Water Resources Report
U-Haul at Falcon
Falcon U-Haul Filing 1
El Paso County, Colorado

Prepared for:
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2727 N Central Avenue
Phoenix, AZ 85004

Prepared by:

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Kiowa Project No. 21061

August 26,2022

I. INTRODUCTION

Water system design for the proposed development has been performed in accordance with the Falcon Highlands Metro District (FHMD) requirements and the El Paso County Land Development Code. The District is currently using an Interim Water Policy and follows the Woodmen Hills Water and Wastewater System Standard Specifications. Supporting design calculations are included in the Appendix A of this report

II. GENERAL LOCATION AND DESCRIPTION

The Falcon U-Haul Filing No. 1 property will be developed as a commercial development including two main buildings on the site for self storage, U-Box warehouse, showroom, vehicle sharing and retail area. The subject property is located along the south side of Rolling Thunder Way, west of Meridian Road and north of Tamlin Road in Falcon, Colorado. The site is located in the east half of Section 12, Township 13 South, Range 65 West of the 6th Principal Meridian, in El Paso County, Colorado. The site is bounded to the west by Falcon Highlands Filing No. 2, future Falcon Highlands Filing No. 3, to the south by Tamlin Road, east by Meridian Road and north by Rolling Thunder Way. The property covers approximately 11.50 acres and is currently undeveloped. The property is planned to be developed in two phases. The northern portion which is described in this drainage report and the southern portion will be developed in the future. The southern portion is planned to be developed as mini self storage and RV storage. A vicinity map of the site is shown on Figure 1 included in the Appendix.

For the proposed development there will be two buildings with minimal water fixtures (see the Appendix for the Fixture Unit Calc). Building A will be mainly a self storage facility with a small retail and showroom area. The building will include bathrooms on the first and second floor along with mop sinks. Building B will be a warehouse to store U-Boxes and not be accessible to the public. A single bathroom will be included in the building. Both buildings will include a domestic and fire service. An irrigation service will be located off one of the domestic water services. The future phase does not plan to include a domestic water or fire service tap.

III. WATER DISTRIBUTION SYSTEM

In the existing condition, there is a 12-inch DIP water main stubbed into the north end of the property at the main access driveway and an existing 12-inch DIP water main is located in future Tamlin Drive to the south of the property. Both water mains are owned and maintained by Falcon Highlands Metro District. The proposed development will involve connection to the existing 12-inch water main to the north and reducing it to an 8-inch water main, extending an 8-inch PVC water main through the property to the south and connecting to the existing 12-inch water main on the south end of the property. These lines will be installed per Woodmen Hills Water and Wastewater System Standard Specifications which FHMD follows. The domestic water services, fire services and fire hydrant laterals will be installed off this water main.

Demand flow calculations are contained in Appendix A of this report and are provided to the District for review and analysis. The Utility Plan is included in the Appendix of this report and shows the locations of the existing and proposed water lines and associated appurtenances.

IV. WATER SUPPLY, RESOURCES AND QUALITY

FHMD is following an Interim Water Policy with current amendment dated May 2, 2019. A copy of the policy and amendments is included in the Appendix. Kiowa Engineering has discussed the proposed water demand for the site with FHMD to determine the required number of SFE (Single Family Equivalents) for the development and verify FHMD has sufficient water available to fulfill this

water supply. Preliminary FHMD calculations show the site will require 3 SFEs. Refer to the Appendix for the FHMD calculations.

Contained within Appendix C of this report is the existing and future water supply summary for the District from the *FHMD Water Facility Master Plan*. The District is currently determining improvements to expand their system to increase their water supply to meet the County's 300-year water supply requirements. The Master Plan provides a description of the existing water supply and distribution system, as well as descriptions for possible future improvements and expansions to the system. The estimated water supply requirements listed on the Water Supply Information Summary is based upon the Fixture Unit calculation and assumed irrigation demand.

To receive a commitment letter from FHMD, the District requires a Tap Option to be secured through the District which requires payment of half the SFE fee. The Developer is in the process of completing the steps necessary for the Tap Option. Appendix B will include the water commitment from the District once it is received.

The quality of the water produced by the District for domestic and commercial consumption is subject to regulations prescribed by the CDPHE that limit the amount of certain contaminants in treated or untreated water. Contained within Appendix G is the District's 2022 Consumer Confidence Report that summarizes the quality of the water produced by the District and its conformance with CDPHE regulations.

V. REFERENCES

1) Water Facility Master Plan, Falcon Highlands Metropolitan District, prepared by Kennedy/Jenks Consultants, dated February 8, 2018.

2) Interim Water Policy, Resolution of the Board of Directors of the Falcon Highlands Metropolitan District, dated January 16, 2018 including Amendments dated May 13, 2019 and October 28, 2019.

3) Falcon Highlands MD 2022 Drinking Water Quality Report, Covering Data for Calendar Year 2021, Public Water System ID: CO0121247.

