EXHIBIT A

INTERLOCAL AGREEMENT REGARDING FUNDING, CONSTRUCTION AND OPERATION OF EMERGENCY INTERCONNECT IMPROVEMENTS

(Round Rock Emergency Water Interconnection at BCMUD Water Treatment Plant)

THE STATE OF TEXAS

\$ KNOW ALL BY THESE PRESENTS:
CITY OF WILLIAMSON

THIS INTERLOCAL AGREEMENT REGARDING FUNDING, CONSTRUCTION AND OPERATION OF EMERGENCY INTERCONNECT IMPROVEMENTS ("Agreement") is entered into between Brushy Creek Municipal Utility District, a conservation and reclamation district of the State of Texas (the "District") and the City of Round Rock, a home rule municipality (the "City"). In this Agreement, the District and the City are sometimes individually referred to as a "Party" and collectively referred to as the "Parties".

RECITALS

WHEREAS, the City is in the process of constructing a 42-inch water transmission main along the north side of Sam Bass Road (the "42-Inch Main Project"); and

WHEREAS, the District owns and operates a water treatment facility (the "<u>BCMUD WTF</u>") in close proximity to the City's 42-inch Main Project; and

WHEREAS, the District and the City are parties to that certain "Interlocal Agreement for Emergency Water Supply" dated June 24, 2021 (the "*Existing Emergency Service ILA*") that sets forth the terms and conditions pursuant to which each Party has agreed to make available to the other Party an emergency water supply;

WHEREAS, the establishment of an additional emergency interconnect between the City's public water system and the District's public water system would mutually benefit the Parties by providing greater water system resiliency and providing for the availability of potable water during emergencies; and

WHEREAS, this Agreement sets forth the contractual agreements of the Parties relating to the funding and construction of an emergency interconnect between the 42-Inch Main Project and the BCMUD WTF (the "*WTF Interconnect*") and further provides for the Parties to enter into a new contract for an emergency water supply that updates the points of connection between the City public water system and the District public water system at which a water supply will be made available by each Party to the other during emergencies, including at the WTF Interconnect.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual promises and agreements of the Parties contained in this Agreement, the Parties agree as follows:

I. DEFINITIONS

When used in this Agreement, capitalized terms not otherwise defined shall have the meanings set forth below:

- 1.01 "42-Inch Main Project" shall have the meanings set forth in the recitals of this Agreement.
- **1.02** "Agreement" means this Interlocal Agreement Regarding Funding, Construction and Operation of Emergency Interconnect Improvements.
- **1.03** "BCMUD Valve Vault Improvements" means the BCMUD Valve Vault and Improvements identified in the Garver Report.
- **1.04** "BCMUD WTF" shall have the meaning set forth in the recitals of this Agreement.
- **1.05** "Bid Documents" means the plans and specifications, together with all contract documents and bid instructions, relating to construction of the Interconnect Improvements or components thereof.
- 1.06 "City Cost Share" means the portion of the costs of construction of the Interconnect Improvements for which the City is responsible for payment, which shall be equal to one hundred percent (100%) of the construction costs for the CORR Valve Vault Improvements, and fifty percent (50%) of the construction costs for the Yard Piping Improvements and Interconnect Meter.
- **1.07** "CORR Valve Vault Improvements" means the CORR Valve Vault and Improvements identified in the Garver Report.
- 1.08 "District Cost Share" means the portion of the construction costs of the Interconnect Improvements for which the District is responsible for payment, which shall be equal to one hundred percent (100%) of the construction costs of the BCMUD Valve Vault Improvements, and fifty percent (50%) of the construction costs for the Yard Piping Improvements and Interconnect Meter.
- **1.09** "Effective Date" means the last date of execution of this Agreement by the Parties; provided both of the Parties must execute this Agreement for it to be effective.
- **1.10** "Emergency Supply Agreement" means the Interlocal Agreement for Emergency Water Supply" between the City and the District attached hereto as **Exhibit "B"**.
- **1.11** "Existing Emergency Service ILA" shall have the meaning set forth in the recitals of this Agreement.
- 1.12 "Force Majeure" means acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any governmental entity (other than one of the Parties) or any civil or military authority, acts, orders or delays of any regulatory authorities with jurisdiction over the Parties, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, floods, washouts, droughts, supply chain delays, market wide shortages or unavailability of construction materials and/or products, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, or any other conditions that are not within the control of a Party.
- **1.13** "Garver Report" means the Emergency Interconnect Technical Memorandum prepared by Garver Engineering dated and sealed on October 2, 2024, a copy of which is attached hereto as **Exhibit "A"**.
- 1.14 "Interconnect Improvements" means the improvements to be constructed to establish the WTF Interconnect, generally consisting of a 12-inch diameter ductile iron waterline improvements, concrete meter vault improvements, valve improvements, the Interconnect Meter, and related appurtenances, to allow the transmission of potable water from the City to the District, and to allow the City to receive potable water from said facilities. The Interconnect Improvements are more particularly described in the Garver

Report and shall include Yard Piping Improvements, the CORR Valve Vault Improvements, the BCMUD Valve Vault Improvements and the Interconnect Meter.

- **1.15** "Interconnect Meter" means the multidirectional flow meter to be installed as part of the Interconnect Improvements.
- 1.16 "Interconnect Tee" means the 42"x16" tee to be installed by the City near Engineering Station 82+00 as part of the 42-inch Main Project and as generally shown and labeled as "Alternate Tee Location" on page 8 of the Garver Report.
- 1.17 "Party" or "Parties" means the District and/or the City, individually or collectively, as applicable.
- **1.18** "Point of Connection" means the point of connection between the City public water system and the District public water system upon completion of construction and acceptance of the Interconnect Improvements, which shall be the 16" gate valve directly north of the Interconnect Tee.
- **1.19** "Project" means the design and construction of the Interconnect Improvements.
- **1.20** "Project Area" means the area in which the Interconnect Improvements will be located. The Project Area is more particularly identified in the Garver Report.
- **1.21** "Project Contractor" means the contractor(s) that enter into a contract with the District for construction of the Interconnect Improvements.
- 1.22 "Project Engineering Work" means all professional engineering and consulting services relating to the Interconnect Improvements including preparation of plans and specifications therefor, and acquisition of any permits or regulatory approvals required for such improvements.
- **1.23** "Yard Piping Improvements" means the Yard Piping Improvements generally identified in the Garver Report connecting to Interconnect Tee.

II. STATEMENT OF INTENT

2.01 General. The purpose of this Agreement is to provide for the District to design, construct, maintain and repair of the Interconnect Improvements; to allocate the costs of the Project between the Parties; and to provide for the Parties to enter into the Emergency Supply Agreement to replace the Existing Emergency Service ILA.

III. PROJECT COMMITTEE

3.01 Composition of Project Committee. There is hereby created a Project Committee to be composed of not less than one representative appointed by each Party. The following persons are hereby designated as the initial members of the Project Committee: the General Manager and District Engineer on behalf of the District, and the City of Round Rock Senior Engineer on behalf of the City. Each such representative may appoint additional representatives on behalf of its Party. Each representative of a Party shall serve at the will of the governing body that the person represents. Upon the death, resignation, or revocation of the power of such representative, the governing body of the appropriate Party shall promptly appoint a new representative (or alternate representative) to the Project Committee, and shall immediately notify the other Party of such appointment.

- **3.02 Responsibility of Project Committee**. The Project Committee shall represent the individual and collective interests of the Parties with respect to the following matters:
 - (i) The identification of the BCMUD Valve Vault Improvements, the CORR Valve Vault Improvements, and the Yard Piping Improvements;
 - (ii) The review and approval of the Bid Documents;
 - (iii) The periodic review of the status of construction of the Interconnect Improvements;
 - (iv) The review and approval of change orders relating to the construction of the Interconnect Improvements;
 - (v) The confirmation of final completion of construction of the Interconnect Improvements; and
 - (vi) Any other pertinent matters relating to the construction or operation of the Interconnect Improvements.

The Project Committee shall meet as needed to review the matters over which it has authority. The Project Committee shall be diligent, prompt, and timely in reviewing and acting on matters submitted to it.

IV. DESIGN OF PROJECT AND APPROVALS

4.01 Design of Interconnect Improvements.

- (a) Promptly after execution of this Agreement by the Parties, the District will authorize its engineering consultants to commence and diligently continue the Project Engineering Work. The Parties will both have the opportunity to review and approve the Professional Services Agreement for the Project Engineering Work prior to execution of the Professional Services Agreement.
- (b) Upon completion of each design submittal of plans and specifications for the Interconnect Improvements, the District shall provide a copy thereof to the Project Committee for review and approval.
- (c) Upon final approval of the plans and specifications for the Interconnect Improvements by the Project Committee, the District shall cause its engineering consultants to competitively bid the construction of the Interconnect Improvements.

4.02 Cost of Design.

- (a) The District will advance and pay all costs and expenses associated with the Project Engineering Work, subject to its right to reimbursement from the City forty-three percent (43%) of all such costs and expenses as set forth below.
- (b) Upon the District's approval of each invoice for the Project Engineering Work, the District will transmit a copy of the invoice to the City. The City agrees to reimburse the District for forty-three percent (43%) of the costs of the Project Engineering Work in accordance with the timeframes for payments to contractors set forth in Texas Prompt Payment Act. Each invoice submitted by the District for

reimbursement will clearly describe the Project Engineering Work done for which reimbursement is sought, and will not seek reimbursement or payment for any costs or expenses other than for Project Engineering Work. Any amounts due to the District which are not paid within this timeframe will accrue interest until paid in accordance with the Texas Prompt Payment Act.

- The Parties acknowledge and agree that the allocation of costs for Project Engineering Work set forth above are based on the estimated construction costs of the Interconnect Improvements, as identified in the Garver Report. After the award of a contract to the Project Contractor for the Interconnect Improvements, a "true up" shall be undertaken by the District to determine the final allocation of costs of Project Engineering Work based on actual bid pricing for the, BCMUD Valve Vault Improvements, the CORR Valve Vault Improvements, the Yard Piping Improvements and Interconnect Meter. Specifically, the District shall be allocated 100% of the bid price for the BCMUD Valve Vault Improvements and 50% of the bid price for the Yard Piping Improvements and Interconnect Meter. The City shall be allocated the remaining 50% of the bid price for the Yard Piping Improvements and Interconnect Meter and 100% of the bid price for the CORR Valve Vault Improvements (regardless of whether the CORR Valve Vault Improvements is included in the final contract as awarded). Upon completion of the reconciliation, the District shall send the written reconciliation to the Project Committee. If the reconciliation demonstrates the City previously paid more than its allocated share of costs for Project Engineering Work, then the District shall provide a credit to the City Cost Share in the amount of the excess payment. If the reconciliation demonstrates that the City previously paid less than its allocated share of Project Engineering Work based on actual bid pricing, then the District shall send to the City an invoice for payment for the prior underpayment, and the City shall provide payment to the District in the amount of such underpayment in accordance with the timeframes for payments to contractors set forth in Texas Prompt Payment Act. Any amounts due to the District which are not paid within this timeframe will accrue interest until paid in accordance with the Texas Prompt Payment Act.
- **4.03 Work Product.** Upon receipt of a request from the City, the District agrees to promptly make available to the City a copy of any work product produced by its engineering consultants in connection with the Project Engineering Work.
- **4.04 Permits and Approvals.** The District shall be responsible for securing any and all regulatory approvals required for the Interconnect Improvements. The District shall be responsible for securing any and all non-City regulatory approvals required for the Interconnect Improvements. Any approvals or signatures necessary from the City to obtain regulatory approvals will be provided promptly by the City. Any costs associated with regulatory permits or approvals qualify as Project Engineering Work to be funded by the Parties equally.

V. EASEMENT MATTERS

5.01 General. The Parties acknowledge and agree that the Interconnect Improvements shall be located on District lands and in public right-of-way, so no easements will be required.

VI. BIDDING AND CONSTRUCTION OF PROJECT

6.01 Bid Process. All construction contracts for the Interconnect Improvements will be competitively bid and awarded by the District in the manner provided by State laws for construction contracts by municipal utility districts.

6.02 Separate Bid Items. The Parties agree that the Yard Piping Improvements, BCMUD Valve Vault Improvements, the CORR Valve Vault Improvements and the Interconnect Meter shall be separate bid items so that the Project Contractor's price for each of these components of the Project may be separately identified.

6.03 Bid Award.

- (a) A copy of all received bids, bid tabulations, and related information for the construction of the Interconnect Improvements will be submitted to the Project Committee for review and consideration within three calendar days after opening the bids.
- (b) Prior to award of a contract for the Interconnect Improvements, the District shall provide to the City written notice of the Project Contractor to whom the District proposes to award the contract for construction of the Interconnect Improvements.
- (c) If the bid amount for the proposed Project Contractor for the City Cost Share of the Interconnect Improvements is no more than 120% of the estimated costs as set forth in Engineer's Opinion of Probable Costs at the 100% design submittal, then the City agrees to accept the award of the contract to the Project Contractor identified in the District's notice to the City. If the bid amount is more than 120% of the Engineer's Opinion of Probable Costs at the 100% design submittal for the City Cost Share, then within fourteen (14) days after receipt of written notice of the apparent successful bidder from the District, the City shall notify the District as to whether it objects to, or approves, the award of the construction contract. If either the bid price allocated to the City is no more than 120% of the Engineer's Opinion of Probable Costs at the 100% design submittal of the City Cost Share, or if the City approves the award of the contract notwithstanding that the City Cost Share of the contractor's bid price exceeds 120% of Engineer's Opinion of Probable Costs at the 100% design submittal, the District shall approve the award of the contract to the Project Contractor and shall construct the Interconnect Improvements in accordance with the terms of this Agreement. If the City Cost Share of the contractor's bid price exceeds 120% of the engineer estimate and the City does not approve the award, then the District may reject all bids, in which event the Project Committee shall decide whether to modify the Bid Documents and solicit new bids, or the District may rebid and award the contract without the CORR Valve Vault Improvements.
- **6.04 Construction of Project by District.** The District shall be responsible for constructing, or causing to be constructed, the Interconnect Improvements. In connection with the construction of the Interconnect Improvements, the District agrees to use good faith and reasonable efforts to ensure that the Project Contractor completes construction of the Interconnect Improvements in accordance with the plans and specifications and other requirements set forth in the Bid Documents.

6.05 Inspection.

- (i) The District shall retain a part-time construction inspector to inspect the Interconnect Improvements as construction progresses. All costs incurred by the District in connection therewith shall qualify as Project Engineering Work to be funded by the Parties equally.
- (ii) The District shall notify the Project Committee of any construction defects found by the inspector relating to the Interconnect Improvements coming to its attention as soon as practicable and in no event later than five calendar days (excluding official holidays) after obtaining knowledge of the defect.
- (iii) The City may elect to have its employees or staff inspect or observe construction of the Interconnect Improvements from time to time.

