill

FROM: Carol Sullivan, General Manager

SUBJECT: Waiver of Conflict of Interest

Background:

The Canby Utility Board (CUB) and the City of Canby (City) are seeking legal clarification on the Charter's distribution of authority between CUB and the City and how this authority applies to the funding of the future Willamette River water treatment plant project. Since CUB and the City are both using the law firm of Berry Elsner and Hammond for legal services, it was necessary for the attorney to request we sign a waiver of conflict of interest in order to get a legal opinion.

In the past, the issuance of water revenue bonds was in the City's name and resolutions were approved by the City Council and CUB.

Questions have surfaced regarding where the authority lies to engage in seeking federal and state loans and grants. Before applying for such funding resources, CUB needs to know which legal entity can or must apply.

The City would like to better understand their obligation to pay back loans if they are required to be the applicant.

I will be available to answer any questions the Board may have.

October 2, 2023

Carol R. Sullivan
General Manager
Canby Utility Board
PO Box 1070
Canby OR 97013-1070
csullivan@canbyutility.org

Eileen Stein
Interim City Administrator
City of Canby
PO Box 930
Canby OR 97013-0930
steine@canbyoregon.gov

Re: Waiver of Conflict of Interest

Dear Carol and Eileen:

As you know, Beery, Elsner & Hammond, LLP (BEH) provides legal representation to the Canby Utility Board (CUB) and the City of Canby (City). Although the City and CUB have retained BEH separately, both CUB and the City derive their powers from the City's municipal home rule charter ("Charter"). To that end, both the City and CUB are technically a part of the same municipal corporation.

You have asked our office to provide a legal opinion on the Charter's distribution of authority between CUB and the rest of the City under the Charter. Because CUB is technically a part of the City, it is not clear that providing such advice to both CUB and the City would present a conflict of interest for BEH, as both CUB and the City could be deemed the same client. Nonetheless, we here at BEH take our ethical obligations very seriously, and for this reason and out of an abundance of caution, we are seeking your written consent to provide this advice to both CUB and the City.

As you may know, lawyers must adhere to ethical rules governing their conduct. When BEH seeks to represent two separate clients on the same matter, the Oregon State Bar's Rules of Professional Conduct require us to notify each client of the possibility of potential conflicts that may arise in providing such representation.

Based on our understanding of the requested work, it appears both CUB and the City are in general agreement about the need for advice on interpreting the Charter as well as in general agreement about following the advice from our office. To that end, it appears your interests are aligned in this matter, which would permit our office to advise both CUB and the City on this matter.

Nonetheless, it is possible that one of you may change your mind with respect to following our legal advice. It is also possible that issues of disagreement between you may arise that neither you nor we presently know. For example, you may come to disagree about the future implementation of our advice on a matter that has not yet arisen.

Carol Sullivan/Eileen Stein
October 2, 2023
Page 2

If differences develop, BEH would not be in a position to advocate the interests of either of you as against the other one of you. In fact, the best we could do would be to lay out the possible alternatives, giving you some of the pluses and minuses pertaining to each one and urge that you review the matter with separate counsel to look after your separate interests. Moreover, if the points of divergence become too numerous or too significant, BEH would probably have to stop providing legal representation in this matter.

You should also consider that if BEH provides legal representation in this matter, neither CUB nor the City could assume that anything that you told us would be held secret or would not become known to the other. In other words, you would need separate counsel if you wanted independent advice or to discuss matters in complete privacy.

Please review these issues then let us know whether, notwithstanding the potential for conflict that we have described, you are willing to have BEH represent you in this matter. Oregon law requires that in addition to obtaining your consent, we recommend that you consult independent counsel to help you decide if you should consent.

We very much value our relationships with the City and CUB. If you would like for BEH to continue working with you on this matter, we would appreciate your signing the enclosed extra copy of this letter in the space provided and return it to us for our files.

Please let us know if you have any questions or would like to discuss this issue further.

Sincerely,



Ashley O. Driscoll

AOD/yh

I have read the above and hereby consent on behalf of the **Canby Utility Board**.



Carol R. Sullivan, General Manager

10/2/23

Date

I have read the above and hereby consent on behalf of the **City of Canby**.



Eileen Stein, Interim City Administrator

10-3-23

Date

BEH

OUTAGE AVERAGES Oct 2022 THROUGH Sep 2023

MONTH	YEAR	NUMBER OF OUTAGES	NUMBER OF CUSTOMERS AFFECTED	TOTAL CUSTOMER MINUTES OFF	MONTHLY NUMBER OF CUSTOMERS IN THE SYSTEM	NUMBER OF MOMENTARY INTERRUPTIONS
Oct	2022	2	5	1149	8072	3
Nov	2022	2	741	92499	8074	4
Dec	2022	1	628	49612	8101	10
Jan	2023	0	0	0	8102	2
Feb	2023	0	0	0	8111	3
March	2023	1	10	1100	8142	1
April	2023	0	0	0	8185	1
May	2023	1	104	25020	8183	2
June	2023	2	208	12584	8206	13
July	2023	2	105	15330	8217	3
Aug	2023	0	0	0	8231	1
Sep	2023	2	506	46395	8248	3
12 MONTH TOTALS		13	2,307	243,689	97,872	46
12 MONTH AVERAGE		1.08	192	20,307	8,156	3.8

