

# WASTEWATER REPORT – STERLING RANCH EAST FILING NO 6-PRELIMINARY PLAN

**PREPARED BY**

John McGinn, PE CO-19534

**RESPEC**

5540 Tech Center Drive, Suite 100  
Colorado Springs, Colorado 80919

**PREPARED FOR**

Falcon Area Water and Wastewater Authority

SEPTEMBER 27, 2024

Project Number W0242.22001





## TABLE OF CONTENTS

<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 OVERALL DEVELOPMENT DESCRIPTION.....	1
<b>2.0 WASTEWATER REPORT.....</b>	<b>1</b>
2.1 PROJECTED WASTEWATER LOADS .....	1
2.2 WASTEWATER CONTRACT AND WASTEWATER TREATMENT.....	2
2.3 ADEQUACY OF TREATMENT CAPACITY.....	2
2.4 COLLECTION, PUMPING, AND PIPING .....	3

### APPENDICES

APPENDIX A - FAWWA SERVICE AREA

APPENDIX B - PROPOSED DEVELOPMENT (STERLING RANCH EAST FILING 1 PRELIMINARY PLAN)



## 1.0 INTRODUCTION

This wastewater report is for the Sterling Ranch East Filing No. 6 Preliminary Plan. The service entity is the Falcon Area Water and Wastewater Authority, and the property is in the service area. The service areas and location of tie-in point are shown in *Appendix A*. Filing 1 includes 56.13 gross acres and includes 198 single family lots. The proposed subdivision layout is shown in *Appendix B*.

### 1.1 OVERALL DEVELOPMENT DESCRIPTION

The Sterling Ranch East Filing No 6 development is east of Vollmer Road and north of and adjacent to Briargate Pkwy.

## 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. For population estimate, we are using 2.6 persons per household.

Table 1. Calculation of Wastewater Loads

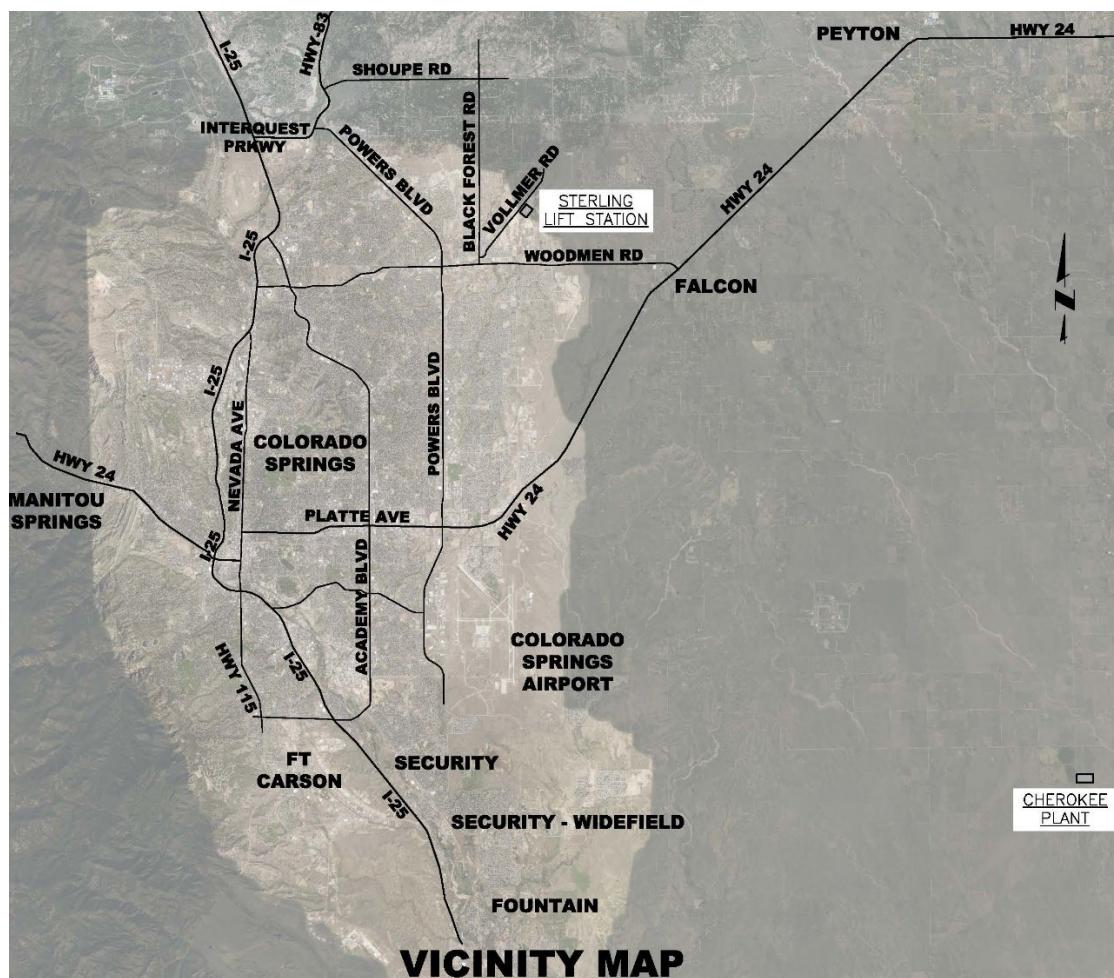
Use	Units	Single Family Equivalent	Average Daily Max-Month Flows	Estimated Population
	#	#	GPD	#
Residential Units				
Single family	198	198	34,056	515
Non-Residential Use				
NONE				
Total			34,056	

## 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 also 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 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 Sterling Ranch East Filing No. 6 Preliminary Plan represents roughly 3.197% 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 all commitments to date, (September 20, 2024) and including Sterling Ranch East Filing No. 6 Preliminary Plan, the current committed capacity is for 3180 SFE which is 54.37 % of FAWWA contractual treatment capacity.

## 2.4 COLLECTION, PUMPING, AND PIPING

All lands to be developed within the Falcon Area Water and Wastewater Authority (FAWWA) 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.

