



# WASTEWATER REPORT — COPPER CHASE AT STERLING RANCH



**PREPARED BY**

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**PREPARED FOR**

Falcon Area Water and Wastewater Authority

**OCTOBER 2022**

Project Number W0242.22001



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# 1.0 INTRODUCTION

This wastewater report is for the Copper Chase at Sterling Ranch. The service entity is the Falcon Area Water and Wastewater Authority. The proposed development is in the Sterling Ranch Metro District which is a part of the FAWWA service area. The service areas and location of tie-in point are shown in *Appendix A*. Copper Chase includes 19.67 gross acres and includes 138 single family homes. The proposed subdivision layout is shown in *Appendix B*.

## 1.1 OVERALL DEVELOPMENT DESCRIPTION

Sterling Ranch Development consists of approximately 1,444 acres located east of Vollmer Rd and north of Woodmen Rd, Section 33, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M. Districts 1, 2 and 3 are considered Special Districts and are under the jurisdiction of the Special District Act.

1,119 acres is designated for 5,225 residential units. 56.36 acres is designated for commercial use. 270 acres is designated for open space, greenways, trails, parks, and school sites.

# 2.0 WASTEWATER REPORT

## 2.1 PROJECTED WASTEWATER LOADS

Wastewater unit user loading projections are based on similar District historical use developed in the Falcon area. Average daily- maximum monthly wastewater loads are expected to be roughly 172 gallons per day per single family residence.

Table 1. Calculation of Wastewater Loads

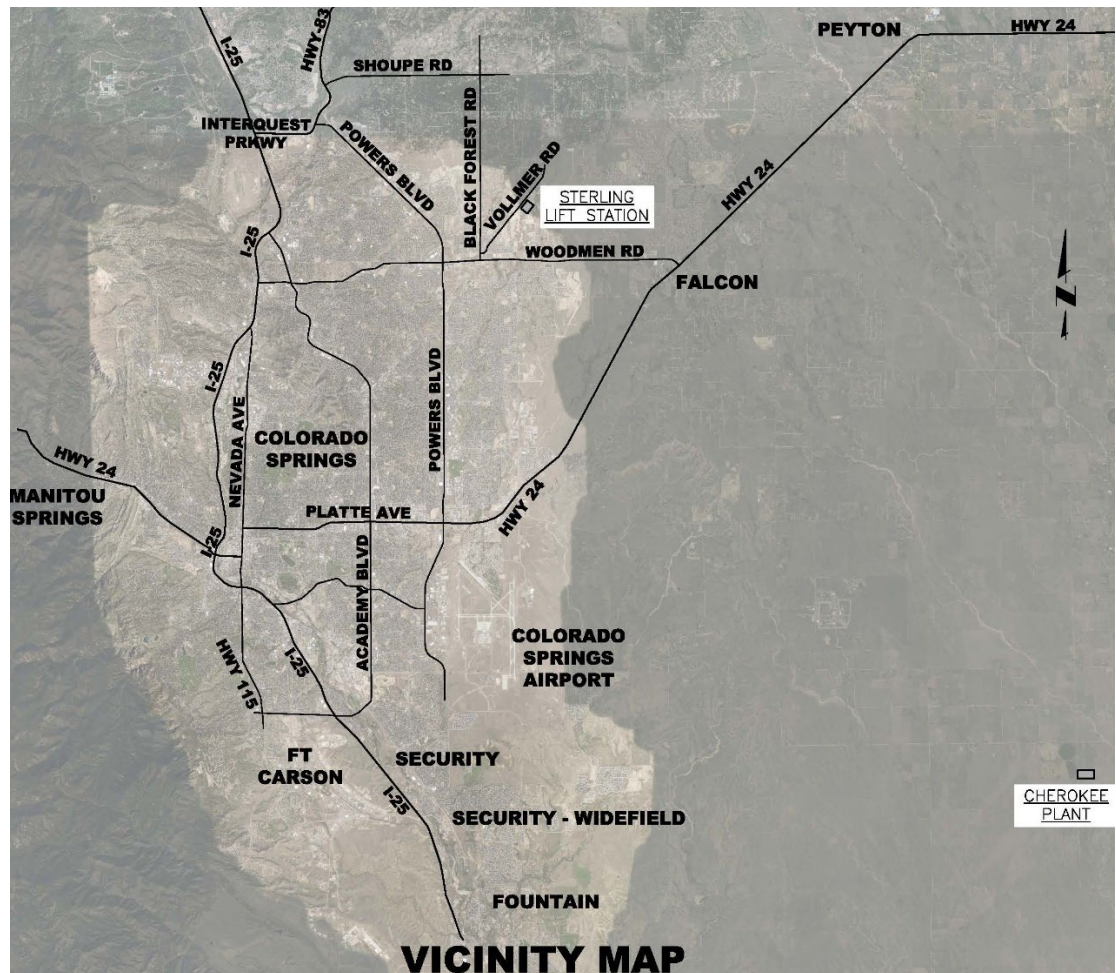
Use	Units	Single Family Equivalent	Average Daily Max-Month Flows	Estimated Population
	#	#	GPD	#
Residential Units				
Single family	138	138	23,736	359
Non-Residential Use				
NONE				
<b>Total</b>			<b>23,736</b>	