- (iv) The City's representatives shall have a reasonable right to access and inspect the Interconnect Improvements as construction progresses, and the District shall not interfere with such access or inspection by the City or its designated representative(s).
- **6.06 Pay Applications.** The construction contract for the Interconnect Improvements shall obligate the Project Contractor to submit pay applications and change orders in a manner that allows all costs of the Yard Piping Improvements and the Interconnect Meter, BCMUD Valve Vault Improvements, and the CORR Valve Vault Improvements to be separately identified.
- 6.07 Change Orders. The District shall not approve any change orders for the Interconnect Improvements that would materially change the design of the Interconnect Improvements or the City's costs, without the City's prior written approval, as expressed by its representative(s) on the Project Committee. The City's representative(s) will review any change orders and either approve the change order or provide written comments specifically identifying the changes required within 5 working days of submittal. If the City's Project Committee representative(s) does not approve the change order or specify the required changes for approval within this period, the City's approval shall be deemed given. In the event of a dispute between the Parties as to any change order, the District may execute and provide payment of the change order so as to remain in good standing under the construction contract and allow the Project to proceed, while the Parties otherwise resolve or adjudicate the dispute (i.e., whether the City's refusal to approve the change order or required changes to the change order are reasonable).
- **6.08 Insurance**. The District shall require that all workers involved with the installation and construction of the Project are covered by workers' compensation insurance as required by the laws of the State of Texas. The District shall also require that the contractors procure and maintain comprehensive general liability insurance insuring against the risk of bodily injury, property damage, and personal injury liability occurring from, or arising out of, construction of the Project, with such insurance in the amount of a combined single limit of liability of at least \$2,000,000 and a general aggregate limit of at least \$5,000,000. Such insurance coverage shall be maintained in force at least until the completion, inspection and acceptance of the Project.

6.09 Payment of Construction Costs.

- (a) All construction contracts and other agreements relating to the construction of the Interconnect Improvements will contain provisions to the effect that the Project Contractor will look solely to the District for payment of all sums coming due thereunder. The District shall advance and pay the cost of construction of the Interconnect Improvements, subject to its right to reimbursement from the City in accordance with the terms of this Agreement.
- (b) Upon the District's approval of each pay application from the Project Contractor for the Interconnect Improvements, the District will transmit a copy of the pay application to the City. The City agrees to pay the District for the City Cost Share of the pay application in accordance with the timeframes set forth in Texas Prompt Payment Act. Any amounts due to the District which are not paid within this time period will accrue interest until paid in accordance with the Texas Prompt Payment Act.
- **6.10** Acceptance. Upon completion of construction of the Interconnect Improvements, the District shall obtain the approval of the Project Committee for the Interconnect Improvements prior to acceptance and final payment of retainage to the Project Contractor.
- **6.11 Record Drawings**. As a condition of final completion of the Interconnect Improvements and release of retainage, the District will cause the Project engineers and Project Contractor to provide to the

District and to the City a copy of the final "record" drawings of the completed Interconnect Improvements in an electronic format.

6.12 Warranties. The District agrees to cause the Project Contractor to issue a warranty or maintenance bond to the District for the Interconnect Improvements. The warranty issued to the District shall require the Project Contractor to repair all defects in materials, equipment or workmanship relating to the Interconnect Improvements appearing within the one-year warranty period set forth in the Bid Documents approved by the Project Committee.

VII. INTERCONNECT TEE

7.01 General. The City agrees to cause installation of the Interconnect Tee at Engineering Station 83+50 as part of the 42-inch Main Project. The City shall pay all costs and expenses associated therewith.

VIII. OWNERSHIP, OPERATION, MAINTENANCE AND REPAIR OF FACILITIES

- **8.01 Ownership**. Upon final acceptance of Interconnect Improvements by the District, the District shall own all of the Interconnect Improvements, constituting all facilities located on its side of the Point of Connection.
- **8.02 Maintenance, Operation and Repair**. The District shall be responsible for operation, maintenance and repair of the Interconnect Improvements after final acceptance.

8.03 Costs of Operation, Maintenance and Repairs.

- (a) The District shall be responsible for the District Cost Share of any maintenance and repairs of the Interconnect Improvements, and the City shall be responsible for the City Cost Share of any maintenance and repairs of the Interconnect Improvements.
- (b) The District shall use good faith efforts to provide written notice to the City of any costs of repair or maintenance of the Interconnect Improvements that are estimated to exceed \$10,000, and shall provide an opportunity for the Project Committee to review and comment on the proposed repair or maintenance. Notwithstanding the foregoing, the Parties acknowledge that emergency repairs may be necessary for which it is not practicable to provide advance notice.
- (c) Upon completion of repairs or maintenance to the Interconnect Improvements, the District will transmit a copy of an invoice for payment to the City, along with supporting information in reasonable detail identifying the work for which reimbursement is requested. The City agrees to pay the District for the City Cost Share of the repair and maintenance costs in accordance with the timeframes set forth in Texas Prompt Payment Act. Any amounts due to the District which are not paid within this time period will accrue interest until paid in accordance with the Texas Prompt Payment Act.

IX. DISPUTES

9.01 Material Breach; Notice and Opportunity to Cure.

(a) In the event that one Party believes that another Party has materially breached one of the provisions of this Agreement, the non-defaulting Party will make written demand to cure and give the defaulting Party

up to 30 days to cure such material breach or, if the curative action cannot reasonably be completed within 30 days, the defaulting Party will commence the curative action within 30 days and thereafter diligently pursue the curative action to completion. Notwithstanding the foregoing, any matters specified in the default notice which may be cured solely by the payment of money must be cured within 10 days after receipt of the notice. This applicable time period must pass before the non-defaulting Party may initiate any remedies available to the non-defaulting party due to such breach.

- (b) Any non-defaulting Party will mitigate direct or consequential damage arising from any breach or default to the extent reasonably possible under the circumstances.
- (c) The Parties agree that they will negotiate in good faith to resolve any disputes and may engage in non-binding mediation, arbitration or other alternative dispute resolution methods as recommended by the laws of the State of Texas.
- **9.02** Equitable Relief. In recognition that failure in the performance of the Parties' respective obligations could not be adequately compensated in money damages alone, the Parties agrees that after providing notice and an opportunity to cure in accordance with Section 9.01 above, the Parties shall have the right to request any court, agency or other governmental authority of appropriate jurisdiction to grant any and all remedies which are appropriate to assure conformance to the provisions of this Agreement. The defaulting Party shall be liable to the other for all costs actually incurred in pursuing such remedies, including reasonable attorney's fees, and for any penalties or fines as a result of the failure to comply with the terms including, without limitation, the right to obtain a writ of mandamus or an injunction requiring the governing body of the defaulting party to levy and collect rates and charges or other revenues sufficient to pay the amounts owed under this Agreement.
- **9.03** Agreement's Remedies Not Exclusive. The provisions of this Agreement providing remedies in the event of a Party's breach are not intended to be exclusive remedies. The Parties retain, except to the extent released or waived by the express terms of this Agreement, all rights at law and in equity to enforce the terms of this Agreement.

X. EMERGENCY SUPPLY AGREEMENT

10.01 Emergency Supply Agreement. Simultaneously with the execution of this Agreement, the Parties shall execute the Emergency Supply Agreement substantially in the form attached hereto.

XI. GENERAL PROVISIONS

- **11.01 Authority.** This Agreement is made in part under the authority conferred in Chapter 791, *Texas Government Code* and other laws of the State of Texas.
- **11.02 Term.** This Agreement shall commence on the Effective Date, and shall remain in effect until December 31, 2045.
- **11.03 Severability.** The provisions of this Agreement are severable and, if any provision of this Agreement is held to be invalid for any reason by a court or agency of competent jurisdiction, the remainder of this Agreement will not be affected and this Agreement will be construed as if the invalid portion had never been contained herein.

- **11.04 Assignment.** Except as otherwise provided herein, the assignment of this Agreement by any Party is prohibited without the prior written consent of the other Party. All of the respective covenants, undertakings, and obligations of each of the Parties will bind that Party and will apply to and bind any successors or assigns of that Party.
- **11.05** Payments from Current Revenues. Any payments required to be made by a Party under this Agreement will be paid from current revenues or other funds lawfully available to the Party for such purpose.
- **11.06** Cooperation. The Parties agree to cooperate at all times in good faith to effectuate the purposes and intent of this Agreement.
- **11.07 Entire Agreement.** This Agreement contains the entire agreement of the Parties regarding the subject matter hereof and supersedes all prior or contemporaneous understandings or representations, whether oral or written, regarding the subject matter.
- **11.08 Amendments.** Any amendment of this Agreement must be in writing and will be effective if signed by the authorized representatives of the Parties.
- **11.09 Applicable Law; Venue.** This Agreement will be construed in accordance with Texas law. Venue for any action arising hereunder will be in Williamson City, Texas.
- **11.10 Notices.** Any notices given under this Agreement will be effective if (i) forwarded to a Party by hand-delivery; (ii) transmitted to a Party by confirmed telecopy; or (iii) deposited with the U.S. Postal Service, postage prepaid, certified, to the address of the Party indicated below:

DISTRICT: Brushy Creek Municipal Utility District

16318 Great Oaks Drive Round Rock, Texas 78681 Attn: General Manager Telephone: (512) 255-7871

CITY: City of Round Rock

221 E. Main Street Round Rock, TX 78664 Attn: City Manager Telephone:512-218-5430

With copy to:

Stephanie Sandre, City Attorney 309 East Main Street Round Rock, Texas 78664

11.11 Exhibits. The following exhibits are attached to this Agreement and incorporated herein by reference:

Exhibit A - Garver Report dated and sealed on October 2, 2024

Exhibit B - Form of Emergency Supply Agreement

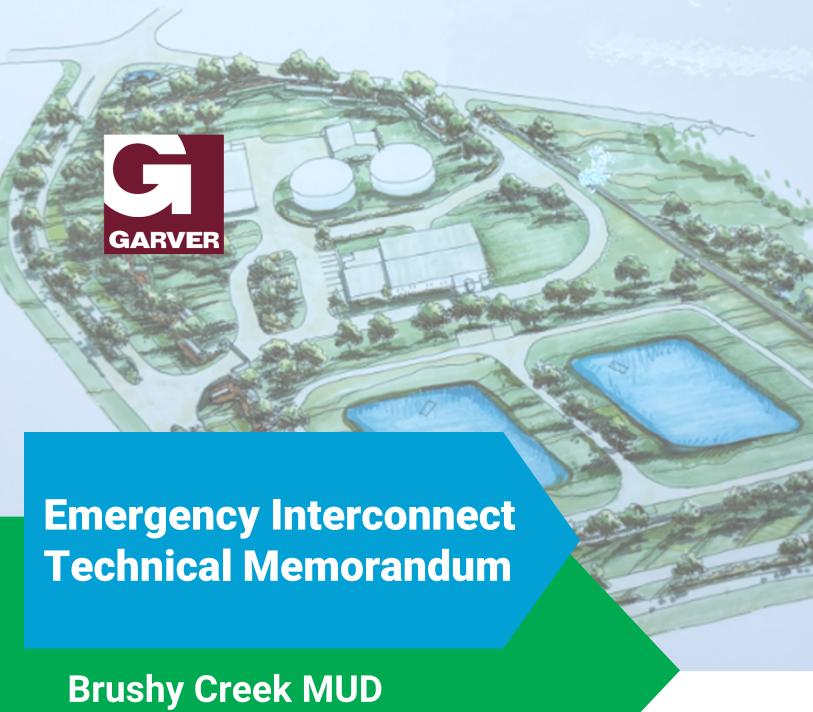
- **11.12** Counterparts; Effect of Partial Execution. This Agreement may be executed simultaneously in multiple counterparts, each of which will be deemed an original, but all of which will constitute the same instrument.
- **11.13 Authority**. Each Party represents and warrants that it has the full right, power and authority to execute this Agreement.

[The remainder of this page intentionally left blank.]

ATTEST:	BRUSHY CREEK MUNICIPAL UTILITY DISTRICT:
	By:
Secretary	
	Printed Name:
	Title:
	Date:

ATTEST:	CITY OF ROUND ROCK:
	By:
City Clerk	
	Printed Name:
	Title:
	Date:

EXHIBIT "A" GARVER REPORT



Asset Renewal Master Plan

PREPARED FOR

Brushy Creek MUD

October 2024



Brushy Creek MUD Asset Renewal Master Plan

Emergency Interconnect Technical Memorandum



Prepared by:



3755 S Capital of Texas Hwy, Suite 325 Austin, TX 78704

October 2024

Garver Project No. 2301754



Engineer's Certification

I hereby certify that this Emergency Interconnect Technical Memorandum for the Brushy Creek Municipal Utility District Asset Renewal Master Plan was prepared by Garver under my direct supervision for the Brushy Creek Municipal Utility District.



Christopher Leal, PE State of Texas PE License 97373 Texas Firm Registration No. 5713





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Appendix B Valve Vault Model E-Sheets

Appendix C CIP Exhibits

List of Acronyms

Acronym	Definition
BCMUD	Brushy Creek Municipal Utility District
CORR	City of Round Rock
CIP	Capital Improvement Projects
DI	ductile iron
FW	finished water
HSPS	high service pump station
MGD	million gallons per day
PWS	public water system
WTF	water treatment facility





1.0 Introduction

This technical memorandum evaluates the feasibility of an emergency interconnect at the Brushy Creek Municipal Utility District (BCMUD) water treatment facility (WTF) with a 42" City of Round Rock (CORR) water line, including the development of Capital Improvement Projects (CIP) to support an interconnection, costs, implementation schedule, regulatory coordination and approval requirements, and next steps for completion.

BCMUD prioritizes water system resiliency and providing continuous water service to its residents and water customers, even during emergency situations, when possible. BCMUD and CORR have three (3) existing emergency water system interconnections that have remained in place since BCMUD previously purchased finished water from CORR prior to securing source water from the Brazos River Authority and the construction of the BCMUD WTF. In addition, BCMUD has two (2) emergency interconnections with Fern Bluff MUD, which sources finished water (FW) from the CORR for its system. In the past 24 months, BCMUD has provided water to Fern Bluff MUD and CORR on four occasions through the existing interconnections due to emergency situations occurring in the CORR water system.

An additional emergency interconnect at the BCMUD WTF can provide proactive water system redundancy measures to enable BCMUD to have an additional source of water should an emergency situation necessitate the use. The proposed location and size of the interconnect would allow BCMUD to provide FW to its residents and customers throughout the system, should source water become unavailable in an emergency situation. The proposed interconnect can also benefit the CORR if a two-way interconnect is constructed as well. This technical memorandum includes a preliminary analysis and plan to establish an additional interconnect between the CORR and BCMUD. As a result of this project, CIPs are recommended by Garver which support the future design and construction of projects necessary to install the emergency interconnect, shown in **Appendix C**.

2.0 Purpose

The purpose of this technical memorandum is to evaluate a water system emergency interconnection to meet the BCMUD water demands in the event of an emergency where BCMUD is unable to produce an adequate water supply to support water service to its residents and water customers. Should the entities agree to move forward with the interconnection, the CORR would assist BCMUD by providing an emergency FW source that would be able to directly feed into the BCMUD distribution system in a location that could benefit the entire water system. Should the CORR agree to receive FW from BCMUD, the emergency interconnect will be constructed as a two-way emergency interconnection, allowing the CORR to receive water in an emergency situation as well.

2.1 Entity Information

BCMUD, PWS TX2460061, obtains source water for its system through transporting raw surface water from Lake Georgetown and groundwater from three wells that pump out of the Edwards Aquifer to its WTF. BCMUD then treats and delivers FW to its distribution system from its WTF located at 2300 Great Oaks Dr, Round Rock, TX 78681.





