

**DRAINAGE MEMO
FOR
CIRCLE A SUBDIVISION FILING NO. 1

EL PASO COUNTY, COLORADO**

MARCH 2021

Prepared for:

**Daniel B. Andres Trust
17110 Goshawk Road
Colorado Springs, CO 80908**

Prepared by:



212 Wahsatch Ave., Ste. 305
Colorado Springs, CO 80903
(719) 955-5485

Project #72-072
PCD – MS 20-007

**DRAINAGE MEMO
FOR
CIRCLE A SUBDIVISION FILING NO. 1
EL PASO COUNTY COLORADO**

DRAINAGE PLAN STATEMENTS

ENGINEERS STATEMENT

The attached drainage plan and report was prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the County for drainage reports and said report is in conformity with the master plan of the drainage basin. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.

Virgil A. Sanchez, P.E. #37160
For and on Behalf of M&S Civil Consultants, Inc

DEVELOPER'S STATEMENT

I, the developer have read and will comply with all the requirements specified in this drainage report and plan.

BY: _____

TITLE: _____

DATE: _____

ADDRESS: Daniel B. Andres (Owner)
17110 Goshawk Road
Colorado Springs, CO 80908

EL PASO COUNTY'S STATEMENT

Filed in accordance with the requirements of El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and the Engineering Manual, as amended.

BY: _____ DATE: _____

Jennifer Irvine, P.E.
County Engineer / ECM Administrator

CONDITIONS:



March 13, 2021

El Paso County Planning & Community Development
2880 International Circle Suite 110
Colorado Springs, Colorado 80910
Attn: Jennifer Irvine P.E./County Engineer

RE: Drainage Memo for Circle A Subdivision Filing No. 1

Dear Jennifer,

The following is the Drainage Memo for Minor Subdivision application to the Circle A Subdivision Filing No. 1. The Circle A Subdivision is located in the NE quarter of Section 23, Township 11 South, Range 65 West of the 6th P.M. in El Paso County, Colorado. The site is bound to the north, south, east, and west by large-lot single-family residential lots land uses.

The existing parcel in its entirety consists of 14.867 AC and is currently zoned "RR-5" for Residential Rural under TSN: 51230-00-015. The proposal consists of subdividing an existing 14.867 AC into three (3) separate approx. ~5 AC parcels and is planned for (1) single-family unit on each lot. Lot 1 has an existing residential home and shop located on the lot, and after subdividing the parcel of 4.957 AC, Lot 2 shall consist of 4.960 AC, and Lot 3 shall consist of 4.950 AC. A residential home is planned to be constructed on each of Lot 2 and 3.

Update drainage maps to show drainage features that are described in narrative.

The subject property generally slopes to the southeast. There are two natural drainage swales on the property, one on the northern portion of the project site (Lot 2) and one to the west on (Lot 1) for storm events towards West Kiowa creek. The natural drainage swales shall be left unaltered to not change the natural drainage patterns. The surface topography across the site is predominantly gentle slopes of less than 5%. Ponderosa Pines and native grasses cover the property.

Update report to include runoff calculations. Note that drainageways that convey over 15 cfs for any storm event shall be in a drainage easement.

No portion of this site is within a designated FEMA floodplain as determined by the Federal Emergency Management Agency (FEMA) Flood Insurance Map Rate Map (FIRM) Panel No. 08041C0310G, effective date of December 7, 2018. It is anticipated that the lot's general drainage patterns will not change, except for the construction and drainage protection of the future home structures.

No drainage Improvements are proposed with the minor subdivision application of the Circle A Subdivision. The proposed development of two (2) new residential units shall be less than 1 AC of disturbance areas combined, thereby complying with the El Paso County ECM code.

Include a narrative discussing the four step process in the ECM (appendix I.7.2.A). Also include exceptions that apply to the project, like ECM I.7.1.C.3 runoff reduction standard.

The Circle A Subdivision is not subject to ESQCP requirements per ECM 5.6.3. The project development falls under "Large Lot Single Family Home Construction." It's estimated that, including the construction of a single-family home, gravel driveways, well location, and septic systems, each lot will disturb approximately 5% on the lot. The estimated disturbance will be less than the maximum of 10%. Therefore the Circle A subdivision shall not be required to provide a water quality treatment or a formal drainage study at this time, as the anticipated disturbance is less than the impervious surface area threshold identified within the ECM Section 5.6.3.

