

ROXBOROUGH WATER AND
SANITATION DISTRICT

RENEWABLE WATER SUPPLY FOR
RAVENNA METROPOLITAN DISTRICT
LOAN FEASIBILITY STUDY

COLORADO WATER CONSERVATION
BOARD LOAN APPLICATION
MAY 2018

FEASIBILITY STUDY APPROVAL

Pursuant to Colorado Revised Statutes 37-60-121 & 122, and in accordance with policies adopted by the Board, the CWCB staff has determined this Feasibility Study meets all applicable requirements for approval.

 7/6/18
Signed Date

Prepared By:

TST Infrastructure, LLC
61 Inverness Drive East, Suite 100
Englewood, CO 80112
303.799.5197

001.335.11

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SANITATION DISTRICT



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COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Water Project Loan Program

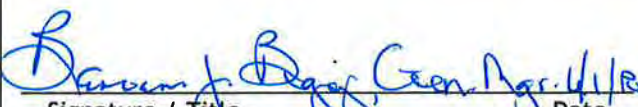
Application Type	
<input type="checkbox"/> Prequalification (Attach 3 years of financial statements)	<input checked="" type="checkbox"/> Loan Approval (Attach Loan Feasibility Study)
Agency/Company Information	
Company / Borrower Name: Roxborough Water and Sanitation District	
Authorized Agent & Title: Barbara J. Biggs, General Manager	
Address: 6222 North Roxborough Park Road, Littleton, CO 80125	
Phone: (303) 979-7286	Email: barbara@roxwater.org
Organization Type: <input type="checkbox"/> Ditch Co., <input checked="" type="checkbox"/> District, <input type="checkbox"/> Municipality <input type="checkbox"/> other: _____	Incorporated? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
County: Douglas	Number of Shares/Taps: 3,650
Water District: Roxborough Water and Sanitation District	Avg. Water Diverted/Yr 1,200 acre-feet
Number of Shareholders/Customers Served: 3,650	Current Assessment per Share \$ _____ (Ditch Co)
Federal ID Number: 84-0623925	Average monthly water bill \$ <small>\$87 winter / ~ \$123 summer</small> (Municipality)
Contact Information	
Project Representative: Barbara Biggs	
Phone: (303) 979-7286	Email: barbara@roxwater.org
Engineer: TST Infrastructure, LLC; Michael Gerstner, P.E.	
Phone: (303) 799-5197	Email: mgerstner@tstinfrasturcture.com
Attorney: Icenogle Seaver Pogue; Alan Pogue	
Phone: (303) 867-3006	Email: APogue@ISP-law.com
Project Information	
Project Name: Roxborough Water and Sanitation District - Renewable Water Supply for Ravenna Metropolitan District	
Brief Description of Project: (Attach separate sheets if needed)	
Provision of a renewable water supply to the Ravenna Metropolitan District (RMD) through the processes of inclusion of RMD into the Roxborough Water and Sanitation District (RWSD), providing a renewable raw water source, treatment and delivery of potable water to existing residences and businesses within the boundaries of RMD, and construction of water supply connections between RWSD and RMD.	
See the attached feasibility study for further detail.	
General Location: (Attach Map of Area)	
Unincorporated Northwest Douglas County; See Figures 1 and 2 in the attached loan application feasibility study.	
Estimated Engineering Costs: \$194,750	Estimated Construction Costs: \$1,533,000
Other Costs (Describe Above):	Estimated Total Project Costs: \$1,763,750
Requested Loan Amount: \$1,569,000	Requested Loan Term (10, 20, or 30 years): 30 Years
Project Start Date(s) Design: May, 2018	Construction: October 2018
Signature	
 Signature / Title _____ Date _____	Return to: Finance Section Attn: Anna Mauss 1313 Sherman St #718 Denver, CO 80203 Ph. 303/866.3449 e-mail: anna.mauss@state.co.us

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and Sanitation District and Ravenna Metropolitan
District

Appendix E – Cost Estimates

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Appendix H – 2017 Unaudited Financials

1 BACKGROUND

1.1 Purpose

Relevant project history & need for the project:

The Ravenna Metropolitan District (RMD) is located in northwest Douglas County and is adjacent to the Roxborough Water and Sanitation District (RWSD) service area. RMD was established in 2005 and provided water service to the development for both RMD residents and Ravenna Golf Course Commercial Areas through ground water wells, a water treatment plant, and a distribution system. At buildout it is estimated there will be 246 Equivalent Residential Units (EQRs) in RMD.

Historically, RMD received its entire water supply of 424 acre-feet per year (AF/Y) from United Water and Sanitation District (United). The RMD water supply was received via two non-tributary (non-renewable) wells located in the Bell Mountain Ranch development, approximately 4 miles south of Castle Rock, CO (Ref. Figure 1). As water was needed at RMD, water from the United wells at Bell Mountain Ranch was pumped into East Plum Creek for conveyance downstream to the United Ravenna Diversion Dam, located just west of Sedalia, CO. Water was pumped from the diversion dam to the United Sutton Reservoir. RMD was entitled to 100 AF of the 250 AF capacity of the United Sutton Reservoir.

Water was then pumped from the United Ravenna Pump Station at United Sutton Reservoir for approximately 10 miles in the United Ravenna Pipeline to the RMD Pond 14 in Ravenna. Pond 14 served as the raw water storage pond for the RMD Water Treatment Plant (WTP), as well as the supply of irrigation water for the Ravenna Golf Course. Pond 14 has a capacity of approximately 6 AF. Water was pumped from Pond 14 to the RMD WTP for treatment. Recently in 2017, the Town of Castle Rock has purchased all of the United infrastructure.

The RMD WTP was constructed in 2006, and had a design capacity of 150 gallons per minute (gpm), or approximately 200,000 gallons per day (gpd). The treatment facility does not have adequate capacity to meet projected demand at buildout of approximately 260,000 gpd.

In 2015, the RMD WTP was experiencing reduced treatment capacity. RMD performed evaluations of the WTP and determined connection to RWSD would be a better alternative than upgrading of the existing WTP.

In 2016, RMD requested possible connection to RWSD. RWSD coordinated with Douglas County through the Douglas County Water Alternatives Program to perform a Renewable Water Feasibility Study, see Appendix A. The feasibility study included four possible options for the RMD water supply system including:

- Option 1: Continued use of Existing Ground Water Supply and Upgrade of Water Treatment Plant
- Option 2: Obtaining an additional 150 AF/Y from Aurora Water with RWSD providing treatment and delivery to RMD
- Option 3: Exchanged water supply with Arrowhead Golf Course with RWSD providing treatment and delivery to RMD
- Option 4: Use of Existing RWSD Supply with RWSD providing treatment and delivery to RMD

The feasibility study indicated it was feasible for RMD to connect to RWSD. In November of 2016, RMD held an election to include into RWSD. The eligible electors of RMD approved, unanimously, the inclusion of RMD into RWSD, see Appendix B.

After the inclusion was approved by RMD voters, RWSD coordinated with City of Aurora on the water supply options identified in the 2016 feasibility study. It was determined that option 4 would be pursued. In April of 2017, the City of Aurora-RWSD water supply agreement was amended and restated to allow RWSD to provide service to RMD, see Appendix C.

Due to concerns with the existing RMD WTP, an emergency interconnect agreement between RWSD and RMD was completed and the project constructed in June of 2017. The emergency interconnect was placed into service to due to a system failure in the summer of 2017 and has been supplying RMD with potable water since that time.

In November of 2017, the inclusion agreement, see Appendix D, was completed and RMD was included into RWSD. The inclusion agreement indicates that for RMD to complete its connection to RWSD there are four phases of improvements required for the water supply to be completed between RMD and RWSD. Phases I and II correlate with option 4 in the 2016 feasibility study. Phase III correlates with option 3 in the 2016 feasibility study. Phases I, II, and IV are required to be completed. Phase III would be desirable for RWSD but is not required to be completed. The phases are generally described as the following:

- Phase I: emergency interconnection between RMD and RWSD – completed in 2017
- Phase II: two or more additional connections, beyond the phase I connection, between the RMD water system and RWSD water system to provide a permanent reliable water supply to RMD
- Phase III: the acquisition of additional water supplies for RWSD to serve irrigation customers including the Arrowhead Golf Course, Golf Club at Ravenna and Roxborough Village Metropolitan District. This would allow current RWSD renewable water used for irrigation to be diverted to serve other customers in need of a renewable potable water supply in the area.

- Phase IV: Removal of existing RWSD irrigation infrastructure from Aurora Rampart Reservoir, and construction of additional infrastructure to serve RWSD irrigation customers.

The project being applied for to the Colorado Water Conservation Board for the Water Project Loan Program is for the above mentioned Phase II requirements of the inclusion agreement between RWSD and RMD.

Overview of the Project:

As a result of the 2017 Inclusion, RMD will be permanently served with renewable water by RWSD. The project requires construction of new water supply infrastructure including a new transmission main and connections between the two systems to provide adequate supply from RWSD to RMD.

Project intention and importance to the Roxborough Water and Sanitation District:

The proposed project has been developed through the cooperative efforts of RWSD, RMD, City of Aurora, and Douglas County and the residents of the area to be served. RWSD has agreed to provide service to the Ravenna development, and to own, operate and maintain the required infrastructure. Modifications to the raw water supply agreement between the City of Aurora and RWSD have been executed to allow service to additional EQRs with the same overall annual allotment of 1,950 acre-feet. RWSD has requested and Douglas County has approved grant funding under the Water Alternatives Program to cover the cost for engineering and design of the infrastructure.

The borrower, RWSD, will be able to provide water to RMD through the proposed water supply connections to RMD. A loan amount of \$1.569 million for the construction of the required water supply connections is being requested in order to accomplish this project. Other than applying for the regulated grading, erosion and sediment control permits from State and County jurisdictions there are no other outstanding regulatory compliance issues.

1.2 Study Area Description

Description of study area including county, towns, topography and major streams:

The water service area for the Roxborough Water and Sanitation District is located along the eastern edge of the foothills in unincorporated northwest Douglas County, south of C-470 and the South Platte River, west of US Highway 85 and north of Roxborough State Park. The Ravenna Metropolitan District is located northwest of the existing service area for RWSD as shown in Figure 1.

Socio economic characteristics including population, employment, and land use:

The following 2010 Douglas County census data describes the basic make-up and population characteristics of the RWSD and RMD areas and the population of the above described water service areas.

Population: 9,099

Households: 3,417

Capita per Household: 2.83

Median Household Income (MHI): \$106,188

Land Area: 9.23 sq. mi

-Source: US Census Bureau State & County QuickFacts

Currently, the EQR's supplied by the RWSD are composed of approximately 97% residential users, 2% commercial users, and 1% irrigation users. Because RWSD's service area is approximately 85% built out at this time, the overall distribution of users is not anticipated to change considerably from the current distribution and make-up.

1.3 Previous Studies

Identify, summarize previous studies:

As described above, a feasibility study was conducted in 2016 to evaluate potential alternatives to replace RMD's non-renewable water source with a renewable water source, and to identify opportunities for consolidation with a larger system to improve the cost effectiveness of potable water service, see Appendix A. The 2016 feasibility study included four water supply options.

2 PROJECT SPONSOR

Type of organization, Official name, year formed, formation statutes:

The Roxborough Park Metropolitan District was originally formed in 1971 as a special district under Title 32 of Colorado Revised Statutes and was authorized to provide water, sewer, and fire protection services to its customers. Subsequently, in 1999, responsibility for fire protection service was transferred to the West Metro Fire Protection District. The name of the District was changed, in 2006, to the Roxborough Water and Sanitation District (RWSD) to more accurately reflect the services provided by the District.

Number of customers, taps, water usage, future growth plans:

RWSD currently provides water service to approximately 3,650 EQRs, including RMD, with a planned buildout of approximately 4,361 EQRs. The remaining 711 EQRs will serve remaining development in Ravenna and infill units located within or adjacent to the existing RWSD boundary. The average raw water demand of existing RWSD customers is approximately 0.34 acre-feet per year per EQR.

Identification of revenue sources:

The authorized sources of revenue for RWSD include ad valorem taxes, user charges, rates, fees, and tolls. RWSD review rates and adjusts rates on an annual basis with the following goals:

- Provide sufficient revenue to support RWSD's long term ability to provide adequate services to its customers.
- Provide a stable revenue stream that is not substantially affected by variable water sales.
- Establish rates based on annual projections of costs and selected level of funding for reserves.

For this project, sources of revenue will be paid for by the customers of the Ravenna Metropolitan District through user fee surcharges.

Description of existing water supply facilities owned/operated by RWSD:

RWSD's current water supply is based entirely on renewable water delivered under the 2017 water supply agreement with the City of Aurora. Water from the South Platte River is delivered to RWSD's water treatment plant through water supply facilities owned and operated by City of Aurora.

3 WATER RIGHTS

3.1 Water Availability

The 2017 Raw Water Supply Agreement between the RWSD and Aurora provides a sufficient water supply to meet the projected demands of RWSD at buildout. Under the agreement, RWSD did not acquire ownership of water rights; rather, Aurora agreed to provide a permanent raw water supply to RWSD on a contract basis using Aurora's existing and future raw water supplies and facilities. The 2017 agreement, along with all future amendments to the agreement provide an adequate supply to serve both RWSD and RMD.

2017 Water Supply Agreement:

Historically, RWSD's maximum annual use is 0.37 AF/Y/EQR. The 2017 water supply agreement with City of Aurora indicates a supply of 1,950 acre-feet per year of raw water with a consumption of 0.44 AF/Y/EQR. The 2017 water supply agreement with the City of Aurora (ref. Appendix C) indicates a maximum number of EQRs that can be served is 4,431. The agreement allows RWSD to use the water at any location within its district boundaries.

Drought provisions:

Aurora has developed a Water Management Plan to ensure the reliability of its water supply under varying water availability conditions. In general, the plan establishes varying levels of water use restrictions in response to varying levels of drought. The terms of the Water Management Plan will apply to the RWSD's supply and its customers in the same way it applies to Aurora's in-city customers.

4 PROJECT DESCRIPTION – ANALYSIS OF ALTERNATIVES AND SELECTED ALTERNATIVE

4.1 Analysis of Alternatives

The 2016 Feasibility Study identified four alternatives to address RMD potable water supply, including a no action alternative under which RMD would continue with its existing water supply and upgrade required infrastructure, and three alternatives for replacing the existing water supply and eliminating treatment systems. Figure 1 shows the overall Ravenna system prior to connection to RWSD as well as connection options.

4.2 Selected Alternative

The selected alternative for this project is option 4, use existing RWSD water supply to serve RMD. Figure 2 shows the locations of the proposed connection locations required for option 4.

The alternative provides for a cost effective and minimal impact solution in providing a renewable water supply to RMD. In addition to identifying the most cost effective alternative for providing a renewable water supply to the Ravenna development, hydraulic modeling was completed for the RMD and RWSD water systems to determine the required connections to supply the required flow rates and minimum/maximum system pressures for average day, maximum day, peak hour and fire flow conditions.

Changes to Existing Infrastructure

In order for the Ravenna development to be served with a 100 percent renewable supply, it is necessary to complete multiple connections between the RWSD and RMD water systems. One connection is presently in place (referred to as the “Emergency Interconnect”) providing renewable potable water supply to RMD. This connection provides water to the existing RMD high pressure zone. Two other connections, a segment of transmission pipeline and the relocation of a pressure reducing valve (PRV) are required to complete the infrastructure modifications necessary to fully provide sufficient water supply from the RWSD system to the RMD system.

The two proposed connections between the RWSD and RMD water systems are referred to as the “North Connection” and “East Connection”. The new transmission pipeline that will facilitate the filling of RMD’s potable water storage tank from RWSD’s Zone 1 is referred to as the “12” Transmission Main”. Each of these connection improvements has a specific purpose in providing RMD water service from RWSD.

North Connection:

This connection will be at the gated north entrance to the Ravenna development and will provide a connection between RWSD pressure Zone 1 and the RMD low pressure zone. The connection

will consist of the installation of approximately 380 feet of 12" water line and a PRV vault. The RMD storage tank will be filled from this new connection in conjunction with the 12" Transmission Main to the RMD tank.

East Connection:

This connection will be constructed at the southeast corner of the RMD water system, connecting RWSD pressure Zone 2 to the RMD high pressure zone. The connection will consist of the installation of approximately 290 feet of 8" water line and a PRV vault.

12" Transmission Main:

The transmission main is required to allow the RWSD pressure zone 1 to supply water to the water storage tank and the RMD low pressure zone from the North Connection previously indicated.

PRV-01 Relocation:

Relocation of the PRV is required for the water supply from RWSD to RMD to maintain proper hydraulics between the two systems.

See Figures 3 through 5 for a preliminary layout of these proposed improvements.

Easements or licenses will be required from property owners within and adjacent to the footprint of these improvements. A tentative list of ownerships requiring easements/licenses includes Ravenna Metropolitan District, Roxborough Park Foundation, and River Canyon Real Estate Investments. RWSD holds a blanket easement with both RMD and the Roxborough Park Foundation and therefore most easements are already acquired. The final list of ownerships will be developed during design.

4.3 Opinion of Project Costs

The estimated opinion of total project costs for option 4 is \$1,763,750. The loan application being submitted by RWSD is inclusive of the construction, potholing, and legal portion of this cost, or \$1,569,000. Details of these costs are included in Appendix E. The loan amount for the capital construction costs and the required CWCB loan service fee of 1% is presented in Table 1. Interest shown in Table 1 is assumed at 3.15% for a 30 year loan term.

Table 1 – Option 4 Overall Project Construction Costs

Description	Amount
Loan Service Fee	\$ 15,690
Loan Interest	\$ 879,273
Connection Infrastructure	\$ 1,569,000
Engineering (DC Grant)	\$ 194,750
Total	\$ 2,658,713

An estimated schedule of cash flow for the proposed project is presented in Appendix F. The estimated capital costs are based on the overall project costs summarized in Table 1. Estimated revenues are based on user charges, fees and taxes presented in Table 2. The schedule projects a positive balance will begin in the year 2030 (30 year loan term) for a \$28/month/EQR.

Addition of the 246 EQRs to be served by the proposed project is not expected to have an appreciable impact on the District's O&M costs. Service to the additional units will be accomplished using the District's existing staff, management, and institutional infrastructure. Water treatment for the additional units will be accomplished in conjunction with RWSD's normal water treatment operations, and the additional infrastructure will be added to the District's routine maintenance. As compared to the District's existing operations and maintenance activities, the increased operational requirements related to the added units are expected to be negligible. No significant increase in the operational budget is anticipated and no increase in rates for O&M activities is planned as a result of the proposed project.

4.4 Implementation Schedule

Implementation of the proposed project involves a number of entities including Roxborough Water and Sanitation District, Ravenna Metropolitan District, Roxborough Park Foundation, River Canyon Real Estate Investments, as well as the existing entities to be served. Some of the institutional arrangements required for the project have been completed, while other required actions are in progress, or are upcoming. The following list outlines the steps necessary for the project to proceed. All of the items listed must be completed in order for the project to proceed. If any one item cannot be completed, the project will not proceed.

- Acquisition of all required easements and ROW.
- Complete Design.
- Obtain necessary county approvals.
- Receipt of acceptable bids for construction of the project

A preliminary schedule for completion of the proposed project is presented in Figure 6. Design, Right of Way acquisition, approvals would commence mid-2018, with completion in the fall of 2018. Construction is expected to begin late in 2018 and continue into the early part of 2019.

The completed infrastructure improvements will be owned, operated and maintained by RWSD.

4.5 Impacts

General Construction Impacts

Implementation of the selected alternative will require construction of new pipelines, and PRV vaults. A general impact associated with construction activities is expected to be the potential for erosion and sediment impacts. These potential impacts will be managed by compliance with Douglas County's Grading, Erosion and Sediment Control (GESC) program. GESC requirements will be included in the construction documents, and initial and ongoing inspections of GESC items will be performed by both Douglas County and RWSD.

Specific Construction Impacts

Construction of the piping and PRV structures will occur in developed areas, primarily adjacent to or within existing roadways. No significant environmental issues are anticipated during construction of the improvements.

4.6 Institutional Feasibility

RWSD has provided water service to customers within the district boundary for over 40 years. During that time, the District has demonstrated a high level of Technical, Managerial and Financial capacity.

Technical – The RWSD has a highly qualified and experienced staff that has consistently demonstrated the ability to operate a system that meets all Safe Drinking Water Act (SDWA) requirements.

Managerial – RWSD is a Title 32 District authorized to provide water service to its customers. The RWSD is managed by a full time manager under the direction of its board of directors.

Financial – RWSD prepares annual budgets and audits in accordance with state statutes and performs an annual rate review. In addition, RWSD regularly updates its planning documents including Master Plan, Asset Management Plan, and Capital Improvement Plan. These planning documents enable RWSD to develop a financial plan that addresses all of the RWSD needs, without shortfalls or unexpected financial requirements.

The water system additions required to provide service under the proposed project would be operated and maintained by RWSD as part of its routine system operations and maintenance activities. RWSD currently provides water service to approximately 3,650 EQRs. The addition of RMD under the proposed project is not expected to create any TMF issues of concern.

5 FINANCIAL FEASIBILITY ANALYSIS

The project will be paid for over the period of the loan using a surcharge fee. A surcharge of \$28 month per EQR will provide a positive cash flow to be maintained through the duration of the loan. Table 2 presents a breakdown of the sources of funds to be used for the project.

Table 2-Financing or Payment Responsibility

	Project Costs	CWCB	Loan	Douglas County
Loan Service Fees	\$ 15,690	\$ 15,690		
Loan Interest	\$ 879,273	\$ 879,273		
Connection Infrastructure	\$ 1,569,000	\$1,569,000		
Engineering	\$ 194,750			\$194,750
Total	\$ 2,658,713	\$2,463,963		\$194,750

The requested loan from the Colorado Water Conservation Board (CWCB) will be used to pay for the project as presented within this feasibility study. The CWCB loan will be repaid from the user surcharge fee per EQR assessed to each property within the present limits of RMD. These charges will be assessed over the loan service period of 30 years.

By RMD being included in RWSD, RMD customers will now pay the RWSD base sewer fees instead of 1.5 times the base sewer fee previously assessed for out-of-district sewer service. This will save RMD customers approximately \$20.00 per month on their sewer bill.

Table 3 presents the fees to be paid by RMD customers for this project:

Table 3-Property Owner Impact

Description	Amount
Estimated Monthly Connection Infrastructure Surcharge	\$28.00
Sewer Base Fee Changed to In-District	-\$20.00

The costs presented in Table 3 are specific to the project, and are in addition to the normal user charges applicable to all RWSD customers. Current RWSD user charges include a flat fee of \$35.14/mo., consumption charge of \$5.30/1000 gallons for Tier 1 water use, and capital reserve surcharge of \$3.00/mo.

Financial Impacts:

The increased user charges required for debt service will have an impact on existing and future RMD customers. The United States Environmental Protection Agency (USEPA) affordability criteria

indicate the user charges for water are considered affordable if the annual user charge is less than 2.5% of the MHI. The estimated annual cost of water service under the proposed project is \$2,707 including user charges and user surcharges, or 2.6% of MHI. The estimated charges, which are somewhat above EPA guidelines, are not expected to cause undue hardship to customers because the MHI in the proposed service area is substantially above the national average. In addition, the residents of the proposed service area voted overwhelmingly in favor of the proposed project (ref. Appendix B), including the estimated charges.

TABOR Issues:

Entering into the loan to finance the project will not result in any TABOR issues for the District. As a part of the election, service area residents voted to “Payment of all required District Fees, Rates, Roles, Charges, and Taxes associated with the inclusion of and the provision of water service to the property.”

Collateral:

The loan will be secured by a pledge of user charges. Final user charges will be established when actual project costs are known.

Sponsor Creditworthiness:

As an established entity, the project sponsor, Roxborough Water and Sanitation District, conducts an audit of its financial statements. The RWSD’s financial audits for 2014, 2015, and 2016 are included in Appendix G. In addition, the RWSD’s unaudited financial statement, dated December 31, 2017, is included in Appendix H.

6 CONCLUSIONS AND RECOMMENDATION

Overall feasibility of project:

The proposed project addresses a significant need to provide a permanent, renewable water supply to customers in the service area of the Ravenna Metropolitan District. In addition, residents in the area to be served voted overwhelmingly in favor of the project.

No significant barriers to the proposed project have been identified. The project is expected to include only normal project activities such as acquisition of right-of-way, construction and financing.

Feasibility of Loan Repayment:

Review of financial documents presents a positive picture of the feasibility of loan repayment as noted below:

1. The RMD has sufficient existing customer base to support debt service in a relatively affordable manner. Successful financial performance is not dependent on growth.
2. The RMD has already taken steps towards financing the project in the form of obtaining financing through the sale of bonds if another source of funding is not available.
3. RWSD has obtained funding from Douglas County for engineering services for the project.
4. The water service requirements and responsibilities for new customers within RMD is controlled by the RWSD Board of Directors that has a proven financial track record.