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APPENDIX A

Figure 1: Vicinity Map

Water Demand Calculations

FHMD Water Demand Calculations

SCALE: NTS

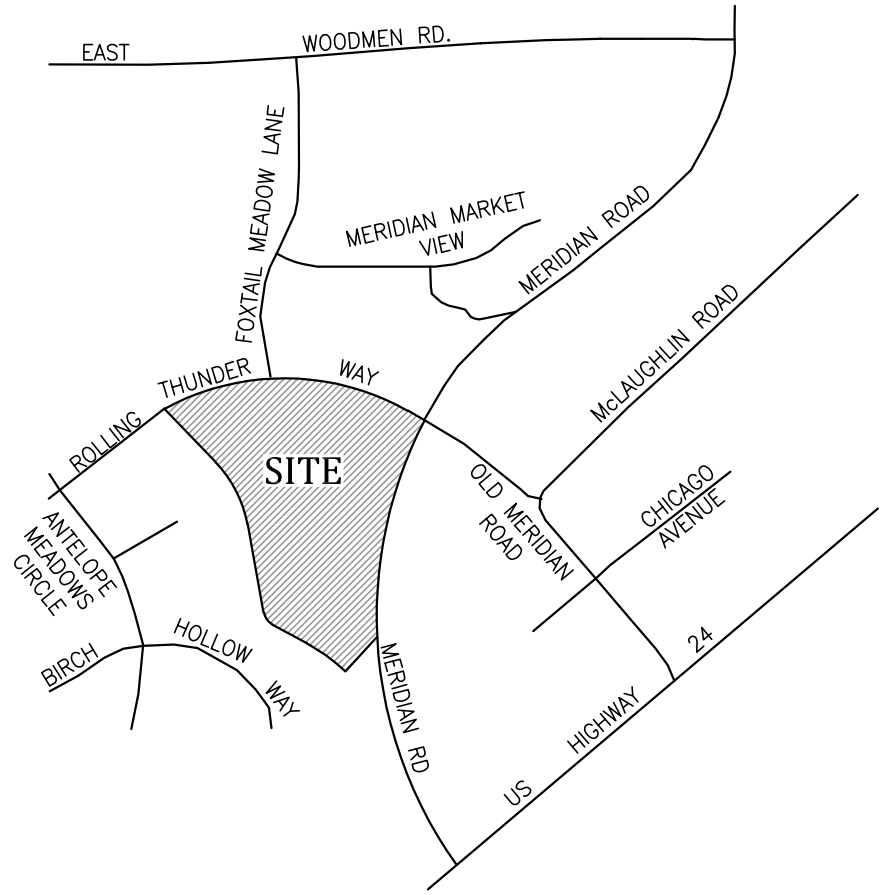


FIGURE 1
VICINITY MAP
U-HAUL FALCON

U-Haul at Falcon
Water Demand Calculations

Water Demand Calculations

Lot or Building	Land Use	Commercial Area	Commercial Flow Factor	Average Day		Max. Day Demand		Peak Hour Demand	
Building A	Gen. Commercial	4,430 sf	0.20gpd/sf	886 gpd	1 gpm	2.5	2 gpm	6.0	4 gpm
Building B	Gen. Commercial	150 sf	0.20gpd/sf	30 gpd	0 gpm	2.5	0 gpm	6.0	0 gpm
Total		4,580 sf	0.20gpd/sf	916 gpd	1 gpm	3.5	2 gpm	7.0	4 gpm

*The commercial area does not include the storage areas

Land Use	Flow Factor	Description
General Commercial	0.20gpd/sf	Commercial: Retail/Offices

These calculations don't correspond with the water information summary sheet or the commitment letter. Please revise and provide acre-foot per year calculations for 300 year water sufficiency.

FALCON HIGHLANDS METROPOLITAN DISTRICT
C/O CLA - 121 South Tejon Street, Suite 1100, Colorado Springs, CO 80903
Office: (719) 635-0330

Customer: U-Haul	Address:	TBD	
Owner: KLK 1031 Investments, LLC			
Type of Occupancy: Commercial	By:	Ryan Mangino	
Legal Address: 632 Silver Oak Grove, Colorado Springs, CO 80906	Filing:	Lot:	Block:

International Plumbing Code - Table E103.3(2)

Fixture	Occupancy	Type of Supply Control	Load Values, in WSFU			# of Fixtures	Total Fixture Values	Demand GPD (@ 15 GPD/WSFU)	Demand (GAL/YR)
			Cold	Hot	Total				
Bathroom group	Private	Flush tank	2.70	1.50	3.60	0	0	0	0
Bathroom group	Private	Flushometer valve	6.00	3.00	8.00	0	0	0	0
Bathtub	Private	Faucet	1.00	1.00	1.40	0	0	0	0
Bathtub	Public	Faucet	3.00	3.00	4.00	0	0	0	0
Bidet	Private	Faucet	1.50	1.50	2.00	0	0	0	0
Combination fixture	Private	Faucet	2.25	2.25	3.00	0	0	0	0
Dishwashing machine	Private	Automatic		1.40	1.40	0	0	0	0
Drinking Fountain/Dispenser (3/8" Valve)	Offices, etc.	3/8" valve	0.25		0.25	2	0.5	7.5	2,738
Hose bib	Private	3/4"	2.50		2.50	1	2.5	37.5	13,688
Hose bib	Pub	3/4"	2.50		2.50	0	0	0	0
Kitchen sink	Private	Faucet	1.00	1.00	1.40	0	0	0	0
Kitchen sink	Hotel, restaurant	Faucet	3.00	3.00	4.00	0	0	0	0
Laundry Trays (1 to 3)	Private	Faucet	1.00	1.00	1.40	0	0	0	0
Lavatory	Private	Faucet	0.50	0.50	0.70	4	2.8	42	15,330
Lavatory	Public	Faucet	1.50	1.50	2.00	0	0	0	0
Service sink	Offices, etc.	Faucet	2.25	2.25	3.00	3	9	135	49,275
Shower head	Public	Mixing valve	3.00	3.00	4.00	0	0	0	0
Shower head	Private	Mixing valve	1.00	1.00	1.40	0	0	0	0
Urinal	Public	1" flushometer valve	10.00		10.00	0	0	0	0
Urinal	Public	3/4" flushometer valve	5.00		5.00	0	0	0	0
Urinal	Public	Flush tank	3.00		3.00	0	0	0	0
Washing machine (8 lb.)	Private	Automatic	1.00	1.00	1.40	0	0	0	0
Washing machine (8 lb.)	Public	Automatic	2.25	2.25	3.00	0	0	0	0
Washing machine (15 lb.)	Public	Tauto	3.00	3.00	4.00	0	0	0	0
Water closet	Private	Flushometer valve	6.00		6.00	0	4	60	21,900
Water closet	Private	Flush tank	2.20		2.20	4	8.8	132	48,180
Water closet	Public	Flushometer valve	10.00		10.00	0	0	0	0
Water closet	Public	Flush tank	5.00		5.00	0	0	0	0
Water closet	Public or private	Flushometer valve	2.00		2.00	0	0	0	0
*Irrigation (trees, shrubs, & sod)									178,880
					Totals	***14***	***27.6***	***414.0***	***329,990***