Should the owner desire to construct additional outbuildings in the future, increasing the total impervious surface area exceeding the allowable 10% (up to a maximum of 20%), the owner would be required to submit a watershed study. This study would be specific to the watershed for the parcel and shall be approved by the ECM Administrator, demonstrating that expected soil and vegetation are suitable to infiltrate 100% of the Water Quality Capture Volume (WQCV).

This site is in the West Kiowa Creek Drainage Basin. Per the El Paso County Drainage Basin Fee under Res. No. 20-424 there are no Drainage or Bridge fees required with for this basin, therefore, the proposed Minor Subdivision of Circle A Subdivision Filing No. 1.

This final drainage memo for the Circle A Subdivision anticipates minimal disturbance with the construction of (2) single-family homes, one with Lot 2 and one with Lot 3, with associated dry utilities, well service and septic service. Therefore, it's anticipated that there will be no negative impacts to the downstream improvements or facilities with this drainage memo approval.

Respectfully,

Georgianne Willard
Project Manager
M&S Civil Consultants, Inc.



Compare runoff
values for and
confirm impacts of
development.

Update report contents to include:
-Runoff calculations for existing and proposed conditions
-updated drainage maps for existing and proposed conditions
-drainage maps at end of report

REFERENCES

- 1.) "El Paso County and City of Colorado Springs Drainage Criteria Manual".
- 2.) "ECM El Paso County Engineering Criteria Manual"

Update references list to include revision dates of manuals, include previous drainage reports and DBPS reports for parcel, and all of DCM volumes that EPC has adopted.

ATTACHMENTS:

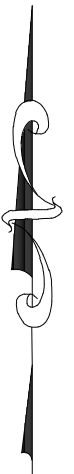
Vicinity map
Circle A Subdivision Filing No. 1 Final Plat
FEMA Map
Site Plan Exhibit