LIST OF FIGURES

Figure 1 – Overall System Map

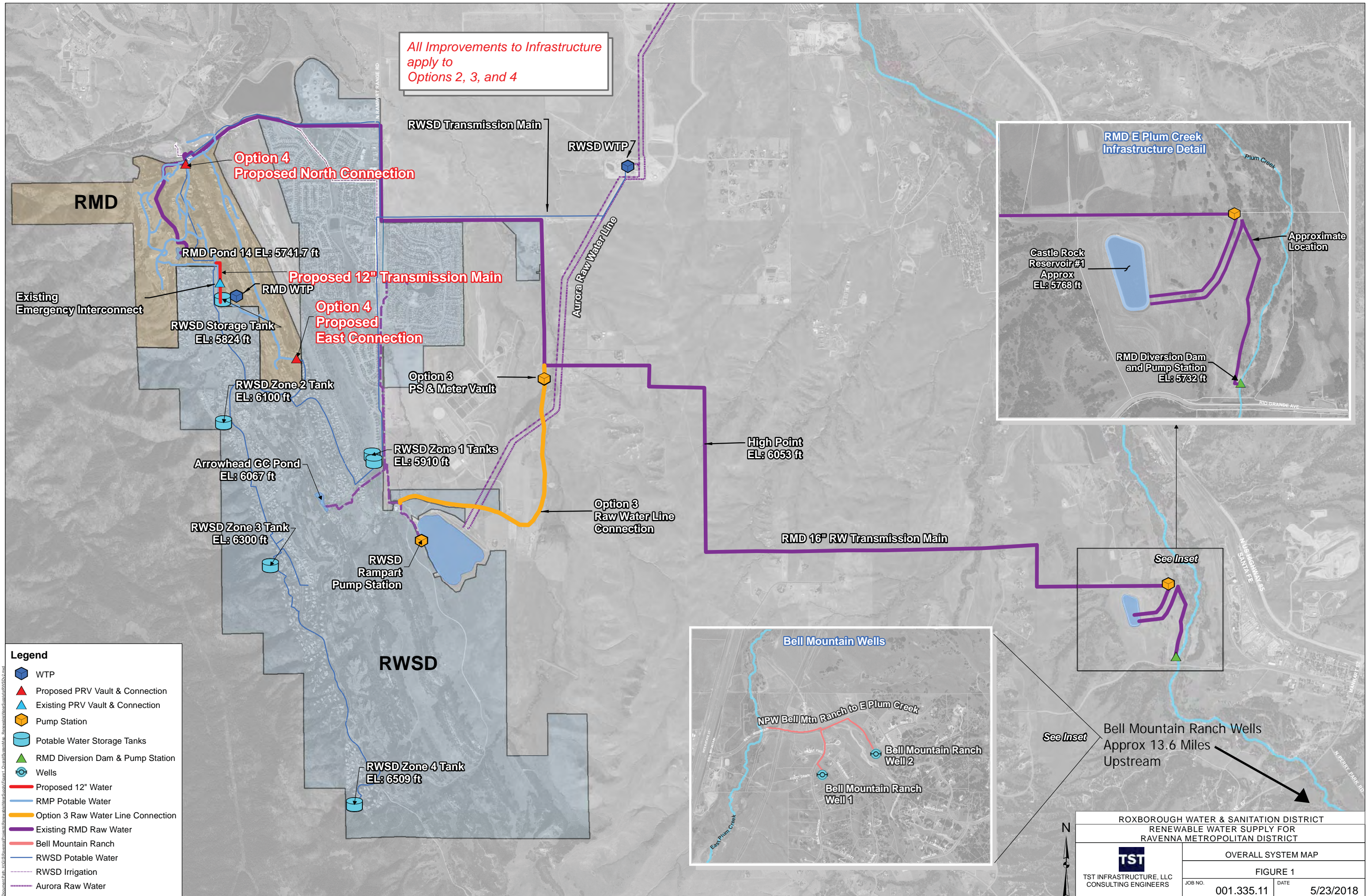
Figure 2 – Potable and Non-Potable Water Infrastructure

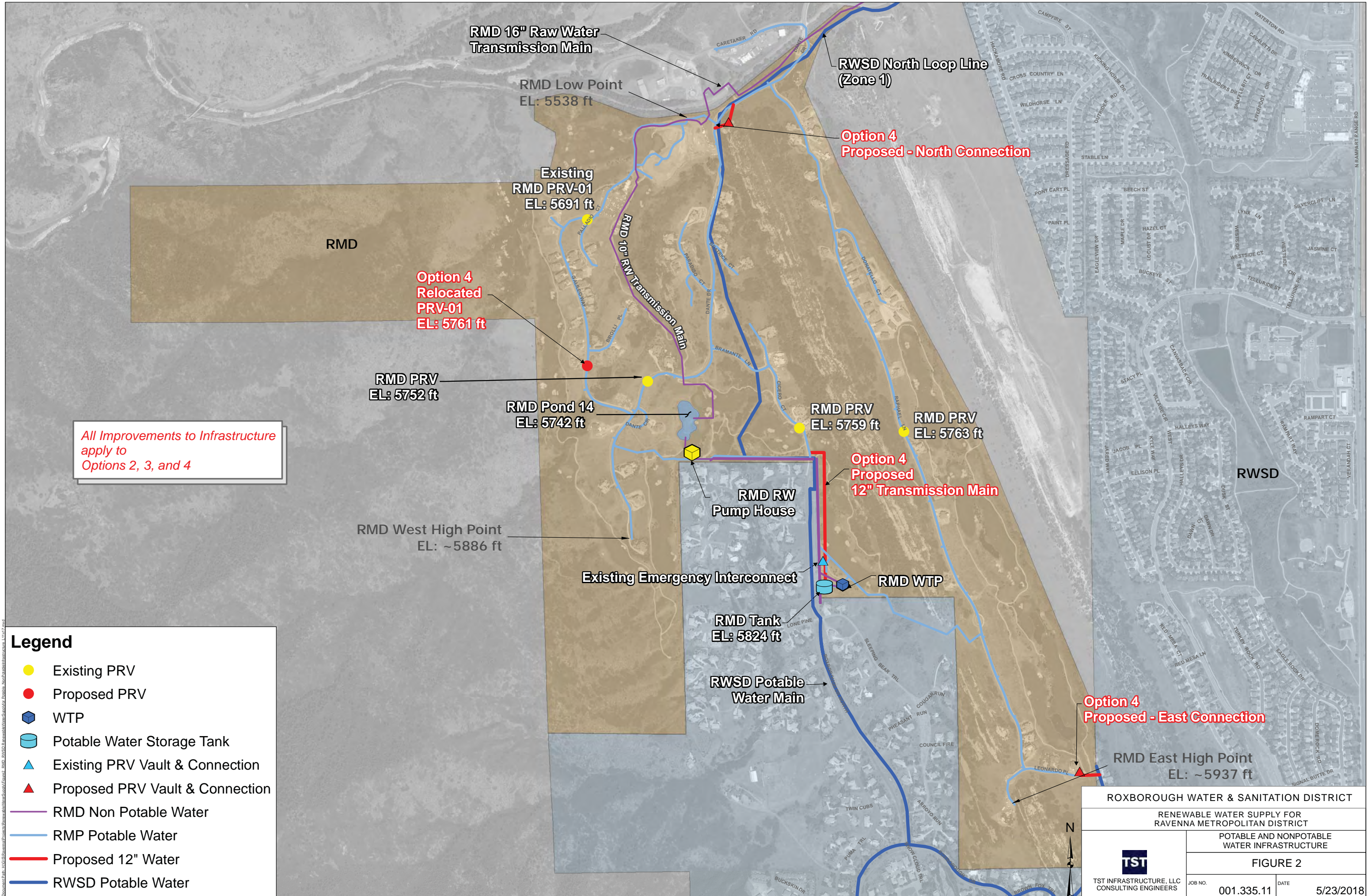
Figure 3 – North Connection

Figure 4 – East Connection

Figure 5 – 12" Transmission Main

Figure 6 – Project Schedule





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ROXBOROUGH WATER AND SANITATION DISTRICT



TST INFRASTRUCTURE, LLC
Consulting Engineers

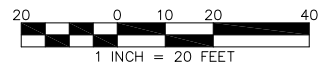
RENEWABLE WATER SUPPLY FOR RAVENNA
METROPOLITAN DISTRICT (OPTION 4)

FIGURE 3 - NORTH CONNECTION

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MAY 18, 2018

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ROXBOROUGH WATER AND SANITATION DISTRICT



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Consulting Engineers

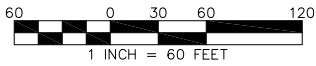
RENEWABLE WATER SUPPLY FOR RAVENNA
METROPOLITAN DISTRICT (OPTION 4)

FIGURE 4 - EAST CONNECTION

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DATE
MAY 18, 2018

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ROXBOROUGH WATER AND SANITATION DISTRICT



TST INFRASTRUCTURE, LLC
Consulting Engineers

RENEWABLE WATER SUPPLY FOR RAVENNA
METROPOLITAN DISTRICT (OPTION 4)

FIGURE 5 - 12" TRANSMISSION MAIN

JOB NO.
001.335.11

DATE
MAY 18, 2018

FIGURE 6

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study

Project Schedule

	2016	2017				2018				2019				2020				2021			
PROJECT PHASE	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Election																					
Amended Aurora IGA (Water)																					
Inclusion																					
Finance Plan / CWCB Loan Application																					
CWCB Loan Approval																					
Select Project Option																					
Easements/ROW Acquisition																					
Design Engineering																					
Bid																					
Construction																					

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Feasibility Study dated September 2016

Appendix B – Election Results

Appendix C – RWSD/City of Aurora Amended IGA for Water Supply

Appendix D – Inclusion Agreement between Roxborough Water
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District

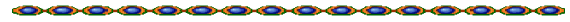
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DOUGLAS COUNTY



RAVENNA METROPOLITAN
DISTRICT
RENEWABLE SUPPLY FEASIBILITY
STUDY
September 2016

Prepared By:

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038.002.00

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A. OPTIONS COST

1. PURPOSE

The Ravenna Metropolitan District (RMD) is located in the northwest portion of Douglas County, Colorado and provides water and sewer service to the Ravenna development. At buildout, the development is expected to include approximately 250 Equivalent Residential Units (EQRs). The current water supply for the Ravenna development is based exclusively on non-renewable groundwater, and is not considered a sustainable supply. In addition, the small size of the district makes it difficult for RMD to provide potable water service on a cost effective basis. This feasibility study was conducted to evaluate potential alternatives to replace RMD's non-renewable water source with a renewable water source, and to identify opportunities for consolidation with a larger system to improve the cost effectiveness of potable water service.

This study was based on a limited investigation of existing conditions. Implementation of any of the options identified in this study will require additional engineering evaluation of the configuration and capability of existing systems.

2. BACKGROUND

RMD receives its water supply by contract with the United Water and Sanitation District (United). Under the water supply agreement, RMD is entitled to a raw water supply of 424 acre-feet/year (AF/Y). Infrastructure required to deliver water from the source to a storage pond in Ravenna, is owned and operated by United.

The existing RMD water supply is based on two non-tributary wells located in the Bell Mountain Ranch development, approximately 4 miles south of Castle Rock, CO (Ref. Figure 1). When water is required at the RMD storage pond (Pond 14), water from the wells at Bell Mountain Ranch is pumped (1,150 gpm max.) into East Plum Creek for conveyance downstream to the Ravenna Diversion Dam, located just west of Sedalia, CO. Water is collected at the diversion dam into a wet well adjacent to the dam. The wet well contains two vertical turbine pumps that begin pumping approximately 10 hours after the water is released into E. Plum Creek from Bell Mountain Ranch. The vertical turbine pumps convey flow (950 gpm max.) via a 16 inch pipe to Sutton Reservoir. RMD is entitled to 100 AF of the 250 AF capacity in Sutton Reservoir.

Water is conveyed from Sutton Reservoir to Pond 14 in Ravenna by the East Plum Creek Pump Station and approximately 9.8 miles of 16 inch raw water transmission main. The transmission pipeline reduces to 10 inch near the entry to the Ravenna development. Pond 14 serves as the raw water storage pond for the RMD Water Treatment Plant (WTP), as well as the supply of irrigation water for Ravenna Golf Course. Pond 14 has a capacity of approximately 6 AF. Water is pumped from Pond 14 by RMD's Raw Water Pump House located along the south side of the pond (Ref. Figure 2). The Raw Water Pump House contains a large pump skid to feed the irrigation system of Ravenna Golf Course and a separate, smaller vertical turbine pump to convey raw water to the RMD WTP (150 gpm @ 80 psi).

The RMD WTP is located about 300 ft. north of the intersection of Sleeping Bear Trail and N Roxborough Dr. (Ref. Figure 3). The plant was constructed in 2006, and has a capacity of 150 gpm, or approximately 200,000 gpd. The treatment facility does not have adequate capacity to meet projected demand at buildout. Based on a buildout of 250 EQRs, an average day demand of 400 gpd/EQR, and a maximum day peaking factor of 2.6, the treatment capacity required to meet demand at buildout is approximately 260,000 gpd. It should be noted that the average day demand of existing RMD customers is approximately 720 gpd/EQR, almost twice the demand used in the above calculation, and well above the norm for the Denver Front Range area. RMD should immediately implement conservation measures to reduce water use to reasonable levels.

The WTP consists of a Microfiltration (MF) Membrane Treatment system from the Memcor division of Evoqua Water Technologies (formerly US Filter); model AXIM 18 CMF-L. The MF unit includes ancillary equipment such as an underground Clean in Place (CIP) tank for cleaning the MF unit; an air compressor to provide aeration and air assisted backwash; and equipment for chemical injection of sodium hypochlorite and citric acid. The citric acid cleaning is not currently being used, as the sodium hypochlorite cleaning alone seems to be working well according to the RMD WTP operator. The MF unit is designed for 150 gpm but can be expanded to 200 gpm by adding more modules. The filtered water from the WTP is chlorinated with sodium hypochlorite followed by ammonium sulfate to create chloramines.

RMD has reportedly experienced a number of treatment related performance issues including reduced capacity, membrane fouling, taste and odor issues and high concentrations of disinfection byproducts. RMD has performed several evaluations of the WTP to identify deficiencies and develop recommended corrective actions. The current recommendation resulting from the RMD evaluations is replacement of the existing filtration components along with addition of pretreatment processes.

Treated water is conveyed from the RMD WTP to RMD's Water Storage Tank, located adjacent to the WTP. The underground, concrete storage tank has a capacity of 600,000 gallons, a finished floor elevation of 5,824 ft. and an overflow elevation of 5846 ft.

The elevation of the RMD service area ranges from approximately 5540 ft. to 5940 ft., and as a result, the upper portions of the service area cannot be served by gravity from the existing tank. The distribution system includes two pressure zones to provide reasonable pressures throughout the service area. Water from the storage tank is conveyed to the high zone by booster pumps located in the WTP. Water is conveyed from the high zone to the low zone through PRVs at multiple locations in the distribution system. In addition to the booster pumps, the WTP contains a fire pump to provide adequate flow during high demand events.

3. SUMMARY OF OPTIONS

Four options to address RMD potable water supply and treatment requirements were identified and evaluated as part of this feasibility study, including a no action alternative under which RMD would continue with its existing water supply and infrastructure, and three alternatives for replacing the existing water supply and treatment systems. The three replacement options are based on the following assumptions:

- The water supply for potable use in RMD would be converted from non-renewable groundwater to renewable surface water.
- The water supply for golf course irrigation would remain non-renewable groundwater.
- The water supply required for potable use is 110 AF/Y (250 EQR x 0.44 AF/Y/EQR).
- For consistency with the requirements of the current Roxborough Water and Sanitation District (RWSD)/Aurora water supply agreement, RMD customers would be included in RWSD.

Under Option 1, the no action alternative, RMD would remain a separate entity and would continue to provide service using existing and upgraded infrastructure. For the three action alternatives, under which renewable water supply and treatment service would be provided through RWSD, it was assumed that RMD customers would be included in RWSD, and would pay the appropriate fees for inclusion into RWSD and connection to RWSD infrastructure. Inclusion and connection fees were estimated based on current RWSD fees and charges for a ¾" tap (1 EQR) as follows:

▪ Inclusion Fee -	\$3,200
▪ System Development Charge -	Calculated based on use of system.
	Varies by Option.
▪ Permit/Meter Fee	\$1,600

As noted in previous sections of this report, the RMD water storage tank is unable to provide gravity service to the upper zone and continuous pumping is required to maintain pressure in the upper zone. Under Options 2, 3, and 4 in this Feasibility Study, RWSD would provide potable water service to RMD. The RWSD system could potentially provide gravity service to RMD, eliminating the need for continuous pumping. Further engineering evaluation would be required to develop the configuration of a gravity system for RMD, and to evaluate potential impacts to the RWSD system. For the purpose of this study, it was assumed that the RMD distribution system would remain in its current configuration, and that under Options 2, 3, & 4, RWSD would deliver water to the RMD tank, and the RMD distribution system would continue its current method of operation.

A. OPTION 1 – CONTINUED USE OF EXISTING WATER SUPPLY

Under Option 1, the RMD would continue use of its existing non-renewable groundwater supply for both potable and irrigation uses. RMD would continue to treat and distribute potable water to its customers. Significant upgrades to the existing RMD Water Treatment Plant would be required to provide adequate capacity and reliability to serve both current and future development. The most recent evaluation performed by RMD (Dewberry, January 2016) identified two alternatives to increase capacity and improve treatment capability at the plant. The alternatives evaluated by Dewberry included a mixed media filtration option and a membrane filtration option. Both alternatives were based package plants, and both included pretreatment. The estimated capital costs for the mixed media plant and the membrane plant were \$3,318,000 and \$4,599,000, respectively. Detailed cost estimates for all Options are presented in Appendix A – Options Cost. Although the cost of a mixed media plant would be lower than the cost of a membrane plant, a mixed media plant would require more operator input and process decisions. Since RMD's operations capabilities are limited, the membrane alternative was used as the basis of Option 1 in this report.

In addition to upgrades to the WTP, Option 1 includes an emergency interconnect to the RWSD system. Under Option 1, primary potable service to RMD customers would be provided by the RMD system. With the addition of an emergency interconnect, backup service could be provided by RWSD in the event of an outage of critical components in the RMD system. The interconnect would be located near the existing RMD WTP and storage tank, and would generally include pressure reducing valves, a flow meter, and piping as required to connect the two systems (Ref. Figure 3).

The estimated cost for Option 1 including WTP upgrades and the emergency interconnect is \$5,040,000.

B. OPTION 2 – ADDITIONAL WATER SUPPLY FROM THE CITY OF AURORA

Option 2 would replace that portion of RMD's water supply used for potable service with a renewable supply obtained from Aurora. An additional 110 AF/Y supply from Aurora would be delivered through existing infrastructure to the RWSD Water Treatment Plant, and RWSD would provide potable water service to Ravenna customers. RMD would continue to use its existing groundwater supply for golf course irrigation.

Infrastructure required to implement Option 2 would be limited to two connections between the RWSD and RMD distribution systems. The primary connection would be located near the existing RMD WTP and would be identical to the emergency connection described in Option 1. A second connection to provide system redundancy would be constructed at a location to be determined by the final system configuration (Ref. Figure 4).

The cost for Option 2 includes the cost of acquiring additional water; RWSD charges for inclusion in the District and use of RWSD's systems; and the cost of two connections between the RWSD and RMD systems. The cost of additional water supply would be determined by Aurora at the time an agreement was developed for the additional supply. For this study, the cost of additional supply was estimated at \$10,000 per EQR, based on recent Aurora charges for similar projects. RWSD charges for Option 2 would be \$16,180 per EQR including system development charges, connection fees and inclusion fees.

The estimated cost for Option 2, including additional water supply, connections between the RWSD and RMD distribution systems, and RWSD fees and charges is \$7,351,000.

C. OPTION 3 – EXCHANGE WITH ARROWHEAD GOLF COURSE SUPPLY

Arrowhead Golf Course (Arrowhead) is currently irrigated with renewable water, and Option 3 is based on an exchange of water supplies between RMD and Arrowhead. Under Option 3, a portion of the renewable water currently used to irrigate Arrowhead would be utilized for the potable supply to RMD. In exchange, a like amount of RMD's non-tributary supply would be dedicated to irrigation of Arrowhead.

By agreement with RWSD, Arrowhead is entitled to receive a maximum of 240 AF/Y for golf course irrigation, all of which is required to provide adequate irrigation. RWSD currently delivers water from Aurora's Rampart Reservoir to Arrowhead via a pump station and pipeline owned and operated by RWSD. Under Option 3, RWSD would reduce the amount of water diverted from the reservoir by the amount required for potable service for RMD, approximately 110 AF/Y. Water for potable service to RMD would be diverted from Aurora's raw water pipeline at the RWSD WTP. Potable water would be delivered to RMD through RWSD's existing infrastructure, and two new interconnects between the RWSD and RMD distribution systems.

Use of renewable water for potable use in RMD would reduce the amount available for irrigation of Arrowhead. Replacement of the 110 AF/Y used for potable supply for RMD would be accomplished by conveying a portion of RMD's non-renewable supply to Arrowhead. Conveying RMD water to Arrowhead would require construction of a new pump station and pipeline to deliver water from the United raw water pipeline, to a connection point on RWSD's existing raw water irrigation system.

In addition to providing a source of renewable water for potable use by RMD, Option 3 could provide a significant reduction in operating costs for Arrowhead. The cost of groundwater delivered to Arrowhead for irrigation would be a fraction of the current cost of delivering renewable water under the Aurora water supply agreement.

Three alternatives were evaluated for conveying groundwater from the United raw water line to the RWSD raw water irrigation system, with the primary difference between options being pipeline routing. In all three alternatives, a new pump station would be constructed in close proximity to the United raw water line. The costs shown below for Options 3a, 3b, and 3c, include only the cost of connecting the United pipeline to the RWSD irrigation pipeline. Other costs required under Option 3 are not included.

Option 3a would take potential advantage of abandoned RWSD pipelines in Rampart Range Road. Connection to the United raw water line and construction of a new pump station would occur near the northern intersection of Village Circle East and Rampart Range Road, and connection to the RWSD raw water irrigation system would occur near RWSD's Zone 1 tank (Ref. Figure 5). Existing, abandoned 14" and 10" pipelines in Rampart Range Road would be utilized for conveyance flows from the new pump station to the RWSD raw water irrigation system. New connections to the existing pipelines would be required on the north near the new pump station and on the south near the Zone 1 tank. In addition, the 14" and 10" pipelines are not currently connected and a new connection is required to establish a continuous pipeline. The estimated cost for connecting to the United raw water pipeline under Option 3a is \$1,163,000.

Option 3b would be identical to Option 3a, except that in lieu of utilizing the existing, abandoned pipelines in Rampart Range Road, approximately 7,900 lf of new pipeline would be constructed from the new pump station on the north to the connect to the RWSD raw water irrigation system on the south (Ref. Figure 6). The estimated cost for connecting to the United raw water pipeline under Option 3b is \$2,384,000.

Under Option 3c, the connection to the United pipeline and the new pump station would be located along Roxborough Park Road, approximately 8,250 feet south of the entrance to the RWSD WTP (Ref. Figure 7). Construction of approximately 9,800 lf of new pipeline would be required to convey groundwater from the new pump station to the connection point to the existing RWSD raw water irrigation system near the intersection of Rampart Range Road and Roxborough Park Road. The estimated cost for connecting to the United raw water pipeline under Option 3c is \$2,021,000.

Option 3a, which utilizes existing, abandoned pipelines, is potentially the lowest cost option for conveying groundwater to Arrowhead, however, due to significant unknowns related to the location and condition of the existing pipelines, the cost for this option could vary significantly from the estimate. Of the remaining options, Option 3c is the lower cost option. Under Option 3c, construction of the proposed pipeline would occur in Roxborough Park Road, which is gravel surfaced, lightly traveled and has few conflicting underground utilities. By comparison, under Option 3b construction would occur in or immediately adjacent to Rampart Range Road, which is paved, heavily traveled, and has numerous potential conflicts with underground utilities. Of the three

groundwater delivery options evaluated, Option 3c appears to be the most desirable option, and was used in the development of overall costs for Option 3.

The cost for Option 3 includes RWSD charges for inclusion in the District and use of RWSD's systems; the cost of construction for a new pump station and pipeline to deliver groundwater to Arrowhead; and the cost of two connections between the RWSD and RMD systems. RWSD charges for Option 3 would be \$16,180 per EQR including system development charges, connection fees and inclusion fees.

The estimated cost for Option 3, including construction of a groundwater delivery system, connections between the RWSD and RMD distribution systems, and RWSD fees and charges is \$6,872,000.

D. OPTION 4 – USE EXISTING RWSD SUPPLY

Option 4 is based on RWSD providing potable water service to RMD using RWSD's existing water supply. Under its water supply agreement with Aurora, RWSD is entitled to a maximum of 1,800 AF/Y to serve a maximum of 3,800 EQRs, which provides a maximum supply of 0.4737 AF/Y/EQR. Historically, water use in RWSD has been significantly below 0.4737 AF/Y/EQR, and as a result, it would be feasible to serve more than 3,800 units using the existing 1,800 AF/Y supply. If the existing RWSD/Aurora water supply agreement could be amended to allow service to 4,100 EQRs, the per unit water supply available would be 0.4390 AF/Y/EQR.

For the period 2003 – 2015 (post 2002 drought), the average water use by RWSD customers was 0.33 AF/Y/EQR, with a maximum annual use of 0.37 AF/Y/EQR. The current water supply of 0.4737 AF/Y/EQR provides a safety margin of 43% over average use and 28% over maximum use. Reducing the available supply to 0.4390 AF/Y/EQR would provide safety margins of 33% over average use and 19% over maximum use.

The Infrastructure required to implement Option 4 would be limited to two connections between the RWSD and RMD distribution systems, similar to the connections required for Option 2. The primary connection would be located near the existing RMD WTP and a second connection to provide system redundancy would be constructed at a location to be determined by the final system configuration.

The cost for Option 4 includes RWSD charges for inclusion in the District and use of RWSD's systems; and the cost of two connections between the RWSD and RMD systems. RWSD charges for Option 4 would be \$18,710 per EQR including system development charges, connection fees and inclusion fees. RWSD Fees under Option 4 are similar to Option 3, with the addition of a fee for water supply for which RWSD collects a portion in the SDC and the balance through monthly fees.

The estimated cost for Option 4, is \$5,483,500.

4. SUMMARY AND CONCLUSIONS

Table 1 below is a summary of the capital costs associated with the four options.

	Option 1 1b-Conventional Pretreatment Followed by Membrane Filtration	Option 2 Additional Water Supply from Aurora Water	Option 3 Exchange with Arrowhead Golf Course Supply 3c-South Connection	Option 4 Use Existing RWSD Supply
Upgrade Existing RMD WTP	\$ 4,599,000	\$ -	\$ -	\$ -
Water Capital Cost	\$ -	\$ 2,500,000	\$ -	\$ -
System Development Charge	\$ -	\$ 2,832,500	\$ 2,832,500	\$ 3,465,000
RWSD Inclusion Fee	\$ -	\$ 800,000	\$ 800,000	\$ 800,000
RWSD Connection Permit	\$ -	\$ 412,500	\$ 412,500	\$ 412,500
Capital Cost to Connect to United Water	\$ -	\$ -	\$ 2,021,000	\$ -
Emergency Interconnect at Ravenna WTP	\$ 441,000	\$ 441,000	\$ 441,000	\$ 441,000
Second Connection	\$ -	\$ 365,000	\$ 365,000	\$ 365,000
Total	\$ 5,040,000	\$ 7,351,000	\$ 6,872,000	\$ 5,483,500

On a capital cost basis, Option 1, continued use of existing water supply, is the least expensive option, however this option does not accomplish the project goals of consolidating with a larger system and converting to a renewable water supply for potable use. Under Option 1, RMD would be required to continue operating a complex water system, with limited operational and

institutional capabilities. In addition, at some point in the future, RMD would be required to address replacement of its non-renewable water supply.