Customer Peak Demand from Table E103.3(3) in International Plumbing Code	24.5	GPM
Irrigation (Largest Zone per Irrigation Designer)	5.0	GPM
Add fixed load	0.0	GPM
TOTAL PEAK DEMAND	**29.5**	**GPM**

1 SFE=	115,025	GAL/YR
This Project=	2.9	SFEs
Adjusted	**3.0**	**SFEs**

Notes:
1) Use meter sizing table in AWWA-M22 for meter sizing, maximum 80% of meter capacity; 80% of capacity meter used.
2) Provide back up information for items not found in the Code.

	Area (SF) or Quantity	Demand (Gallons)	Frequency	Timing	Cu.Ft./Year	Gallons/Year	GPD
* Kentucky Bluegrass	-	0.0000	26	Weeks/Yr	0.0	0.0	0.0
Med-Water Trees	81	40.0000	26	Weeks/Yr	33,786.1	84,240.0	1,080.0
Low-Water Trees	32	40.0000	26	Weeks/Yr	13,347.6	33,280.0	426.7
Low-Water Shrubs/Grasses	590	4.0000	26	Weeks/Yr	24,609.6	61,360.0	786.7
				Totals	***71,743.3***	***178,880.0***	***2,293.3***

*= 1.5"/SF/Day

APPENDIX B

Falcon Highlands Metro District Commitment Letter (To Be Added when Received)

APPENDIX C

Falcon Highlands Metro District Interim Water Policy
Falcon Highlands Metro District Water Supply Summary
2022 Falcon Highlands Water Quality Report

RESOLUTION NO. 2018-01-02

RESOLUTION OF THE BOARD OF DIRECTORS OF THE FALCON HIGHLANDS METROPOLITAN DISTRICT

REGARDING INTERIM WATER POLICY

WHEREAS, the Falcon Highlands Metropolitan District (the "**District**") is a special district in El Paso County, Colorado, organized pursuant to Article 1 of Title 32, Colorado Revised Statutes, known as the Special District Act; and

WHEREAS, the District has temporarily prohibited new water connections to its water distribution system, based on limitations of its water production capability, customer demand and restricted water infrastructure resources; and

WHEREAS, the District has engaged the services of a professional engineering firm, Kennedy/ Jenks Consultants, to assess the District's water system and capabilities to meet the demands of the existing and future users within the District's service area; and

WHEREAS, the water system analysis makes certain findings regarding the limited capabilities of the District's existing water system relative to its capacity to meet the current estimated maximum daily demand (MDD) based on the average annual demand planning criteria adopted by the District; and

WHEREAS, the water system analysis also makes recommendations regarding short-term and long-term actions proposed to assist the District in meeting existing and future water demands; and

WHEREAS, the District has taken steps and continues to work toward reducing the District's MDD in conformance with such recommendations, including increased measures to effectuate the District's water conservation policies, reduction of existing irrigation activities, development of plans to minimize or eliminate irrigation during extreme conditions for efficient implementation, efforts to ease long-term financial obligations, and planning for future water supply and water production infrastructure; and

WHEREAS, the water system analysis and the steps taken by the District allow for a limited number of additional water connections to be made to the District's water system; and

WHEREAS, the District desires to respond to certain immediate demands for water service on a limited basis, pursuant to engineering analysis and recommendations, by the issuance of a water policy which allows for a small number of interim connections to be made to the District's water system; and

WHEREAS, pursuant to the Special District Act and its Service Plan, the District provides water service to its customers and is empowered to adopt, amend and enforce regulations and policies related to this service; and

NOW THEREFORE, the Board of Directors of Falcon Highlands Metropolitan District, El Paso County, Colorado, resolves as follows:

1. Intent and Purpose. It is the intent and purpose of the Board of Directors of the District to adopt the interim water policy described in this resolution ("Water Policy") requiring an eligible property owner desiring water service from the District to comply with the District's Water Policy as a condition to service the subject property, with a goal of minimizing water consumption so that the District can maximize the use of the limited number of available water tap connections.

2. Issuance of Interim Tap Connection Permits. The District hereby determines that, based on an engineering analysis of the District's existing water system and relevant criteria, an additional twelve single family equivalents ("SFEs") may currently be served by the District. The District will issue Tap Permits allocating these 12 SFEs to eligible property owners subject to this Water Policy.

3. Eligible Property Owner. To be eligible for a Tap Permit, the applicant must be the owner of the property, submit appropriate documentation to the District as requested, and pay applicable fees, pursuant to this Water Policy.

4. Submittal of Development Information. Any person desiring to obtain water service from the District must submit an application for a Tap Permit on the District's form, supplemented by plans, specifications or other information deemed necessary by the District to determine water demand requirements, and demonstrating compliance with the regulations, rules and policies concerning the District's water system.