Brushy Creek MUD Asset Renewal Master Plan Emergency Interconnect Technical Memorandum

CORR, PWS TX2460003, provides drinking water to its residents from a combination of sources. These include surface water from Lake Georgetown, Lake Travis, groundwater from wells that pump out of the Edward's Aquifer, and when needed, the City pumps water into Lake Georgetown from Lake Stillhouse Hollow. As per TCEQ §290.44(g)(1)(B), each water supply shall be of a safe, potable quality.

2.2 Location

The emergency interconnect is proposed to be located at the BCMUD WTF, specifically within the fenced area southwest of the clear wells and high service pump station (HSPS), as shown in **Figure 2-1**. The CORR is currently constructing a 42" transmission main along the north side of Sam Bass Road. As part of the ongoing construction of the transmission main, a 42"X16" tee is planned to be installed at STA 83+50 to support a future interconnection with BCMUD, as shown in **Figure 2-2**. The CORR is evaluating an alternative location for the 42"X16" tee to optimize the yard piping design for the proposed interconnection. The ideal location of the 42"X16" tee is near STA 82+00, shown in **Figure 2-2**. This alternate stationing would lower the quantity of yard piping required for the interconnect, which would significantly optimize the project's cost.





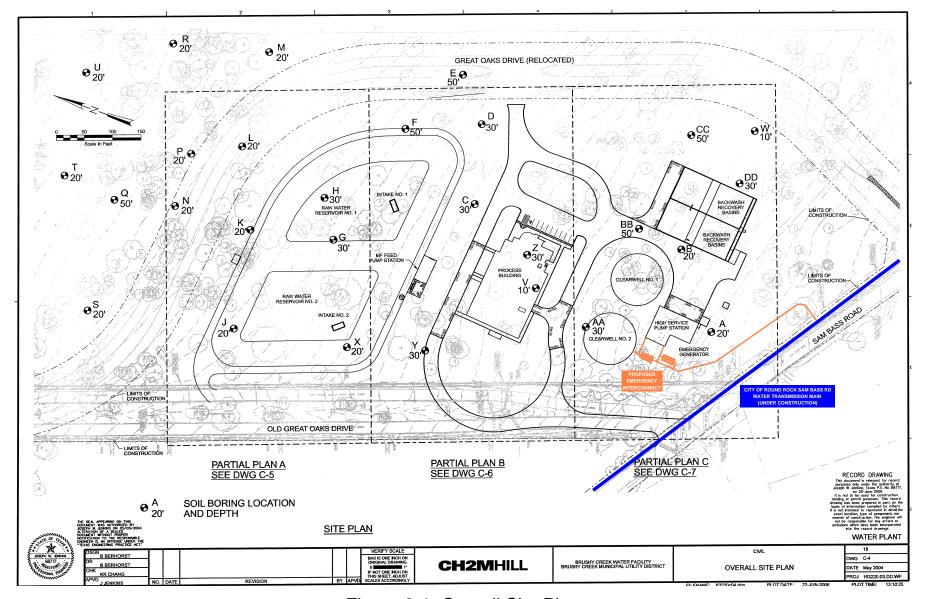
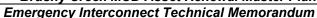


Figure 2-1: Overall Site Plan







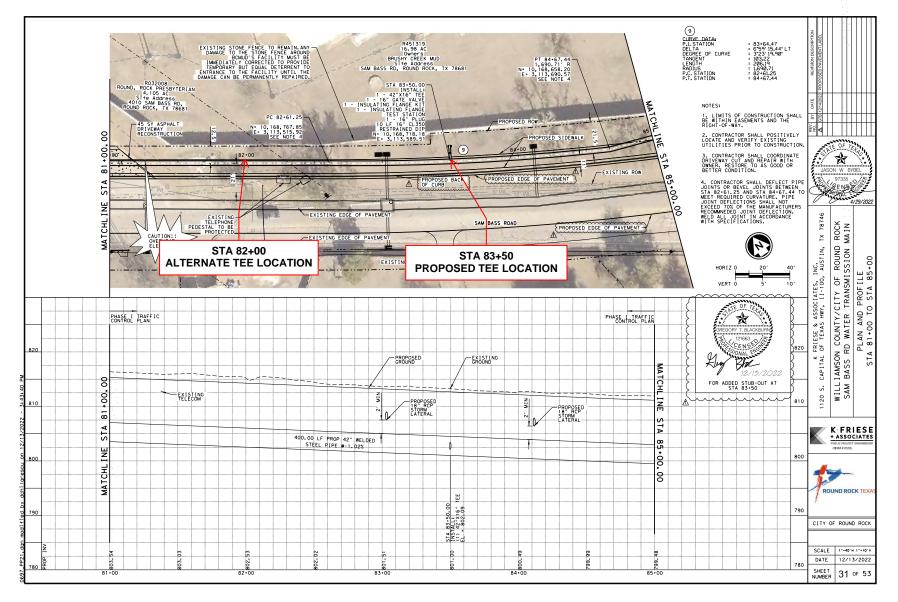


Figure 2-2: Transmission Main Drawings





3.0 Preliminary Analysis and Plan for Interconnection

3.1 Overall Yard Piping

The yard piping for the emergency interconnect will be designed to have two (2) feed locations to increase the redundancy and allow for variability feeding into the BCMUD system. The two feed locations, shown in **Figure 3-1**, include the following options:

- Option 1: Connection to the 30" FW Line from Clear Well #2 to HSPS
- Option 2: Connection to the 30" FW Line from the HSPS Directly into BCMUD Distribution

Option #1 will feed the CORR water into the 30" FW line from Clear Well #2 to utilize the BCMUD pumps at the BCMUD HSPS to pump water into the distribution system. Option #2 will feed CORR water directly from the CORR distribution into the BCMUD distribution system by utilizing the existing the CORR pressure. Option #2 will be pursued in the case of an emergency where the BCMUD HSPS is affected by an emergency and is unable to pump water into water distribution.

The yard piping consists of the following infrastructure:

- 12" Ductile Iron (DI) Pipe
- 12" Gate Valve
- 12" Flow Meter (Two-Way)
- 12" Swing Check Valve
- 2" Gate Valve
- Connection to Existing 30" FW (2)
- 5' Pre-Cast Manhole





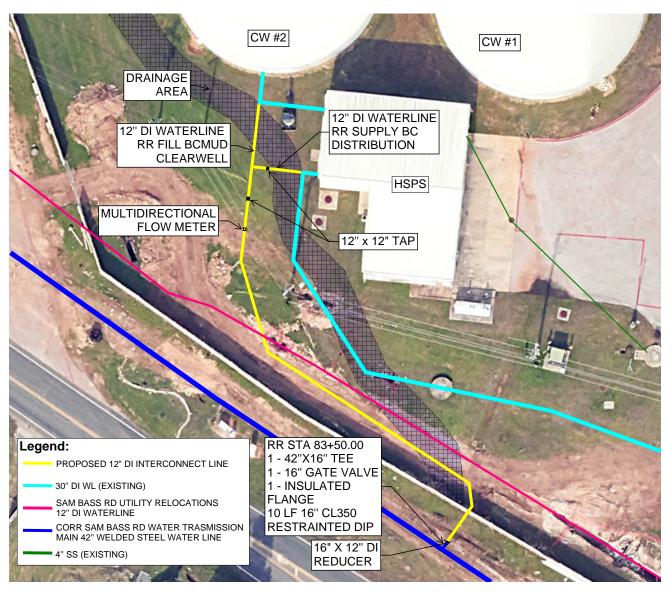


Figure 3-1: Emergency Interconnect Yard Piping





3.2 BCMUD Valve Vault and Improvements

The valve vault, shown in **Figure 3-2**, reflects the infrastructure needed for BCMUD to receive water from the CORR by Option 1: Connection to the 30" FW Line from Clear Well #2 to HSPS. The valve vault consists of the following infrastructure:

- 8" Cla-Val Model 58-01 Pressure Sustaining/Solenoid Valve
- 12" NRS Gate Valve (2)
- 12" Cla-Val Model 585LW Swing Check Valve
- 12" Ductile Iron (DI) Inlet/Outlet Connection
- 12" DI Pipe
- 12" to 8" Reducer (2)
- 7' x 13' Pre-Cast Concrete Meter Vault
- Sump Pump
- Aluminum Access Hatch (Not Shown)

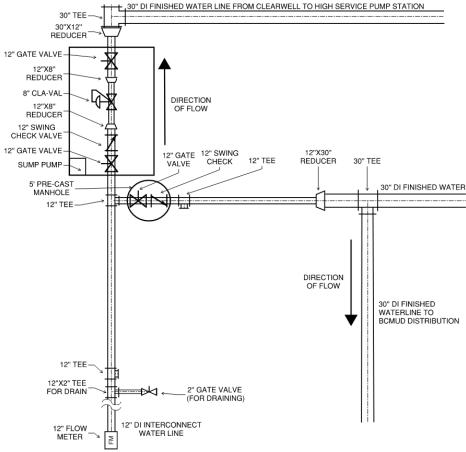


Figure 3-2: BCMUD Valve Vault

The infrastructure in the valve vault will accommodate high pressure flows from the CORR. The 8" Cla-Val Model 58-01 is a Combination Back Pressure and Solenoid Shut-Off Valve which is designed to



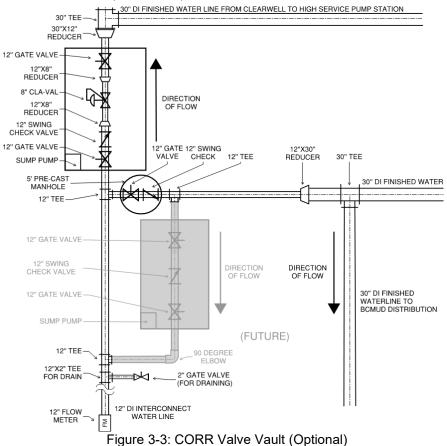


reduce and sustain pressure from the CORR distribution system to deliver water more efficiently into the BCMUD 30" DI FW line. The valve vault designed by Cla-Val, shown in **Appendix A**, will be prefabricated into a pre-cast vault box, and delivered to the site in three (3) sections. See **Appendix B** for the E-Sheets related to the Cla-Val Model 58-01 and the Series 585.

3.3 CORR Valve Vault (Optional)

The secondary valve vault, shown in **Figure 3-3**, reflects the infrastructure needed for the CORR to receive water from BCMUD. Should the CORR decide to participate in the project, the valve vault could be constructed to consist of the following infrastructure:

- 12" Gate Valve (2)
- 12" Swing Check Valve
- 12" DI Inlet/Outlet Connection
- 12" DI Pipe
- 5' x 8' Pre-Cast Concrete Meter Vault
- Sump Pump
- Aluminum Access Hatch (Not Shown)







The CORR valve vault will need two (2) connection points onto the yard piping to receive and distribute water directly from the BCMUD HSPS. The two connection points should be completed with the yard piping phase of the project to allow for an ease of the CORR valve vault installation. BCMUD will be able to provide water to the CORR using their HSPS in an emergency situation.

4.0 Hydraulic Considerations

4.1 Purchasing System Capacity

It was assumed for preliminary design that the maximum water to be distributed through the emergency interconnect is 4.0 MGD. The emergency interconnect was designed to accommodate half of BCMUD existing capacity of 8.2 MGD. This capacity will allow the BCMUD system to have confidence that its residents and customers can continue to receive water in the event of an emergency with source water.

Should the CORR pursue a two-way interconnect, the purchasing system capacity will be decided upon at that point in time. For design purposes the CORR valve vault was sized to accommodate a 3.0 to 4.0 MGD capacity.

4.2 Pipe Size and Material

To accommodate the desired flows through the emergency interconnect, a 12" DI pipe will be the primary pipe size and material. The desired velocity though the valve vault was below 10 ft/s, as shown in **Table 4-1**, 12" DI was preferred to meet the desired velocity.

 Pipe Dia (in)
 Q (MGD)
 Velocity (ft/s)

 8
 4.00
 21.30

 10
 4.00
 13.63

 12
 4.00
 9.47

 16
 4.00
 5.33

Table 4-1: Pipe Velocity Comparison

4.3 Pressure Plane Data

Table 4-2 compares the tank water levels between the BCMUD and CORR water towers.

Table 4-2: Water Tower Levels

Entity	Peak Water Tower Levels (ft)	Low Water Tower Levels (ft)
BCMUD	1051	1015
CORR	1031	1001
Difference	20	-14

BCMUD averages a 1051' tank elevation which would mean that their pressure head is greater than CORR. The pressure plane information plays a critical role for both options of water feed outlined in Section 3.1. For Option #1, direct feed into the 30" Clearwell FW line, the pressure from the CORR would





need to be reduced to efficiently feed into Clearwell #2 which has a high-water level of 836'. For Option #2, direct feed into BCMUD distribution, the BCMUD tanks would need to be lower than the CORR tanks in order to fill. If BCMUD were to use Option #2, the respective gate valves would be opened/closed and the CORR would flow to BCMUD tanks until the tanks reach the same water level. Due to the pressure plane differences, when using Option #2, the maximum fill that BCMUD tanks would reach is 1031'. An emergency scenario would be initiated by low tank levels for the interconnect to perform as designed.

Further hydraulic pressure analysis will occur in the design phase of the interconnection, should the project move forward.

5.0 Capital Improvement Plans

Two (2) CIPs are necessary to complete the emergency interconnect.

- CIP 1: Emergency Interconnect Yard Piping
- CIP 2: BCMUD Emergency Interconnect Valve Vault
 - o CIP 2a: CORR Emergency Interconnect Valve Vault (Optional)

Should the CORR pursue a two-way interconnect, CIP 2a should be completed. To facilitate CIP 2a, CIP 1 should include the two (2) 12" taps where necessary to allow easy installation for CIP 2a. The CIP exhibits include the cost estimate and implementation schedule for each CIP which is detailed in **Appendix C**.

The cost estimates are separated based on the infrastructure required to serve each entity; each entity is responsible for their infrastructure. **Figure 5-1** outlines the individual and shared cost between entities.

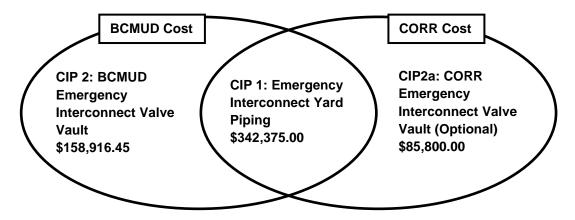


Figure 5-1: Venn Diagram - Entity Cost Breakdown

A cost estimate for CIP 1, CIP 2, and CIP 2a are shown in Figure 5-2, Figure 5-3, and Figure 5-4 respectively.