Option 2, additional water supply from Aurora, does not appear to be a feasible option based on cost and the ability to acquire additional supply. Option 2 is the most expensive of the four options, due to the cost of acquiring additional supply. In addition, initial discussions between RWSD and Aurora indicate that it is extremely unlikely that Aurora would be willing to provide the additional supply required.

Option 3, the water supply exchange with Arrowhead, would accomplish both project goals of consolidation with a larger system and conversion to a renewable supply. The relatively high cost of Option 3 is primarily a result of the infrastructure required to deliver groundwater to Arrowhead. Due to the water supply exchange, this option could also be expected to require more complex agreements than some of the other options.

Option 4, use of the existing RWSD supply, is the lowest cost option that meets both project goals of consolidation with a larger system and conversion of water supply to a renewable supply. Implementation of Option 4 would require RWSD to determine that its existing water supply is adequate to provide service to the additional units. Initial discussions with RWSD indicate that the existing supply would likely be considered adequate. RWSD would also be required to amend its water supply agreement with Aurora.

Options 3 & 4 are both considered feasible options for consolidating services with a larger system and converting the RMD potable water supply to a renewable source. Both of these options could meet the project goals and have a reasonable outlook for implementation.

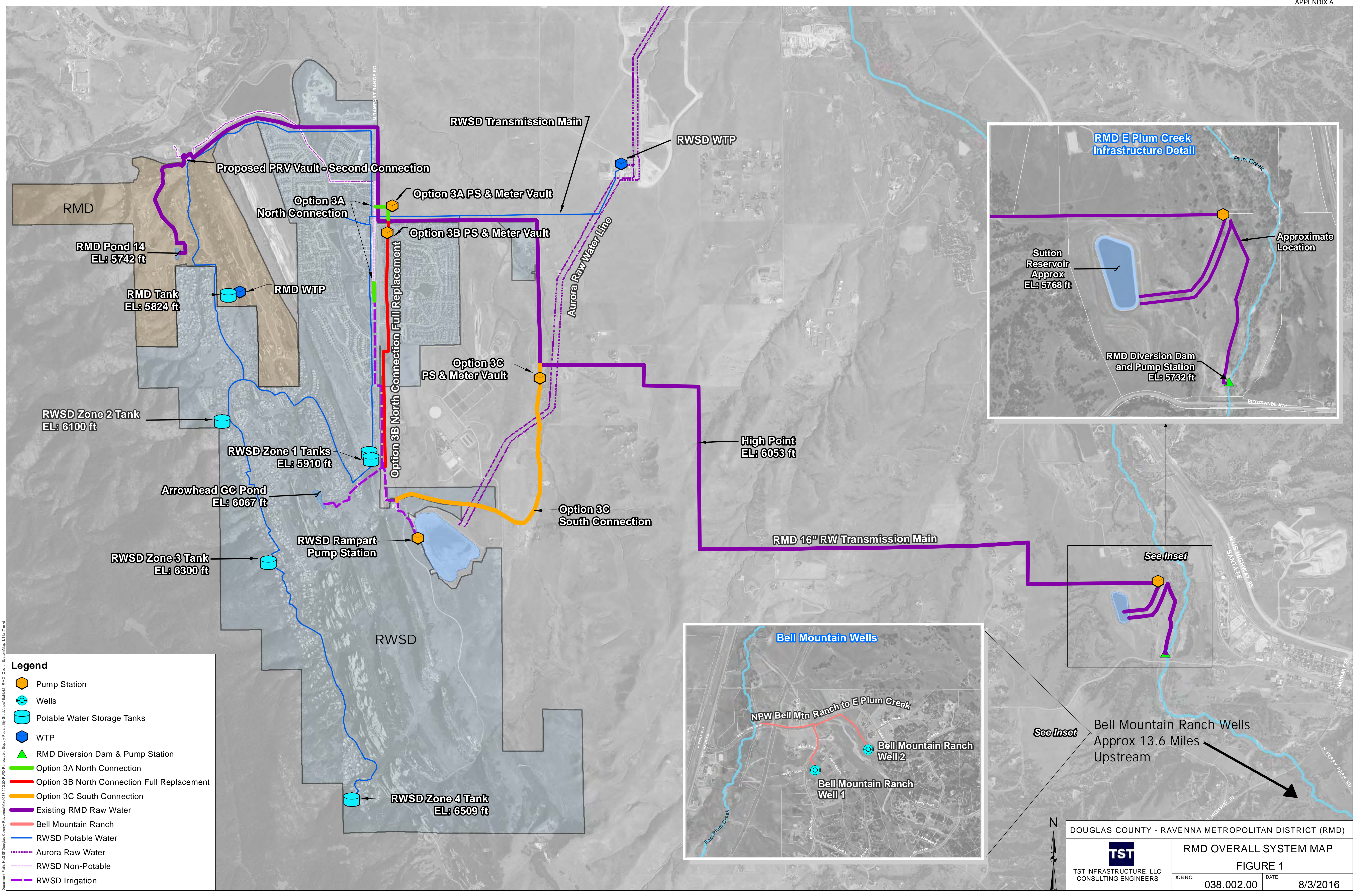
5. RELATED CONSIDERATIONS

Based on water demands presented in the Dewberry report, potable water use in RMD is excessive. Current water demand is stated as approximately 720 gpd/EQR, or 0.8 AF/Y/EQR. The options identified in this study were based on a maximum water supply of approximately 0.44 AF/Y/EQR, and all of the options would likely be cost prohibitive at 0.8 AF/Y/EQR. RMD should immediately implement measures to reduce potable water use to reasonable levels.

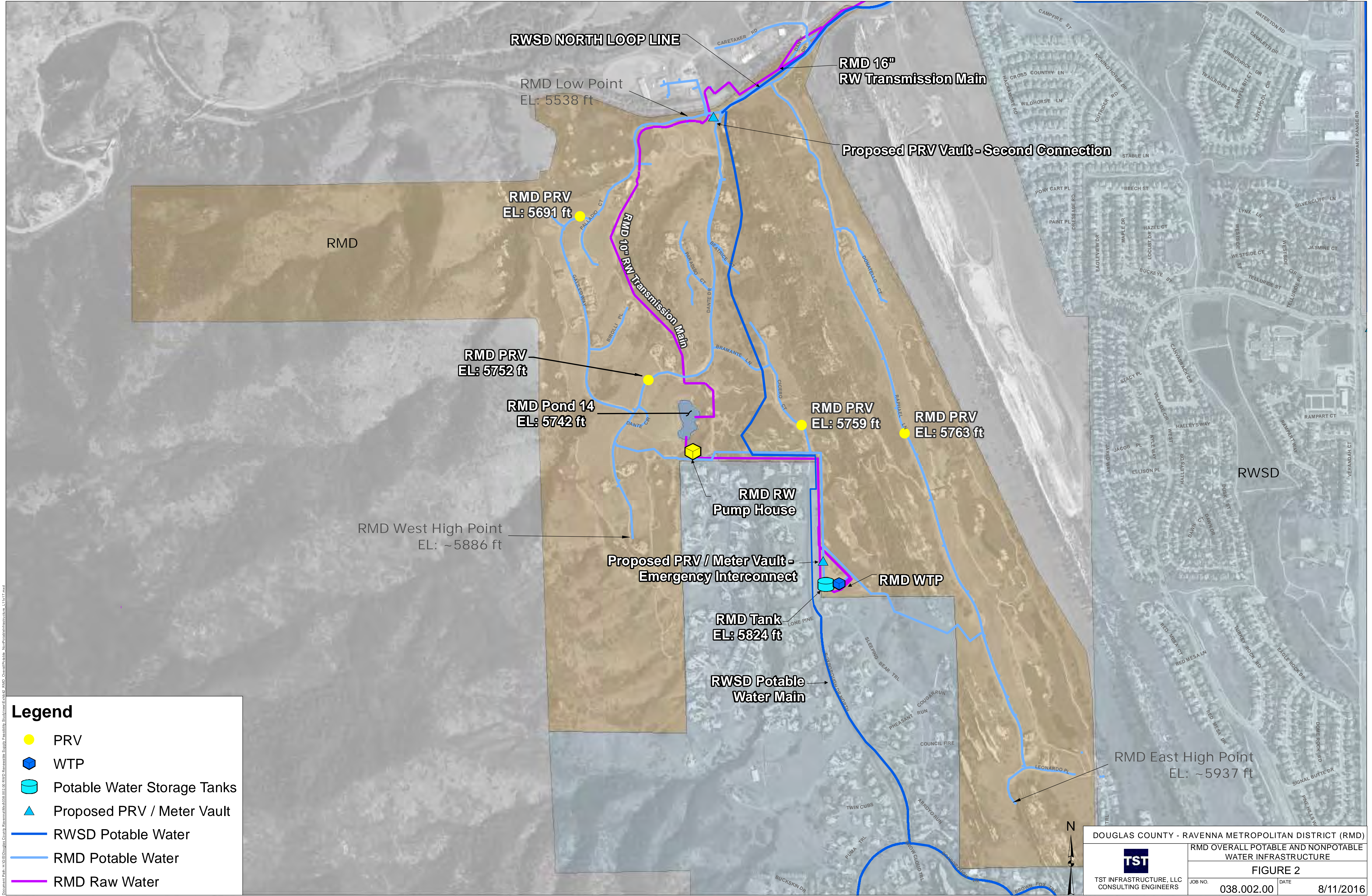
RWSD currently uses chlorine for distribution system residual, while RMD uses chloramines. RWSD plans to use chloramines when its new water treatment plant is complete. Depending on the timing of projects, RMD may be required to convert to chlorine for compatibility with the RWSD potable system until the new RWSD WTP is complete.

LIST OF FIGURES

- FIGURE 1 RMD OVERALL SYSTEM MAP
- FIGURE 2 RMD OVERALL POTABLE AND NON-POTABLE
WATER INFRASTRUCTURE
- FIGURE 3 EMERGENCY INTERCONNECT TO RWSD
- FIGURE 4 SECOND CONNECTION TO RWSD
- FIGURE 5 OPTION 3A NORTH CONNECTION
- FIGURE 6 OPTION 3B NORTH CONNECTION FULL
REPLACEMENT
- FIGURE 7 OPTION 3C SOUTH CONNECTION




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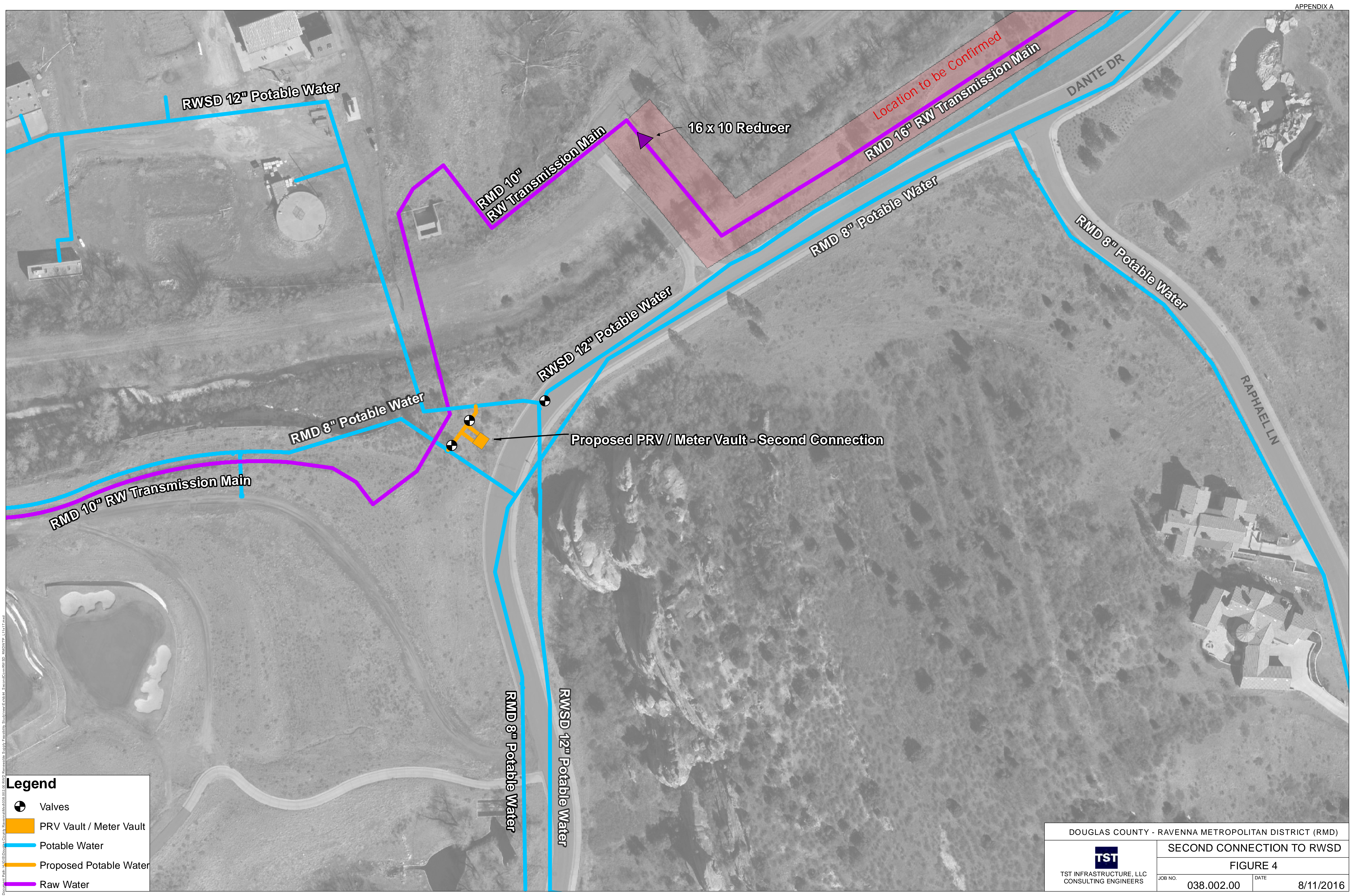


Legend

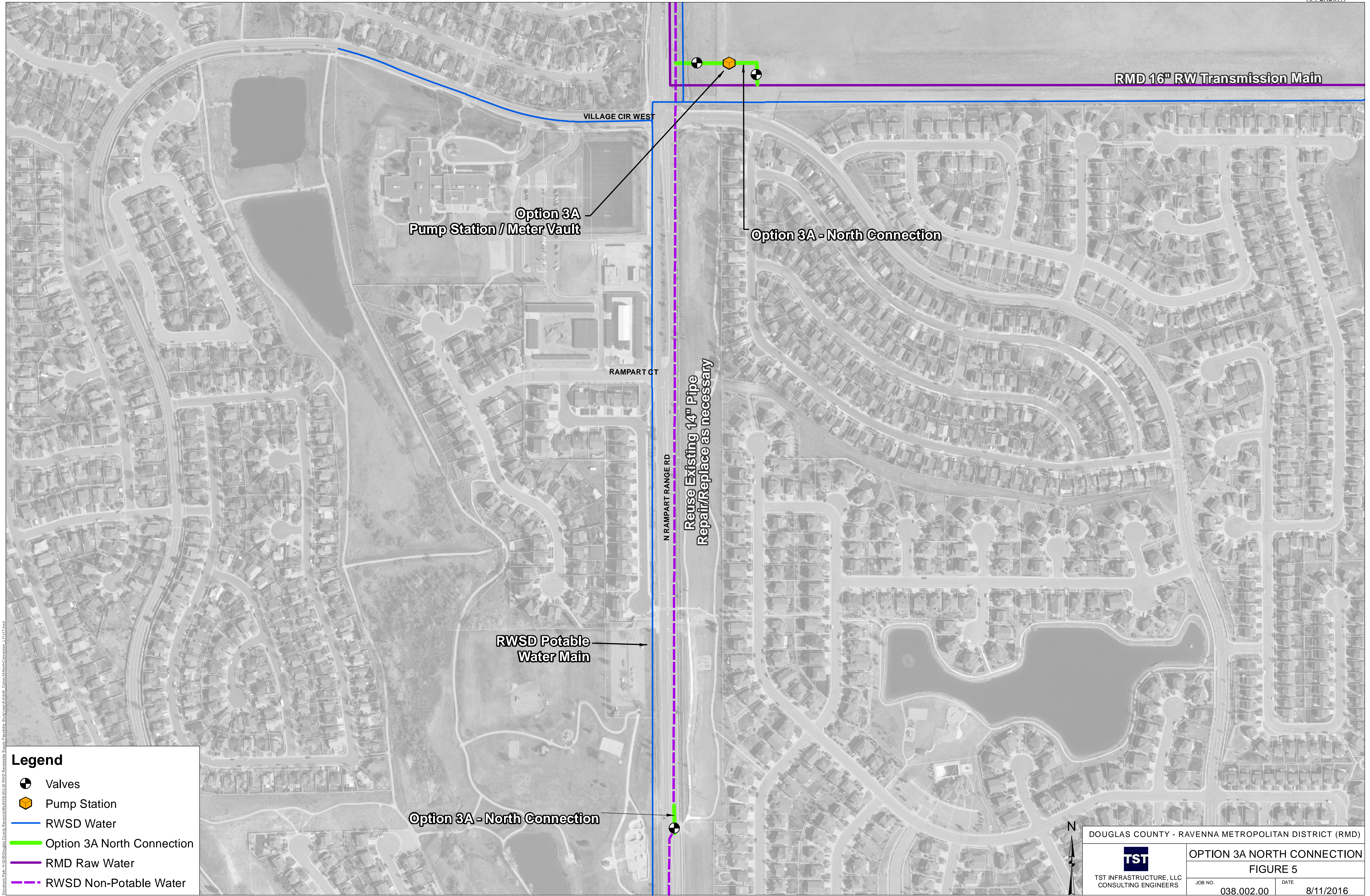
- PRV
- WTP
- Potable Water Storage Tanks
- Proposed PRV / Meter Vault
- RWSD Potable Water
- RMD Potable Water
- RMD Raw Water

DOUGLAS COUNTY - RAVENNA METROPOLITAN DISTRICT (RMD)		
 TST INFRASTRUCTURE, LLC CONSULTING ENGINEERS	RMD OVERALL POTABLE AND NONPOTABLE WATER INFRASTRUCTURE	
	FIGURE 2	
	JOB NO. 038.002.00	DATE 8/11/2016

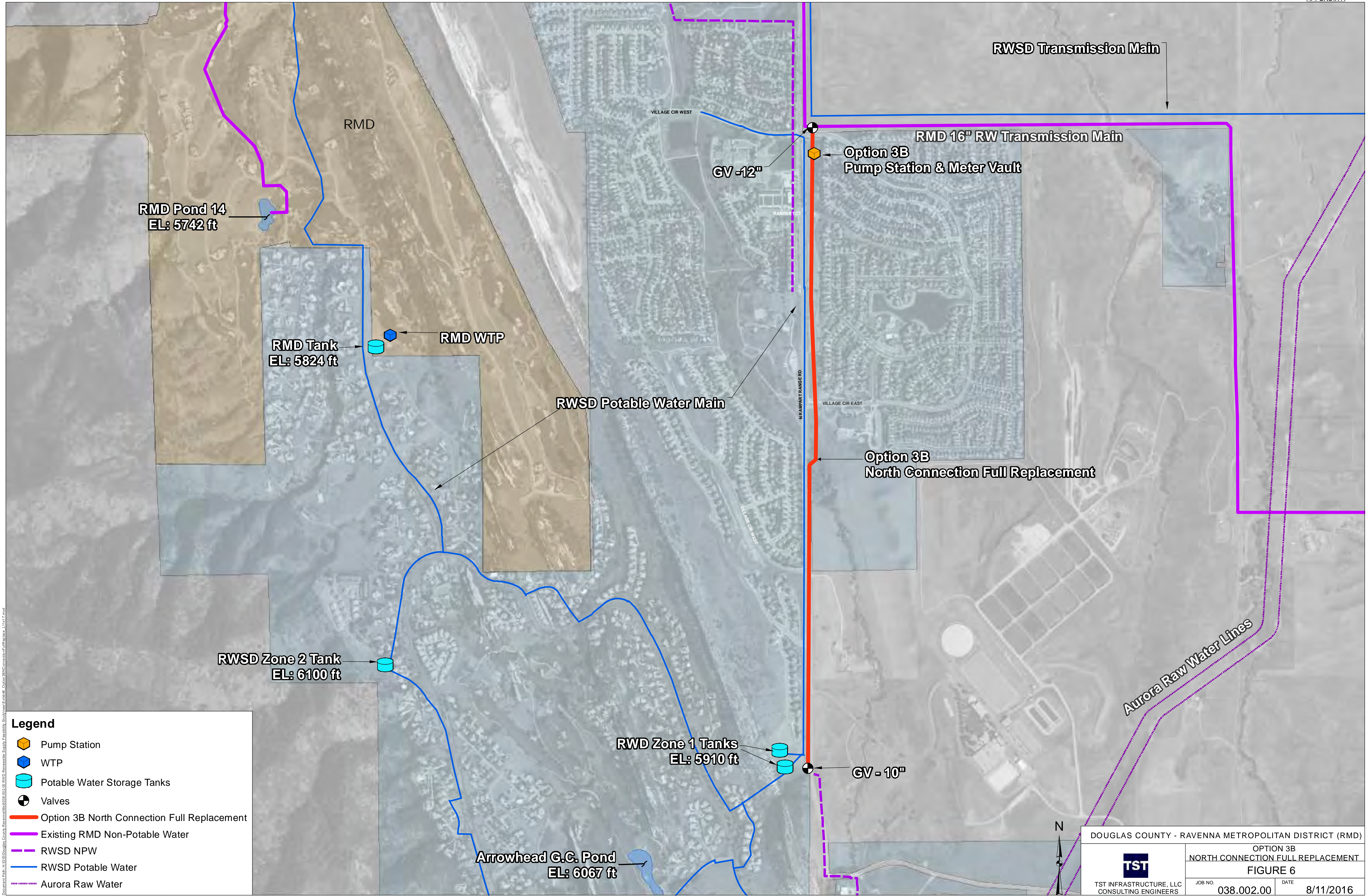




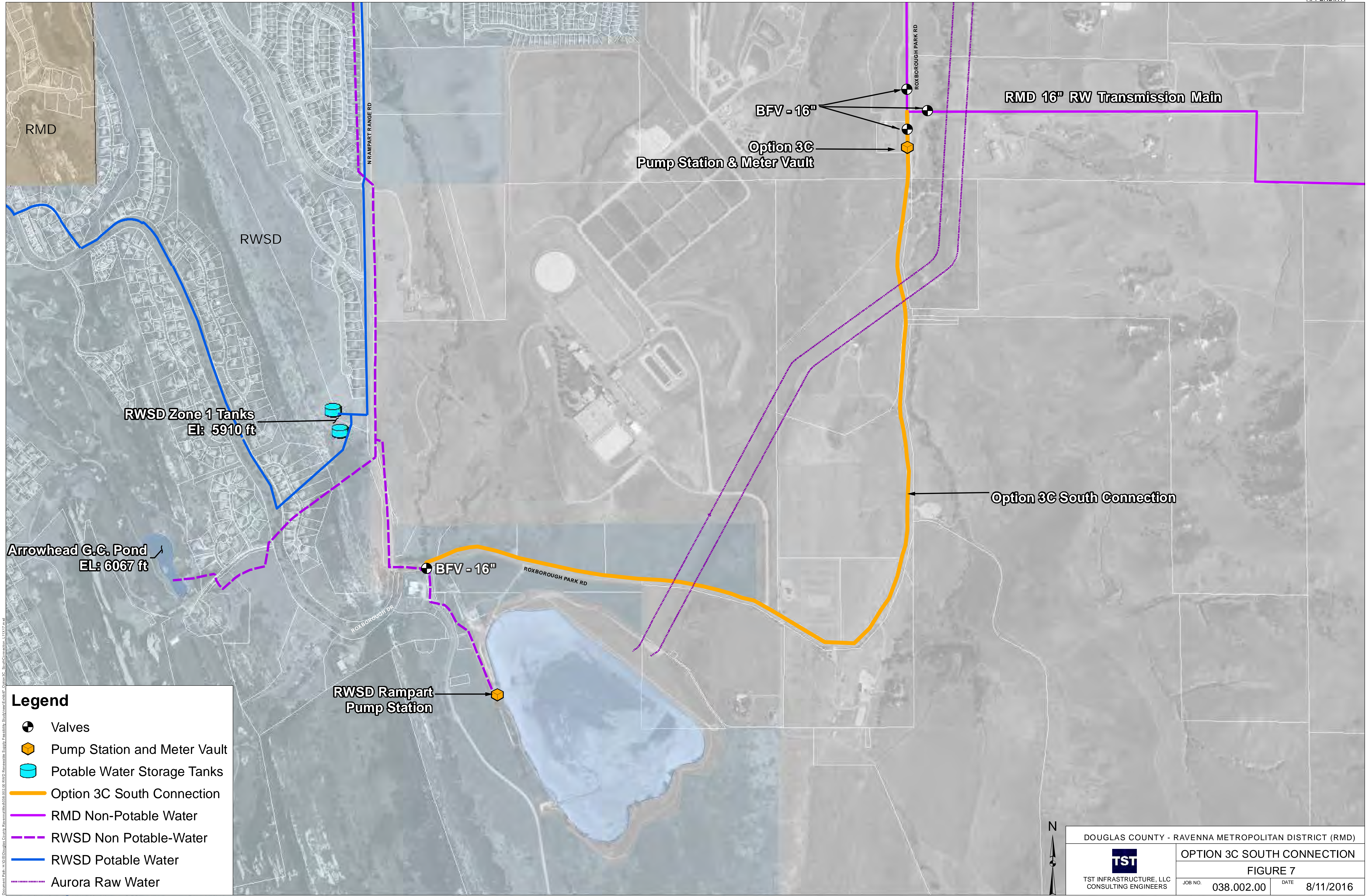
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DOUGLAS COUNTY - RAVENNA METROPOLITAN DISTRICT (RMD)		
 TST INFRASTRUCTURE, LLC CONSULTING ENGINEERS	OPTION 3C SOUTH CONNECTION	
	FIGURE 7	
	JOB NO. 038.002.00	DATE 8/11/2016