5. Payment of Fees. Applications for Tap Permits must be accompanied by payment of a review fee in the amount set forth in Exhibit A, to cover the District's costs to review the application. This review fee is non-refundable. Any costs of the District in excess of this amount must be paid by the applicant prior to the issuance of the Tap Permit or Tap Option.

6. Application Review Process. The District shall review the application for Tap Permit for conformance with this Water Policy. The District may deny any application for water service based on the District's determination that the District lacks sufficient water treatment capacity, water and/or water resources to serve the property, or in the Board's sole discretion, it determines that service would not be in the best interests of the District or its residents and property owners. The District will determine the water SFEs needed to serve each property by analyzing the domestic and irrigation water demand associated with the planned development of the property. The District's SFE allocation determination will be made in a manner to maximize the use of the limited number of SFEs available.

7. Commercial Irrigation Tap Variance. It is the District's policy to require commercial development to install separate domestic and irrigation meters in order to monitor

and regulate use. To assist in the District's goal of maximizing the use of a limited number of taps under this Water Policy, the District may authorize a variance to its policy by permitting a combined domestic and irrigation meter for commercial property with minimal irrigation demand through the use of xeriscaping or other water-savings landscape features. To qualify for a commercial irrigation tap variance, the applicant must provide landscaping plan information satisfactory to the District to determine eligibility for a combined domestic / irrigation tap permit.

8. Duration of Tap Permit. A Tap Permit issued pursuant to this Water Policy allows for a water tap to be connected to the District's system within twelve (12) months from the date of issuance, after which period such Tap Permit shall expire. All payments for a Tap Permit are non-refundable.

9. Tap Option. In lieu of a Tap Permit, a person may apply for a water tap permit option ("Tap Option"). A Tap Option may be appropriate when the projected development may not be at a point where sufficient land use plans may be analyzed for water requirements, or where the development may be subject to the sale of the subject property. Tap Options may be issued on a per SFE basis, from the same limited number of SFEs available under this Water Policy. Tap Options shall have a limited duration but shall otherwise be subject to the same requirements as a Tap Permit, except as provided herein:

a. The Tap Option shall be for six (6) months, renewable for an additional six (6) month period, subject to the discretion of the District, based on findings of satisfactory progress in the development of the property.

b. The Tap Option price shall be applied to the full Tap Permit price upon sale.

c. The Tap Option payment is non-refundable and will not be refunded upon expiration of the Tap Option.

10. Issuance of Tap Permits and Tap Options. Tap Permits and Tap Options will not be issued until payment of the applicable Tap Permit or Tap Option fee, additional review fees if owed, connection fees, capital improvement charges and any other fees, rates, tolls, charges or deposits, required by the Board of Directors, are paid in full. Connection fees, capital improvement charges and all other fees, rates, tolls and charges are non-refundable.

a. Tap Permit fees are shown on the attached **Exhibit A**, based on a ¾ inch being the equivalent of 1 SFE.

b. Tap Option fees are 50% of the relevant Tap Permit.

11. Property Development Agreements. The District may require the property owner to enter into a development agreement to address the District and property owner responsibilities related to the issuance of the committed Tap Permits / Tap Options.

12. Will Serve Letters. The District may provide a "will serve" letter for property purchasing a Tap Permit or Tap Option in compliance with the Water Policy, as applicable.

13. Subject to Rules and Regulations. Any customer shall be subject to the District's Rules and Regulations, including the District's right to restrict, curtail or otherwise prohibit use of water.

14. Duration of Water Policy. This Water Policy shall remain in place until modified or terminated by the Board of Directors of the District.

15. Lien. Until paid, the Tap Permit or Tap Option fee shall constitute a perpetual lien on and against the entire property to which the fee is applied, in accordance with § 32-1-1001(1)(j), C.R.S.

16. Legislative Measure. This Resolution is and shall constitute a legislative measure of the District, which may be modified only by formal resolution of the Board of Directors of the District.

[Remainder of this page intentionally left blank.]

Adopted this 16th day of Jan., 2018.

FALCON HIGHLANDS METROPOLITAN DISTRICT

President, Board of Directors of the Falcon Highlands Metropolitan District

Attest:

Secretary or Assistant Secretary

EXHIBIT A

INTERIM WATER TAP PERMIT FEE SCHEDULE
(Effective as of: January 16, 2018)

Review Fee	$3,000 + any excess costs

Water Tap Permit Fee Schedule				
	Residential		Non-Residential	
	Single Family	Multi-Family	Domestic	Irrigation
Tap Fees (size verified by District Engineer)				
¾" (= 1 SFE)	7,812.50	7,812.50	10,000	10,000
1" (= 2 SFEs)				
1 ½" (= 4 SFEs)				
2" (= 8 SFEs)				
**Wastewater tap fees, infrastructure development fees, meter fees, and other one-time capital charges shall be paid in accordance with the District's current fee schedule. Please refer to the District's current fee schedule for monthly administrative, maintenance, water treatment, usage and late fees, and other charges which may be applicable.*				

RESOLUTION NO. 2019-05-02

RESOLUTION OF THE
BOARD OF DIRECTORS OF THE
FALCON HIGHLANDS METROPOLITAN DISTRICT

REGARDING AMENDMENT TO INTERIM WATER POLICY

WHEREAS, the Falcon Highlands Metropolitan District (the "**District**") is a special district in El Paso County, Colorado, organized pursuant to Article 1 of Title 32, Colorado Revised Statutes, known as the Special District Act; and

WHEREAS, on January 16, 2018, the District's Board of Directors adopted an interim water policy, pursuant to Resolution No. 2018-01-02 ("Interim Water Policy") which allows for a limited number of additional water connections to be made to the District's water system, subject to compliance with conditions of the policy; and