•		und Rock			
	Creek MUD				
Project	No. W07-2301754	I	Design (Contingency:	40%
Unit Bio	d Prices				\$ Total
tem No.	Item Description	Quantity	Unit	\$/Unit	
1	12" DI Pipe Class, (Including Fittings)	255	LF	\$500	\$127,500
2	12" Gate Valves	1	EA	\$9,500	\$9,500
3	12" Flow Meter (Two-Way)	1	EA	\$15,000	\$15,000
4	12" Swing Check Valve	1	EA	\$9,500	\$9,500
5	2" Gate Valves	1	EA	\$4,000	\$4,000
6	Connection to Existing 30" Finished Water	2	EA	\$15,000	\$30,000
7	5' Pre-Cast Manhole	1	EA	\$12,000	\$12,000
Γotal C	osts				
	truction Cost				\$207,500
	on Contingency (40%)				\$83,000
onstruction					,
	ng Design Fee Estimate (25%)				\$51,875

Figure 5-2: CIP 1 Cost Estimate

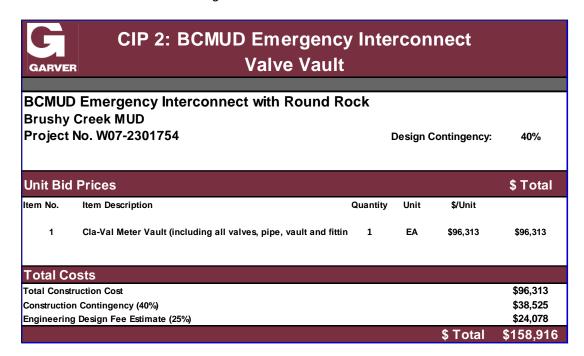


Figure 5-3: CIP 2 Cost Estimate





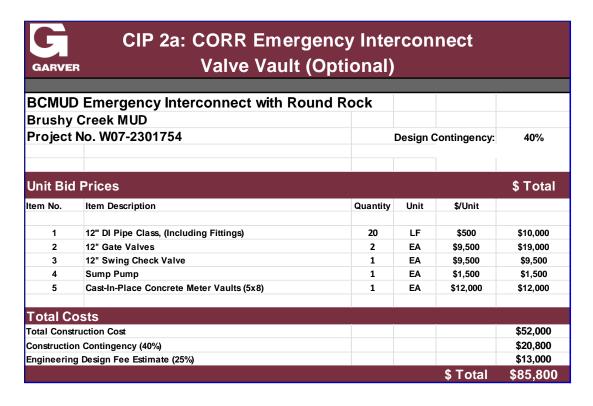


Figure 5-4: CIP 2a Cost Estimate

6.0 Next Steps

Should BCMUD and the CORR pursue the design and construction of the emergency interconnection, the following next steps must take place:

- Develop an agreement between both PWS parties (6-9 months),
- Complete an engineering report and design (6-9 months),
- Submit sealed engineering report, plans, and specifications to the TCEQ for review (3 months),
- Bidding and construction (9-12 months).

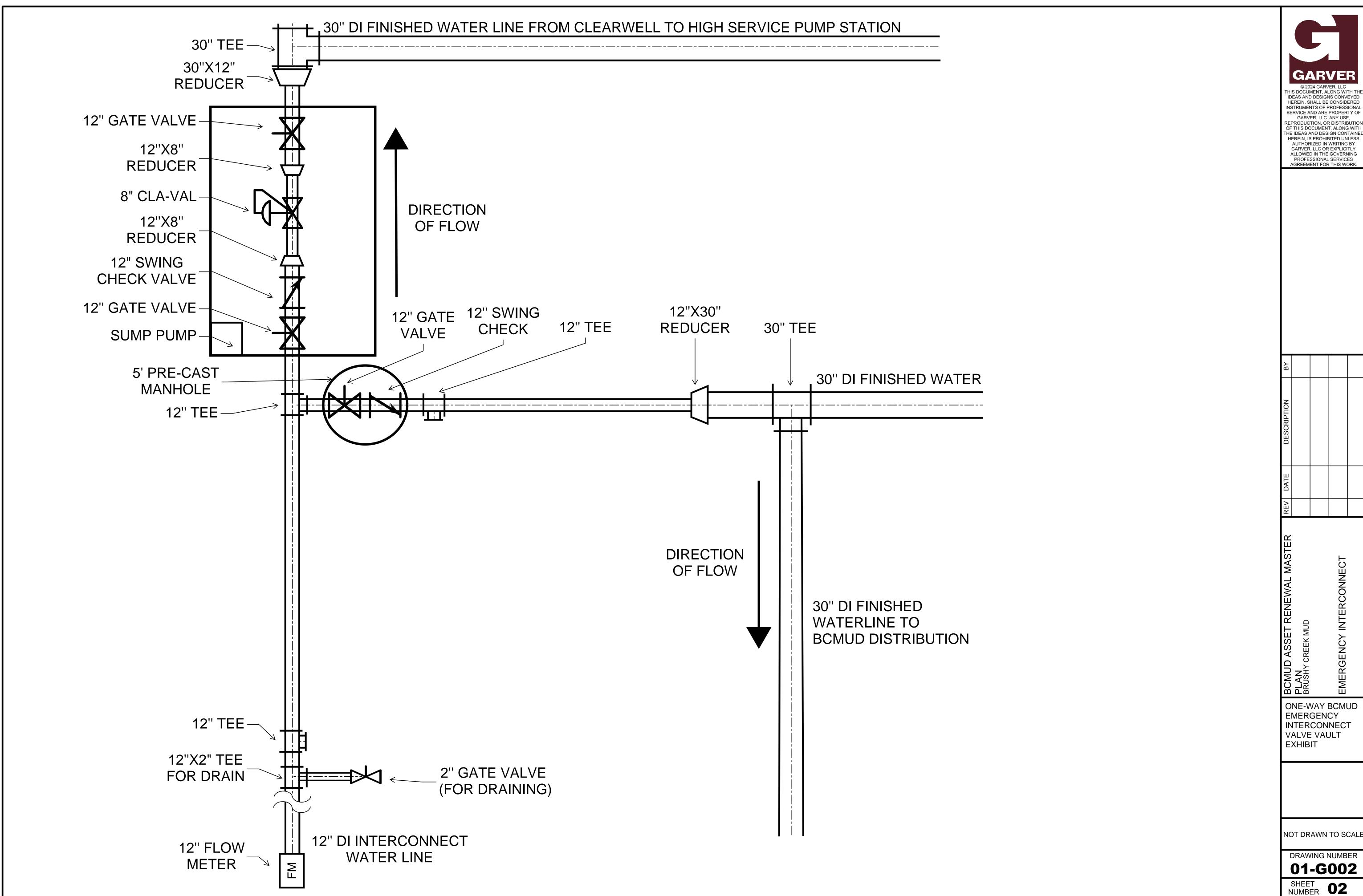
During the design of the interconnect, negotiations with the TCEQ can occur in parallel to expedite completion. TCEQ approval of the interconnect is required before construction is pursued as per §290.39(j)(1)(D).





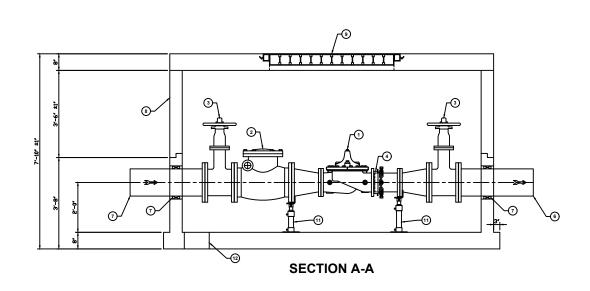
APPENDIX AValve Vault Exhibits



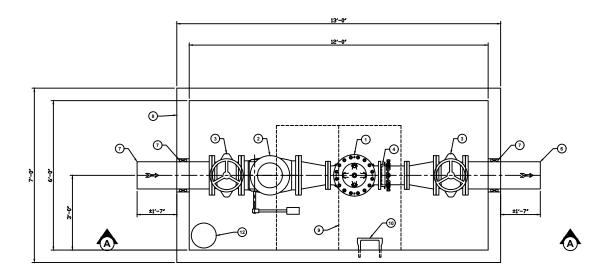


THIS DOCUMENT, ALONG WITH THE
IDEAS AND DESIGNS CONVEYED
HEREIN, SHALL BE CONSIDERED
INSTRUMENTS OF PROFESSIONAL
SERVICE AND ARE PROPERTY OF
GARVER, LLC. ANY USE, REPRODUCTION, OR DISTRIBUTIO

REV	DATE	DESCRIPTION	ВУ



BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
1	1	8" CLA-VAL MODEL 58G-01 PRESSURE SUSTAINING/SOLENOID VALVE
2	1	12" CLA-VAL MODEL 585LW LEVER AND WEIGHT CHECK VALVE
3	2	12" NRS GATE VALVE (OPEN LEFT)
4	1	8" EBAA MEGAFLANGE
5	1	12" DUCTILE IRON PIPE INLET CONNECTION
6	1	12" DUCTILE IRON PIPE OUTLET CONNECTION
7	2	PIPE PENETRATION SEAL
8	1	PRECAST CONCRETE VAULT
9	1	60" X 60" ALUMINUM HATCH (H20 RATED)
10		VAULT STEPS
11	2	PIPE SUPPORTS
12	1	12"Ø DRAIN OPENING



PLAN VIEW

NOTES: FITTINGS ARE DUCTILE IRON IN ACCORDANCE WITH ANSI/AWWA C110/A21.10. FLANGES ARE ANSI CLASS 125, B16.1.

PIPE SPOOLS ARE CL53 DUCTILE IRON WITH FLANGES IN ACCORDANCE WITH ANSI/AWWA C115/A21.15. FLANGES ARE ANSI CLASS 125. B16.1.

INTERIOR COATING MEETS THE REQUIREMENT OF NSF-61 STANDARD.

EXTERIOR COATING TO BE A 2-PART EPOXY.

THE VAULT WILL BE DELIVERED IN THREE (3) SECTIONS. OFF-LOADING AND SETTING OF EACH SECTION BY INSTALLING CONTRACTOR, NOT ESI FAB SYSTEMS. THE HEAVIEST LIFT WILL BE APPROXIMATELY 23,000 POUNDS.

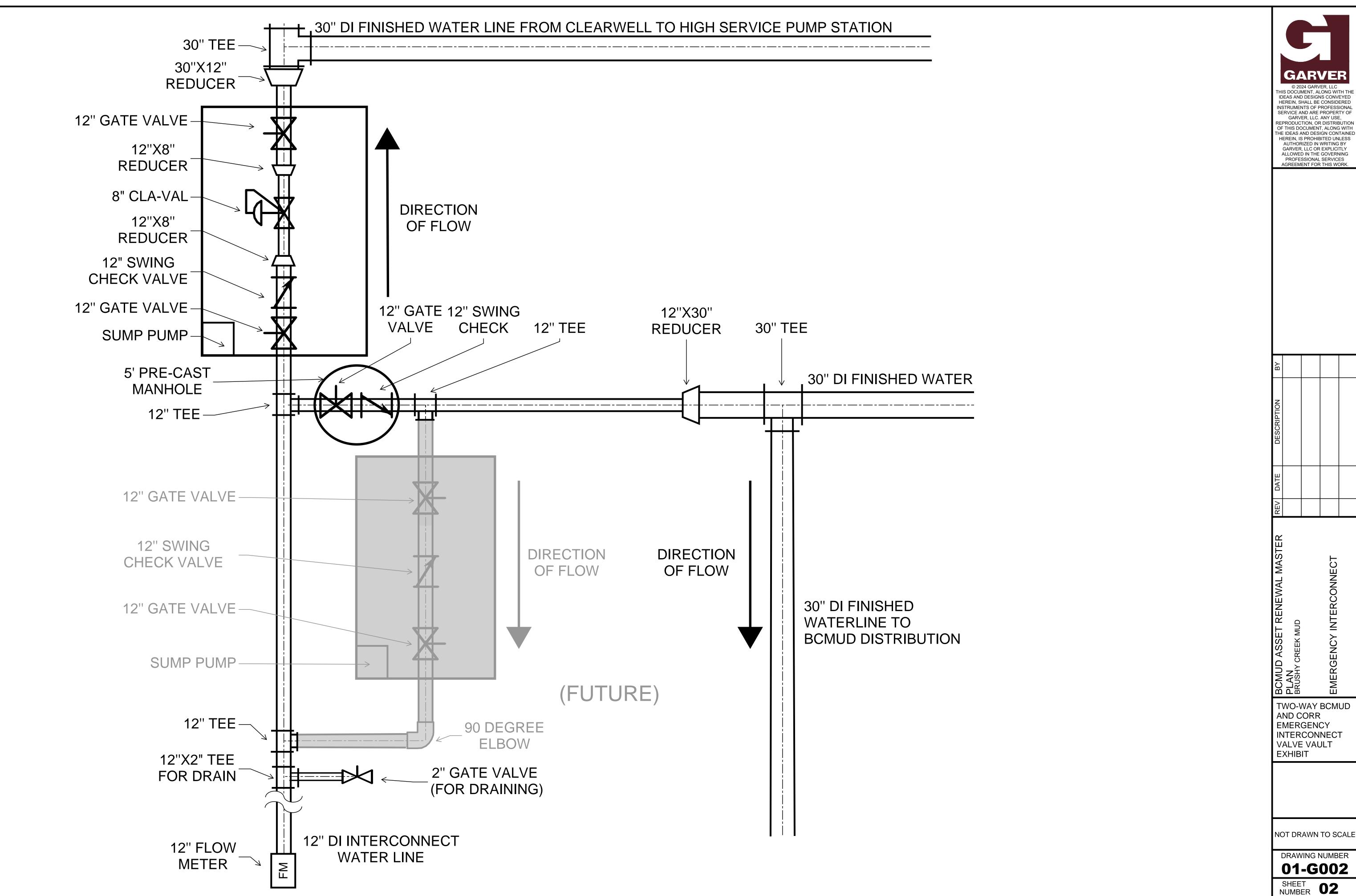
JOINT SEALANT WILL BE SUPPLIED FOR INSTALLATION BY CONTRACTOR BETWEEN THE THREE (3) SECTIONS.



EPS07930 - REV: 0

PROJECT: BCMUD INTERCONNECT

PIPE AND FITTINGS ARE NON-DOMESTIC.



IDEAS AND DESIGNS CONVEYED HEREIN, SHALL BE CONSIDERED INSTRUMENTS OF PROFESSIONAL SERVICE AND ARE PROPERTY OF

NOT DRAWN TO SCALE



APPENDIX B Valve Vault Model E-Sheets





-- MODEL -58-01

Combination Back Pressure & Solenoid Shut-Off Valve



Schematic Diagram

Item	Description
1	100-01 Hytrol Main Valve
2	X42N-3 Strainer & Needle Valve
3	CRL-60 Pressure Relief Control
4	CS3 Solenoid Control
5	100-01 Hytrol (Reverse Flow)

Optional Features

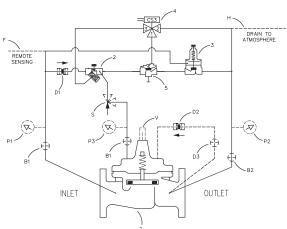
Item	Description
В	Shutoff Isolation Valve
D	Check Valves with Isolation Valve
F	Remote Pilot Sensing
Н	Drain to Atmosphere
Р	X141 Pressure Gauge
S	CV Speed Control (Opening)
V	X101 Valve Position Indicator

- Accurate Pressure Control
- Wide Adjustment Ranges
- Optional Check Feature Available
- · Quick Acting Solenoid Shut-Off
- Easy Installation and Maintenance

The Cla-Val Model 58-01 valve performs two separate functions. It maintains a constant back pressure by discharging excess pressure downstream and when the solenoid is activated the valve closes drip-tight.

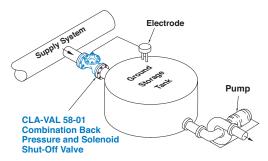
In operation, the valve is actuated by hydraulic line pressure through the pilot control system. When inlet pressure is greater than the control setting, the valve opens. When inlet pressure is equal to the control setting, the pilot modulates the valve, maintaining the preselected back pressure. When inlet pressure is less than the control setting, the pilot system closes the valve drip tight. Changing the pressure setting simply involves turning an adjusting screw on the pilot control.