LIST OF APPENDICES

A. OPTIONS COST

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost Summary
7/29/2016

	Option 1 - Continued Use of Existing Water Supply	Option 2 - Additional Water Supply from Aurora Water	Option 3 - Exchange with Arrowhead Golf Course Supply	Option 4 - Use Existing RWSD Supply
	1b Conventional Pretreatment Followed by Membrane Filtration		3c South Connection	
Upgrade Existing RMD WTP (pg. 5)	\$ 4,599,000	\$ -	\$ -	\$ -
Water Capital Cost (pg. 6)	\$ -	\$ 2,500,000	\$ -	\$ -
System Development Charge (pg. 3)	\$ -	\$ 2,832,500	\$ 2,832,500	\$ 3,465,000
RWSD Inclusion Fee (pg. 3)	\$ -	\$ 800,000	\$ 800,000	\$ 800,000
RWSD Connection Permit (pg. 3)	\$ -	\$ 412,500	\$ 412,500	\$ 412,500
Capital Cost to Connect to United Water (pgs. 11, 12)	\$ -	\$ -	\$ 2,021,000	\$ -
Emergency Interconnect at Ravenna WTP (pgs. 13, 14)	\$ 441,000	\$ 441,000	\$ 441,000	\$ 441,000
Second Connection (pgs. 15, 16)	\$ -	\$ 365,000	\$ 365,000	\$ 365,000
Total	\$ 5,040,000	\$ 7,351,000	\$ 6,872,000	\$ 5,483,500

Douglas County
Ravenna Metropolitan District
Option Cost Detailed Summary
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 1 - Continued Use of Existing Water Supply				
1b Conventional Pretreatment Followed by Membrane Filtration				
Upgrade Existing RMD WTP	1	ls	\$ 4,599,000	\$ 4,599,000
Water Capital Cost	0	ls	\$ -	\$ -
System Development Charge	0	\$/EQR	\$ -	\$ -
RWSD Inclusion Fee	0	\$/EQR	\$ -	\$ -
RWSD Connection Permit	0	\$/EQR	\$ -	\$ -
Capital Cost to Connect to United Water	0	ls	\$ -	\$ -
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	0	ls	\$ -	\$ -
Option 1 - 1b	Total			\$ 5,040,000
Option 2 - Additional Water Supply from Aurora Water				
Upgrade Existing RMD WTP	0	ls	\$ -	\$ -
Water Capital Cost	1	ls	\$ 2,500,000	\$ 2,500,000
System Development Charge	250	\$/EQR	\$ 11,330	\$ 2,832,500
RWSD Inclusion Fee	250	\$/EQR	\$ 3,200	\$ 800,000
RWSD Connection Permit	250	\$/EQR	\$ 1,650	\$ 412,500
Capital Cost to Connect to United Water	0	ls	\$ -	\$ -
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	1	ls	\$ 365,000	\$ 365,000
Option 2 -	Total			\$ 7,351,000
Option 3 - Exchange with Arrowhead Golf Course Supply				
3c South Connection				
Upgrade Existing RMD WTP	0	ls	\$ -	\$ -
Water Capital Cost	0	ls	\$ -	\$ -
System Development Charge	250	\$/EQR	\$ 11,330	\$ 2,832,500
RWSD Inclusion Fee	250	\$/EQR	\$ 3,200	\$ 800,000
RWSD Connection Permit	250	\$/EQR	\$ 1,650	\$ 412,500
Capital Cost to Connect to United Water	1	ls	\$ 2,021,000	\$ 2,021,000
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	1	ls	\$ 365,000	\$ 365,000
Option 3 - 3c	Total			\$ 6,872,000
Option 4 - Use Existing RWSD Supply				
Upgrade Existing RMD WTP	0	ls	\$ -	\$ -
Water Capital Cost	0	EQR	\$ -	\$ -
System Development Charge	250	\$/EQR	\$ 13,860	\$ 3,465,000
RWSD Inclusion Fee	250	\$/EQR	\$ 3,200	\$ 800,000
RWSD Connection Permit	250	\$/EQR	\$ 1,650	\$ 412,500
Capital Cost to Connect to United Water	0	ls	\$ -	\$ -
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	1	ls	\$ 365,000	\$ 365,000
Option 4 -	Total			\$ 5,483,500

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: SDC and Inclusion Fee
7/29/2016

Description	Quantity	Units	Unit Price	Cost
System Development Charge				
-				
New Facilities	1	ls	\$ 6,841	\$ 6,841
Existing facilities Buy-In - Adjusted	1	ls	\$ 4,489	\$ 4,489
Water Supply	1	ls	\$ 2,530	\$ 2,530
Subtotal		\$/EQR		\$ 13,860
RWSD Inclusion Fee				
-				
Inclusion Fee per EQR (or \$14,400 per acre)	1	EQR	\$ 3,200	\$ 3,200
Subtotal		\$/EQR		\$ 3,200
RWSD Connection Permit				
-				
Connection Permit	1	EQR	\$ 1,650	\$ 1,650
Subtotal		\$/EQR		\$ 1,650

Note: For options 2, and 3 RMD will provide the water supply. Therefore the RWSD water supply fee of \$2,530 is not required making the SDC total \$11,330.

Douglas County
Ravenna Metropolitan District
Option Cost: Option 1a Capital Cost (per Dewberry Report-Corrected)
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 1 - Continued Use of Existing Water Supply				
1a Conventional Pretreatment Followed by Mixed Media Filtration				
Capital Cost				
Equipment				
WesTech Aquarius Packaged Conventional Treatment System @ 250,000 gpd	1	ls	\$ 562,500	\$ 562,500
Chemical Storage	4	ea	\$ 520	\$ 2,100
Chemical Feed Skids	2	ea	\$ 15,000	\$ 30,000
Influent Pump Station	1	ls	\$ 150,000	\$ 150,000
Effluent Pump Station	1	ls	\$ 150,000	\$ 150,000
UV Disinfection	1	ls	\$ 48,000	\$ 48,000
Equipment Subtotal				\$ 943,000
Structural				
Building	3,025	sf	\$ 200	\$ 605,000
Concrete Slab - 8" Thick	90	cy	\$ 650	\$ 58,500
Structural Subtotal				\$ 664,000
E, I & C				
E, I & C Estimate	15%			\$ 241,050
E, I & C Subtotal				\$ 242,000
Capital Cost Subtotal				\$ 1,849,000
Construction				
Mobilization/Demobilization	3%			\$ 55,470
Contractor Overhead & Profit	15%			\$ 277,350
Bonding and Insurance	2%			\$ 36,980
GESC	1	ls	\$ -	\$ -
Construction Subtotal				\$ 370,000
Contingency	30%			\$ 666,000
Total Construction				\$ 1,036,000
Subtotal				\$ 2,885,000
Engineering, Design and Construction	15%			\$ 433,000
Subtotal				\$ 433,000
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 3,318,000

Douglas County
Ravenna Metropolitan District
Option Cost: Option 1b Capital Cost (per Dewberry Report-Corrected)
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 1 - Continued Use of Existing Water Supply				
1b Conventional Pretreatment Followed by Membrane Filtration				
Capital Cost				
Equipment				
Meurer Conventional Pretreatment System: 1 Train @ 250,000 gpd	1	ls	\$ 390,000	\$ 390,000
Evoqua Water Technologies Membrane Filtration skid and Ancillary Equipment @ 220,000 gpd	1	ls	\$ 356,250	\$ 356,250
Redundant Membrane Filtration Skid	1	ls	\$ 168,750	\$ 168,750
Chemical Storage	8	ea	\$ 520	\$ 4,160
Chemical Feed Skids	3	ea	\$ 15,000	\$ 45,000
Influent Pump Station	1	ls	\$ 150,000	\$ 150,000
Effluent Pump Station	0	ls	\$ 150,000	\$ -
UV Disinfection	1	ls	\$ 48,000	\$ 48,000
Equipment Subtotal				\$ 1,163,000
Structural				
Building	4,900	sf	\$ 200	\$ 980,000
Concrete Slab - 8" Thick	130	cy	\$ 650	\$ 84,500
Structural Subtotal				\$ 1,065,000
E, I & C				
E, I & C Estimate	15%			\$ 334,200
E, I & C Subtotal				\$ 335,000
Capital Cost Subtotal				\$ 2,563,000
Construction				
Mobilization/Demobilization	3%			\$ 76,890
Contractor Overhead & Profit	15%			\$ 384,450
Bonding and Insurance	2%			\$ 51,260
GESC	1	ls	\$ -	\$ -
Construction Subtotal				\$ 513,000
Contingency	30%			\$ 922,800
Total Construction				\$ 1,436,000
Subtotal				\$ 3,999,000
Engineering, Design and Construction	15%			\$ 599,850
Subtotal				\$ 600,000
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 4,599,000

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Douglas County
Ravenna Metropolitan District
Option Cost: Option 2 Capital Cost
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 2 - Additional Water Supply from Aurora Water				
Capital Cost				
Water from Aurora Rampart Reservoir	250	EQR	\$ 10,000	\$ 2,500,000
Subtotal				\$ 2,500,000
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 2,500,000

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Douglas County
Ravenna Metropolitan District
Option Cost: Option 3 Summary
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 3 - Exchange with Arrowhead Golf Course Supply				
3a North Connection				
Upgrade Existing RMD WTP	0	ls	\$ -	\$ -
Water Capital Cost	1	ls	\$ -	\$ -
System Development Charge	250	\$/EQR	\$ 11,330	\$ 2,832,500
RWSD Inclusion Fee	250	\$/EQR	\$ 3,200	\$ 800,000
RWSD Connection Permit	250	\$/EQR	\$ 1,650	\$ 412,500
Capital Cost to Connect to United Water	1	ls	\$ 1,163,000	\$ 1,163,000
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	1	ls	\$ 365,000	\$ 365,000
Option 3 - 3a Total				\$ 6,014,000
3b North Connection with Full Replacement				
Upgrade Existing RMD WTP	0	ls	\$ -	\$ -
Water Capital Cost	1	ls	\$ -	\$ -
System Development Charge	250	\$/EQR	\$ 11,330	\$ 2,832,500
RWSD Inclusion Fee	250	\$/EQR	\$ 3,200	\$ 800,000
RWSD Connection Permit	250	\$/EQR	\$ 1,650	\$ 412,500
Capital Cost to Connect to United Water	1	ls	\$ 2,384,000	\$ 2,384,000
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	1	ls	\$ 365,000	\$ 365,000
Option 3 - 3b Total				\$ 7,235,000
3c South Connection				
Upgrade Existing RMD WTP	0	ls	\$ -	\$ -
Water Capital Cost	0	ls	\$ -	\$ -
System Development Charge	250	\$/EQR	\$ 11,330	\$ 2,832,500
RWSD Inclusion Fee	250	\$/EQR	\$ 3,200	\$ 800,000
RWSD Connection Permit	250	\$/EQR	\$ 1,650	\$ 412,500
Capital Cost to Connect to United Water	1	ls	\$ 2,021,000	\$ 2,021,000
Emergency Interconnect at Ravenna WTP	1	ls	\$ 441,000	\$ 441,000
Second Connection	1	ls	\$ 365,000	\$ 365,000
Option 3 - 3c Total				\$ 6,872,000

Douglas County
Ravenna Metropolitan District
Option Cost: Option 3a Capital Cost
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 3 - Exchange with Arrowhead Golf Course Supply				
3a North Connection				
16" Connection	1	ea	\$ 5,000	\$ 5,000
16" DIP Tee	1	ea	\$ 2,924	\$ 2,924
16" Butterfly Valve	2	ea	\$ 5,000	\$ 10,000
16" DIP CL 52	120	lf	\$ 150	\$ 18,000
Pump Station & Meter Vault Option 3a/b	1	ls	\$ 207,000	\$ 207,000
16" x 14" DIP Reducer	1	ea	\$ 6,000	\$ 6,000
14" DIP Elbow	1	ea	\$ 1,985	\$ 1,985
14" Connection	2	ea	\$ 4,000	\$ 8,000
14" DI Plug	1	ea	\$ 2,500	\$ 2,500
14" x 10" DI Reducer	1	ea	\$ 3,250	\$ 3,250
10" DIP CL 52	105	lf	\$ 100	\$ 10,500
10" DIP Tee	1	ea	\$ 1,489	\$ 1,489
10" DIP Elbow, 45	1	ea	\$ 1,161	\$ 1,161
Gate Valve, 10"	2	ea	\$ 1,750	\$ 3,500
10" Connection	1	ea	\$ 1,500	\$ 1,500
Repairs to Existing Pipe	25%		\$ 1,091,338	\$ 272,834
Asphalt Replacement and Street Repairs	2,175	lf	\$ 100	\$ 217,500
GESC				
GESC	1	ls	\$ 1,135	\$ 1,135
Water Subtotal				\$ 775,000
Construction Subtotal				\$ 775,000
Contingency	25%			\$ 193,750
Total Construction				\$ 968,750
Engineering, Design and Construction	20%			\$ 193,800
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 1,163,000

Douglas County
Ravenna Metropolitan District
Option Cost: Option 3b Capital Cost
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 3 - Exchange with Arrowhead Golf Course Supply				
3b North Connection with Full Replacement				
16" Connection	1	ea	\$ 5,000	\$ 5,000
16" x 12" DIP Reducing Tee	1	ea	\$ 7,924	\$ 7,924
Gate Valve, 12"	1	ea	\$ 1,950	\$ 1,950
12" DIP CL 52	7,937	lf	\$ 110	\$ 873,070
12" DIP Tee	1	ea	\$ 2,004	\$ 2,004
12" DIP Elbow, 90	2	ea	\$ 1,290	\$ 2,580
12" x 10" DIP Reducer	1	ea	\$ 3,000	\$ 3,000
Gate Valve, 10"	1	ea	\$ 1,750	\$ 1,750
10" Connection	1	ea	\$ 1,500	\$ 1,500
Pump Station & Meter Vault Option 3a/b	1	ls	\$ 207,000	\$ 207,000
Asphalt Replacement and Street Repairs	3,969	lf	\$ 100	\$ 396,850
GESC				
GESC	1	ls	\$ 85,759	\$ 85,759
Water Subtotal				\$ 1,589,000
Construction Subtotal				\$ 1,589,000
Contingency	25%			\$ 397,250
Total Construction				\$ 1,986,250
Engineering, Design and Construction	20%			\$ 397,250
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 2,384,000

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: Pump Station & Meter Vault Option 3a/b
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Pump Station & Meter Vault Option 3a/b				
Civil				
Precast Concrete Vault	1	ea	\$ 27,000	\$ 27,000
Vault Excavation	265	cy	\$ 15	\$ 3,975
Setting of Vault	1	ls	\$ 5,000	\$ 5,000
Vault Backfill	170	cy	\$ 30	\$ 5,100
3'-0" W x 2'-6" Access Hatch	1	ea	\$ 2,500	\$ 2,500
4'-0" x 4'-0" Equipment Hatch	2	ea	\$ 4,000	\$ 8,000
Thrust Block	2	ea	\$ 100	\$ 200
Sump w/ FRP Mesh Grate	4	sf	\$ 25	\$ 100
Manhole Steps	6	ea	\$ 100	\$ 600
A-Lok Rubber Boot	2	ea	\$ 250	\$ 500
<i>Civil Subtotal</i>				\$ 52,975
Piping				
10" x 8" DI MJ Reducer	1	ea	\$ 2,000	\$ 2,000
8" DI Pipe CI 52	10	lf	\$ 90	\$ 900
8" Romac 501 Coupling	2	ea	\$ 181	\$ 361
8" Mid Span Restraint w/ Duc Lug	2	ea	\$ 311	\$ 623
Meter Section				
8" DI MJ Tee	2	ea	\$ 1,202	\$ 2,405
8" Gate Valve	4	ea	\$ 1,325	\$ 5,300
8" Flng x Flng Spool	5	ea	\$ 300	\$ 1,500
8" DI Pipe CI 52	2	lf	\$ 90	\$ 180
8" DI Elbow 90	2	ea	\$ 1,135	\$ 2,271
8" Mag Meter	1	ea	\$ 9,778	\$ 9,778
Adj Pipe Support	3	ea	\$ 400	\$ 1,200
10" x 8" DI MJ Reducer	1	ea	\$ 2,000	\$ 2,000
Pump Section				
10" Megalug	2	ea	\$ 87	\$ 174
10" DI Pipe 52	2	lf	\$ 100	\$ 200
10" DI MJ Tee	2	ea	\$ 1,489	\$ 2,978
Adj Pipe Support	6	ea	\$ 400	\$ 2,400
10" DI MJ Elbow	4	ea	\$ 1,215	\$ 4,861
10" Gate Valve	4	ea	\$ 1,500	\$ 6,000
10" Flng x Flng Spool	4	ea	\$ 250	\$ 1,000
10" Vertical Centrifugal Pump; 500 gpm @ 143 psig, 60 hp	2	ea	\$ 10,000	\$ 20,000
10" DI Pipe CI 52	10	lf	\$ 100	\$ 1,000
10" Romac 501 Coupling	2	ea	\$ 300	\$ 600
10" Mid Span Restraint w/ Duc Lug	2	ea	\$ 536	\$ 1,072
Sump Drain Pipe Assy	1	ls	\$ 400	\$ 400
Air Vent Assembly	2	ea	\$ 500	\$ 1,000
<i>Piping Subtotal</i>				\$ 70,203
Electrical				
Lights	1	ls	\$ 1,000	\$ 1,000
Heater	1	ls	\$ 3,000	\$ 3,000
Outlets, Conduit, etc.	1	ls	\$ 1,000	\$ 1,000
Security Sensors	1	ls	\$ 1,500	\$ 1,500
Misc Elec	12%			\$ 14,781
<i>Electrical Subtotal</i>				\$ 21,282
I&C				
Controls				
Pump Panel w/ Remote Access	1	ea	\$ 5,000	\$ 5,000
Instrumentation				
Pressure Gauge Assy	4	ea	\$ 1,000	\$ 4,000
Pressure Switch Assy	2	ea	\$ 500	\$ 1,000
Misc I&C	10%			\$ 12,318
<i>I&C Subtotal</i>				\$ 22,318
GESC				
GESC	1	ls	\$ 30,000	\$ 30,000
<i>GESC Subtotal</i>				\$ 30,000
Construction Subtotal				\$ 196,778
Contingency	5%		\$ 9,800	\$ 9,800
Total Construction				\$ 206,578
Engineering, Design and Construction	0%			\$ -
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 207,000

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: Option 3c Capital Cost
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Option 3 - Exchange with Arrowhead Golf Course Supply				
3c South Connection				
16" Connection	1	ea	\$ 5,000	\$ 5,000
16" DIP Tee	1	ea	\$ 2,924	\$ 2,924
Butterfly Valve, 16"	3	ea	\$ 5,000	\$ 15,000
16" DIP CL 52	60	lf	\$ 150	\$ 9,000
Pump Station & Meter Vault Option 3c	1	ls	\$ 232,000	\$ 232,000
12" DIP CL 52	9,740	lf	\$ 110	\$ 1,071,400
12" x 8" DIP Reducer	1	ea	\$ 2,500	\$ 2,500
Gate Valve, 8"	4	ea	\$ 1,325	\$ 5,300
8" DIP Tee	1	ea	\$ 1,202	\$ 1,202
8" Connection	1	ea	\$ 1,400	\$ 1,400
GESC				
GESC	1	ls	\$ 648	\$ 648
Water Subtotal				\$ 1,347,000
Construction Subtotal				\$ 1,347,000
Contingency	25%			\$ 336,750.00
Total Construction				\$ 1,683,750
Engineering, Design and Construction	20%			\$ 336,750
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 2,021,000

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: Pump Station & Meter Vault Option 3c
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Pump Station & Meter Vault Option 3c				
Civil				
Precast Concrete Vault	1	ea	\$ 27,000	\$ 27,000
Vault Excavation	265	cy	\$ 15	\$ 3,975
Setting of Vault	1	ls	\$ 5,000	\$ 5,000
Vault Backfill	170	cy	\$ 30	\$ 5,100
3'-0" W x 2'-6" Access Hatch	1	ea	\$ 2,500	\$ 2,500
4'-0" x 4'-0" Equipment Hatch	2	ea	\$ 4,000	\$ 8,000
Thrust Block	2	ea	\$ 100	\$ 200
Sump w/ FRP Mesh Grate	4	sf	\$ 25	\$ 100
Manhole Steps	8	ea	\$ 100	\$ 800
A-Lok Rubber Boot	2	ea	\$ 250	\$ 500
Civil Subtotal				\$ 53,175
Piping				
16" x 8" DI MJ Reducer	1	ea	\$ 4,000	\$ 4,000
8" DI Pipe CI 52	10	lf	\$ 90	\$ 900
8" Romac 501 Coupling	2	ea	\$ 181	\$ 361
8" Mid Span Restraint w/ Duc Lug	2	ea	\$ 311	\$ 623
Meter Section				
8" DI MJ Tee	2	ea	\$ 1,202	\$ 2,405
8" Gate Valve	4	ea	\$ 1,325	\$ 5,300
8" Fling x Fling Spool	5	ea	\$ 300	\$ 1,500
8" DI Pipe CI 52	2	lf	\$ 90	\$ 180
8" DI Elbow 90	2	ea	\$ 1,135	\$ 2,271
8" Mag Meter	1	ea	\$ 9,778	\$ 9,778
Adj Pipe Support	3	ea	\$ 400	\$ 1,200
10" x 8" DI MJ Reducer	1	ea	\$ 2,000	\$ 2,000
Pump Section				
10" Megalug	2	ea	\$ 87	\$ 174
10" DI Pipe 52	2	lf	\$ 100	\$ 200
10" DI MJ Tee	2	ea	\$ 1,489	\$ 2,978
Adj Pipe Support	6	ea	\$ 400	\$ 2,400
10" DI MJ Elbow	4	ea	\$ 1,215	\$ 4,861
10" Gate Valve	4	ea	\$ 1,500	\$ 6,000
10" Fling x Fling Spool	4	ea	\$ 250	\$ 1,000
10" Vertical Centrifugal Pump; 500 gpm @ 143 psig, 60 hp	2	ea	\$ 15,000	\$ 30,000
12" x 10" DI MJ Reducer	1	ea	\$ 3,000	\$ 3,000
10" DI Pipe CI 52	10	lf	\$ 100	\$ 1,000
10" Romac 501 Coupling	2	ea	\$ 300	\$ 600
10" Mid Span Restraint w/ Duc Lug	2	ea	\$ 536	\$ 1,072
Sump Drain Pipe Assy	1	ls	\$ 400	\$ 400
Air Vent Assembly	2	ea	\$ 500	\$ 1,000
Piping Subtotal				\$ 85,203
Electrical				
Lights	1	ls	\$ 1,000	\$ 1,000
Heater	1	ls	\$ 3,000	\$ 3,000
Outlets, Conduit, etc.	1	ls	\$ 1,000	\$ 1,000
Security Sensors	1	ls	\$ 1,500	\$ 1,500
Misc Elec	12%			\$ 16,605
Electrical Subtotal				\$ 23,106
I&C				
Controls				
Pump Panel w/ Remote Access	1	ea	\$ 10,000	\$ 10,000
Instrumentation				
Pressure Gauge Assy	4	ea	\$ 1,000	\$ 4,000
Pressure Switch Assy	2	ea	\$ 500	\$ 1,000
Misc I&C	10%			\$ 13,838
I&C Subtotal				\$ 28,838
GESC				
GESC	1	ls	\$ 30,000	\$ 30,000
GESC Subtotal				\$ 30,000
Construction Subtotal				\$ 220,322
Contingency	5%		\$ 11,000	\$ 11,000
Total Construction				\$ 231,322
Engineering, Design and Construction	0%			\$ -
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 232,000

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: Additional Costs - Emergency Interconnect at Ravenna WTP
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Additional Costs				
0 Emergency Interconnect at Ravenna WTP				
12" DIP CL 52	307	lf	\$ 110	\$ 33,770
12" DIP Tee	4	ea	\$ 2,004	\$ 8,015
12" DIP Elbow, 90	3	ea	\$ 1,290	\$ 3,870
Gate Valve, 12"	3	ea	\$ 3,000	\$ 9,000
12" Connection	3	ea	\$ 1,550	\$ 4,650
PRV and Meter Vault - Emergency Interconnect at Ravenna WTP	1	ls	\$ 223,000	\$ 223,000
GESC				
GESC	1	ls	\$ 11,220	\$ 11,220
Water Subtotal				\$ 294,000
Construction Subtotal				\$ 294,000
Contingency	25%			\$ 73,500
Total Construction				\$ 367,500
Engineering, Design and Construction	20%			\$ 73,500
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 441,000

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: PRV and Meter Vault - Emergency Interconnect at Ravenna WTP
7/29/2016