WHEREAS, the District's professional engineering consultant, JDS-Hydro Consultants, Inc., has reviewed the District's water system, water demands, and restricted water infrastructure resources, and based on this updated analysis, finds that the District is capable of a few additional water connections; and

WHEREAS, the District desires to amend its Interim Water Policy to allow for the increased tap connections to be made to the District's water system;

NOW THEREFORE, the Board of Directors of Falcon Highlands Metropolitan District, El Paso County, Colorado, resolves as follows:

1. Amendment to District Interim Water Policy. The Board of Directors hereby resolves to amend paragraph 2 of its Interim Water Policy to increase the SFEs from 12 to 18, based upon findings and recommendations made by JDS-Hydro Consultants, Inc., the District's engineer:

> Issuance of Interim Tap Connection Permits. The District hereby determines that, based on an engineering analysis of the District's existing water system and relevant criteria, an additional eighteen single family equivalents ("SFEs") may currently be served by the District. The District will issue Tap Permits allocating these 18 SFEs to eligible property owners subject to this Water Policy.

2. Retroactive Application. This Amendment shall take into consideration any Tap Permits or Tap Options issued prior to the date of this Amendment to Resolution, such that the total number of SFEs eligible for issuance by the District does not exceed 18 under the Interim Water Policy.

3. Capitalized Terms. All capitalized terms used but not otherwise defined in this Amendment shall have the meanings assigned to them in the Interim Water Policy, Resolution 2018-01-02.

4. Remaining Provisions. Except as modified by this Amendment, all other provisions of the Interim Water Policy shall remain in full force and effect.

[Remainder of this page intentionally left blank.]

Adopted this 13th day of May, 2019.

FALCON HIGHLANDS METROPOLITAN DISTRICT

President, Board of Directors of the Falcon Highlands Metropolitan District

Attest:

Secretary or Assistant Secretary

RESOLUTION NO. 2019-10

RESOLUTION OF THE BOARD OF DIRECTORS OF THE FALCON HIGHLANDS METROPOLITAN DISTRICT

REGARDING AMENDMENT TO INTERIM WATER POLICY

WHEREAS, the Falcon Highlands Metropolitan District (the "**District**") is a special district in El Paso County, Colorado, organized pursuant to Article 1 of Title 32, Colorado Revised Statutes, known as the Special District Act; and

WHEREAS, on January 16, 2018, the District's Board of Directors adopted an interim water policy, pursuant to Resolution No. 2018-01-02, as modified by amendment to Interim Water Policy by Resolution No. 2019-05-02, ("Interim Water Policy") which allows for a limited number of additional water connections to be made to the District's water system, subject to compliance with conditions of the policy; and

WHEREAS, during the year of 2019, the District has completed an upgrade of its primary water source and treatment system, completed several water delivery systems upgrades, added an emergency interconnect/mutual aid agreement with Woodmen Hills, and expanded operations capability by adding staff through operations agreement with Woodmen Hills Metro District;

WHEREAS, the District's professional engineering consultant, JDS-Hydro Consultants, Inc., has reviewed the District's water system, water demands, considered recent system upgrades, and restricted water infrastructure resources, and based on this updated analysis, finds that the District is capable of additional water connections; and

WHEREAS, the District desires to amend its Interim Water Policy to allow for the increased tap connections to be made to the District's water system;

NOW THEREFORE, the Board of Directors of Falcon Highlands Metropolitan District, El Paso County, Colorado, resolves as follows:

1. Amendment to District Interim Water Policy. The Board of Directors hereby resolves to amend paragraph 2 of its Interim Water Policy to increase the SFEs from 18 to 36, based upon findings and recommendations made by JDS-Hydro Consultants, Inc., the District's engineer:

> Issuance of Interim Tap Connection Permits. The District hereby determines that, based on an engineering analysis of the District's existing water system and relevant criteria, an additional eighteen single family equivalents ("SFEs") may currently be served by the District. The District will issue Tap Permits allocating these 36 SFEs to eligible property owners subject to this Water Policy.

2. Retroactive Application. This Amendment shall take into consideration any Tap Permits or Tap Options issued prior to the date of this Amendment to Resolution, such that the total number of SFEs eligible for issuance by the District does not exceed 36 under the Interim Water Policy.

3. Capitalized Terms. All capitalized terms used but not otherwise defined in this Amendment shall have the meanings assigned to them in the Interim Water Policy, Resolution 2018-01-02.

4. Remaining Provisions. Except as modified by this Amendment, all other provisions of the Interim Water Policy shall remain in full force and effect.

[Remainder of this page intentionally left blank.]

Adopted this 28th day of October, 2019.

FALCON HIGHLANDS METROPOLITAN DISTRICT

President, Board of Directors of the Falcon Highlands Metropolitan District

Attest:

Secretary or Assistant Secretary

Section 2: Background

The Falcon Highland Metropolitan District (FHMD) was formed in 2003 as a Title 32 special district to provide water, sewer, parks, storm drainage, and open space to users within its service area. FHMD is composed of three (3) Tracts:

- Tract A – 449 acres
- Tract B – 179 acres
- Tract C – 183 acres

The FHMD service area is shown in Figure 1.

FHMD provides water supply using groundwater rights deeded to the District by the original developer, Cygnet. These groundwater rights are contained in two designated basins: the Upper Black Squirrel Basin and the Denver Basin. Tract A is in the Upper Black Squirrel Basin and Tracts B and C are in the Denver Basin. FHMD has water rights in the Denver, Arapahoe, and Laramie Fox Hills aquifers within these basins.

The decrees and annual appropriations associated with these groundwater rights are determined, managed, and permitted by the Colorado Division of Water Resources (DWR). The volume of groundwater is calculated based on a 100-year water supply.