## 2.2 WASTEWATER TREATMENT PLANT

Interim Wastewater Treatment Services will be provided by Colorado Springs Utilities. A copy of the Interim Service Agreement was attached in prior Water and Wastewater Reports and therefore is not included here. FAWWA has access to 1.006 MGD of wastewater treatment capacity in the Cherokee Wastewater Treatment Plant via Meridian Service Metro District.

MSMD owns 2.2 million gallons per day of wastewater capacity in the Cherokee Wastewater Treatment Facility. The plant operator, Cherokee Metropolitan District (CMD) has already approved the systems associated with transport and treatment. MSMD and CMD are in compliance with their current COC issued by the Colorado Department of Public Health and Environment. The location of the 4.6 MGD Cherokee Wastewater Treatment Plant is shown below:

*Figure 1. Location of Cherokee Wastewater Treatment Plant*





## 2.3 ADEQUACY OF WASTEWATER TREATMENT CAPACITY

The Falcon Area Water and Wastewater Authority/Sterling Ranch Metropolitan District has a perpetual contract with the Meridian Service Metropolitan District (MSMD) for the provision of wastewater treatment. The contract allows for the purchase of up to 5849 SFEs of wastewater capacity from MSMD which is equivalent to 1.006 Million Gallons/Day (MGD). Wastewater projections are based on similar District historical use developed in the Falcon area. Average daily-maximum monthly wastewater loads of 172 gallons per day per single family residence are iterated in the Wastewater Contract.