Description	Quantity	Units	Unit Price	Cost
PRV and Meter Vault - Emergency Interconnect at Ravenna WTP				
Civil				
Precast Concrete Vault	1	ea	\$ 27,000	\$ 27,000
Vault Excavation	137	cy	\$ 15	\$ 2,055
Setting of Vault	1	ls	\$ 5,000	\$ 5,000
Vault Backfill	87	cy	\$ 30	\$ 2,610
3'-0" W x 2'-6" Access Hatch	1	ea	\$ 2,500	\$ 2,500
4'-0" x 4'-0" Equipment Hatch	0	ea	\$ 4,000	\$ -
Thrust Collar	1	ea	\$ 200	\$ 200
Thrust Block	2	ea	\$ 100	\$ 200
Sump w/ FRP Mesh Grate	2.25	sf	\$ 25	\$ 56
Manhole Steps	8	ea	\$ 100	\$ 800
12" A-Lok Rubber Boot	2	ea	\$ 400	\$ 800
6" A-Lok Rubber Boot	2	ea	\$ 250	\$ 1,000
Civil Subtotal				\$ 41,222
Piping				
12" DI Pipe CI 52	18	lf	\$ 110	\$ 1,980
12" Romac 501 Coupling	3	ea	\$ 370	\$ 1,111
12" Mid Span Restraint w/ Duc Lug	3	ea	\$ 586	\$ 1,757
12" DI MJ Tee	1	ea	\$ 2,004	\$ 2,004
12" x 8" DI MJ Reducer	1	ea	\$ 2,500	\$ 2,500
8" DI Pipe CI 52	4	lf	\$ 90	\$ 360
8" Romac 501 Coupling	1	ea	\$ 181	\$ 181
8" Mid Span Restraint w/ Duc Lug	1	ea	\$ 311	\$ 311
Meter Section				
8" DI MJ Tee	2	ea	\$ 1,202	\$ 2,405
8" Gate Valve	4	ea	\$ 1,325	\$ 5,300
8" Fling x Fling Spool	5	ea	\$ 300	\$ 1,500
8" DI Pipe CI 52	2	lf	\$ 90	\$ 180
8" DI Elbow 90	2	ea	\$ 1,135	\$ 2,271
8" Mag Meter	1	ea	\$ 9,778	\$ 9,778
Adj Pipe Support	3	ea	\$ 400	\$ 1,200
12" x 8" DI MJ Reducer	1	ea	\$ 2,500	\$ 2,500
PRV Section				
12" x 8" DI MJ Reducer	1	ea	\$ 2,500	\$ 2,500
12" DI Pipe 52	24	lf	\$ 110	\$ 2,640
12" Megalug	6	ea	\$ 118	\$ 709
12" x 3/4" Service Saddle	2	ea	\$ 350	\$ 700
12" x 2" Service Saddle	2	ea	\$ 350	\$ 700
Adj Pipe Support	14	ea	\$ 400	\$ 5,600
12" x 12" x 4" DI MJ Reducing Tee	2	ea	\$ 2,004	\$ 4,007
12" DIP Fling x Fling Spool	2	ea	\$ 220	\$ 440
12" x 12" x 8" DI MJ Reducing Tee	2	ea	\$ 4,504	\$ 9,007
12" Blind Flange	2	ea	\$ 750	\$ 1,500
8" Gate Valve	2	ea	\$ 1,325	\$ 2,650
8" DIP FLNG x PL Spool	1	ea	\$ 200	\$ 200
8" RFCA	1	ea	\$ 454	\$ 454
8" PRV FLNG	1	ea	\$ 8,700	\$ 8,700
8" DIP FLNG x FLNG Spool	1	ea	\$ 200	\$ 200
4" Gate Valve	2	ea	\$ 750	\$ 1,500
4" DIP FLNG x PL Spool	2	ea	\$ 150	\$ 300
4" RFCA	2	ea	\$ 269	\$ 538
4" PRV FLNG	1	ea	\$ 3,500	\$ 3,500
4" DIP FLNG x FLNG Spool	1	ea	\$ 150	\$ 150
2" x SHT Nipple, BRS	2	ea	\$ 10	\$ 20
2" FPT Ball Valve, BRS	2	ea	\$ 250	\$ 500
2" Male Adapter, CU	2	ea	\$ 50	\$ 100
2" x 1" SOC Reducing Tee, CU	3	ea	\$ 50	\$ 150
2" Pipe CU	6	lf	\$ 30	\$ 180
2" SOC Union CU	2	ea	\$ 20	\$ 40
2" SOC x 2" FPT Female Adapter CU	1	ea	\$ 10	\$ 10
2" SOC PRV BRS	2	ea	\$ 2,100	\$ 4,200
1" Pipe CU	10	lf	\$ 20	\$ 200
1" SOC Ball Valve, BRS	2	ea	\$ 20	\$ 40
1" SOC Elbow CU	2	ea	\$ 5	\$ 10
1" SOC Union CU	2	ea	\$ 10	\$ 20
1" SOC PRV, BRS	1	ea	\$ 1,000	\$ 1,000
1" SOC Check Valve CU	1	ea	\$ 250	\$ 250
12" Gate Valve	1	ea	\$ 1,950	\$ 1,950
12" DI MJ Tee	1	ea	\$ 2,004	\$ 2,004
12" Romac 501 Coupling	3	ea	\$ 370	\$ 1,111
12" Mid Span Restraint w/ Duc Lug	3	ea	\$ 586	\$ 1,757
12" DI Pipe CI 52	13	lf	\$ 110	\$ 1,430
Sump Drain Pipe Assy	1	ls	\$ 400	\$ 400
Air Vent Assembly	2	ea	\$ 500	\$ 1,000
Piping Subtotal				\$ 97,705
Electrical				
Lights	1	ls	\$ 1,000	\$ 1,000
Heater	1	ls	\$ 3,000	\$ 3,000
Outlets, Conduit, etc.	1	ls	\$ 1,000	\$ 1,000
Security Sensors	1	ls	\$ 1,500	\$ 1,500
Misc Elec	12%			\$ 16,671
Electrical Subtotal				\$ 23,172
I&C				
Controls				
Panel	1	ea	\$ 2,000	\$ 2,000
Instrumentation				
Pressure Gauge Assy	4	ea	\$ 1,000	\$ 4,000
Pressure Switch Assy	0	ea	\$ 500	\$ -
Misc I&C	10%			\$ 13,893
I&C Subtotal				\$ 19,893
GESC				
GESC	1	ls	\$ 30,000	\$ 30,000
GESC Subtotal				\$ 30,000
Construction Subtotal				\$ 211,992
Contingency	5%		\$ 10,600	\$ 10,600
Total Construction				\$ 222,592
Engineering, Design and Construction	0%			\$ -
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 223,000

APPENDIX A

Douglas County
Ravenna Metropolitan District
Option Cost: Additional Costs - Second Connection
7/29/2016

Description	Quantity	Units	Unit Price	Cost
Additional Costs				
0 Second Connection				
12" DIP CL 52	307	lf	\$ 110	\$ 33,770
12" DIP Tee	2	ea	\$ 2,004	\$ 4,007
Gate Valve, 12"	2	ea	\$ 1,950	\$ 3,900
12" Connection	2	ea	\$ 1,550	\$ 3,100
PRV Vault - Second Connection	1	ls	\$ 187,000	\$ 187,000
GESC				
GESC	1	ls	\$ 11,220	\$ 11,220
Water Subtotal				\$ 243,000
Construction Subtotal				\$ 243,000
Contingency	25%			\$ 60,750
Total Construction				\$ 303,750
Engineering, Design and Construction	20%			\$ 60,750
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 365,000

Douglas County
Ravenna Metropolitan District
Option Cost: PRV Vault - Second Connection
7/29/2016

Description	Quantity	Units	Unit Price	Cost
PRV Vault - Second Connection				
Civil				
Precast Concrete Vault	1	ea	\$ 27,000	\$ 27,000
Vault Excavation	137	cy	\$ 15	\$ 2,055
Setting of Vault	1	ls	\$ 5,000	\$ 5,000
Vault Backfill	87	cy	\$ 30	\$ 2,610
3'-0" W x 2'-6" Access Hatch	1	ea	\$ 2,500	\$ 2,500
4'-0" x 4'-0" Equipment Hatch	0	ea	\$ 4,000	\$ -
Thrust Collar	1	ea	\$ 200	\$ 200
Thrust Block	2	ea	\$ 100	\$ 200
Sump w/ FRP Mesh Grate	2.25	sf	\$ 25	\$ 56
Manhole Steps	8	ea	\$ 100	\$ 800
12" A-Lok Rubber Boot	2	ea	\$ 400	\$ 800
6" A-Lok Rubber Boot	2	ea	\$ 250	\$ 1,000
Civil Subtotal				\$ 41,222
Piping				
12" DI Pipe CI 52	18	lf	\$ 110	\$ 1,980
12" Romac 501 Coupling	3	ea	\$ 370	\$ 1,111
12" Mid Span Restraint w/ Duc Lug	3	ea	\$ 586	\$ 1,757
12" DI MJ Tee	1	ea	\$ 2,004	\$ 2,004
PRV Section				
12" x 8" DI MJ Reducer	1	ea	\$ 2,500	\$ 2,500
12" DI Pipe 52	24	lf	\$ 110	\$ 2,640
12" Megalug	6	ea	\$ 118	\$ 709
12" x 3/4" Service Saddle	2	ea	\$ 350	\$ 700
12" x 2" Service Saddle	2	ea	\$ 350	\$ 700
Adj Pipe Support	14	ea	\$ 400	\$ 5,600
12" x 12" x 4" DI MJ Reducing Tee	2	ea	\$ 2,004	\$ 4,007
12" DIP Flng x Flng Spool	2	ea	\$ 220	\$ 440
12" x 12" x 8" DI MJ Reducing Tee	2	ea	\$ 4,504	\$ 9,007
12" Blind Flange	2	ea	\$ 750	\$ 1,500
8" Gate Valve	2	ea	\$ 1,325	\$ 2,650
8" DIP FLNG x PL Spool	1	ea	\$ 200	\$ 200
8" RFCA	1	ea	\$ 454	\$ 454
8" PRV FLNG	1	ea	\$ 8,700	\$ 8,700
8" DIP FLNG x FLNG Spool	1	ea	\$ 200	\$ 200
4" Gate Valve	2	ea	\$ 750	\$ 1,500
4" DIP FLNG x PL Spool	2	ea	\$ 150	\$ 300
4" RFCA	2	ea	\$ 269	\$ 538
4" PRV FLNG	1	ea	\$ 3,500	\$ 3,500
4" DIP FLNG x FLNG Spool	1	ea	\$ 150	\$ 150
2" x SHT Nipple, BRS	2	ea	\$ 10	\$ 20
2" FPT Ball Valve, BRS	2	ea	\$ 250	\$ 500
2" Male Adapter, CU	2	ea	\$ 50	\$ 100
2" x 1" SOC Reducing Tee, CU	3	ea	\$ 50	\$ 150
2" Pipe CU	6	lf	\$ 30	\$ 180
2" SOC Union CU	2	ea	\$ 20	\$ 40
2" SOC x 2" FPT Female Adapter CU	1	ea	\$ 10	\$ 10
2" SOC PRV BRS	2	ea	\$ 2,100	\$ 4,200
1" Pipe CU	10	lf	\$ 20	\$ 200
1" SOC Ball Valve, BRS	2	ea	\$ 20	\$ 40
1" SOC Elbow CU	2	ea	\$ 5	\$ 10
1" SOC Union CU	2	ea	\$ 10	\$ 20
1" SOC PRV, BRS	1	ea	\$ 1,000	\$ 1,000
1" SOC Check Valve CU	1	ea	\$ 250	\$ 250
12" Gate Valve	1	ea	\$ 1,950	\$ 1,950
12" DI MJ Tee	1	ea	\$ 2,004	\$ 2,004
12" Romac 501 Coupling	3	ea	\$ 370	\$ 1,111
12" Mid Span Restraint w/ Duc Lug	3	ea	\$ 586	\$ 1,757
12" DI Pipe CI 52	13	lf	\$ 110	\$ 1,430
Sump Drain Pipe Assy	1	ls	\$ 400	\$ 400
Air Vent Assembly	2	ea	\$ 500	\$ 1,000
Piping Subtotal				\$ 69,220
Electrical				
Lights	1	ls	\$ 1,000	\$ 1,000
Heater	1	ls	\$ 3,000	\$ 3,000
Outlets, Conduit, etc.	1	ls	\$ 1,000	\$ 1,000
Security Sensors	1	ls	\$ 1,500	\$ 1,500
Misc Elec	12%		\$	\$ 13,253
Electrical Subtotal				\$ 19,754
I&C				
Controls				
Panel	1	ea	\$ 2,000	\$ 2,000
Instrumentation				
Pressure Gauge Assy	4	ea	\$ 1,000	\$ 4,000
Pressure Switch Assy	0	ea	\$ 500	\$ -
Misc I&C	10%		\$	\$ 11,044
I&C Subtotal				\$ 17,045
GESC				
GESC	1	ls	\$ 30,000	\$ 30,000
GESC Subtotal				\$ 30,000
Construction Subtotal				\$ 177,241
Contingency	5%		\$ 8,900	\$ 8,900
Total Construction				\$ 186,141
Engineering, Design and Construction	0%		\$	\$ -
TOTAL COST (ROUNDED UP TO NEAREST \$1000)				\$ 187,000

**CANVASSERS
ABSTRACT OF RETURNS
§1-13.5-1305(1), C.R.S.**

For an election held for **Roxborough Water and Sanitation District** on November 8, 2016.

Ballots counted for and against the ballot question as follows:

ROXBOROUGH WATER AND SANITATION DISTRICT BALLOT QUESTION A:

SHALL THE FOLLOWING DESCRIBED AREA BECOME A PART OF ROXBOROUGH WATER AND SANITATION DISTRICT UPON THE FOLLOWING CONDITIONS?

DESCRIPTION OF AREA:

ALL REAL PROPERTY WITHIN THE BOUNDARIES OF THE RAVENNA METROPOLITAN DISTRICT (“RAVENNA”), INCLUDING:

LOTS 3 TO 10, 12 TO 15, 16A, 18 TO 25, 28, 32, 37 TO 51, 53A, 55 TO 65, TRACTS B, F, G, I, O, P, T, W, AND U, TRACTS B, F, G, I, O, P, T, U, AND W, RIVER CANYON – FILING NO. 1-A, COUNTY OF DOUGLAS, STATE OF COLORADO

LOTS 16-A, 17-A, 27 TO 70, 73, 75 TO 95, 98 TO 100, 103 TO 115, 117, 119 TO 121, 123 TO 125, 127 TO 129, 131, 132, AND 134 TO 178, TRACTS B AND D, RIVER CANYON FILING NO. 1-B, DOUGLAS COUNTY, COLORADO

LOTS 1-A AND 179-A, RIVER CANYON FILING NO. 1-B, 1ST AMENDMENT, DOUGLAS COUNTY, COLORADO

LOTS 26, 29 TO 31, 33 TO 36, 101-A, 102-A, TRACTS MOST OF E-1, H, K, M, N-1, Q-1, V, X, MOST OF TRACT Y, AND Z, RIVER CANYON – FILING NO. 1-A, 1ST AMENDMENT, COUNTY OF DOUGLAS, STATE OF COLORADO

LOTS 71, 72, 74, 96, 116, 118, 122, 126, 130, AND 133, RIVER CANYON FILING NO. 1-B, 2ND AMENDMENT, COUNTY OF DOUGLAS, STATE OF COLORADO

LOTS 15-A AND 27-A, RIVER CANYON FILING NO. 1-B, 3RD AMENDMENT, DOUGLAS COUNTY, COLORADO

LOTS 2-A1, 3-A1, 4-A1, 5-A1, 6-A1, 7-A1, 8-A, 9-A, 10-A, 11-A, 12-A, 13-A, 14-A, 18-A1, 19-A1, 19-B1, 20-A1, 21-A1, 22-A1, 23-A1, 24-A1, 25-A1, AND 26-A1, RIVER CANYON FILING NO. 1-B, 5TH AMENDMENT, DOUGLAS COUNTY, COLORADO

TOGETHER WITH ANY AND ALL OTHER PROPERTY LOCATED WITHIN THE BOUNDARIES OF THE RAVENNA METROPOLITAN DISTRICT NOT OTHERWISE REFERENCED ABOVE.

SUMMARY OF CONDITIONS:

THE ABOVE DESCRIBED AREA (THE “PROPERTY”) SHALL BECOME A PART OF ROXBOROUGH WATER AND SANITATION DISTRICT (THE “DISTRICT”) SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) AMENDMENTS TO THE FOLLOWING AGREEMENTS ARE APPROVED AND EXECUTED BY THE APPLICABLE PARTIES AS DEEMED NECESSARY FOR PURPOSES OF PROVIDING WATER

SERVICE, INCLUDING BUT NOT LIMITED TO THE ACQUISITION OF RAW WATER AND CONSTRUCTION OF INFRASTRUCTURE, TO THE PROPERTY, ARROWHEAD GOLF COURSE, ROXBOROUGH VILLAGE METROPOLITAN DISTRICT AND THE CLUB AT RAVENNA:

- (A) INTERGOVERNMENTAL AGREEMENT FOR WATER SUPPLY, DATED DECEMBER 20, 2010, BETWEEN THE DISTRICT AND THE CITY OF AURORA, COLORADO, ACTING BY AND THROUGH ITS WATER ACTIVITY ENTERPRISE;
 - (B) FIRST AMENDED AND RESTATED WATER SERVICE AGREEMENT, DATED JUNE 20, 2006, AS AMENDED, BETWEEN UNITED WATER AND SANITATION DISTRICT ("UNITED") AND RAVENNA;
 - (C) WATER SUPPLY AGREEMENT, DATED DECEMBER 12, 2012, BETWEEN THE DISTRICT AND CF ARCIS ARROWHEAD GOLF, LLC (SUCCESSOR); AND
 - (D) WATER SUPPLY AGREEMENT, DATED JANUARY 15, 2003, AS AMENDED, BETWEEN THE DISTRICT AND ROXBOROUGH VILLAGE METROPOLITAN DISTRICT.
- (2) THE NEGOTIATION AND EXECUTION OF THE FOLLOWING AGREEMENTS FOR PURPOSES OF PROVIDING WATER SERVICE, INCLUDING BUT NOT LIMITED TO THE ACQUISITION OF RAW WATER AND CONSTRUCTION OF INFRASTRUCTURE, TO THE PROPERTY, ARROWHEAD GOLF COURSE, ROXBOROUGH VILLAGE METROPOLITAN DISTRICT AND THE CLUB AT RAVENNA:
- (A) INTERGOVERNMENTAL AGREEMENT BETWEEN THE DISTRICT AND UNITED;
 - (B) INTERGOVERNMENTAL AGREEMENT BETWEEN THE DISTRICT AND RAVENNA; AND
 - (C) ANY AND ALL OTHER AGREEMENTS DEEMED NECESSARY FOR THE PROVISION OF WATER SERVICE, INCLUDING BUT NOT LIMITED TO THE ACQUISITION OF RAW WATER AND CONSTRUCTION OF INFRASTRUCTURE, TO THE PROPERTY, ARROWHEAD GOLF COURSE, ROXBOROUGH VILLAGE METROPOLITAN DISTRICT AND THE CLUB AT RAVENNA.
- (3) PAYMENT OF ALL REQUIRED DISTRICT FEES, RATES, TOLLS, CHARGES, AND TAXES ASSOCIATED WITH THE INCLUSION OF AND THE PROVISION OF WATER SERVICE TO THE PROPERTY.

THE PROPERTY DESCRIBED IN THIS BALLOT QUESTION A SHALL NOT BECOME A PART OF THE DISTRICT UPON THE FAILURE OF ANY CONDITION DESCRIBED IN THIS SUMMARY OF CONDITIONS.

YES 69 Sixty - Nine
(Numeric & Spelled Out)

NO 0 Zero
(Numeric & Spelled Out)

By:

Stacie L. Pacheco, Designated Election Official

David H. Thomas, Canvasser

R. B. C. H., Canvasser

Dated: 11/11/16

No later than fourteen days after the election, the canvassers shall survey the returns, issue a certified statement of results, and make out this abstract of votes for each office. The purpose of this canvass is to verify the returns. DO NOT RECOUNT THE BALLOTS.

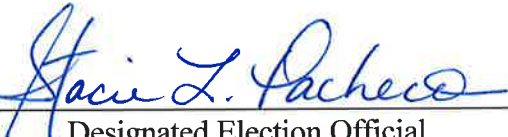
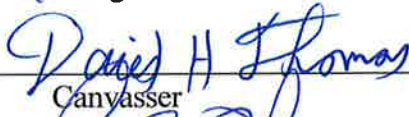

**BOARD OF CANVASSERS CERTIFICATE OF ELECTION RESULTS
FOR THE SPECIAL ELECTION
HELD NOVEMBER 8, 2016
§1-13.5-1305(1), C.R.S.**

ROXBOROUGH WATER AND SANITATION DISTRICT

Each of the undersigned members of the board of canvassers of the District certifies that the following is a true and correct statement of the results of the Independent Mail Ballot Election for the above-named District, at which time the eligible electors of the District voted as indicated on the attached Judges' Certificate of Election Returns.

Ballots counted for and against the ballot question as follows:

	YES	NO
Question A:	<u>69</u>	<u>0</u>

(Signed)	<u></u>	<u>11/11/16</u>
	Designated Election Official	Dated
(Signed)	<u></u>	<u>11/11/16</u>
	Canvasser	Dated
(Signed)	<u></u>	<u>11/11/16</u>
	Canvasser	Dated

CONTACT PERSON FOR THE DISTRICT:

Alan D. Pogue, Esq.
Icenogle Seaver Pogue, P.C.
4725 South Monaco Street, Suite 225
Denver, Colorado 80202
(303) 867-3000

Prepare a Certificate of Election and deposit one copy with the Clerk and Recorder of each county in which the special district is located. This must be available for public inspection in the office of the Designated Election Official.

Send one copy of this certificate to:

**Division of Local Government
1313 Sherman Street, Room 521
Denver, CO 80203**

Provide a list of all current directors to the division, including addresses, within 45 days after the election.

(Attach copy of Judges' Certificate of Election Returns)

**JUDGES' CERTIFICATE OF ELECTION RETURNS AND STATEMENT OF BALLOTS
FOR ROXBOROUGH WATER AND SANITATION DISTRICT
§1-13.5-613, C.R.S.**

IT IS HEREBY CERTIFIED by the undersigned, who conducted an independent mail ballot election for the above named District, on the 8th day of November, 2016, that after qualifying by swearing and subscribing to their Oaths of Office, they opened the polls at 7:00 a.m., and that they kept the polls open continuously until the hour of 7:00 p.m. on said date, after which they counted the ballots cast for the ballot questions and ballot issues duly submitted.

That the votes cast for and against the ballot questions and ballot issues submitted were as follows:

ROXBOROUGH WATER AND SANITATION DISTRICT BALLOT QUESTION A:

SHALL THE FOLLOWING DESCRIBED AREA BECOME A PART OF ROXBOROUGH WATER AND SANITATION DISTRICT UPON THE FOLLOWING CONDITIONS?

DESCRIPTION OF AREA:

ALL REAL PROPERTY WITHIN THE BOUNDARIES OF THE RAVENNA METROPOLITAN DISTRICT ("RAVENNA"), INCLUDING:

LOTS 3 TO 10, 12 TO 15, 16A, 18 TO 25, 28, 32, 37 TO 51, 53A, 55 TO 65, TRACTS B, F, G, I, O, P, T, W, AND U, TRACTS B, F, G, I, O, P, T, U, AND W, RIVER CANYON – FILING NO. 1-A, COUNTY OF DOUGLAS, STATE OF COLORADO

LOTS 16-A, 17-A, 27 TO 70, 73, 75 TO 95, 98 TO 100, 103 TO 115, 117, 119 TO 121, 123 TO 125, 127 TO 129, 131, 132, AND 134 TO 178, TRACTS B AND D, RIVER CANYON FILING NO. 1-B, DOUGLAS COUNTY, COLORADO

LOTS 1-A AND 179-A, RIVER CANYON FILING NO. 1-B, 1ST AMENDMENT, DOUGLAS COUNTY, COLORADO

LOTS 26, 29 TO 31, 33 TO 36, 101-A, 102-A, TRACTS MOST OF E-1, H, K, M, N-1, Q-1, V, X, MOST OF TRACT Y, AND Z, RIVER CANYON – FILING NO. 1-A, 1ST AMENDMENT, COUNTY OF DOUGLAS, STATE OF COLORADO

LOTS 71, 72, 74, 96, 116, 118, 122, 126, 130, AND 133, RIVER CANYON FILING NO. 1-B, 2ND AMENDMENT, COUNTY OF DOUGLAS, STATE OF COLORADO

LOTS 15-A AND 27-A, RIVER CANYON FILING NO. 1-B, 3RD AMENDMENT, DOUGLAS COUNTY, COLORADO

LOTS 2-A1, 3-A1, 4-A1, 5-A1, 6-A1, 7-A1, 8-A, 9-A, 10-A, 11-A, 12-A, 13-A, 14-A, 18-A1, 19-A1, 19-B1, 20-A1, 21-A1, 22-A1, 23-A1, 24-A1, 25-A1, AND 26-A1, RIVER CANYON FILING NO. 1-B, 5TH AMENDMENT, DOUGLAS COUNTY, COLORADO

TOGETHER WITH ANY AND ALL OTHER PROPERTY LOCATED WITHIN THE BOUNDARIES OF THE RAVENNA METROPOLITAN DISTRICT NOT OTHERWISE REFERENCED ABOVE.

SUMMARY OF CONDITIONS:

THE ABOVE DESCRIBED AREA (THE "PROPERTY") SHALL BECOME A PART OF ROXBOROUGH WATER AND SANITATION DISTRICT (THE "DISTRICT") SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) AMENDMENTS TO THE FOLLOWING AGREEMENTS ARE APPROVED AND EXECUTED BY THE APPLICABLE PARTIES AS DEEMED NECESSARY FOR PURPOSES OF PROVIDING WATER SERVICE, INCLUDING BUT NOT LIMITED TO THE ACQUISITION OF RAW WATER AND CONSTRUCTION OF INFRASTRUCTURE, TO THE PROPERTY, ARROWHEAD GOLF COURSE, ROXBOROUGH VILLAGE METROPOLITAN DISTRICT AND THE CLUB AT RAVENNA:
 - (A) INTERGOVERNMENTAL AGREEMENT FOR WATER SUPPLY, DATED DECEMBER 20, 2010, BETWEEN THE DISTRICT AND THE CITY OF AURORA, COLORADO, ACTING BY AND THROUGH ITS WATER ACTIVITY ENTERPRISE;
 - (B) FIRST AMENDED AND RESTATED WATER SERVICE AGREEMENT, DATED JUNE 20, 2006, AS AMENDED, BETWEEN UNITED WATER AND SANITATION DISTRICT ("UNITED") AND RAVENNA;
 - (C) WATER SUPPLY AGREEMENT, DATED DECEMBER 12, 2012, BETWEEN THE DISTRICT AND CF ARCIS ARROWHEAD GOLF, LLC (SUCCESSOR); AND
 - (D) WATER SUPPLY AGREEMENT, DATED JANUARY 15, 2003, AS AMENDED, BETWEEN THE DISTRICT AND ROXBOROUGH VILLAGE METROPOLITAN DISTRICT.
- (2) THE NEGOTIATION AND EXECUTION OF THE FOLLOWING AGREEMENTS FOR PURPOSES OF PROVIDING WATER SERVICE, INCLUDING BUT NOT LIMITED TO THE ACQUISITION OF RAW WATER AND CONSTRUCTION OF INFRASTRUCTURE, TO THE PROPERTY, ARROWHEAD GOLF COURSE, ROXBOROUGH VILLAGE METROPOLITAN DISTRICT AND THE CLUB AT RAVENNA:
 - (A) INTERGOVERNMENTAL AGREEMENT BETWEEN THE DISTRICT AND UNITED;
 - (B) INTERGOVERNMENTAL AGREEMENT BETWEEN THE DISTRICT AND RAVENNA; AND
 - (C) ANY AND ALL OTHER AGREEMENTS DEEMED NECESSARY FOR THE PROVISION OF WATER SERVICE, INCLUDING BUT NOT LIMITED TO THE ACQUISITION OF RAW WATER AND CONSTRUCTION OF INFRASTRUCTURE, TO THE PROPERTY, ARROWHEAD GOLF COURSE, ROXBOROUGH VILLAGE METROPOLITAN DISTRICT AND THE CLUB AT RAVENNA.
- (3) PAYMENT OF ALL REQUIRED DISTRICT FEES, RATES, TOLLS, CHARGES, AND TAXES ASSOCIATED WITH THE INCLUSION OF AND THE PROVISION OF WATER SERVICE TO THE PROPERTY.