However, since FHMD is located within El Paso County (EPC), FHMD is subject to the terms of the 300-year rule which was adopted by the County on November 20, 1986. EPC uses this rule to calculate the available water supply for planning purposes, which essentially reduces the District's water rights by one third compared to DWR water right records. El Paso County requires the "Determination of Sufficiency" for all groundwater supplies using "Presumptive Use Values" and/or actual historic water demand analysis. Tributary, renewable, or aquifer waters are not subject to El Paso County's 300-year rule.

Using El Paso County's (EPC) 300-year water supply requirements for planning, the FHMD water rights attorney, Petrock & Fendel, has determined that the FHMD has up to 213.7 AFY of water rights based on an analysis dated June 9, 2017. Similarly, DWR calculated that the District has 202.2 AFY of annual water rights using the EPC 300-year requirements. The DWR calculation is in the DWR letter to EPC dated February 10, 2011 in response to the District's Filing 3 Final Plat, submittal dated January 18, 2011. (The letter is included Appendix A.)

The water rights in acre-feet per year (AFY) associated with the tracts and basins are shown in Table 3.

Due to the poor water quality and low production rates associated with wells within the Denver Aquifer, the water rights within the Denver Aquifer are included in the Water Rights values, but not included in the Future Permitted Capacity DWR values.

Table 3: Water Rights by Tract and Basin (in AFY)

Aquifer	Basin	Water Rights		Existing Permitted Capacity	Future Permitted Capacity
		DWR	EPC	DWR	DWR
Tract A	Upper Black Squirrel				
Denver		189	63	0	0
Arapahoe		118	39.3	118	118
Laramie Fox Hills		128	42.7	128	128
	Subtotal	435	145	246	246
Tract B	Denver				
Denver		0	0	0	0
Arapahoe		34.9	11.6	0	34.9
Laramie Fox Hills		64.6	21.5	64.6	64.6
	Subtotal	99.5	33.1	64.6	64.6
Tract C	Denver				
Denver		0	0	0	0
Arapahoe		57.6	19.2	0	57.6
Laramie Fox Hills		49.1	16.4	0	49.1
	Subtotal	106.7	35.6	0	106.7
	Totals	**641.2**	**213.7**	**310.6**	**452.2**

Section 3: Supply

3.1 Existing Supply

FHMD currently has three operational deep groundwater wells as described below:

- Arapahoe #1 (A#1)
    - Depth: 1560 vertical feet
    - Drilled: 4/23/2003
    - 142-BD, DWR Permit #05: 7950-F
    - Annual appropriation: 118 AFY (DWR-100 yr. basis)
    - Pumping capacity: 90 gpm
- Laramie Fox Hills #1 (LFH #1)
    - Depth: 2160 vertical feet
    - Drilled: 4/10/2003
    - 141-BD, DWR Permit #05794-9
    - Annual appropriation: 128 AFY (DWR-100 yr. basis)
    - Pumping capacity: 110 gpm
- Laramie Fox Hills #2 (LFH #2)
    - Depth: 2155 vertical feet
    - Drilled: 1/17/2008
    - 83CW134, DWR Permit #66364-E
    - Annual appropriation: 64.5 AFY (DWR-100 yr. basis)
    - Pumping capacity: 110 gpm

The total pumping capacity of the above three wells is 310 gpm. The Colorado Department of Public Health and Environment (CDPHE) Potable Water Design Criteria indicates that pumps should be capable of meeting the demand with a pump out of service, and based on this, the FHMD's "firm" well pumping capacity is 200 gpm. The firm capacity of 200 gpm is available to meet the MDD of the users.

The LFH #1 well was rehabilitated on 2014 and the Arapahoe #1 well was rehabilitated in 2017. Both the pumps and motors were replaced and lowered to account for the draw down levels within the aquifers.

3.2 Future Well Supply

FHMD has two non-tributary wells in Tract C which were quitclaimed to the District on July 23, 2015 by Cygnet. These are:

- Arapahoe #2
    - Depth estimated: 1560 vertical feet
    - 01CW65
    - Annual appropriation: 57.6 AFY
- Laramie Fox Hills #3 (LFH #3)
    - Depth estimated: 2155 vertical feet
    - 01CW65
    - Annual appropriation: 49.1 AFY

These wells have not been permitted, drilled, equipped or tested, so the actual well pumping capacity is unknown. For planning purposes in this report, we have estimated the pumping capacity of these wells to be similar to the existing Arapahoe #1 Well (90 gpm) and Laramie Fox Hills Well #1(110 gpm). Prior to creating engineering documents to develop these wells, the groundwater hydrogeologist (Bishop, Brogden & Associates) and Kennedy/Jenks will conduct an on-site/permit investigation of the well area to refine the estimated pumping capacity of the wells.

3.3 Supply Options for Ultimate Build-out

Based on FHMD's existing water portfolio of groundwater supply, it only has two remaining non-tributary wells that can be developed. The two wells in Tract C, which would be named Arapahoe #2 and Laramie Fox Hills #3, will be used to meet the future MDD of the FHMD system. If they each have an output of 100 gpm, then the capacity may be sufficient to meet the future MDD. (The future MDD is estimated based on general planning criteria rather than calculated using actual flow data. FHMD will need to modify its flow monitoring and SCADA system to gather flow data so that the MDD can be calculated and used to refine the MDD planning criterion. After this is done, the number and capacity of future wells needed can be refined.)

However, even if the new well output is sufficient, the FHMD does not have sufficient water supply to comply with the EPC 300-year planning criteria. Based on this planning criteria, the FHMD would need 900 AFY of water rights to meet the FHMD ultimate demand of

approximately 300 AFY. Consequently, FHMD will need to acquire approximately 300 AFY of new water rights.