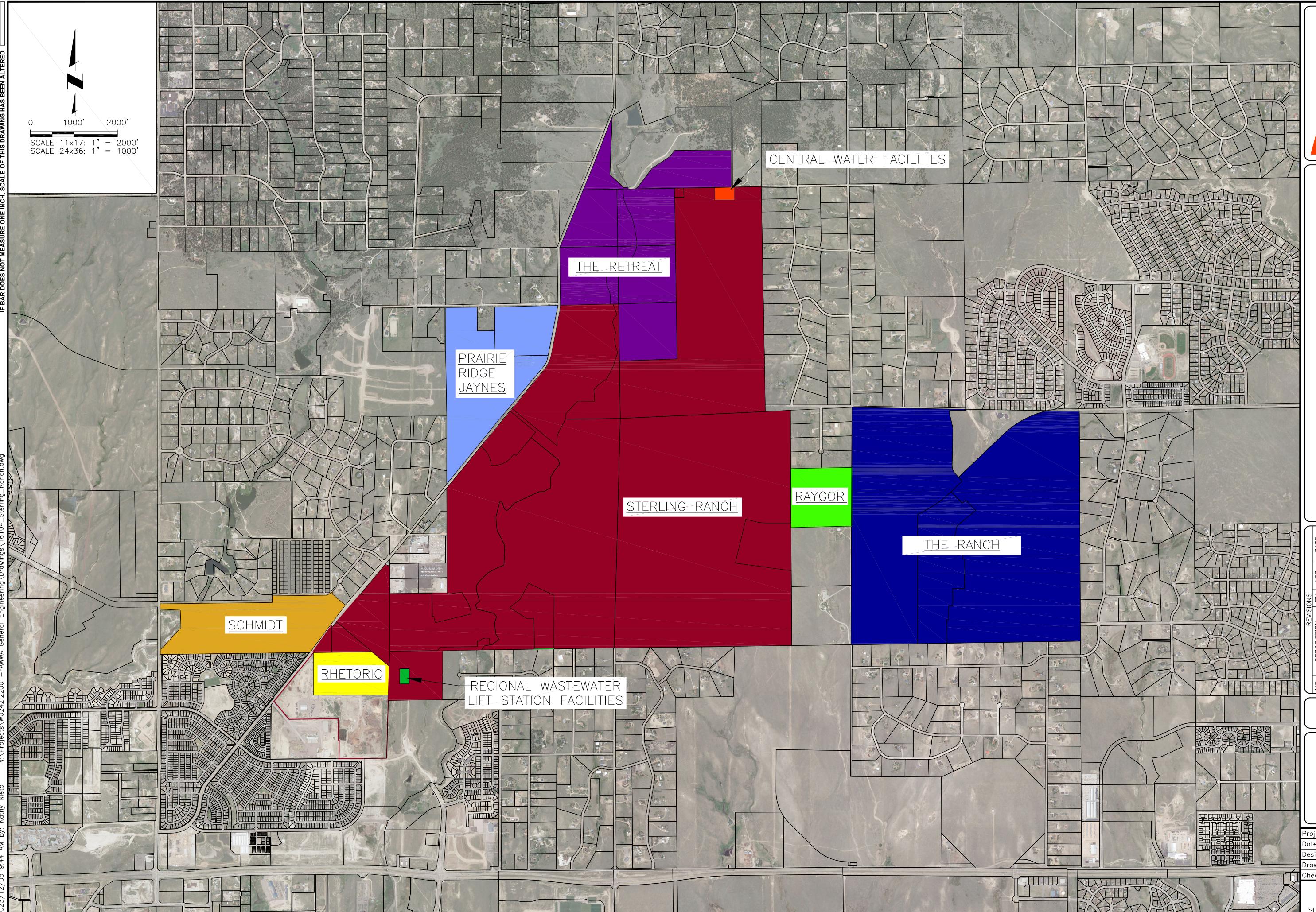
IF BAR DOES NOT MEASURE ONE INCH SCALE OF THIS DRAWING HAS BEEN ALTERED  
1"



0 1000' 2000'  
SCALE 11x17: 1" = 2000'  
SCALE 24x36: 1" = 1000'

N:\Projects\W0242.22001-FAWWA General Engineering\Drawings\16104\_Sterling\_Ranch.dwg

2023/12/05 9:44 AM By: Kathy Nieto



**Colorado Springs, CO**  
5544 Tech Center Dr., Suite 100  
Colorado Springs, CO 80919  
Phone: 719.227.0072  
[www.respec.com](http://www.respec.com)