THE PROPERTY DESCRIBED IN THIS BALLOT QUESTION A SHALL NOT BECOME A PART OF THE DISTRICT UPON THE FAILURE OF ANY CONDITION DESCRIBED IN THIS SUMMARY OF CONDITIONS.

YES

69 Sixty-nine
(Numeric & Spelled Out)

NO

0 Zero
(Numeric & Spelled Out)

**JUDGES' CERTIFICATE OF ELECTION RETURNS AND
STATEMENT OF BALLOTS
ROXBOROUGH WATER AND SANITATION DISTRICT
INDEPENDENT MAIL BALLOT ELECTION
§1-13.5-613, C.R.S.**

It is hereby identified and specified that:

(Numeric)/Spelled Out

TOTAL Number of Ballots Issued to Voters

117 One hundred seventeen

Ballots Returned Undeliverable:

6 six

Total Number of Ballots Voted

69 Sixty nine

Total Voted Replacement Ballots

4 Four

Total Voted Provisional Ballots

0 zero

Total Voted Challenged Ballots

0 zero

Delivered to Voter, Not Cast:

Spoiled

0 zero

Rejected

0 zero

Defective

0 zero

Not Returned

42 Forty two

Not Delivered to Voter, Not Cast (Unused):

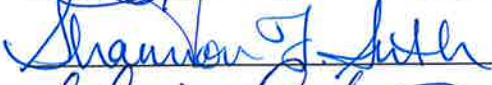
Official

22 Twenty two

Certified this **8th** day of **November, 2016**, by:



, Election Judge



, Election Judge



, Election Judge

AMENDED, RESTATED AND COMBINED INTERGOVERNMENTAL
AGREEMENT FOR WATER SUPPLY BETWEEN THE ROXBOROUGH WATER
AND SANITATION DISTRICT, ACTING BY AND THROUGH ITS WATER
ACTIVITY ENTERPRISE AND
THE CITY OF AURORA, ACTING BY AND
THROUGH ITS UTILITY ENTERPRISE

THIS AMENDED, RESTATED AND COMBINED INTERGOVERNMENTAL AGREEMENT ("IGA") is executed this 14th day of April, 2017 ("Effective Date"), by and between the Roxborough Water and Sanitation District, previously known as Roxborough Park Metropolitan District, acting by and through its Water Activity Enterprise ("District" or "Roxborough"), and the City of Aurora, acting by and through its Utility Enterprise, ("Aurora") (each a "Party," collectively, the "Parties").

RECITALS

WHEREAS, each of the Parties is a political subdivision of Colorado: Roxborough Water and Sanitation District, a Special District organized and existing pursuant to the provisions of C.R.S. 32-1-101, et seq.; and the City of Aurora, a home rule city pursuant to Article XX of the Colorado Constitution and accordingly the Parties are authorized by Colorado law to cooperate and enter into intergovernmental agreements pursuant to Section 18(2) of Article XIV of the Colorado Constitution and C.R.S. § 29-1-203; and

WHEREAS, the Woodmoor Corporation by an Agreement dated March 1, 1972 ("Stock Sale Agreement") between itself and Aurora agreed to the sale of certain mutual ditch company stock to Aurora and, subsequently by that certain Assignment of Contract Rights dated January 19, 1982, the rights of The Woodmoor Corporation in the Stock Sale Agreement were transferred to Roxborough; and

WHEREAS, the Parties entered into that certain Intergovernmental Agreement for Water Supply, dated as of December 20, 2010 ("1800 IGA"); and

WHEREAS, the Parties entered into that certain Intergovernmental Agreement for Supply of up to 150 Acre-Feet of Water, dated as of October 15, 2014 ("150 IGA"); and

WHEREAS, pursuant to the 1800 IGA, Aurora has made available to Roxborough up to 1800 acre feet of water per year, to be used by Roxborough to serve its customers; and

WHEREAS, the 1800 IGA provides that Roxborough may serve a maximum of 3800 residential equivalent units ("REU"), with the 1800 acre feet per year provided by Aurora, based on a planning number of 0.4737 acre feet per year, per REU; and

WHEREAS, pursuant to the 1800 IGA, Aurora also has made available up to 300 acre feet of water per year to allow Roxborough to serve the irrigation needs of the Arrowhead Golf Course ("AGC") and up to 50 acre feet of water per year to allow Roxborough to serve the irrigation needs of the Village at Roxborough ("VaR"); and

WHEREAS, pursuant to the 1800 IGA, Roxborough granted to AGC a Supply Agreement for 240 of the 300 available acre feet of water per year available for use by AGC, and granted to VaR a Supply Agreement for 45 of the 50 available acre feet of water per year. The 285 acre feet per year so allocated to AGC and VaR is referred to herein as the "Irrigation Water" and the remaining unallocated 65 acre feet are no longer available under the 1800 IGA; and

WHEREAS, to serve AGC and VaR with the Irrigation Water, Roxborough owns and operates certain infrastructure, which is located within and adjacent to the Aurora Rampart Reservoir ("Irrigation Water Infrastructure"); and

WHEREAS, the 1800 IGA requires payment to Aurora of a development and connection fee ("DC Fee") for each REU to be served; and

WHEREAS, prior to the Effective Date, Roxborough has paid Aurora the DC Fee for the Irrigation Water and has paid the DC Fee for 3,410 of the 3,800 REU permitted by the 1800 IGA; and

WHEREAS, pursuant to the 150 IGA, Aurora has made available to Roxborough up to 150 acre feet of water per year to be used by Roxborough to serve its customers within the limited service area, as defined in the 150 IGA as the 150 Service Area; and

WHEREAS, the 150 IGA permits Roxborough to serve a maximum of 316 REU within the 150 Service Area, based on a planning number of 0.4737 acre feet per year, per REU; and

WHEREAS, the 150 IGA requires payment to Aurora of a DC Fee for each REU to be served; and

WHEREAS, prior to the Effective Date, Roxborough has paid Aurora the DC Fee for all of the REU permitted to be served with water provided pursuant to the 150 IGA; and

WHEREAS, the Parties desire to amend, restate and combine the 1800 IGA and the 150 IGA to reflect the mutual agreement and understanding of the Parties.

NOW THEREFORE, in consideration of the mutual promises and benefits described herein, the receipt, adequacy, and sufficiency of which are hereby acknowledged, Aurora and Roxborough hereby agree to amend, restate and combine the 1800 IGA and the 150 IGA in their entirety, as follows:

Article 1

Water Supply Agreement

1.1 **Term and Superseding of Previous Agreements.** The primary term of this IGA shall be ninety (90) years from the Effective Date, and shall automatically and continuously

renew thereafter for additional ninety (90) year periods, on the same terms and conditions as contained herein. Upon the Effective Date, the 1800 IGA and the 150 IGA shall be null and void, with all terms therein replaced and superseded by this IGA. To the extent permitted by law, Roxborough, *inter alia*, shall hold Aurora harmless from any claim by Woodmoor Corporation or any successor of Woodmoor Corporation in any way related to the Stock Sale Agreement.

1.2 Total Water Delivery and Location of Use. Aurora agrees to deliver raw water to Roxborough pursuant to the terms and conditions set forth in this Article 1. Roxborough acknowledges and agrees the total water delivery by Aurora, to Roxborough and all parties that may receive water by or through Roxborough, who are those within the boundaries of the Roxborough service area, as the same may be adjusted from time to time, will be limited to a maximum of 2,235 acre feet per year and that the rate of flow of such water delivery shall not exceed 6 MGD. However, should demand by Roxborough, including VaR and AGC be less than 2,235 acre-feet in any year, Aurora will only deliver such lesser amount in such year. Roxborough agrees it will use the water supplied by Aurora exclusively for use only within the boundaries of Roxborough (including VaR and AGC), as depicted as "Roxborough Water & Sanitation District (RWSD)" and "Plum Valley Heights Subdistrict of RWSD (PVHSD)" on Exhibit 1 attached hereto. While additional land may be included within the boundaries of the District as of the Effective Date or at any time thereafter, the total water delivery by Aurora shall never exceed 2,235 acre feet per year. The maximum 2,235 acre-foot annual cap on deliveries applies in all circumstances regardless of any excess demand by Roxborough including VaR and AGC, as may be applicable.

1.3 Water Quality. The City of Aurora makes no representation or warranty as to the quality of water delivered under this IGA; provided that any raw water delivered under Article 1 of this IGA is deliverable at the South Platte River above the Chatfield Reservoir.

1.4 Declaration of Restrictions. This IGA contemplates the furnishing of water outside the city limits of the City of Aurora. However, it may become necessary for Aurora to limit or restrict the use of water inside the currently defined Aurora service area. In case of any restrictions within the City of Aurora, the District agrees it shall impose the same or more stringent water-use limits or restrictions on all of its customers and the entire service area permitted by this IGA including, as applicable, VaR and AGC. Any such limitation or restriction imposed within the City of Aurora shall be at the sole discretion of Aurora, and such determination of same shall be based on valid reasons and approved by the City's governing body, its City Council. Aurora's limitations or restrictions will be in compliance with the applicable annual Water Management Plan, which is adopted by Aurora's City Council, and the associated Drought Contingency Plan. Both annual Water Management Plan and the Drought Contingency Plan will be made available to the District upon request. The District acknowledges that modifications may be made periodically by Aurora to the Water Management Plan and those modifications may result in more stringent restrictions.

1.5 No Reuse of Delivered Water. It is agreed that all water provided to Roxborough by Aurora pursuant to this IGA will be treated as single-use only. Any and all rights for

successive use, re-use, and use to extinction are reserved by Aurora. If Aurora, pursuant to this IGA, at its discretion, delivers any reusable water to Roxborough, it is further agreed that Aurora may recapture any of the return flows from Roxborough's initial use of that reusable supply, including as applicable, use by VaR and AGC. The Parties acknowledge that the District's wastewater flows are treated and discharged at the Littleton-Englewood Wastewater Treatment Facility; and further the District warrants and represents, that pursuant to that certain Sewer Service Agreement entered into between the District and the City of Littleton, Colorado, dated September 7, 2004, the City of Littleton has no rights in any return flows from wastewater delivered from the District. Further Roxborough agrees to provide reasonable access to its property and facilities including, as applicable, VaR and AGC, as may be required for Aurora to obtain this reusable water. In no instance shall Roxborough, including, as applicable, VaR and AGC, be allowed multiple use of any water supplied under this IGA.

- 1.6 Raw Water Delivered By Aurora - Treatment At RWTP. It is acknowledged that Roxborough has elected to construct and is in the process of constructing a new water treatment plant ("RWTP") as anticipated under the 1800 IGA, located on the same site as the existing water treatment plant. The RWTP is anticipated to be completed, and placed in service, in summer 2017.

1.7 Delivery. Aurora agrees to deliver to the District, on the terms and conditions hereafter contained, up to the maximum specified amount of raw water to: (a) the two water taps located on two Aurora waterlines, both of which are located adjacent to the RWTP site and, (b) unless and until the District elects to convert all of Irrigation Water pursuant to Section 2.1 below, that portion of the water designated as Irrigation Water shall be drawn by the District out of the Aurora Rampart Reservoir using the Irrigation Water Infrastructure or, if applicable, Irrigation Water Infrastructure as relocated pursuant to Section 2.2 below. Aurora will maintain a raw water meter for water delivered through the two water taps within existing vaults that have been supplied by the District. Aurora will continue to maintain this meter and Aurora shall have permanent access to such vaults and meter. In addition, the District shall maintain a water meter as part of the Irrigation Water Infrastructure at the Aurora Rampart Reservoir; provided, that, subject to the provisions of Article 2, the existing intake located in the Aurora Rampart Reservoir may be relocated to an alternative location.

1.8 SCADA Compliance. The District agrees to cause all existing meters (other than the meter measuring water drawn through the Irrigation Water Infrastructure located at the Aurora Rampart Reservoir as of the Effective Date) and any future meters measuring deliveries under this IGA including, without limitation such other meters as described on Exhibit 2, attached hereto, to be connected to Aurora's Supervisory Control & Data Acquisition (SCADA) system at the District's cost in accordance with Aurora's specifications and subject to Aurora's review and approval within 12 months following the Effective Date (or simultaneously with the installation of any new meter(s)). If the District fails to cause any one or more of the meters to be connected to Aurora's SCADA then Aurora may implement such connection in which case the District will reimburse the costs of such work upon written notice and invoice.

1.9 Rate. It is agreed that the initial rate to be paid by Roxborough to Aurora will be \$3.85 per 1,000 gallons of water delivered by Aurora to Roxborough under this IGA through the aforementioned meters by Aurora. Following the Effective Date, that rate shall increase annually on a calendar year basis in an amount equal to seventy percent (70%) of the percentage increase in Aurora's treated water user rates charged within its service area. The District will be notified of such increase no later than December 15th and the increase will take effect on January 1st of the year immediately following.

1.10 Billing. Aurora shall read the meters described in Paragraph 1.7, above once a month and shall bill the District for the amount of raw water run through its meters during the preceding month at the applicable rate. The District further agrees to pay Aurora the amount of such statements within fifteen (15) days after receipt thereof.

1.11 Development and Connection Fee. Within 5 days after the Effective Date, and as condition of the effectiveness of this IGA, the District will pay Aurora the DC Fee, in the amount of \$3,514,080 for the remaining 390 REU initially permitted to be served pursuant to the 1800 IGA.

1.12 Maximum REU to be Served. The Parties agree that, subject to the adjustments permitted pursuant to Article 2, the maximum number of REU Roxborough may serve with the water provided pursuant to this IGA is 4,431, based on a revised planning number of 0.44 acre-feet per year, per REU, and a total annual amount of water, exclusive of the Irrigation Water, of 1,950 acre-feet.

Article 2 Use of Irrigation Water

2.1 Replacement Water Supply for Irrigation Water and Conversion of Irrigation Water to REUs. The Parties agree that in the event Roxborough is able to procure an alternative water supply to serve the irrigation needs of AGC and VaR, Roxborough may, but shall not be required to, convert the 285 acre-feet of Irrigation Water currently allocated to AGC and VaR, or any portion thereof for which an alternative supply is procured for use by Roxborough to serve other customers on a REU basis, subject to the limitations of this Paragraph 2.1 (a "Conversion"). Should Roxborough procure a replacement water supply for the entire 285 acre-feet of Irrigation Water currently allocated to AGC and VaR, Roxborough will be permitted to serve an additional 647 REU, above the maximum REU permitted pursuant to Paragraph 1.11, using the Irrigation Water and applying a planning number of 0.44 acre-feet per year for each REU. Should Roxborough procure a replacement supply for less than all of the Irrigation Water, Roxborough shall be entitled to apply the replaced Irrigation Water to other customers at a rate of 0.44 acre-feet per year for each REU to be served. Roxborough may effect a Conversion of Irrigation Water to REUs upon notice to Aurora (which notice shall include evidence of a replacement water supply for such converted Irrigation Water) provided that such Conversion is, in each case, contingent on Roxborough obtaining a permanent replacement source of irrigation water for such Irrigation Water

reasonably acceptable to Aurora. Nothing in this Article 2 or this IGA shall be construed as a limitation on Roxborough's ability to continue to serve AGC's and VaR's irrigation needs with the 285 acre-feet currently allocated to AGC and VaR unless and except if Roxborough effects a Conversion of such Irrigation Water pursuant to this Section and, once converted from Irrigation Water to REU's, Roxborough shall not be entitled to use such water as Irrigation Water or withdraw such water from the Aurora Rampart Reservoir. Roxborough shall not be required to pay an additional DC Fee with respect to any Conversion of the Irrigated Water.

2.2 Removal or Replacement of Irrigation Water Infrastructure. Roxborough shall, within 24 months after the Effective Date, either (a) Effect a Conversion of all of the Irrigation Water and, within 36 months following the Effective Date, remove or abandon in-place the Irrigation Water Infrastructure; or (b) to the extent Roxborough has not identified a replacement source for all of the Irrigation Water and effected a Conversion pursuant to Section 2.1 above within such 24-month period, Roxborough shall construct an alternative connection to serve as the Irrigation Water Infrastructure for removal of such remaining Irrigation Water and to permit Roxborough's continued delivery of the same to AGC and VaR, as applicable (including the connection of such alternative infrastructure to Aurora's SCADA system) at Roxborough's cost and expense and at a site and pursuant to a design approved by Aurora.

2.3 Aurora-Dominion Water & Sanitation District Limitation. The Parties acknowledge that Aurora and Dominion Water and Sanitation District ("Dominion") entered into an agreement on December 11, 2013 (the "250 IGA") for delivery of up to 250 acre-feet of raw water, and that pursuant to such 250 IGA Dominion is required to convey certain "Dedication Water" to Aurora. Roxborough hereby acknowledges and agrees that, without limiting the other provisions of this IGA restricting the uses of the water delivered hereunder or the leasing of the same or assignment of this IGA, no portion of the water delivered under this IGA, including any Irrigation Water, may be used to satisfy any dedication requirements imposed upon Dominion pursuant to the "250 IGA".

Article 3 General Provisions

3.1 Notice. All notices, requests, demands, or other communications (collectively, "Notices") hereunder shall be in writing and given by (i) established express delivery service which maintains delivery records requiring a signed receipt, (ii) hand delivery, or (iii) certified or registered mail, postage prepaid, return receipt requested to the Parties at the following address, or at such other address as the Parties may designate by Notice in the above manner.

To Aurora:	City of Aurora 15151 East Alameda Parkway, Suite 3600 Aurora, CO 80012-1555 Attn: Director, Aurora Water
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copy to City of Aurora
15151 East Alameda Parkway, Suite 3600
Aurora, CO 80012-1555
Attn: City Attorney

To the District: Roxborough Water and Sanitation District
6222 N. Roxborough Park Road
Littleton, Colorado 80125
Attn: Manager, Roxborough Water and Sanitation District

Notices shall be effective (x) the next day following the date sent by an established express delivery service which maintains delivery records requiring a signed receipt, (y) upon receipt by the addressee of a hand delivery, or (z) three days following the date of mailing via certified or registered mail, postage prepaid, return receipt requested.

3.2 No Assignment or Delegation. Neither Party may assign its rights nor delegate its duties hereunder without the prior written consent of the other.

3.3 Indemnification. To the extent it lawfully may, the District shall defend, indemnify, and hold harmless, Aurora and its officers, agents, and employees against any liability, loss, damage, demand, action, or cause of action of third party which may occur as a result of the delivery of water by Aurora under this IGA, except as to any portion of negligence judicially determined to be caused by Aurora. This includes but is not limited to, any damages which may result from the transportation of water under this IGA by means of any water carriage facilities or existing or future infrastructure. No provision of this IGA shall be construed as a waiver or release of the immunities, limitations, or defenses afforded to Aurora or the District under the Colorado Governmental Immunity Act.

3.4 Amendments. Amendments to this IGA shall only be effective if entered into with the same formality as this IGA. A Conversion of Irrigation Water to use through ERUs as provided for in Section 2.1 above shall not be considered an amendment of this IGA.

3.5 Venue and Governing Law. The forum for resolution of any dispute resulting in litigation regarding this IGA shall be the District Court for the County of Arapahoe. This IGA shall be governed by and construed under the laws of the State of Colorado.

3.6 Waiver of Rights. The failure of either Party to exercise any right under this IGA shall not be deemed a waiver of such Party's right and shall not affect the right of such Party to exercise at some future time the right or rights or any other right it may have under this IGA.

3.7 Headings and Captions. The headings and captions in this IGA are for convenience of reference only, are not part of this IGA and shall not define or limit any of the terms or provisions hereof.

3.8 Failure to Perform Due to Force Majeure. Subject to the terms and conditions in this paragraph, no Party to this IGA shall be liable for any delay or failure to perform under

this IGA due solely to conditions or events of force majeure, as that term is specifically defined herein; provided that: (i) the non-performing Party gives the other Party prompt written notice describing the particulars of the occurrence of the force majeure; (ii) the suspension of performance is of no greater scope and of no longer duration than is required by the force majeure event or condition; and (iii) the non-performing Party proceeds with reasonable diligence to remedy its inability to perform and provides weekly progress reports to the other Party describing the actions taken to remedy the consequences of the force majeure event or condition. As used herein force majeure shall mean any delay or failure of a Party to perform its obligations under this IGA caused by events beyond the Party's reasonable control and without the fault or negligence of the Party, including, without limitation (a) acts of God, (b) sudden actions of the elements such as floods, earthquakes, rock slides, avalanches, hurricanes, or tornadoes, (c) sabotage, (d) vandalism beyond that which can be reasonably prevented by the Party, (e) terrorism, (f) war, (g) riots, (h) fire, (i) explosion, (j) severe cold or hot weather, (k) extreme snow, (l) drought such that Aurora determines that a Stage III Water Availability Condition Response (or more severe) exists as said Stages are described in the Aurora Water 2010, and subsequently adopted, Water Management Plan), (m) blockades, (n) insurrection, (o) strike, slow down or labor disruptions (even if such difficulties could be resolved by conceding to the demands of a labor group), (p) changes of law relating to financial obligations, revenues and budgetary matters concerning Colorado local governments and their enterprises, (q) actions by federal, state, municipal, or any other government or agency [including but not limited to, the adoption or change in any rule or regulation, compact calls, revised compact administration or environmental constraint, imposed by, or in any contract with, any federal, state or local government bodies] but only if such requirements, actions, or failures to act prevent or delay performance, (r) changes in state or federal law or administrative practice concerning water rights administration, water storage, water quality or stream flow requirements, and (s) inability, despite due diligence, to obtain required licenses, permits or approvals.

3.9 Enforcement. This IGA may be enforced in law or equity, by a decree of specific performance, damages, or such other legal and equitable relief as may be available to a Party.

3.10 Defense Against Third Parties. In the event of litigation by any third party concerning this IGA, and to the extent permitted by law, the Parties agree to jointly defend any such third party action.

3.11 No Third Party Beneficiaries. Except as otherwise explicitly provided for herein, there are no third party beneficiaries of this IGA. No third party has any right to enforce this IGA.

3.12 Sole Obligation of Utility Enterprise.

3.12.1 This IGA shall never constitute a general obligation or other indebtedness of the City of Aurora, or a multiple fiscal year direct or indirect debt or other financial obligation whatsoever of the City of Aurora within the meaning of the Constitution and laws of the State of Colorado or of the Charter and ordinances of the City of Aurora.

3.12.2 In the event of a default by Aurora's Utility Enterprise of any of its obligations under this IGA, Roxborough shall have no recourse for any amounts owed to it against any funds or revenues of the City of Aurora except for those revenues derived from rates, fees or charges for the services furnished by, or the direct or indirect use of, the Water System and deposited in the Water Enterprise Fund, as the terms "Water System" and "Water Enterprise Fund" are defined in City Ordinance No. 2003-18, and then only after the payment of all operation and maintenance expenses of the Water System and all debt service and reserve requirements of any bonds, notes, or other financial obligations of the Utility Enterprise secured by a pledge of the net revenues of the Water Enterprise Fund. Notwithstanding any language herein to the contrary, nothing in this IGA shall be construed as creating a lien upon any revenues of the Utility Enterprise or the City of Aurora.

3.13 No Transfer of Ownership. Except as specifically stated herein nothing in this IGA shall constitute or be interpreted as constituting the transfer of any ownership interests in the infrastructure assets or water rights of the Parties. Each party shall remain individually responsible for the operation, maintenance, repair and replacement of their infrastructure and water rights absent express written agreement to the contrary.

3.14 Binding Agreement. This IGA, when executed, shall inure to the benefit of and be binding on the successors and assigns of the respective Parties hereto if any are allowed.

3.15 Entire Agreement. This IGA represents the entire agreement of the Parties and neither Party has relied upon any fact or representation not expressly set forth herein.

3.16 Multiple Originals. This IGA may be simultaneously executed in any number of counterparts each of which shall be deemed original but all of which constitute one and the same agreement.

3.17 Non-severability and Determination of Invalidity. Each provision of this IGA is intertwined with and integral to the others and is not severable from the others. If any portion of this IGA is held invalid or unenforceable for any reason by a court of competent jurisdiction as to either Party or as to both Parties, the Parties will immediately attempt to negotiate either valid alternative portions that as near as possible give effect to any stricken portions or a valid replacement agreement.

3.18 No Attorney's Fees and Costs. In the event of any litigation arising out of this IGA, the Parties agree that each will be responsible for its own attorney's fees and costs associated with any such legal action.

3.19 Joint Draft. The Parties agree they drafted this IGA jointly with each having the advice of legal counsel and an equal opportunity to contribute to its content. Therefore, this IGA shall not be construed for or against a Party on the basis of authorship.

3.20 Intent of IGA. This IGA is intended to describe the rights and responsibilities of and between the Parties and is not intended to and shall not be deemed to confer rights upon any persons or entities not signatories hereto nor to limit, impair, or enlarge in any way the powers, regulatory authority and responsibilities of either Party or any other governmental entity not a Party hereto.

3.21 Non-Business Days. If any date for any action under this IGA falls on a Saturday, Sunday or a day that is a "holiday" as such term is defined in Rule 6 of the Colorado Rules of Civil Procedure, then the relevant date shall be extended automatically until the next business day.

3.22 Prohibition on Sale or Transfer. During this IGA, Roxborough may not sell, lease or otherwise transfer or alienate any of the water supplied by Aurora, absent the consent of Aurora hereto. Water that Roxborough may supply to customers within its boundaries, to the VaR or AGC, will not be considered a violation of this prohibition.

3.23 Commissions and Fees. Each Party shall be solely responsible for the payment of any and all real estate commissions or other commissions or fees that it incurs with respect to this IGA.