In summary, it is risky for the FHMD to rely on new wells to meet future demands due to the unknown output and cost to develop new wells, and the potential high cost to acquire new water rights. Further, it's unknown whether the aquifers will be a long term viable water supply due to the likely draw down of the aquifers. Consequently, it would be prudent for the FHMD to review the potential to acquire a renewable tributary or renewable surface water supply. A recent report completed for the Colorado Springs Utilities (CSU) indicates that CSU should be proactive in providing renewable water to entities outside the CSU service area. However, it's unknown when this water would be available, which may require FHMD to develop a part or all its remaining groundwater resources as an interim measure.

FHMD deeded its return flow rights to WHMD, presumably to reduce the cost of sanitary sewer service to the District. It was suggested that a discussion take place with WHMD to buy back the rights to augment some of the other not-non-tributary groundwater rights. This would enable FHMD to effectively increase its water rights.

FALCON HIGHLANDS MD 2022 Drinking Water Quality Report
Covering Data For Calendar Year 2021

Public Water System ID: CO0121247

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact JOSH MILLER at 719-635-0330 with any questions or for public participation opportunities that may affect water quality.

General Information

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting epa.gov/ground-water-and-drinking-water.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

•**Microbial contaminants:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
•**Inorganic contaminants:** salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
•**Pesticides and herbicides:** may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
•**Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.
•**Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at epa.gov/safewater/lead.

Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit wqcdcompliance.com/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using 121247, FALCON HIGHLANDS MD, or by contacting JOSH MILLER at 719-635-0330. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that ***could*** occur. It ***does not*** mean that the contamination ***has or will*** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Our Water Sources

Sources (Water Type - Source Type)	Potential Source(s) of Contamination
WELL LFH2 (Groundwater-Well) WELL A1 (Groundwater-Well) WELL LFH1 (Groundwater-Well)	There is no SWAP report, please contact JOSH MILLER at 719-635-0330 with questions regarding potential sources of contamination.

Terms and Abbreviations

- **Maximum Contaminant Level (MCL)** − The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** − A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** − A violation of either a MCL or TT.
- **Non-Health-Based** − A violation that is not a MCL or TT.
- **Action Level (AL)** − The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **Maximum Residual Disinfectant Level (MRDL)** − The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Contaminant Level Goal (MCLG)** − The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** − The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Violation (No Abbreviation)** − Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** − Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.
- **Variance and Exemptions (V/E)** − Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No Abbreviation)** − Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** − Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** − Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.
- **Compliance Value (No Abbreviation)** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).
- **Average (x-bar)** − Typical value.
- **Range (R)** − Lowest value to the highest value.
- **Sample Size (n)** − Number or count of values (i.e. number of water samples collected).
- **Parts per million = Milligrams per liter (ppm = mg/L)** − One part per million corresponds to one minute in two years or a single penny in $10,000.
- **Parts per billion = Micrograms per liter (ppb = ug/L)** − One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.
- **Level 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Detected Contaminants

FALCON HIGHLANDS MD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2020 unless otherwise noted. The State of

Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note: Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

Disinfectants Sampled in the Distribution System
TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm ***OR***
If sample size is less than 40 no more than 1 sample is below 0.2 ppm
Typical Sources: Water additive used to control microbes

Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December, 2021	Lowest period percentage of samples meeting TT requirement: 100%	0	2	No	4.0 ppm

Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Copper	08/03/2021 to 08/05/2021	0.049	10	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System

Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2021	1.6	1.6 to 1.6	1	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2021	9.9	9.9 to 9.9	1	ppb	80	N/A	No	Byproduct of drinking water disinfection

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	**Year**	**Average**	**Range Low – High**	**Sample Size**	**Unit of Measure**	**MCL**	**MCLG**	**MCL Violation**	**Typical Sources**
Barium	2017	0.01	0.01 to 0.01	1	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2017	0.95	0.95 to 0.95	1	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate-Nitrite	2017	0.03	0.03 to 0.03	1	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Secondary Contaminants**						
Contaminant Name	**Year**	**Average**	**Range Low – High**	**Sample Size**	**Unit of Measure**	**Secondary Standard**
Sodium	2017	110	110 to 110	1	ppm	N/A

Secondary Contaminants**

**Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.

Violations, Significant Deficiencies, and Formal Enforcement Actions

No Violations or Formal Enforcement Actions

APPENDIX D

Utility Plans

BUILDING FIRE FLOW INFORMATION

BUILDING A:

BLDG CONSTRUCTION TYPE:	II-B
NFPA FIRE SPRINKLER SYSTEM:	Yes
BUILDING FIRE AREA:	111,930sf (3 Floors) (Footprint: 37,728sf)
FIRE FLOW REQUIRED:	3,500gpm @ 20psi Residual
(Assumes 50% Reduction for Fire Sprinkler)	
MIN # OF HYDRANTS:	4
MAXIMUM HOSE LAY LENGTH:	210ft

BUILDING B:

BLDG CONSTRUCTION TYPE:	II-B
NFPA FIRE SPRINKLER SYSTEM:	Yes
BUILDING FIRE AREA:	17,012sf (1 Floor)
FIRE FLOW REQUIRED:	1,500gpm @ 20psi Residual
(Assumes 50% Reduction for Fire Sprinkler)	
MIN # OF HYDRANTS:	1
MAXIMUM HOSE LAY LENGTH:	250ft

0 30' 60'
SCALE: 1"=30'