ATTACHMENTS

VICINITY MAP



VICINITY MAP
NOT TO SCALE



**CIRCLE A SUBDIVISION FILING NO. 1
FINAL PLAT**

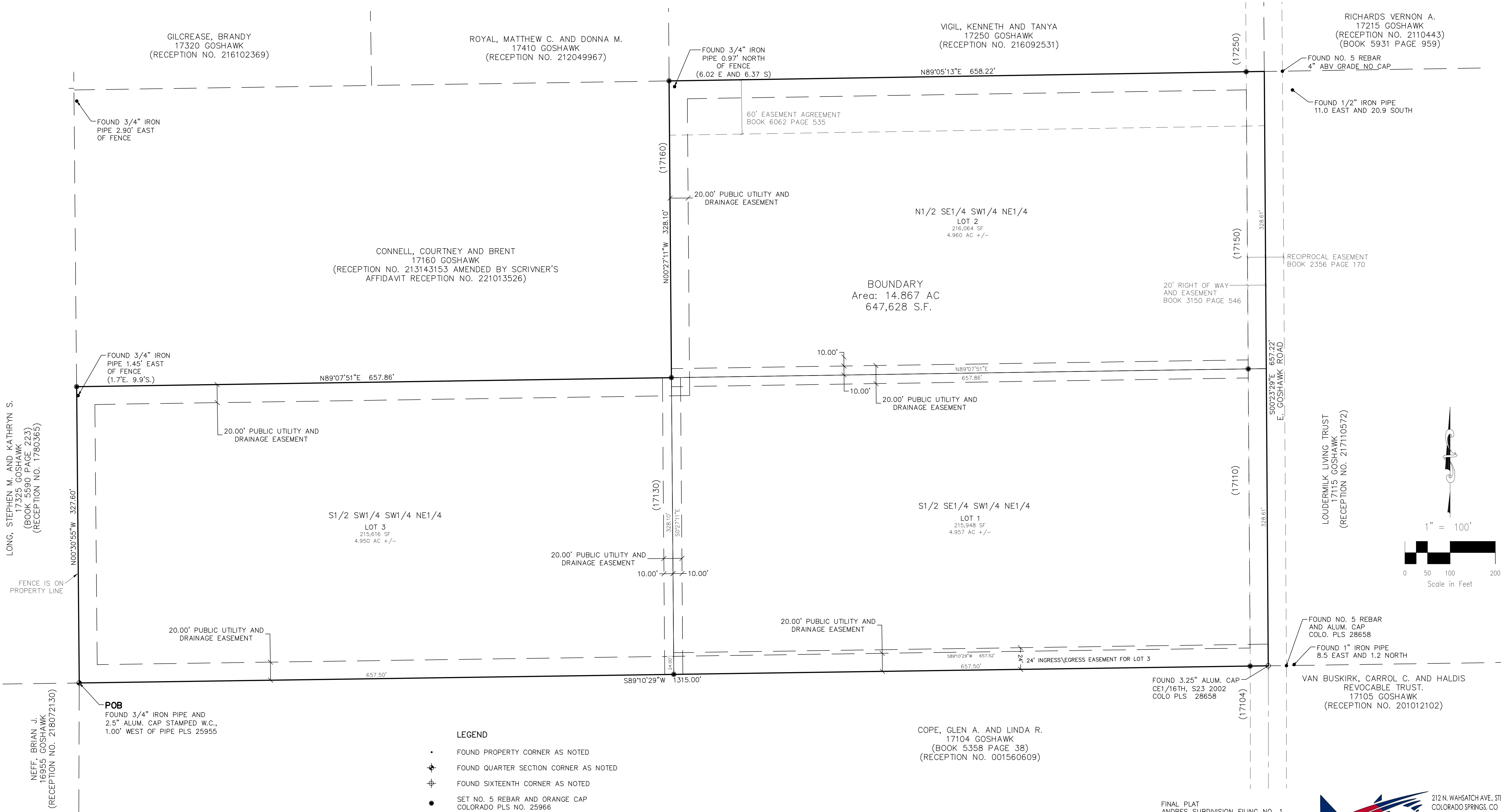
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SHEET 1 OF 2

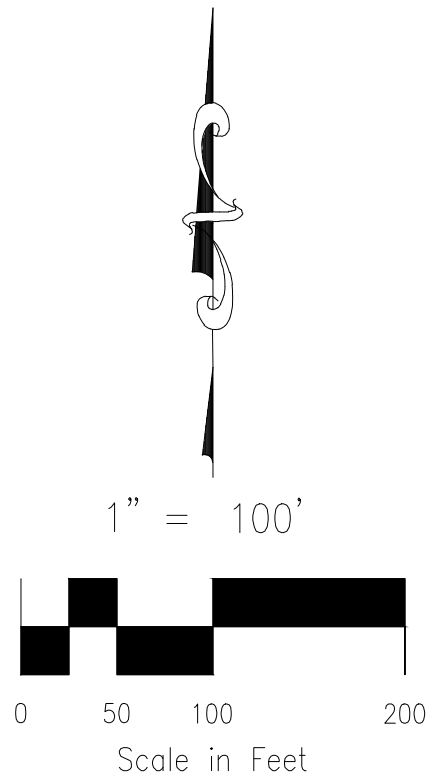
CIRCLE A SUBDIVISION FILING NO. 1

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LEGEND

- FOUND PROPERTY CORNER AS NOTED
- ⊕ FOUND QUARTER SECTION CORNER AS NOTED
- ⊕ FOUND SIXTEENTH CORNER AS NOTED
- SET NO. 5 REBAR AND ORANGE CAP COLORADO PLS NO. 25966