## APPENDIX A

FALCON AREA WATER AND WASTEWATER AUTHORITY

SERVICE AREA

NO.	DESCRIPTION	BY APP.	DATE
1			
2			
3			
4			
5			
6			
7			

## EXHIBIT

Proj.#: 161.04  
Date: 12/05/2023  
Design: JPM  
Drawn: JLB  
Check: JPM

PLAN

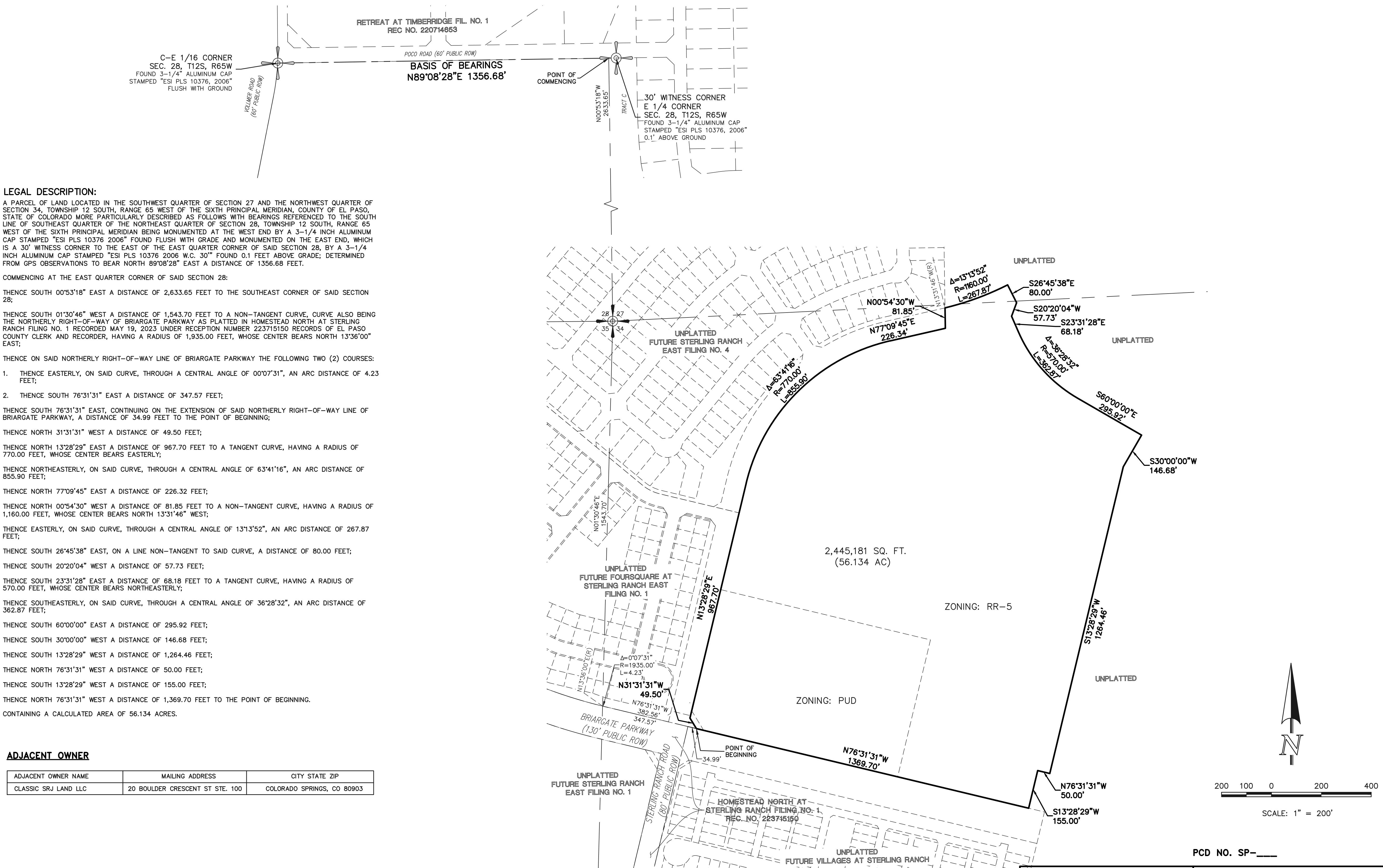
SHEET 1 OF 1



# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

## PRELIMINARY PLAN



### ADJACENT OWNER

ADJACENT OWNER NAME	MAILING ADDRESS	CITY STATE ZIP
CLASSIC SRJ LAND LLC	20 BOULDER CRESCENT ST STE. 100	COLORADO SPRINGS, CO 80903

STERLING RANCH EAST FILING NO. 6 PRELIMINARY PLAN			
LEGAL BOUNDARY & ADJACENT PROPERTY OWNERS			
DESIGNED BY	KES	SCALE	DATE 08/29/2024
DRAWN BY	KES	(H) 1" = 200'	SHEET 2 OF 1
CHECKED BY		(V) 1" = N/A	JOB NO. 1183.60