The solenoid control is available in energize to open or de-energize to open models.



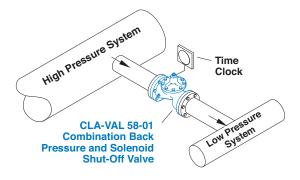
The "D" feature on a vertically installed 6" and larger valve must be horizontally oriented.

Typical Applications



Back Pressure Maintenance Service

A frequent application of this valve is to maintain minimum back pressure in the system while supplying water to a reservoir. The electrode in the storage tank activates the solenoid shutoff feature when the tank reaches a preset level.



Electronic Control Service

Using a timer connected to the solenoid control of the valve, flow from the high pressure system to the low pressure system can be controlled at certain times during the day.

Model 58-01 (Uses 100-01 Hytrol Main Valve)

Pressure Ratings (Recommended Maximum Pressure - psi)

Valve Body &	Cover	Pressure Class									
valve body &	Cover	Fla	anged	Grooved	Threaded						
Grade	Material	ANSI Standards*	150 Class	300 Class	300 Class	End‡ Details					
ASTM A536	Ductile Iron	B16.42	250	400	400	400					
ASTM A216-WCB	Cast Steel	B16.5	285	400	400	400					
UNS 87850	Bronze	B16.24	225	400	400	400					

Note: * ANSI standards are for flange dimensions only. Flanged valves are available faced but not drilled.

‡ End Details machined to ANSI B2.1 specifications.

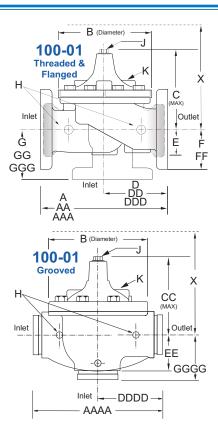
Valves for higher pressure are available; consult factory for details

Materials

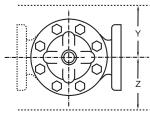
Component	Standa	ard Material Combina	ations
Body & Cover	Ductile Iron	Cast Steel	Bronze
Available Sizes	1" - 36" 25 - 900mm	1" - 16" 25 - 400mm	1" - 16" 25 - 400mm
Disc Retainer & Diaphragm Washer	Cast Iron	Cast Steel	Bronze
Trim: Disc Guide, Seat & Cover Bearing	_	ronze is Standard less Steel is Optic	
Disc		Buna-N® Rubber	
Diaphragm	Nylon F	Reinforced Buna-N® I	Rubber
Stem, Nut & Spring		Stainless Steel	
For material entions not	listed consult for	actory	

For material options not listed, consult factory. Cla-Val manufactures valves in more than 50 different alloys.

Model 58-01 Dimensions (in inches)

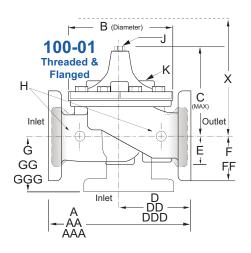


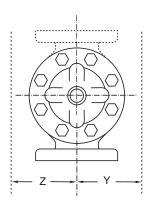




Valve Size (Inches)	1	1 1/4	1 1/2	2	21/2	3	4	6	8	10	12	14	16	18	20	24	30	36
A Threaded	7.25	7.25	7.25	9.38	11.00	12.50	_	_	_	_	_	_	_	_	_	_	_	_
AA 150 ANSI	_	_	8.50	9.38	11.00	12.00	15.00	20.00	25.38	29.75	34.00	39.00	41.38	46.00	52.00	61.50	63.00	72.75
AAA 300 ANSI	_	_	9.00	10.00	11.62	13.25	15.62	21.00	26.38	31.12	35.50	40.50	43.50	47.64	53.62	63.24	64.50	74.75
AAAA Grooved End	_	_	8.50	9.00	11.00	12.50	15.00	20.00	25.38	_	_	_	_	_	_	_	_	_
B Diameter	5.62	5.62	5.62	6.62	8.00	9.12	11.50	15.75	20.00	23.62	28.00	32.75	35.50	41.50	45.00	53.16	56.00	66.00
C Maximum	5.50	5.50	5.50	6.50	7.56	8.19	10.62	13.38	16.00	17.12	20.88	24.19	25.00	39.06	41.90	43.93	54.60	59.00
CC Maximum Grooved End	_	_	4.75	5.75	6.88	7.25	9.31	12.12	14.62	_	_	_	_	_	_	_	_	_
D Threaded	3.25	3.25	3.25	4.75	5.50	6.25	_	_	_	_	_	_	_	_	_	_	_	-
DD 150 ANSI	_	_	4.00	4.75	5.50	6.00	7.50	10.00	12.69	14.88	17.00	19.50	20.81	_	_	30.75	_	_
DDD 300 ANSI	_	_	4.25	5.00	5.88	6.38	7.88	10.50	13.25	15.56	17.75	20.25	21.62	_	_	31.62	_	_
DDDD Grooved End	_	_	_	4.75	_	6.00	7.50	_	_	_	_	_	_	_	_	_	_	_
E	1.12	1.12	1.12	1.50	1.69	2.06	3.19	4.31	5.31	9.25	10.75	12.62	15.50	12.95	15.00	17.75	21.31	24.56
EE Grooved End	_	_	2.00	2.50	2.88	3.12	4.25	6.00	7.56	_	_	_	_	_	_	_	_	_
F 150 ANSI	_	_	2.50	3.00	3.50	3.75	4.50	5.50	6.75	8.00	9.50	10.50	11.75	15.00	16.50	19.25	22.50	28.50
FF 300 ANSI	_	_	3.06	3.25	3.75	4.13	5.00	6.25	7.50	8.75	10.25	11.50	12.75	15.00	16.50	19.25	24.00	30.00
G Threaded	1.88	1.88	1.88	3.25	4.00	4.50	_	_	_	_	_	_	_	_	_	_	_	_
GG 150 ANSI	_	_	4.00	3.25	4.00	4.00	5.00	6.00	8.00	8.62	13.75	14.88	15.69	_	_	22.06	_	_
GGG 300 ANSI	_	_	4.25	3.50	4.31	4.38	5.31	6.50	8.50	9.31	14.50	15.62	16.50	_	_	22.90	_	_
GGGG Grooved End	_	_	_	3.25	_	4.25	5.00	_	_	_	_	_	_	_	_	_	_	_
H NPT Body Tapping	0.375	0.375	0.375	0.375	0.50	0.50	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
J NPT Cover Center Plug	0.25	0.25	0.25	0.50	0.50	0.50	0.75	0.75	1.00	1.00	1.25	1.50	2.00	1.00	1.00	1.00	2.00	2.00
K NPT Cover Tapping	0.375	0.375	0.375	0.375	0.50	0.50	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Stem Travel	0.40	0.40	0.40	0.60	0.70	0.80	1.10	1.70	2.30	2.80	3.40	4.00	4.50	5.10	5.63	6.75	7.50	8.50
Approx. Ship Weight (lbs)	15	15	15	35	50	70	140	285	500	780	1165	1600	2265	2982	3900	6200	7703	11720
Approx. X Pilot System	11	11	11	13	14	15	17	29	31	33	36	40	40	43	47	68	79	85
Approx. Y Pilot System	9	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	40	45
Approx. Z Pilot System	9	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	42	47

Model 58-01 Metric Dimensions (Uses 100-01 Hytrol Main Valve)

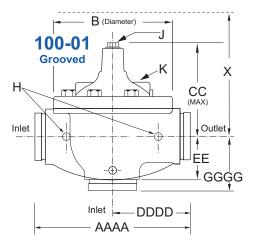






Model 100-01 Full Port Hytrol Main Valve





Model 58-01 Dimensions (in mm)

Valve Size (mm)	25	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	750	900
A Threaded	184	184	184	238	279	318	_	_	_	_	_	_	_	_	_	_	_	_
AA 150 ANSI	_	_	216	238	279	305	381	508	645	756	864	991	1051	1168	1321	1562	1600	1848
AAA 300 ANSI	<u> </u>	_	229	254	295	337	397	533	670	790	902	1029	1105	1210	1326	1606	1638	1899
AAAA Grooved End	_	_	216	228	279	318	381	508	645	_	_	_	_	_	_	_	_	_
B Diameter	143	143	143	168	203	232	292	400	508	600	711	832	902	1054	1143	1350	1422	1676
C Maximum	140	140	140	165	192	208	270	340	406	435	530	614	635	992	1064	1116	1387	1499
CC Maximum Grooved End	_	_	120	146	175	184	236	308	371	_	_	_	_	_	_	_	_	_
D Threaded	83	83	83	121	140	159	_	_	_	_	_	_	_	_	_	_	_	_
DD 150 ANSI	_	_	102	121	140	152	191	254	322	378	432	495	528	_	_	781	_	_
DDD 300 ANSI	_	_	108	127	149	162	200	267	337	395	451	514	549	_	_	803	_	_
DDDD Grooved End	_	_	_	121	_	152	191	_	_	_	_	_	_	_	_	_	_	_
E	29	29	29	38	43	52	81	110	135	235	273	321	394	329	381	451	541	624
EE Grooved End	-	_	52	64	73	79	108	152	192	_	_	_	_	_	_	_	_	_
F 150 ANSI	_	_	64	76	89	95	114	140	171	203	241	267	298	381	419	489	572	724
FF 300 ANSI	_	_	78	83	95	105	127	159	191	222	260	292	324	381	419	489	610	762
G Threaded	48	48	48	83	102	114	_	_	_	_	_	_	_	_	_	_	_	_
GG 150 ANSI	_	_	102	83	102	102	127	152	203	219	349	378	399	_	_	560	_	_
GGG 300 ANSI	_	_	102	89	110	111	135	165	216	236	368	397	419	_	_	582	_	_
GGGG Grooved End	_	_	_	83	_	108	127	_	_	_	_	_	_	_	_	_	_	_
H NPT Body Tapping	0.375	0.375	0.375	0.375	0.50	0.50	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
J NPT Cover Center Plug	0.25	0.25	0.25	0.50	0.50	0.50	0.75	0.75	1.00	1.00	1.25	1.50	2.00	1.00	1.00	1.00	2.00	2.00
K NPT Cover Tapping	0.375	0.375	0.375	0.375	0.50	0.50	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Stem Travel	10	10	10	15	18	20	28	43	58	71	86	102	114	130	143	171	190	216
Approx. Ship Weight (kgs)	7	7	7	16	23	32	64	129	227	354	528	726	1027	1353	1769	2812	3494	5316
Approx. X Pilot System	280	280	280	331	356	381	432	737	788	839	915	1016	1016	1093	1194	1728	2007	2159
Approx. Y Pilot System	229	229	229	229	254	280	305	508	559	610	661	737	762	813	864	991	1016	1143
Approx. Z Pilot System	229	229	229	229	254	280	305	508	559	610	661	737	762	813	864	991	1067	1194

		100-01 Pattern: Globe (G), Angle (A), End Connections: Threaded (T), Grooved (GR), Flanged (F) Indicate Available Sizes																	
58-01 Valve Selection	Inches	1	11/4	1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	30	36
	mm	25	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	750	900
Main Valve	Pattern	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G	G	G, A	G	G
100-01	End Detail	Т	Т	T, F, Gr*	T, F, Gr	T, F, Gr*	T, F, Gr	F, Gr	F, Gr*	F, Gr*	F	F	F	F	F	F	F	F	F
Suggested Flow	Maximum	55	93	125	210	300	460	800	1800	3100	4900	7000	8400	11000	14000	17000	25000	42000	50000
(gpm)	Maximum Surge	120	210	280	470	670	1000	1800	4000	7000	11000	16000	19000	25000	31000	39000	56500	63000	85000
Suggested	Maximum	3.5	6	8	13	19	29	50	113	195	309	442	530	694	883	1073	1577	2650	3150
(Litera/Occ)	Maximum Surge	7.6	13	18	30	42	63	113	252	441	693	1008	1197	1577	1956	2461	3560	3975	5360

100-01 Series is the full internal port Hytrol.

*Globe Grooved Only

Notes:

- For sizes 18 through 36-inches / 450mm though 900 mm, use 50-66 E-Sheet
- · Many factors should be considered in sizing pressure reducing valves including inlet pressure, outlet pressure and flow rates.
- · For sizing questions or cavitation analysis, consult Cla-Val with system details.

Pilot System Specifications



Adjustment Ranges

0 to 75 psi Max. 20 to 105 psi 20 to 200 psi * 100 to 300 psi

*Supplied unless otherwise specified. Other ranges are available, please consult factory.

Temperature Range

Water: to 180°F (82°C)

Materials

Standard Pilot System Materials

Pilot Control: Low Lead Bronze

Trim: Stainless Steel Type 303
Rubber: Buna-N® Synthetic Rubber

Tubing & Fittings: Copper and Bronze



CRL-60 Pilot Control

CS3 Solenoid Control

Optional Pilot System Materials

Pilot Systems are available with optional Aluminum, Stainless Steel or Monel materials.

Electrical Ratings:

Voltage:

 $24,\,48,\,120,\,240,\,480-60\;Hz.\;VAC$

6, 12, 24, 120, 240 VDC

When Ordering, Specify:

- 1. Catalog No. 58-01
- 2. Valve Size
- 3. Pattern Globe or Angle
- 4. Pressure Class
- 5. Threaded or Flanged
- 6. Trim Material
- 7. Energized or De-energized to Open Main Valve
- 8. Adjustment Range
- 9. Desired Options
- 10. Electrical Selection
- 11. When Vertically Installed

Main Valve Options

EPDM Rubber Parts

Optional diaphragm, disc and o-ring fabricated with EPDM synthetic rubber

Viton® Rubber Parts - suffix KB

Optional diaphragm, disc and o-ring fabricated with Viton® synthetic rubber

Epoxy Coating - suffix KC

NSF/ANSI 61 Fusion Bonded Epoxy

Dura-Kleen® Stem - suffix KD

Fluted design prevents dissolved minerals build-up on the stem

LFS Trim

Designed to regulate precisely and smoothly at typical flow rates as well as lower than the industry standard of 1 fps, without decreasing the valve's capacity



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Series 585

Swing Check Valve



Pressure Ratings (Ambient Temperature)

For Valve Sizes 2 through 42-inches: 250 psi CWP For Valve Sizes 20 through 1100mm: 1724 kPA CWP

- Full Pipe Size Flow Area Unrestricted flow
- Heavy Duty Disc Connections
- Non-Clog Design
- Fusion Bonded Epoxy Coating NSF-61
- Designed, Manufactured and Tested in Accordance with ANSI/AWWA C508 Standard
- Resilient Seat Drip Tight Seating
- Three field adjustable closure options:
 - Lever and Weight (LW)
 - · Air Cushion (AC)
 - Lever and Spring (LS)

The Cla-Val 585 Swing Check Valve is designed for long service life and maintenance free operation. It has a full-flow area body and is equipped with a disc arm with dual precision pins for optimum disc connection and protection against damage due to vibration. The body is fitted with a raised 300 Series Stainless Steel seat as well as a resilient seat to help ensure drip tight seating, even in applications with high solids. The seats are replaceable in the field without removing the valve from the pipeline.