FINAL PLAT
ANDRES SUBDIVISION FILING NO. 1
JOB NO. 70-072
DATE PREPARED: 07/15/2019
DATE REVISED: 01/27/2021



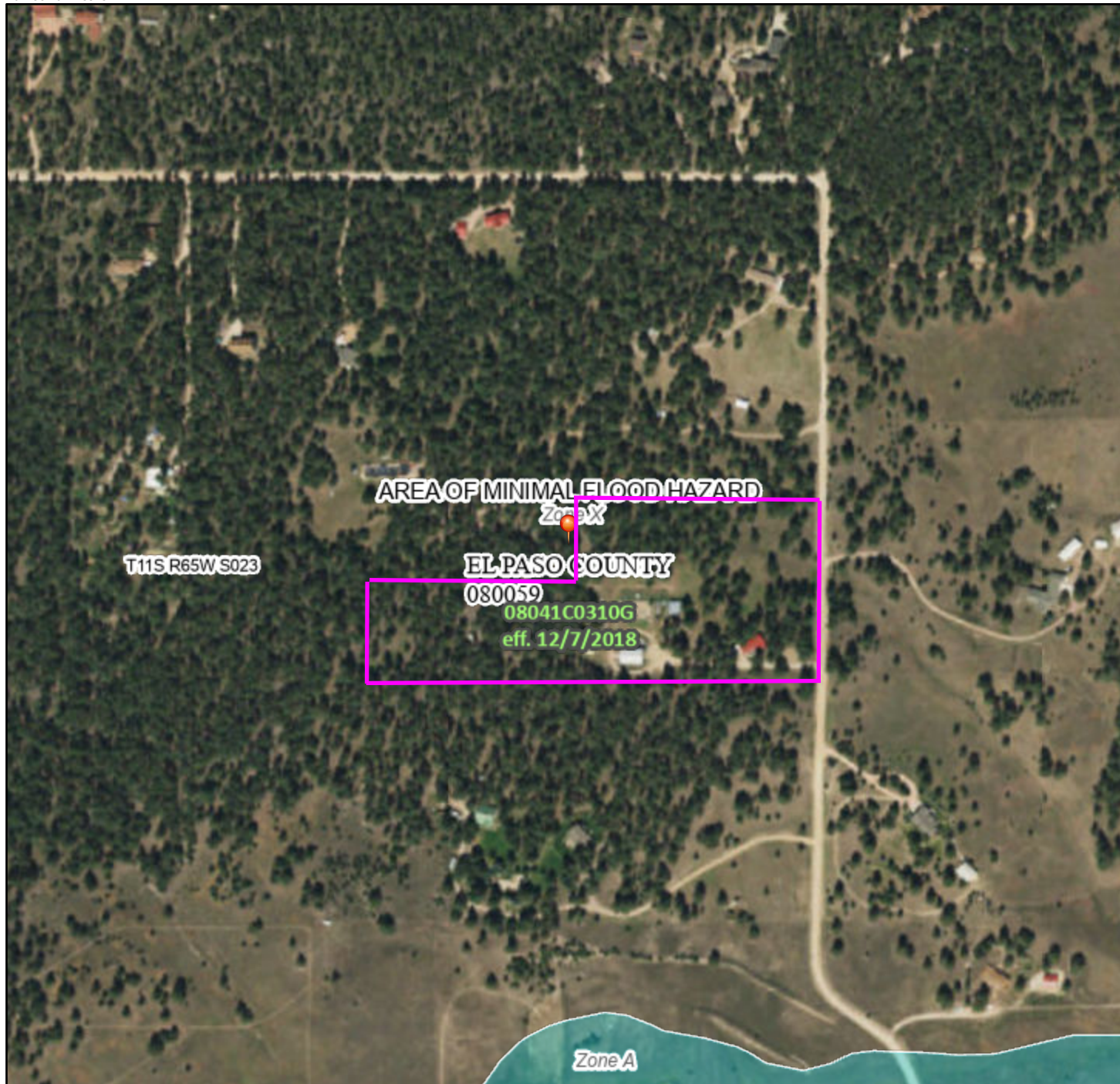
212 N. WAHSATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

FEMA FLOOD MAP

National Flood Hazard Layer FIRMMette



104°38'16"W 39°5'N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°37'39"W 39°4'32"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/13/2021 at 10:27 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