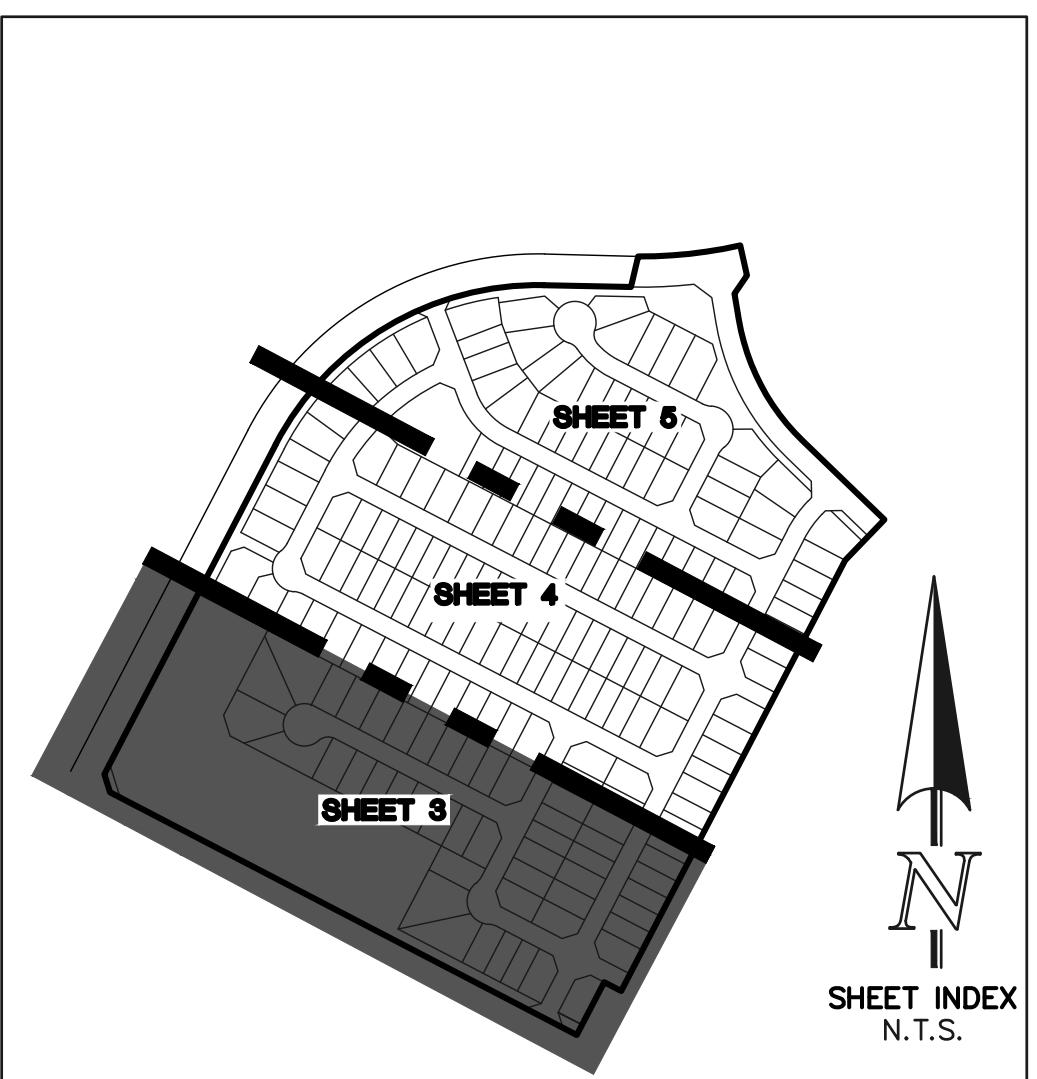
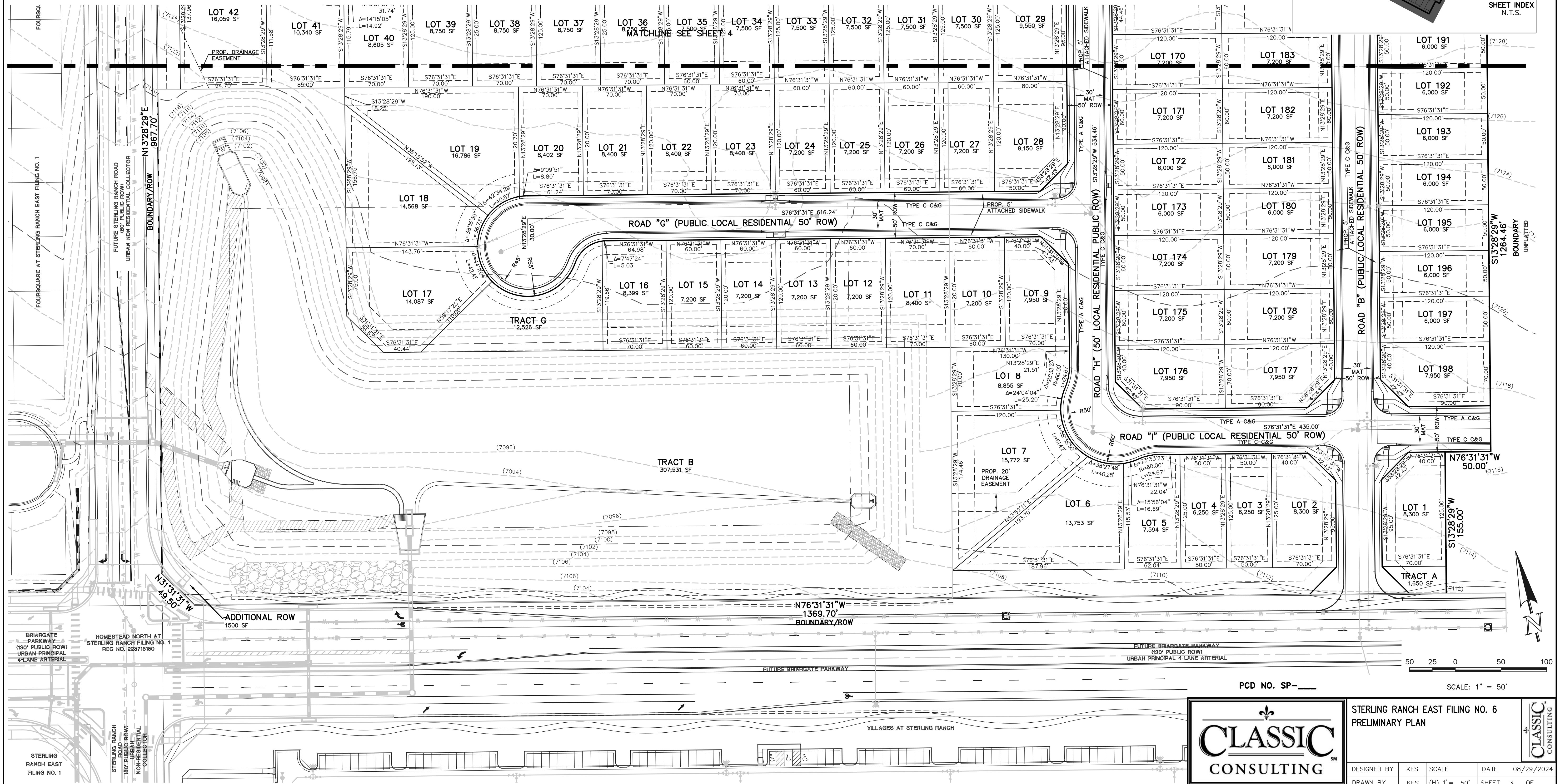
STERLING RANCH EAST FILING NO. 6  
PRELIMINARY PLAN  
619 N. Cascade Avenue, Suite 200 (719)785-0790  
Colorado Springs, Colorado 80903