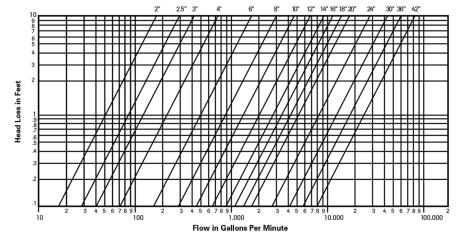
The valve is constructed of Ductile Iron to provide greater durability and protection in applications with high stresses and shock loads. The body and cover are fusion bonded NSF-61 epoxy coated in accordance with AWWA C550 for long service life in potable and non-potable systems.

During system flowing conditions the disc swings up to the open position allowing unrestricted flow through the valve. When system reverse flow conditions occur, the disc swings down to the closed position, preventing reverse flow.

Material Specifications

Component	Standard
Body and Cover 2-24" C508-09 Compliant	Ductile Iron ASTM A536 GR 65-45-12
Body and Cover 30-42"	Ductile Iron ASTM A536 GR 65-45-12
Disc and Disc Arm	Ductile Iron ASTM A536 GR 65-45-12
Shaft	304 Stainless Steel
Seat	316 Stainless Steel
Disc Seat	NBR

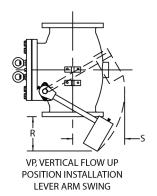
Head Loss Characteristics for Swing Check Valves



585LW Lever and Weight Check Valve

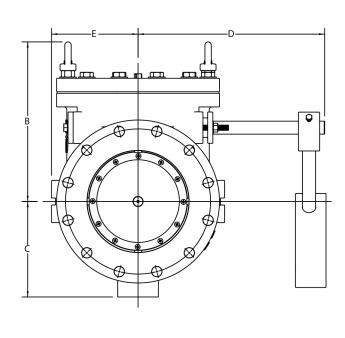
Valve Size	Α	В	С	D	E	F	н	Q	R	s
<u>2"</u>	8.00	<u>9.25</u>	<u>3.50</u>	<u>10.92</u>	<u>4.12</u>	6.00	0.63	<u>10.00</u>	<u>6.00</u>	9.38
50mm	203	235	89	277	105	152	16	254	152	238
2.5"	<u>8.50</u>	9.72	<u>3.50</u>	<u>10.92</u>	<u>4.12</u>	<u>7.00</u>	0.88	9.88	<u>6.13</u>	9.38
65mm	216	247	89	277	105	178	22	251	156	238
3"	9.50	10.00	<u>4.50</u>	<u>11.00</u>	4.00	<u>7.50</u>	<u>0.75</u>	<u>10.13</u>	<u>5.50</u>	9.25
80mm	241	254	114	279	102	191	19	257	140	235
<u>4"</u> 100mm	<u>11.50</u> 292	<u>10.75</u> 273	<u>5.00</u> 127	<u>11.75</u> 299	<u>5.00</u> 127	9.00 229	<u>0.94</u> 24	<u>10.75</u> 273	<u>4.88</u> 124	<u>8.75</u> 222
6"	14.00	11.75	5.75	13.50	6.50	11.00	1.00	11.63	4.63	7.88
150mm	356	299	146	343	165	279	25	295	118	200
<u>8"</u> 200mm	<u>19.50</u> 495	<u>13.75</u> 349	<u>7.25</u> 184	<u>17.00</u> 432	<u>7.50</u> 191	13.50 343	1.13 29	<u>15.50</u> 394	<u>5.88</u> 149	10.38 264
10"	24.50	15.00	9.38	16.25	9.00	16.00	1.19	18.38	9.00	13.63
250mm	622	381	238	413	229	406	30	467	229	346
12"	27.50	19.00	11.00	18.25	11.00	19.00	1.25	21.13	9.00	14.25
300mm	699	483	279	464	279	483	32	537	229	362
<u>14"</u>	31.00	22.50	<u>13.50</u>	26.00	14.00	21.00	<u>1.38</u>	25.88	<u>11.75</u>	<u>18.75</u>
350mm	787	572	343	660	356	533	35	657	299	476
<u>16"</u>	36.00	<u>24.50</u>	<u>14.25</u>	<u>29.50</u>	<u>15.00</u>	<u>23.50</u>	<u>1.44</u>	<u>32.00</u>	<u>7.25</u>	<u>15.88</u>
400mm	914	622	362	749	381	597	37	813	184	403
<u>18"</u>	40.00	<u>26.50</u>	<u>17.38</u>	<u>31.00</u>	<u>18.63</u>	<u>25.00</u>	<u>1.56</u>	<u>36.00</u>	9.25	21.25
450mm	1016	673	441	787	473	635	40	914	235	540
<u>20"</u> 500mm	<u>40.00</u> 1016	28.75 730	<u>17.63</u> 448	<u>32.38</u> 822	<u>18.63</u> 473	<u>27.50</u> 699	<u>1.69</u> 43	<u>41.00</u> 1041	-	_
24"	48.00	32.50	20.13	34.00	21.00	32.00	<u>1.88</u>	38.00	8.75	19.25
600mm	1219	826	511	864	533	813	48	965	222	489
<u>30"</u>	<u>56.00</u>	44.13	<u>29.75</u>	<u>39.00</u>	24.00	<u>38.75</u>	2.13	<u>53.13</u>	<u>15.50</u>	24.00
750mm	1422	1121	756	991	610	984	54	1349	394	610
<u>36"</u> 900mm	63.00 1600	<u>50.50</u> 1283	<u>33.50</u> 851	<u>42.00</u> 1067	27.00 686	<u>46.00</u> 1168	<u>2.38</u> 60	<u>57.50</u> 1461	<u>15.00</u> 381	21.00 533
<u>42"</u> 1100mm										

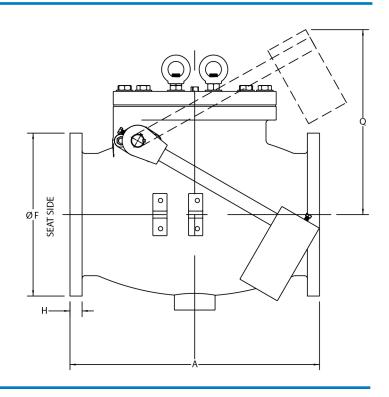




<u>Inches</u> Millimeters

> Series 585 Swing Check Valves meet the Federal Mandate for Lead Content Limits





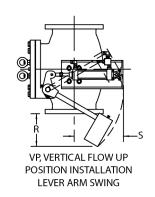
585AC Air Cushioned Check Valve

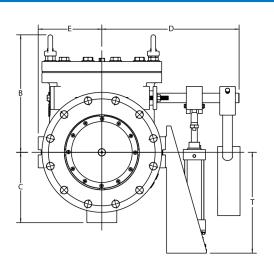
Valve Size	Α	В	С	D	E	F	Н	Q	R	s	т
<u>2"</u>	8.00	9.25	3.50	10.92	3.83	6.00	<u>0.63</u>	10.00	6.00	9.38	11.25
50mm	203	235	89	277	97	152	16	254	152	238	286
2.5"	8.50	9.72	3.50	10.92	3.83	7.00	<u>0.88</u>	9.88	6.13	9.38	11.13
65mm	216	247	89	277	97	178	22	251	156	238	283
<u>3"</u>	9.50	10.00	<u>4.50</u>	11.00	4.00	7.50	<u>0.75</u>	10.13	<u>5.50</u>	9.25	12.00
80mm	241	254	114	279	102	191	19	257	140	235	305
<u>4"</u>	11.50	10.75	<u>5.00</u>	11.75	5.00	9.00	0.94	10.75	4.88	8.75	10.88
100mm	292	273	127	299	127	229	24	273	124	222	276
<u>6"</u>	14.00	11.75	5.75	13.50	6.50	11.00	1.00	11.63	4.63	7.88	10.88
150mm	356	299	146	343	165	279	25	295	118	200	276
<u>8"</u>	19.50	13.75	7.25	17.00	7.50	13.50	1.13	15.50	5.88	10.38	13.50
200mm	495	349	184	432	191	343	29	394	149	264	343
<u>10"</u>	24.50	<u>15.00</u>	9.38	16.25	9.00	16.00	1.19	18.38	9.00	13.63	13.50
250mm	622	381	238	413	229	406	30	467	229	346	343
<u>12"</u>	27.50	<u>19.00</u>	11.00	18.25	11.00	<u>19.00</u>	<u>1.25</u>	<u>21.13</u>	9.00	14.25	13.50
300mm	699	483	279	464	279	483	32	537	229	362	343
<u>14"</u>	31.00	<u>22.50</u>	<u>13.50</u>	26.00	14.00	21.00	<u>1.38</u>	<u>25.88</u>	<u>11.75</u>	<u>18.75</u>	13.50
350mm	787	572	343	660	356	533	35	657	299	476	343
<u>16"</u>	<u>36.00</u>	<u>24.50</u>	<u>14.25</u>	<u>29.50</u>	<u>15.00</u>	<u>23.50</u>	<u>1.44</u>	32.00	7.25	15.88	14.50
400mm	914	622	362	749	381	597	37	813	184	403	368
<u>18"</u>	40.00	<u>26.50</u>	<u>17.38</u>	31.00	18.63	25.00	<u>1.56</u>	<u>36.00</u>	9.25	21.25	13.00
450mm	1016	673	441	787	473	635	40	914	235	540	330
<u>20"</u> 500mm	40.00 1016	28.75 730	<u>17.63</u> 448	32.38 822	18.63 473	27.50 699	1.69 43	41.00 1041	_	_	14.50 368
<u>24"</u>	48.00	32.50	<u>20.13</u>	34.00	21.00	32.00	<u>1.88</u>	38.00	8.75	<u>19.25</u>	<u>11.75</u>
600mm	1219	826	511	864	533	813	48	965	222	489	299
<u>30"</u>	<u>56.00</u>	<u>44.13</u>	<u>29.75</u>	<u>39.00</u>	<u>24.00</u>	38.75	<u>2.13</u>	<u>53.13</u>	<u>15.50</u>	<u>24.00</u>	<u>17.25</u>
750mm	1422	1121	756	991	610	984	54	1349	394	610	438
<u>36"</u>	63.00	<u>50.50</u>	33.50	<u>42.00</u>	27.00	46.00	<u>2.38</u>	<u>57.50</u>	<u>15.00</u>	21.00	13.00
900mm	1600	1283	851	1067	686	1168	60	1461	381	533	330
<u>42"</u> 1100mm											

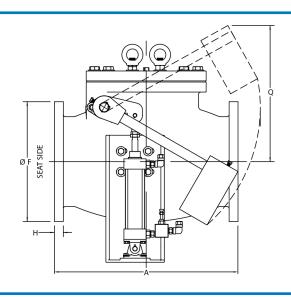
Valve	Weight
Size	lbs/kg
3"	110
80mm	50
4"	145
100mm	66
6"	205
150mm	93
8"	330
200mm	150
10"	500
250mm	227
12"	800
300mm	363
14"	1260
350mm	672
16"	1600
400mm	726
18"	2100
450mm	963
20"	2500
500mm	1134
24"	3700
600mm	1678
30"	6000
750mm	2722
36"	9100
900mm	4128
42"	Consult
1100mm	Factory

<u>Inches</u> Millimeters



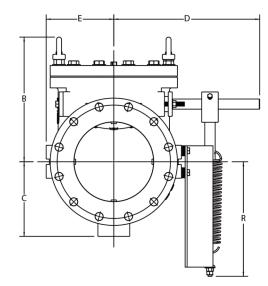


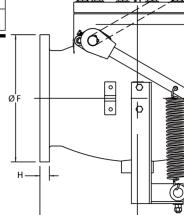




585LS Lever and Spring Check Valve

Valve Size	A	В	С	D	E	F	Н	Q	R
<u>2"</u>	<u>8.00</u>	9.25	<u>3.50</u>	<u>10.92</u>	<u>3.83</u>	<u>6.00</u>	<u>0.63</u>	9.25	<u>9.83</u>
50mm	203	235	89	277	97	152	16	235	250
<u>2.5"</u>	<u>8.50</u>	<u>9.72</u>	<u>3.50</u>	<u>10.92</u>	<u>3.83</u>	<u>7.00</u>	<u>0.88</u>	9.25	<u>9.83</u>
65mm	216	247	89	277	97	178	22	235	250
<u>3"</u>	<u>9.50</u>	<u>10.00</u>	<u>4.50</u>	<u>11.00</u>	<u>4.00</u>	<u>7.00</u>	<u>0.75</u>	9.39	<u>10.64</u>
80mm	241	254	114	279	102	178	19	239	270
<u>4"</u>	<u>11.50</u>	<u>10.75</u>	<u>5.00</u>	<u>11.75</u>	<u>5.00</u>	<u>9.00</u>	<u>0.94</u>	10.00	<u>9.50</u>
100mm	292	273	127	299	127	229	24	254	241
<u>6"</u>	<u>14.00</u>	<u>11.75</u>	<u>5.75</u>	<u>13.50</u>	<u>6.50</u>	<u>11.00</u>	<u>1.00</u>	10.90	<u>9.50</u>
150mm	356	299	146	343	165	279	25	277	241
<u>8"</u>	<u>19.50</u>	<u>13.75</u>	<u>7.25</u>	<u>17.00</u>	<u>7.50</u>	<u>13.50</u>	<u>1.13</u>	<u>14.84</u>	<u>6.50</u>
200mm	495	349	184	432	191	343	29	377	165
<u>10"</u>	<u>24.50</u>	<u>15.00</u>	9.38	<u>16.25</u>	<u>9.00</u>	<u>16.00</u>	<u>1.19</u>	<u>17.63</u>	<u>13.24</u>
250mm	622	381	238	413	229	406	30	448	336
<u>12"</u>	<u>27.50</u>	<u>19.00</u>	<u>11.00</u>	<u>18.25</u>	<u>11.00</u>	<u>19.00</u>	<u>1.25</u>	<u>20.40</u>	<u>13.25</u>
300mm	699	483	279	464	279	483	32	518	336
<u>14"</u>	<u>31.00</u>	<u>22.50</u>	<u>13.50</u>	<u>26.00</u>	<u>14.00</u>	<u>21.00</u>	<u>1.38</u>	<u>25.22</u>	<u>18.75</u>
350mm	787	572	343	660	356	533	35	641	476
<u>16"</u>	<u>36.00</u>	<u>24.50</u>	<u>14.25</u>	<u>29.50</u>	<u>15.00</u>	<u>23.50</u>	<u>1.44</u>	32.00	<u>15.50</u>
400mm	914	622	362	749	381	597	37	813	394
<u>18"</u>	<u>40.00</u>	<u>26.50</u>	<u>17.38</u>	<u>31.00</u>	<u>18.63</u>	<u>25.00</u>	<u>1.56</u>	<u>36.00</u>	<u>19.45</u>
450mm	1016	673	441	787	473	635	40	914	494
<u>20"</u>	<u>40.00</u>	<u>28.75</u>	<u>17.63</u>	32.38	<u>18.63</u>	<u>27.50</u>	<u>1.69</u>	41.00	<u>14.50</u>
500mm	1016	730	448	822	473	699	43	1041	368
<u>24"</u>	<u>48.00</u>	<u>32.50</u>	<u>20.13</u>	34.00	<u>21.00</u>	<u>32.00</u>	<u>1.88</u>	38.00	<u>20.83</u>
600mm	1219	826	511	864	533	813	48	965	529
<u>30"</u>	<u>56.00</u>	<u>44.13</u>	<u>29.75</u>	<u>39.00</u>	<u>24.00</u>	<u>38.75</u>	<u>2.13</u>	<u>53.13</u>	<u>17.71</u>
750mm	1422	1121	756	991	610	984	54	1349	450
<u>36"</u>	<u>63.00</u>	<u>50.50</u>	<u>33.50</u>	<u>42.00</u>	<u>27.00</u>	<u>46.00</u>	<u>2.38</u>	<u>57.50</u>	<u>13.45</u>
900mm	1600	1283	851	1067	686	1168	60	1461	342
<u>42"</u> 1100mm									





<u>Inches</u> Millimeters



Cla-Val 585 Series Swing Check Valve Specifications

The check valve shall be of the Swing Check Valve full body flanged type, with a domed access cover and only one moving part - the swing check valve disc.