			<u>C.U.</u>	<u>Industry Typical Value</u>
SAIDI =	$\frac{\text{Sum of all customer interruption minutes}}{\text{Total number of customers}}$	= $\frac{243,689}{8,156}$	= 29.8785	87.0
SAIFI =	$\frac{\text{Total number of customer interruptions}}{\text{Total number of customers}}$	= $\frac{2307}{8,156}$	= 0.28	0.93
MAIFI =	$\frac{\text{Total number of cust. momentary interruptions}}{\text{Total number of customers}}$	= $\frac{46}{8,156}$	= 0.006	0.96
CAIDI =	$\frac{\text{Total interruption minutes for 12 months}}{\text{Total number of interruptions}}$	= $\frac{106}{6}$	= 18	107.25

System Average Interruption Duration Index (SAIDI)

SAIDI indicates the total sustained interruption duration for the average customer during a predefined period of time. It is commonly measured in minutes or hours of interruption.

System Average Interruption Frequency Index (SAIFI)

SAIFI indicates how often the average customer experiences a sustained interruption during a predefined period of time.

Momentary Average Interruption Frequency Index (MAIFI)

MAIFI is a reliability indicator used by electric power utilities. MAIFI is the average number of momentary interruptions that a customer would experience during a given period (typically a year).

Customer Average Interruption Duration Index (CAIDI)

CAIDI gives the average outage duration that any given customer would experience. CAIDI can also be viewed as the average restoration time.



Memorandum

October 4, 2023

To: Chair Thompson, Member Horrax, Member Molamphy, and Member Pendleton

From: Mike Schelske, Finance Manager

Subject: Quarterly Financial Update as of June 30, 2023, Fiscal Year 2023

Please find attached the Executive Financial Summary through June 30, 2023, the Utility's twelve months of fiscal year 2023. The report is cumulative to date and gives a quick overview of profit and loss resulting from operations and capital contributions, a comparison to budget with notes, and cash reserves compared to the budget target and minimum. For monthly information refer to the financial packet sent via e-mail.

I will present these at the next board meeting and will be available for comments or to answer any questions.

Canby Utility Executive Financial Summary
Profit (Loss) Resulting From Operations and Capital Contributions***
Year To Date (YTD) Through Quarter Ending June 30, 2023

Legend	
	= Electric
	= Water

Electric

Profit (Loss) From Operations

	Revenue		Expense		Operating Profit (Loss)
\$	15,836,337	\$	13,473,425	\$	2,362,912

Operations And Capital Contributions***

	Operating Profit (Loss)		Capital Contributions		Net Income (Loss)
\$	2,362,912	\$	1,111,737	\$	3,474,649

Water

Profit (Loss) From Operations

	Revenue		Expense		Operating Profit (Loss)
\$	4,660,280	\$	3,628,611	\$	1,031,669

Operations And Capital Contributions ***

	Operating Profit (Loss)		Capital Contributions		Net Income (Loss)
\$	1,031,669	\$	2,464,737	\$	3,496,406

*****Capital Contributions** are contributions of capital, in the form of money or assets/infrastructure to Canby Utility from a customer or a vendor.

Canby Utility Executive Financial Summary
Profit (Loss) Resulting From Operations With Capital Contributions Compared To Budget
Year To Date (YTD) Through Quarter Ending June 30, 2023

Electric

Net Income (Loss)	Budget	Over (Under) Budget
\$ 3,474,649	\$ 2,362,864	\$ 1,111,785

Notes : YTD total operating revenue is \$284,230 under budget mainly due to lower commercial and industrial sales.

YTD operating expenses are \$386,886 under budget mainly due to open positions.

YTD Capital contributions are \$169,194 under budget due to lower line extension fees.

YTD Change in Net Assets is \$1,111,785 higher than budget mainly due to higher non-operating revenues (the BPA power dividend and interest income) and lower payroll expenses due to open positions.

Water

Net Income (Loss)	Budget	Over (Under) Budget
\$ 3,496,406	\$ 2,323,386	\$ 1,173,020

Notes : YTD operating revenue is \$527,517 over budget mainly due to higher residential sales.

YTD Operating expenses are \$157,521 under budget mainly due to open positions.

YTD Capital contributions are \$180,080 over budget mainly due to higher SDC fees.

YTD Change in Net Assets is \$1,173,020 over budget mainly due to higher sales, higher non-operating revenue, higher capital contributions, and lower expenses.

Canby Utility Executive Financial Summary
Cash Reserves
Year To Date (YTD) Through Quarter Ending June 30, 2023

Electric

<u>Budget Target 06/30/2023</u>	Current Cash Reserves		June 2023 Target		Over (Under) Target
	\$ 11,710,066	\$	10,478,740	\$	1,231,326

<u>MINIMUM</u>	Current Cash Reserves		Minimum		Over (Under) Minimum
	\$ 11,710,066	\$	4,000,000	\$	7,710,066

Water

<u>Budget Target 06/30/2023</u>	Current Cash Reserves		June 2023 Target		Over (Under) Target
	\$ 8,043,001	\$	6,505,150	\$	1,537,851

<u>MINIMUM</u>	Current Cash Reserves		Minimum		Over (Under) Minimum
	\$ 8,043,001	\$	2,000,000	\$	6,043,001