CLASSIC  
CONSULTING

# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

## PRELIMINARY PLAN



**CLASSIC**  
CONSULTING

STERLING RANCH EAST FILING NO. 6  
PRELIMINARY PLAN

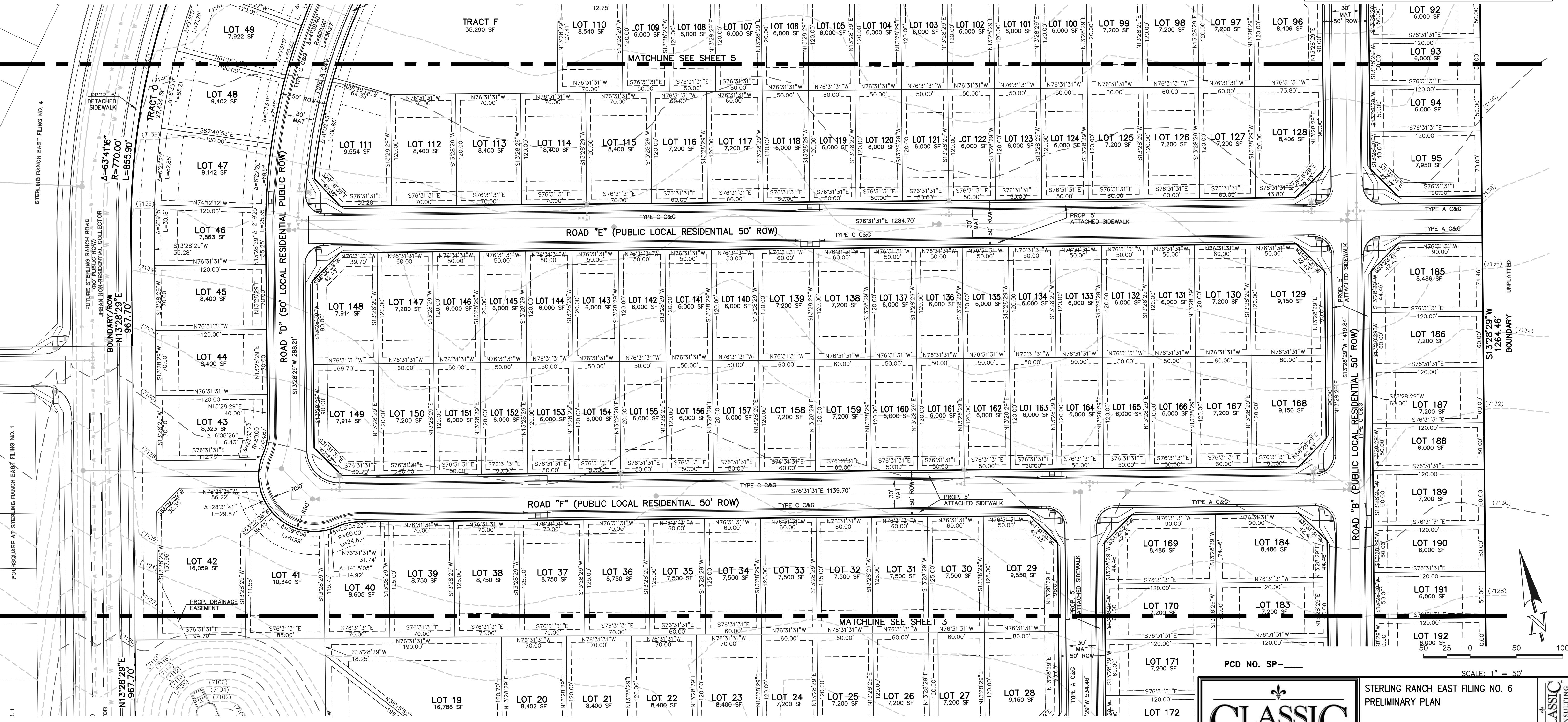
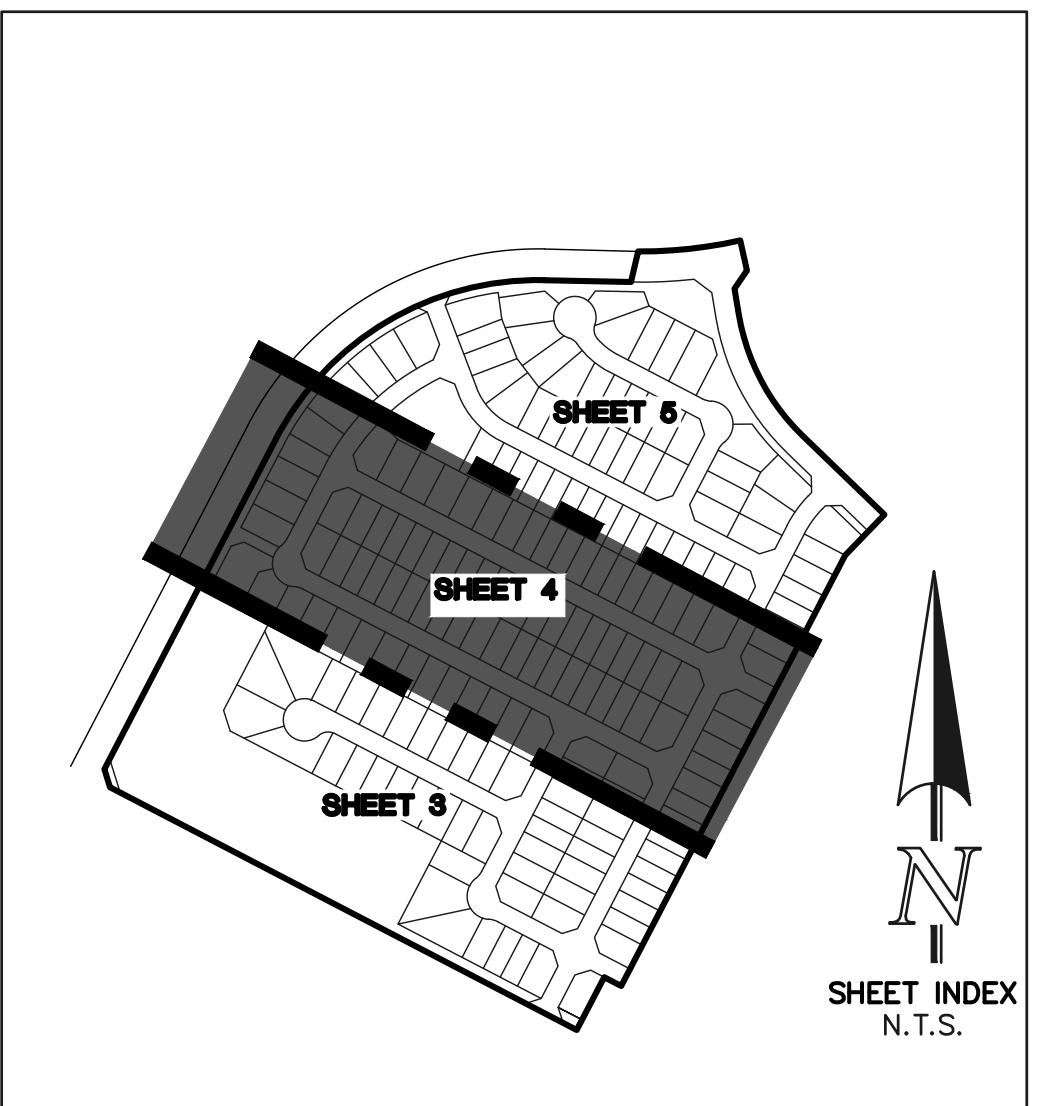
CLASSIC  
CONSULTING