The valve body shall have full flow equal to nominal pipe diameter at any point through the valve. The top access port of the body shall be full size, allowing removal of the disc without removal of the valve from the pipeline. The cover shall be domed to create a flushing action around the disc when valve is open. The valve body and cover shall be ASTM A536 Grade 65-45-12, Class B Ductile Iron coated and lined with an ANSI/NSF61 approved fusion bonded epoxy coating. The 585 Series Swing Check shall be designed, manufactured, and tested in accordance with ANSI/AWWA Standard C508-09.

The disc shall be raised one-piece Stainless Steel construction and equipped with a molded resilient seat mounted on the disc with an integral)-Ring for drip tight sealing. Both seats shall be secured with stainless steel fasteners and must be field replaceable without removing the valve from the pipeline.

The valve shall be available with a choice of three closure options:

1) Lever and Weight

2) Air Cushion

3) Lever and Spring

This valve shall be a Cla-Val 585 Swing Check Valve as supplied by Cla-Val, Newport Beach, CA 92659-0325.



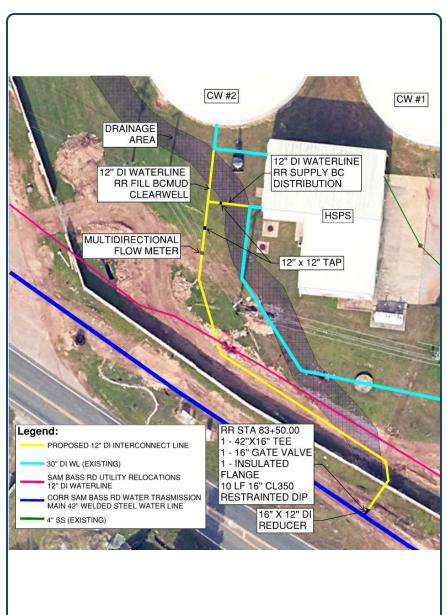


APPENDIX C CIP Exhibits





CIP 1: Emergency Interconnect Yard Piping



Lay the Yard Piping Necessary For the Interconnect

Justification

The yard piping required to serve BCMUD water from the CORR will be layed in the ground.

Special Considerations

This project is in the 5-year CIP list because BCMUD would like to prioritize putting emergency backups in place to enhance the safety of their system.

Potential Alternatives

The tap location on the CORR 42" Transmission main might be moved to optimize the length of yard piping and overall yard piping quantity and cost.

PROJECT IMPLEMENTATION

Engineering/Design

+

Bid/Construction

3

Months

6

Months

Total Project Duration

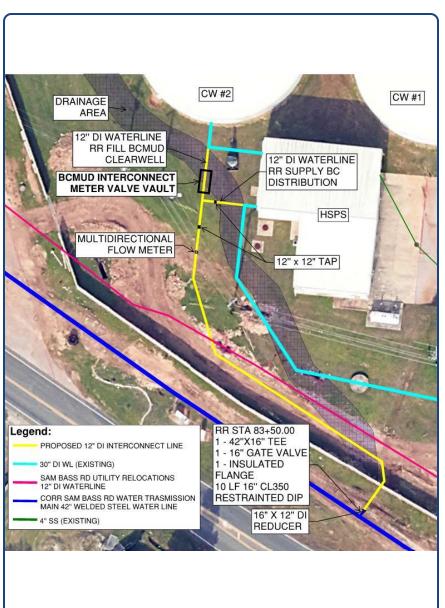
9 Months

	CIP 1: Emergency Interconnect Yard Piping					
Item No.	Item Description		Quantit y	\$/Unit	Total	
1	12" DI Pipe (Including Fittings)	LF	255	\$500.00	\$127,500.00	
2	2 12" Gate Valve		1	\$9,500.00	\$9,500.00	
3	12" Flow Meter (Two-Way)	EA	1	\$15,000.00	\$15,000.00	
4	12" Swing Check Valve	EA	1	\$9,500.00	\$9,500.00	
5	52" Gate Valve		1	\$4,000.00	\$4,000.00	
6	6 Connection to Existing 30"		2	\$15,000.00	\$30,000.00	
7	7 5' Pre-Cast Manhole			\$12,000.00	\$12,000.00	
Subtotal \$207,500.					\$207,500.00	
	Contingency (40%)					
	Design (25%)					
OPCC					\$342,375.00	





CIP 2: BCMUD Emergency Interconnect Valve Vault



Install the BCMUD Valve Vault

Justification

Once the yard piping is installed, the valve vault can be installed.

Special Considerations

This project is in the 5-year CIP list because BCMUD would like to prioritize putting emergency backups in place to enhance the safety of their system.

Potential Alternatives N/A

PROJECT IMPLEMENTATION Engineering/Design H Bid/Construction A Months Months

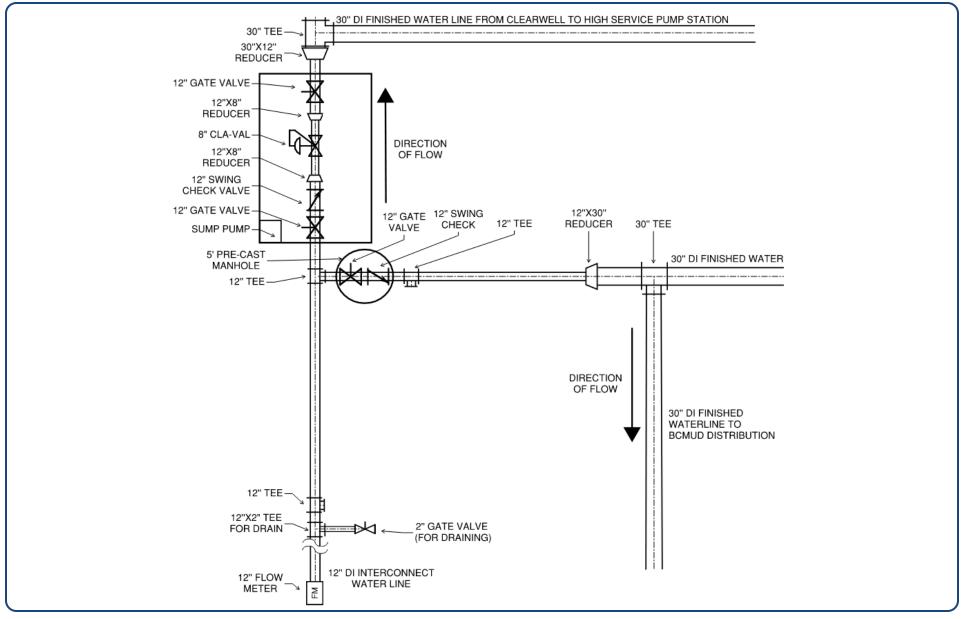
	Months
Total Project Duration	9 Months

CIP 2: BCMUD Valve Vault						
Item No.	Item Description Unit \$/Unit Tota					
1	1 Cla-Val Meter Vault			\$96,313.00	\$96,313.00	
	Subtotal \$96,3					
	Contingency (40%) \$38,525.20				\$38,525.20	
	Design (25%)				\$24,078.25	
OPCC				\$158,916.45		





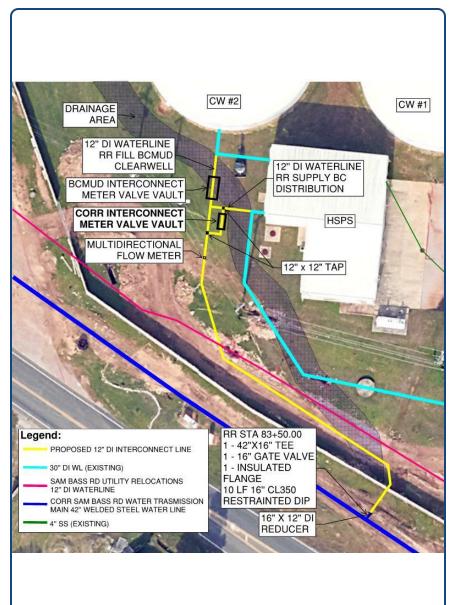
CIP 2: BCMUD Emergency Interconnect Valve Vault (Continued)







CIP 2a: CORR Emergency Interconnect Valve Vault (Optional)



Install the CORR Valve Vault

Justification

Once CIP 1 has been completed, the CORR can install additional yard piping and a valve vault to receive water from BCMUD.

Special Considerations

This project is in the 5-year CIP list because BCMUD would like to prioritize putting emergency backups in place to enhance the safety of their system.

Potential Alternatives N/A

PROJECT IMPLEMENTATION

Engineering/Design 3
Months

Bid/Construction

6 Months

Total Project Duration

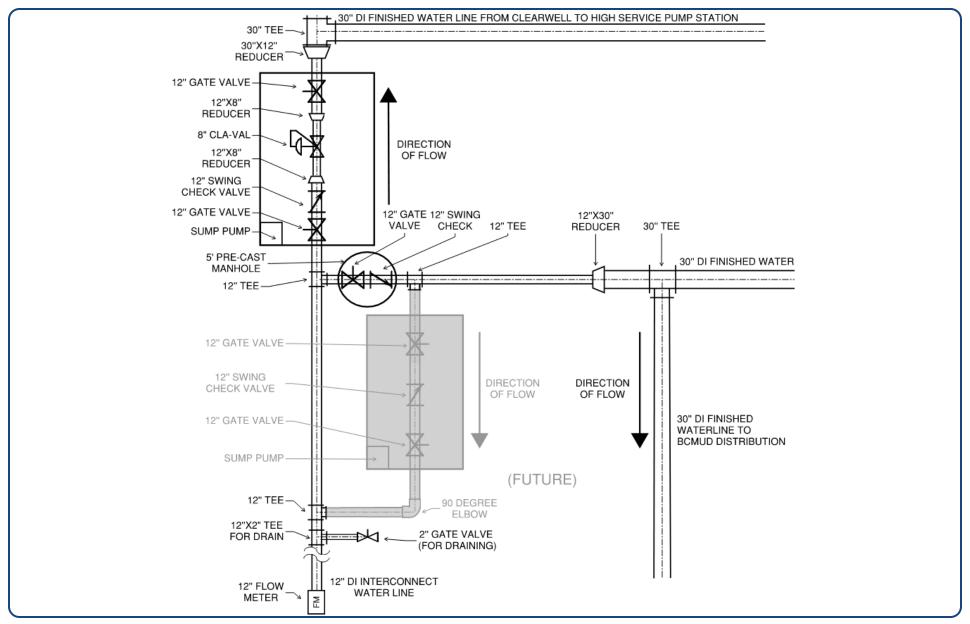
9 Months

	CIP 2a: CORR Yard Piping & Valve Vault				
Item No.	Item Description	Unit Quantit y		\$/Unit	Total
1	12" DI Pipe (Including Fittings)	LF	20	\$500.00	\$10,000.00
2	12" Gate Valve	EA	2	\$9,500.00	\$19,000.00
3	12" Swing Check Valve	EA	1	\$9,500.00	\$9,500.00
4	Sump Pump	EA	1	\$1,500.00	\$1,500.00
5	Meter Vault (5'x8')	EA	1	\$12,000.00	\$12,000.00
	Subtotal				
	Contingency (40%)				
	Design (25%)				\$13,000.00
				OPCC	\$85,800.00





CIP 2a: CORR Emergency Interconnect Valve Vault (Optional) (Continued)







GarverUSA.com

EXHIBIT "B"

FORM OF EMERGENCY SUPPLY AGREEMENT

INTERLOCAL AGREEMENT FOR EMERGENCY WATER SUPPLY BETWEEN THE CITY OF ROUND ROCK AND BRUSHY CREEK MUNICIPAL UTILITY DISTRICT

THE STATE OF TEXAS	1
	1
COUNTY OF WILLIAMSON	
This Interlocal Agreement for I	Emergency Water Supply (hereinafter, "Agreement") is entered into
as of this day of	, 2025, by and between the City of Round Rock ,
a home rule municipality, hereinafter r	eferred to as "Round Rock," and Brushy Creek Municipal Utility
District, a Texas conservation and rec	lamation district, hereinafter referred to as "Brushy Creek MUD".
Round Rock and Brushy Creek MUD a	are sometimes referred to individually as a "Party" and collectively
as the "Parties".	

Recitals

- 1. Round Rock and Brushy Creek MUD each own and operate water utility systems providing water service to customers in Williamson County.
- 2. Round Rock and Brushy Creek MUD recognize that having an interconnect between their two water systems provides important benefits to both Parties including redundancy and the availability of potable water during emergency circumstances.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual promises and undertakings set forth below, Round Rock and Brushy Creek MUD hereby contract and agree as follows:

ARTICLE I. Definitions

- **1.1** "Agreement" means this Interlocal Agreement For Emergency Water Supply Between the City of Round Rock And Brushy Creek Municipal Utility District.
- **1.2** "Emergency": an Act of God or similar unforeseen and unpreventable catastrophic circumstance or disaster that significantly affects either Party's ability to provide potable water to its customers. The term shall not include drought conditions, service interruptions for scheduled maintenance, lapse of raw water supply contracts or other legal impediments, over-commitment of supply, or replacement or construction of facilities or similar events that are preventable by the exercise of due diligence, foresight, and planning.
- **1.3** *"Emergency Water Service"*: potable water service to be provided by one Party to the other Party for a temporary period only in the event of and for the duration of an Emergency pursuant to the terms and conditions of this Agreement.
- **1.4** "WTP Interconnect ILA": Interlocal Agreement Regarding Funding, Construction and Operation of Emergency Interconnect Improvements (Round Rock Emergency Water Interconnection at BCMUD Water Treatment Plant), to be approved concurrently with this Agreement.