LEGEND

- PROPOSED BUILDING
- PROPERTY OR ROW LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- CURB & GUTTER
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING GAS LINE
- EXISTING 100 YEAR FLOODPLAIN
- EXISTING STREET LIGHT
- APPROXIMATE LIMIT OF DISTURBANCE
- PROPOSED SANITARY SERVICE AND CLEAN OUT
- PROPOSED WATER LINE OR SERVICE AND VALVE
- PROPOSED WATER LINE, THRUST BLOCK & MJ RSTNTS
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER
- PROPOSED STORM SEWER PIPE AND MANHOLE
- PROPOSED STORM SEWER PIPE AND MANHOLE
- PROPOSED SINGLE STORM GRATED INLET
- PROPOSED TYPE C GRATED INLET
- PROPOSED STORM CURB INLET
- PROPOSED STORM SEWER FLARED END SECTION

811 Know what's below. Call before you dig.

MATCHLINE - SEE SHT C402

MATCHLINE - SEE SHT C402

GENERAL NOTES:

REVISIONS:

NO.	DATE	MNTMGS. NOTES
1		
2		
3		
4		
5		
6		
7		
8		

PROFESSIONAL SEAL:

Kiowa Engineering Corporation
7175 West Jefferson Avenue, Suite 2200
Lakewood, Colorado 80235
(303) 892-0369

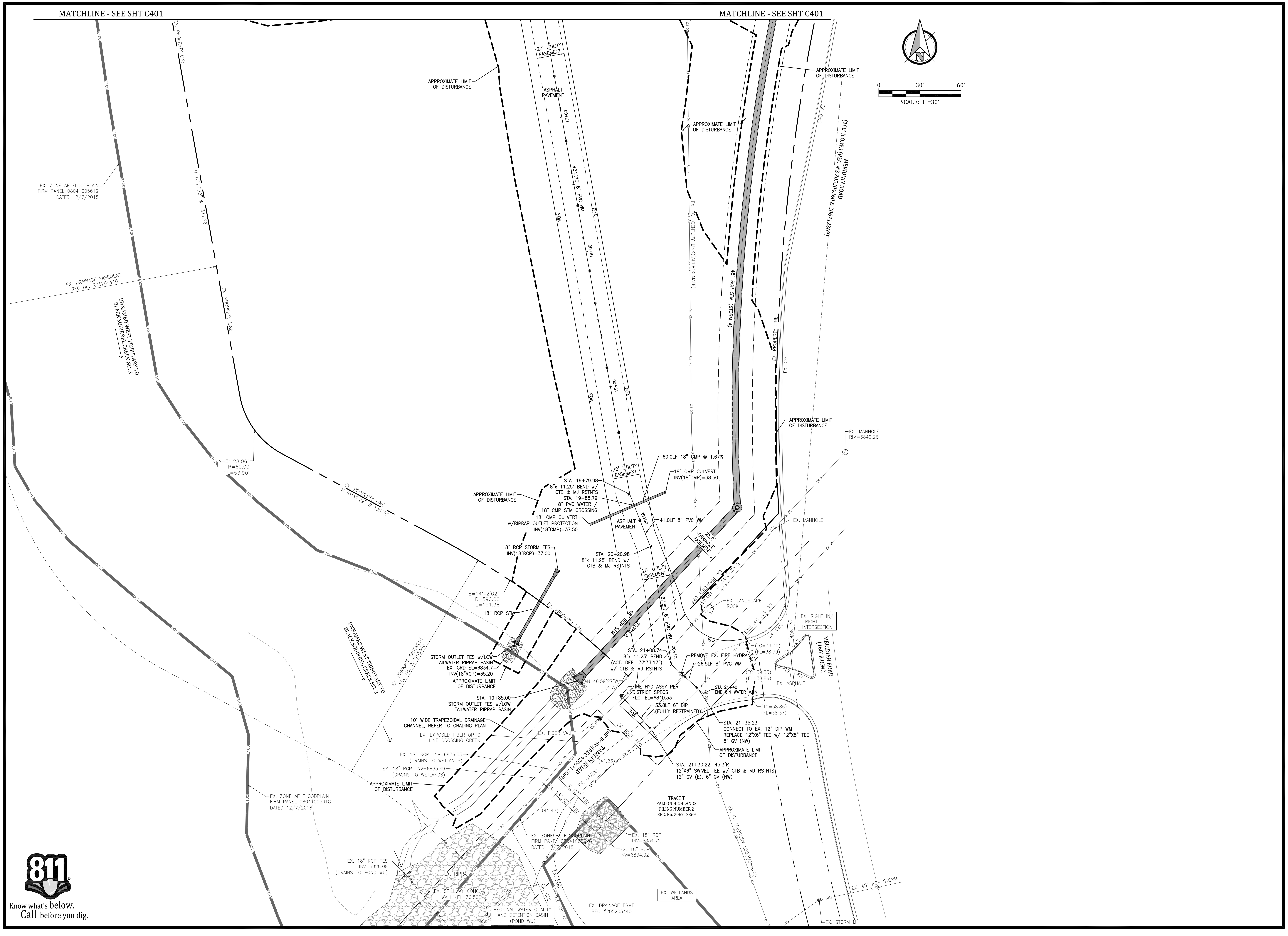
AMERCO REAL ESTATE COMPANY
CONSTRUCTION DEPARTMENT
2727 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004
P: (602) 263-6502
F: (602) 277-1026

SITE ADDRESS:
U-HAUL at Falcon
Rolling Thunder Way
Falcon, CO 80831

SHEET CONTENTS:
UTILITY PLAN

866077

DRAWN:	JRD	C401
CHECKED:	MWE	
DATE:	8/26/22	



GENERAL NOTES:

REVISIONS:

NO.	DATE	INITIALS	NOTES
1			
2			
3			
4			
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6			
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8			

PROFESSIONAL SEAL:

Kiowa Engineering Corporation
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