DESIGNED BY	KES	SCALE	DATE
DRAWN BY	KES	(H) 1" = 50'	08/29/2024
CHECKED BY		(V) 1" = N/A	JOB NO. 1183.60

# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

## PRELIMINARY PLAN



**CLASSIC**  
CONSULTING

STERLING RANCH EAST FILING NO. 6  
PRELIMINARY PLAN

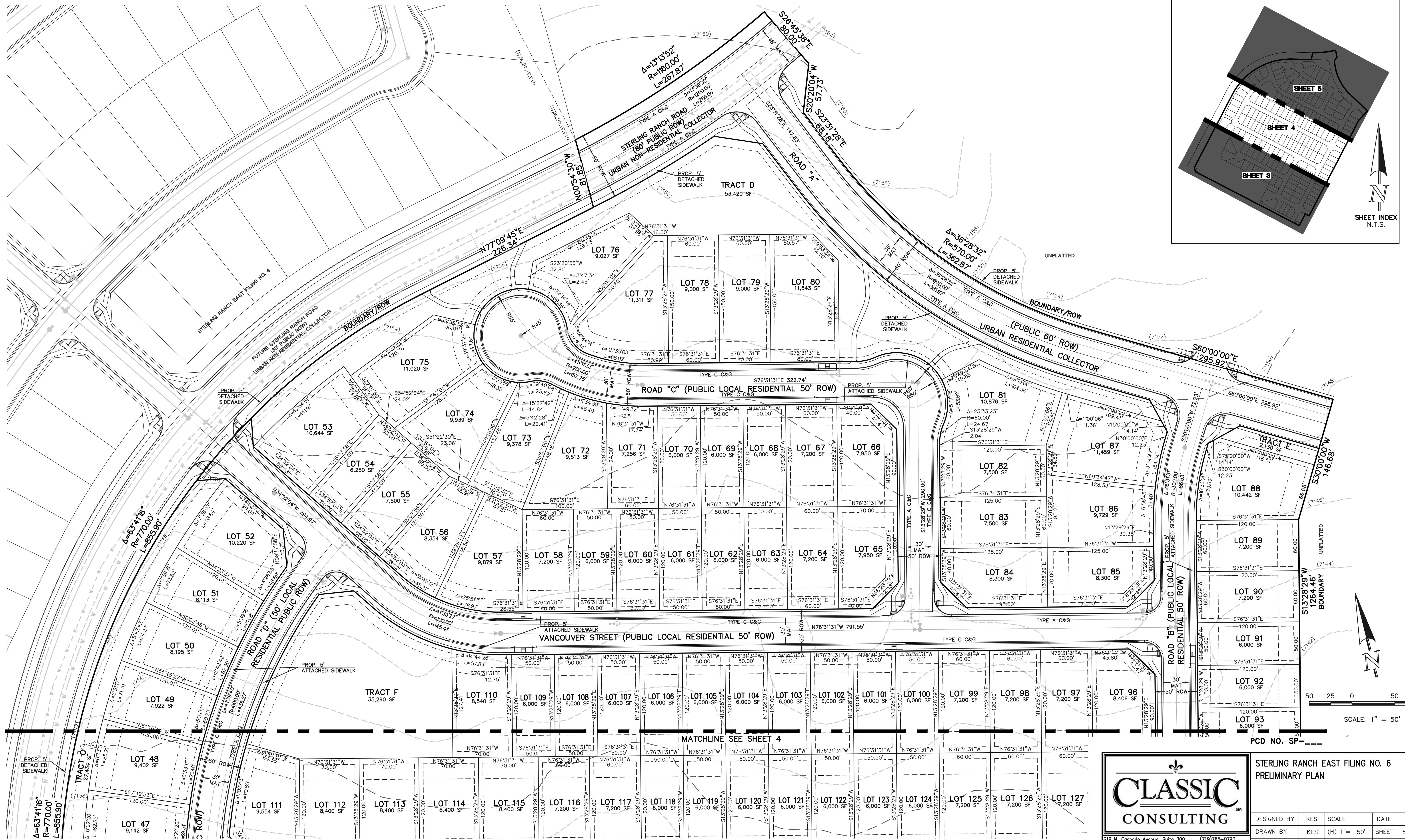
CLASSIC  
CONSULTING

DESIGNED BY	KES	SCALE	DATE	08/29/2024
DRAWN BY	KES	(H) 1" = 50'	SHEET	4 OF 4
CHECKED BY	(V)	1" = N/A	JOB NO.	1183.60

# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

## PRELIMINARY PLAN



STERLING RANCH EAST FILING NO. 6  