- **1.5** "*Party*": Either Round Rock or Brushy Creek MUD.
- **1.6** "Parties": Both Round Rock and Brushy Creek MUD.
- 1.7 "Point of Delivery": the points of connection between the Brushy Creek MUD water system and the Round Rock water system, are designated on Exhibit "A" attached hereto, at which Emergency Water Service will be made available by the Providing Party to the Requesting Party in accordance with the terms of this Agreement. The Parties acknowledge and agree that Emergency Water Service shall be made available at the Point of Delivery from the Round Rock 42-inch water main on the north side of Sam Bass Road in proximity to the Brushy Creek MUD water treatment facility (the "WTF Point of Delivery") only upon completion of the interconnect improvements by the District, the funding and construction of which are the subject of WTP Interconnect ILAbetween the Parties.
- **1.8** "Point of Delivery Meter": the meter(s) that are installed at each Point of Delivery to be used for measuring the quantity of Emergency Water Service furnished by either Party to the other Party under this Agreement. The Parties acknowledge that by the WTP Interconnect ILA, the Point of Delivery Meter for the WTF Point of Delivery is located on the Brushy Creek MUD side of the WTF Point of Delivery.
- **1.9** "Providing Party": the Party providing Emergency Water Service to the Requesting Party.
- **1.10** "Requesting Party": the Party requesting Emergency Water Service from the Providing Party.
- 1.11 "Volumetric Rate": the residential customer volume rate for Rate Block Four as set forth in Sec. 44-32(a)(5) Code of Ordinances of the City of Round Rock, as amended from time to time. In the event such tier is abolished by Round Rock, then the Volumetric Rate shall be equal to the highest volumetric rate charged by Round Rock to its residential customer class for potable water service.
- **1.12** "Water": potable water made available by either Party at a Point of Delivery in the event of an Emergency, which water shall meet those requirements for human consumption and other domestic uses promulgated by the Texas Department of Health, and/or the Texas Commission on Environmental Quality.

ARTICLE II. Terms and Conditions for Emergency Water Services

2.1 Agreement to Provide Emergency Water Services. Subject to the terms and conditions of this Agreement and the requirements of applicable law, each Party agrees to make available Emergency Water Service to the other Party for the term of this Agreement.

2.2 Ownership, Operation and Maintenance of Facilities.

- (a) Each Party shall own, operate and maintain all water system improvements, facilities, equipment and appurtenances located on its respective side of the Point of Delivery in accordance with its own maintenance and replacement schedules and standards. Except as otherwise provided by *WTP Interconnect ILA* between the Parties with respect to the WTF Point of Delivery, all such costs and expenses of operation, maintenance, repair and replacement of each Party's water system shall be paid by the Party, and the other Party shall have no responsibility for any such costs or expenses.
- (b) Each Party shall be solely responsible for design and construction of such improvements to its water system as are necessary for the safe and efficient receipt, transportation, storage and distribution of Emergency Water Service received from the other Party at the Point of Delivery. Neither Party shall be responsible for any costs of the other Party related thereto, nor shall either Party be liable for damages to

the other Party's water system or to the water facilities of the other Party's customers arising from the distribution of Water received at the Point of Delivery hereunder.

2.3 Emergency Water Service.

- (a) In the event of an Emergency, the Requesting Party may request the Providing Party to provide Emergency Water Service at the Point of Delivery for a temporary period to assist the Requesting Party in responding to such Emergency, and the Providing Party shall provide Emergency Water Service subject to the following conditions:
 - (i) A good faith determination by the Providing Party that a bona fide Emergency exists, and that delivery of Emergency Water Service to the Receiving Party will not endanger the public health, safety or welfare of the Providing Party's citizens and customers;
 - (ii) Emergency Water Service will be provided only for the shorter of the following periods:
 - 1) the reasonable duration of the Emergency giving rise to the request for emergency water service;
 - 2) the reasonable duration needed to repair damage to the water system occasioned by such Emergency;
 - 3) the duration of the Providing Party's ability to provide Emergency Water Service to the Requesting Party, as reasonably determined by the Providing Party; or
 - 4) two (2) weeks.
 - (iii) In the event that the Emergency exceeds the shortest of the foregoing periods, the Requesting Party may make written request to the Providing Party to continue Emergency Water Service beyond said initial period. The Providing Party may continue or resume such Emergency Water Service for an additional period up to such period as the Providing Party shall determine appropriate and necessary, but only if the Providing Party determines in good faith that the Emergency giving rise to the initial request for Emergency Water Service has not been abated, that the Requesting Party has exercised reasonable diligence in attempting to remove the disability giving rise to the initial request for Emergency Water Service, and that Water in excess of the needs of the Providing Party's customers continues to be available to provide Emergency Water Service to the Requesting Party.

METERING

2.4 Measurement.

- (a) The Providing Party shall own, operate, maintain, calibrate, and read the Point of Delivery Meter to record all Water delivered under this Agreement from the Providing Party to the Requesting Party. The Parties acknowledge that the Point of Delivery Meter for the WTF Point of Delivery is a dual flow meter that shall be owned by Brushy Creek MUD.
- (b) The Providing Party shall keep records of all measurements of Water delivered to the Requesting Party through the Point of Delivery as recorded by the Point of Delivery Meter.

2.5 Calibration.

- (a) If, as a result of any test, the Point of Delivery Meter is found to be registering inaccurately (more than 5% higher or lower than calibrated volumes), the readings of the meter shall be corrected at the rate of its inaccuracy for any period which is definitely known or agreed upon.
- (b) If the Point of Delivery Meter is out of service or in need of repair such that the amount of Water delivered cannot be ascertained or computed from the reading thereof, the Water delivered through the period such meter is out of service or out of repair shall be estimated and agreed upon by the Parties based upon the basis of the best data available. If the Parties fail to agree on the amount of Water delivered during such inoperable period, the amount of Water delivered may be estimated by:
 - (i) correcting the error if the percentage of the error is ascertainable by calibration tests or mathematical calculation; or
 - (ii) estimating the quantity of delivery by deliveries during the preceding periods under similar conditions when the meter was registering accurately.
- (c) If a Point of Delivery Meter is consistently registering inaccurately, the Party owning and installing the meter shall repair, replace or rehabilitate the meter, as determined by such, and all costs related thereto shall be borne by said Party.

ARTICLE III. RATES AND CHARGES

- **3.1 Connection Fee.** Neither Party shall charge a connection fee to the other Party for the provision of Emergency Water Service under this Agreement.
- **3.2 Volumetric Rate**. The Requesting Party shall pay to the Providing Party the Volumetric Rate for all Water delivered through the Point of Delivery Meter for Emergency Water Service.

3.3 Payment Terms.

(a) The Providing Party shall, upon completion of Emergency Water Service, submit to the Requesting Party an itemized statement of the amount of Emergency Water Service furnished, as measured at the Point of Delivery Meter, and a statement of the payment due for such services. The statement shall specify a due date, which date shall not be less than thirty (30) days after the date of the statement. The statement shall be paid on or before the due date.

- (b) In the event that the Requesting Party fails to make timely payment in full by the due date, then the Providing Party shall furnish a late notice to the Requesting Party. If the Requesting Party does not provide payment within thirty (30) days of receipt of the late notice, then the Requesting Party shall pay a late payment charge of two percent (2%) of the amount of the statement for each calendar month or fraction thereof that the statement remains unpaid; provided, however, that such rate shall never be usurious or exceed the maximum rate permitted by law.
- (c) If any Party remains delinquent in any payments due hereunder for a period of sixty (60) days, then the Party due payment may exercise any legal right or remedy to which it is entitled, including termination of this Agreement.

ARTICLE IV. REMEDIES

- **4.1 General.** If any Party fails to comply with its obligations in accordance with the notice and opportunity to cure provisions set forth in Section 5.3 below, the other Party shall have the right to request any court, agency or other governmental authority of appropriate jurisdiction to grant any and all remedies which are appropriate to assure conformance to the provisions of this Agreement. The defaulting Party shall be liable to the other for all costs actually incurred in pursuing such remedies, including reasonable attorneys' fees, and for any penalties or fines as a result of the failure to comply with the terms.
- **4.2 Disputed Payment**. If either Party at any time disputes the amount to be paid by it to the other Party, the Party shall nevertheless promptly make the disputed payment or payments, but the disputing Party shall thereafter have the right to seek a determination whether the amount charged by the other Party is in accordance with the terms of this Agreement.
- **4.3 Notice and Opportunity to Cure.** Notwithstanding any provision in this Agreement to the contrary, if either party (referred to herein as the "<u>Defaulting Party</u>") fails to comply with its obligations under this Agreement or is otherwise in breach or default under this Agreement (collectively, a "<u>Default</u>") then the other party (referred to herein as the "<u>Non-Defaulting Party</u>") shall not have any right to invoke any rights or remedies with respect to any Default until and unless: (i) the Non-Defaulting Party delivers to the Defaulting Party a written notice (the "<u>Default Notice</u>") which specifies all of the particulars of the Default and specifies the actions necessary to cure the Default; and (ii) the Defaulting Party fails to cure, within thirty (30) days after the Defaulting Party's receipt of the Default Notice, any matters specified in the Default Notice which may be cured solely by the payment of money or the Defaulting Party fails to commence, within a reasonable period of time after receipt of the Default Notice (to be determined according to the nature of the breach or default), the cure of any matters specified in the Default Notice which cannot be cured solely by the payment of money, or fails to thereafter pursue curative action with reasonable diligence to completion.

ARTICLE V. TERM AND TERMINATION

5.1 Term. This Agreement shall be effective as of the Effective Date, and shall continue in effect until December 31, 2045 unless earlier terminated by either Party in accordance with Section 6.2.

5.2 Termination.

(a) Either Party to this Agreement may terminate this Agreement for convenience by providing not less than ninety (90) days' prior written notice of termination to the other Party.

(b) Either Party to this Agreement may terminate this Agreement as a result of a material breach by the other Party by providing written notice of termination after providing the defaulting Party notice and opportunity to cure in accordance with the terms of this Agreement.

Upon termination of this Agreement, each Party shall discontinue taking Water from the other Party. Each Party may physically seal or disconnect the Point of Delivery Meter or any other components in its water system as may be necessary to prevent the further delivery or receipt of Water at the Point of Delivery.

ARTICLE VI. GENERAL PROVISIONS

- **6.1 Prior Agreements.** This Agreement replaces and supersedes any and all prior contracts between the Parties relating to the provision of an emergency water supply including, without limitation, that certain Interlocal Agreement for Emergency Water Supply dated June 24, 2021.
- **6.2 Authority**. This Agreement is made in part under the authority conferred in Chapter 791, Texas Government Code.
- 6.3 Force Majeure. In the event that any Party is rendered unable, wholly or in part, to perform any of its obligations under this Agreement (by reason of failure or national moratorium of operation of the banks, transfer agents, brokers, stock exchanges or modes of transportation; or work stoppages or restraint by court order or other public authority; or action or inaction concerning governmental or regulatory authorizations; or transportation delay; or death or personal injury of a representative of either Party whose signature is necessary), upon the provision of written notice which fully relates the particulars of the claimed force majeure, including but not limited to the dates on which it commenced and ceased or is expected to cease by the Party claiming force majeure to the other Party as soon as is reasonably practicable after the occurrence of the cause relied upon, the obligations of the Party claiming force majeure, to the extent they are affected by the force majeure, shall be suspended during the continuance of any inability of performance so. This Agreement shall not be terminated by reason of any such cause but shall remain in full force and effect. Either Party rendered unable to fulfill any of its obligations under this Agreement by reason of force majeure shall exercise the utmost diligence to remove such inability.
- **6.4 Modification**. This Agreement shall be subject to change or modification only with the mutual written consent of the Parties.
- **6.5 Sole Agreement**. This Agreement constitutes the sole and only agreement of the Parties concerning the subject matter hereof and supersedes any prior understanding or oral or written agreements between the District and the City relating thereto.
- **6.6 Captions**. The captions appearing at the first of each numbered section or paragraph in this Agreement are included solely for convenience and shall never be considered or given any effect in construing this Agreement.
- **6.7 Waiver**. Failure to enforce or the waiver of any provision of this Agreement or any breach or nonperformance by the District or the City shall not be deemed a waiver by the District or the City of the right in the future to demand strict compliance and performance of any provision of this Agreement
- **6.8 Severability**. The provisions of this Agreement are severable, and if any provision or part of this Agreement shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for

any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances shall not be affected thereby.

- **6.9** Cooperation. Each Party hereby agrees that it will take all actions necessary to fully carry out the purposes and intent of this Agreement.
- **6.10** Addresses and Notice. All notices, demands, requests, and other communications between the Parties required or permitted hereunder shall be in writing, except where otherwise expressly provided herein, and shall be deemed to be delivered when actually received; provided that if the communication is sent by depositing it in a regularly maintained receptacle for the United States mail, registered or certified, postage prepaid, addressed to the appropriate addressee as follows, or to such other location or address for a party for which notice has been given by such party in the same manner, the same shall be deemed to have been received on the second mail delivery day following the day on which the communication is so postmarked.

If to Brushy Creek MUD:

Brushy Creek Municipal Utility District 16318 Great Oaks Drive Round Rock, Texas 78681

If to Round Rock:

City of Round Rock 221 East Main Street Round Rock, Texas 78664

With copy to:

Stephanie Sandre, City Attorney 309 East Main Street Round Rock, Texas 78664

6.11 Assignability. Neither Party may assign its interests in this Agreement without the prior written consent of the other Party.

IN WITNESS WHEREOF,	, the Parties hereto have caused	d this instrument to be	signed, sealed and
attested in duplicate by their duly a	uthorized officers, this the	day of	, 2025.
		_	
	[Signatures on the following p	age.]	

BRUSHY CREEK MUNICIPAL UTILITY DISTRICT

	By:
	Name:
	Title:
Secretary	

CITY	\mathbf{OF}	RO	IIND	ROCK	TEXAS
	OI.	110	ULID	MOCIS,	

	By:
	Name:
	Title:
City Clerk	

Exhibit "A"

Points of Delivery

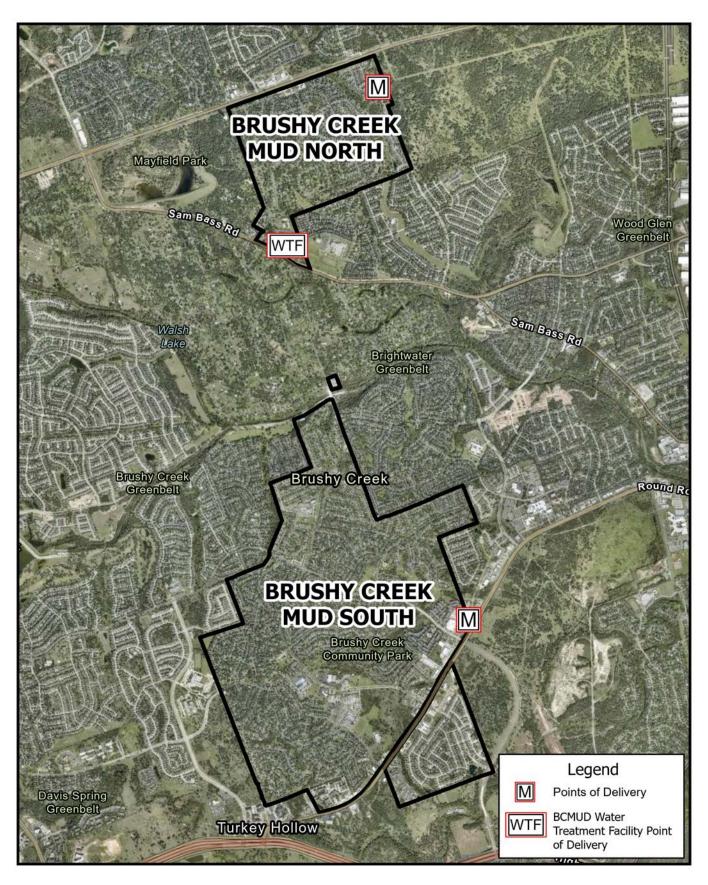


Exhibit A
Points of Delivery Between
Brushy Creek MUD & City of Round Rock