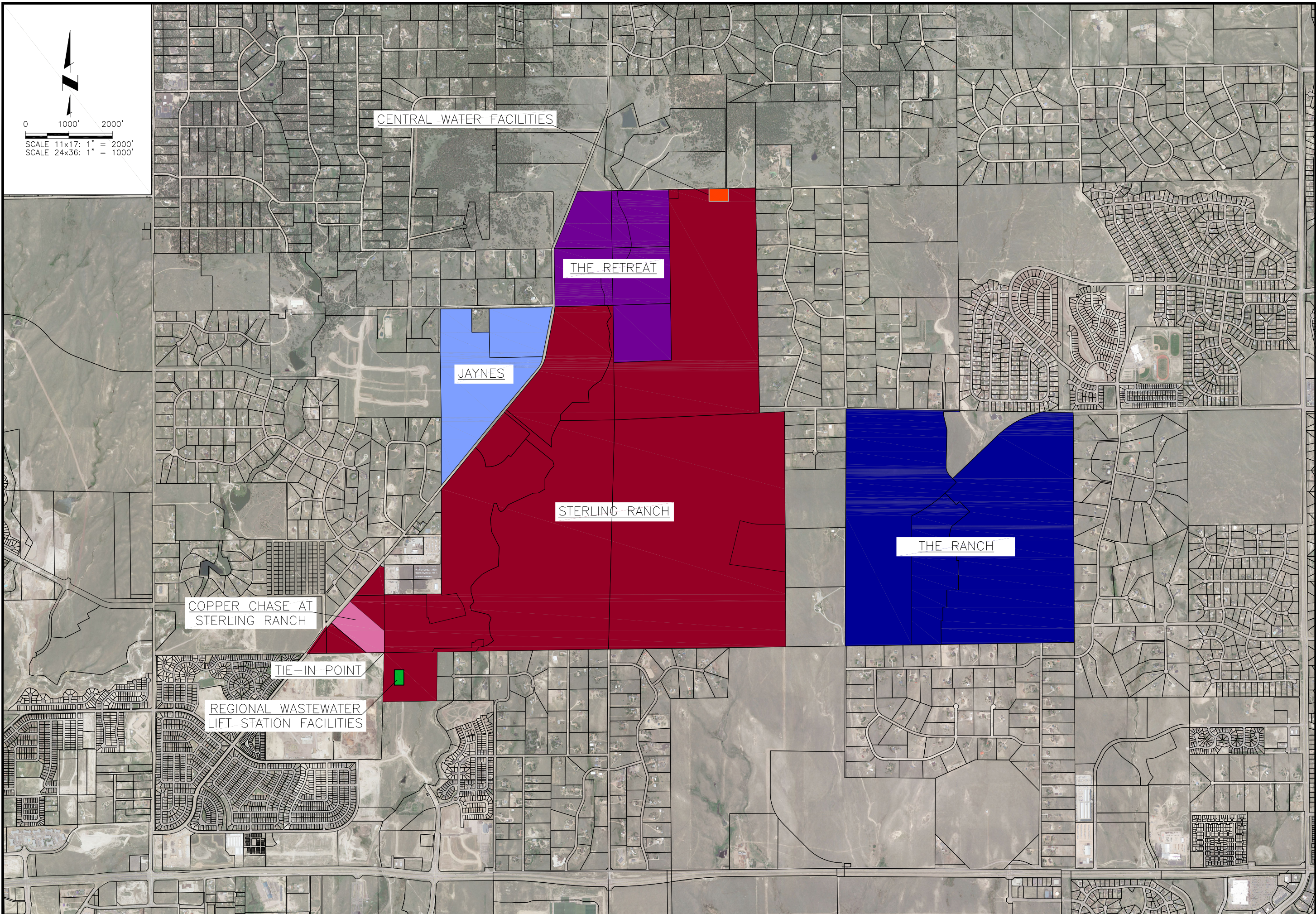
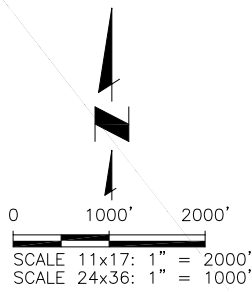
The loading projected from Copper Chase at Sterling Ranch represents roughly 2.35% of the contractual capacity available to the Falcon Area Water and Wastewater Authority. FAWWA therefore has more than adequate wastewater treatment capacity to provide service to serve the Subdivision.

Including Villages, Foursquare, Homestead North Filing 3, and Sterling Ranch East Phase One in addition to Sterling subdivisions submitted before October, of 2022, the current committed capacity is for 2176 SFE which is 37.237 % of FAWWA contractual treatment capacity.

## 2.4 COLLECTION, PUMPING, AND PIPING

All lands to be developed within the Sterling Ranch and the Retreat areas will gravity feed to the southern portion of the Sterling site. This will be the main collection point for most of the entire future development as well. Sterling is completing construction of the Lift Station and Force Main to serve the area. The force main is constructed across the lower portion of The Ranch. From this point wastewater is intercepted by Meridian Service Metropolitan District and delivered to Cherokee through the Meridian system.

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DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO, A DIVISION OF RESPEC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