PRELIMINARY PLAN

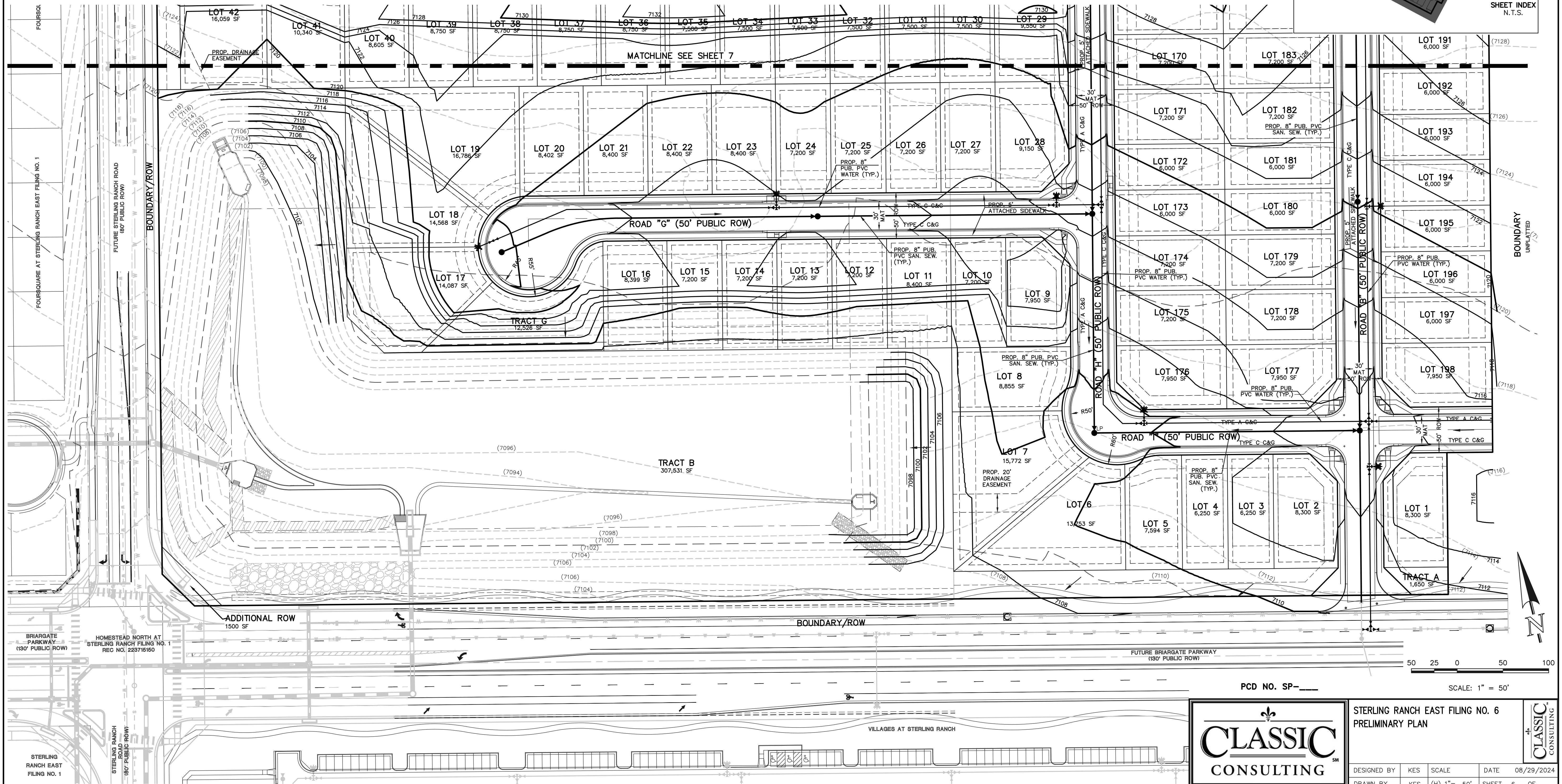


DESIGNED BY KES SCALE DATE 08/29/2024  
DRAWN BY KES (H) 1" = 50' SHEET 5 OF 5  
CHECKED BY (V) 1" = N/A JOB NO. 1183.60

# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

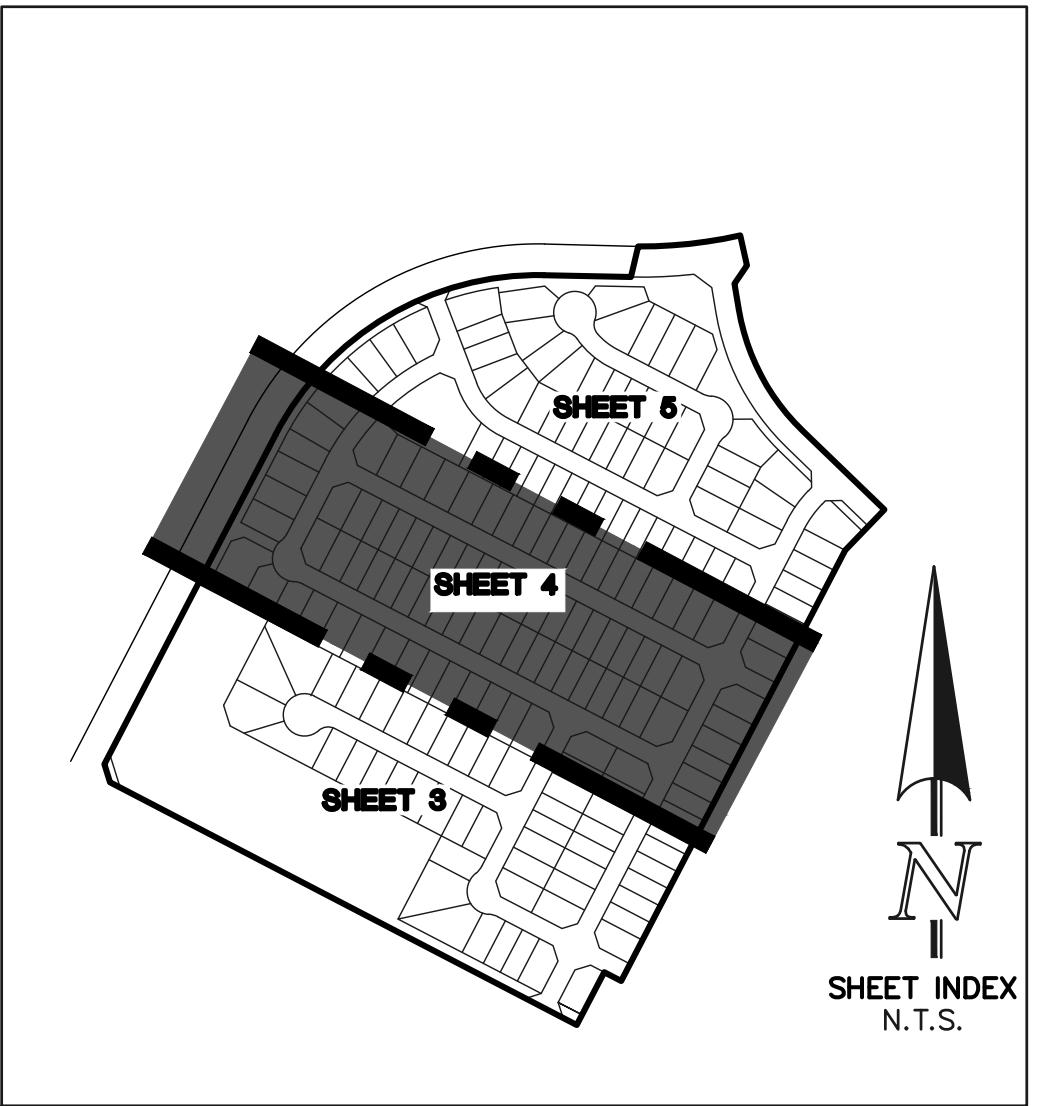
## PRELIMINARY PLAN



# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

## PRELIMINARY PLAN



**CLASSIC**  
CONSULTING

STERLING RANCH EAST FILING NO. 6  
PRELIMINARY PLAN  
PRELIMINARY GRADING & UTILITY PLAN

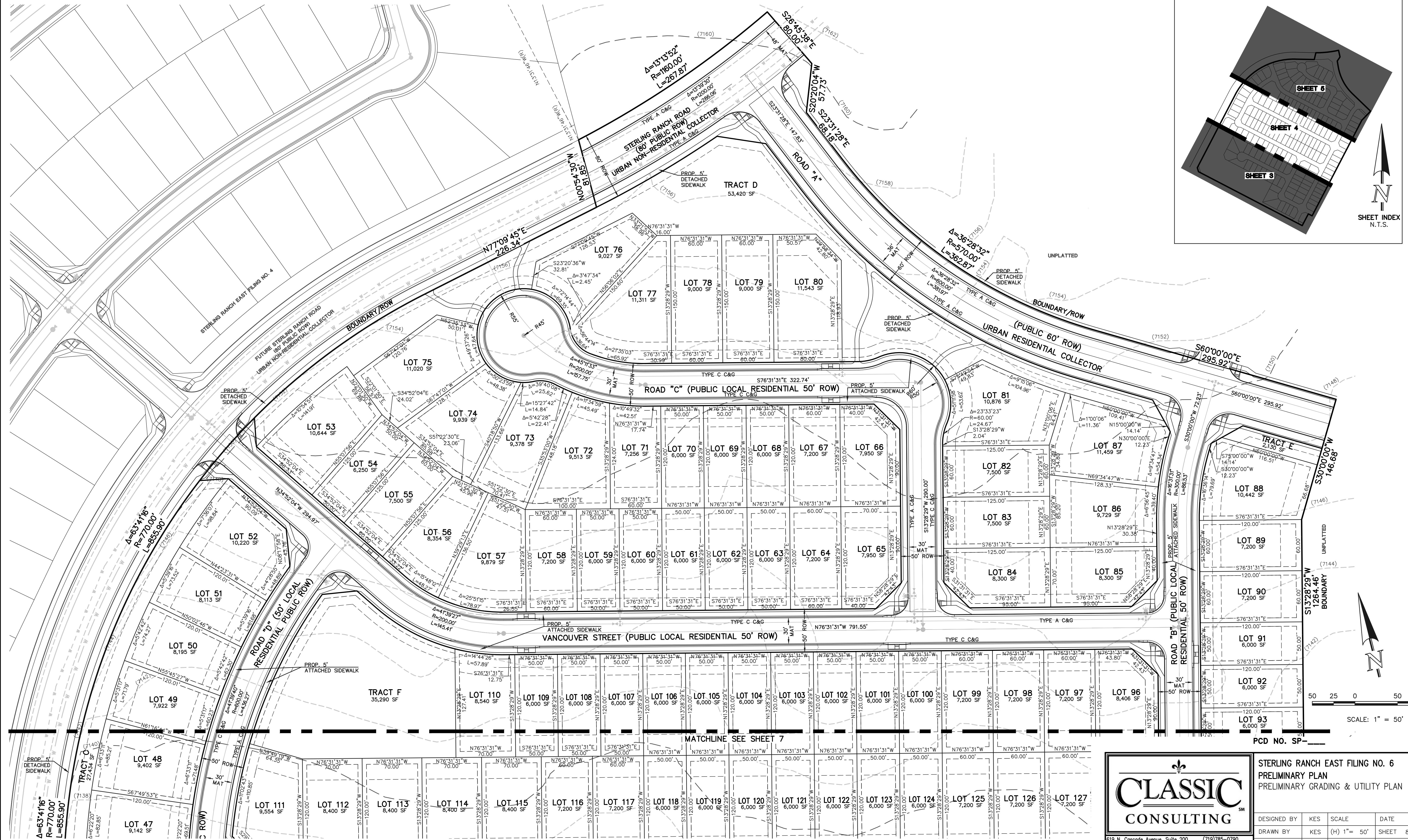
CLASSIC  
CONSULTING

DESIGNED BY KES SCALE DATE 08/29/2024  
DRAWN BY KES (H) 1" = 50' SHEET 7 OF 7  
CHECKED BY (V) 1" = N/A JOB NO. 1183.60

# STERLING RANCH EAST FILING NO. 6

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 27 AND THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO

## PRELIMINARY PLAN



STERLING RANCH EAST FILING NO. 6  
PRELIMINARY PLAN  
PRELIMINARY GRADING & UTILITY PLAN



DESIGNED BY KES SCALE DATE 08/29/2024  
DRAWN BY KES (H) 1" = 50' SHEET 8 OF 8  
CHECKED BY (V) 1" = N/A JOB NO. 1183.60