3.24 Recitals and Exhibits. The recitals and exhibits attached hereto are hereby incorporated into this IGA.

3.25 Recordation. Following the execution of this IGA and any amendment hereto, either of the Parties may cause this IGA or any amendment to be recorded with the Clerk and Recorder's Office of such county or counties in Colorado as they may desire.

3.26 Authority of the Parties. The Parties each affirm and represent that they have the full power and authority to execute this IGA and thereafter perform all of the terms and conditions set forth herein.

[SIGNATURES BEGIN ON NEXT PAGE]

CITY OF AURORA, COLORADO,
ACTING BY AND THROUGH ITS
UTILITY ENTERPRISE

Stephen D. Hogan
Stephen D. Hogan, Mayor

4/7/17
Date

ATTEST:

Linda Blackston
Linda Blackston, City Clerk

4/10/17
Date

APPROVED AS TO FORM FOR AURORA:

Christine McKenney
Christine McKenney
Senior Assistant City Attorney

4/11/17
Date

17033104
ACS #

STATE OF COLORADO)
) ss
COUNTY OF ARAPAHOE)

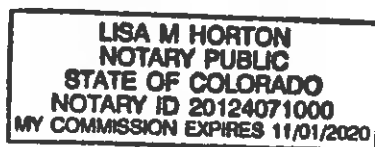
The foregoing instrument was acknowledged before me this 10th day of April, 2017,
by Stephen D. Hogan, Mayor, acting on behalf of the Utility Enterprise of the City of Aurora,
Colorado.

Witness my hand and official seal.

Lisa M. Horton
Notary Public

My commission expires: 11/01/2020

(SEAL)



ROXBOROUGH WATER AND SANITATION DISTRICT
ACTING BY AND THROUGH ITS WATER ACTIVITY ENTERPRISE

David H. Thomas

~~Philip N. Scott III~~, President

DAVID H. THOMAS

Date

4/13/17

Attest:

John W. Dillon

Timothy M. Moore, Assistant Secretary

JOHN W. DILLON

Date

4.13.2017

APPROVED AS TO FORM FOR ROXBOROUGH:

Alan D. Pogue

Alan D. Pogue, General Counsel

Date

14 APRIL 2017

STATE OF COLORADO)

) ss

COUNTY OF DOUGLAS)

The foregoing instrument was acknowledged before me this 14th day of April, 2017, by Philip N. Scott III, President, and attested to by Timothy M. Moore, as Assistant Secretary, acting on behalf of the Roxborough Water and Sanitation District by and through its Water Activity Enterprise.

Witness my hand and official seal.

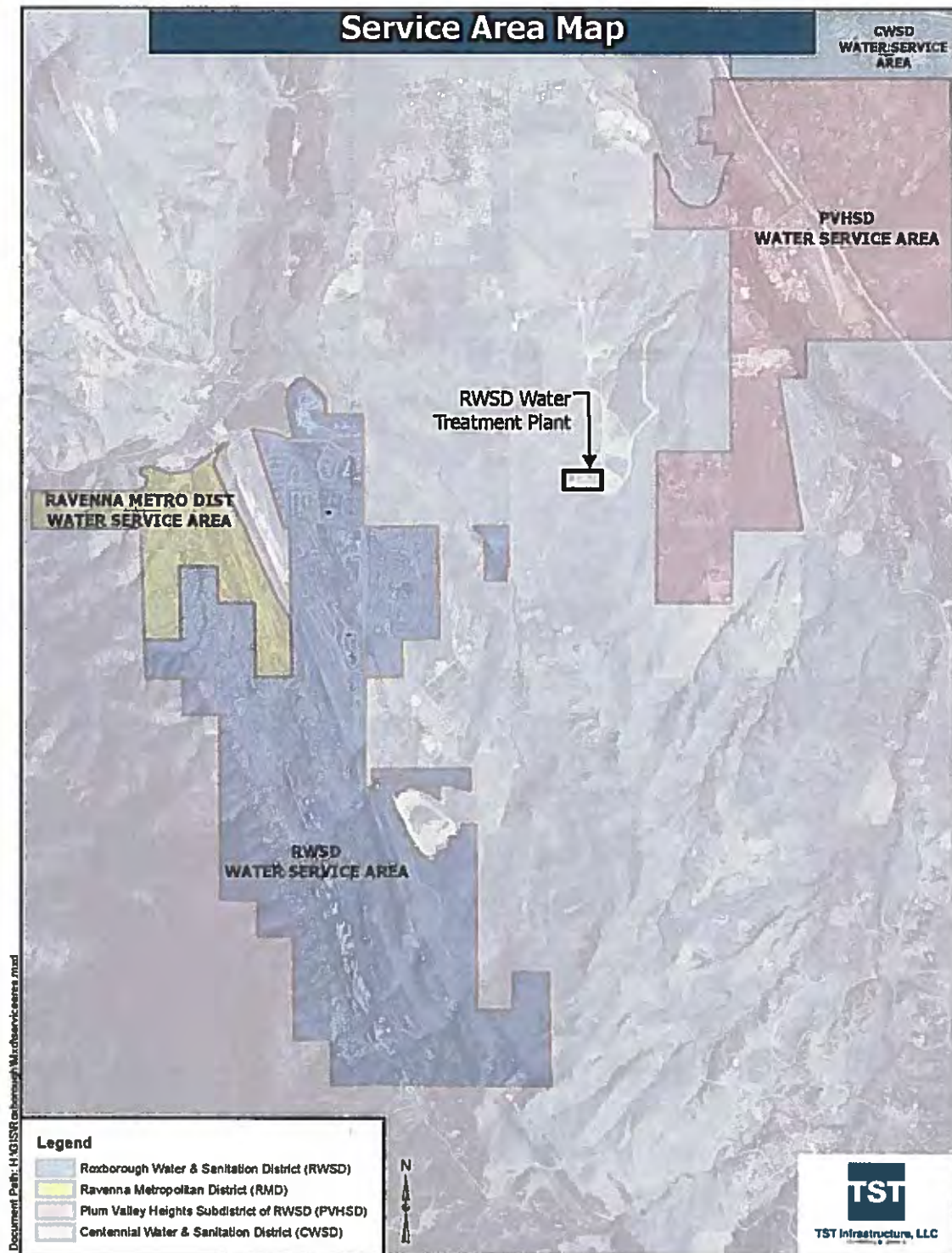
Stacie L. Pacheco
Notary Public

My commission expires:

09/26/2017



**EXHIBIT 1
ROXBOROUGH SERVICE AREA
AS OF EFFECTIVE DATE**



* District Service Area consists of “Roxborough Water & Sanitation District (RWSD)” and “Plum Valley Heights Subdistrict of RWSD (PVHSD)”

EXHIBIT 2
METERS TO BE LINKED TO AURORA'S SCADA

Meter		Description
1	RWSD/SR WTP Raw Water Flow Gallons	Total metered raw water flow into the Roxborough Treatment Plant for both Roxborough and Sterling Ranch.
2	SR Construction Water Flow Gallons	Raw water for Sterling Ranch Construction metered upstream of Meter #1.
3	RWSD WTP Potable Water Effluent Flow Gallons	Metered Treated Potable Effluent flow into Roxborough's System.
4	Sterling Ranch Potable Water Effluent Flow Gallons	Metered Treated Potable Effluent flow into Sterling Ranch's System.

INCLUSION AGREEMENT

THIS INCLUSION AGREEMENT (the “Agreement”) is made and entered into this 8th day of November, 2017, by and between ROXBOROUGH WATER AND SANITATION DISTRICT, a quasi-municipal corporation and political subdivision of the state of Colorado (“Roxborough”), and RAVENNA METROPOLITAN DISTRICT, a quasi-municipal corporation and political subdivision of the state of Colorado (“Ravenna”) (each a “Party” and collectively the “Parties”).

DEFINITIONS

AGC: the Arrowhead Golf Course, located within the boundaries of Roxborough.

ASC: availability of service charges imposed and collected by Roxborough on properties located within its boundaries but upon which no structure has been constructed and connected to the Roxborough Water System.

Declared Units: the number of EQRs declared by Ravenna to receive water and wastewater service pursuant to this Agreement.

Election: the election held on November 8, 2016, at which the eligible electors of Ravenna approved, unanimously, the inclusion of the Property into the boundaries of Roxborough.

Emergency Interconnection Agreement: that certain Agreement for Treated Water Emergency Interconnection, entered into between Roxborough and Ravenna, dated as of May 18, 2016.

EQR: equivalent residential unit, as defined by the Roxborough Rules and Regulations.

Golf Club at Ravenna: the private golf course located in the Ravenna development, but not located within the boundaries of Ravenna.

Golf Club at Ravenna Service Agreement: that certain Ravenna Metropolitan District – Golf Club at Ravenna Service Agreement, entered into between Ravenna and RCREI, dated as of January 9, 2014.

Inclusion Effective Date: the date upon which the Inclusion Order is recorded in the Clerk and Recorder’s Office of Douglas County, Colorado.

Inclusion Fee: a fee of \$3,200 per EQR, imposed and collected by Roxborough upon the inclusion of real property within its boundaries.

Inclusion Order: the order of the Douglas County District Court ordering the inclusion of the Property to the boundaries of Roxborough.

Irrigation Customers: collectively, AGC, the Golf Club at Ravenna, and RVMD.

Leased Improvements: collectively, the water storage tank located within Ravenna, distribution capacity in the 9-mile pipeline used to deliver raw water to Ravenna, and storage capacity in the Sutton Reservoir, all as more particularly described in the Lease-Purchase Agreement.

Lease-Purchase Agreement: that certain Lease Purchase and Pledge Agreement, entered into between Ravenna and United, dated July 1, 2007, pursuant to which United leases to Ravenna the Leased Improvements.

Phase I: the initial phase of the Project, consisting of the emergency interconnection between the Ravenna Water System and Roxborough Water System, as contemplated by the Emergency Interconnection Agreement.

Phase II: two or more additional connections (beyond the Phase I connection) between the Ravenna Water System and Roxborough Water System and necessary upgrades to the Ravenna Water System to convert the Ravenna Water System from an entirely mechanical system to a gravity-based system.

Phase III: the acquisition of additional water supplies, removal of existing Roxborough infrastructure from the Aurora Rampart Reservoir, and construction of additional infrastructure to serve the Irrigation Customers.

Phase III Termination Date: the date upon which the Parties determine, pursuant to Section 3.4 of this Agreement, to terminate all efforts in pursuit of completion of Phase III.

Phase IV: the removal of existing Roxborough infrastructure from the Aurora Rampart Reservoir and construction of additional infrastructure, including but not limited to new connections to the Aurora water system, to permit Roxborough to continue to serve AGC and RVMD for irrigation service.

Project: collectively, Phase I, Phase II, Phase III, and Phase IV.

Property: the property situated within the boundaries of Ravenna, as more particularly described in Exhibit A, attached hereto and incorporated herein by this reference.

Ravenna 2017 Bonds: collectively, Ravenna's Limited Tax General Obligation Refunding and Improvement Convertible Capital Appreciation Bonds, Series 2017A and Subordinate Limited Tax General Obligation Refunding Bonds, Series 2017B.

Ravenna Wastewater System: the existing wastewater collection system serving the Ravenna development, currently owned and operated by Ravenna.

Ravenna Water System: the existing water distribution system serving the Ravenna development, currently owned and operated by Ravenna, including the Ravenna Water Supply but not including the Leased Improvements.

RCREI: River Canyon Real Estate Investments, Inc., the developer of the Ravenna community.

Roxborough Wastewater System: the existing wastewater collection system serving the Roxborough community, owned and operated by Roxborough.

Ravenna Water Supply: the 424 acre feet of Bell Mountain Ranch ground water, currently owned by Ravenna and to be dedicated to Roxborough as a condition precedent to inclusion of the Property.

Roxborough Water System: the existing water treatment, storage, and distribution system serving the Roxborough community, owned and operated by Roxborough.

RVMD: the Roxborough Village Metropolitan District, a quasi-municipal corporation and political subdivision of the State of Colorado.

Wastewater IGA: that certain Intergovernmental Agreement Regarding Provision of Wastewater Facilities and Services, dated May 18, 2005, pursuant to which Roxborough provides wholesale wastewater treatment services to Ravenna.

Wastewater SDC: the system development charge imposed by Roxborough for connection to the Roxborough Wastewater System, as the same may be adjusted by Roxborough from time to time.

Water SDC: the system development charge imposed by Roxborough to each EQR within the Property, if applicable pursuant to Section Four of this Agreement, for connection to the Roxborough Water System. The Water SDC is comprised of the following: \$6,841 for new facilities; \$4,489 for existing facilities; and \$10,000 for water supply (of which \$7,500 will be deferred and due as provided in Section 4.5.2 of this Agreement), for a total charge of \$13,830 per EQR, plus the \$7,500 deferred portion of the Water SDC.

Water Service Agreement: that certain First Amended and Restated Water Service Agreement, entered into between Ravenna and United, dated June 20, 2006, as amended on September 30, 2008, pursuant to which United delivers water to Ravenna for service by Ravenna, to its customers.

Water Service Commencement Date: the date upon which Phase I is accepted by Roxborough and placed into service to permit Roxborough to deliver treated water to Ravenna.

United: the United Water and Sanitation District, a quasi-municipal corporation and political subdivision of the State of Colorado.

RECITALS

WHEREAS, Roxborough and Ravenna each are special districts organized pursuant to and in accordance with the Special District Act, Sections 32-1-101 *et seq.*, C.R.S.; and

WHEREAS, Roxborough is authorized, pursuant to its service plan and the Special District Act, to provide water and wastewater services to customers within and without its boundaries; and

WHEREAS, pursuant to Section 32-1-1001(1)(d)(I), C.R.S., Roxborough and Ravenna are empowered to enter into contracts and agreements affecting the affairs of Ravenna and Roxborough; and

WHEREAS, Roxborough and Ravenna have developed the mechanism for Roxborough to provide a renewable treated water supply to Ravenna, for use by individual users within Ravenna's boundaries, which requires the inclusion of the Property into the boundaries of Roxborough and the payment of certain costs by Ravenna; and

WHEREAS, at the Election, the eligible electors of Ravenna unanimously voted in favor of including the Property into the boundaries of Roxborough upon satisfaction of certain conditions; and

WHEREAS, in order to connect Ravenna to the Roxborough Water System and provide water to individual users in Ravenna, Ravenna will be required to fund the costs of the Project; and

WHEREAS, Ravenna is restructuring its existing debt through the issuance of the Ravenna 2017 Bonds, a portion of the proceeds of which will be used to pay the costs of the Project; and

WHEREAS, the Parties desire to enter into this Agreement to set forth the commitments and responsibilities of the Parties related to the Project, the provision of water and wastewater service to Ravenna by Roxborough, and the fees, rates, and charges to be imposed by Roxborough in connection with the inclusion of the Property, the Project, and Roxborough's provision of water and wastewater service.

NOW THEREFORE, in consideration of the mutual promises and other consideration set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, Roxborough and Ravenna agree as follows:

SECTION ONE Inclusion of the Property

1.1 Conditions Precedent to Inclusion of the Property. The following conditions must be satisfied prior to inclusion of the Property to the Roxborough boundaries:

- a. Closing of the Ravenna 2017 Bonds;

- b. Consent of United, pursuant to the Water Service Agreement, for Roxborough to provide water service to Ravenna; or, in the alternative, termination of the Water Service Agreement upon agreement of Ravenna and United and execution of a new water service agreement between Ravenna and the Town of Castle Rock; and
 - c. Dedication of the Ravenna Water System and Ravenna Wastewater System to Roxborough, as provided in Section 2.1 of this Agreement.
- 1.2 Inclusion Effective Date. Upon satisfaction of the conditions set forth in Section 1.1 of this Agreement, Roxborough shall cause the Inclusion Order to be recorded in the Clerk and Recorder's Office of Douglas County, Colorado. Upon such recording, the inclusion of the Property shall be deemed effective.
- 1.3 Commencement of Wastewater Service. Beginning on the Inclusion Effective Date, Roxborough shall provide wastewater service to the Property as an "in-district" service pursuant to the terms and provisions of Roxborough's Rules and Regulations, and the Wastewater IGA shall be deemed terminated and of no further force and effect.
- 1.4 Commencement of Water Service. RCREI has completed the construction of Phase I and Roxborough currently is providing water service to the Property, via the Phase I improvements, pursuant to the Emergency Interconnection Agreement. At such time as the Phase I improvements are dedicated to and accepted by Roxborough, as provided in Section 3.3 of this Agreement, Roxborough shall provide water service to the Property as an "in-district" service, and the Emergency Interconnection Agreement shall be deemed terminated and of no further force and effect.
- 1.5 Service to Golf Club at Ravenna. Ravenna hereby assigns, and Roxborough accepts assignment of, the Golf Club at Ravenna Service Agreement, such assignment to be effective as of the Inclusion Effective Date. Thereafter, Roxborough shall serve the Golf Club at Ravenna for irrigation needs using the Leased Improvements and Ravenna Water Supply. At no time shall Roxborough be obligated to serve the Golf Club at Ravenna for irrigation needs from Roxborough's existing Aurora-South Platte River water supply. It is expressly acknowledged by the Parties that the Golf Club at Ravenna is not a part of the Property, and therefore, Roxborough is not legally permitted to serve the Golf Club at Ravenna for irrigation needs from its existing Aurora-South Platte River water supply. In the event Phase III is completed and placed into service, Ravenna and Roxborough agree that the Golf Club at Ravenna Service Agreement will be terminated, and a new agreement entered into.
- 1.6 Additional Inclusions. In the event additional lots are platted within Ravenna, RCREI shall petition Roxborough for the inclusion of said lots, pursuant to Section 32-1-401(1), C.R.S., and Roxborough shall process the petition pursuant to the requirements of Section 32-1-401(1), C.R.S., and Roxborough's Rules and Regulations.
- 1.7 Overlap Consent. Pursuant to Section 32-1-107(3)(b)(IV), C.R.S., Ravenna consents to Roxborough providing water and wastewater service within the boundaries of Ravenna.

The Parties acknowledge that all other requirements of Section 32-1-107(3)(b), C.R.S., pertaining to Roxborough providing water and wastewater service within the boundaries of Ravenna have been satisfied.

SECTION TWO

Conveyance of Ravenna Water and Wastewater Systems

2.1 Transfer of Ravenna Water and Wastewater Systems. Prior to the Inclusion Effective Date, Ravenna shall convey, by bill of sale, all components of the Ravenna Water System and Ravenna Wastewater System to Roxborough. All conveyances required by this Section 2.1 shall be free and clear of any and all liens or other encumbrances. In addition, Ravenna shall provide the following to Roxborough:

- (1) Certification of payment and release of lien certifying that payment to all suppliers of labor and/or material has occurred and that Ravenna waives, releases and discharges all claims and liens of any kind;
- (2) Instruments of transfer, in a form acceptable to Roxborough, conveying any easements or other real property interests required for the Ravenna Water System and Ravenna Wastewater System;
- (3) “As built” drawings or electronic files of the Ravenna Water System and Ravenna Wastewater System, showing accurate size and location of the Ravenna Water System and Ravenna Wastewater System, including service line connections; and
- (4) An assignment of any and all warranties for the Ravenna Water System and Ravenna Wastewater System.

2.2 Post-Transfer Obligation to Correct. Following conveyance of the Ravenna Water System and Ravenna Wastewater System to Roxborough, Roxborough shall perform an inspection of all conveyed improvements. Any repairs or improvements necessary to the Ravenna Water System and Ravenna Wastewater System, required by Roxborough shall be made by Roxborough and all costs associated therewith shall be the sole responsibility and obligation of Ravenna.

2.3 Transfer of Leased Improvements; Assignment of Water Service Agreement. Prior to the Inclusion Effective Date, Ravenna shall convey, or cause to be conveyed the Leased Improvements to Roxborough, consistent with the procedures for conveyance set forth in Section 2.1 of this Agreement.

2.4 Post-Transfer Operations and Maintenance. Following conveyance of the Ravenna Water System and Ravenna Wastewater System, and subject to Ravenna’s ongoing obligation to correct as described in Section 2.2, Roxborough shall own, operate and maintain the Ravenna Water System and Ravenna Wastewater System. In no event shall the transfer of the Ravenna Water System and Ravenna Wastewater System to Roxborough, nor any term, provision, or the fulfillment of any obligation of this Agreement by Roxborough, constitute an acceptance by

Roxborough of any liability in connection with any defect, negligent act of Ravenna, or for any other matter, not reasonably known or discoverable by Roxborough.

SECTION THREE

The Project

3.1 Funding for Project Costs. Ravenna shall be responsible for all costs associated with the Project. It is anticipated that the proceeds of the Ravenna 2017 Bonds will be sufficient to fund the Project; however, in the event the proceeds of the Ravenna 2017 Bonds are not sufficient to fund the Project, any additional required funding shall be the sole obligation of Ravenna. Application of the proceeds of the Ravenna 2017 Bonds is more specifically described in Section 3.2 of this Agreement.

3.2 Application of Proceeds of Ravenna 2017 Bonds. Following acquisition of the Phase I improvements, as described in Section 3.3 of this Agreement, Ravenna shall deliver all remaining proceeds of the Ravenna 2017 Bonds to Roxborough, to be applied to the costs of the Project as described herein. Roxborough agrees to hold the proceeds of the Ravenna 2017 Bonds in a segregated bank account, and will account for said proceeds on its financial statements in its "Ravenna Project Fund." Following completion of the Project, Roxborough will provide Ravenna with a complete accounting of the use of the proceeds of the Ravenna 2017 Bonds and will remit any remaining proceeds in its Ravenna Project Fund to Ravenna.

3.3 Phase I. RCREI has caused Phase I to be constructed and water service currently is being provided to Ravenna, via the Phase I improvements, pursuant to the Emergency Interconnection Agreement. Upon closing of the Ravenna 2017 Bonds, Ravenna shall acquire, with proceeds of the Ravenna 2017 Bonds, the Phase I improvements from RCREI, and shall transfer the same to Roxborough in a manner consistent with the procedures for conveyance described in Section 2.1.

3.4 Phase II. Roxborough shall design and construct the Phase II improvements, applying the proceeds of the Ravenna 2017 Bonds to all costs associated with design and construction of Phase II, as described in Sections 3.1 and 3.2 of this Agreement. Upon completion of design of the Phase II improvements, Roxborough will provide Ravenna with all plans associated with Phase II as well as an engineer's estimate of the costs of constructing the Phase II improvements. Prior to awarding a construction contract for the Phase II improvements, Roxborough shall provide Ravenna with a copy of the bid tabulation and engineer's recommendation for the selected contractor for the Phase II Improvements. During construction of the Phase II improvements, Roxborough shall provide Ravenna, on a monthly basis, with all contractor pay applications, change order requests, change order approvals, and evidence of all payments made to the contractor. Following completion of construction of the Phase II improvements and expiration of all contractor warranties, Roxborough shall own and be responsible for operation, maintenance, repair, and replacement of the Phase II improvements. The Parties agree that Roxborough will pursue a financing option, other than the Ravenna 2017 Bonds, to obtain funding for Phase II and Phase III, to permit the proceeds of the Ravenna 2017 Bonds to be available for Phases I, III and IV of the Project. Any such financing option will require the imposition by Roxborough, of additional charges to the owners of the Property.

3.5 Phase III. Roxborough shall negotiate with the Town of Castle Rock, Dominion Water and Sanitation District, Douglas County, the City of Aurora, and any other interested parties to obtain additional water supplies adequate to permit Roxborough to serve AGC and RVMD for irrigation needs from a source other than Roxborough's existing water supply. In the event additional water supplies are identified within two (2) years of the effective date of this Agreement, Roxborough shall provide Ravenna with an engineer's estimate of the cost of said water supply. Ravenna shall have 14 business days from receipt of the engineer's estimate to direct Roxborough to proceed with the design of the Phase III improvements. If directed by Ravenna, Roxborough shall design the Phase III improvements, and will provide Ravenna with an engineer's estimate of the costs of constructing the Phase III improvements. Ravenna shall have 14 business days from receipt of the engineer's estimate to direct Roxborough to publicly bid the construction of the Phase III improvements. If directed by Ravenna, Roxborough shall publicly bid the construction of the Phase III improvements and will provide Ravenna with a copy of the bid tabulation and engineer's recommendation for the selected contractor for the Phase III improvements. Ravenna shall have 14 business days from receipt of the engineer's recommendation to direct Roxborough to proceed with awarding the contract, constructing the Phase III improvements, and to acquire the identified water supply. If directed by Ravenna, Roxborough shall award a contract for the Phase III improvements and shall acquire the identified water supply, applying the proceeds of the Ravenna 2017 Bonds and/or an alternative financing option pursued by Roxborough to all costs associated with design and construction of Phase III, as described in Sections 3.1 and 3.2 of this Agreement. During construction of the Phase III improvements, Roxborough shall provide Ravenna, on a monthly basis, with all contractor pay applications, change order requests, change order approvals, and evidence of all payments made to the contractor. Following completion of construction of the Phase III improvements and expiration of all contractor warranties, Roxborough shall own and be responsible for operation, maintenance, repair, and replacement of the Phase III improvements.

In the event Ravenna should choose not to direct Roxborough to proceed with any component of Phase III, or Roxborough is not able to identify an acceptable alternative water supply for AGC and RVMD by the second anniversary of the Inclusion Effective Date, the same shall constitute the Phase III Termination Date.

3.6 Phase IV. Upon occurrence of the Phase III Termination Date, Roxborough shall proceed with the design and construction of Phase IV of the Project. Phase IV shall consist of the removal of Roxborough's existing infrastructure from the Aurora Rampart Reservoir, and the construction of new infrastructure to connect to the Aurora water system to permit Roxborough to continue to serve AGC and RVMD for irrigation service. The costs of Phase IV shall be the responsibility of Ravenna.

SECTION FOUR

Fees, Rates, and Charges

4.1 Inclusion Fee; Declared Units. Ravenna hereby declares 250 EQRs within the Property to be served by Roxborough pursuant to this Agreement. The Inclusion Fee for the Declared Units

shall be due and payable to Roxborough by Ravenna no later than 14 business days following the Inclusion Effective Date.