**APPENDIX A**  
**FALCON AREA WATER AND WASTEWATER AUTHORITY**  
**SERVICE AREA**




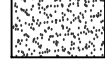
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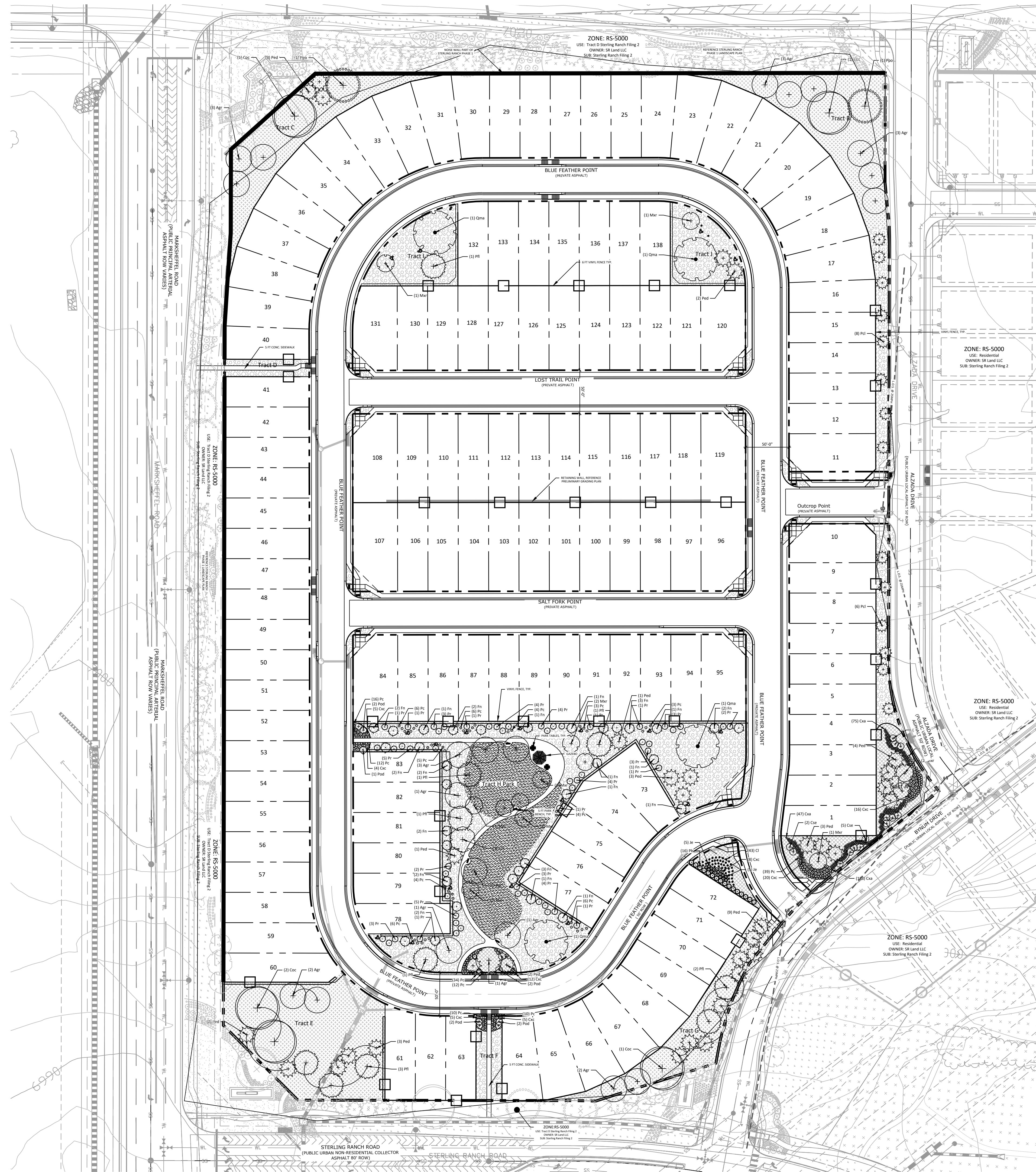
**EXHIBIT**

Project No.: 161.04  
 Date: 10/11/22  
 Design: JPM  
 Drawn: JLB  
 Check: JPM

**PLAN**  
 SHEET 1 OF 1

CONCEPT PLANT SCHEDULE

	COBBLE 2"-4" Cripple Creek Gold Ore	64,263 sf
	NATIVE GRASS Upland Native Seed Mix	68,503 sf
	ROCK MULCH 3/4" Cimarron Granite	10,785 sf
	TALL FESCUE SOD	14,957 sf



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Copper Chase  
at Sterling  
Ranch

8335 Vollmer Road

DATE: 03.25.2022  
PROJECT MGR: A. Barlow  
PREPARED BY: B. Halsten & J. Smith

Entitlement

DATE: 06.21.2022 BY: B.H. DESCRIPTION: PER COUNTY COMMENT

PUD Site Plan

4

4 OF 10

PUDSP 22-002

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