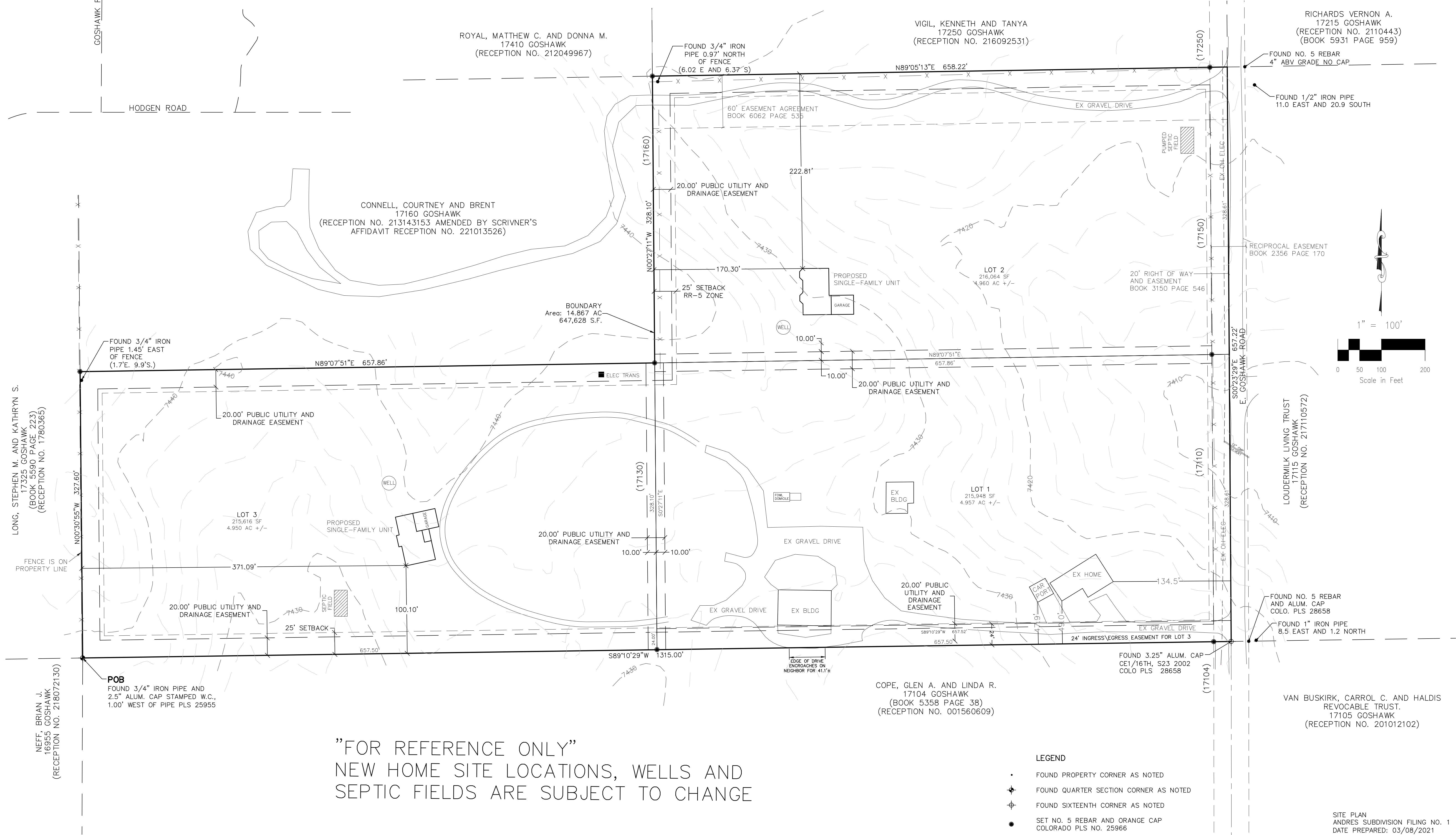
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

SIT PLAN EXHIBIT

CIRCLE A SUBDIVISION FILING NO. 1

SITE PLAN

Label as proposed drainage map.
Update map to show drainage
features.



"FOR REFERENCE ONLY"
NEW HOME SITE LOCATIONS, WELLS AND
SEPTIC FIELDS ARE SUBJECT TO CHANGE

LEGEND

- FOUND PROPERTY CORNER AS NOTED
- ⊕ FOUND QUARTER SECTION CORNER AS NOTED
- ⊕ FOUND SIXTEENTH CORNER AS NOTED
- SET NO. 5 REBAR AND ORANGE CAP COLORADO PLS NO. 25966

SITE PLAN
ANDRES SUBDIVISION FILING NO. 1
DATE PREPARED: 03/08/2021