4.2 Water SDC Charge. The Water SDC for each EQR within the Property shall be due and payable upon the Inclusion Effective Date, payable as provided in this Section 4.2 and subject to waiver as provided in Section 4.3. The Water SDC shall be payable over time, with interest at the rate of 3.5% per annum, by each owner of a portion of the Property, via a monthly charge imposed by Roxborough on each owner of a portion of the Property. It is anticipated that the Water SDC will be paid via the monthly charge over a period of 15 years, but the Parties agree that the time for payment of the Water SDC may be extended beyond 15 years, in the event Roxborough is able to procure alternative financing options for Phase II and/or Phase III of the Project, as described in Section 3.4. The monthly charge for the Water SDC shall commence in the first month following the Inclusion Effective Date and shall be imposed on each owner of an EQR within the Property.

4.3 Application of Water SDC Charge and Waiver of Charge. Roxborough shall hold the revenues generated by the imposition of the monthly Water SDC Charge and shall apply the revenues to the costs of the Project, if needed. Upon completion of Phase III of the Project, Roxborough shall eliminate the monthly Water SDC charge and no additional Water SDC charges shall be made. If Phase III is completed, Roxborough shall return to Ravenna any revenues generated by the imposition of the monthly Water SDC charge not needed for the costs of the Project.

4.4 Post-Phase III Termination Date Water SDC. In the event of the Phase III Termination Date, all EQRs within the Property shall continue to be subject to the monthly Water SDC charge until the Water SDC is paid in full.

4.5 Water and Wastewater Rates, Charges, Property Taxes. The owners of the individual properties in Ravenna shall be responsible to pay and all rates, fees, and charges associated with the provision of water and wastewater to individual users, as described in this Agreement, Roxborough's Rules and Regulations, and as adjusted from time to time by Roxborough. In accordance with Section 32-1-1001(1)(j)(I), C.R.S., until paid, such fees, rates, penalties and charges due shall constitute a perpetual lien on and against the individual user's property in Ravenna and any such lien may be foreclosed in the same manner as provided by state law for the foreclosure of mechanics' liens.

4.5.1 Rates. As of the Inclusion Effective Date, all Property shall be subject to Roxborough's then-current rates for wastewater services, as adjusted from time to time by Roxborough. As of the Water Service Commencement Date, all Property shall be subject to Roxborough's then-current rates for water services, as adjusted from time to time by Roxborough.

4.5.2 Deferred Water Supply Charge. In addition to the rates described in Sections, 4.2, 4.4, and 4.5.1 of this Agreement, in the event of the Phase III Termination Date, each EQR within the Property connected to the Roxborough Water System as of such date, shall be obligated to pay a monthly surcharge in the amount of \$25, for a period of 25-years, to satisfy the deferred portion of the water supply component of the Water SDC.

4.5.3 Wastewater SDC. Roxborough's then-current Wastewater SDC as adjusted from time to time by Roxborough, shall be payable at the time of building permit application and a condition precedent to receiving service.

4.5.4 Water SDC. In the event Phase III is completed, all Water SDCs for the Property will be waived by Roxborough. In the event of the Phase III Termination Date, Water SDCs shall be imposed on the Property as provided in Sections 4.2, 4.3, 4.4, and 4.5.2 of this Agreement.

4.5.5 Availability of Service Charges. The owner of any residential lot located within the Property that is not connected to the Roxborough Water System and/or the Roxborough Wastewater System shall be subject to Roxborough's then-current availability of service charges; provided, however, no availability of service charges shall be imposed and due from any portion of the Property until the later to occur of the second anniversary of final completion of Phase III or the second anniversary of the Phase III Termination Date.

4.5.6 Connection Permit/Meter Charge. All EQRs within the Property connected to the Roxborough Water System after the Water Service Commencement Date, shall be subject to Roxborough's then-current connection permit/meter charge, as adjusted from time to time by Roxborough. Roxborough's connection permit/meter charge (currently \$1,650) is hereby waived for all EQRs within the Property connected on the Inclusion Effective Date.

4.5.7 Property Taxes. Upon the Inclusion Effective Date, the Property shall be subject to all taxes and charges imposed by Roxborough and shall be liable for its proportionate share of Roxborough's existing indebtedness and for any mill levies and charges imposed to defray Roxborough's operation and maintenance costs.

4.6 Rules and Regulations. Upon the Inclusion Effective Date, the Property will be subject to Roxborough's Rules and Regulations, as the same may be amended from time to time by Roxborough.

SECTION FIVE

Miscellaneous

5.1 Termination of Agreements. The following agreements are hereby terminated or assigned by the applicable Parties:

a. Emergency Interconnection Agreement, is hereby terminated upon the Water Service Commencement Date;

b. Golf Club at Ravenna Service Agreement, is hereby assigned by Ravenna to Roxborough on the Inclusion Effective Date; and

c. Wastewater IGA, is hereby terminated on the Inclusion Effective Date; and

5.2 Covenants Run with the Land – Recording. The covenants, terms, conditions, and provisions set forth in this Agreement shall be construed as, and during the term of this Agreement, shall remain as covenants running with the Property, and shall bind all successor owners of the Property, and any portion thereof. This Agreement shall be recorded in with the Clerk and Recorder's Office of Douglas County, Colorado.

5.3 No Liability. Without altering or limiting Roxborough's commitment to provide water service to the Property, Ravenna acknowledges and agrees that no liability shall attach to Roxborough pursuant to this Agreement due to any failure to accurately anticipate the availability of water for use by Roxborough, or due to any failure of or damages caused by or due to any occurrence or circumstances beyond the reasonable control of Roxborough.

5.4 Notices. All notices, demands, requests or other communications shall be in writing and shall be deemed given when given personally or sent by e-mail, certified or registered mail, return receipt requested, postage prepaid, addressed as follows:

To Roxborough: Roxborough Water and Sanitation District
6222 N. Roxborough Park Road
Littleton, Colorado 80125
Phone: (303) 979-7286
E-mail: barbara@roxwater.org
Attn: Barbara J. Biggs

With a copy to: Icenogle Seaver Pogue, P.C.
4725 S. Monaco St., Suite 360
Denver, Colorado 80237
Phone: (303) 867-3006
E-mail: APogue@ISP-law.com
Attn: Alan D. Pogue

To Ravenna: Ravenna Metropolitan District
Pinnacle Consulting Group, Inc.
6950 E. Belleview Avenue, Suite 200
Greenwood Village, Colorado 80111
Phone: (303) 333-4380
E-mail: smyers@pinnacleconsultinggroupinc.com
Attn: Stan Myers

With a copy to: Seter & Vander Wall, P.C.
7400 E. Orchard Road, Suite 3300
Greenwood Village, Colorado 80111
Phone: (303) 770-2700
E-mail: kseter@svwpc.com
Attn : Kim J. Seter

Notices shall be deemed given upon the date such notice was properly deposited and prepaid with the delivery service. Notice delivered only by e-mail shall be deemed given at 8:00 a.m. (local time of the recipient) the first business day immediately following the sending of the notice. Any Party may designate a new address for purposes of notices sent pursuant to this Agreement by giving written notice thereof to the other Parties as provided herein.

5.5 Term of Agreement. This Agreement shall be perpetual in length and in full force and effect from the date of execution by the Parties.

5.6 Modification; Amendment. This Agreement may be amended or modified by written agreement duly authorized and executed by the Parties, which agreement shall be executed with the same formalities as this original Agreement.

5.7 Assignment. This Agreement may not be assigned or transferred, in whole or in part. Any attempted assignment in violation of this paragraph shall be immediately void and of no effect.

5.8 Further Assurances. The Parties shall execute such additional documents or instruments and shall take such action as may be reasonably necessary or required to carry out the terms and provisions of this Agreement.

5.9 Inurement; No Third-Party Beneficiaries. The terms, conditions, and provisions of this Agreement shall be binding upon and inure to the benefit of the Parties and their permitted successors and assigns. This Agreement is entered into for the sole benefit of the Parties, and no other parties are intended to be direct or incidental beneficiaries of this Agreement, and no third party shall have any right in, under, or to this Agreement.

5.10 Non-Waiver. No waiver of any provision in this Agreement shall be deemed to constitute a waiver of any other provision in this Agreement, nor shall such waiver constitute a continuing waiver unless otherwise expressly provided herein, nor shall the waiver of any default hereunder be deemed a waiver of any subsequent default hereunder.

5.11 Governmental Immunity. Nothing in this Agreement shall be construed to be a waiver, in whole or in part, of any right, privilege, or protection afforded to Roxborough, Ravenna, and the boards of directors, officers, employees, agents, and authorized volunteers of Roxborough and Ravenna pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.*, C.R.S.

5.12 Governing Law; Venue. The terms, conditions, and provisions of this Agreement shall be governed and construed pursuant to the laws of the State of Colorado. The exclusive venue for any legal action relating to this Agreement shall be Douglas County, Colorado.

5.13 Attorneys' Fees. In the event that litigation is brought by any Party hereto in connection with this Agreement, the prevailing Party shall be entitled to recover from the opposing Party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing Party.

in the exercise of any of its rights or remedies hereunder or the enforcement of any terms, conditions, or provisions hereof.

5.14 Severability. If any covenant, term, condition, or provision of this Agreement is, for any reason, held to be invalid or unenforceable, the invalidity or unenforceability of such covenant, term, condition, or provision will not affect any other provision herein contained.

5.15 Headings. The headings, captions, and titles contained herein are intended for convenience and reference only and are not intended to modify, explain, or be a full or accurate description of the content thereof and shall not affect the meaning or interpretation of this Agreement.


5.16 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original and all of which shall constitute one and the same document.

5.17 Entire Agreement. This Agreement constitutes the entire agreement between the Parties with respect to the matters addressed herein. Any prior agreement, promise, negotiation, or representation not expressly set forth in this Agreement is of no force and effect.

(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first above written.

ROXBOROUGH WATER AND SANITATION DISTRICT, a quasi-municipal corporation and political subdivision of the State of Colorado

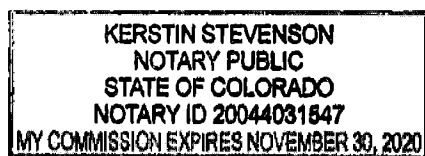
By:  Barbara J. Biggs, General Manager


STATE OF COLORADO)
city and Denver) ss.
COUNTY OF DOUGLAS)

The foregoing instrument was acknowledged before me this 14th day of November, 2017 by Barbara J. Biggs as General Manager of Roxborough Water and Sanitation District.


WITNESS my hand and official seal.

My commission expires: _____.




Notary Public

RAVENNA METROPOLITAN DISTRICT a
quasi-municipal corporation and political
subdivision of the State of Colorado

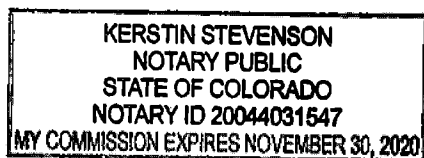
By: 
President

STATE OF COLORADO)
City and Denver) ss.
COUNTY OF DOUGLAS)

The foregoing instrument was acknowledged before me this 14th day of November,
2017 by John Fredericks as President of Ravenna
Metropolitan District.

WITNESS my hand and official seal.

My commission expires: _____.





Notary Public

Exhibit A
(To Inclusion Agreement)
Description of the Property

The description of the area proposed for inclusion includes all real property within the boundaries of the Ravenna Metropolitan District including:

Lots 3 to 10, 12 to 15, 16A, 18 to 25, 28, 32, 37 to 51, 53A, 55 to 65, Tracts B, F, G, I, O, P, T, W, and U, Tracts B, F, G, I, O, P, T, U, and W, River Canyon - Filing No. 1-A, County of Douglas, State of Colorado

Lots 16-A, 17-A, 27 to 70, 73, 75 to 95, 98 to 100, 103 to 115, 117, 119 to 121, 123 to 125, 127 to 129, 131, 132, and 134 to 178, Tracts B and D, River Canyon Filing No. 1-B, Douglas County, Colorado

Lots 1-A and 179-A, River Canyon Filing No. 1-B, 1st Amendment, Douglas County, Colorado

Lots 26, 29 to 31, 33 to 36, 101-A, 102-A, Tracts Most of E-1, H, K, M, N-1, Q-1, V, X, Most of Tract Y, and Z, River Canyon - Filing No. 1-A, 1st Amendment, County of Douglas, State of Colorado

Lots 71, 72, 74, 96, 116, 118, 122, 126, 130, and 133, River Canyon - Filing No. 1-B, 2nd Amendment, County of Douglas, State of Colorado

Lots 15-A and 27-A, River Canyon - Filing No. 1-B, 3rd Amendment, Douglas County, Colorado

Lots 2-A1, 3-A1, 4-A1, 5-A1, 6-A1, 7-A1, 8-A, 9-A, 10-A, 11-A, 12-A, 13-A, 14-A, 18-A1, 19-A1, 19-B1, 20-A1, 21-A1, 22-A1, 23-A1, 24-A1, 25-A1, and 26-A1, River Canyon - Filing No. 1-B, 5th Amendment, Douglas County, Colorado

Together with any and all other property located within the boundaries of the Ravenna Metropolitan District not otherwise referenced above.

**Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
Summary of RWSD to RMD Connection Costs**

Description	Quantity	Units	Unit Price	Cost
Waterline Projects Subtotals				
North Connection (pgs. 9 & 11)	1	ls	\$ 408,000	\$ 408,000
East Connection (pgs. 10 & 11)	1	ls	\$ 326,000	\$ 326,000
Gravity Pipeline (pg. 12)	1	ls	\$ 390,000	\$ 390,000
PRV-01 Relocation (pg. 13)	1	ls	\$ 22,000	\$ 22,000
GRADING, EROSION, AND SEDIMENT CONTROL				
GESC BMPs	1	ls	\$ 80,000	\$ 80,000
ROUNDED SUBTOTAL				\$ 1,226,000
CONTINGENCY (25%)				\$ 307,000
CONSTRUCTION TOTAL				\$ 1,533,000
Engineering Services				
Engineering - Design and Construction				\$ 194,750
Potholing / Utility Investigation				\$ 20,000
Easements / Legal				\$ 16,000
TOTAL CONSTRUCTION COST				\$ 1,533,000
TOTAL PROJECT COST				\$ 1,763,750

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
North Connection - RWSD Zone 1 to RMD Low Zone

Description	Quantity	Units	Unit Price	Cost
WATERLINE				
PRV Vault	1	ls	\$ 178,000	\$ 178,000
12" PVC, 0 to 8" Deep	410	lf	\$ 130	\$ 53,300
12" DI Fittings	10	ea	\$ 2,000	\$ 20,000
12" Gate Valves	4	ea	\$ 3,500	\$ 14,000
Concrete Encasement on 12" PVC	40	lf	\$ 200	\$ 8,000
Connections to ex. 12" RWSD Waterline	2	ea	\$ 10,000	\$ 20,000
8" PVC, 0 to 8 feet deep	50	lf	\$ 100	\$ 5,000
8" DI Fittings	2	ls	\$ 1,000	\$ 2,000
8"x12" Reducer	1	ea	\$ 1,250	\$ 1,250
Connection to ex. 8" RMD Waterline	1	ls	\$ 10,000	\$ 10,000
12" Abandonment DI Caps	2	ea	\$ 1,250	\$ 2,500
Water Service Line to Guard Shack	1	ls	\$ 1,000	\$ 1,000
Valve Marker Posts	4	ea	\$ 750	\$ 3,000
Pipeline Carsonite Marker	4	ea	\$ 100	\$ 400
Flowfill Abandoned Pipe	375	lf	\$ 20	\$ 7,500
ASPHALT AND FLATWORK				
Saw Cutting	110	lf	\$ 5	\$ 550
Asphalt Removal	320	syi	\$ 2	\$ 640
Asphalt Replacement	320	syi	\$ 14	\$ 4,480
Concrete Curb and Gutter Removal	30	lf	\$ 40	\$ 1,200
Concrete Curb and Gutter Replacement	30	lf	\$ 80	\$ 2,400
Concrete Sidewalk Removal	30	lf	\$ 50	\$ 1,500
Concrete Sidewalk Replacement	30	lf	\$ 120	\$ 3,600
Base Course	320	syi	\$ 5	\$ 1,600
SURFACE RESTORATION				
Sod Removal/Replacement	6300	sf	\$ 5	\$ 31,500
Landscaping Restoration	7000	sf	\$ 5	\$ 35,000
TOTAL CONSTRUCTION COST			\$	408,000

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
East Connection - RWSD Zone 2 to RMD High Zone

Description	Quantity	Units	Unit Price	Cost
WATERLINE				
PRV Vault	1	ls	\$ 178,000	\$ 178,000
8" PVC, 0 to 8 feet deep	320	lf	\$ 100	\$ 32,000
8" DI Fittings	10	ea	\$ 1,000	\$ 10,000
8" Gate Valves	3	ea	\$ 1,500	\$ 4,500
Connection to ex. 8" Waterlines	2	ls	\$ 10,000	\$ 20,000
Concrete Encasement on 8" Waterline	150	lf	\$ 150	\$ 22,500
Fire Hydrant Assembly	1	ea	\$ 8,500	\$ 8,500
Valve Marker Posts	2	ea	\$ 750	\$ 1,500
Pipeline Carsonite Marker	2	ea	\$ 100	\$ 200
ASPHALT AND FLATWORK				
Saw Cutting	110	lf	\$ 5	\$ 550
Asphalt Removal	1000	syi	\$ 2	\$ 2,000
Asphalt Replacement	1000	syi	\$ 14	\$ 14,000
Concrete Curb and Gutter Removal	50	lf	\$ 40	\$ 2,000
Concrete Curb and Gutter Replacement	50	lf	\$ 80	\$ 4,000
Base Course	1000	syi	\$ 5	\$ 5,000
Gravel Drive Replacement - 6" Thick	200	sy	\$ 20	\$ 4,000
SURFACE RESTORATION				
Sod Removal/Replacement	500	sf	\$ 5	\$ 2,500
Landscaping Restoration	2500	sf	\$ 5	\$ 12,500
Gate Removal/Replacement	1	ls	\$ 2,000	\$ 2,000
TOTAL CONSTRUCTION COST			\$	326,000

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
PRV Vault at North and East Connections

Description	Quantity	Units	Unit Price	Cost
PRV Vault				
Civil				
Precast Concrete Vault	1	ls	\$ 30,000	\$ 30,000
Vault Excavation	1	ls	\$ 10,000	\$ 10,000
Setting of Vault	1	ls	\$ 5,000	\$ 5,000
Vault Backfill	1	ls	\$ 10,000	\$ 10,000
3'-0" W x 2'-6" Access Hatch	1	ea	\$ 3,000	\$ 3,000
Thrust Collar	1	ea	\$ 200	\$ 200
Thrust Block	2	ea	\$ 200	\$ 400
Sump w/ FRP Mesh Grate	2	sf	\$ 100	\$ 200
Manhole Steps	8	ea	\$ 100	\$ 800
8" A-Lok Rubber Boot	2	ea	\$ 300	\$ 600
<i>Civil Subtotal</i>				\$ 59,600
Piping				
8" Romac 501 Coupling	3	ea	\$ 500	\$ 1,500
8" DI Pipe 52	15	lf	\$ 100	\$ 1,500
8" Megalug	6	ea	\$ 200	\$ 1,200
8" x 3/4" Service Saddle	2	ea	\$ 300	\$ 600
8" x 2" Service Saddle	2	ea	\$ 400	\$ 800
Adj Pipe Support	10	ea	\$ 200	\$ 2,000
8" x 8" x 4" DI MJ Reducing Tee	2	ea	\$ 1,000	\$ 2,000
8" DIP Flng x Flng Spool	2	ea	\$ 500	\$ 1,000
8" Blind Flange	2	ea	\$ 500	\$ 1,000
8" Gate Valve	2	ea	\$ 1,500	\$ 3,000
8" DIP FLNG x PL Spool	1	ea	\$ 500	\$ 500
8" RFCA	1	ea	\$ 500	\$ 500
8" PRV FLNG	1	ea	\$ 10,000	\$ 10,000
8" DIP FLNG x FLNG Spool	1	ea	\$ 500	\$ 500
4" Gate Valve	2	ea	\$ 1,000	\$ 2,000
4" DIP FLNG x PL Spool	2	ea	\$ 150	\$ 300
4" RFCA	2	ea	\$ 270	\$ 540
4" PRV FLNG	2	ea	\$ 4,000	\$ 8,000
4" DIP FLNG x FLNG Spool	1	ea	\$ 150	\$ 150
2" x SHT Nipple, BRS	2	ea	\$ 50	\$ 100
2" FPT Ball Valve, BRS	2	ea	\$ 250	\$ 500
2" Male Adapter, CU	2	ea	\$ 50	\$ 100
2" x 1" SOC Reducing Tee, CU	3	ea	\$ 50	\$ 150
2" Pipe CU	6	lf	\$ 50	\$ 300
2" SOC Union CU	2	ea	\$ 50	\$ 100
2" SOC x 2" FPT Female Adapter CU	1	ea	\$ 50	\$ 50
2" SOC PRV BRS	2	ea	\$ 2,000	\$ 4,000
1" Pipe CU	10	lf	\$ 20	\$ 200
1" SOC Ball Valve, BRS	2	ea	\$ 20	\$ 40
1" SOC Elbow CU	2	ea	\$ 10	\$ 20
1" SOC Union CU	2	ea	\$ 10	\$ 20
1" SOC PRV, BRS	1	ea	\$ 1,000	\$ 1,000
1" SOC Check Valve CU	1	ea	\$ 300	\$ 300
8" Gate Valve	1	ea	\$ 1,500	\$ 1,500
8" Romac 501 Coupling	3	ea	\$ 500	\$ 1,500
8" Mid Span Restraint w/ Duc Lug	3	ea	\$ 500	\$ 1,500
8" DI Pipe CI 52	15	lf	\$ 100	\$ 1,500
Sump Drain Pipe Assy	1	ls	\$ 400	\$ 400
Air Vent Assembly	2	ea	\$ 500	\$ 1,000
<i>Piping Subtotal</i>				\$ 51,370
Electrical				
Lights	1	ls	\$ 1,000	\$ 1,000
Heater	1	ls	\$ 3,000	\$ 3,000
Outlets, Conduit, etc.	1	ls	\$ 1,000	\$ 1,000
Security Sensors	1	ls	\$ 1,500	\$ 1,500
Misc Elec	10%			\$ 11,097
<i>Electrical Subtotal</i>				\$ 17,597
I&C				
Controls				
Panel	1	ea	\$ 30,000	\$ 30,000
Instrumentation				
Pressure Gauge Assy	4	ea	\$ 2,000	\$ 8,000
Misc I&C	10%			\$ 11,097
<i>I&C Subtotal</i>				\$ 49,097
TOTAL CONSTRUCTION COST				\$ 178,000

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
12" Transmission Main - Water Line from RMD Tank to RMD Low Zone

Description	Quantity	Units	Unit Price	Cost
WATERLINE				
12" PVC, 0 to 8 Feet Deep	1700	lf	\$ 130	\$ 221,000
12" DIP Fittings	15	ea	\$ 2,000	\$ 30,000
12" Gate Valves	4	ea	\$ 3,500	\$ 14,000
Connection to ex. RMD 8" at Cissero Ct.	1	ea	\$ 10,000	\$ 10,000
Connection to ex. RMD Tank	1	ea	\$ 12,000	\$ 12,000
Valve Marker Posts	4	ea	\$ 750	\$ 3,000
Pipeline Carsonite Marker	5	ea	\$ 100	\$ 500
ASPHALT AND FLATWORK				
Saw Cutting	200	lf	\$ 5	\$ 1,000
Asphalt Removal	600	syi	\$ 2	\$ 1,200
Asphalt Replacement	600	syi	\$ 14	\$ 8,400
Concrete Curb and Gutter Removal	50	lf	\$ 40	\$ 2,000
Concrete Curb and Gutter Replacement	50	lf	\$ 80	\$ 4,000
Concrete Drive Removal	50	sy	\$ 50	\$ 2,500
Concrete Drive Replacement	50	sy	\$ 150	\$ 7,500
Base Course	600	syi	\$ 5	\$ 3,000
Cartpath Removal and Replacement	250	lf	\$ 150	\$ 37,500
SURFACE RESTORATION				
Sod Removal/Replacement	1000	sf	\$ 5	\$ 5,000
Fence Removal/Replacement	1000	lf	\$ 10	\$ 10,000
Native Landscaping Restoration	1	acre	\$ 15,000	\$ 15,000
Gate Removal/Replacement	1	ls	\$ 2,000	\$ 2,000
TOTAL CONSTRUCTION COST			\$	390,000

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
PRV-01 Relocation

Description	Quantity	Units	Unit Price		Cost
WATERLINE					
8" PRV - Remove from Ex MH 01	1	ls	\$	8,000	\$ 8,000
8" PRV - Install at Ex MH 02	1	ls	\$	12,000	\$ 12,000
Existing MH 01 Improvements - steps	1	ls	\$	2,000	\$ 2,000
TOTAL CONSTRUCTION COST				\$	22,000

Roxborough Water and Sanitation District
Renewable Water Supply for Ravenna Metropolitan District
Loan Feasibility Study
30 Year Loan
Estimated Cash Flow 2018 - 2048

Estimated Revenue																																	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	Total
Douglas County Engineering Grant ¹		194,750																														194,750	
CWCB Loan Proceeds to RWSD (30 yr @ 3.15%)		1,569,000																														1,569,000	
Loan Service Fee Payment by RMD		15,690																															
Surcharge from RMD (\$28/month/EQR)				82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	2,479,680	
Total Estimated Revenue	0	1,779,440	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	82,656	4,259,120	
Estimated Expenses																																	
CWCB Loan Service Fee (1%)		15,690																														15,690	
RWSD to RMD Connections Construction Cost		627,600	941,400																													1,569,000	
Engineering		116,850	77,900																													194,750	
CWCB- RWSD Debt Service	0	0	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	2,448,273	
Total Estimated Expenses	0	760,140	1,100,909	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	81,609	4,227,713	
Estimated Annual Cash Flow	0	1,019,300	-1,018,253	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	31,407	
Cumulative	0	1,019,300	1,047	2,094	3,141	4,188	5,234	6,281	7,328	8,375	9,422	10,469	11,516	12,563	13,610	14,657	15,703	16,750	17,797	18,844	19,891	20,938	21,985	23,032	24,079	25,126	26,172	27,219	28,266	29,313	30,360	31,407	

Notes
1. Douglas County Engineering Grant was for a total of \$310,250. A portion of grant was used to pay for the RMD Emergency Interconnect and System Evaluation and are not expenses of RWSD